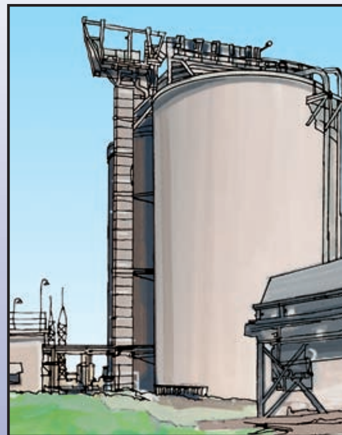
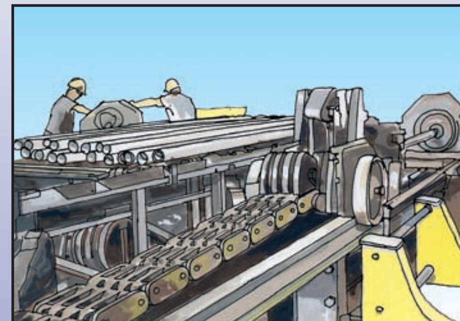
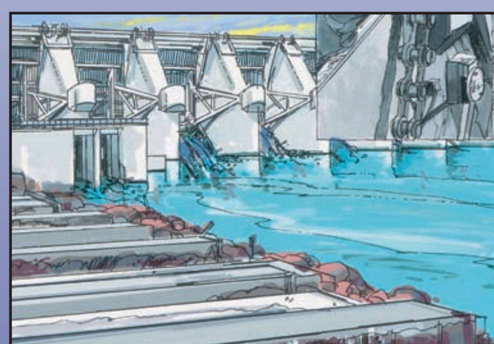
Rexnord & Link-Belt Conveyor, Elevator, & Drive Chains

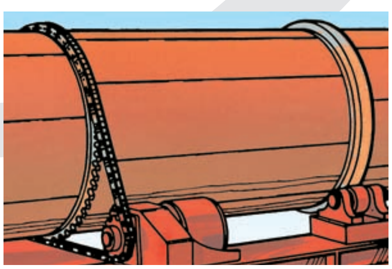
Performance, Value, & Reliability

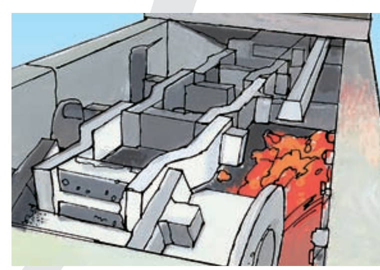
(English-Inch)





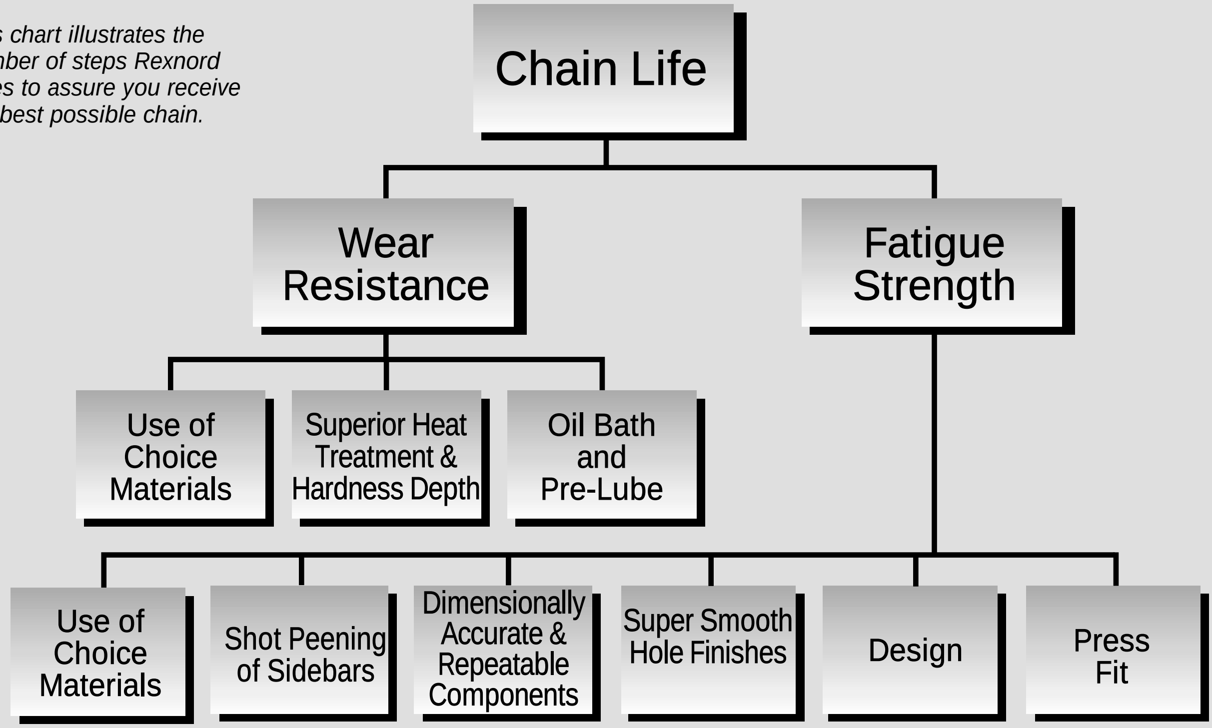






REXNORD

This chart illustrates the number of steps Rexnord takes to assure you receive the best possible chain.

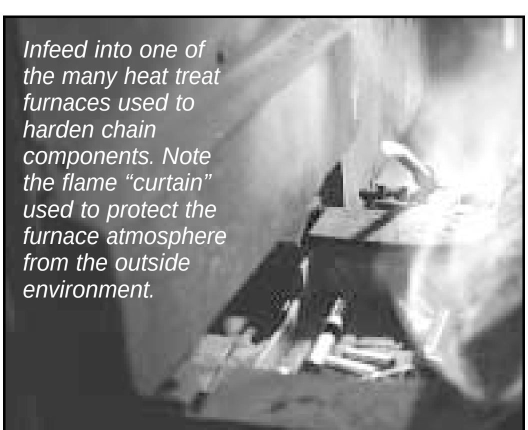


CHAIN LIFE – THE CRITICAL CRITERION IN SELECTING YOUR CHAIN SUPPLIER

Chain repair and replacements add up to expensive delays and unforeseen material and labor expenses. Factors that can weigh heavily on your operation's profitability.

In order to meet tight schedules and keep overhead down, you need to select chain that will perform and last – even under the most rigorous conditions.

Rexnord Corporation, manufacturer of Rex® and Link-Belt® chain for over 100 years, is the leader in the engineered chain industry. Our many years of experience provide unique expertise in material selection, heat treatment and design engineering – key factors that add up to superior chain strength and extended wear life.



Infeed into one of the many heat treat furnaces used to harden chain components. Note the flame "curtain" used to protect the furnace atmosphere from the outside environment.

What to look for when specifying chain:

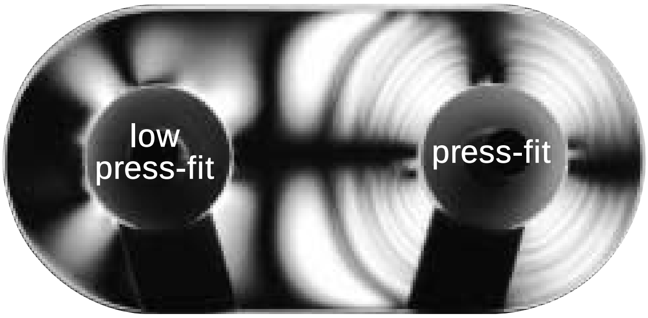
- **Wear Resistance** – chain life is directly affected by the hardness of the wearing components. Quite simply, the harder the parts, the longer the wear life. Rexnord's heat treatment capabilities exceed that of other chain manufacturers. Combine this with the use of choice materials, and it adds up to superior chain that eliminates costly and unexpected downtime.
- **Fatigue Strength** – a key factor leading to the durability of our chains is superior fatigue strength. Tightly controlled interference fits between the pins and chain sidebars, proper welding and stress relieving, heat treatment and regular testing, and application experience make our chains the number one choice for your particular application.

Cross-sections of heat treated chain components. The silver surfaces are the result of acid etching and illustrate the deep case depths our chain components have.

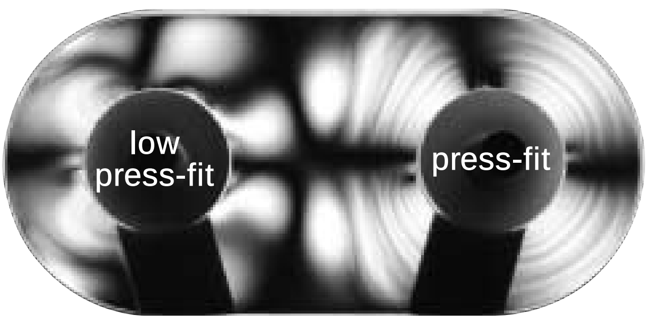
Custom built induction coils and ancillary equipment have been designed by Rexnord expressly for induction heat treating chain components and sprockets.

■ INTRODUCTION

Strong, fatigue resistant chain is a function of the press fit of pins and bushings. The plexiglas models below help to illustrate this benefit.



In an unloaded state, a pin or bushing with a significant press fit will exert compressive stresses around the chain sidebar hole. Low or non-press fit components exert little to none. This photo shows the stress present around a press fit bushing and the lack of compressive stresses around the non- or low-press fit bushings.

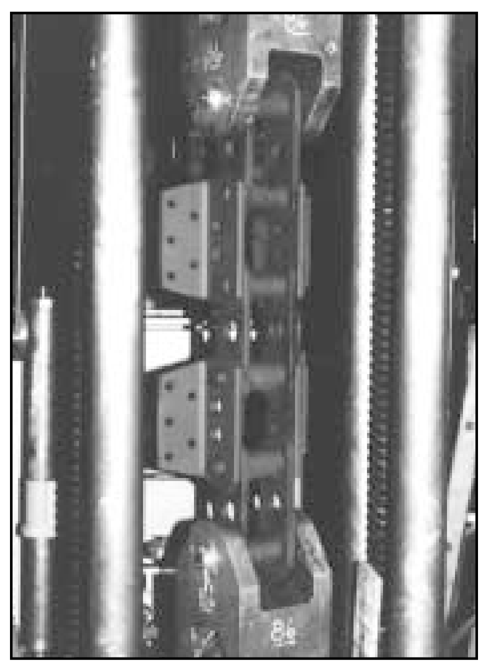


Under load, the stress changes drastically around the low press fit hole but very little around the highly press fit hole. Large stress changes reduce the fatigue resistance of chains. For this reason, Rex and Link-Belt chains use an optimum amount of interference to provide that protective compressive stress!

Fully machined pins offer dimensional accuracy critical in the manufacture of reliable, strong chain.

Rexnord has invested heavily in CNC controlled machinery for better lot-to-lot component uniformity.

Pre-lubrication and shrink wrapping: *Rexnord takes extra steps at the end of manufacturing to protect your chain. All chain is pre-lubricated and shrink wrapped. This means less corrosion and less break-in wear. Better for long-term storage too.*



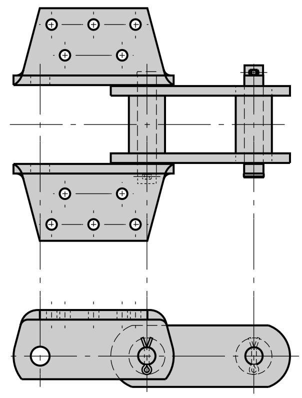
This photo depicts a fatigue testing machine used by Rexnord to evaluate chain fatigue strengths and guide us in making improvements.

HIGH PERFORMANCE ELEVATOR CHAINS

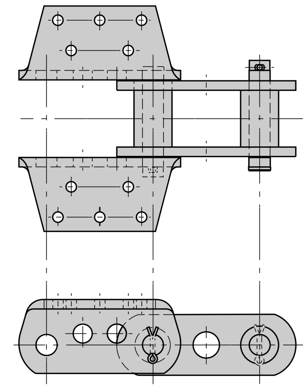
Rex® heavy duty elevator chains have garnered a reputation as the longest lasting, most reliable chains available today for tough elevating applications. Clinker, finished cement, fertilizer, coal, you name it, and it can be elevated most efficiently and reliably with our chains.

The 900 series chains are the newest addition to this line of chain. With larger components, the 900 series offers 30% greater fatigue strength over their 800 series counterparts. Lightening holes were added to the 900 series to offset the increase weight introduced by larger bushings and pins.

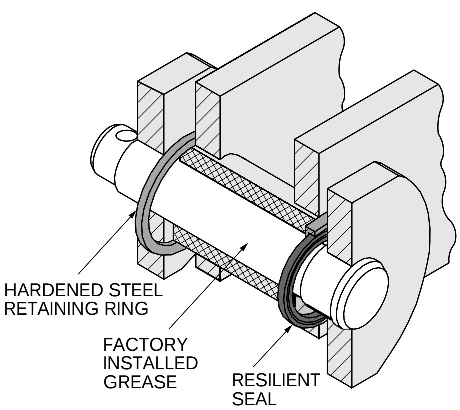
No matter which series you choose, you're guaranteed the highest level of heat treatment and manufacturing available in elevator chains today.



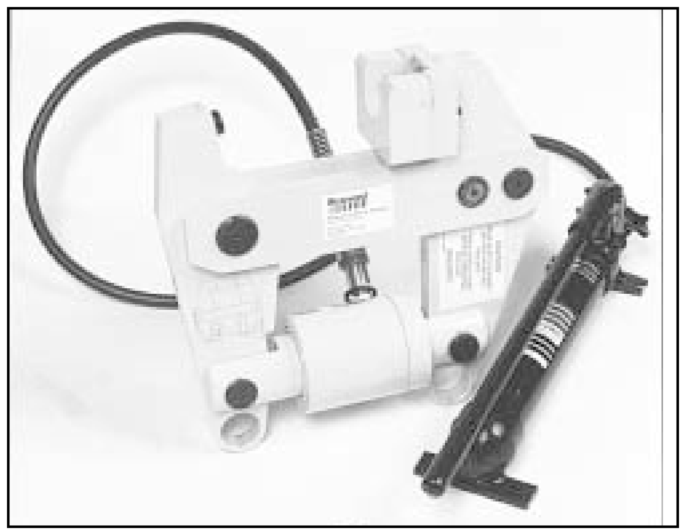
800 Series
RS856
ER857
ER859
ER864



900 Series
ER956
ER958
ER984



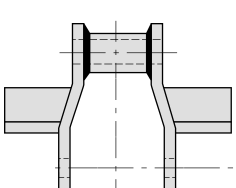
Sealed Joint Elevator Chains
Factory installed grease sealed in, abrasives or corrosives sealed out. An option in these chains and denoted by the "SJM" prefix.

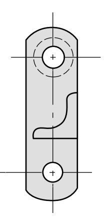


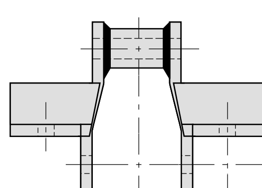
Linkmaster®
Keep the advantage of high press fits by using the Linkmaster assembly and disassembly tool. See page 138 for more details.

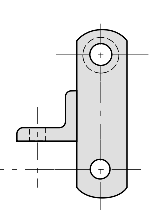
GRAIN HANDLING CHAINS

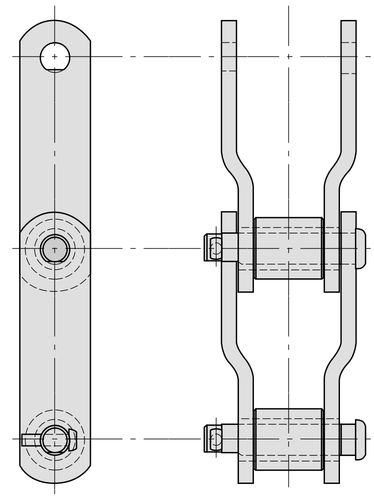
Rexnord manufactures a wide variety of chains for the grain industry. Welded steel chains are very popular due to the fact that they are easily modified by welding on a variety of attachments. Press fit engineered steel chains with rollers are used in longer, higher load systems. The chains shown are examples of these two chain types.



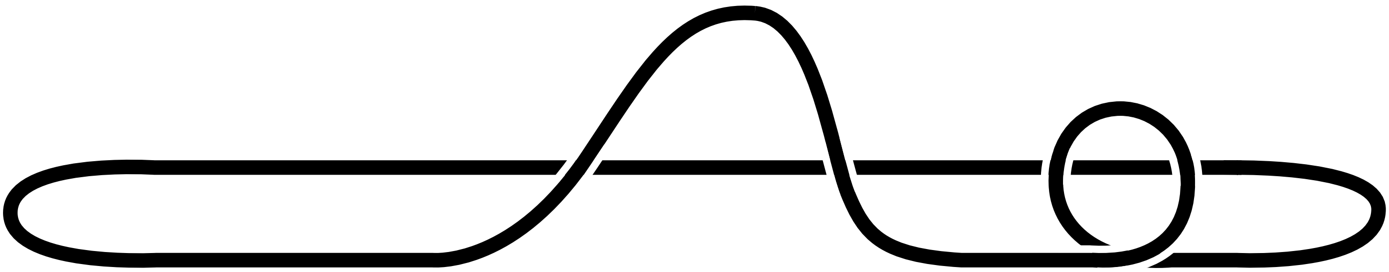








REX AND LINK-BELT ENGINEERED CHAIN APPLICATION FOR AMUSEMENT RIDES, RECREATIONAL LIFTS, AND OTHER PEOPLE MOVERS



From time to time, chain application questions concerning driving or conveying functions on amusement rides and recreational lifts are brought to Rexnord's attention. Concern arises for the safety and the well being of people utilizing these units should chains prematurely or unexpectedly fail. A general review has been made to establish certain rules and recommendations for the selection and application of these rides and conveyances. The following reflects those conclusions:

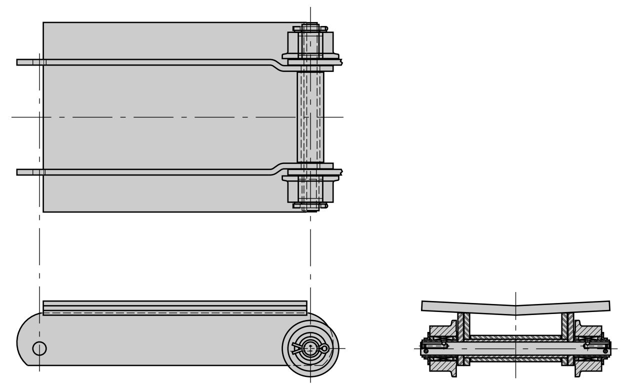
1. Chain should not be used for any amusement ride or recreational lift application unless there are adequate, functional, and operational safety backup devices to prevent hazardous or unsafe conditions from occurring.
2. Chains containing castings or molded parts of any material should not be applied to these applications. This includes pintle, heavy pintle, combination, cast steel, nonmetallic, and similar chains.
3. Chains containing weldments of any nature should not be applied to these applications. This includes welded steel versions of basic cast pintle chains and engineered steel chains containing welded components.
4. Chain selections of any nature should not be made or changed without written approval of the appropriate representatives of an approved original equipment manufacturers of that equipment. This includes replacement chains from any manufacturer including Rexnord. Written approval is required for each purpose.
5. Chain selections for amusement rides or recreational lift applications should be of the engineered steel types of chain generally covered by ANSI standards B29.10, B29.12, and B29.15 after review of all application factors by and approval of the appropriate responsible representative of the original equipment manufacturer of the equipment.
6. Chains on these applications should be adequately lubricated and properly maintained at all times.
7. Chain reliability is based upon a good press fit of the pins and bushings into the sidebars. Therefore, do not grind the chain pins, bushings, or holes in the sidebars in order to assemble the chain as supplied from the factory.
8. Alteration of chain destroys the integrity of the press fits of the chain assembly. Therefore, do not alter or rebuild any chains for these applications.
9. If a customer applies an engineered chain product without our approval, it is a misapplication and, as such, is not warrantied under our standard conditions of sale.

Should questions arise covering any of these policies or procedures, please contact your local Rexnord sales office.

IN-FLOOR CONVEYING CHAIN

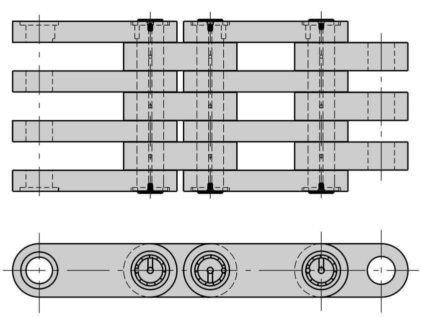
Rex® and Link-Belt® In-Floor Conveyor Chains are specially designed to move continuous loads, such as those found in the paper, steel and automotive industries. Rexnord manufactures a variety of configurations to accommodate a multitude of applications.

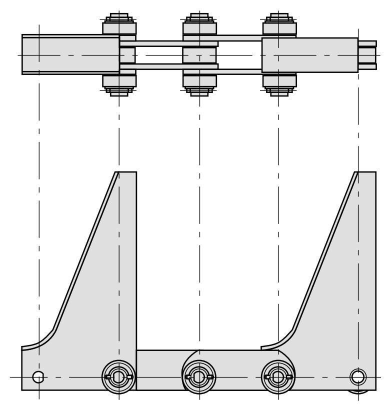
A complete selection of materials, top plates and pitch lengths are also offered.

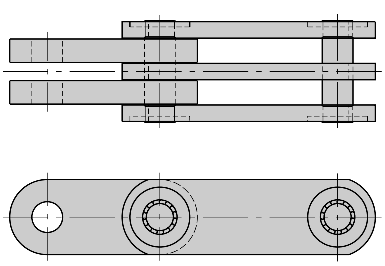


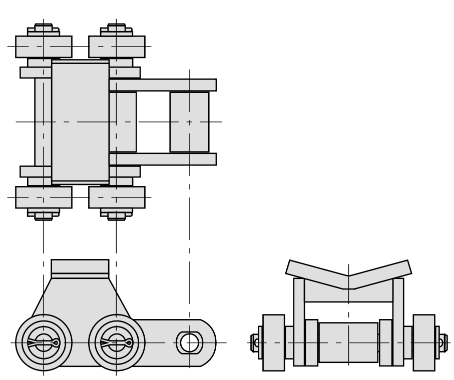
DRAW BENCH AND STEEL INDUSTRY CHAINS

Hot steel slabs, coiled steel and metal tubing all move smoothly on our chains. Rollers, if needed, are fully machined and supplied with bearings. The large laced chains shown to the right are for draw benches used in the tube industry. These chains are fully machined on Rexnord's modern CNC milling machines.





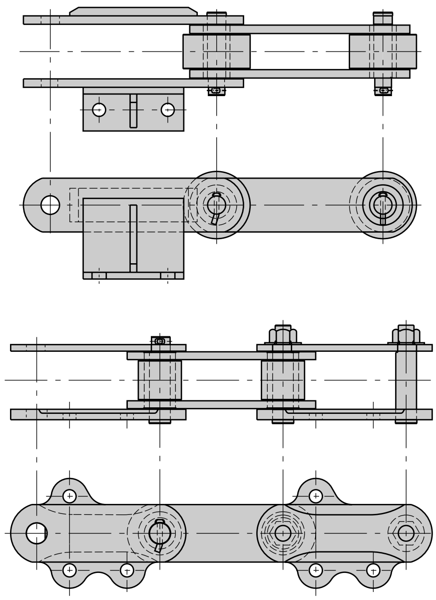




■ SPECIAL APPLICATION CHAIN

RECLAIMER AND BARGE/SHIP UNLOADING CHAINS

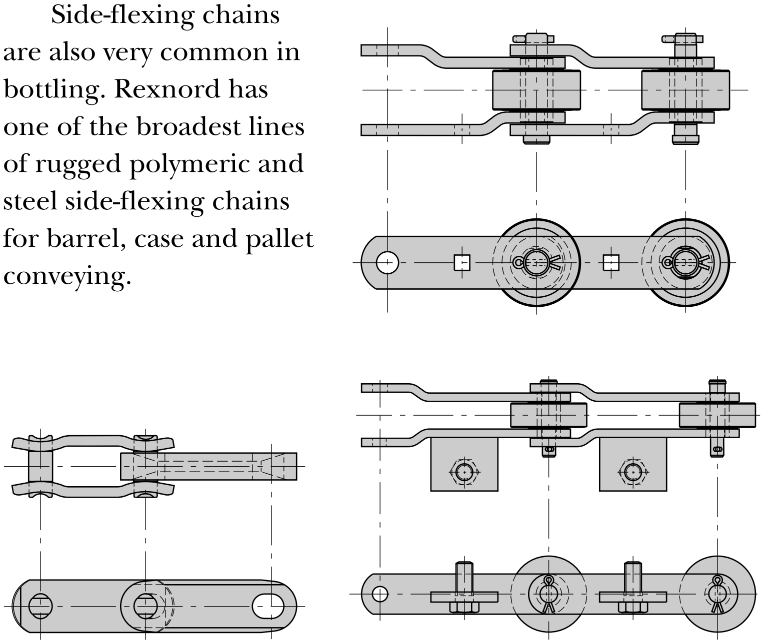
Many types of reclaimers and barge/ship unloaders use large engineered class chains. Rexnord can design new chains for these applications, or build replacement chains if given a sample. Below are some examples of chains we have made, but the styles we can make are virtually limitless.

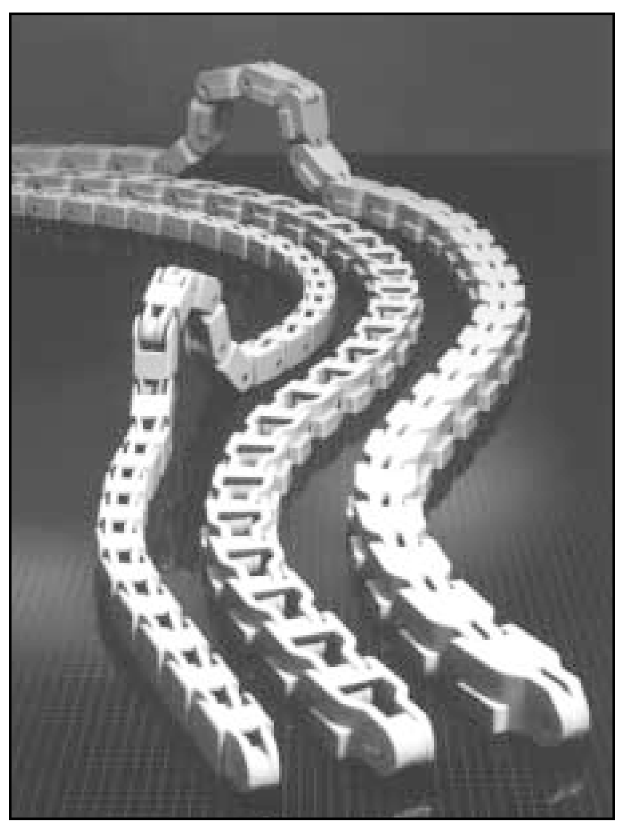


BOTTLING AND BEVERAGE INDUSTRY

Some of the most commonly used engineered chains in the bottling industry are bottle washer chains. Rexnord makes a wide variety of these chains that meet or exceed OEM specifications. Chains and attachments can be modified to help solve maintenance problems. Below are some examples of chains we make.

Side-flexing chains are also very common in bottling. Rexnord has one of the broadest lines of rugged polymeric and steel side-flexing chains for barrel, case and pallet conveying.



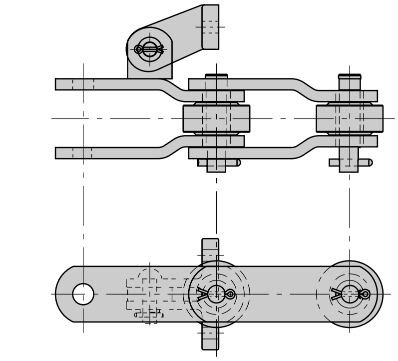


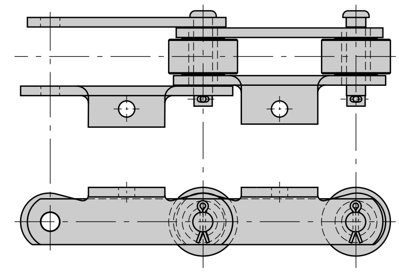
■ SPECIAL APPLICATION CHAIN

CANE SUGAR AND SUGAR BEET PROCESSING

Bagasse, intermediate, feed tables and main cane carrier chains are all available from Rexnord. Many sugar processing chains are the same as they were years ago when mills were smaller. Today's larger mills require newer, stronger chains such as the Rex® F9184 – a larger version of the F2184. Contact Rexnord for a copy of the latest Sugar Mill Chains brochure.

Many chain styles are available for sugar beet processing as well. As in cane sugar processing, this industry is very corrosive. Sealed Joint chains are available for sugar beet elevators to fend off pin and bushing corrosion. Special materials and platings are also available.



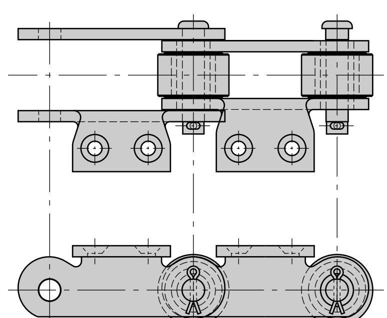


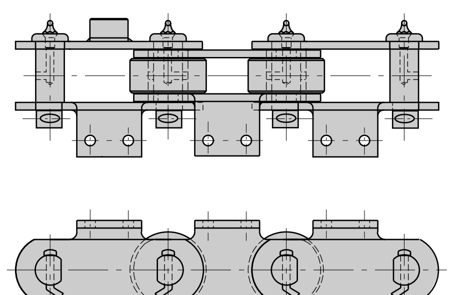
FOOD PROCESSING

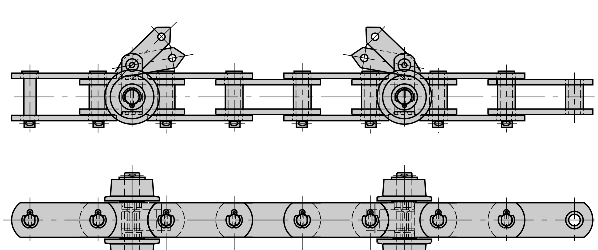
Engineered chain is used throughout the food processing industry. Some typical applications include hydrostatic cookers, overhead carcass conveyors, cutting tables and vegetable process conveyors. Examples of some of the metallic chain configurations used in this industry are shown below.

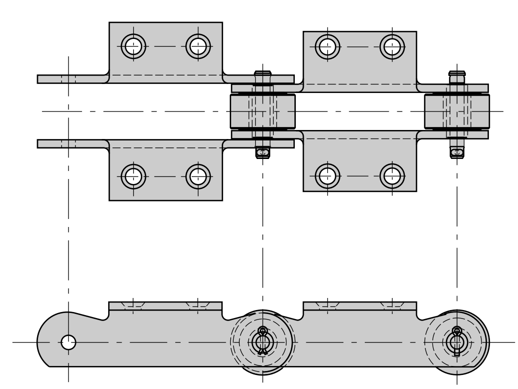
Rexnord offers a wide variety of material and/or coating options to combat the corrosive elements generally found in these applications. See pages 72-73 for examples of solutions that would apply to metallic chains. See pages 64-68 for polymeric chains and accessories.

Chains for the baking industry (oven, proofer, etc.) are also available. Contact Rexnord for details.







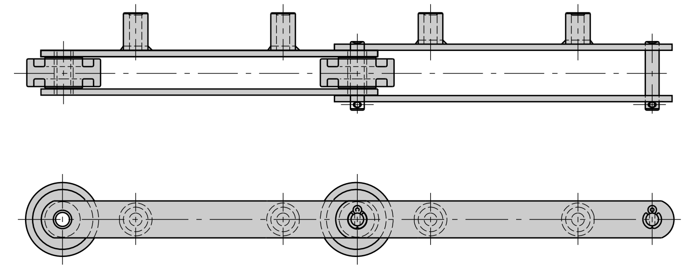


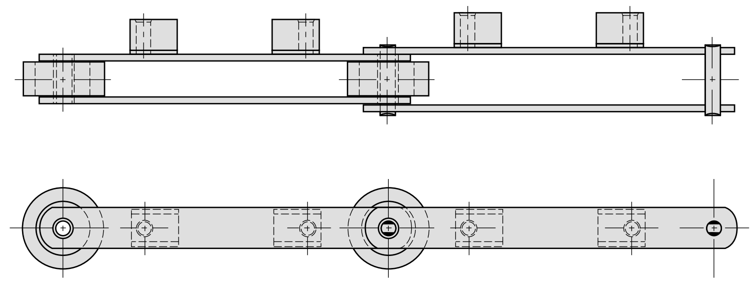
■ SPECIAL APPLICATION CHAIN

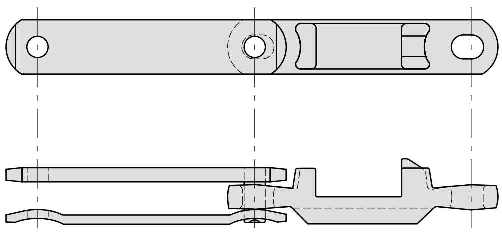
DISTRIBUTION AND MATERIAL HANDLING

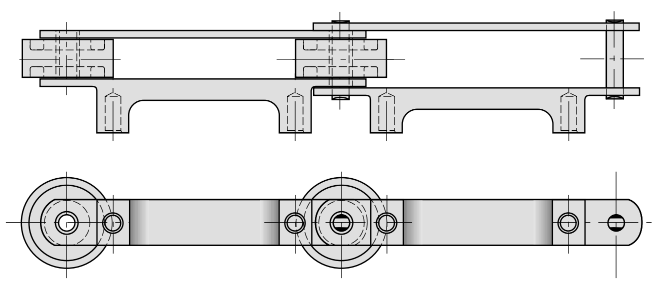
Today's large postal and consumer goods distribution centers rely heavily upon engineered chains to sort and move product. Sortation chains are the most common and Rexnord has developed many different styles to suit particular needs. Sorter cart mounting bosses can be modified in a number of ways to increase strength and performance. Chain rollers are available in molded thermoplastics or in super rugged urethane lagged steel – your choice.

In-floor tow chains for automated cart conveyors are also made by Rexnord. Call for details.



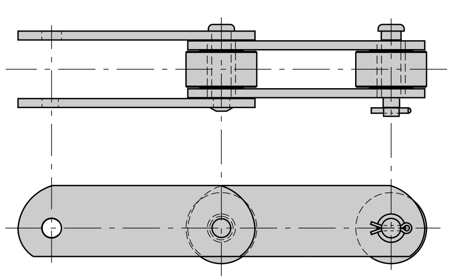


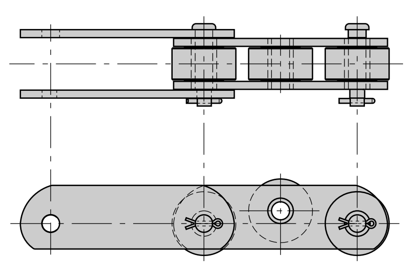


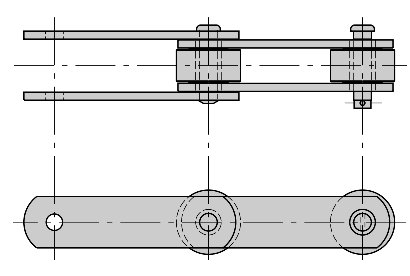


HIGH SIDEBAR AND GENERAL CONVEYING CONVEYOR CHAIN

Rex and Link-Belt® High Sidebar Conveyor Chains offer superior strength for conveying heavy loads, such as those found in the automotive, steel and general assembly industries. It rolls comfortably on any even, firm surface to provide efficient, economical conveying. Versions with intermediate rollers are available for accumulation conveyors.

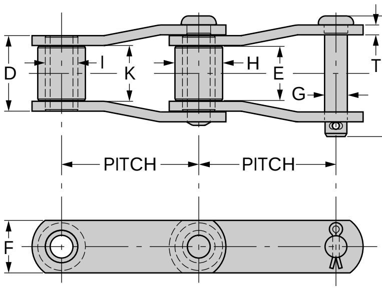




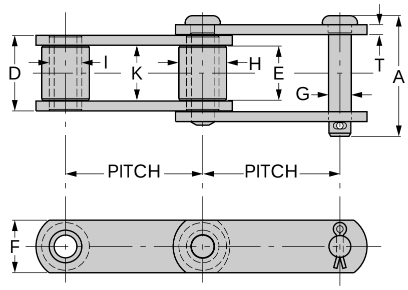


■ ENGINEERED STEEL – With Rollers

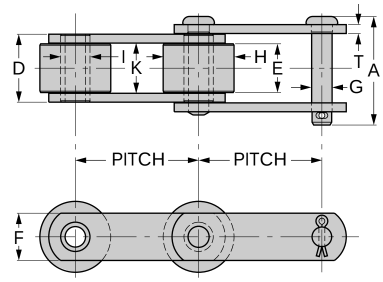
For an explanation of rated working load, and for application guidance, refer to Design and Selection or call Rexnord.



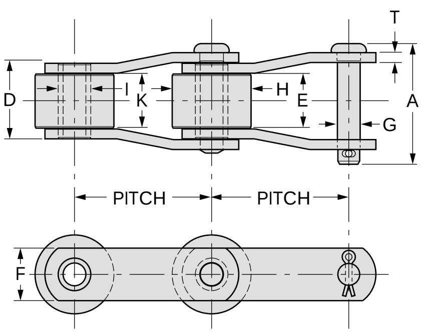
STYLE K



STYLE N



STYLE R



STYLE W

Properties

TH	Thru-Hardened
CARB	Carburized
CIH	Circumferentially Induction Hardened
SIH	Selectively Induction Hardened
WI	White Iron

Dimensions are in inches. Strengths, loads and weights are in pounds.

Rex Chain No.	Link-Belt Chain No.	Style	Average Pitch	Rated Working Load	Rec. Maximum R.P.M. for 12 T. Spkt.①	Minimum Ultimate Strength, Lbs.x10 ³	Average Weight Per Foot	Over-All Pin & Cotter	Between Sidebars	Sidebars Thickness	Sidebars Height	Pins Diam.	Pins Properties	Rollers Face Width	Rollers Outside Diam.	Rollers Style	Rollers Properties	Bushings Length	Bushings Outside Diam.	Sprocket Unit No.②
								A	K	T	F	G		E	H			D	I	
1.654-2.609-Inch Pitch																				
RR362	**RS625**	N	1.654	1,650	280	8	3.0	2.03	1.00	.13	1.13	.38	CARB	.97	.88	A	TH	1.25	.56	62
RR432	**RS627**	N	1.654	2,100	280	21	3.7	2.28	1.00	.19	1.13	.44	TH	.97	.88	A	TH	1.38	.63	62
81X	**RS81X**	N	2.609	2,000	145	16	2.5	2.14	1.07	.16	1.13	.43	CARB	1.00	.88	A	TH	1.39	.63	78
C1288	**SS1088**	N	2.609	2,000	145	16	2.5	2.23	1.08	.16	1.13	.41	CARB	1.03	.90	A	CARB	1.38	.63	78
1578		K	2.609	2,200	145	17	2.6	2.36	1.06	.19	1.00	.44	CARB	1.03	.90	A	CARB	1.44	.63	78
RR778	**RS886**	N	2.609	2,300	145	13	2.9	2.41	1.13	.19	1.13	.44	CARB	1.08	.88	A	TH	1.50	.63	78
RR588	**RS887**	N	2.609	2,500	145	17	3.8	2.67	1.13	.25	1.13	.44	CARB	1.08	.88	A	TH	1.63	.63	78
81XH	**RS81XH**	N	2.609	2,500	145	28	4.1	2.58	1.07	.31③	1.27	.43	TH	1.00	.88	A	TH	1.69	.63	78
81XHH	**RS81XHH**	N	2.609	2,500	145	28	4.6	2.76	1.07	.31	1.27	.43	TH	1.00	.88	A	TH	1.69	.63	78
270	**SS2004**	N	2.609	3,500	145	40	6.9	2.95	1.14	.31	1.63	.56	TH	1.09	1.13	A	TH	1.77	.81	270
7774		N	2.609	3,500	145	40	6.4	3.01	1.13	.31	1.63	.56	TH	1.06	1.13	A	TH	1.75	.81	270
3.000-3.075-3.110-Inch Pitch																				
	RS303	N	3.000	1,340	115	6	2.0	1.54④	.50	.19	1.00	.44	CARB	.48	.88	A	CARB	.88	.63	303
SR183	**RS3013**	R	3.000	2,100	115	13	4.0	2.25	1.00	.19	1.13	.44	CARB	.97	1.50	A	CARB	1.38	.63	183
A4539		N	3.075	4,650	110	38	6.8	3.47	1.50	.31	1.50	.63	SIH	1.45	1.25	A	CARB	2.13	.88	4539
1539	**RS1539**	N	3.075	4,650	110	24	6.8	3.50	1.50	.31	1.50	.63	CARB	1.45	1.25	A	TH	2.13	.89	1030
7539		N	3.110	4,650	110	40	9.1	3.47	1.50	.31	1.75	.63	SIH	1.40	1.38	A	TH	2.13	1.00	7539
4.000-Inch Pitch																				
RR1120	**RS4013**	R	4.000	2,100	75	13	3.4	2.28	1.00	.19	1.13	.44	TH⑤	.90	1.50	A	CARB⑤	1.38	.63	1120
	RS4113	R	4.000	2,300	75	13	4.2	2.32	1.13	.19	1.13	.44	CARB	1.09	1.75	A	CARB	1.50	.63	188
SR194	**RS4216**	R	4.000	2,350	75	15	5.3	2.47	1.19	.19	1.25	.44	CARB	1.09	2.00	A	CARB	1.56	.63	194
SR188		R	4.000	2,400	75	13	4.2	2.47	1.19	.19	1.13	.44	CARB	1.06	1.75	A	CARB	1.56	.63	188
4	**RS4019**	R	4.000	2,500	75	21	4.2	2.50	.95	.25	1.25	.50	CARB	.97	1.50	A	CARB	1.46	.75	1120
2188	**RS2188**	R	4.000	4,200	75	23	7.0	3.25	1.31	.31	1.50	.63	CARB	1.25	1.75	A	CARB	1.94	.94	188
531	**RS4328**	R	4.000	4,500	75	28	9.7	3.47	1.31	.38	1.50	.63	CARB⑤	1.25	2.25	A	CARB	2.06	.94	531
X3433		N	4.000	5,300	75	41	9.0	4.30	2.13	.38	1.50	.63	SIH	2.06	1.50	A	CARB	2.88	1.00	3433
A2868		N	4.000	7,200	75	57	12.1	4.36	2.00	.38	1.75	.75	SIH	1.95	1.44	A	CARB	2.75	1.06	2868
4.040-4.083-4.500-Inch Pitch																				
3420	**RS1113**	R	4.040	4,300	75	23	7.6	3.25	1.31	.31	1.50	.63	CARB	1.25	2.00	A	CARB	1.94	.94	1113
	RO2113	W	4.040	4,300	75	18	8.0	3.14	1.31	.31	1.50	.69	CARB	1.25	2.00	A	CARB	1.94	1.00	2113
	RS60	R	4.040	5,000	75	23	8.5	3.40	1.31	.38	1.50	.69	CIH	1.25	2.00	A	CARB	2.06	1.06	RS60
C2848		N	4.040	6,600	75	48	11.0	4.26	2.00	.38	2.00	.69	SIH	1.94	1.50	A	TH	2.75	1.00	2848
2858		N	4.083	7,200	75	57	13.0	4.37	2.00	.38	2.25	.75	SIH	1.94	1.63	A	CARB	2.75	1.13	2858
3285		N	4.500	10,500	60	91	21.0	4.94	2.06	.50	2.50	.94	SIH	1.95	2.00	A	TH	3.06	1.31	3285

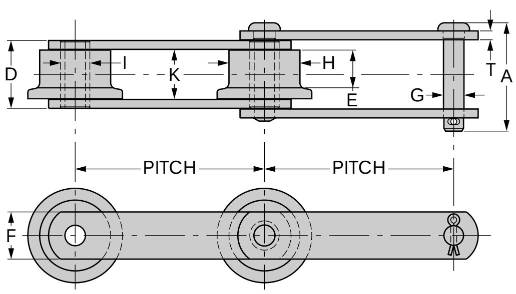
Sidebars are thru-hardened; bushings are carburized.

① If driver has more/less than 12 teeth, increase/decrease RPM in direct ratio of number of teeth to 12. Do not exceed a chain speed of 450 FPM.
② Fabricated steel sprockets are recommended
③ Outer (pin-link) sidebars are .21 inches thick.
④ Extended rivet.
⑤ Heat treatment and dimension specifications for Rex Chain; Consult factory for Link-Belt specifications.

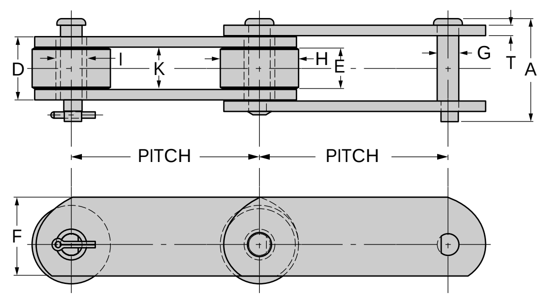
Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

■ ENGINEERED STEEL – With Rollers

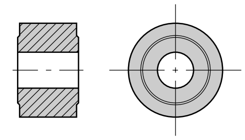
For an explanation of rated working load, and for application guidance, refer to Design and Selection or call Rexnord.



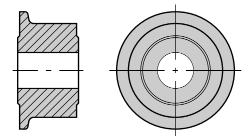
STYLE T ①



STYLE H



STYLE A



STYLE B

ROLLERS

Properties

TH	Thru-Hardened
CARB	Carburized
CIH	Circumferentially Induction Hardened
SIH	Selectively Induction Hardened
WI	White Iron

Dimensions are in inches. Strengths, loads and weights are in pounds.

Rex Chain No.	Link-Belt Chain No.	Style	Average Pitch	Rated Working Load	Rec. Maximum R.P.M. for 12 T. Spkt.①	Minimum Ultimate Strength, Lbs. x 10^3	Average Weight Per Foot	Over-All Pin & Cotter	Between Sidebars	Sidebars		Pins		Rollers				Bushings		Sprocket Unit No.②
										Thickness	Height	Diam.	Properties	Face Width	Outside Diam.	Style	Properties	Length	Outside Diam.	
								A	K	T	F	G		E	H			D	I	
6.000-Inch Pitch																				
SR196	**RS6018**	R	6.000	2,600	40	18	5.0	2.72	1.19	.25	1.50	.44	CARB	1.09	2.00	A	CARB	1.69	.63	196
1604		W	6.000	2,800	40	20	5.3	2.69	1.06	.25	1.25	.50	CARB	.88	3.00	A	WI	1.56	.72	1604
2126	**RS1116**	R	6.000	3,400	40	21	5.0	2.89	1.25	.25	1.50	.56	CARB	1.19	2.00	A	CARB	1.75	.81	196
2190	**RS2190**	R	6.000	3,400	40	21	7.0	2.89	1.25	.25	1.50	.56	CARB	1.19	2.50	A	CARB	1.75	.81	197
1670		R	6.000	4,100	40	23	6.3	3.25	1.31	.31	1.50	.63	CARB	1.19	2.25	A	CARB	1.94	.94	2180
SR1114	**RS1114**	R	6.000	4,200	40	23	6.3	3.25	1.31	.31	1.50	.63	CARB	1.25	2.00	A	CARB	1.94	.94	196
2180		R	6.000	4,500	40	35	8.7	3.47	1.31	.38	1.75	.63	CARB	1.19	2.25	A	CARB	2.06	.94	2180
S951		R	6.000	4,500	40	37	10.7	3.47	1.31	.38	2.00	.63	CARB	1.19	3.00	A	CARB	2.06	.94	S951
2183	**RS951**	R	6.000	4,600	40	24	10.7	3.50	1.50	.31	1.50	.63	CARB	1.38	3.00	A	CARB	2.13	.89	1131
F2183		T	6.000	4,600	40	24	11.1	3.50	1.50	.31	1.50	.63	CARB	1.13	3.00	B	WI	2.13	.88	S951
1036		K	6.000	4,600	40	24	4.8	3.50	1.50	.31	1.50	.63	CARB	1.45	1.25	A	TH	2.13	.88	1036
	RS658	T⑦	6.000	4,650	40	18	9.6	3.32	1.50	.31	1.50	.63	CARB	1.13	3.00	B	WI	2.13	.89	1604
1617		R⑥	6.000	4,800	40	43	11.0	3.28	1.38	.31	2.50	.69	CARB	1.22	2.50	A	CARB	2.00	1.00	197
SR3130		W	6.000	5,200	40	45	10.0	3.53	1.25	.38	2.00	.75	CARB	.94	2.50	A	CARB	2.00	1.13	197
6	**RS6238**	R	6.000	5,600	40	45	11.0	3.67	1.38	.38	2.00	.75	TH⑧	1.31	2.50	A	CARB	2.13	1.13	197
6 Sp.		R	6.000	5,600	40	45	12.2	3.66	1.38	.38	2.00	.75	TH	1.25	3.00	A	CARB	2.13	1.13	1131
	RS953	N	6.000	5,600	40	27	8.7	3.57	1.38	.38	2.00	.75	TH	1.31	1.75	A	CARB	2.13	1.13	953
	RS6438	R	6.000	5,600	40	45	12.6	3.57	1.38	.38	2.00	.75	CIH	1.31	3.00	A	CARB	2.13	1.12	1131
RR542		N	6.000	6,000	40	28	5.7	4.05	2.13	.31	1.50	.63	CARB	2.06	1.25	A	TH	2.75	.89	110
BR2111	**RS944+**	N	6.000	5,900	40	67	9.6	3.84	1.56	.38	2.00	.88	TH	1.50	3.00	A	CARB	2.31	1.25	2111
C2124		R	6.000	6,000	40	63	11.8	3.84	1.56	.38	2.00	.75	TH	1.25	2.75	A	CARB	2.31	1.13	2124
A2124③⑤	**RS996**	R	6.000	6,000	40	63	11.8	3.84	1.56	.38	2.00	.75	TH	1.44	2.75	A	CARB	2.31	1.13	2124
RS1131	**RS1131**	R	6.000	6,000	40	45	12.5	3.84	1.56	.38	2.00	.75	TH	1.38	3.00	A	CARB	2.31	1.13	1131
FX2184	**RO2184**	W	6.000	6,500	40	58	12.3	3.76	1.38	.38	2.00	.88	CIH	1.06	3.00	A	CARB	2.13	1.25	1131
FX9184		W	6.000	8,300	40	100	15.2	4.41	1.56	.50	2.50	.94	CIH	1.20	3.00	A	CARB	2.53	1.38	9184
A2178⑤		R	6.000	7,000	40	56	15.3	3.88	1.56	.38	2.25	.88	CIH	1.25	2.75	A	CARB	2.31	1.25	2124
A2198⑤	**RS960**	R	6.000	7,650	40	64	18.2	4.43	1.56	.50	2.25	.88	CIH	1.25	2.75	A	CARB	2.56	1.30	2124
	RS2047④	R	6.000	7,800	40	98	32.0	3.94	1.63	.38	2.50	.94	TH	1.57	3.00	A	CARB	2.38	1.38	2047
5208		K	6.000	8,950	40	54	10.5	4.90	1.94	.50	2.00	.88	CIH	1.88	1.75	A	TH	2.94	1.25	5208
	RS2600④	R	6.000	11,900	40	112	30.0	4.98	2.66	.38	3.00	1.00	TH	2.29	3.50	A	TH	3.41	1.50	2600
C9856		N	6.000	14,000	40	82	22.1	5.96	3.00	.50	2.75	1.00	CIH	2.88	2.75	A	CARB	4.00	1.50	9856

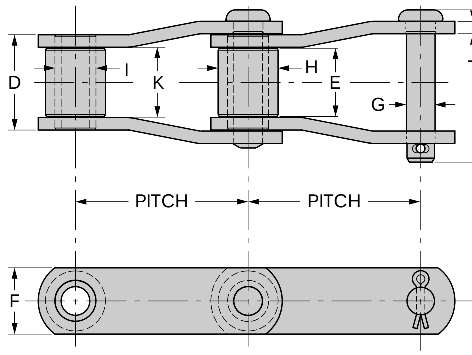
Sidebars are thru-hardened; bushings are carburized.

① If driver has more/less than 12 teeth, increase/decrease RPM in direct ratio of number of teeth to 12. Do not exceed a chain speed of 450 FPM.
② Fabricated steel sprockets are recommended.
③ Plated pin.
④ Chain furnished with attachments every pitch.
⑤ Lower edge of sidebar is necked.
⑥ Centerline of sidebar is .25" higher than centerline of roller. Sidebar extends .25" above roller.
⑦ When assembled with through rods, the roller flange is on the side opposite the end of the rod.
⑧ Heat treatment and dimension specifications for Rex Chain; Consult factory for Link-Belt specifications.

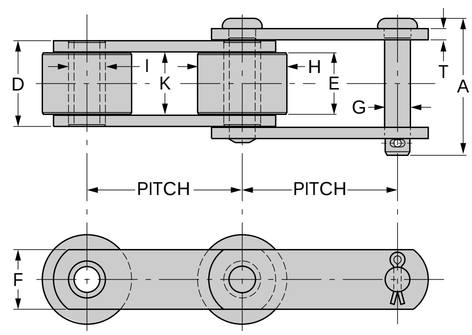
Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

■ ENGINEERED STEEL – With Rollers

For an explanation of rated working load, and for application guidance, refer to Design and Selection or call Rexnord.



STYLE K



STYLE R

Properties

TH	Thru-Hardened
CARB	Carburized
CIH	Circumferentially Induction Hardened
SIH	Selectively Induction Hardened
WI	White Iron

Dimensions are in inches. Strengths, loads and weights are in pounds.

Rex Chain No.	Link-Belt Chain No.	Style	Average Pitch	Rated Working Load	Rec. Maximum R.P.M. for 12 T. Spkt.①	Minimum Ultimate Strength, Lbs. x 10^3	Average Weight Per Foot	Over-All Pin & Cotter	Between Sidebars	Sidebars		Pins		Rollers				Bushings		Sprocket Unit No.②
										Thickness	Height	Diam.	Properties	Face Width	Outside Diam.	Style	Properties	Length	Outside Diam.	
								A	K	T	F	G		E	H			D	I	
8.000-Inch Pitch																				
A2800		R	8.000	9,800	26	94	62.2	4.71	1.81	.50	2.75	1.00	CIH	1.50	3.50	A	CARB	2.81	1.50	2800
	RS2800③	R	8.000	11,900	26	112	30.0	4.98	2.66	.38	3.75	.94	TH	2.28	3.50	A	TH	3.41	1.50	2800
	RS2804③	R	8.000	24,300	26	150	47.0	6.86	3.64	.50	3.50	1.50	TH	3.20	4.25	A	TH	4.64	1.99	2804
	RS2806③	R	8.000	35,000	26	217	75.0	7.99	4.71	.50	4.25	1.75	TH	4.34	5.00	A	TH	5.71	2.25	2806
9.000-Inch Pitch																				
1039		K	9.000	4,650	22	24	4.3	3.50	1.50	.31	1.50	.63	CARB	1.45	1.25	A	TH	2.13	.88	1039
ER911	**RS911**	R	9.000	4,650	22	33	8.5	3.45	2.00⑥	.31	2.00	.63	CARB	1.44	3.00	A	WI⑥	2.13	.89	E911
	SS928	T⑤	9.000	7,200	22	29	8.5	4.20	2.00	.38	2.00	.75	TH	1.69	1.86	A	NONE	2.75	1.13	SS928
ER922	**SS927**	R	9.000	7,200	22	34	12.0	4.28	2.00	.38	2.00	.75	TH	1.94	3.50	A	WI	2.75	1.13	E922
FR922	**SS922**	T⑤	9.000	7,200	22	34	12.5	4.28	2.00	.38	2.00	.75	TH	1.31	3.50	B	WI	2.75	1.13	F922
R2342		K	9.000	9,000	22	54	9.2	4.80	1.94	.50	2.00	.88	CIH	1.90	1.75	A	CARB	2.94	1.25	2342
R2405		K	9.000	9,000	22	88	9.7	4.80	1.94	.50	2.13	.88	TH	1.88	1.75	A	CARB	2.94	1.25	2342
ER933		R	9.000	9,200	22	53	15.6	4.72	2.25	.38	2.50	.88	TH	1.75	4.00	E	WI	3.00	1.25	E933
	SS942	T⑤	9.000	9,200	22	39	12.4	4.57	2.25	.38	2.50	.88	TH	2.19	2.38	A	NONE	3.00	1.25	SS942
FR933	**SS933**	T⑤	9.000	9,200	22	48	16.5	4.61	2.25	.38	2.50	.88	TH	1.56	4.00	B⑥	WI	3.00	1.25	F933
R4009④	**RS4851**	R	9.000	9,200	22	67	14.7	4.60	2.25	.38	2.50	.88	CIH⑥	2.13	3.00	A	TH	3.00	1.27	4009
X4004④	**RS4852**	R	9.000	12,700	22	65	18.5	5.69	2.63	.50	2.50	1.00	CIH	2.56	3.00	A	CARB⑥	3.63	1.50	4004
4065④	**RS4065**	R	9.000	18,900	22	148	36.2	6.52	3.06	.63	3.50	1.25	CIH	3.00	4.25	A	CARB	4.31	2.00	4065
	RS2064	R	9.000	19,700	22	105	28.0	5.90	2.75	.50	3.50	1.50	TH	2.69	3.50	A	TH	3.75	2.13	2064

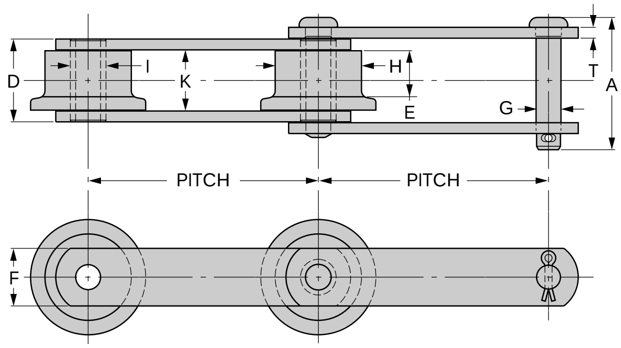
Sidebars are thru-hardened; bushings are carburized.

① If driver has more/less than 12 teeth, increase/decrease RPM in direct ratio of number of teeth to 12. Do not exceed a chain speed of 450 FPM.
② Fabricated steel sprockets are recommended.
③ Chain furnished with attachment every pitch.
④ Furnished as standard with G5 attachment every second pitch.
⑤ When assembled with through rods, the roller flange is on the side opposite the end of the rod.
⑥ Heat treatment and dimension specifications for Rex Chain; Consult factory for Link-Belt specifications.

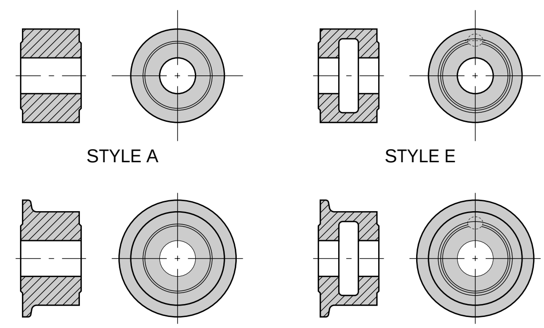
Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

■ ENGINEERED STEEL – With Rollers

For an explanation of rated working load, and for application guidance, refer to Design and Selection or call Rexnord.



STYLE T ①



ROLLERS

Properties

TH	Thru-Hardened
CARB	Carburized
CIH	Circumferentially Induction Hardened
SIH	Selectively Induction Hardened
WI	White Iron

Dimensions are in inches. Strengths, loads and weights are in pounds.

Rex Chain No.	Link-Belt Chain No.	Style	Average Pitch	Rated Working Load	Rec. Maximum R.P.M. for 12 T. Spkt.①	Minimum Ultimate Strength, Lbs. x 10 ³	Average Weight Per Foot	Over-All Pin & Cotter A	Between Sidebars K	Sidebars Thickness T	Sidebars Height F	Pins Diam. G	Pins Properties	Rollers Face Width E	Rollers Outside Diam. H	Rollers Style	Rollers Properties	Bushings Length D	Bushings Outside Diam. I	Sprocket Unit No.②
12.000-Inch Pitch																				
E1211	**RS1211**	R	12.000	4,650	14	31	7.0	3.44	1.50	.31	2.00	.63	CARB	1.38	3.00	A	CARB	2.13	.89	E1211
	SS4038	R	12.000	6,200	14	29	9.0	3.82	1.63	.38	2.00	.75	TH	1.56	3.25	A	WI	2.38	1.13	4038
ER1222	**SS1227**	R	12.000	7,200	14	34	10.0	4.31	2.00	.38	2.00	.75	TH	1.63	3.50	A	WI	2.75	1.13	E1222
FR1222	**SS1222**	T	12.000	7,200	14	34	10.5	4.31	2.00	.38	2.00	.75	TH	1.25	4.50	D⑤	WI	2.75	1.13	F1222
	SS1232	T	12.000	7,200	14	46	12.0	4.20	2.00	.38	2.00	.75	TH	1.31	4.50	B	WI	2.75	1.13	F1232
R1251		K	12.000	9,000	14	56	9.8	4.90	1.94	.50	2.00	.88	CARB	1.88	1.75	A	CARB	2.94	1.25	2397
ER1233		R	12.000	9,200	14	61	13.1	4.64	2.25	.38	2.50	.88	TH	1.75	4.00	E	WI	3.00	1.25	E1233
FR1233	**SS1233**	T	12.000	9,200	14	62	14.0	4.64	2.25	.38	2.50	.88	TH	1.56	4.00	D⑤	WI	3.00	1.25	F1233
RR2397		K	12.000	9,200	14	60	9.5	4.64	2.25	.38	2.50	.88	CARB	2.19	1.75	A	CARB	3.00	1.25	2397
4011③		R	12.000	9,200	14	63	12.6	4.62	2.25	.38	2.50	.88	AC	2.12	3.00	A	TH	3.00	1.25	4011
	RS4850	R	12.000	9,200	14	63	12.7	4.57	2.19	.38	2.50	.88	TH	2.13	3.00	A	TH	2.94	1.26	4011
ER1244		R	12.000	12,300	14	85	20.5	5.53	2.63	.50	2.50	1.00	TH	2.50	5.00	A	CARB	3.63	1.50	E1244
FR1244		T	12.000	12,300	14	63	21.5	5.53	2.63	.50	2.50	1.00	TH	1.75	5.00	D	WI	3.63	1.50	F1244
R1706		K	12.000	14,000	14	79	13.9	5.99	3.00	.50	2.50	1.00	CIH	2.94	2.25	A	CARB	4.00	1.50	2452
R2614		K	12.000	17,500	14	135	24.0	6.26	2.75	.63	3.50	1.25	CIH	2.69	2.50	A	CARB	4.00	1.75	2614
R4010④		R	12.000	23,500	14	185	39.2	6.79	3.25	.63	4.00	1.50	CIH	3.09	4.50	A	CARB	4.50	2.13	4010
18.000-Inch Pitch																				
ER1822		R	18.000	7,200	8	34	8.5	4.31	2.00	.38	2.00	.75	TH	1.63	3.50	A	WI	2.75	1.13	E1822
FR1822		T	18.000	7,200	8	34	9.0	4.31	2.00	.38	2.00	.75	TH	1.25	3.50	D	WI	2.75	1.13	F1822
F1833		T	18.000	9,200	8	63	11.5	4.72	2.25	.38	2.50	.88	TH	1.50	4.00	D	WI	3.00	1.25	F1833
FR1844		T	18.000	12,300	8	89	17.0	5.66	2.63	.50	2.50	1.00	TH	1.75	5.00	D	WI	3.63	1.50	F1844

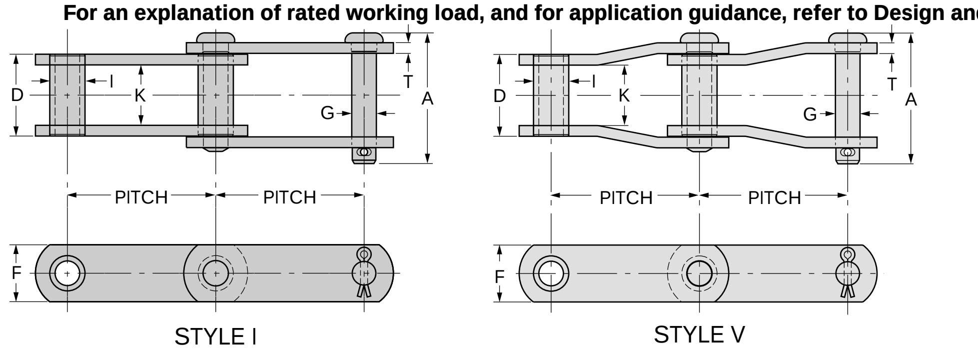
Sidebars are thru-hardened; bushings are carburized.

① If driver has more/less than 12 teeth, increase/decrease RPM in direct ratio of number of teeth to 12. Do not exceed a chain speed of 450 FPM.
② Fabricated steel sprockets are recommended.
③ Furnished as standard with G116 attachment every second pitch.
④ Furnished as standard with G5 attachment every second pitch.
⑤ Heat treatment and dimension specifications for Rex Chain; Consult factory for Link-Belt specifications.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

■ ENGINEERED STEEL – Without Rollers

For an explanation of rated working load, and for application guidance, refer to Design and Selection or call Rexnord.



Properties

TH	Thru-Hardened
CARB	Carburized
CIH	Circumferentially Induction Hardened
SIH	Selectively Induction Hardened
WI	White Iron

Dimensions are in inches. Strengths, loads and weights are in pounds.

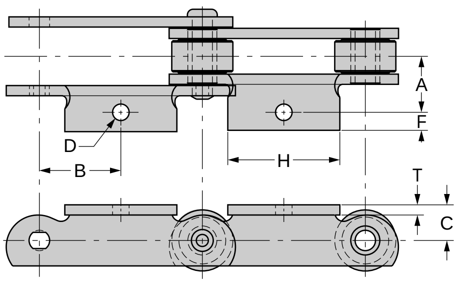
Rex Chain No.	Link-Belt Chain No.	Style	Average Pitch	Rated Working Load	Rec. Maximum R.P.M. for 12 T. Spkt.[1]	Minimum Ultimate Strength, Lbs. x10³	Average Weight Per Foot	Over-All Pin & Cotter A	Between Sidebars K	Sidebars Thickness T	Sidebars Height F	Sidebars Properties	Pins Diam. G	Pins Properties	Bushings Length D	Bushings Outside Diam. I	Sprocket Unit No.[2]
1.506-Inch Pitch																	
	SS152	I	1.506	1,230	280	6	2.2	1.81	.81	.16	.88	TH	.31	CARB	1.13	.63	152
2.609-Inch Pitch																	
S188[9]	SBS188	I	2.609	2,740	145	23	3.8	2.69	1.06	.25	1.13	TH	.50	CARB	1.57	.88	78
3.075-Inch Pitch																	
ER131[9]	SBS131	I	3.075	4,450	110	36	7.4	3.52	1.31	.38	1.50	TH	.63	CARB	2.06	1.25	103
1536	SBS1972	I	3.075	4,900	110	51	9.2	3.56	1.50	.38	1.75	TH	.63	TH	2.26	1.25	1536
	SBO2103	V	3.075	5,000	110	28	5.6	3.03	1.38	.25	1.50	TH	.75	CARB	1.88	1.25	103
1535	SBS2162	I	3.075	5,300	110	50	9.4	3.58	1.38	.38	1.75	TH	.75	CARB	2.14	1.25	1535
4.000-Inch Pitch																	
R2823		V	4.000	3,170	75	21	3.2	2.94	1.31	.25	1.13	TH	.50	CARB	1.81	.78	823
S823		V	4.000	3,450	75	22	5.2	3.08	1.47	.25	1.25	TH	.50	CARB	1.97	.78	823
SR825		V	4.000	6,000	75	55	8.7	3.87	1.56	.38	2.00	TH	.75	CARB	2.31	1.14	825
ER102B[9]	SBS102B	I	4.000	6,300	75	36	6.9	4.37	2.13	.38	1.50	TH	.63	CARB	2.89	1.00	102B
	SBS2236	I	4.000	9,900	75	119	19.2	4.90	1.91	.56	2.38	TH	.94	CARB	3.03	1.75	2236
4.040-Inch Pitch																	
ER102.5[9]	SBS102.5	I	4.040	7,800	75	48	9.4	4.56	2.25	.38	1.75	TH	.75	CARB	3.01	1.38	102 1/2
4.760-Inch Pitch																	
ER111[9]	SBS111	I	4.760	8,850	55	48	10.2	4.97	2.63	.38	2.00	TH	.75	SIH	3.39	1.44	111
4.760- and 7.240-Inch Pitch																	
ER111Sp[7][9]		I	4.760 7.240	8,850	40	48	8.8	4.97	2.63	.38	2.00	TH	.75	SIH	3.38	1.44	111Sp.
6.000-Inch Pitch																	
SR830		I	6.000	6,000	40	50	7.5	3.87	1.56	.38	2.00	TH	.75	CARB	2.31	1.16	830
ER110[9]	SBS110	I	6.000	6,300	40	36	6.3	4.37	2.13	.38	1.50	TH	.63	CARB	2.89	1.25	110
ER833		I	6.000	8,900	40	48	9.3	4.97	2.63	.38	2.00	TH	.75	SIH	3.38	1.44	833
SR844	SBS844	V[8]	6.000	9,000	40	52	10.4	5.31	2.50	.50	2.00	TH	.75	CARB	3.50	1.19	844
6826		V	6.000	9,600	40	68	12.0	5.03	2.38	.38	2.50	TH	.88	SIH	3.13	1.50	6826
ER856[9]	SBX856	I	6.000	14,000	40	82	16.5	5.99	3.00	.50	2.50	TH	1.00	CIH	4.00	1.75	856
ER956[3]		I	6.000	14,000	40	97	16.6	5.99	2.95	.50	3.00[5]	TH	1.00	CIH	4.00	1.75	856
ER857[3]	SBX2857	I	6.000	14,000	40	97	21.0	5.99	3.00	.50	3.25[5]	TH	1.00	CIH	4.00	1.75	856
	SBS850+	I	6.000	16,000	40	128	25.3	6.18	2.25	.63	3.25[6]	TH	1.31	SIH	3.51	2.00	RO850
RO850	SBO850+	V	6.000	16,100	40	1428	24.6	6.18	2.25	.63	3.25	TH	1.31	CIH	3.51	2.00	RO850
ER958		I	6.000	16,300	40	97	21.0	6.07	3.00	.56	3.25	TH	1.13	CIH	4.13	2.00	958
	SS1654	I	6.000	18,300	40	175	35.4	6.38	2.25	.63	4.00[6]	TH	1.50	SIH	3.51	2.50	1654
ER859[3]	SBX2859	I	6.000	22,000	40	155	34.0	7.62	3.75	.63	4.00[6]	TH	1.25	CIH[8]	5.00	2.38	859
	SBO6065	V	6.000	27,600	40	420	51.7	6.86	3.00	.75	4.75	TH	1.75	TH	4.50	3.00	6065
6.010 to 9.000-Inch Pitch																	
ER150[9]	SBS150+	I	6.050	15,000	40	85	16.6	6.36	3.34	.50	2.50	TH	1.00	SIH	4.35	1.75	132
ERA150[4][9]		I	6.050	15,000	40	82	16.6	6.34	3.34	.50	2.50	TH	1.00	SIH	4.34	1.75	132
SX175		I	6.050	18,500	40	114	24.5	6.69	3.19	.63	3.00	TH	1.19	CIH	4.44	2.00	SX175
ER864[3]	SBX2864	I	7.000	22,000	40	155	33.0	7.62	3.75	.63	4.00[6]	TH	1.25	CIH	5.00	2.38	864
ER984		I	7.000	24,000	40	155	33.0	7.35	3.75	.62	4.00	TH	1.38	CIH	5.00	2.50	984
SX886		V	7.000	24,000	40	255	42.0	6.79	2.75	.75	4.00	TH	1.63	CIH	4.25	2.63	SX886
	SBS4871	I	9.000	15,300	40	91	14.6	6.21	3.38	.50	3.00	TH	1.00	SIH	4.35	1.75	1903

Sidebars are thru-hardened; bushings are carburized.

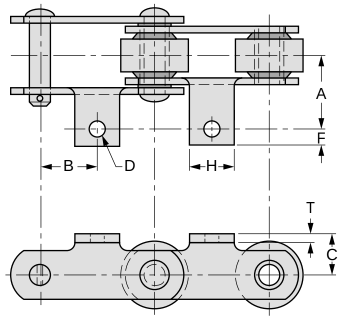
[1] If driver has more/less than 12 teeth, increase/decrease RPM in direct ratio of number of teeth to 12. Do not exceed a chain speed of 450 FPM.
[2] Fabricated steel sprockets are recommended.
[3] Both pins in a pin link have their heads on the same side. In the assembled chain the pin links are staggered
[4] Induction hardened sidebar edges furnished as standard.
[5] Outer (pin-link) sidebars are 2.50 inches high.
[6] Outer (pin-link) sidebars are 3.00 inches high.
[7] No. S111 SP: has same inner link as No. S111 – 4.760-inch pitch.
[8] Heat treatment and dimension specifications for Rex Chain; Consult factory for Link-Belt specifications.
[9] Now known as ER Series chain. Previous prefix was S, ES, RS or SX.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

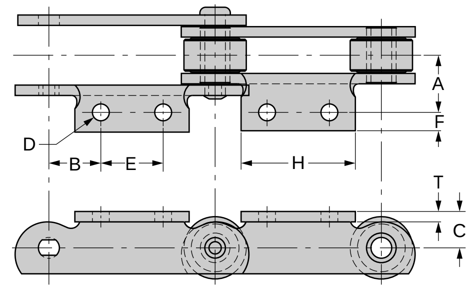
■ ENGINEERED STEEL – Attachments



A1 REX



A1 LINK-BELT



A2 REX

Dimensions are in inches. Weights are in pounds.

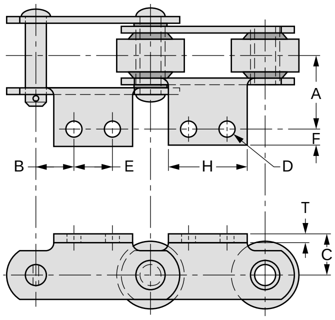
Rex Chain No.	Link-Belt Chain No.	A	B	C	D① Bolt Dia.	D① Bolt Hole	E	F	G	H	J	K	T	Wgt. Per Foot
A1														
4		1.38	2.00	.88	3/8	.41	–	.53	–	2.75	–	–	.25	4.7
SR183②		1.47	1.50	.81	5/16	.34	–	.53	–	2.00	–	–	.19	4.4
SR194		2.00	2.00	1.13	3/8	.41	–	.63	–	3.25	–	–	.19	6.3
SR196		2.00	3.00	1.25	3/8	.41	–	.76	–	3.50	–	–	.25	6.6
S188		1.88	1.31	.81	3/8	.41	–	.69	–	2.12	–	–	.25	4.5
RR432		1.38	.83	.81	1/4	.28	–	.41	–	1.00	–	–	.19	4.0
RR588		1.94	1.31	.88	5/16	.34	–	.90	–	2.13	–	–	.25	4.0
RR778		1.94	1.31	.88	5/16	.34	–	.72	–	2.13	–	–	.19	2.6
RR1120		1.38	2.00	.81	3/8	.41	–	.63	–	2.50	–	–	.19	3.6
1539		1.88	1.53	1.25	1/2	.56	–	.70	–	3.00	–	–	.31	7.9
2188		1.69	2.00	1.00	3/8	.41	–	1.03	–	2.75	–	–	.31	7.9
	RS 60	③	2.38	1.25	1/2	.53	–	.71	–	1.75	–	–	.38	9.2
	RS 625	1.19	.83	.69	1/4	.31	–	.53	–	.88	–	–	.13	3.2
	RS 627	1.38	.83	.81	1/4	.28	–	.53	–	1.00	–	–	.19	4.6
	RS 1539	1.88	1.53	1.25	1/2	.56	–	.65	–	2.75	–	–	.31	7.9
	RS 2188	1.81	2.00	1.00	1/2	.56	–	.85	–	3.00	–	–	.31	7.9
	RS 3013	1.47	1.50	.81	5/16	.34	–	.43	–	2.25	–	–	.19	4.5
	RS 4013	1.38	2.00	.81	3/8	.41	–	.53	–	2.50	–	–	.19	3.9
	RS 4019	1.38	2.00	.88	3/8	.41	–	.51	–	2.50	–	–	.25	4.8
	RS 4113	1.72	2.00	1.00	3/8	.41	–	.59	–	2.50	–	–	.19	4.7
	S 4216	2.00	2.00	1.13	3/8	.41	–	.61	–	3.38	–	–	.19	5.6
	S 4328	2.00	2.00	1.25	1/2	.56	–	.88	–	2.00	–	–	.38	10.7
A2 made also for chain with offset sidebars.														
4		1.38	1.25	.88	3/8	.41	1.50	.53	–	2.75	–	–	.25	4.7
6		2.13	1.69	1.63	1/2	.53	2.63	.72	–	5.50	–	–	.38	13.0
6 Sp.		2.13	1.69	1.63	1/2	.53	2.63	.72	–	5.50	–	–	.38	14.2
A2124		2.19	1.50	1.63	1/2	.53	3.00	.71	–	4.50	–	–	.38	13.8
SR183②		1.56	.97	.81	1/4	.28	1.06	.44	–	2.00	–	–	.19	4.6
SR188②		2.00	.75④	1.00	3/8	.41	2.00④	.52	–	3.38	–	–	.19	4.9
SR194		2.00	1.00	1.13	3/8	.41	2.00	.63	–	3.25	–	–	.19	6.3
SR196		2.00	2.00	1.25	3/8	.41	2.00	.76	–	3.50	–	–	.25	6.6
E911		2.56	2.75	1.75	1/2	.53	3.50	1.00	–	5.50	–	–	.25	10.6
FR922		2.88	2.75	2.50	1/2	.53	3.50	1.00	–	5.50	–	–	.25	14.6
FR933		3.00	2.75	2.88	1/2	.53	3.50	.90	–	5.50	–	–	.31	19.4
ER102B		2.66	1.13	1.13	3/8	.41	1.75	.81	–	4.25	–	–	.38	9.4
S188		2.09	.67	.81	5/16	.34	1.25	.47	–	2.13	–	–	.25	4.5
S951		2.19	2.00	1.63	3/8	.41	2.00	.84	–	3.50	–	–	.25	12.7
SR1114		2.00	2.00	1.13	3/8	.41	2.00	.69	–	3.50	–	–	.31	8.5
RS1131		3.00	1.69	1.63	1/2	.56	2.63	.69	–	4.50	–	–	.38	15.5
1539		2.00	.59	1.25	5/16	.34	1.88	.58	–	3.00	–	–	.31	7.9
2126		2.00	2.00	1.13	3/8	.41	2.00	.75	–	3.50	–	–	.25	6.0
2180		2.38	2.00	1.63	1/2	.56	2.00	.81	–	3.50	–	–	.38	10.2
2188		1.81	1.13	1.00	1/2	.56	1.75	.91	–	2.75	–	–	.31	7.9
3420		2.06	1.27	1.25	3/8	.41	1.50	1.00	–	2.75	–	–	.31	9.3

All attachments are thru-hardened.

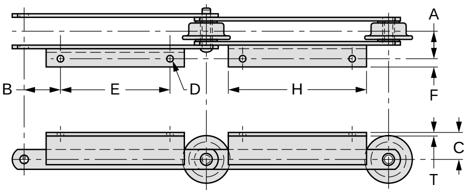
① All holes round and straight.
② A1/A2 and K1/K2 attachments are combined on the same side bar.
③ 2.20Æ on outside sidebar, 1.78" on inside sidebar.
④ Not Central.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

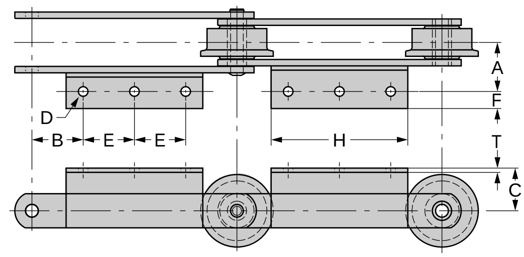
■ ENGINEERED STEEL – Attachments



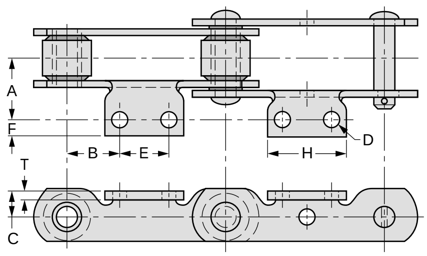
A2 Figure 1



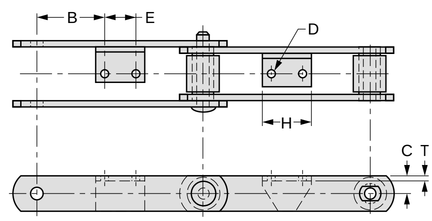
A2 Figure 2



A3 REX



A3 LINK-BELT



A5

Dimensions are in inches. Weights are in pounds.

Rex Chain No.	Link-Belt Chain No.	A	B	C	D① Bolt Dia.	D① Bolt Hole	E	F	G	H	J	K	T	Wgt. Per Foot
A2 Figure 1														
	RS 658	2.63	1.50	2.50	3/8	.44	3.00	.79	–	4.38	–	–	.31	12.2
	RS 886	2.09	.67	.81	5/16	.34	1.25	.61	–	2.13	–	–	.19	3.7
	RS 887	2.09	.67	.88	5/16	.38	1.25	.46	–	2.13	–	–	.25	4.5
	RS 951	2.19	2.00	1.63	3/8	.44	2.00	.72	–	4.13	–	–	.31	12.4
	RS 1113	2.06	1.27	1.25	3/8	.41	1.50	.71	–	2.50	–	–	.31	9.3
	RS 1114	2.00	2.00	1.13	3/8	.41	2.00	.85	–	3.50	–	–	.31	8.5
	RS 1116	2.00	2.00	1.13	3/8	.44	2.00	.69	–	2.88	–	–	.25	6.0
	RS 1131	3.00	1.69	1.63	1/2	.56	2.63	.69	–	5.50	–	–	.38	15.5
	RS 1539	1.98	.59	1.25	5/16	.34	1.88	.58	–	2.75	–	–	.31	7.9
	RS 2188	1.81	1.13	1.00	1/2	.56	1.75	.86	–	3.00	–	–	.31	7.9
	RS 2190	2.00	2.00	1.13	3/8	.41	2.00	.69	–	2.88	–	–	.25	7.2
	RS 4013	1.38	1.41	.81	5/16	.34	1.19	.53	–	2.50	–	–	.19	3.9
	RS 4019	1.38	1.25	.88	3/8	.41	1.50	.45	–	2.50	–	–	.25	4.7
	RS 6018	2.00	2.00	1.25	3/8	.44	2.00	.61	–	3.00	–	–	.25	6.6
	RS 6238	2.13	1.69	1.63	1/2	.56	2.63	.79	–	5.50	–	–	.38	13.3
	RS 6438	2.13	1.69	1.63	1/2	.56	2.63	.75	–	5.50	–	–	.38	14.8
A2 Figure 2														
	RS 911	2.56	2.75	1.75	1/2	.53	3.50	1.00	–	5.50	–	–	.25	10.6
	SS 922	2.88	2.75	2.50	1/2	.53	3.50	1.00	–	5.50	–	–	.25	14.6
	SS 927	2.88	2.75	2.50	1/2	.53	3.50	1.00	–	5.50	–	–	.25	13.9
	SS 933	3.00	2.75	2.88	1/2	.53	3.50	1.41	–	5.50	–	–	.31	20.7
	RS 1211	2.56	3.00	1.75	1/2	.53	6.00	1.00	–	8.00	–	–	.25	9.5
	SS 1222	2.88	3.00	2.50	1/2	.53	6.00	1.00	–	8.00	–	–	.25	12.9
A3														
ER1222		2.88	3.00	2.50	1/2	.53	3.00	1.00	–	8.00	–	–	.25	13.1
FR1222		2.88	3.00	2.50	1/2	.53	3.00	1.00	–	8.00	–	–	.25	12.9
ER1233		3.25	3.00	3.00	1/2	.53	3.00	1.25	–	8.00	–	–	.31	17.1
FR1233		3.25	3.00	3.00	1/2	.53	3.00	1.25	–	8.00	–	–	.31	17.1
E1244		3.75	3.00	3.63	1/2	.53	3.00	1.13	–	8.00	–	–	.38	25.8
FR1244		3.75	3.00	3.63	1/2	.53	3.00	1.13	–	8.00	–	–	.38	25.8
F1822		2.88	3.50	2.50	1/2	.53	5.50	1.00	–	14.00	–	–	.25	11.4
F1844		3.75	3.50	3.63	1/2	.53	5.50	1.59	–	14.00	–	–	.38	22.3
2348		3.13	3.25	1.25	5/8	.66	2.75	1.28	–	8.00	–	–	.38	18.1
	RS 953②	2.34	2.00	1.00	9/16	.53	2.00	.77	–	3.25	–	–	.38	9.9
A5														
	SS928	–	3.38	1.00	1/2	.56	2.25	–	–	3.50	–	–	.38	9.4
	SS942	–	3.38	1.25	1/2	.56	2.25	–	–	3.50	–	–	.38	13.3
	SS1242	–	4.88	1.25	1/2	.56	2.25	–	–	3.50	–	–	.38	14.7

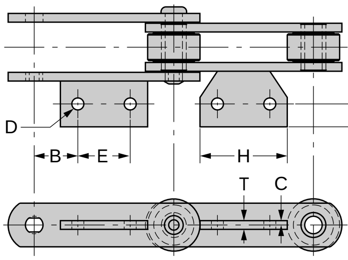
All attachments are thru-hardened.

① All holes round and straight.

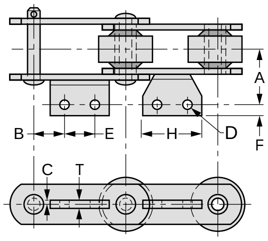
② Sidebars have .76" holes located on pitch-line midway between chain joints.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

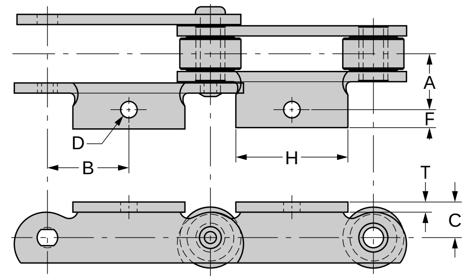
■ ENGINEERED STEEL – Attachments



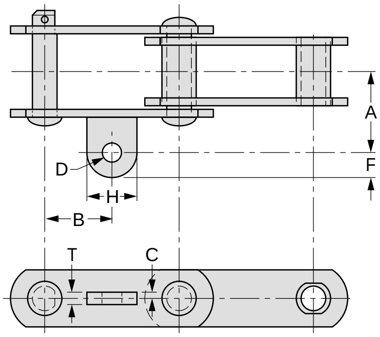
A11 REX



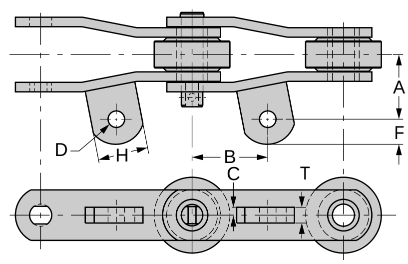
A11 LINK-BELT



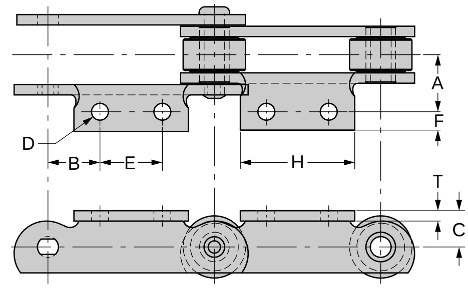
A17



A22 LINK-BELT



A22 REX



A20, A23 and A25

Dimensions are in inches. Weights are in pounds.

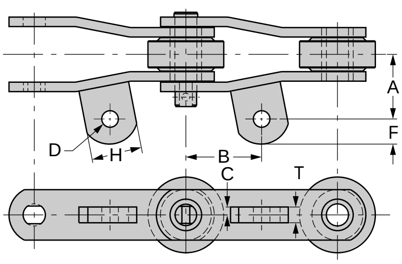
Rex Chain No.	Link-Belt Chain No.	A	B	C	D① Bolt Dia.	D① Bolt Hole	E	F	G	H	J	K	T	Wgt. Per Foot
A11														
6		2.75	1.56	.19	1/2	.53	2.88	.84	–	4.50	–	–	.38	12.5
S951		2.19	2.00	.25	3/8	.41	2.25	.72	–	3.25	–	–	.25	12.0
2190		2.56	1.88	.19	1/4	.28	2.25	.50	–	3.25	–	–	.25	7.6
	RS 658	2.31	2.13	–	3/8	.39	1.75	.87	–	3.00	–	–	.19	12.0
	RS 2190	2.56	1.88	–	1/4	.28	2.25	.59	–	3.25	–	–	.38	7.9
	RS 6238	2.75	1.56	–	1/2	.56	2.88	1.00	–	4.50	–	–	.38	12.4
A17														
531		2.00	2.00	1.31	1/2	.53	–	.72	–	1.50	–	–	.38	10.0
A20														
2183		2.00	1.75	2.00	3/8	.41	2.50	.80	–	3.50	–	–	.31	11.7
F2183		2.00	1.75	2.00	3/8	.41	2.50	.63	–	3.50	–	–	.31	12.2
2190		2.00	2.00	1.13	3/8	.41	2.00	1.03	–	3.50	–	–	.25	7.9
A22 made also for chain with straight sidebars.														
S188		1.78	1.31	.08	3/8	.41	–	.59	–	1.25	–	–	.31	4.8
3420		2.38	2.00	.25	5/8	.69	–	.92	–	2.00	–	–	.50	9.1
A22														
	SBS 188	1.78	1.31	.19	3/8	.41	–	.59	–	1.19	–	–	.38	4.8
A23														
FR922		3.41	3.13	1.00	1/2	.56	2.75	.88	–	4.75	–	–	.25	13.6
FR933		4.13	3.13	1.25	1/2	.56	2.75	.88	–	4.75	–	–	.25	18.6
FR1244		4.50	3.25	1.50	5/8	.66	5.50	.88	–	7.50	–	–	.38	25.8
A25														
S951		3.19	2.00	1.31	1/2	.56	2.00	.75	–	3.50	–	–	.25	13.2
2183		2.90	2.19	1.00	3/8	.41	1.63	.67	–	3.13	–	–	.25	11.4
F2183		2.90	2.19	1.00	3/8	.41	1.63	.67	–	3.13	–	–	.25	12.8

All attachments are thru-hardened.

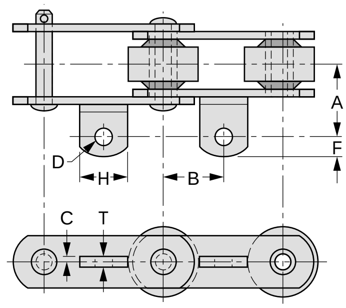
① All holes round and straight.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

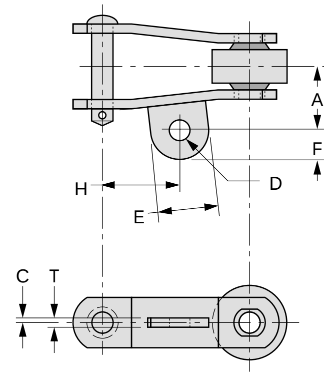
■ ENGINEERED STEEL – Attachments



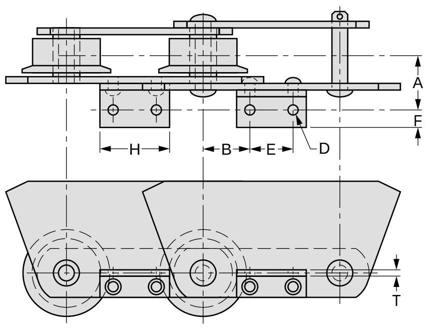
A42



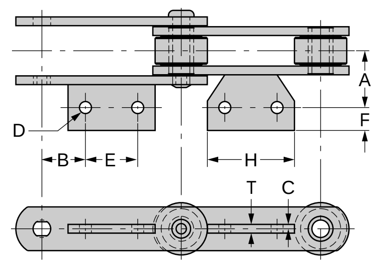
A42 Figure 1



A42 Figure 2



AR7



A63

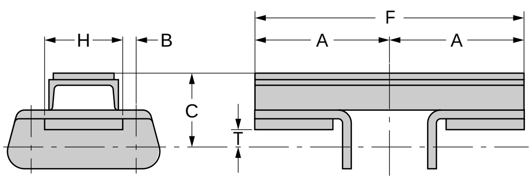
Dimensions are in inches. Weights are in pounds.

Rex Chain No.	Link-Belt Chain No.	A	B	C	D① Bolt Dia.	D① Bolt Hole	E	F	G	H	J	K	T	Wgt. Per Foot
A42														
6		2.56	3.00	.31	5/8	.66	–	.86	–	2.00	–	–	.63	12.3
SR183		1.31	1.50	.13	5/16	.34	–	.38	–	.88	–	–	.25	4.2
SR825		2.75	2.13	.31	5/8	.66	–	.81	–	1.50	–	–	.63	9.4
SR830		2.56	3.00	.31	3/4	.78	–	1.00	–	2.00	–	–	.63	8.1
RR1120		1.63	2.00	.19	3/8	.41	–	.63	–	1.25	–	–	.38	3.5
RS1131		2.59	3.00	.31	5/8	.66	–	1.00	–	2.00	–	–	.63	13.8
1604		1.75	3.00	.19	3/8	.41	–	.63	–	1.25	–	–	.38	6.6
2180		2.69	3.00	.22	5/8	.66	–	.56	–	1.50	–	–	.44	10.2
F2184		2.56	3.00	.31	5/8	.66	–	1.00	–	2.00	–	–	.63	13.5
SR3130		2.38	3.00	.31	5/8	.66	–	.81	–	2.00	–	–	.63	11.0
A42 Figure 1														
	RS1113	2.38	2.02	.25	5/8	.66	–	.94	–	1.50	–	–	.50	9.1
	RS1131	2.59	3.00	.31	5/8	.69	–	1.00	–	2.00	–	–	.63	13.8
	RS2284	2.63	3.00	.31	5/8	.69	–	1.08	–	2.00	–	–	.63	13.1
	RS 2284+	2.63	3.00	.31	5/8	.69	–	1.08	–	2.00	–	–	.61	13.1
	RS 2600	3.75	3.00	.31	5/8	.69	–	.91	–	2.00	–	–	.61	27.7
	RS 3013	1.56	1.50	.13	3/8	.41	–	.45	–	1.25	–	–	.25	4.3
	RS 4013	1.63	2.00	.19	3/8	.41	–	.50	–	1.25	–	–	.38	3.7
	RS 6238	2.56	3.00	.31	5/8	.66	–	.81	–	2.00	–	–	.61	11.3
	RS 6438	2.56	3.00	.31	5/8	.66	–	.81	–	2.00	–	–	.61	13.0
A42 Figure 2														
	RO 2113	2.38	2.00	.25	5/8	.66	–	.75	–	1.50	–	–	.50	9.5
	RO 2284	2.63	3.00	.31	5/8	.69	–	.88	–	2.00	–	–	.63	13.1
	RO 2284+	2.63	3.00	.31	5/8	.69	–	.88	–	2.00	–	–	.63	13.1
A63														
4		1.63	1.25	.13	5/16	.34	1.50	.66	–	2.50	–	–	.25	4.8
AR7														
	RS 658	2.31	2.13	–	5/16	.39	1.75	.75	–	3.00	–	–	.19	18.7

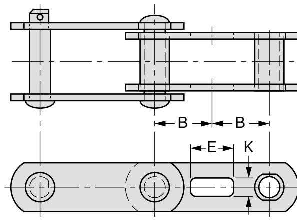
All attachments are thru-hardened.
① All holes round and straight.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

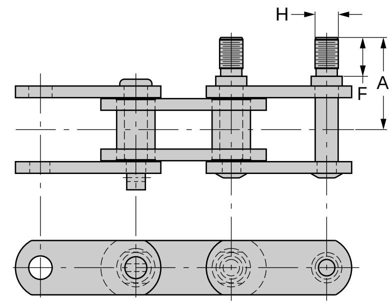
■ ENGINEERED STEEL – Attachments



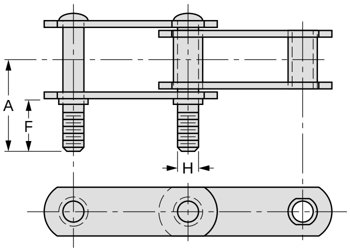
B155



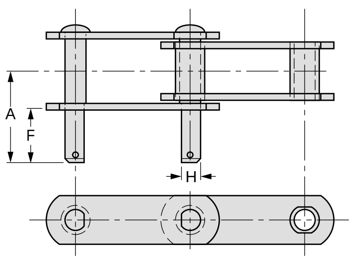
BM5, BM55



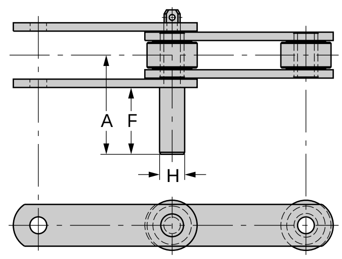
D2



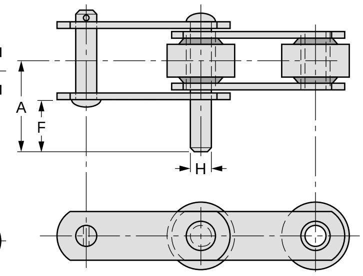
D3



D4



D5 REX



D5 LINK-BELT

Dimensions are in inches. Weights are in pounds.

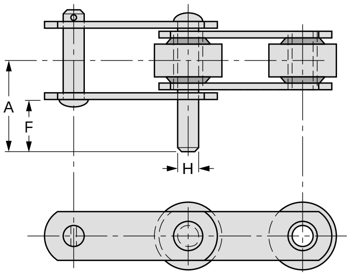
Rex Chain No.	Link-Belt Chain No.	A	B	C	D① Bolt Dia.	D① Bolt Hole	E	F	G	H	J	K	T	Wgt. Per Foot
B155														
ER150⑤		–	.78	4.25	–	–	–	15.50	–	4.50	–	–	1.00	49.6
BM5②														
	SS2004	.88	1.31	–	–	–	1.28	–	–	–	–	.66	–	6.9
BM55③														
	SBS1972	1.13	1.88	–	–	–	1.28	–	–	–	–	.66	–	9.2
	SBS3336	1.02	2.00	–	–	–	1.28	–	–	–	–	1.06	–	21.1
	SS2004	.88	1.31	–	–	–	1.28	–	–	–	–	.66	–	6.9
D2														
1535		2.97	–	–	–	–	–	1.25	–	.75	–	–	–	8.8
D3														
	SBS3336	3.54	–	–	–	–	–	1.44	–	.93	–	–	–	22.7
	SBS2236	3.54	–	–	–	–	–	1.44	–	.90	–	–	–	21.0
D4														
	SBS2162	3.15	–	–	–	–	–	.88	–	.75④	–	–	–	10.2
D5														
4		2.97	–	–	–	–	–	2.00	–	.75	–	–	–	4.9
	RS303	2.08	–	–	–	–	–	1.44	–	.50	–	–	–	2.2
	RS4019	2.99	–	–	–	–	–	2.00	–	.75	–	–	–	5.1

All attachments are thru-hardened.

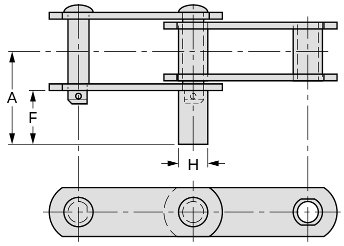
① All holes round and straight.
② Forged attachment sidebar on one side has slotted hole. Plain steel sidebar on opposite side.
③ Steel slotted sidebars on both sides.
④ Attachment threaded .88" back from end. Threads are 3/4-10 NC2A.
⑨ Now known as ER Series chain. Previous prefix was SX.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

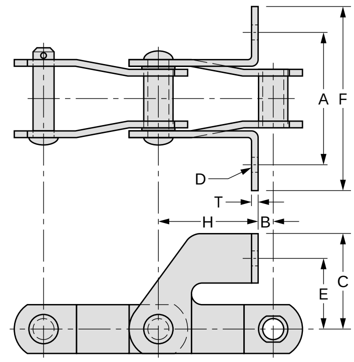
■ ENGINEERED STEEL – Attachments



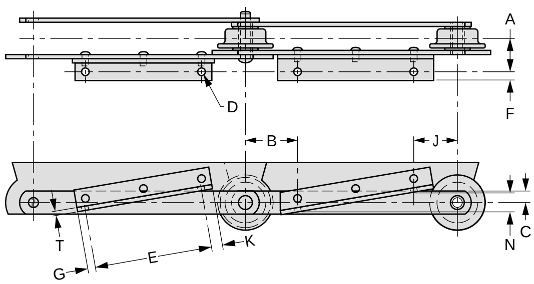
D6



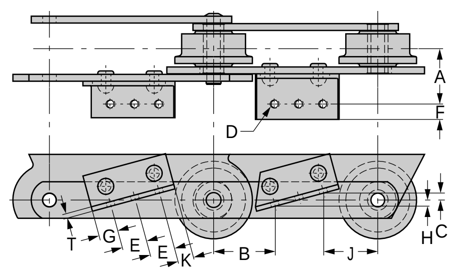
D7



F29



G2



G3

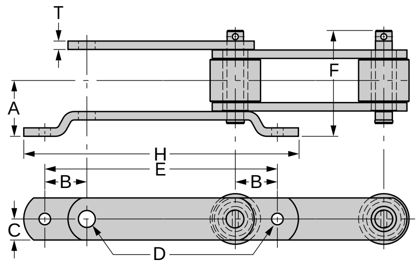
Dimensions are in inches. Weights are in pounds.

Rex Chain No.	Link-Belt Chain No.	A	B	C	D① Bolt Dia.	D① Bolt Hole	E	F	G	H	J	K	T	Wgt. Per Foot
D6														
	RS3013	2.39	–	–	–	–	–	1.50	–	.63	–	–	–	4.8
	SS152	2.23	–	–	–	–	–	1.50	–	.50	–	–	–	2.4
D7														
	SS152	2.23	–	–	–	–	–	1.50	–	.56	–	–	–	2.6
F29														
	SBO2103	3.50	.63	2.68	3/8	.44	–	4.88	–	2.45	–	–	.25	8.0
G2														
	SS922	3.03	3.34	.81	7/16	.47	2.75	.84	.63	–	3.03	.63	.25	22.4
	SS933	3.16	3.25	1.03	7/16	.47	2.75	.84	.63	–	3.13	.63	.25	29.6
	SS1233	3.16	3.94	1.69	5/8	.68	4.50	.84	1.69	–	3.69	1.69	.25	21.3
G3 This attachment made with high sidebars of 3.50 to 8 inches; weights are for 6-inch bars.														
FR922		3.03	3.38	.39	3/8	.41	1.38	.75	1.06	.33	2.97	.88	.25	22.4
ER1233		3.16	3.94	.63	7/16	.47	2.25	.84	1.69	.47	3.69	1.69	.25	21.3
FR1233		3.16	3.94	.63	7/16	.47	2.25	.84	1.69	.47	3.69	1.69	.25	21.3

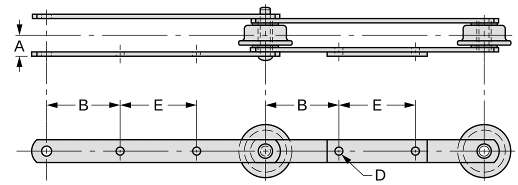
All attachments are thru-hardened.
① All holes round and straight.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

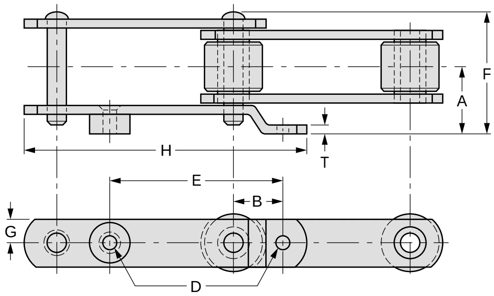
■ ENGINEERED STEEL – Attachments



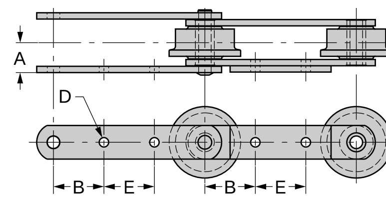
G5



G6



G12



G16, G17, G18

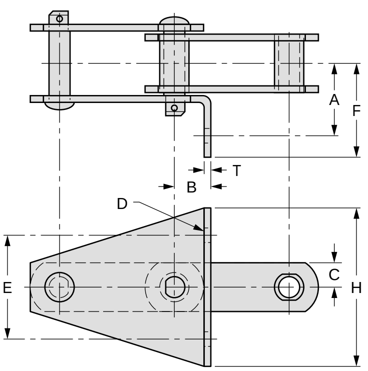
Dimensions are in inches. Weights are in pounds.

Rex Chain No.	Link-Belt Chain No.	A	B	C	D① Bolt Dia.	D① Bolt Hole	E	F	G	H	J	K	T	Wgt. Per Foot
G5														
4004		3.34	2.50	1.25	5/8	.66	14.00	6.34	–	16.50	–	–	.50	18.5
R4009		3.03	2.50	1.25	5/8	.66	14.00	5.53	–	16.50	–	–	.38	14.7
4010		3.90	3.38	2.00	13/16	.84	18.75	7.38	–	21.25	–	–	.63	39.2
4065		3.94	2.50	1.75	5/8	.66	14.00	7.00	–	16.50	–	–	.63	38.6
G6														
	RS911	1.39	3.13	–	7/16	.50	2.75	–	–	–	–	–	–	9.6
	SS922	1.78	3.00	–	1/2	.53	3.00	–	–	–	–	–	–	13.9
	SS927	1.78	3.00	–	1/2	.53②	3.00	–	–	–	–	–	–	13.2
	SS933	1.91	3.25	–	1/2	.53	2.50	–	–	–	–	–	–	18.1
	SS1222	1.78	4.13	–	1/2	.53	3.75	–	–	–	–	–	–	11.6
	SS1227	1.78	4.13	–	1/2	.53②	3.75	–	–	–	–	–	–	11.8
	SS1232	1.78	4.13	–	1/2	.53	3.75	–	–	–	–	–	–	13.0
	SS1233	1.91	4.13	–	1/2	.56	3.75	–	–	–	–	–	–	15.4
	SS4038	1.59	4.13	–	1/2	.53②	3.75	–	–	–	–	–	–	10.1
	RS4850	1.88	4.13	–	3/4	.78③	3.75	–	–	–	–	–	–	16.4
G12														
	RS4851	3.41	2.50	–	1/2	.56	9.00	5.53	1.25	13.82	–	–	.38	14.5
	RS4852	3.86	2.50	–	5/8	.66	9.00	3.78	1.25	13.82	–	–	.50	18.0
G16 is called G6 by some manufacturers.														
ER911		1.41	2.63	–	1/2	.56	3.75	–	–	–	–	–	–	9.6
ER922		1.78	3.00	–	1/2	.56	3.00	–	–	–	–	–	–	13.2
FR922		1.78	3.00	–	1/2	.56	3.00	–	–	–	–	–	–	13.9
ER933		1.90	3.25	–	1/2	.56	2.50	–	–	–	–	–	–	18.1
FR933		1.90	3.25	–	1/2	.56	2.50	–	–	–	–	–	–	18.1
E1211		1.41	4.13	–	1/2	.56	3.75	–	–	–	–	–	–	8.2
ER1222		1.78	4.13	–	1/2	.56	3.75	–	–	–	–	–	–	11.8
FR1222		1.78	4.13	–	1/2	.56	3.75	–	–	–	–	–	–	11.6
ER1233		1.90	4.12	–	5/8	.69	3.75	–	–	–	–	–	–	21.3
FR1233		1.90	4.13	–	1/2	.56	3.75	–	–	–	–	–	–	15.4
ER1244		2.34	4.13	–	5/8	.69	3.75	–	–	–	–	–	–	23.2
FR1244		2.34	4.13	–	5/8	.69	3.75	–	–	–	–	–	–	23.2
ER1822		1.78	6.00	–	1/2	.56	6.00	–	–	–	–	–	–	10.1
FR1822		1.78	6.00	–	1/2	.56	6.00	–	–	–	–	–	–	9.9
F1833		1.90	6.00	–	1/2	.56	6.00	–	–	–	–	–	–	12.8
FR1844		2.34	6.00	–	1/2	.56	6.00	–	–	–	–	–	–	18.8
2348		1.90	4.13	–	1/2	.56	3.75	–	–	–	–	–	–	16.4
G17														
ER1244		2.34	4.13	–	5/8	.69	3.75	–	–	–	–	–	–	23.2
FR1244		2.38	4.13	–	1/2	.56	3.75	–	–	–	–	–	–	21.5
G18														
FR922		1.78	3.13	–	1/2	.56	2.75	–	–	–	–	–	–	12.5

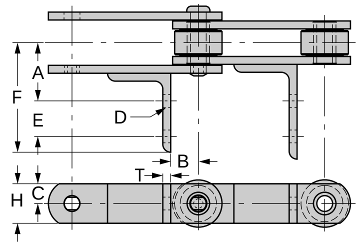
All attachments are thru-hardened.
① All holes round and straight.
② Countersunk head for inside sidebar.
③ These chains have offset sidebars.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

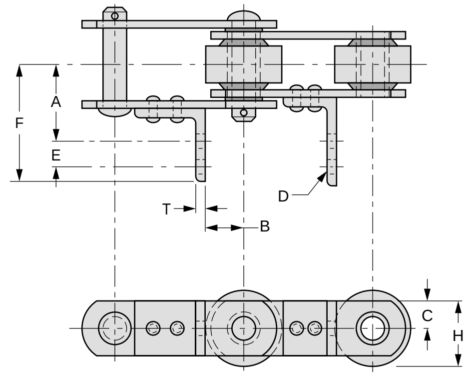
■ ENGINEERED STEEL – Attachments



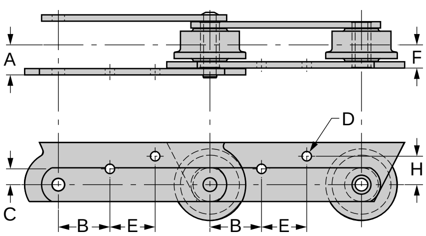
G19



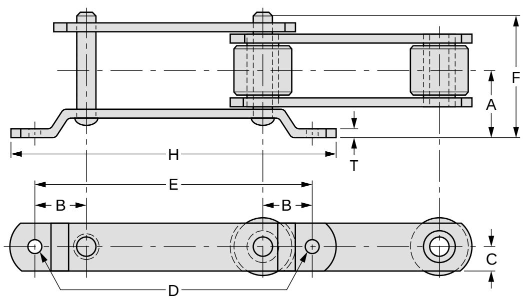
G29 REX



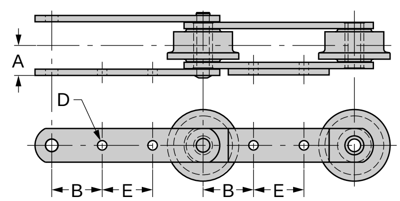
G29 LINK-BELT



G33



G100



G116, G117

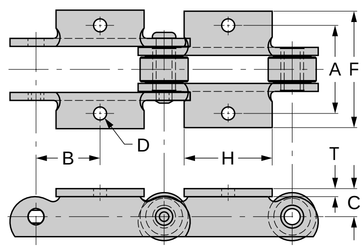
Dimensions are in inches. Weights are in pounds.

Rex Chain No.	Link-Belt Chain No.	A	B	C	D①		E	F	G	H	J	K	T	Wgt. Per Foot
					Bolt Dia.	Bolt Hole								
G19														
	SS1222	2.78	2.63	–	1/2	.53	3.50	3.78	–	5.50	–	–	.25	13.9
	RS4328	2.63	2.50	–	1/2	.53	3.25	3.26	–	2.50	–	–	.38	14.1
	SBS102B	3.00	1.50	–	1/2	.53	3.25	3.62	–	4.50	–	–	.38	8.9
	SBS188	2.19	.94	–	3/8	.41	2.63	2.64	–	3.75	–	–	.25	7.5
G29 made also for inner (roller) link; "F" is 3.69".														
4		1.84	.88	.63	3/8	.41	1.13	3.47②	–	1.25	–	–	.25	5.3
G29														
	RS4019	1.84	3.13	.63	3/8	.44	1.13	3.70	–	1.38	–	–	.25	5.4
G33 weights are for 6-inch bars.														
FR922		1.78	3.06	.94	1/2	.56	2.69	1.38	–	1.69	–	–	–	22.4
ER933		1.90	3.06	.94	1/2	.56	2.69	1.50	–	1.69	–	–	–	25.2
FR933		1.90	3.06	.94	1/2	.56	2.69	1.50	–	1.69	–	–	–	25.2
G100														
	RS4065	3.94	2.50	1.50	5/8	.69	14.00	7.44	–	–	–	–	.50	41.0
	RS4851	3.03	2.50	1.25	5/8	.69	14.00	5.44	–	–	–	–	.38	14.7
	RS4852	3.34	2.50	1.25	5/8	.69	14.00	6.21	–	–	–	–	.50	18.3
G116														
4011		1.88	4.13	–	3/4③	.81	3.75	–	–	–	–	–	–	12.6
G117														
ER1244		2.38	4.13	–	1/2③	.56	3.75	–	–	–	–	–	–	21.5
FR1244		2.38	4.13	–	1/2③	.56	3.75	–	–	–	–	–	–	21.5
R1251		2.00	3.00	–	1/2③	.56	4.00	–	–	–	–	–	–	9.8
R1706		2.56	3.00	–	1/2③	.56	4.00	–	–	–	–	–	–	13.9

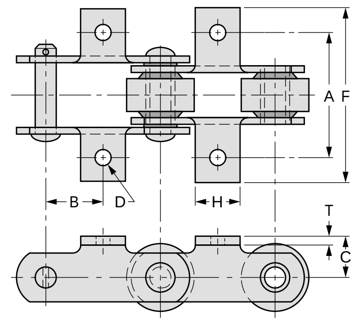
All attachments are thru-hardened.
① All holes round and straight.
② Block links only.
③ Round holes, countersunk on inside links.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

■ ENGINEERED STEEL – Attachments



K1 REX



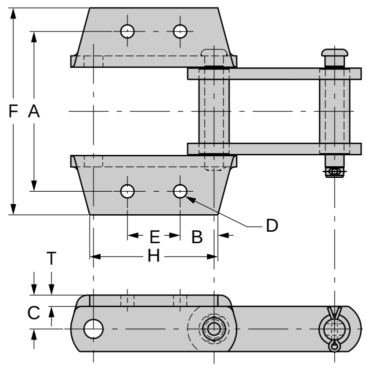
K1 LINK-BELT

Dimensions are in inches. Weights are in pounds.

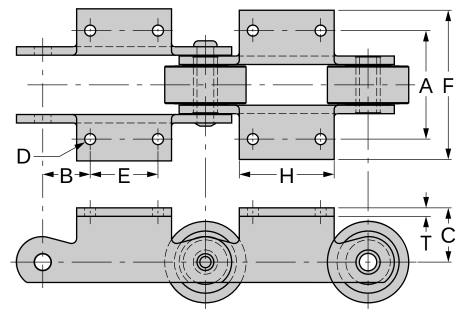
Rex Chain No.	Link-Belt Chain No.	A	B	C	D① Bolt Dia.	D① Bolt Hole	E	F	G	H	J	K	T	Wgt. Per Foot
K1														
4		2.75	2.00	.88	3/8	.41	–	3.81	–	2.75	–	–	.25	5.3
SR183②		2.94	1.50	.81	5/16	.34	–	4.03	–	2.00	–	–	.19	4.9
S188		3.75	1.31	.81	3/8	.41	–	5.12	–	2.12	–	–	.25	5.1
SR188②		3.44	2.00	1.00	3/8	.41	–	5.13	–	3.38	–	–	.19	5.9
SR194②		4.00	2.00	1.13	3/8	.41	–	5.25	–	3.25	–	–	.19	7.3
SR196②		4.00	3.00	1.25	3/8	.41	–	5.66	–	3.50	–	–	.25	7.5
RR432		2.75	.83	.81	1/4	.28	–	3.56	–	1.00	–	–	.19	5.7
RR588		3.88	1.31	.88	5/16	.34	–	5.66	–	2.13	–	–	.25	4.3
589		4.31	1.75③	1.25	1/2	.56	–	6.38	–	2.00	–	–	.38	11.8
RR778		3.88	1.31	.88	5/16	.34	–	5.28	–	2.13	–	–	.19	3.0
RR1120		2.75	2.00	.81	3/8	.41	–	4.03	–	2.50	–	–	.19	4.0
C1288		3.00	1.30	.81	3/8	.41	–	4.81	–	2.13	–	–	.16	3.7
1539		3.75	1.53	1.25	1/2	.56	–	5.16	–	3.00	–	–	.31	9.0
2188		3.38	2.00	1.00	3/8	.41	–	5.44	–	2.75	–	–	.31	8.8
5208		6.88	3.00	1.25	3/4	.81	–	9.00	–	2.00	–	–	.38	12.6
6826②		6.00	3.00	1.63	1/2	.56	–	7.19	–	3.88	–	–	.38	15.3
	RS60	4.40	2.38	1.25	1/2	.53	–	5.83	–	1.75	–	–	.38	9.9
	RS625	2.38	.83	.69	1/4	.31	–	3.44	–	.88	–	–	.13	3.4
	RS627	2.75	.83	.81	1/4	.28	–	3.81	–	1.00	–	–	.19	5.7
	RS944+	4.75	2.50	1.63	5/8	.69	–	6.48	–	2.50	–	–	.38	11.5
	RS1539	3.75	1.53	1.25	1/2	.56	–	5.05	–	2.75	–	–	.31	9.0
	RS2188	3.63	2.00	1.00	1/2	.56	–	5.33	–	3.00	–	–	.31	8.8
	RS3013	2.94	1.50	.81	5/16	.34	–	3.79	–	2.00	–	–	.19	5.1
	S4013	2.75	2.00	.81	3/8	.41	–	3.81	–	2.50	–	–	.19	4.4
	S4019	2.75	2.00	.88	3/8	.41	–	4.83	–	2.50	–	–	.25	5.4
	RS4113	3.44	2.00	1.00	3/8	.41	–	4.62	–	2.50	–	–	.19	5.2
	S4216	4.00	2.00	1.13	3/8	.41	–	5.24	–	3.38	–	–	.19	6.3
	RS4328	4.00	2.00	1.25	1/2	.56	–	5.75	–	2.00	–	–	.38	11.7
	SBS188	3.75	2.00	.81	3/8	.44	–	5.16	–	2.13	–	–	.25	5.1

All attachments are thru-hardened.
① All holes round and straight.
② A1/A2 and K1/K2 attachments are combined on the same side bar.
③ Not central.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.



K2 for S102B, S102.5, ES1111, ES111SP, SR830 and ES833



K2 for All Others

Dimensions are in inches. Weights are in pounds.

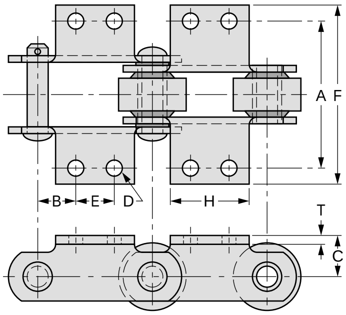
Rex Chain No.	Link-Belt Chain No.	A	B	C	D① Bolt Dia.	D① Bolt Hole	E	F	G	H	J	K	T	Wgt. Per Foot
K2 made also for chain with offset sidebars.														
4②		2.75	1.25	.88	3/8	.41	1.50	3.81	–	2.75	–	–	.25	5.3
6		4.25	1.69	1.63	1/2	.56	2.63	5.69	–	5.50	–	–	.38	15.0
ER102B③⑨		5.31	1.13	1.13	3/8	.41	1.75	6.94	–	4.25	–	–	.38	9.0
ER102.5③⑨		5.31	1.16	1.13	3/8	.41	1.75	6.78	–	4.56	–	–	.38	13.4
ER111③⑨		6.25	1.22	1.50	3/8	.41	2.31	7.88	–	5.22	–	–	.38	15.2
ER111Sp.③⑨		6.25	1.22	1.50	3/8	.41	2.31	7.88	–	3.63	–	–	.38	13.0
ER150⑨		7.50	1.66	1.88	1/2	.56	2.75	9.81	–	4.25	–	–	.50	23.0
SR183②		3.13	.97	.81	1/4	.28	1.06	4.00	–	2.00	–	–	.19	4.9
S188		4.19	.67	.81	5/16	.34	1.25	5.13	–	2.13	–	–	.25	5.8
SR188②		4.00	.75⑦	1.00	3/8	.41	2.00⑦	5.03	–	3.38	–	–	.19	5.9
SR194②		4.00	1.00	1.13	3/8	.41	2.00	5.25	–	3.25	–	–	.19	7.3
SR196②		4.00	2.00	1.25	3/8	.41	2.00	5.66	–	3.50	–	–	.25	7.5
S823④		5.25	1.44⑦	1.06	3/8	.41	1.69	6.88	–	2.75	–	–	.25	7.3
SR825④		6.00	.50	1.19	1/2	.56	2.63	8.88	–	3.75	–	–	.38	16.0
SR830⑥		6.00	1.69	1.19	1/2	.56	2.63	7.66	–	6.34	–	–	.38	12.3
ER833③⑨		6.25	1.84	1.88	1/2	.56	2.31	8.13	–	6.94	–	–	.38	20.2
SR844④		6 & 4.9	1.56	1.19	1/2	.56	2.75	7.50	–	4.00	–	–	.50	14.9
ER911		5.13	2.75	1.75	1/2	.56	3.50	7.13	–	5.50	–	–	.25	12.7
ER922		5.75	2.75	2.50	1/2	.56	3.50	7.56	–	5.50	–	–	.25	16.0
FR922		5.75	2.75	2.50	1/2	.56	3.50	7.75	–	5.50	–	–	.25	16.6
ER933		6.50	2.75	3.00	9/16	.62	3.50	8.00	–	5.50	–	–	.38	25.2
FR933		6.00	2.75	2.88	1/2	.56	3.50	7.81	–	5.50	–	–	.31	22.3
S951		4.38	2.00	1.63	3/8	.41	2.00	6.31	–	3.50	–	–	.38	14.7
SR1114		4.00	2.00	1.13	3/8	.41	2.00	5.38	–	3.50	–	–	.31	10.7
RS1131		6.00	1.69	1.63	1/2	.56	2.63	7.38	–	4.50	–	–	.38	18.4
1539②		4.00	.59	1.25	5/16	.34	1.88	5.16	–	3.00	–	–	.31	9.0
C2124⑤		4.38	1.50	1.63	1/2	.56	3.00	5.25	–	4.50	–	–	.38	15.8
A2124⑤		4.38	1.50	1.63	1/2	.56	3.00	5.25	–	4.50	–	–	.38	15.8
2126		4.00	2.00	1.13	3/8	.41	2.00	6.06	–	3.50	–	–	.25	7.0
A2178⑤		4.38	1.50	1.63	1/2	.56	3.00	5.62	–	4.50	–	–	.38	15.3
2180		4.75	2.00	1.63	1/2	.56	2.00	6.22	–	3.50	–	–	.38	11.7
2188②		3.63	1.13	1.00	1/2	.56	1.75	5.44	–	2.75	–	–	.31	8.8
A2198②		4.38	1.50	1.63	1/2	.56	3.00	6.00	–	4.50	–	–	.50	18.2
2858⑥		5.38	1.16	2.00	5/8	.69	1.75	6.75	–	6.38	–	–	.38	18.0
A2868		5.50	1.13	1.63	1/2⑧	.56	1.75	7.00	–	5.75	–	–	.38	14.1
3285⑥		6.50	1.00	2.06	3/4	.81	2.50	8.25	–	7.00	–	–	.50	40.0
3420		4.13	1.27	1.25	3/8	.41	1.50	6.13	–	2.75	–	–	.31	11.0
6826②		6.00	1.69	1.63	1/2	.56	2.63	7.19	–	3.88	–	–	.38	15.3
7539⑥		4.13	.81	1.13	1/2	.56	1.50	5.78	–	4.72	–	–	.31	21.0

All attachments are thru-hardened.

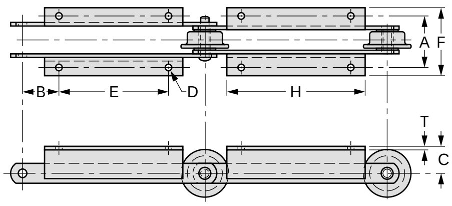
① All holes round and straight.
② A1/A2 and K1/K2 attachments are combined on the same side bar.
③ Full width attachment cannot be coupled consecutively.
④ These chains have offset sidebars.
⑤ Lower edge of sidebar is necked.
⑥ Full width attachment on outside only.
⑦ Not Central.
⑧ Holes are square.
⑨ Now known as ER Series chain. Previous prefix was S, ES or SX.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

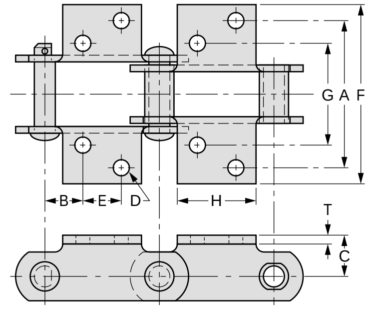
■ ENGINEERED STEEL – Attachments



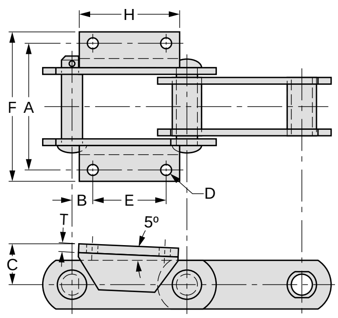
K2 Figure 1



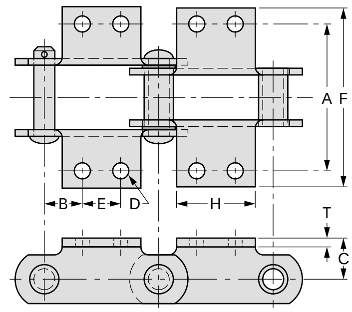
K2 Figure 2



K2 Figure 3



K2 Figure 4



K2 Figure 5

Dimensions are in inches. Weights are in pounds.

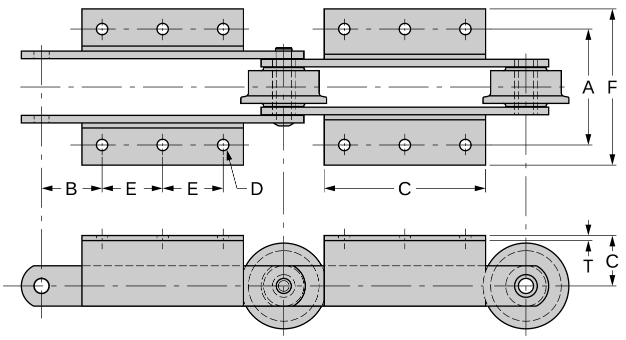
Rex Chain No.	Link-Belt Chain No.	A	B	C	D① Bolt Dia.	D① Bolt Hole	E	F	G	H	J	K	T	Wgt. Per Foot
K2 Figure 1														
	RS658	5.25	1.50	2.50	3/8	.44	3.00	6.83	–	4.38	–	–	.31	14.9
	RS886	4.19	.67	.81	5/16	.34	1.25	5.40	–	2.13	–	–	.19	4.6
	RS887	4.19	.67	.88	5/16	.38	1.25	5.10	–	2.13	–	–	.25	5.6
	S951	4.38	2.00	1.63	3/8	.44	2.00	5.80	–	4.13	–	–	.31	14.3
	S960	4.38	1.50	1.63	1/2	.56	3.00	6.04	–	4.38	–	–	.50	18.2
	S996	4.38	1.50	1.63	1/2	.56	3.00	5.72	–	5.50	–	–	.38	15.8
	S1113	4.12	1.27	1.25	3/8	.41	1.50	5.55	–	2.50	–	–	.31	11.0
	RS1114	4.00	2.00	1.13	3/8	.41	2.00	5.69	–	3.50	–	–	.31	10.7
	RS1116	4.00	2.00	1.13	3/8	.44	2.00	5.38	–	2.88	–	–	.25	7.0
	RS1131	6.00	1.69	1.63	1/2	.56	2.63	7.38	–	5.50	–	–	.38	18.4
	RS1539	3.97	.60	1.25	5/16	.34	1.88	5.13	–	2.75	–	–	.31	9.0
	S1796	4.38	1.50	1.63	1/2	.56	3.00	5.73	–	4.38	–	–	.38	15.3
	RS2047	4.38	1.50	1.75	1/2	.53	3.00	6.70	–	4.38	–	–	.38	32.0
	RS2188	3.62	1.13	1.00	1/2	.56	1.75	5.33	–	3.00	–	–	.31	8.8
	S4013	2.75	1.41	.81	5/16	.34	1.19	3.81	–	2.50	–	–	.19	4.4
	RS4019	2.75	1.25	.88	3/8	.41	1.50	3.77	–	2.50	–	–	.25	5.3
	RS6018	4.00	2.00	1.25	3/8	.44	2.00	5.23	–	3.00	–	–	.25	6.2
	RS6238	4.25	1.69	1.63	1/2	.56	2.63	5.75	–	5.50	–	–	.38	15.8
K2 Figure 2														
	RS911	5.13	2.75	1.75	1/2	.53	3.50	7.13	–	5.50	–	–	.25	12.7
	SS922	5.75	2.75	2.50	1/2	.53	3.50	7.75	–	5.50	–	–	.25	16.6
	SS927	5.75	2.75	2.50	1/2	.53	3.50	7.75	–	5.50	–	–	.25	16.0
	SS933	6.00	2.75	2.88	1/2	.53	3.50	8.82	–	5.50	–	–	.31	22.3
	S1211	5.13	3.00	1.75	1/2	.53	6.00	7.13	–	8.00	–	–	.25	11.7
	SS1222	5.75	3.00	2.50	1/2	.53	6.00	7.75	–	8.00	–	–	.25	15.2
	SS1233	6.00	3.00	2.88	1/2	.53	6.00	8.82	–	8.00	–	–	.31	20.3
K2 Figure 3														
	SBS844	6.00	1.63	1.50	1/2	.56	2.75	8.00	–	4.00	–	–	.50	14.9
K2 Figure 4														
	SBS4871	8.00	1.48	2.00	3/4	.81	6.00	10.44	–	8.00	–	–	.38	20.2
K2 Figure 5														
	SBS102B	5.32	1.13	1.00	3/8	.41	1.75	6.76	–	2.85	–	–	.38	9.0
	SBS110	5.32	2.13	1.00	3/8	.41	1.75	7.07	–	2.88	–	–	.38	8.6
	SBS111	6.25	1.22	1.50	1/2	.53	2.31	8.28	–	3.62	–	–	.38	15.2
	SBS131	4.12	.79	1.00	1/2	.53	1.50	5.44	–	2.62	–	–	.38	10.2
	SBS150+	7.50	1.65	1.88	1/2	.53	2.75	10.06	–	4.25	–	–	.50	23.0
	SBS188	4.19	.68	.81	5/16	.34	1.25	5.22	–	2.13	–	–	.25	5.8
	SBX856	6.31	1.88	1.88	1/2	.53	2.25	9.27	–	4.25	–	–	.50	23.0

All attachments are thru-hardened.

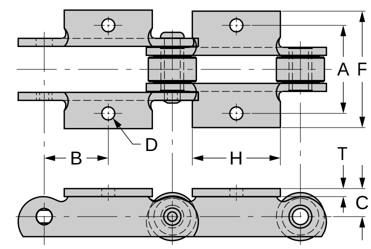
① All holes round and straight.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

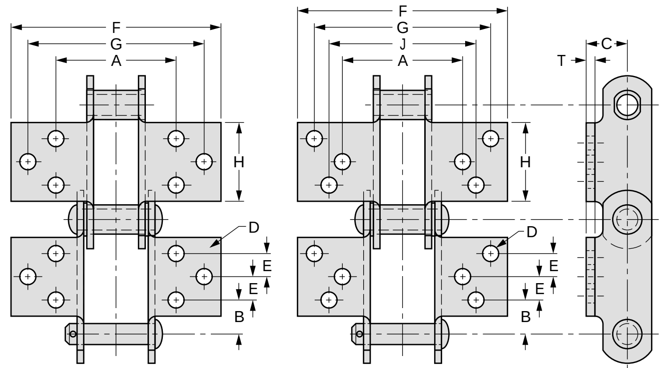
■ ENGINEERED STEEL – Attachments



K3 REX

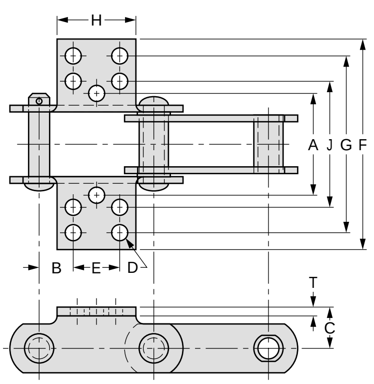


K3 on RS856
and SX150

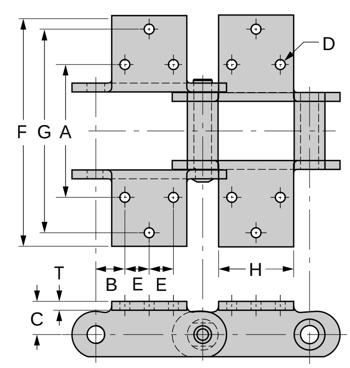


SBX150 PLUS SBX856

K3 LINK-BELT



K6



K11 and K17

Dimensions are in inches. Weights are in pounds.

Rex Chain No.	Link-Belt Chain No.	A	B	C	D① Bolt Dia.	D① Bolt Hole	E	F	G	H	J	K	T	Wgt. Per Foot
K3														
ER150③		7.50	1.66	1.88	1/2	.56	1.38	13.06	11.50	4.25	–	–	.50	26.2
ER856②③		6.56	1.63	1.88	1/2	.56	1.38	13.56	10.94	5.84	–	–	.50	26.9
E1211		5.13	3.00	1.75	1/2	.56	3.00	7.13	–	8.00	–	–	.25	11.7
ER1222		5.75	3.00	2.50	1/2	.56	3.00	7.75	–	8.00	–	–	.25	15.4
FR1222		5.75	3.00	2.50	1/2	.56	3.00	7.75	–	8.00	–	–	.25	15.2
ER1233		6.50	3.00	3.00	1/2	.56	3.00	9.00	–	8.00	–	–	.31	20.3
FR1233		6.50	3.00	3.00	1/2	.56	3.00	9.00	–	8.00	–	–	.31	20.3
ER1244		7.50	3.00	3.63	1/2	.56	3.00	9.75	–	8.00	–	–	.38	30.4
FR1244		7.50	3.00	3.63	1/2	.56	3.00	9.75	–	8.00	–	–	.38	30.4
FR1822		5.75	3.50	2.50	1/2	.56	5.50	7.75	–	14.00	–	–	.25	14.1
FR1844		7.50	3.50	3.63	1/2	.56	5.50	10.69	–	14.00	–	–	.38	29.0
	SBS150+	7.50	1.65	1.88	1/2	.56	1.34	13.59	11.50	4.25	–	–	.50	26.9
	SBX856	6.56	1.63	1.88	1/2	.56	1.38	13.27	12.06	4.25	10.98	–	.50	27.3
K6														
	SBX 856	6.56	1.62	1.88	1/2	.56	2.76	10.94	10.94	4.25	6.94	–	.50	27.3
K11														
BR2111		4.75	3.50	1.63	5/8	.69	–	6.88	–	3.00	–	–	.38	9.58
K17														
531		4.00	2.00	1.31	1/2	.56	–	5.44	–	1.50	–	–	.38	10.6

All attachments are thru-hardened.

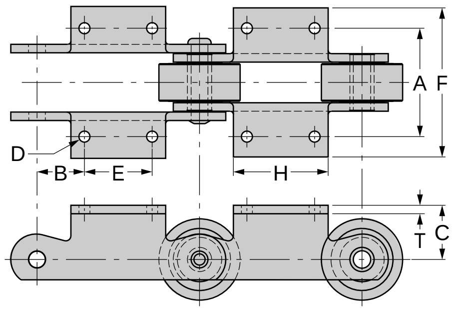
① All holes round and straight.

② Full width attachment cannot be coupled consecutively.

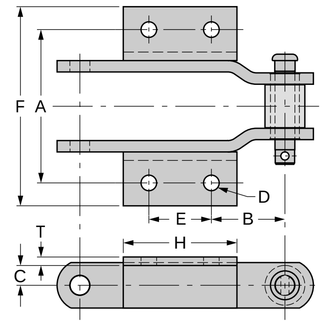
③ Now known as ER Series chain. Previous prefix was RS or SX.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

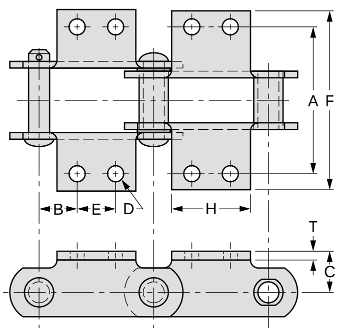
■ ENGINEERED STEEL – Attachments



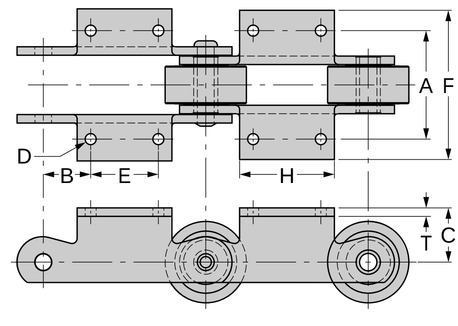
K20, K22, K23, K24 REX, K25



K21



K24 LINK-BELT



K26, K27 and K32

Dimensions are in inches. Weights are in pounds.

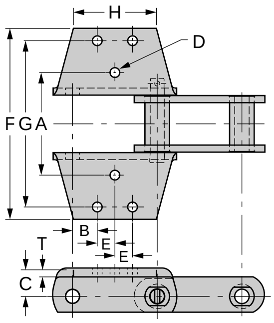
Rex Chain No.	Link-Belt Chain No.	A	B	C	D① Bolt Dia.	D① Bolt Hole	E	F	G	H	J	K	T	Wgt. Per Foot
K20														
2183		4.00	1.75	2.00	3/8	.41	2.50	5.69	–	3.50	–	–	.31	13.7
F2183		4.00	1.75	2.00	3/8	.41	2.50	5.69	–	3.50	–	–	.31	14.9
K21														
R2342		6.75	3.13	1.25	5/8	.69	2.75	8.38	–	5.00	–	–	.38	15.8
K22														
ER102.5②⑤		5.31	1.14	1.13	1/2	.56	1.75	6.78	–	4.56	–	–	.38	14.5
ER102B⑤		5.31	1.13	1.13	1/2	.56	1.75	6.94	–	4.25	–	–	.38	9.0
ER111②		6.25	1.22	1.50	1/2	.56	2.31	7.69	–	5.22	–	–	.38	15.2
RR542		5.38	2.13	1.00	1/2	.56	1.75	6.81	–	7.50	–	–	.31	6.5
S188		3.63	.69	.81	5/16	.34	1.25	5.13	–	2.13	–	–	.25	5.8
ES833②		5.75	1.25	1.88	1/2	.56	3.50	7.19	–	7.44	–	–	.38	20.2
A2800		5.19	2.38	2.19	5/8	.69	3.25	7.18	–	5.00	–	–	.50	26.2
K23														
ER856②⑤		6.31	1.88	1.88	1/2	.56	2.25	9.50	–	6.91	–	–	.50	21.0
K24														
ER856②⑤		7.25	1.75	1.88	5/8	.69	2.50	9.38	–	6.91	–	–	.50	27.5
ER956②		7.25	1.75	1.88	5/8	.69	2.50	9.50	–	6.91	–	–	.50	29.0
1670		4.06	2.00	1.38	3/8	.41	2.00	5.31	–	3.50	–	–	.31	11.2
C2848②		5.38	1.13	2.00	5/8	.69	1.75	7.13	–	6.06	–	–	.38	15.3
3285②		6.50	1.00	2.06	3/4	.81	2.50	8.25	–	7.00	–	–	.50	23.0
A4539②		4.13	.78	1.13	1/2	.56	1.50	5.53	–	4.56	–	–	.31	10.0
	SBX 856	7.25	1.75	1.88	5/8	.69	2.50	9.27	–	4.25	–	–	.50	23.0
K25														
ER110⑤		5.31	2.13	1.13	3/8	.41	1.75	6.44	–	3.50	–	–	.38	8.6
ER131⑤		4.13	.78	1.13	1/2	.56	1.50	5.59	–	2.50	–	–	.38	10.2
ER922		5.75	3.00	1.63	1/2	.56	3.00	7.56	–	5.00	–	–	.25	14.9
A2124③		4.88	1.75	1.63	1/2	.56	2.50	6.50	–	4.50	–	–	.38	16.8
A2178③		4.88	1.75	1.63	1/2	.56	2.50	6.50	–	4.50	–	–	.38	16.3
A2198③		4.88	1.75	1.63	1/2	.56	2.50	6.50	–	4.50	–	–	.50	19.2
K26														
X3433④		5.31	1.13	1.13	1/2	.56	1.75	6.94	–	4.25	–	–	.38	11.1
K27														
ER833②⑤		6.00	1.69	1.88	1/2	.56	2.63	6.13	–	7.16	–	–	.38	20.2
K32														
R2823		5.25	.06	1.00	3/8	.41	1.69	6.25	–	2.75	–	–	.25	5.9

All attachments are thru-hardened.

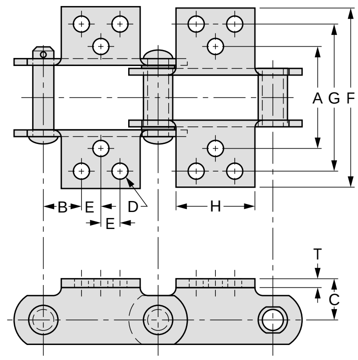
① All holes round and straight.
② Full width attachment cannot be coupled consecutively.
③ Lower edge of sidebar is necked.
④ Full width attachment on outside only.
⑤ Now known as ER Series chain. Previous prefix was S, ES or RS.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

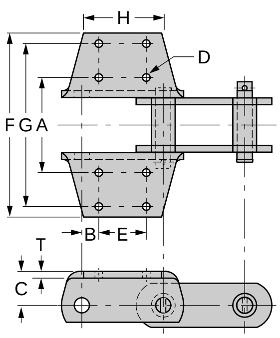
■ ENGINEERED STEEL – Attachments



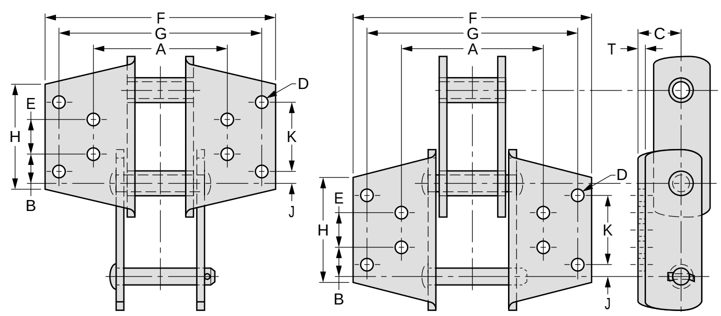
K35 REX



K35 LINK-BELT



K44 REX



K44 LINK-BELT

Dimensions are in inches. Weights are in pounds.

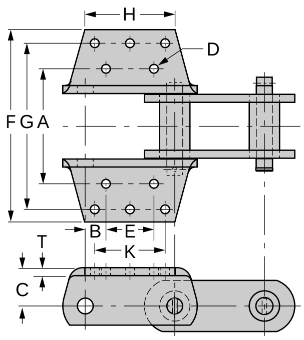
Rex Chain No.	Link-Belt Chain No.	A	B	C	D[1] Bolt Dia.	D[1] Bolt Hole	E	F	G	H	J	K	T	Wgt. Per Foot
K35														
ER856[2][3]		7.25	1.75	1.88	5/8	.69	1.25	13.56	11.75	5.84	–	–	.50	26.9
	SBX856	7.50	1.75	1.88	5/8	.69	1.25	13.27	11.75	4.25	–	–	.50	27.3
8 HOLES – K44														
ER857[2]		7.00	1.25	2.50	1/2	.56	3.50	14.00	12.00	5.50	1.25	3.50	.50	38.0
ER859[2]		9.00	1.63	3.00	5/8	.69	2.75	15.00	13.00	5.92	.75	4.50	.63	59.0
ER958		7.00	1.25	2.50	1/2	.56	3.50	13.68	12.00	5.75	1.25	3.50	.50	40.0
K44														
	SBX2857	7.00	1.25	2.50	1/2	.56	3.50	13.50	12.00	5.31	1.25	–	.50	42.0
	SBX2859	9.00	1.63	3.00	5/8	.69	2.75	14.82	13.00	5.87	.75	4.51	.63	59.3

All attachments are thru-hardened.

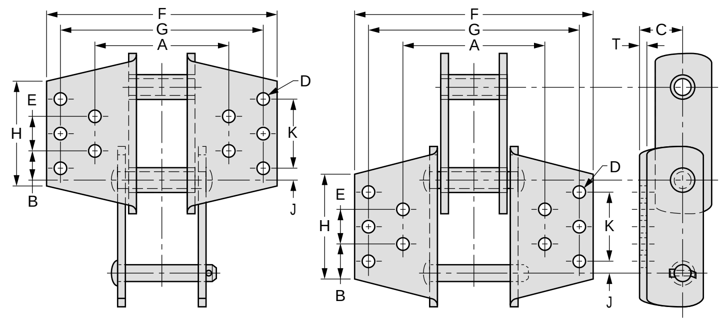
[1] All holes round and straight.
[2] Full width attachment cannot be coupled consecutively.
[3] Now known as ER Series chain. Previous prefix was RS.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

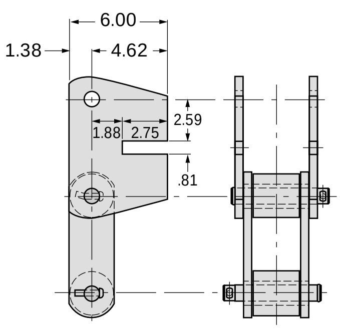
■ ENGINEERED STEEL – Attachments



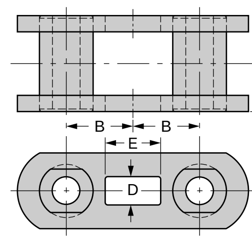
K443 REX



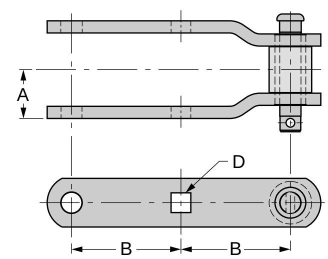
K443 LINK-BELT



M2



M6



M14

Dimensions are in inches. Weights are in pounds.

Rex Chain No.	Link-Belt Chain No.	A	B	C	D① Bolt Dia.	D① Bolt Hole	E	F	G	H	J	K	T	Wgt. Per Foot
10 HOLES – K443														
ER864②		9.00	1.63	3.00	5/8	.69	3.75	15.00	13.00	7.00	.75	5.50	.63	55.0
ER984		9.00	1.62	3.00	5/8	.69	3.75	14.88	13.00	7.32	.75	5.50	.62	58.0
K443														
	SBX 2864	9.00	1.63	3.00	5/8	.69	3.75	15.04	13.00	6.88	.75	5.50	.63	56.7
M2														
C9856		Refer to Drawing for Dimensions												
M6/M06														
270		.88	1.31	–	21/32	Slots	1.28	–	–	–	–	–	–	6.4
1536		1.11	1.53	–	21/32	Slots	1.28	–	–	–	–	–	–	8.7
7774		.88	1.30	–	21/32	Slots	1.28	–	–	–	–	–	–	6.8
M14														
1036		1.39	3.00	–	9/16③	Slots	–	–	–	–	–	–	–	4.7
1039		1.39	4.50	–	9/16③	Slots	–	–	–	–	–	–	–	4.2
R2342		2.00	4.50	–	3/4③	Slots	–	–	–	–	–	–	–	9.0
RR2397		1.90	6.00	–	7/8③	Slots	–	–	–	–	–	–	–	9.3
R2405		2.00	4.50	–	7/8③	Slots	–	–	–	–	–	–	–	9.4
R2614		2.66	6.00	–	1 1/4③	Slots	–	–	–	–	–	–	–	23.4

All attachments are thru-hardened.
① All holes round and straight.
② Full width attachment on outside only.
③ Holes are square.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

ENGINEERED STEEL DRIVE CHAINS

Designed to give you superior performance, even under the most punishing conditions

Rugged, all-steel Rex® and Link-Belt® drive chains are built to perform at levels other drive chains can't match. Rexnord began manufacturing drive chain in the late 1800's and has been a leader in drive chain innovation since. Today's chains are a product of over a century of improved product design, testing and application experience. No one else in the industry comes close to our level of expertise.

More built-in features for your money

- Engineered interference fit construction designed to increase chain fatigue life and wear life.
- State-of-the-art heat treatment of all chain components to assure longer chain life. Rexnord has developed most of its own heat treating equipment in-house for better control and to precisely fit the heat treat needs of drive chain pins and bushings.
- Pins, bushings and rollers are manufactured to exact tolerances. Sidebars and sidebar holes are punched using the latest punch press technology to give superior fit and finish.
- Selectively Induction Hardened (SIH) pins, available in many of our drive chains, afford you unmatched toughness and wear resistance. Ideal for tough, shock loaded applications.
- Stocked in the largest network of warehouses in the industry. All backed up with extensive engineering and sales support.

Smooth and precise, yet rugged. Our drive chains are able to handle applications from 1 to 300 plus horsepower.

Wear life is directly affected by the hardness and case depth of the wearing components

- Selectively Induction Hardened pins (the pin with the crescent-shaped hardened area) are heat treated only on the portion of the pin that experiences wear. The balance of the pin is left in a tough state to withstand shock loading.
- Chain rollers, sidebars and bushings are all heat treated for wear resistance and strength.
- Pins hardened by Rexnord's advanced induction hardening process feature extremely hard wear surfaces and deep case depths as shown below.

CIH pins (right and bottom) offer very hard and deep case depths around the full circumference of the pin. SIH pins (upper left) are hardened only on the load bearing surface so shock can be better absorbed by the back of the pin.

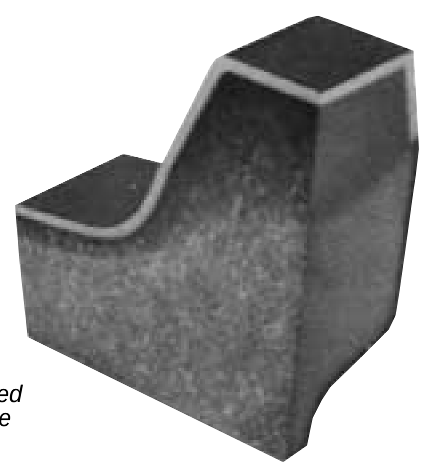
Ideal replacement for gearing, multiple strand roller chain, and belt drives

- Requires less precision and expense than gearing – center distances are more flexible and adjustable.
- A single strand of Rex or Link-Belt drive chain can frequently replace multiple strand roller chain drives, thus simplifying maintenance. And unlike multiple strand chains, our drive chains run on simple flame-cut sprockets.
- Easily adjustable. The offset link design allows one link at a time to be taken out or inserted. No special connector links are required.
- Lower overhung loads than belt drives due to the elimination of pre-tensioning.

Rexnord chains run best on Rexnord sprockets

Although our drive chains may be run on commonly available flame cut sprockets, they give better long term performance when matched with our sprockets. Our sprockets are flame cut and induction hardened to give hard, deep case depths.

Most competitive sprockets have only a fraction of the case depth. Once the case depth is worn through, sprocket wear is rapid and chain interaction is affected, thus causing greater chain stress.



Proprietary induction hardening process gives every heat treated sprocket superior case depths and hardness.

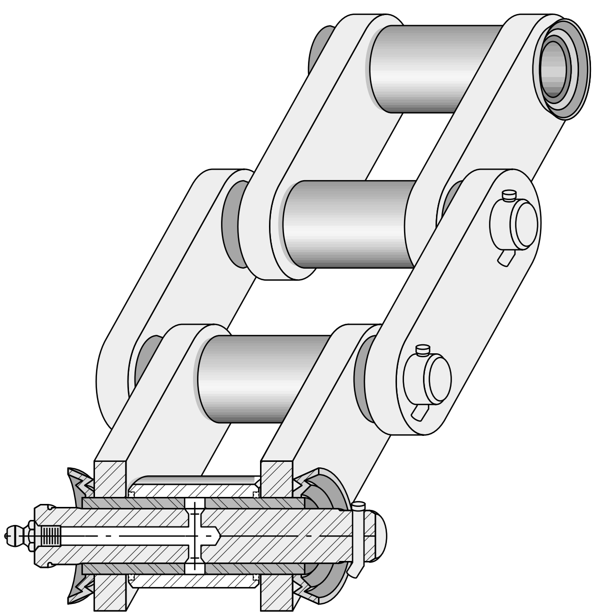
3100 SERIES DRIVE CHAINS

Longer life and durability than their ANSI roller chain equivalents

The 3100 Series drive chains are designed with all the features of our standard drive chains. But, unlike the others, they operate on standard ANSI roller chain sprockets. They may also be used to replace ANSI roller chains of the same pitch.

The 3100 Series chains handle the misalignment and contamination found in industrial applications better than roller chain.

Sealed Joint Drive Chains



Rexnord engineers have developed a proprietary method of sealing both the roller and bushing area of ***straight sidebar*** *chains. Keeps factory lubrication in and contamination out! Patent pending.*

Rexnord has had excellent success with its line of sealed joint elevator chains and is now using that technology to create sealed joint drive chains. Sealed joint drive chains are a new innovation. Please contact Rexnord to determine if this product is right for your application and if the chain you want is available.

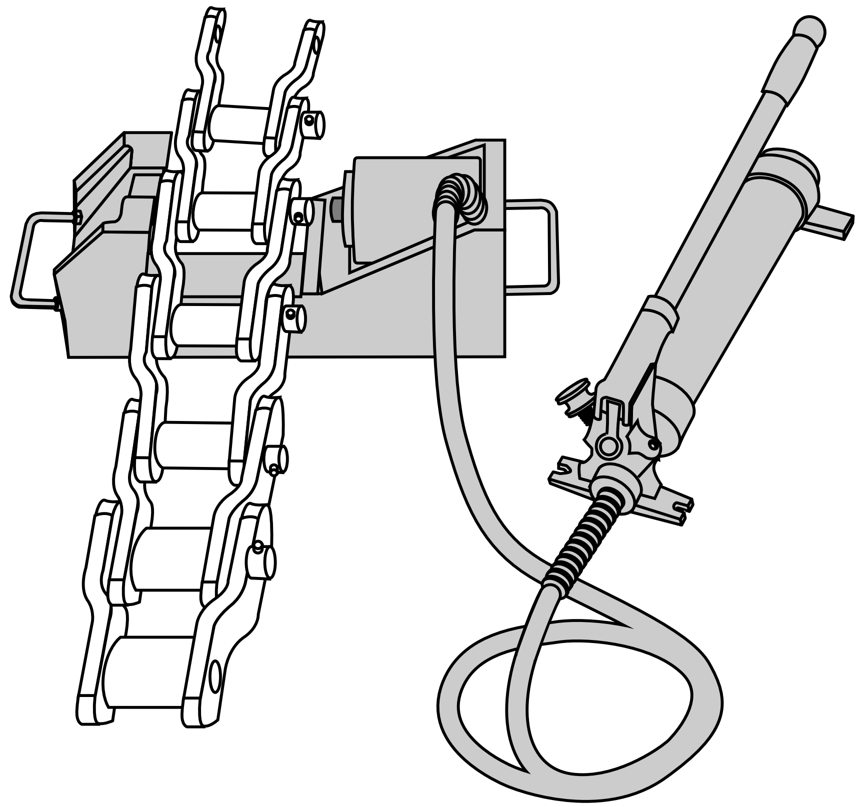
- Factory installed grease is trapped in the joint to reduce break-in wear and provide constant lubrication during the life of the seal.
- Contaminants are sealed out to eliminate their abrasive or corrosive effects.

DRIVEMASTER® ASSEMBLY TOOL

The quick and safe way to assemble and disassemble Rex® or Link-Belt® drive chain

Easily assemble and disassemble our drive chains with this portable tool. An optimum amount of interference fit has been used to assemble this chain at the factory – Drivemaster allows you to maintain this optimum press fit in the field.

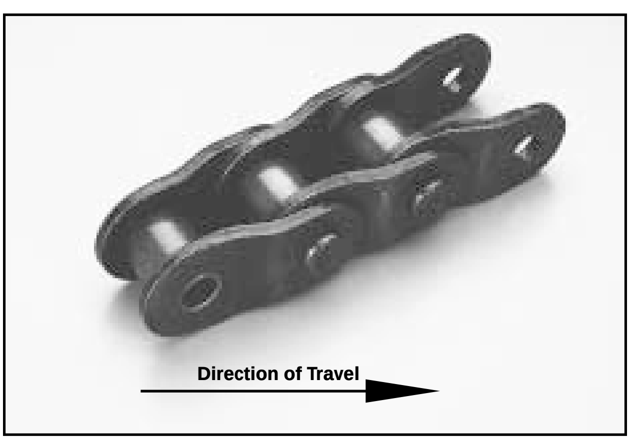
- Specify the chain or chains to be assembled and disassembled.
- Each Drivemaster comes with one adapter set to accept the chain or chains you specify when ordering the unit. Different chains require different adapter sets.
- Drivemaster can accept many other Rexnord chains such as welded steel and general engineered class chains. Again, specify the type of chains you anticipate working with.



Easy-to-use Drivemaster assembly tool reduces down-time, maintains interference fit and eliminates cumbersome assembly/disassembly methods.

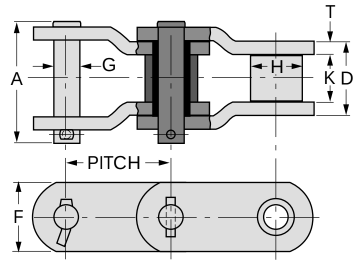
Application Assistance and Wear Analysis

- Rexnord engineers are always available for drive chain selection and application consultation.
- Rexnord also provides drive chain wear and failure analysis. This service is designed to help you get the most our of your Rex or Link-Belt chains.



Remember Direction of Travel!

The general rule for direction of chain travel for offset drive chains is as follows: the narrow or roller end of the link in the tight side strand should always face the smaller sprocket, regardless of whether this is a driver or driven.



OFFSET

Properties

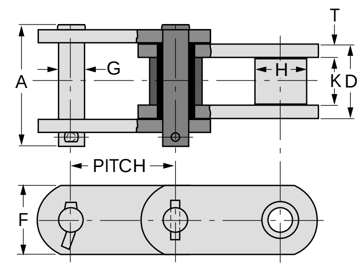
TH	Thru-Hardened
CARB	Carburized
CIH	Circumferentially Induction Hardened
SIH	Selectively Induction Hardened

Dimensions are in inches. Strengths, loads and weights are in pounds.

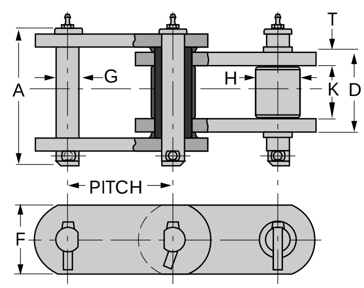
Rex Chain No.	Link-Belt [1] Chain No.	Average Pitch	Rated Working Load [2]	Minimum Ultimate Strength, Lbs. x 10^3	Over-All Width A	Bushing [3] Length D	Sidebars [4] Thickness T	Sidebars [4] Height F	Pins Diam. Properties G	Roller [5] Diameter H	Between Sidebars K	Average Weight Per Foot	Sprocket [6] Unit No.
Offset Sidebar Drive Chains													
R362	**ROA620**	1.654	1,650	14	2.03	1.25	0.13	1.13	0.38-CARB	0.88	0.97	2.0	62
R432	**RO622**	1.654	2,100	19	2.28	1.38	0.19	1.13	0.44-TH	0.88	0.97	3.5	62
R3112	–	2.000	3,400	38	2.91	1.75	0.25	1.63	0.56-TH	1.13	1.22	6.4	3112
B3113	**ROA3160S**	2.000	3,900	44	3.13	1.88	0.31	1.63	0.59-TH	1.13	1.19	7.3	3112
R506	**RO770** [7]	2.300	1,600	10	2.09	1.25	0.16	1.00	0.38-CARB	0.75	0.88	2.2	506
R514	**ROA2010**	2.500	4,650	57	3.50	2.13	0.31	1.63	0.63-SIH	1.25	1.44	7.8	514
A520	–	2.563	2,700	24	2.69	1.56	0.25	1.25	0.50-CARB	1.13	1.00	4.5	520
B578	**RO578** [7]	2.609	1,800	10	2.27	1.38	0.16	1.00	0.38-CARB	0.88	1.03	2.3	78
R778	**ROA881**	2.609	2,300	18	2.41	1.50	0.19	1.13	0.44-CARB	0.88	1.06	2.3	78
R588	**ROA882**	2.609	2,450	19	2.67	1.63	0.25	1.13	0.44-CARB	0.88	1.06	3.8	78
B508H	–	2.620	2,400	19	2.63	1.56	0.25	1.13	0.44-CARB	1.00	1.06	3.8	508
AX1568	**ROA2512**	3.067	6,000	77	3.90	2.31	0.38	2.25	0.75-SIH	1.63	1.50	12.1	1568
1030	**ROA40**	3.075	4,650	27	3.50	2.13	0.31	1.50	0.63-CARB	1.25	1.44	6.8	1030
R1033	**ROA1031**	3.075	4,650	39	3.50	2.13	0.31	1.50	0.63-SIH	1.25	1.44	6.8	1030
R1035	**ROA1032**	3.075	4,650	52	3.50	2.13	0.31	1.63	0.63-SIH	1.25	1.44	7.2	1030
R1037	**ROA40 Hyper**	3.075	5,100	57	3.75	2.25	0.38	1.75	0.65-SIH	1.25	1.44	8.6	1030
Champ. 3	–	3.075	5,100	57	3.85	2.25	0.38	1.69	0.65-SIH	1.25	1.44	8.3	1030
R0-6706	–	3.075	9,000	60	4.55	2.94	0.38	2.00	0.88-CIH	1.75	2.19	14.0	R06706
3125	**ROA3125 Hyper**	3.125	6,600	84	4.00	2.38	0.38	2.25	0.80-SIH	1.63	1.56	12.3	3125
3125-2	**ROA3125-2 Hyper**	3.125	13,200	168	7.19	2.38	0.38	2.25	0.80-TH	1.63	1.56	24.6	D31
RX238	**ROA2814**	3.500	7,600	106	4.50	2.50	0.50	2.25	0.88-SIH	1.75	1.44	15.8	238
AX1338	–	3.625	9,200	124	4.98	2.81	0.56	2.50	0.94-SIH	2.13	1.63	20.6	AX1338
R0-6214	–	4.000	16,400	125	5.68	3.75	0.50	2.75	1.25-SIH	2.25	2.75	25.0	R06214
A1236	–	4.063	6,000	73	3.91	2.31	0.38	2.00	0.75-SIH	1.75	1.56	10.4	A1236
1240	**ROA124**	4.063	9,000	51	4.88	2.94	0.50	2.00	0.88-SIH	1.75	1.88	12.3	1240
1244	–	4.063	9,000	91	4.88	2.94	0.50	2.13	0.88-SIH	1.75	1.88	13.0	1240
R1248	**ROA1242**	4.063	9,000	102	4.88	2.94	0.50	2.25	0.88-SIH	1.75	1.88	15.7	1240
RX1245	**ROA3315**	4.073	10,000	124	5.19	3.06	0.56	2.38	0.94-SIH	1.78	1.88	18.7	1240
X1343	–	4.090	10,700	137	5.25	3.06	0.56	2.75	1.00-SIH	1.88	1.88	21.5	X1343
X1345	–	4.090	10,700	137	5.25	3.06	0.56	2.75	1.00-TH	2.00	1.88	22.8	X1345
X1351	–	4.125	12,500	166	5.38	3.19	0.56	2.75	1.13-SIH	2.25	2.00	24.8	X1351
RO635	**ROA3618**	4.500	12,200	171	5.38	3.19	0.56	3.00	1.10-CIH	2.25	2.00	22.0	635
A1204	–	5.000	13,500	169	5.63	3.44	0.56	3.00	1.13-TH	2.50	2.25	25.5	1204
RO1205	–	5.000	16,400	196	5.93	3.75	0.56	3.25	1.25-CIH	2.50	2.56	28.5	1207
RX1207	**ROA4020**	5.000	17,500	223	6.31	4.00	0.63	3.50	1.25-SIH	2.50	2.69	34.0	1207
RO1315	**ROA5035**	5.000	20,000	250	6.63	4.06	0.75	3.50	1.38-CIH	2.50	2.50	37.0	RO1315
RO1355	–	5.000	20,400	250	6.81	4.25	0.75	3.75	1.38-CIH	2.75	2.69	43.6	RO1355
RO1356	**RO5542**	5.500	23,600	300	7.25	4.50	0.75	4.00	1.50-CIH	3.00	2.94	45.6	RO1356
1301	**ROA5738** [7]	5.750	23,000	299	7.09	4.38	0.69	4.00	1.50-TH	3.00	2.94	45.0	1301
RO1306/ ROS1306 [8]	**ROA4824/ ROB4824**	6.000	23,600	287	7.25	4.50	0.75	4.00	1.50-CIH	3.00	2.94	45.0	1306
RX9506H	–	6.000	23,600	300	7.25	4.50	0.75	4.75	1.50-SIH	3.00	2.94	47.2	1306
X1311	**RO6555** [7]	6.500	30,600	412	7.97	5.00	0.88	5.00	1.75-SIH	3.50	3.19	77.9	X1311
X1307	–	7.000	30,600	385	7.97	5.00	0.88	5.00	1.75-SIH	3.50	3.19	66.0	1307

[1] Link-Belt versions no longer available. Unless otherwise noted, Rex version is identical to the Link-Belt version. Sections and links may be interchanged.
[2] Use pages 103-108 for drive chain selection procedures using selection tables. For alternate selection method using 'rated working load,' see page 122.
[3] All bushings are carburized except for RO1315, RO1355, RO1356, ROS1306, & RX95506H, which are thru-hardened.
[4] All sidebars are thru-hardened except for R506, B578, 1030, 1240.
[5] All rollers are thru-hardened.
[6] Fabricated steel sprockets are recommended.
[7] Functional equivalent, but not physicall identical to, Rex equivalent shown.
[8] For track crawler drives with heavy shock loads, select ROS 1306

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.



STRAIGHT



SEALED JOINT

Properties

TH	Thru-Hardened
CARB	Carburized
CIH	Circumferentially Induction Hardened
SIH	Selectively Induction Hardened

Dimensions are in inches. Strengths, loads and weights are in pounds.

Rex Chain No.	Link-Belt [1] Chain No.	Average Pitch	Rated Working Load [2]	Minimum Ultimate Strength, Lbs. x 10^3	Over-All Width A	Bushing [3] Length D	Sidebars [4] Thickness T	Sidebars [4] Height F	Pins Diam. Properties G	Roller [5] Diameter H	Between Sidebars K	Average Weight Per Foot	Sprocket [6] Unit No.
Straight Sidebar Drive Chains													
6425R	–	2.500	6,900	78	3.81	2.27	0.38	2.38	0.88-CIH	1.56	1.48	12.7	645
X345	**RS3017** [7]	3.000	10,000	124	5.22	3.06	0.56	2.38	0.94-SIH	1.78	1.88	21.8	X345
X1353	–	4.090	16,000	205	5.81	3.50	0.63	3.00 [8]	1.31-SIH	2.63	2.18	32.6	X1353
X1365	–	6.000	30,600	407	7.97	5.00	0.88	5.00	1.75-SIH	3.50	3.19	68.0	X1365
A1309	**RO7080** [7]	7.000	37,150	606	8.00	5.00	0.88	6.00	2.13-TH	4.50	3.13	89.6	A1309
3100 Series Offset Sidebar Chains													
3120CM	**ROA3120**	1.500	2,100	28	2.28	1.38	0.19	1.81	0.44-TH	0.88	0.97	4.0	ANSI #120
3140CM	**ROA3140**	1.750	2,500	39	2.50	1.44	0.22	1.63	0.50-TH	1.00	0.97	5.2	ANSI #140
3160CM	**ROA3160**	2.000	3,450	50	2.91	1.75	0.25	1.88	0.56-TH	1.13	1.19	6.7	ANSI #160
3180	–	2.250	4,800	63	3.31	2.00	0.28	2.13	0.69-CIH	1.41	1.38	9.6	ANSI #180
Sealed Joint Drive Chains													
SJLR1037	–	3.075	5,100	57	4.37	2.56	0.38	1.88	0.65-SIH	1.25	1.44	9.1	1030
SJLR1245	–	4.073	10,000	124	5.78	3.38	0.56	2.38	0.94-SIH	1.78	1.88	19.0	1240

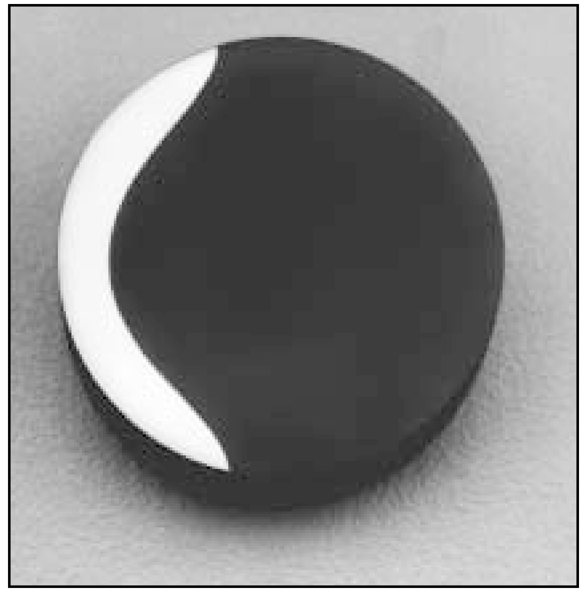
[1] Link-Belt versions no longer available. Unless otherwise noted, Rex version is identical to the Link-Belt version. Sections and links may be interchanged.
[2] Use pages 103-108 for drive chain selection procedures using selection tables. For alternate selection method using 'rated working load,' see page 122.
[3] All bushings are carburized except for RO1315, RO1355, RO1356, ROS1306, & RX95506H, which are thru-hardened.
[4] All sidebars are thru-hardened except for R506, B578, 1030, 1240.
[5] All rollers are thru-hardened.
[6] Fabricated steel sprockets are recommended.
[7] Functional equivalent, but not physicall identical to, Rex equivalent shown.
[8] Inner sidebars 3.50

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

INDUSTRY'S HIGH PERFORMANCE WELDED STEEL CHAINS

Rex® Welded Steel chains are the material handling industry's choice for the most demanding applications. Our customers know that Rex chains provide superior strength and durability for extended wear life and trouble free service.

Rexnord Corporation, manufacturers of Rex chain for over 100 years, is the leader in the chain industry. Our years of experience provide unique expertise in material selection, heat treatment and chain design for improved chain strength and long wear life. What this means to you is superior value and greater productivity.



A cross section of a selectively induction hardened WHX pin – the crescent area is super-hardened to dramatically lengthen pin wear life. The balance of the pin material is left in the thru-hardened condition to give the pin excellent toughness.

THE REX WELDED STEEL STORY

A lot goes into a Rex chain that is not visible on the surface. The precision of a diameter or the case depth of an induction hardened part can only be realized after an in-depth analysis. Rexnord regularly tests Rex and competitive chains and it is clear, all welded chains are not created equally. What follows is the story of how we make Rex welded steel chains to be the best – anywhere in the world!

Maximizing Chain Wear Life Through Superior Heat Treatments

Chain wear life is directly affected by the hardness of the wearing components. Quite simply, the harder the parts, the longer the wear life. Rexnord's heat treatment technology exceeds that of other chain manufacturers.

Computer controlled furnaces, and Rexnord designed induction heat treating equipment, produce chain components with the industry's hardest possible wearing surfaces and yet still provide the necessary toughness to resist shock loads. In addition, unique Rexnord process controls provide chains with consistent wear life. This allows users to predict the wear life of their chains, allowing for chain replacement as part of their preventative maintenance programs. In the end, superior chain eliminates costly and unexpected down time.

All Rex welded steel chains come standard with "premium" heat treatments. The photo (top right) shows a cross section of a Selectively Induction Hardened (SIH) chain pin. This exclusive Rexnord process involves super hardening only the portion of the chain rivet that wears as the chain articulates over the sprockets. The remainder of the rivet is held at thru-hardening levels to assure chain toughness and resistance to breakage. This treatment is standard on WHX Narrow Mill chains. Other manufacturers of welded chain compromise their design, either sacrificing component hardness or resistance to overloads.

Rex Wide Mill heat treated chains (WDH) come standard with thru-hardened rivets, sidebars and barrels. Other manufactures short-change wear life by not hardening the barrels – significantly reducing chain wear life. Only Rex Wide Mill chains have thru-hardened barrels!

The table below illustrates the importance of superior heat treatment. By using the table, one can predict the increase in wear life by upgrading the heat treatment. As an example, increasing hardness from 35RC to 60RC could provide up to double the chain life!

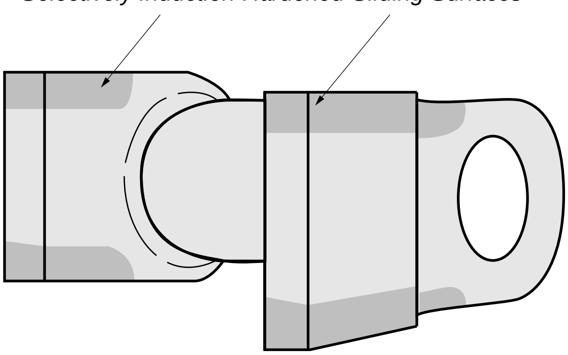
Importance of Heat Treatment

Heat Treatment	Not Hardened	Thru-Hardened	Induction Hardened
Hardness RC (typ)	20	35	60
Relative Wear Life*	1	2	4

**Dry operating conditions*

Maximizing Chain Wear Life – (Cont'd.)

The Rexnord story continues with a variety of heat treating options to further extend wear life and increase your plant's productivity. The graphic below represents a chain link with Selectively Induction Hardened (SIH) sidebars. This process can be applied to chain links to greatly improve sliding wear. If you regularly replace chains due to sidebar wear, you should select SIH sidebars. This is a very cost effective way to increase your chain life.



Selectively Induction Hardened sidebars can be ordered to give greater resistance to abrasive sliding wear, thus providing greater sidebar life.

To extend wear life in especially corrosive applications, Rex welded steel chains can be provided with a variety of plating options or with stainless steel components. Contact Rexnord for application assistance. Let us put 100 years of experience to work for you!

MAXIMIZING CHAIN STRENGTH

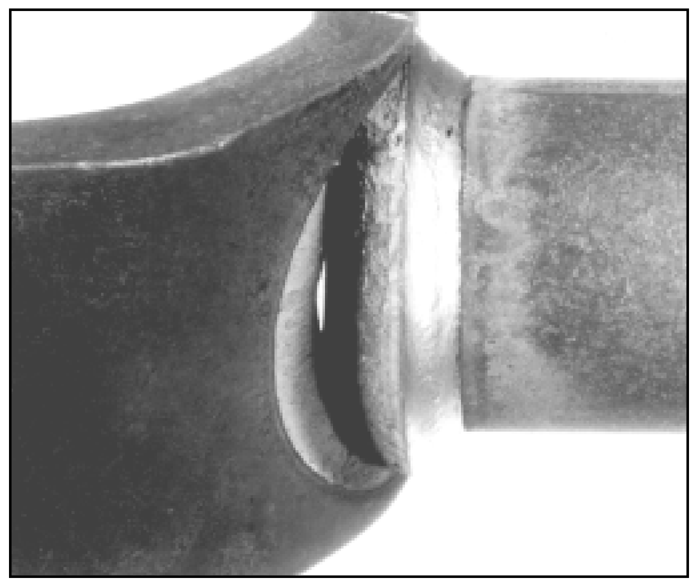
A key factor leading to the durability of Rex welded steel chains is superior fatigue strength.

Rex Narrow Series welded steel chains have tightly controlled, interference fits between the pin and chain sidebar hole. This interference fit creates a beneficial residual stress in the sidebar to greatly increase the fatigue life of the chain. The chains have a "stepped" (3 diameter) pin to ease assembly and protect the integrity of the interference fit.

Competitive chains with poorly controlled interference fits (or with clearance fits!) have much lower fatigue strength. Low fatigue strength chains are subject to unexpected chain failures after a chain sees many cycles of loading.

Another key factor in providing maximum chain strength is proper welding, stress relieving, and heat treatment. Improper controls and processes can lead to failures around the weld either from improper weld penetration or by causing high hardness zones that result in brittle failures. Rexnord uses the latest technology in process and quality controls to assure proper weldments.

Rex welded links are regularly tested during each manufacturing lot to assure our process is in control, producing high quality welds. The photo below shows a welded steel link that has been destructively tested to assure the strength and penetration of the weld. As demonstrated in the photo, the chain material failed first, not the weld. This demonstrates a high quality weld.



Rexnord's quality assurance program requires welded steel links to be tested for weld strength and penetration.

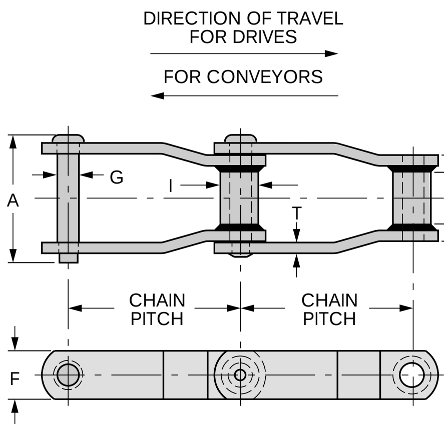
MAXIMIZING PLANT PRODUCTIVITY

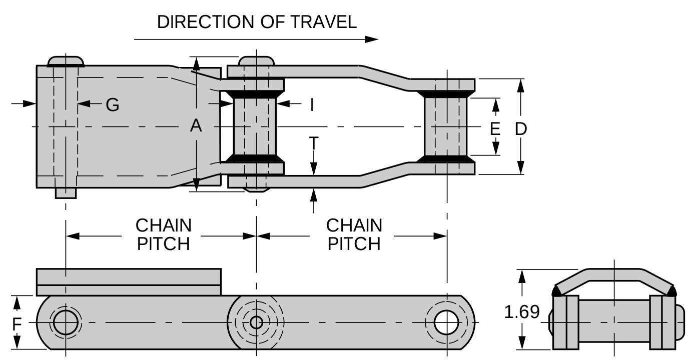
Rexnord Corporation brings many years of application and design experience with it to your plant in the form of chain, bearings and other fine power transmission components. Our sales people and application engineers are eager to work with your organization to maximize the productivity of your plant. Please call us for any assistance we might offer. We look forward to working with you.

■ WELDED STEEL CHAINS

NARROW SERIES WR, WH, WHX AND WSX

- WR chains have only thru-hardened rivets.
- WH chains have all parts thru-hardened.
- WHX chains have thru-hardened parts and selectively induction hardened rivets as standard.
- WSX chains have all stainless steel construction. Sidebars are 300 series; pins and barrels are precipitation hardened stainless.
- Riveted construction is standard. Pin and cottered construction can be furnished on a made-to-order basis.





NARROW SERIES

Dimensions are in inches. Strengths, loads and weights are in pounds.

Rex Chain No.	Average Pitch	A	E	Sidebars Thickness T	Sidebars Height F	Pins G	Barrel D	Barrel I	Minimum Ultimate Strength, Lbs. x 10^3	Rated Working Load	Average Weight Per Foot	Sprocket Unit① No.
WR78	2.609	2.98	1.12	0.25	1.13	0.50	2.00	0.88	21,000	3,000	4	78
WH78	2.609	2.98	1.12	0.25	1.13	0.50	2.00	0.88	25,500	3,500	4	78
WHT78	2.609	2.98	1.12	0.25	1.13	0.50	2.00	0.88	25,500	3,500	6	78
WH82	3.075	3.25	1.25	0.25	1.25	0.56	2.25	1.22	29,500	4,400	6	103
WH9103HD	3.075	3.81	1.25	0.38	1.50	0.75	2.28	1.25	51,000	6,000	8	103
WH784	4.000	2.98	1.12	0.25	1.13	0.50	2.00	0.88	24,000	3,500	3	130
WHT130/138	4.000	2.98	1.12	0.25	1.13	0.50	2.00	0.88	24,000	3,500	6	130
WHX124	4.000	4.18	1.63	0.38	1.50	0.75	2.81	1.44	50,500	7,350	9	H124
WHX124HD	4.063	4.82	1.63	0.50	2.00	0.88	3.00	1.63	80,000	9,150	14	H124
WSX124	4.000	4.35	2.01	0.38	1.50	0.75	2.81	1.44	Consult Rexnord		14	H124
WHX111	4.760	4.79	2.25	0.38	1.50	0.75	3.38	1.44	50,500	8,850	8	111
WH720CS	6.000	3.61	1.12	0.31	1.56	0.75	2.16	1.44	54,000	5,700	6	CS720S
WHX106	6.000	4.18	1.63	0.38	1.50	0.75	2.81	1.44	50,500	7,350	7	106
WHX106SHD	6.000	4.78	1.50	0.50	2.00	0.88	3.00	1.63	82,000	9,150	12	106
WHX106XHD	6.050	4.87	1.63	0.50	2.00	1.00	3.00	1.75	Consult Rexnord		13	106
WH110	6.000	4.57	1.88	0.38	1.50	0.75	3.00	1.25	50,500	7,900	7	110
WHX132	6.050	6.31	3.00	0.50	2.00	1.00	4.38	1.75	85,000	15,000	14	132
WSX132	6.050	6.25	3.00	0.50	2.00	1.00	4.38	1.75	Consult Rexnord		14	132
WHX150	6.050	6.31	3.00	0.50	2.50	1.00	4.38	1.75	90,000	15,000	16	132
WHX155	6.050	6.48	2.75	0.56	2.50	1.13	4.38	1.75	102,000	17,500	19	132
WHX157	6.050	6.68	2.75	0.63	2.50	1.13	4.63	1.75	117,000	18,200	20	132
WHX2855	6.050	6.57	2.75	0.63	2.50	1.25	4.63	1.75	140,000	20,250	20	132
WHX3855	6.050	6.57	2.75	0.63	3.00	1.25	4.63	1.75	175,000	20,250	22	132
WHX159	6.125	6.87	2.88	0.63	3.00	1.25	4.63	2.00	204,000	20,250	27	132
WHX4855	12.000	6.57	2.75	0.63	2.50	1.25	4.63	1.75	119,000	20,250	15	4855

① Cast or fabricated sprockets may be used.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

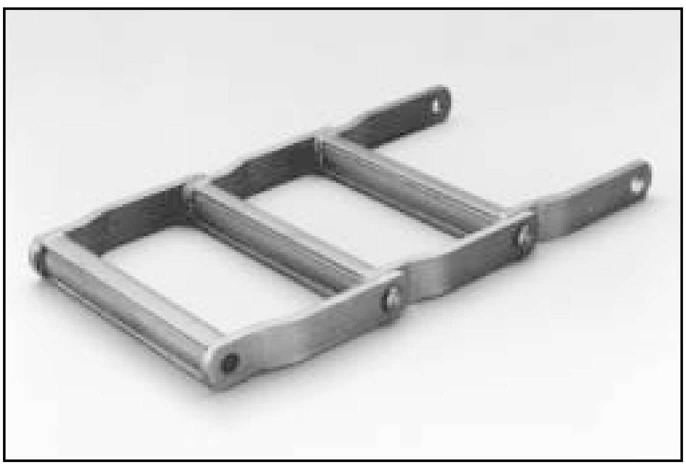
■ WELDED STEEL CHAINS

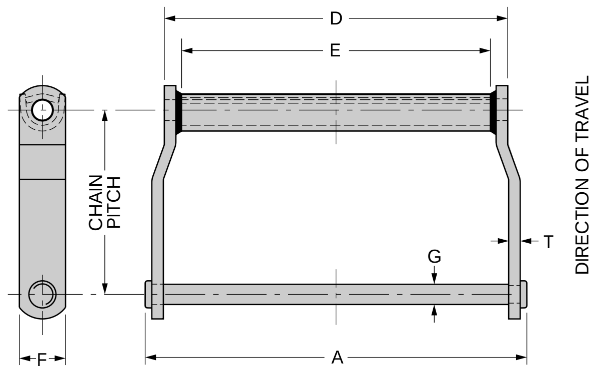
WIDE SERIES – WD, WDH

Rex® Wide Series chains are furnished standard with heat-treated rivets only (WD Series) or all components heat-treated (WDH Series). WDH Series chains are intended for use in applications where joint wear, barrel OD wear, and sidebar wear are a problem.

- WD Series have thru-hardened rivets.
- WDH Series have all parts thru-hardened.
- Riveted construction is standard. Pin and cottered construction can be furnished on a made-to-order basis.
- Lube holes drilled into barrels is an MTO option.
- Induction hardened pins are an MTO option.
- Galvanized pins are an MTO option.

➔ **Rexnord has found that some competitive wide mill drag chains use a low carbon steel for their barrels. A low carbon steel will not respond to heat treatment even though it may be put in a furnace and attempted to be heat treated. Rex Welded Steel chains use medium carbon steel barrels that respond very well to heat treatment and provide twice the wear resistance of these low carbon barrels. Harder components, longer life!**





Rex Wide Series Chains are specially designed for loads and operating conditions imposed by drag conveyor service. As with our Narrow Series, many material and configuration options are available.

Dimensions are in inches. Strengths, loads and weights are in pounds.

Rex Chain No.		Average Pitch	A	E	Sidebars		Pins	Barrel Length	Minimum Ultimate Strength, Lbs. x 10^3		Rated Working Load		Average Weight Per Foot	Sprocket① Unit No.
					Thickness	Height								
WD Series	WDH Series				T	F	G	D	WD Series	WDH Series	WD Series	WDH Series		
WD102	WDH102	5.000	9.13	6.50	0.38	1.50	0.75	7.75	38,300	55,000	8,500	10,000	11	H102
WD104	WDH104	6.000	6.75	4.13	0.38	1.50	0.75	5.38	38,300	55,000	8,500	10,000	9	H104
WD110	WDH110	6.000	11.8	9.00	0.38	1.50	0.75	10.38	38,300	55,000	8,500	10,000	12	H110
WD113	WDH113	6.000	12.5	9.00	0.50	1.50	0.88	10.63	48,000	57,000	9,300	11,700	18	H110
WD120	WDH120	6.000	12.1	8.75	0.50	2.00	0.88	10.25	70,000	79,000	12,300	15,000	20	H120
WD112	WDH112	8.000	11.8	9.00	0.38	1.50	0.75	10.38	38,300	55,000	8,500	10,000	10	H112
WD116	WDH116	8.000	15.5	13.0	0.38	1.75	0.75	14.13	55,000	59,000	10,700	11,500	13	H116
WD118	WDH118	8.000	16.8	13.3	0.50	2.00	0.88	14.88	70,000	79,000	12,300	15,000	21	WD118②
WD480	WDH480	8.000	14.6	11.2	0.50	2.00	0.88	12.75	70,000	79,000	12,300	15,000	18	H480
	WDH580	8.000	14.6	11.2	0.50	2.00	1.00	12.75	–	108,000	–	20,500	18	H480
	WDH680	8.000	15.33	11.2	0.63	2.00	1.00	13.00	–	108,000	–	20,500	21	H480

① Cast or fabricated steel sprockets may be used except as noted.
② Available as a fabricated steel sprocket only.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

NEW! REVERSE BARREL WIDE MILL DRAG CHAINS

A simple and effective solution for an old problem.

The Problem: Since their introduction, wide mill welded steel chains were designed to run "narrow" or "closed end" forward. This is the direction of travel that the chains on the preceding page run. Running in this direction, an offset sidebar chain will experience scrubbing between the outside of the chain's barrel and the drive sprocket's tooth (Figure 1). On shorter conveyors, where the chain contacts the sprocket very frequently, this scrubbing can cause rapid wear of both the chain and sprocket. This scrubbing may not cause as much chain wear on longer conveyors but it will still cause sprocket wear.

The Solution: Rexnord engineers realized that if they reversed the barrel of the chain so it could run in the opposite direction, "wide" or "open end" forward, the scrubbing action could be eliminated. Instead of the articulation occurring between the outside of the chain barrel and the sprocket tooth it occurs inside the chain joint between the pin and the barrel (Figure 2). This arrangement is preferable since both the pin and the barrel of the wide mill chains are heat treated to withstand this type of wear.

How do I Know if I Need Reverse Barrel Chain?

Note the difference in position of the pin within the barrel in Figures 1 and 2. When running narrow end forward and the engaged pin is being pulled forward at the time of engagement and the pin of the previous link is being pulled against the front of the barrel.

When reverse barrel chain is run wide end forward (Figure 2), the sprocket is pushing against the force applied. This may extend the useful life of chains used in long and/or heavy loaded applications where the typical mode of chain failure is breaking at the barrel welds.

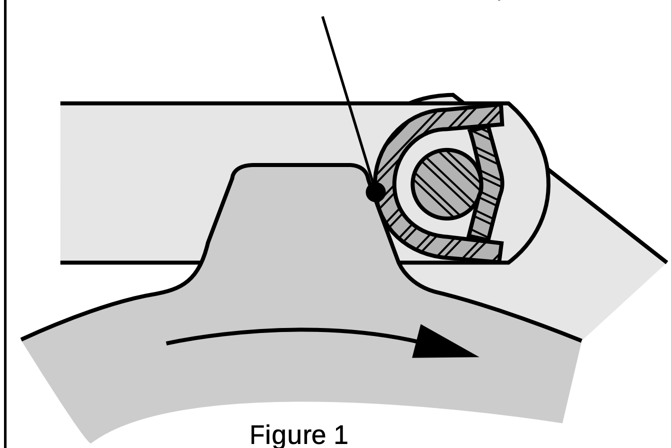


Figure 1

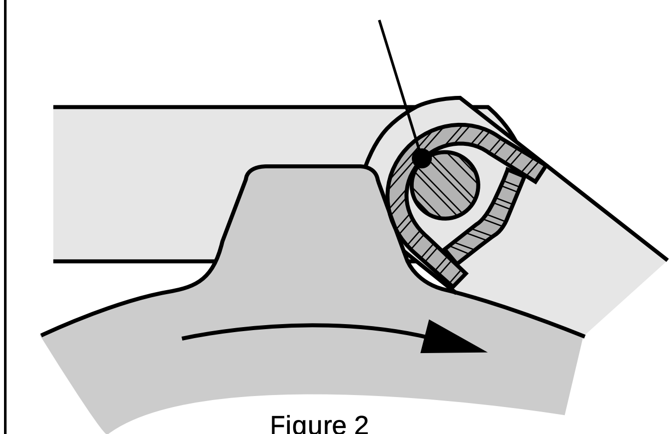
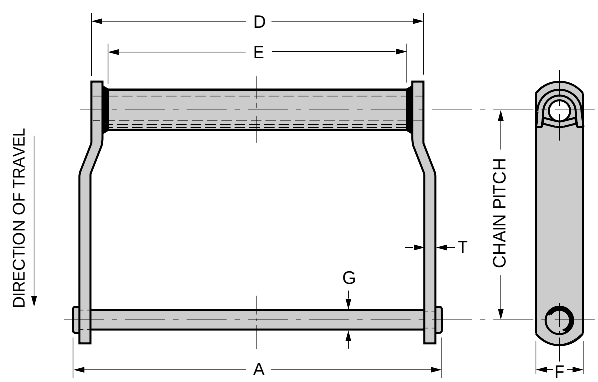


Figure 2



Dimensions are in inches. Strengths, loads and weights are in pounds.

Rex Chain No.	Average Pitch	A	E	Sidebars Thickness T	Sidebars Height F	Pins G	Barrel Length D	Minimum Ultimate Strength, Lbs. x 10^3	Rated Working Load	Average Weight Per Foot	Sprocket Unit No.
WDH2210	6.136	11.9	9.00	0.38	1.50	0.75	10.38	55,000	10,000	11.5	H110
WDH2316	8.126	15.8	13.00	0.38	1.75	0.75	14.13	55,000	11,500	13	H116
WDH2380	8.161	14.6	11.25	0.50	2.00	0.88	12.75	79,000	15,000	18	H480

Other chains available on a made-to-order basis. Contact Rexnord.

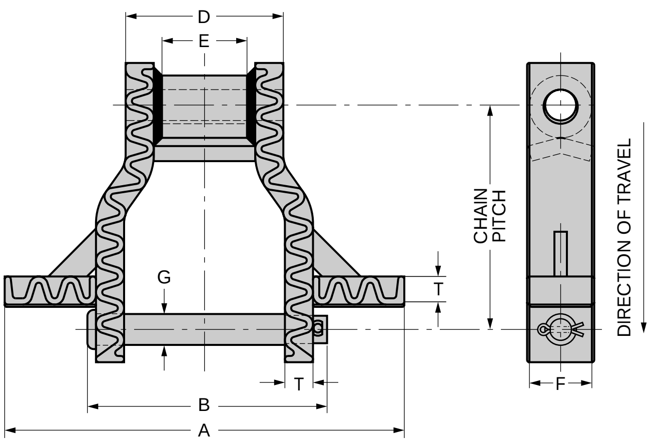
Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

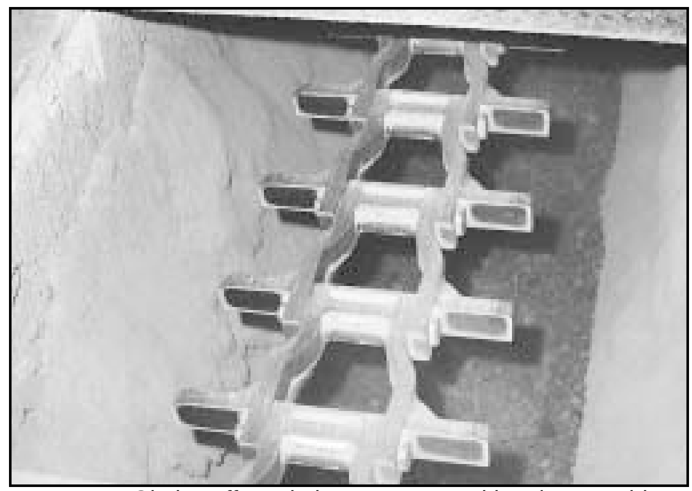
■ WELDED STEEL CHAINS

HEAVY DUTY WELDED STEEL DRAG CHAINS

Rex® Heavy Duty drag chains are ideal for conditions where severe abrasion and heat exist. They offer these important features and benefits:

- ***Hardface welding*** on both of the chain's sliding surfaces is standard. A typical weld hardness of 60 RC and a heavy weld bead give this chain excellent sliding wear resistance in cold and hot clinker applications.
- ***Interference fits*** between the pin and chain sidebar dramatically improves chain strength and joint wear life over that of a cast drag chain. In addition, no loose pins to move around in the chain joint.
- ***An induction hardened pin*** affords the best of two worlds – a 60 RC typical hardened case and impact resistant material in the core of the pin. The result is longer service life and good resistance to shock loads.
- ***Square edges on the wing and sidebar*** of welded drag chain convey more efficiently than rounded cast chain edges. They also move a deeper bed of material with each revolution of the chain.
- ***Heat treated and fabricated steel components*** eliminate the failures that cast chains experience from casting porosity and inclusions.





WHX Drag Chains offer solutions to wear and breakage problems common with cast chains. Fabricated steel construction with heat treated pins, barrels, face plates, wings, and sidebars provide added protection not found in cast chain designs.

TH Thru-Hardened
CIH Circumferentially Induction Hardened
SIH Selectively Induction Hardened

Dimensions are in inches. Strengths, loads and weights are in pounds.

Rex Chain No.	Average Pitch	A	Sidebars			Pins			Barrel Length		Minimum Ultimate Strength, Lbs. x 10^3	Rated Working Load	Sprocket Unit No.
			Thickness T	Height F	Heat Treat	B	G	Heat Treat	D	E			
WHX5157	6.050	8 to 14 inches 2 inch increments	0.63	2.5	TH	6.94	1.13	SIH	4.63	2.75	117,000	18,200	5157②
WHX6067	9.000	10 to 26 inches 2 inch increments	0.75	2.5	TH	8.19	1.25	CIH	5.5	3.63	195,000	24,300	6121②
WHX5121①	9.000	10 to 30 inches 2 inch increments	1.13	2.5	TH	9.75	1.25	CIH	6.31	3.63	205,000	27,600	6121②
WHX6121	9.000	10 to 30 inches 2 inch increments	1.13	2.5	TH	9.75	1.25	CIH	6.31	3.63	205,000	27,600	6121②

① WHX5121 is dimensionally the same as WHX6121 except it runs closed end forward.
② Octagonal tail wheels are available. The octagonal design reduces the scrubbing which reduces traditional tail sprocket life. See page 108.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

ATTACHMENT WELDING INSTRUCTIONS

❶ Surfaces to be welded should be clean and free of foreign material. It is not necessary to remove the pre-lubricant before welding, however, proper ventilation is mandatory.

❷ Weld strength should be sufficiently high to cause failure of the parent metal and not of the weld itself.

❸ Welds should be free of cracks, undercutting, slag, inclusions, and excessive porosity. Craters due to stop welding should be located away from corners and edges; most craters contain slight cracks which can initiate failures at high stress areas.

❹ Weld beads should be free of pinholes, have uniformly fine surface ripples, and have little or no indication of where a new piece of filler metal was started.

❺ Weld edges should indicate complete fusion without overlap or undercut.

❻ Welds should be clean, free of spatter, slag, excessive oxides, and arc scars.

❼ Arcs should be struck on attachments, not on the sidebars. Arc scars on sidebars can produce early chain failure.

❽ Convex shaped weld beads are preferred. Convex fillet welds are strong and less subject to cracking than concave forms.

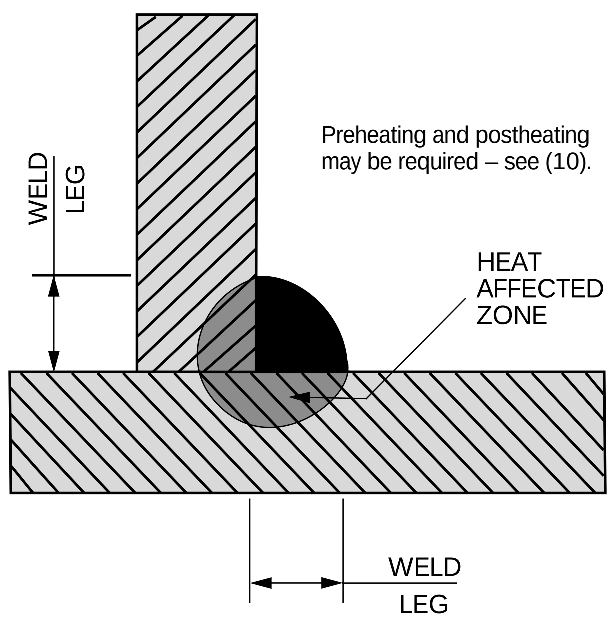
❾ Electrode selection is very important. An electrode that has been successfully used is E7018 (70,000 psi tensile strength, low hydrogen). This rod is for all position use, AC or DC. Good welding practice dictates that electrodes be stored in a dry atmosphere or baked prior to use. Specific electrode manufacturer recommendations should be closely followed.

❿ Preheating and Postheating – Heat applied to the weld heat affected zone is always beneficial. These processes, while not generally required for small attachments, are recommended for large or heavily loaded attachments such as Styles “A” & “C” log cradles. No welding should be performed on parts below 70°F.

Heating is usually done by use of a neutral flame to heat the parts prior to or after welding.

Preheat: Performed to reduce possibility of weld cracking both surface and subsurface. Parts to be welded – link and attachment – should be heated uniformly to 300°F.

Postheat: Performed to relieve internal stresses and to reduce weld zone hardness. Heat affected zone of weld heated to 700°F.

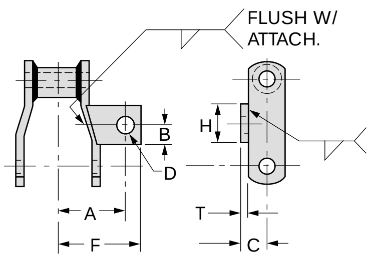


⓫ Tack welds should never be used in areas that will not be welded in the finished product.

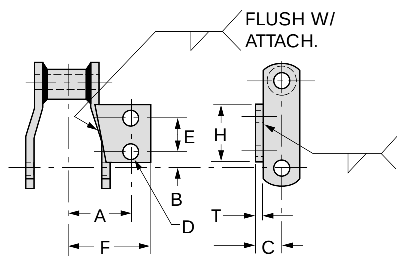
CAUTION

No welding should be performed on or immediately adjacent to an induction hardened or carburized part. Welding to an induction hardened part can produce tempering and softening of this hard surface. Welding attachments to the carbon rich surface of a carburized part will result in brittle welds and possible cracking.

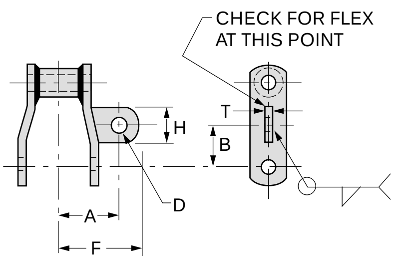
■ WELDED STEEL CHAINS – Attachments



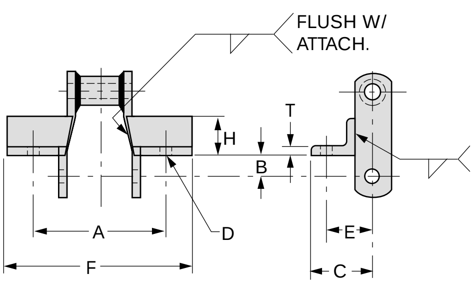
A1



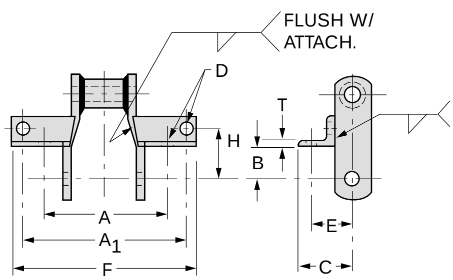
A2, A25②



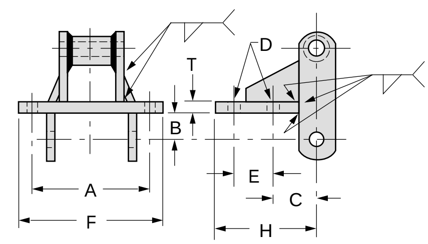
A22



F2



F4



F26, F28

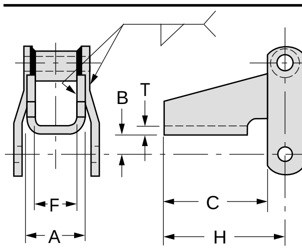
Dimensions are in inches. Weights are in pounds.

Chain Number	A	B	C	D① Bolt Dia.	D① Bolt Hole	E	F	H	T	Average Weight per Ft.
A1										
WH78	2.00	1.25	0.81	3/8	.41	–	2.50	1.25	0.25	5
WH82	2.09	1.50	0.88	3/8	.41	–	2.75	1.75	0.25	6
A2 & A25②										
WH78	2.00	0.41	0.81	3/8	.41	1.13	2.50	2.00	0.25	5
WH82	2.13	0.75	0.88	3/8	.41	1.31	2.69	2.25	0.25	7
WHX124	2.63	0.88	1.13	3/8	.41	1.94	3.19	3.00	0.38	10
WHX124HD	2.63	0.94	1.50	1/2	.56	1.94	3.19	3.06	0.50	16
WHX111	3.13	1.22	1.13	1/2	.56	2.31	3.75	3.50	0.38	10
WHX132②	3.75	1.63	1.50	1/2	.56	2.75	4.59	4.25	0.50	16
WHX150	3.75	1.63	1.75	1/2	.56	2.75	4.59	4.19	0.50	19
WHX155	3.75	1.63	1.81	1/2	.56	2.75	4.59	4.19	0.56	22
WHX157	4.00	1.75	1.88	1/2	.56	2.50	4.78	4.00	0.63	22
WHX159	4.00	1.69	2.13	1/2	.56	2.75	4.78	4.25	0.63	30
A22										
WH78	1.88	1.31	–	3/8	.41	–	2.50	1.00	0.38	5
F2										
WH78	3.75	0.56	2.31	3/8	.41	1.44	4.69	1.25	0.25	6
F4										
WH78	3.75③	0.69	2.31	3/8	.41	1.75	5.50	1.94	0.25	8
WH82	4.13③	0.81	2.38	3/8	.41	1.81	5.94	1.94	0.25	9
WHX124	4.38③	0.88	3.06	3/8	.41	2.06	6.19	2.30	0.38	12
F26										
WH720CS	3.75	3.00	2.38	3/8	.41	2.63	5.00	6.78	0.25	8
F28										
WH720CS	3.75	3.00	2.38	3/8	.41	4.50	5.00	8.97	0.25	9

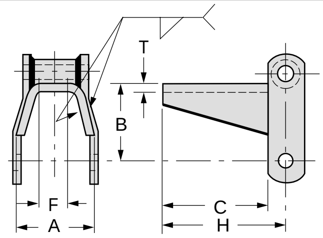
① All holes round and straight.
② A25 attachment is for WHX132.
③ A1 is 4.50 for WH78, 5.00 for WH82 and 5.25 for WHX124.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

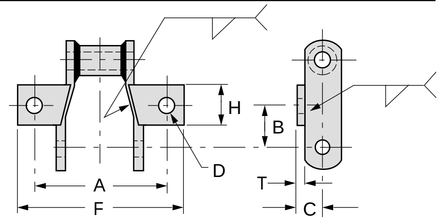
■ WELDED STEEL CHAINS – Attachments



H1



H2

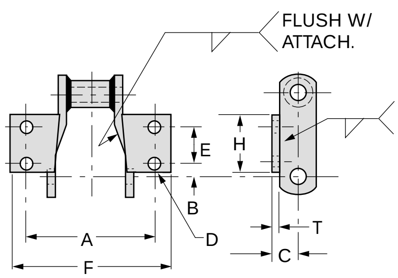


K1

Dimensions are in inches. Weights are in pounds.

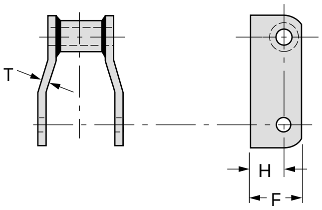
Chain Number	A	B	C	D① Bolt Dia.	D① Bolt Hole	E	F	H	T	Average Weight per Ft.
H1										
WH78	1.75	0.50	3.06	–	–	–	0.88	3.63	0.25	8
WH82	2.00	0.63	3.00	–	–	–	1.13	3.63	0.25	10
H2										
WH78	2.94	2.38	3.00	–	–	–	1.00	3.56	0.25	8
WH82	2.56	2.69	3.00	–	–	–	1.00	3.63	0.25	9
K1										
WH78	4.00	1.25	0.81	3/8	.41	–	5.00	1.25	0.25	6
WH82	4.19	1.50	0.88	3/8	.41	–	5.50	1.75	0.25	7
K2 & K25②										
WH78	4.00	0.41	0.81	3/8	.41	1.13	5.00	2.00	0.25	6
WH82	4.25	0.75	0.88	3/8	.41	1.31	5.38	2.25	0.25	8
WH110	5.31	2.13	1.13	3/8	.41	1.75	6.50	3.00	0.38	8
WHX111	6.25	1.22	1.13	1/2	.56	2.31	7.50	3.50	0.38	12
WHX124	5.25	0.88	1.13	3/8	.41	1.94	6.38	3.00	0.38	12
WHX124HD	5.25	0.94	1.50	1/2	.56	1.94	6.38	3.06	0.50	18
WHX132②	7.50	1.63	1.50	1/2	.56	2.75	9.19	4.25	0.50	19
WHX150	7.50	1.63	1.75	1/2	.56	2.75	9.19	4.19	0.50	22
WHX155	7.50	1.63	1.81	1/2	.56	2.75	9.19	4.19	0.56	25
WHX157	8.00	1.75	1.88	1/2	.56	2.50	9.56	4.00	0.63	26
WHX159	8.00	1.69	2.13	1/2	.56	2.75	9.56	4.25	0.63	35

① All holes round and straight.
② K25 attachment is for WHX132.

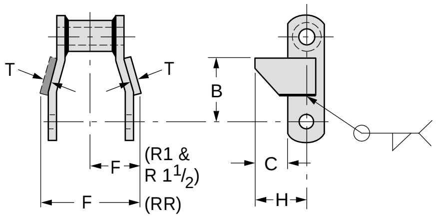


K2, K25②

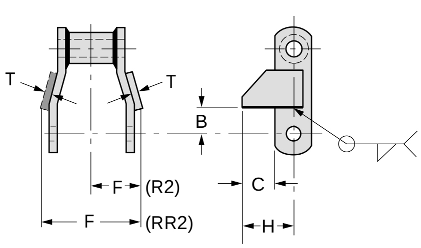
WLEDED STEEL CHAINS



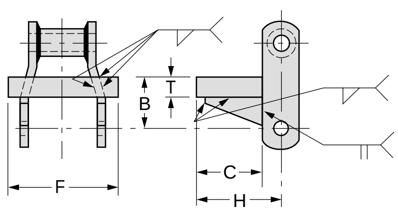
M



R1, R1 1/2, RR



R2, RR2



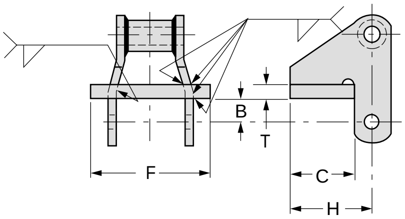
RF2

Dimensions are in inches. Weights are in pounds.

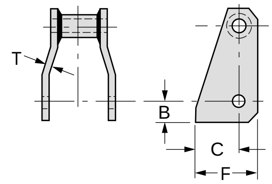
Chain Number	A	B	C	Bolt Diameter Required D	E	F	H	T	Average Weight per Ft.
M									
WHX132	–	–	–	–	–	3.00	2.00	0.50	18
WHX157	–	–	–	–	–	3.50	2.25	0.63	26
WHX159	–	–	–	–	–	4.00	2.50	0.63	35
R1									
WH78	–	1.88	1.00	–	–	1.50	1.56	0.25	5
WH82	–	2.18	1.25	–	–	1.63	1.88	0.25	6
WHX124	–	2.72	1.13	–	–	2.16	1.88	0.38	9
R1 1/2									
WH78	–	1.88	1.50	–	–	1.50	2.06	0.25	5
RR									
WH78	–	1.88	1.00	–	–	3.00	1.56	0.25	5
WH82	–	2.19	1.25	–	–	3.25	1.88	0.25	7
WHX124	–	2.72	1.13	–	–	4.34	1.88	0.38	10
WHX124HD	–	2.72	1.13	–	–	5.13	2.13	0.50	18
R2									
WH78	–	0.69	1.00	–	–	1.50	1.56	0.25	5
WH82	–	0.88	1.25	–	–	1.63	1.88	0.25	6
WHX124	–	1.25	1.13	–	–	2.16	1.88	0.38	9
RR2									
WH78	–	0.69	1.00	–	–	3.00	1.56	0.25	5
WH82	–	0.88	1.25	–	–	3.25	1.88	0.25	7
WHX124	–	1.25	1.13	–	–	4.31	1.88	0.38	10
RF2									
WH78	–	1.50	2.13	–	–	3.00	2.69	0.63	10
WHX124	–	2.50	2.50	–	–	4.25	3.25	1.00	19
WHX124HD	–	2.50	2.50	–	–	4.75	3.50	1.00	25

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

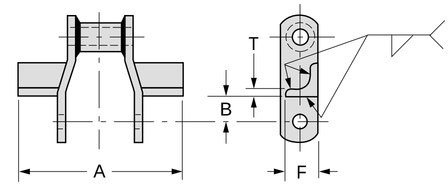
■ WELDED STEEL CHAINS – Attachments



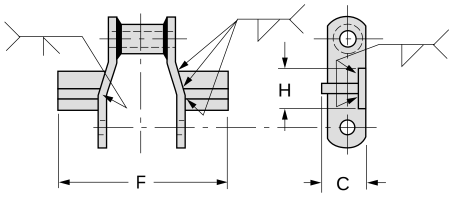
RF121



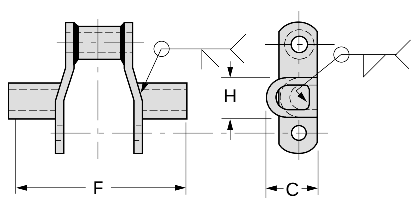
S1



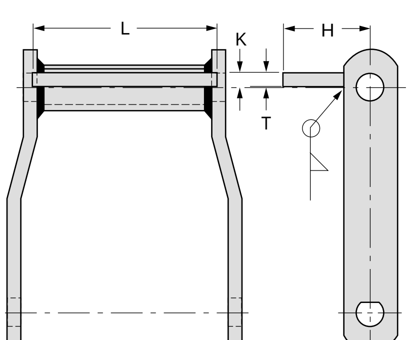
WING



“A” STYLE



“C” STYLE



C1, C3, C4

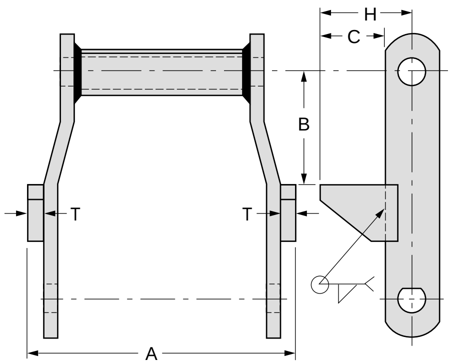
Dimensions are in inches. Weights are in pounds.

Chain Number	A	B	C	Bolt Diameter Required D	E	F	H	T	Average Weight per Ft.
RF121									
WHX132	–	1.56	4.00	–	–	12.0	5.00	1.50	55
WHX150	–	1.56	4.00	–	–	12.0	5.25	1.50	57
WHX155	–	1.56	4.00	–	–	12.0	5.25	1.50	61
WHX157	–	1.50	4.00	–	–	12.0	5.25	1.50	63
WHX159	–	1.56	4.00	–	–	12.0	5.50	1.50	83
S1									
WHX132	–	1.16	5.00	–	–	6.00	–	0.50	25
WHX150	–	1.16	5.25	–	–	6.50	–	0.50	27
WHX155	–	1.50	5.25	–	–	6.50	–	0.56	31
WHX157	–	1.50	5.25	–	–	6.50	–	0.63	34
WHX159	–	1.88	5.25	–	–	6.75	–	0.63	46
WING									
WH78	6.00	0.75	–	–	–	1.00	–	0.25	7
WH82	6.50	0.94	–	–	–	1.25	–	0.25	9
WHX124	8.50	1.19	–	–	–	1.50	–	0.25	14
WHX124HD	8.50	1.38	–	–	–	2.00	–	0.38	19
WHX132	12.0	1.50	–	–	–	2.00	–	0.38	24
WH260	7.00	0.53	–	–	–	1.75	–	–	4
“A” STYLE CRADLE									
WHX132	–	–	3.00	–	–	11.0	3.00	–	22
WHX150	–	–	3.50	–	–	11.0	3.00	–	25
WHX155	–	–	3.50	–	–	11.0	3.00	–	28
WHX157	–	–	3.50	–	–	11.0	3.00	–	29
WHX159	–	–	4.00	–	–	11.0	3.00	–	39
“C” STYLE CRADLE									
WHX132	–	–	3.00	–	–	11.0	3.00	–	29
WHX150	–	–	3.00	–	–	11.0	3.00	–	31
WHX155	–	–	3.00	–	–	11.0	3.00	–	34
WHX157	–	–	3.00	–	–	11.5	3.00	–	35
WHX159	–	–	4.00	–	–	11.0	3.00	–	47

Dimensions are in inches. Weights are in pounds.

Chain Number	H	K	L	T	Average Weight per Ft.
C1 – WIDE SERIES					
WD & WDH102	1.50	0.38	6.38	0.38	15
WD & WDH104	2.38	0.38	4.13	0.38	11
WD & WDH110	2.38	0.38	9.13	0.38	17
WD & WDH112	2.38	0.38	9.13	0.38	14
WD & WDH116	2.63	0.38	12.75	0.38	20
C3 – WIDE SERIES					
WD & WDH113	2.25	0.50	9.13	0.50	19
WD & WDH118	3.00	0.50	13.00	0.50	25
WD & WDH120	3.00	0.50	8.63	0.50	26
WD & WDH122	3.00	0.50	8.63	0.50	21
WD & WDH480	3.00	0.50	11.13	0.50	26
WDH580	3.00	0.50	11.13	0.50	26
C4 – WIDE SERIES					
WD & WDH102	3.75	0.38	6.38	0.38	18
WD & WDH104	3.75	0.38	4.13	0.38	12
WD & WDH110	3.75	0.38	9.13	0.38	21
WD & WDH112	3.75	0.38	9.13	0.38	17
WD & WDH113	4.75	0.50	9.13	0.50	28
WD & WDH116	4.88	0.38	12.75	0.38	25
WD & WDH480	5.00	0.50	11.13	0.50	33
WDH580	5.00	0.50	11.13	0.50	33

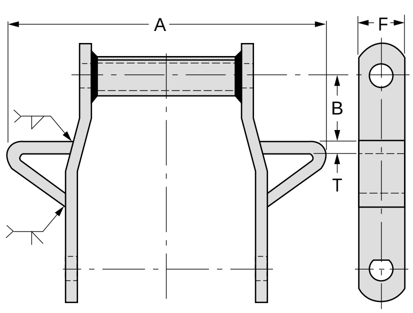
Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.



RR

Dimensions are in inches. Weights are in pounds.

Chain Number	A	B	C	H	T	Average Weight per Ft.
RR – WIDE SERIES						
WD & WDH102	9.25	1.25	1.75	2.50	0.38	13
WD & WDH104	6.94	3.00	1.75	2.50	0.38	9
WD & WDH110	11.94	3.00	1.75	2.50	0.38	14
WD & WDH112	11.94	3.00	1.75	2.50	0.38	12
WD & WDH113	12.69	3.00	1.75	2.50	0.50	16
WD & WDH116	15.69	3.00	2.25	3.13	0.38	17
WD & WDH118	16.94	3.00	2.25	3.25	0.50	22
WD & WDH120	12.34	3.00	2.25	3.25	0.50	23
WD & WDH122	12.34	3.00	2.25	3.25	0.50	19
WD & WDH480	14.88	3.00	2.25	3.25	0.50	21
WDH580	14.88	3.00	2.25	3.25	0.50	21
WDH2210	12.09	3.00	–	2.50	0.38	13
WDH2316	15.91	3.00	–	3.00	0.38	16
WDH2380	14.78	3.00	–	3.25	0.50	21



WING (Wide)

Dimensions are in inches. Weights are in pounds.

Chain Number	A	B	F	T	Average Weight per Ft.
WING – WIDE SERIES					
WD & WDH102	14.38	1.75	1.50	0.38	15
WD & WDH104	11.50	2.75	1.50	0.38	11
WD & WDH110	17.00	2.63	1.50	0.38	16
WD & WDH112	17.00	3.25	1.50	0.38	13
WD & WDH113	17.00	2.50	1.50	0.50	17
WD & WDH116	22.00	3.25	1.75	0.38	18
WD & WDH120	17.00	3.25	2.00	0.50	28
WD & WDH122	17.00	3.25	2.00	0.50	24
WD & WDH480	22.00	3.25	2.00	0.50	25
WDH580	22.00	3.25	2.00	0.50	25
WDH2210	17.00	2.25	1.50	0.38	16
WDH2316	22.00	3.25	1.75	0.38	18
WDH2380	22.00	3.25	2.00	0.38	26

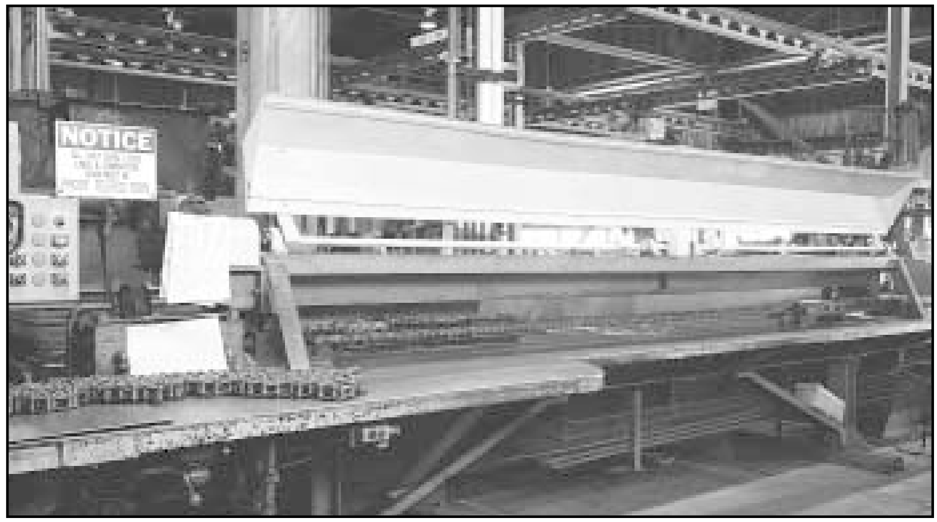
Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

■ CAST CHAINS

Engineered Steel and Welded Steel Chains are recommended for most applications. Engineered Steel construction is strongly recommended for bucket elevator applications.

Cast Chains (pages 47-51) may be slightly better suited to applications involving severely corrosive atmospheres or where chain temperatures reach above 500° F. Contact Rexnord for recommendations relating to the specific application.

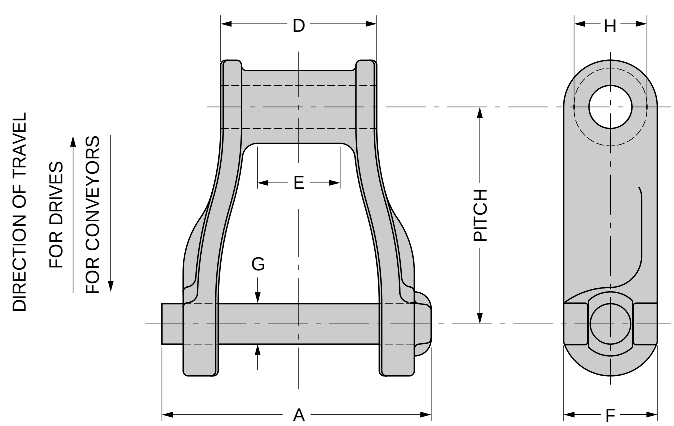
Cast Combination Chains (pages 54-55) may provide superior service where heavy downward loading and sliding across an extremely gritty or abrasive surface has resulted in a chain wear problem. Where, in addition, problems have been encountered with chain breakage due to heavy impact loading, ***XHD Heavy Duty Cast Combination Chain*** (pages 52-53) should be considered.



All Cast and Cast Combination chains are 100% inspected and proof tested to ensure that no poorly molded links leave the factory.

MILL – NARROW SERIES

Narrow Series Mill Chains are used primarily for drag conveyor service in the forest products industry, but are also used in many other applications where a sliding chain is required. The closed joint construction permits operation in a moderately dusty or abrasive atmosphere.



Furnished pin and cotter as standard.

Dimensions are in inches. Strengths, loads and weights are in pounds.

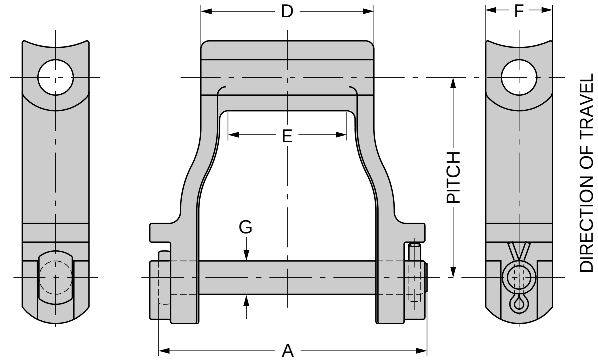
Chain No.	Average Pitch	A	D	E	Sidebars	Pins	Barrel Diameter	Rated Working Load	Average Weight Per Foot	Recommended Max. RPM for 12T Sprocket	Sprocket Unit No.①
					F	G	H				
H74	2.609	3.06	1.63	0.94	1.00	0.38	0.88	1,850	3.0	115	78
H78	2.609	3.50	1.88	0.94	1.13	0.50	0.94	2,850	4.2	115	78
H82	3.075	4.06	2.19	1.25	1.25	0.56	1.22	3,700	5.5	90	103
H124	4.000	4.75	2.81	1.88	1.50	0.75		5.000	8.8	75	H124

① Cast or fabricated sprockets may be used.
See pages 56-58 for attachment listings.

Cast and Cast Combination Chains are not recommended for elevator service.
Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

DRAG CHAINS

Drag Chains are suited for handling abrasive bulk materials such as cement clinker, coal ashes and similar materials. Heads on links act as pushers for conveying material and broad wearing shoes are designed to prolong the life of the chain and the trough.



Manufactured in through hardened cast steel.
Furnished pin and cotter as standard.

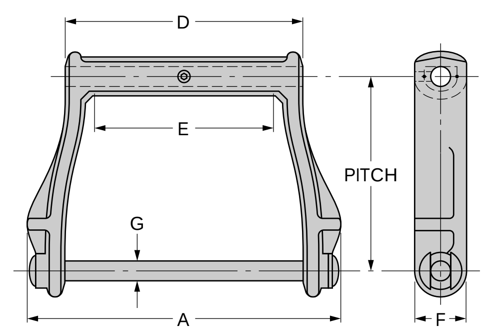
Dimensions are in inches. Strengths, loads and weights are in pounds.

Chain No.	Average Pitch	A	E	Sidebars	Pins	Hook to Flange Centerline	Rated Working Load	Average Weight Per Foot	Recommended Max. RPM for 12T Sprocket	Sprocket Unit No.①
				F	G	H				
CC119	6.000	8.25	5.25	3.63	2.00	1.00	16,000	21	11	119
CC123	9.000	12.59	8.44	6.25	2.50	1.25	23,400	36	7	H123

① Cast or fabricated sprockets may be used.

H SERIES

Available in riveted or cottered construction. Riveted construction shown and furnished unless otherwise specified.



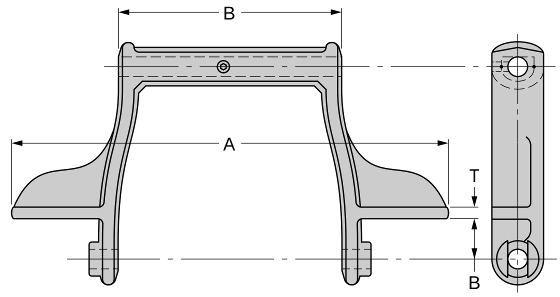
Dimensions are in inches. Strengths, loads and weights are in pounds.

Chain No.	Average Pitch	A	D	E	Sidebars	Pins	Rated Working Load	Average Weight Per Foot	Recommended Max. RPM for 12T Sprocket	Sprocket Unit No.①
					F	G				
H104	6.000	7.50	5.44	4.13	1.50	.63	4,160	8.0	11	H104
H110	6.000	12.50	10.69	9.13	1.50	.63	4,160	12.9	11	H110

① Cast or fabricated sprockets may be used.

Cast and Cast Combination Chains are not recommended for elevator service.
Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

WING ATTACHMENT

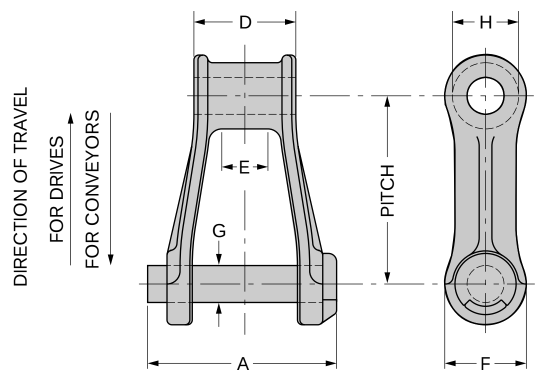


Dimensions are in inches. Weights are in pounds.

Chain No.	Average Weight Per Foot	A	B	T
H110	14.6	17.00	2.25	.22

PINTLE

Pintle Chains are ideal for oven and furnace conveying operations. They are also suitable for a variety of low speed drive applications. The closed pin joint construction permits operation in a moderately dusty or abrasive atmosphere.



Furnished pin and cotter as standard.

REX PINTLE CHAINS – 400/900 SERIES AND 700 SERIES

Dimensions are in inches. Strengths, loads and weights are in pounds.

Chain No.	Average Pitch	A	D	E	Sidebars	Pins	Barrel Diameter	Rated Working Load	Average Weight Per Foot	Recommended Max. RPM for 12T Sprocket	Sprocket Unit No.①
					F	G	H				
945	1.630	2.06	1.06	0.69	0.75	.31	0.63	830	1.5	230	45
955	1.630	2.25	1.13	0.69	0.84	.38	0.63	1,060	1.9	230	45
977	2.308	2.50	1.25	0.69	1.00	.44	0.81	1,650	2.0	135	67
988	2.609	3.00	1.63	0.88	0.94	.44	0.88	2,150	2.9	115	78
C9103	3.075	3.69	1.88	1.13	1.50	.75	1.25	4,250	5.7	90	103
4124	4.043	4.72	2.25	1.50	1.75	.81	1.38	4,560	8.5	65	4124
C720	6.000	3.63	1.88	1.00	1.50	.69	1.38	3,220	4.2	35	720S
720S	6.000	3.94	1.88	1.44	1.56	.75	1.44	4,250	5.1	35	720S
A730	6.000	3.94	2.00	1.13	1.75	.75	1.50	4,500	6.0	35	A730
CS720S	6.000	3.94	1.88	1.13	1.56	.75	1.44	4,250	5.4	35	CS720S
CS730	6.000	3.94	2.00	1.13	1.75	.75	1.50	4,500	6.4	35	CS730
SCA9103	3.075	3.69	1.88	1.13	1.50	.75	1.25	4,250	5.7	90	103

① Cast or fabricated sprockets may be used.

Cast and Cast Combination Chains are not recommended for elevator service.
Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

900 SERIES PINTLE CHAINS

900 Pintle Chains, often called intermediate carrier chains, are widely used in the sugar industry. Multiple strands, fitted with overlapping, beaded slats, form a continuous apron conveyor for intermediate carrier service.

The renewable bushings provide a hard, durable pin-bearing surface and permit high working loads.

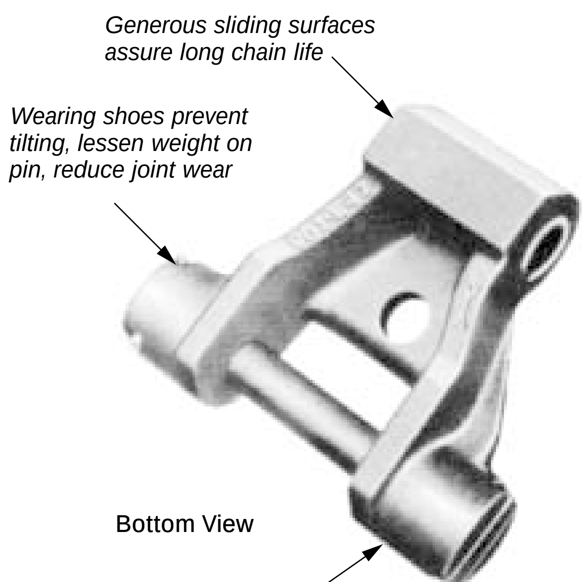
Links have outboard driving lugs for operation on double sprockets. This method of engagement prevents the jamming of cane in the link pockets.

All links have generous sliding surfaces to resist wear. Wear shoes at the open end of the link support the chain and lessen the weight on the pin, thereby reducing joint wear. Heavy cross-sections, formed by the wear shoes and reinforcing ribs, strengthen the links. Slots cast in the lugs protect the pin ends and prevent pin rotation.

Links are available in cast material and stainless steel. Pins and bushings are available in case-hardened steel or stainless steel. Bushings of ultra-high molecular weight polyethylene (UHMW-PE) are also available.

Chains with cast links and stainless steel pins and bushings are normally recommended. For greater corrosion resistance all stainless steel chains are preferred.

Top View



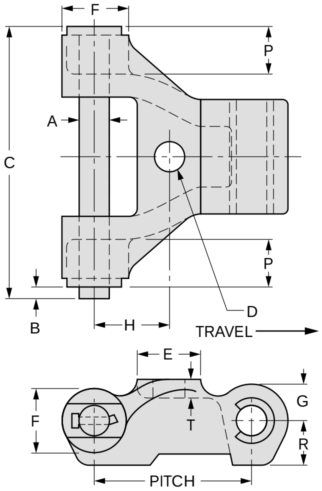
Bottom View

LINK-BELT 900 SERIES PINTLE CHAINS

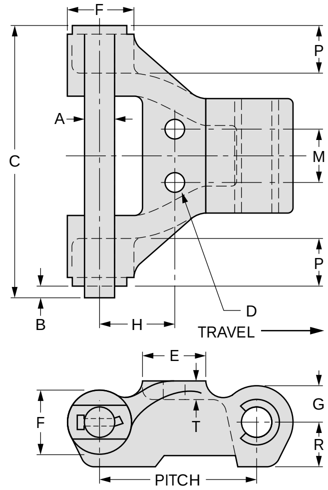
Dimensions are in inches. Strengths, loads and weights are in pounds.

Link-Belt Chain No.	Average Pitch	Rated Working Load	Average Weight	Sprocket Unit No.	Attachments Available
901	3.149	4,150	12.2	901	E41, E42, E43, E44
902	2.970	4,150	12.5	902	E41, E42, E43, E44
907	3.170	4,150	12.1	907	E51

Cast and Cast Combination Chains are not recommended for elevator service.
Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.



E41, E42, E51 Attachments



E43, E44 Attachments

Dimensions are in inches. Weights are in pounds.

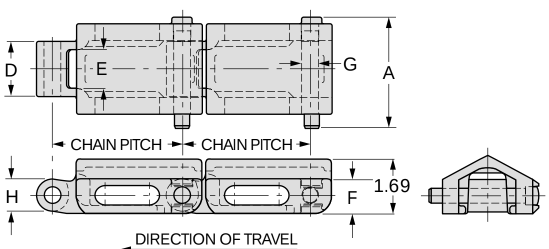
Chain No.	A	B	C	D	E	F	G	H	M	P	R	T	Weight
E41													
901	**.625**	.19	5.50	.66	1.25	1.34	.78	1.38	–	1.13	.94	.36	12.2
902	**.625**	.19	5.50	.66	1.25	1.34	.88	1.38	–	1.13	.94	.36	12.5
E42①													
901	**.625**	.19	5.50	.66	1.25	1.34	.78	1.58	–	1.13	.94	.36	12.2
902	**.625**	.19	5.50	.66	1.25	1.34	.88	1.48	–	1.13	.94	.36	12.5
E43													
901	**.625**	.19	5.50	.41	1.25	1.34	.78	1.38	1.09	1.13	.94	.36	12.2
902	**.625**	.19	5.50	.41	1.25	1.34	.88	1.38	1.09	1.13	.94	.36	12.5
E44①													
901	**.625**	.19	5.50	.41	1.25	1.34	.78	1.58	1.09	1.13	.94	.36	12.2
902	**.625**	.19	5.50	.41	1.25	1.34	.88	1.48	1.09	1.13	.94	.36	12.5
E51													
907	**.625**	.19	5.50	.66	1.31	1.44	.72	1.69	–	1.13	.94	.36	12.1

① Slats may be assembled with laps leading or trailing.

TRANSFER

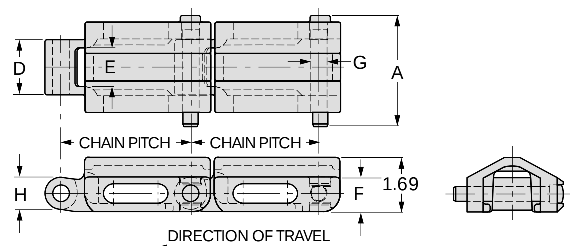
These chains are very popular on lumber sorting tables or anywhere a variety of flat products are sorted. Roof-Top Chain is used chiefly in multiple strands on transfer conveyors.

130RT



Furnished pin and cotter as standard.

138RT and H78RT



Furnished pin and cotter as standard.

TRANSFER CHAINS – ROOF-TOP

Dimensions are in inches. Strengths, loads and weights are in pounds.

Chain No.	Average Pitch	A	D	E	Sidebars	Pins	Barrel Diameter	Rated Working Load	Average Weight Per Foot	Recommended Max. RPM for 12T Sprocket	Sprocket Unit No.①
					F	G	H				
H78RT	2.609	3.50	1.88	1.06	1.13	.50	0.94	2,350	6.0	115	78
130RT	4.000	3.50	1.69	.95	1.06	.50	1.00	2,200	5.2	60	130
138RT	4.000	3.50	1.69	.95	1.06	.50	1.00	2,200	5.8	60	130

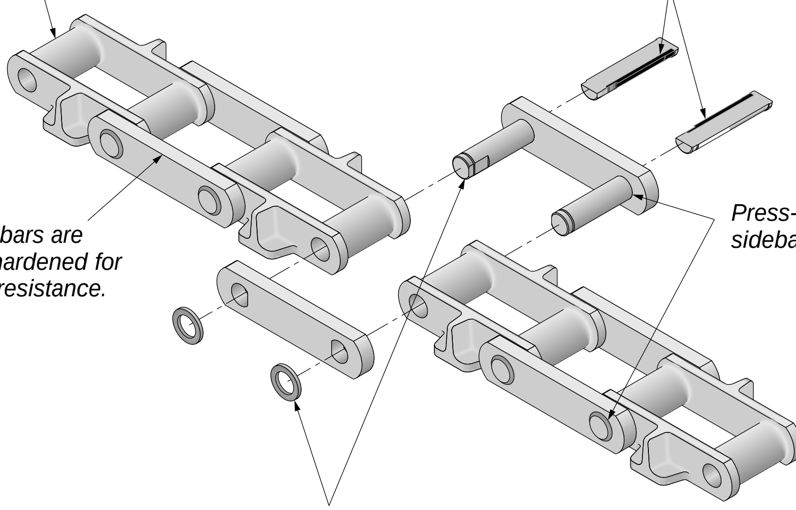
① Cast or fabricated sprockets may be used.

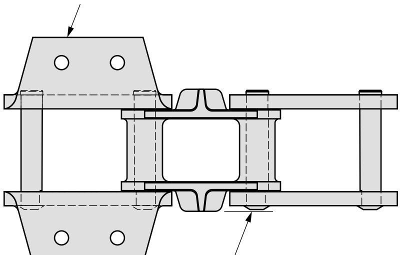
Cast and Cast Combination Chains are not recommended for elevator service.

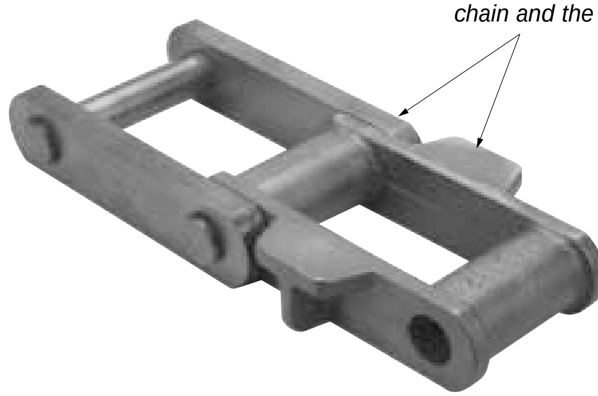
Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

HEAVY DUTY CAST COMBINATION

XHD Extra Heavy Duty Cast Combination Chains are specifically designed for applications where chain wear and breakage problems result due to a combination of heavy impact loading and an extremely gritty or abrasive environment. XHD chains include features that make them ideally suited for applications such as log handling conveyors.

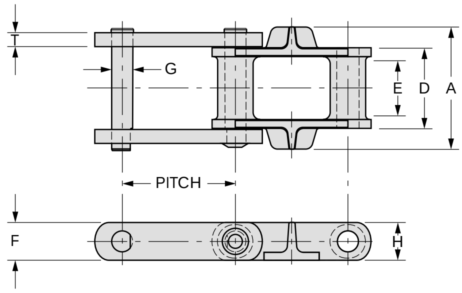






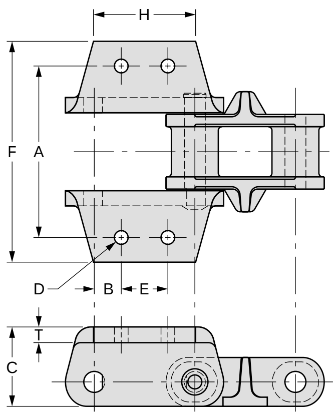
Cast and Cast Combination Chains are not recommended for elevator service.

■ CAST CHAINS

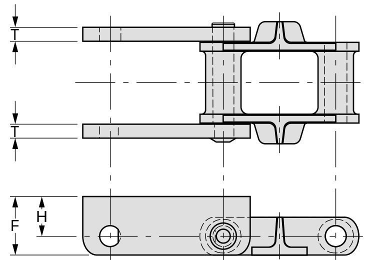


Dimensions are in inches. Weights are in pounds.

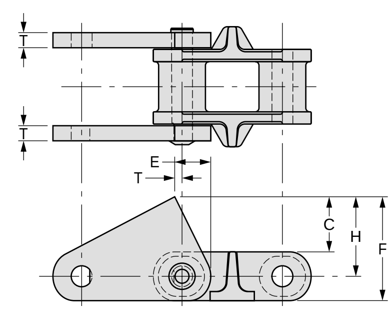
Chain No.	Average Pitch	A	D	E	Sidebar		Pin	Barrel	Rated Working Load	Average Weight per Foot	Recommended Max. RPM for 12T Sprocket	Sprocket Number
					T	F	G	H				
XHD124	**4.060**	4.88	3.00	1.75	.63	2.00	0.88	1.63	9,000	17.0	60	XHD124
XHD132	**6.050**	6.50	4.31	2.94	.75	2.00	1.13	1.75	17,000	18.4	30	XHD132
XHD157	**6.050**	6.88	4.63	3.00	.75	2.00	1.25	1.84	20,000	24.3	30	XHD157



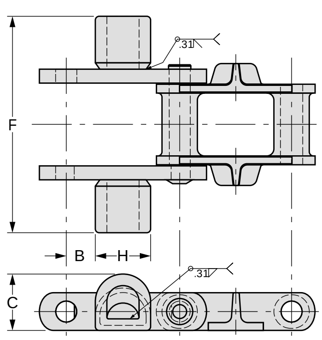
K2



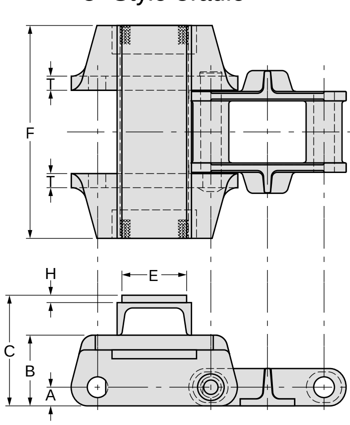
M1



S1



“C” Style Cradle



“B” Style
Pulpwood Flight

Dimensions are in inches. Weights are in pounds.

Chain Number	A	B	C	D[1]		E	F	H	T	Average Weight per Ft.
				Bolt Dia.	Bolt Hole					
K2										
XHD124	7.13	1.06	3.25	1/2	.56	1.94	9.13	4.25	0.63	26
XHD132	9.00	1.65	3.75	1/2	.56	2.75	11.31	6.34	0.75	31
XHD157	9.31	1.65	4.00	1/2	.56	2.75	11.31	6.81	0.75	36
M1										
XHD132	–	–	–	–	–	–	3.00	2.00	0.75	22
XHD157	–	–	–	–	–	–	3.50	2.25	0.75	28
S1										
XHD124	–	0.32	2.25	–	–	1.50	4.25	3.25	0.63	20
XHD132	–	0.58	2.75	–	–	2.00	4.75	3.75	0.75	23
XHD157	–	0.39	2.75	–	–	2.00	5.25	4.00	0.75	28
“C” Style Cradle										
XHD132	–	1.53	3.00	–	–	–	11.50	3.00	–	26
XHD157	–	1.53	3.00	–	–	–	13.50	3.00	–	29
“B” Style Pulpwood Flight										
XHD132	1.50	2.75	4.88	–	–	3.50	11.31	0.38	0.75	32
XHD157	1.50	2.75	4.88	–	–	3.50	11.31	0.38	0.75	37

Cast and Cast Combination Chains are not recommended for elevator service.
Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

■ CAST CHAINS

COMBINATION

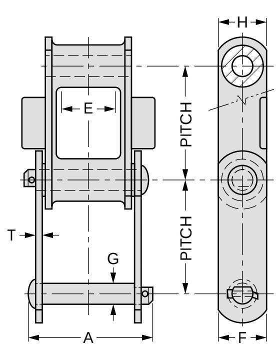
Combination Chains are used extensively for conveyor applications. Because the chain joints are well protected and have generous pin bearing surfaces, they are widely used for handling stone, gravel and similar materials. They are also used for drag conveyor applications because the large link surfaces provide long wear life.

LINK-BELT® STANDARD SERIES CAST COMBINATION CHAINS

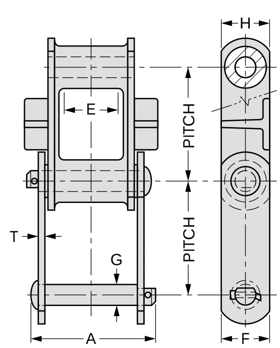
Dimensions are in inches. Strengths, loads and weights are in pounds.

Link-Belt Chain No.	Average Pitch	A	D	E	T	Sidebars F	Pins G	Barrel Diameter H	Rated Working Load	Average Weight Per Foot	Recommended Max. RPM for 12T Sprocket	Sprocket Unit No.[1]
ROLLER-TOP												
C55	1.630	2.06	1.20	0.60	0.19	0.75	0.38	0.63	1,100	2.0	230	55
C56	1.630	2.06	1.20	0.73	0.19	0.75	0.38	0.74	1,100	2.1	230	56
C77	2.308	2.19	1.25	0.50	0.19	0.88	0.44	0.72	1,400	2.2	135	67
C188	2.609	2.69	1.56	0.74	0.25	1.13	0.50	0.88	2,400	3.6	115	78
C131	3.075	3.47	2.03	1.09	0.38	1.50	0.63	1.22	3,800	6.5	90	103
C102B	4.000	4.31	2.88	1.63	0.38	1.50	0.63	0.97	5,000	6.7	60	102B
C102 1/2	4.040	4.59	2.97	1.92	0.38	1.75	0.75	1.38	6,700	9.2	60	102 1/2
C111	4.760	4.72	3.38	2.12	0.38	1.75	0.75	1.44	7,500	9.6	45	111
C133	6.000	3.88	2.25	1.25	0.38	2.00	0.88	1.75	5,000	8.8	35	133
C110	6.000	4.31	2.88	1.76	0.38	1.50	0.63	1.25	5,000	6.0	35	110
C132	6.050	6.27	4.38	2.62	0.50	2.00	1.00	1.72	10,500	14.0	30	132

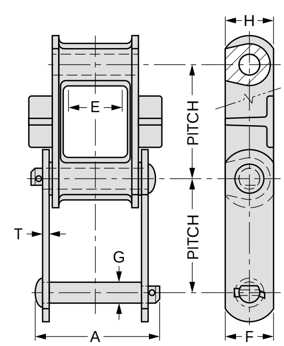
[1] Cast or fabricated sprockets may be used.
See pages 56-58 for attachment listings.



C124W



C132W1



C111W2, C132W2

Available in riveted or cottered construction. Cottered construction shown.
Cottered construction furnished unless otherwise specified.

Dimensions are in inches. Strengths, loads and weights are in pounds.

Link-Belt Chain No.	Average Pitch	A	D	E	T	Sidebars F	Pins G	Barrel Diameter H	Rated Working Load	Average Weight Per Ft.	Recommended Max. RPM for 12T Sprocket	Sprocket Unit No.[1]
C111W2	4.760	5.12	2.42	.38	.44	1.75	.75	.72	5,950	11.8	55	111
C124W[3]	4.063	5.12	1.69	.50	.38	2.25	.88	1.75	6,300	15.4	75	1240
C132W1	6.050	6.54	3.04	.50	.44	2.00	1.00	1.73	8,330	15.6	40	132
C132W2	6.050	6.54	3.04	.50	.44	2.00	1.00	1.73	8,330	16.0	40	132

[1] Cast or fabricated sprockets may be used.
[2] Induction heat treated sidebars.
[3] Round barrel. All other chains have an elliptical barrel.
See page 58 for attachment listings.

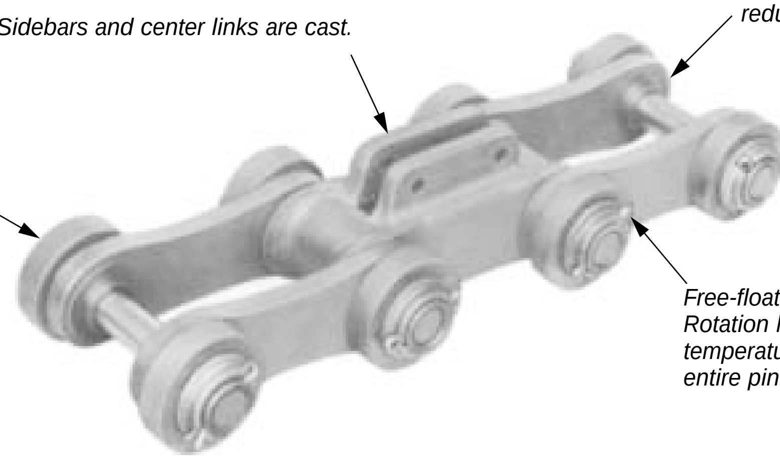
Cast and Cast Combination Chains are not recommended for elevator service.
Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

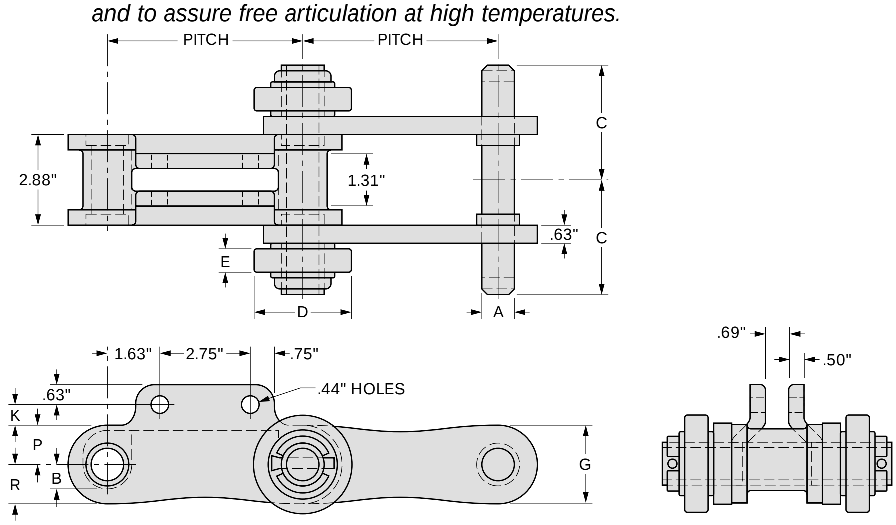
SM COMBINATION CHAINS

SM Combination Chains are designed primarily for high temperature applications and are extensively used for conveying steel sheets or bars through normalizing and heat-treating furnaces. The chains usually operate in channels under the floor and are thus protected from full exposure to furnace heat. The conveyed material is pushed through the furnace by fingers attached to the center links of the chain. The center links and sidebars are well proportioned for strength and rigidity. Sidebars are cast with bosses which fit into sockets in the center links. This design interlocks the center links and sidebars and relieves the pin from handling the entire working load placed on the chain.

Steel pins are heat-treated. They are free to float in the chain joint. This permits pin rotation, thus exposing the entire pin circumference to wear. It also helps correct pin bending that might occur as a result of high temperatures. The pins extend on each side of the chain to provide a mounting for outboard rollers. Rollers rotate freely on case-hardened steel bushings and are held in place by cast washers.

Clearances between all moving parts are carefully controlled by machining, to prevent binding during operation at high temperatures.





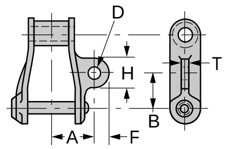
Dimensions are in inches. Strengths, loads and weights are in pounds.

Link-Belt Chain No.	Average Pitch	A	B	C	D	E	G	K	P	R	Rated Working Load	Average Weight Per Foot	Sprocket Unit No.[1]
SMGL618[2]	6.000	.98	.75	3.44	3.00	.78	2.50	.72	1.19	1.19	Contact	24	SMGL618
SMGL628	6.000	1.23	1.00	3.47	3.50	.81	3.00	.53	1.38	1.38	Rexnord	31	SMGL628
SM621	9.000	Offset SM Combination Chain, contact Rexnord											SM621
SM622	6.000	Offset SM Combination Chain, contact Rexnord											SM622

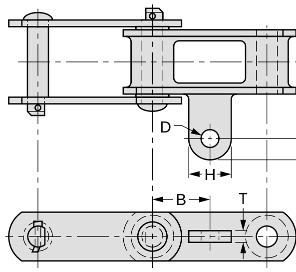
[1] Cast or fabricated sprockets may be used.
[2] Chain with plain center link (no attachment) also available.

Cast and Cast Combination Chains are not recommended for elevator service.
Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

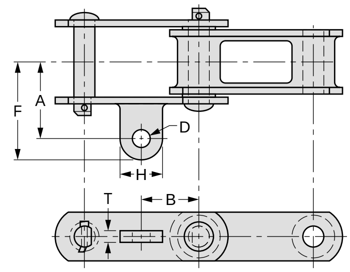
■ CAST CHAINS – Attachments



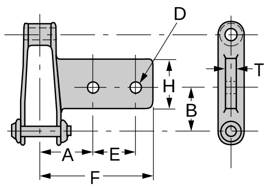
A22 (Figure 1), A42



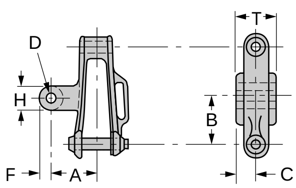
A22 (Figure 1)



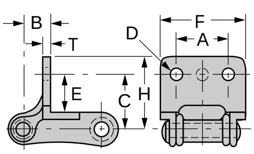
A22 (Figure 2)



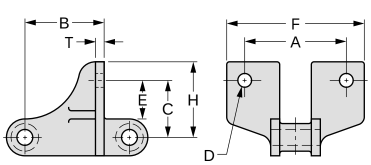
AD474



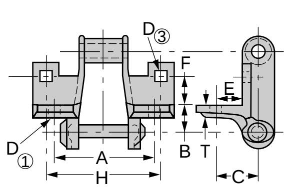
AM116



F2 (Figure 1)



F2 (Figure 2)



F4

Dimensions are in inches.

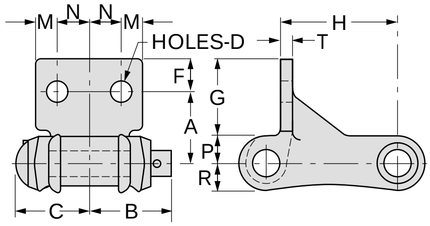
Chain Number	A	B	C	D[1] Bolt Dia.	D[1] Bolt Hole	E	F	H	T
A22 (Figure 1)									
H78	1.88	1.31	–	3/8	.41	–	0.66	1.31	0.41
A22 (Figure 2)									
C188	1.44	1.31	–	3/8	.41	–	2.08	1.19	.38
A22 (Figure 3)									
C55	1.50	.81	–	5/16	.34	–	1.92	.75	.25
A42									
C9103	1.84	1.50	–	3/8	.41	–	0.63	1.25	0.41
AD474									
720S	3.38	2.25	–	1/2	.56	2.50	–	2.81	0.50
C720	3.38	2.25	–	1/2	.56	2.50	–	2.81	0.50
F4									
H78[2]	3.75	1.00	1.44	3/8[3]	.41	0.88	0.94	4.50	0.31
AM116									
720S	2.69	3.00	0.94	5/8	.69	–	0.69	1.38	1.88
C720	2.69	3.00	0.94	5/8	.69	–	0.69	1.38	1.88
F2 (Figure 1)									
720S[4][5]	4.25	3.00	2.00	3/8	.41	1.25	5.31	3.81	0.25
A730[6]	4.25	3.00	2.00	3/8	.41	1.13	5.50	3.94	0.38
C720	4.25	3.00	2.00	3/8	.41	1.25	5.31	3.81	0.25
955	1.06	0.63	0.94	3/16	.22	0.50	1.81	1.25	0.16
977	1.75	0.75	1.44	5/16	.34	0.94	2.63	2.00	0.25
988	2.03	1.19	1.38	5/16	.34	0.90	2.90	1.97	0.28
C9103	2.22	1.25	2.00	3/8	.41	1.25	3.00	2.66	0.31
F2 (Figure 2)									
C77	1.75	3.40	1.00	5/16	.36	.94	2.62	1.94	.25
C102.5	5.75	2.92	2.00	3/8	.44	1.13	7.12	3.07	.31
C111	6.38	3.00	2.00	3/8	.44	1.13	7.75	3.00	.34
C111 (SPECIAL)	6.38	3.00	2.00	3/8	.44	1.13	7.75	3.00	.34
C131	4.69	2.13	1.69	3/8	.44	.94	6.12	2.75	.44
C188	2.00	1.38	1.50	5/16	.34	.94	2.75	2.18	.31

Note: Links with attachments on only one side are made right- and left-hand.

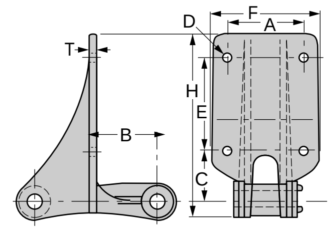
① Style of hole, round.
② Furnished cottered only at attachment links.
③ Style of hole, square.
④ No's. C720S- and 720S-F2 have 2 additional holes 1.94 inches apart and 1.31 inches above first line of holes. Attachments face toward open end of link.
⑤ Attachment face for these chains has cloverleaf outline instead of rectangular.
⑥ No. A730-F2 has 2 additional holes 2 inches apart and 1.31 inches above first line of holes. Attachment faces toward open end of link.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

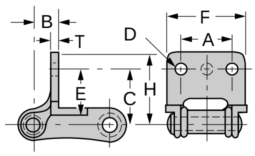
■ CAST CHAINS – Attachments



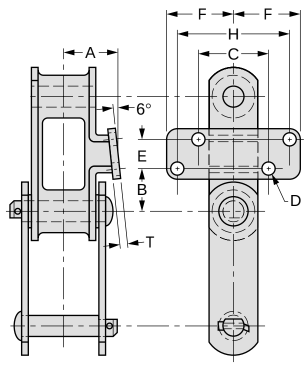
F8



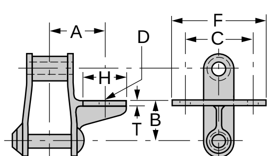
F26, F28



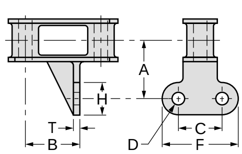
F28, F29



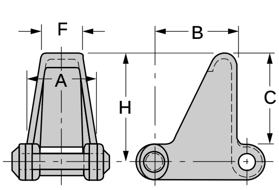
G6



G19 (Figure 1)



G19 (Figure 2)



H2

Dimensions are in inches.

Chain Number	A	B	C	D①		E	F	H	T
				Bolt Dia.	Bolt Hole				
F8									
4124	2.94	–	2.19	1/2	.56	1.31	5.00	3.88	.50
F26									
720S	3.75	3.00	2.38	3/8	.41	2.63	5.38	6.75	0.25
C720	3.75	3.00	2.38	3/8	.41	2.63	5.38	6.75	0.25
CS720S	3.75	3.00	2.38	3/8	.41	2.63	5.38	6.75	0.25
F28									
720CS	3.75	3.00	2.38	3/8	.41	4.50	5.38	8.84	0.25
C720	3.75	3.00	2.38	3/8	.41	4.50	5.50	8.88	0.25
CS720S	3.75	3.00	2.38	3/8	.41	4.50	5.38	8.84	0.25
CS730	3.75	3.00	2.38	3/8	.41	4.50	5.38	8.31	0.25
F29									
C9103	2.22	0.44	2.00	3/8	.41	1.25	3.06	2.66	0.41
SCA9103	2.72	2.63	2.00	3/8	.41	N/A	3.06	2.66	0.38
F30									
C9103	2.22	0.63	2.00	1/2	.56	1.25	3.25	2.63	0.34
G6②									
C102.5	2.62	1.59	2.06	3/8	.41	.88	2.31	3.50	.25
C131	2.19	1.26	1.68	3/8	.44	.56	2.03	3.06	.28
C188	1.60	1.03	1.68	3/8	.44	.56	1.91	3.06	.25
G19 (Figure 1)									
H78	2.19	1.63	2.63	3/8	.41	–	3.50	1.25	0.25
G19 (Figure 2)									
C55	1.69	1.04	.88	5/16	.34	–	1.75	1.00	–
C131	2.39	2.01	2.88	3/8	.44	–	3.88	1.00	.28
C188	1.94	1.86	1.50	3/8	.41	–	2.88	1.25	.25

Chain Number	A	B	C	D	E	F	H	T
H2								
H78	2.38	2.31	2.94	–	–	1.06	3.50	–

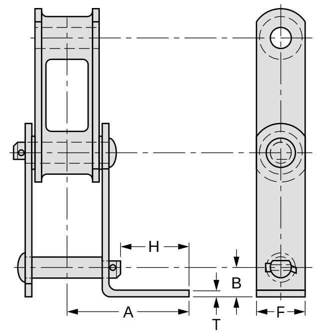
Note: Links with attachments on only one side are made right- and left-hand.

① Style of hole, round.

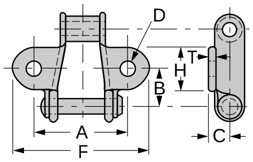
② Right-hand attachment shown. Left-hand also available.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

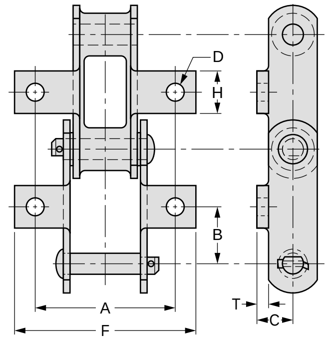
■ CAST CHAINS – Attachments



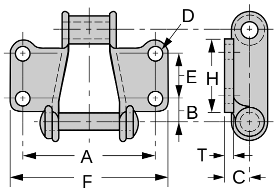
G27



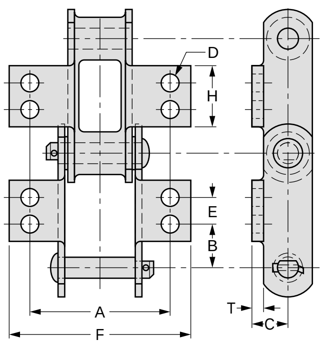
K1 (Figure 1)



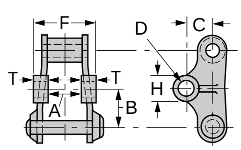
K1 (Figure 2)



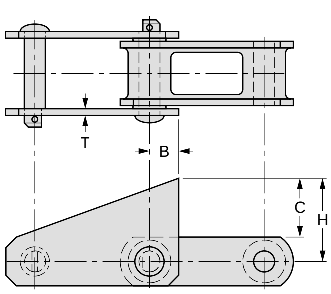
K2 (Figure 1)



K2 (Figure 2), K3



M1



S1

Dimensions are in inches.

Chain Number	A	B	C	D① Bolt Dia.	D① Bolt Hole	E	F	H	T
G27									
C188	3.32	0.88	–	–	–	–	1.12	1.89	0.25
K1 (Figure 1)									
H78	4.00	1.25	0.81	3/8	0.41③	–	5.00	1.38	0.22
952	2.13	0.69	0.44	3/16	0.22②	–	2.88	0.75	0.16
955	2.00	0.78	0.44	1/4	0.28②	–	2.88	0.81	0.16
962	2.38	0.78	0.44	1/4	0.28	–	3.28	0.97	0.19
977	3.00	1.16	0.66	1/4	0.28③	–	3.88	1.31	0.16
988	3.81	1.31	0.66	5/16	0.34	–	4.69	1.38	0.19
C9103	4.19	1.50	0.81	3/8	0.41③	–	5.44	1.72	0.22
K1 (Figure 2)									
C55	2.04	0.82	0.50	1/4	0.31	–	2.92	0.82	0.16
C77	3.00	1.15	0.66	3/8	0.41	–	4.13	1.12	0.22
C131	4.12	1.54	1.00	3/8	0.44	–	5.50	1.50	0.38④
C188	3.75	1.31	0.81	3/8	0.44	–	5.06	1.19	0.25
K2 (Figure 1)									
H78	4.00	0.41	0.81	3/8	0.41	1.13	5.00	2.13	0.25
988	3.63	0.66	0.66	5/16	0.34	1.25	4.50	2.13	0.19
K2 (Figure 2)									
C102B	5.32	1.12	1.00	3/8	0.41	1.75	6.57	2.88	0.38④
C110	5.32	2.12	1.00	3/8	0.41	1.75	6.64	2.88	0.38⑤
C111	6.25	1.22	1.13	1/2	0.53	2.31	7.50	3.50	0.38⑥
C131	4.12	0.79	1.00	1/2	0.53	1.50	5.25	2.50	0.38⑥
C132	7.50	1.65	1.25	1/2	0.53	2.75	9.36	4.00	0.50
C188	4.18	0.68	.81	5/16	0.34	1.25	5.10	2.12	0.25
4124	5.00	1.13	1.19	3/8	0.44	1.81	6.26	3.13	0.28
K3									
C102.5	5.31	1.14	1.19	1/2	0.53	1.75	6.55	2.88	0.50
M1									
720S	1.50	3.00	1.50	3/4	0.81	–	3.00	1.50	0.75
C720	1.50	3.00	1.50	3/4	0.81	–	3.00	1.50	0.75
S1									
C102B	–	0.83	3.00	–	–	–	–	3.75	0.38
C102.5	–	1.01	2.88	–	–	–	–	3.87	0.38
C111	–	0.86	3.50	–	–	–	–	4.38	0.38
C111 W2	–	0.86	3.50	–	–	–	–	4.38	0.38
C132	–	1.13	4.00	–	–	–	–	5.00	0.50
C132 W1	–	1.13	4.00	–	–	–	–	5.00	0.50
C132 W2	–	1.13	4.00	–	–	–	–	5.00	0.50

Note: Links with attachments on only one side are made right- and left-hand.

① Style of hole, round. (Unless otherwise noted.)
② Style of hole, round countersunk.
③ Style of hole, square.
④ Steel sidebar. Centerlink attachment is .25".
⑤ Steel sidebar. Centerlink attachment is .22".
⑥ Steel sidebar. Centerlink attachment is .31".

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

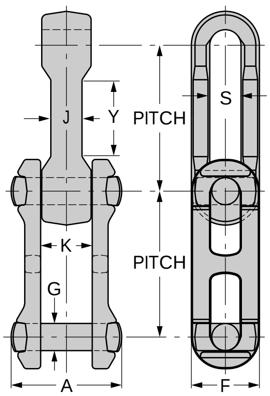
■ DROP FORGED

Standard Forged Chain combines the strength and relatively light weight to make it a good choice for use with trolley, scraper flight and assembly conveyors. All forged construction with thru-hardened links and pins assures long life.

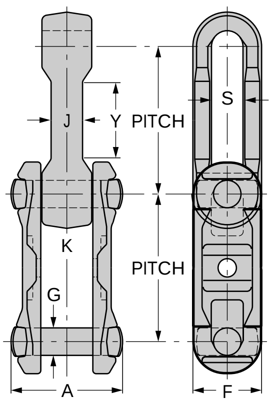
X Series Chain flexes both horizontally and vertically, which makes it ideal for overhead conveyors with vertical curves.

S Series Chain features a thru-hardened forged block link, induction hardened steel outer sidebars and induction hardened staked rivets for greater wear resistance, higher system tensions, and positive rivet retention.

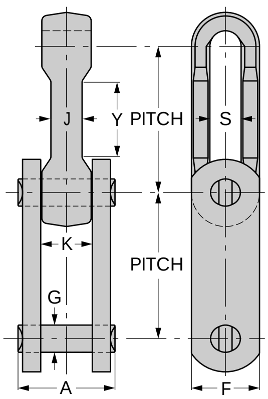
N348 is used primarily for overhead conveyor service where corrosion is a concern. Polymeric links and stainless steel pins of N348 resist corrosion.



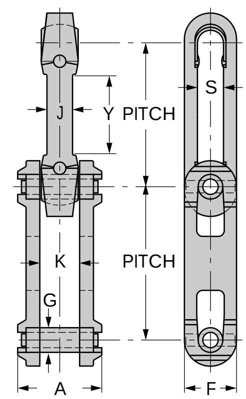
Standard Forged Chain



"X" Series Drop Forged Chain



"S" Series Drop Forged Chain



"N" Series Polymeric Chain

Dimensions are in inches. Strengths, loads and weights are in pounds.

Rex Chain No.	Average Pitch	Pins	Overall Width	K	Chain Height	Link Thickness	S	Rated Working Load	Average Weight	Chain Part	Brinell Hardness	Average Ultimate Strength	Sprocket Unit No.①
		G	A		F	J							
STANDARD FORGED CHAIN													
468	4.031	0.75	3.31	1.69	1.88	1.13	0.88	5,800	7.8	Side Link Center Link Pin	311/388 331/388 340/415	88,000	468
698③	6.031	1.13	3.75	1.63	2.59	1.00	1.25	10,800	12.5	Side Link Center Link Pin	311/388 331/388 340/415	175,000	698
998③	9.031	1.13	3.75	1.69	2.66	1.00	1.25	10,800	10.3	Side Link Center Link Pin	311/388 331/388 340/415	175,000	998
9118	9.031	1.38	4.88	2.13	3.00	1.31	1.50	18,300	16.3	Side Link Center Link Pin	302/363 302/363 311/363	1250,000	9118②
"X" SERIES DROP FORGED CHAIN													
X348	3.015	0.50	1.75	0.81	1.09	0.50	0.56	2,000	1.9	Side Link Center Link Pin	302/341 302/341 341/388	40,000	348
X458③	4.031	0.63	2.19	1.06	1.38	0.63	0.69	4,000	3.1	Side Link Center Link Pin	311/388 331/388 363/415	57,000	458
X678③	6.031	0.88	3.03	1.38	2.00	0.81	1.00	7,100	6.5	Side Link Center Link Pin	311/388 331/388 340/415	125,000	678

Rex Chain No.	Average Pitch	Pins	Overall Width	K	Chain Height	Link Thickness	S	Rated Working Load	Average Weight	Sprocket Unit No.①
		G	A		F	J				
"S" SERIES DROP FORGED CHAIN										
S348	3.019	0.50	1.75	0.81	1.13	0.50	0.56	2,000	2.4	348
S458	4.031	0.63	2.06	1.06	1.38	0.63	0.69	4,000	3.5	458
S468	4.031	0.75	2.94	1.69	2.00	1.13	0.88	6,700	7.9	468
S678	6.031	0.88	3.00	1.44	2.00	0.81	1.00	7,700	8.6	678
S698	6.031	1.13	3.25	1.63	2.50	1.00	1.25	10,800	11.7	698
S698HD	6.031	1.13	3.88	1.63	2.88	1.00	1.25	13,000	12.2	698
S998	9.031	1.13	3.25	1.69	2.50	1.00	1.25	10,800	12.1	998
S9118	9.031	1.38	4.38	2.13	3.00	1.31	1.50	18,300	23.3	9118②
"N" SERIES POLYMERIC CHAIN										
N348	3.015	0.50	1.75	0.81	1.09	0.50	0.50	700	0.6	348

① Cast or fabricated sprockets may be used.
② Available only as a fabricated sprocket.
③ Available with 8642 alloy steel. Increases hardness and ultimate strength. Contact Rexnord.

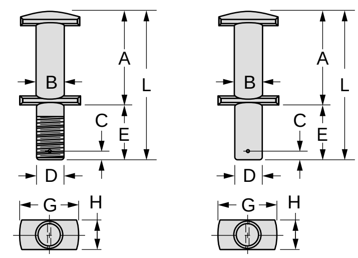
Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

■ DROP FORGED – Attachments

CHAIN NUMBER	ATTACHMENTS AVAILABLE*
S348, X348	A53, S2
S458, X458	A22, A52, F2A, M9, M37, M40, S22, extended pin
468, S468	F2A, F2C, S2, extended pin
X658	
S678, X678	A22, A53, F2C, F2F, G47, K2, extended pin
698, S698	A53, A54, F2D, G2-2A, extended pin
998, S998	A42, F2A, G1B, S2A, S22, extended pin
9118, S9118	S22

***Bold face type indicates attachments normally carried in stock.**

ATTACHMENT PINS

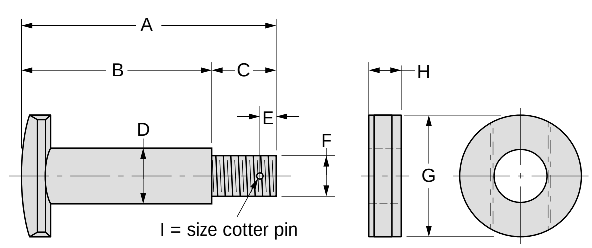


Style 1 Style 2

Dimensions are in inches. Strengths, loads and weights are in pounds.

Chain Number	Style	A	B	C[1]	D	E[2]	F	G	H	Extension (Diameter)
X348	1	B + C	1.72	1.00-2.00	0.50	0.25	0.50	1.19	0.50	0.50 Threaded
458	1	B + C	2.20	1.13-2.63	0.63	0.25	0.50	1.22	0.63	0.50 Threaded
458	1 or 2	B + C	2.20	2.00-5.50	0.63	0.25	0.63	1.22	0.63	0.63 Threaded or Plain
468	1 or 2	B + C	3.19	1.38-2.63	0.75	–	0.75	1.69	0.77	0.75 Threaded or Plain
468	1	B + C	3.19	1.50-5.50	0.75	–	0.63	1.69	0.77	0.63 Threaded
678	1 or 2	B + C	3.00	1.00-3.00	0.88	0.25	0.63	1.88	0.88	0.63 Threaded or Plain
678	1	B + C	3.00	1.00-1.50	0.88	0.25	0.75	1.88	0.88	0.75 Threaded
678	1	B + C	3.00	1.50-2.25	0.88	–	0.88	1.88	0.88	0.88 Threaded
698, 998	1 or 2	B + C	3.88	2.00	1.13	0.50	0.75	2.50	1.16	0.75 Threaded or Plain
698, 998	1 or 2	B + C	3.80	2.00	1.13	0.31	1.13	2.50	1.13	1.13 Threaded or Plain
9118	1 or 2	7.38	4.88	2.50	1.38	0.50	1.13	3.00	1.44	1.13 Threaded or Plain
9118	1 or 2	7.38	4.88	2.50	1.38	0.50	1.38	3.00	1.44	1.38 Threaded or Plain

COUPLING PINS AND WASHERS



Bolted Coupler Pin
Available for all rivetless chains.

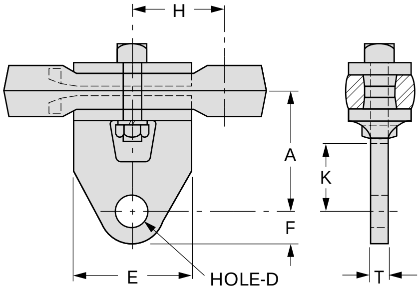
Dimensions are in inches. Strengths, loads and weights are in pounds.

Chain Number	A	B	C	D	E	F	G	H	I Cotter Size	Extension (Dia.)	Average Weight
X348	2.31	1.5	.81	0.5	0.16	0.38	1.00	0.27	0.13	0.38 dia. threaded	0.20
458	2.88	1.89	.98	0.63	0.30	0.50	1.25	0.28	0.13	0.50 dia. threaded	0.38
468	3.97	2.88	1.09	0.75	0.19	0.63	1.56	0.39	0.13	0.63 dia. threaded	0.75
X678	3.91	2.94	.97	0.88	0.25	0.63	1.88	0.50	0.13	0.63 dia. threaded	0.94
698	4.92	3.81	1.11	1.13	0.27	0.75	2.38	0.63	0.13	0.75 dia. threaded	2.00
998	4.92	3.81	1.11	1.13	0.27	0.75	2.38	0.63	0.13	0.75 dia. threaded	2.00
9118	6.09	4.97	1.13	1.38	0.25	1.00	3.00	0.69	0.19	1.00 dia. threaded	4.00

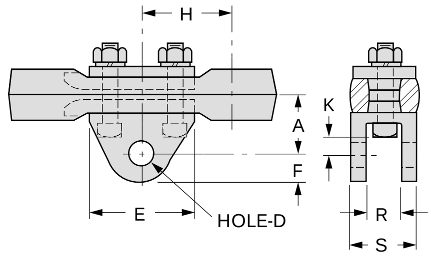
Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

■ DROP FORGED – Attachments

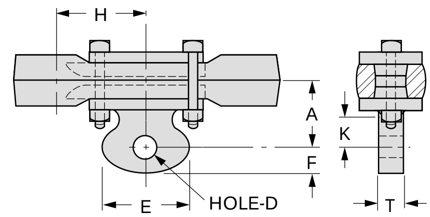
A ATTACHMENTS



A22



A52, A54

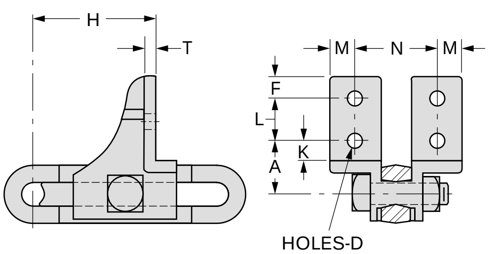


A42

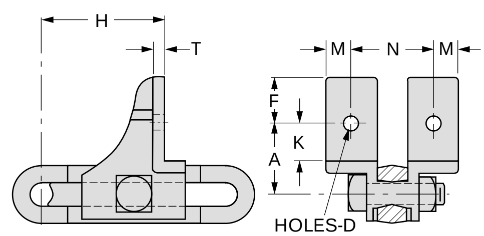
Dimensions are in inches. Strengths, loads and weights are in pounds.

Attachment No.	Chain Number	A	D	E	F	H	K	R	S	T	Average Weight
A22	**X458, S458**	2.00	0.68	2.38	0.81	2.02	1.06	–	–	0.50	1.5
	X678, S678	2.84	0.66	3.63	0.75	3.00	1.50	–	–	0.53	3.1
A42	**998, S998**	2.75	0.91	4.00	0.94	4.50	1.63	–	–	1.06	6.9
A52	**X458, S458**	2.88	0.53	2.25	0.63	2.00	1.88	0.69	1.19	–	1.6
A53	**X348, S348**	2.50	0.53	1.59	0.63	1.50	1.75	0.56	0.94	–	0.6
	X678, S678	2.25	0.66	3.56	0.88	3.00	1.09	1.13	1.88	–	2.8
	698, S698	2.75	0.91	4.00	0.94	3.00	1.06	1.44	2.38	–	6.0
A54	**698, S698**	2.50	0.66	2.97	0.88	3.00	1.13	1.13	2.00	–	4.0

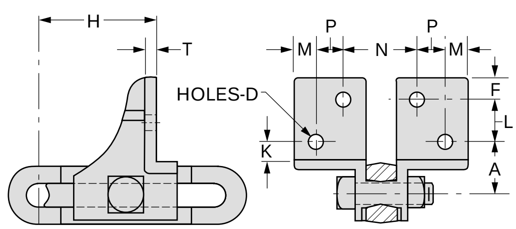
F ATTACHMENTS



F2A and F2D
Figure 1



F2A and F2C
Figure 2



F2C and F2F
Figure 3

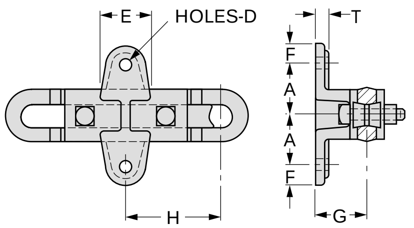
Dimensions are in inches. Strengths, loads and weights are in pounds.

Attachment No.	Chain Number	A	D	F	H	K	L	M	N	P	T	Average Weight
F2A Figure 1	**998, S998**	2.02	0.56	0.63	6.00	0.75	2.00	0.88	6.00	–	0.38	9.1
F2A Figure 3	**X458, S458**	1.94	0.56	0.94	3.22	0.94	–	0.75	3.63	–	0.25	2.2
	468, S468	1.97	0.56	0.75	2.78	1.00	–	0.94	4.00	–	0.31	2.5
F2C Figure 3	**X678, S678**	1.94	0.56	0.81	4.69	0.88	1.38	0.69	2.56	0.88	0.31	4.7
F2C Figure 2	**468, S468**	1.97	0.56	0.88	2.91	1.00	–	0.75	3.94	–	0.25	2.4
F2D	**698, S698**	2.03	0.56	0.75	4.34	0.75	2.00	1.00	3.94	–	0.34	5.9
F2F	**X678, S678**	1.94	0.56	0.63	4.69	0.88	1.25	0.81	2.06	1.06	0.38	4.4

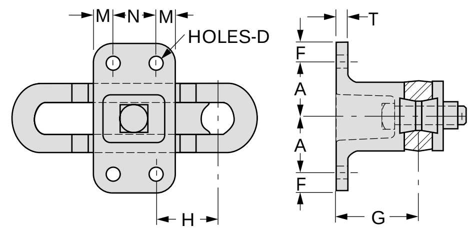
Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

■ DROP FORGED – Attachments

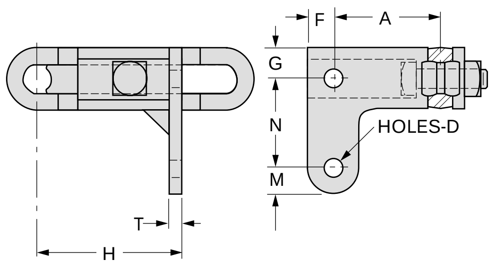
G ATTACHMENTS



G1B



G2-2A

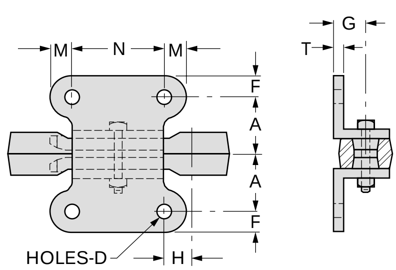


G47

Dimensions are in inches. Strengths, loads and weights are in pounds.

Attachment No.	Chain Number	A	D	F	G	H	M	N	T	Average Weight
G1B	**998, S998**	2.50	0.69	1.00	2.94	2.53	1.00	4.00	0.38	11.2
G2-2A	**698, S698**	2.00	0.56	0.75	4.00	1.44	0.75	3.25	0.38	7.4
G47	**X678, S678**	3.50	0.56	0.88	1.00	4.81	0.88	3.00	0.38	5.2

K ATTACHMENTS



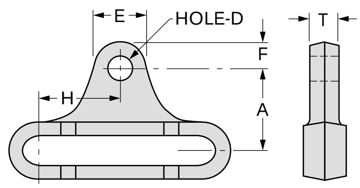
Dimensions are in inches. Strengths, loads and weights are in pounds.

Attachment No.	Chain Number	A	D	F	G	H	M	N	T	Average Weight
K2	**X678, S678**	1.75	0.56	0.75	1.38	1.50	0.75	3.00	0.38	3.9

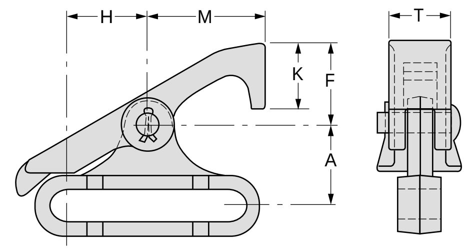
Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

■ DROP FORGED – Attachments

M ATTACHMENTS



M37, M40

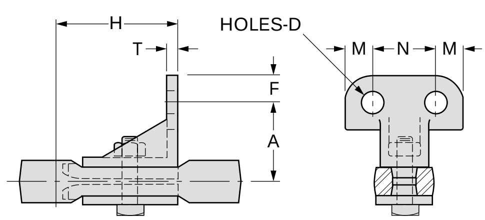


M40 attachment with pusher dog #1

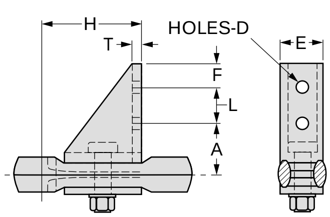
Dimensions are in inches. Strengths, loads and weights are in pounds.

Attachment No.	Chain Number	A	D	F	G	H	M	N	T	Average Weight
M37	**X458, S458**	2	0.77	1.13	0.56	2	–	–	0.45	1.3
M40	**X458, S458**	2	0.53	1.13	0.56	2	–	–	0.45	1.3
M40 with pusher dog	**X458, S458**	2	–	–	2	2	1.63	2.81	1.38	3.1

S ATTACHMENTS



S2



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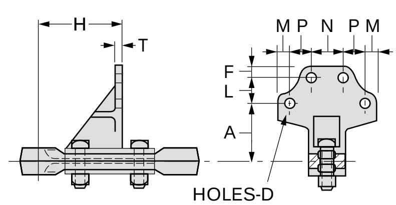


S2A

Dimensions are in inches. Strengths, loads and weights are in pounds.

Attachment No.	Chain Number	A	D	E	F	H	L	M	N	P	T	Average Weight
S2	**X348, S348**	2.19	0.41	–	0.63	2.25	–	0.44	2.63	–	0.25	0.8
	468, S468	2.69	0.56	–	0.75	2.91	–	0.75	1.50	–	0.31	1.9
S2A	**998, S998**	4.00	0.56	–	0.75	5.28	1.75	0.75	2.13	1.53	0.31	8.8
S22	**X458, S458**	2.25	0.56	1.38	0.63	3.19	2.00	–	–	–	0.31	2.0
	X678, S678	2.88	0.69	1.81	0.88	4.94	2.25	–	–	–	0.31	4.7
	998, S998	3.25	0.81	2.38	1.50	6.50	3.00	–	–	–	0.63	11
	9118, S9118	4.25	0.81	3.00	1.25	7.19	6.50	–	–	–	0.38	15

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

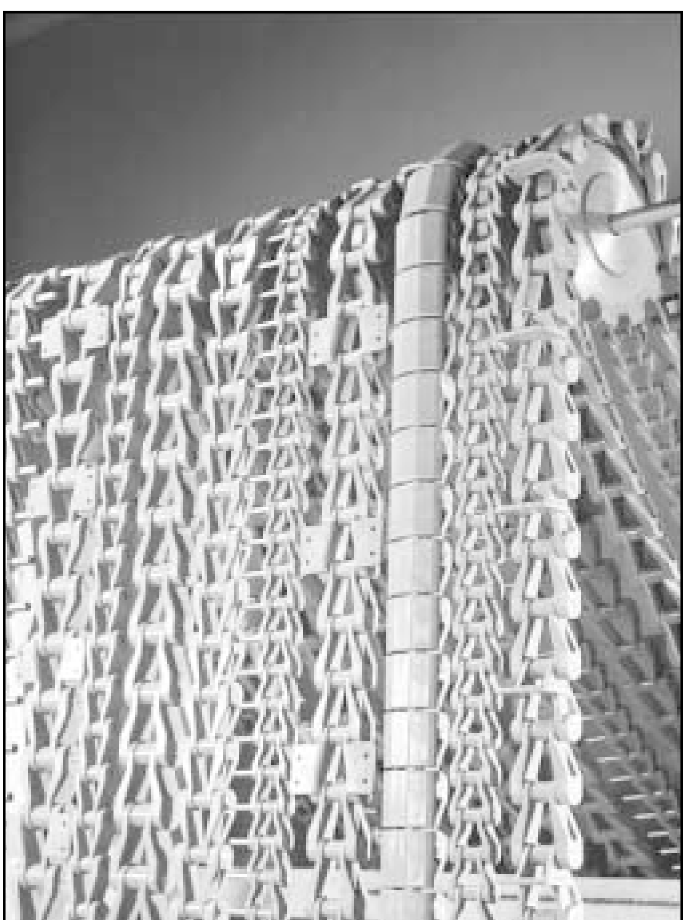
STRAIGHT RUNNING CHAINS

Design Features

Rex® straight running polymeric chains are designed specifically for those applications requiring corrosion resistant chains that operate over standard metal or polymeric sprockets.

The link material is a low friction thermoplastic that has proven itself as a chain material for over a decade. This material resists most chemicals, and because of its low friction characteristics, reduces energy consumption and noise while increasing chain, sprocket and conveyor wear strip life. Wide wearing surfaces on top and bottom of the link offer extended sliding wear life.

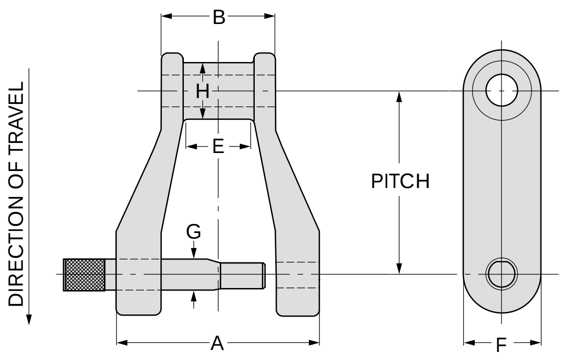
Chain pins are manufactured from stainless steel. The latest technology in chain design has been used to provide the greatest chain strength and wear life at a reasonable cost. The use of stainless steel pins with the corrosion resistant thermoplastic material offers a chain capable of withstanding most corrosive applications. Non-metallic pins are also available, contact Rexnord for details.

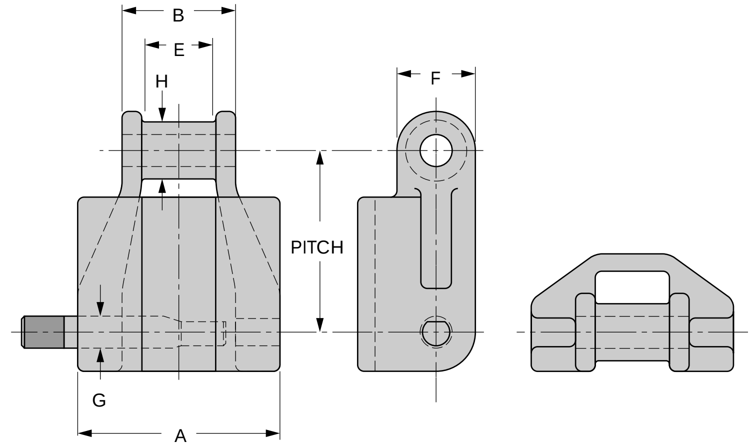


Design Benefits

- **Simple Two Piece Construction** – Pins are easily assembled into links – yet pins will not “work out” or rotate in service. No extra spring pins or cotters to fall out or snag conveyor apparatus. Every link is a “Master Link.”
- **Lightweight** – Less “dead weight” in your conveyor system will extend conveyor component life – longer chain life – longer conveyor “way” life – longer sprocket life – longer bearing life – longer reducer life – longer motor life!
- **Clean** – In normal service, Rex Polymeric Chain will not corrode and contaminate the product. It is easily washed with water during operation, saving both time and money.
- **Completely Interchangeable** – As a replacement for metal chains, Rex Polymeric Chain will run on existing carrying and return “ways,” The chains will not intercouple with metal chains.
- **Low Coefficient of Friction** – Rex chain materials have a very low coefficient of friction – this means less chain load and less energy consumption to convey the same tonnage.
- **Brute Strength** – Rex Polymeric Chain has the highest possible working load. This is accomplished through “Balanced Design” of the link and pin. For a comparison to your current chain or for chain recommendations consult Rexnord.
- **Operating Range** – Allowable temperature range of Rex Polymeric Chain is enough to handle most applications: -40°F to +180°F.
- **Quiet Running** – Because of its unique design, the Rex Polymeric Chain is an ideal chain for reducing noise in many applications. Make your own test to prove if the noise level is adequate for your needs.

STRAIGHT RUNNING CHAINS





NHT78

Dimensions are in inches. Strengths, loads and weights are in pounds.

Rex Chain No.	Average Pitch	Overall Width	Length of Bearing	Max. Allowable Sprocket Face	Height of Sidebar	Link Thickness	Pins	Average Weight	Sprocket Unit No.	Bottom Sliding Area Sq. Inches Per Foot
		A	B	E	F	J	G			
NH45	1.630	2.19	1.31	.75	.88	.31	.63	0.9	N45	8.8
NH77	2.308	2.19	1.31	.75	1.10	.38	.81	1.1	N77	10.4
NH78	2.609	2.91	1.63	.94	1.13	.44	.88	1.4	N78	11.5
NHT78	2.609	2.91	1.63	.94	1.69	.44	.88	2.0	N78	11.5
NH82	3.075	3.29	2.00	1.13	1.50	.50	1.25	2.2	N82	13.7

Chains are normally stocked. Chains are patented: #4682687
CAUTION: ANY UNUSUAL burrs, ridges or protrusions on sprocket teeth or in conveyor system which would cut into polymeric chains must be removed.

Specifications

FDA and USDA – Chain materials used are in compliance with FDA regulations and guidelines for use in direct food contact. Also, the chain materials have been found chemically acceptable for direct food contact with meat or poultry products by the Product Safety Branch of USDA. Also, the chain designs have been found acceptable for direct contact with meat or poultry products by the Equipment Branch of the Facilities, Equipment and Sanitation Division of USDA.

See pages 130-132 for important application information.

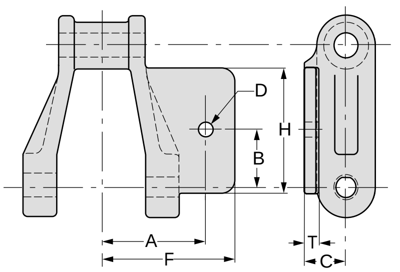
NOTE: The purpose of the table below is to account for cycles of load. This is an important consideration relating to fatigue and is critical to the successful application of chains made from any nonmetallic material.

Ratio of Chain Speed (FPM) to Sprocket Centers (FT)	Rated Working Load – Pounds*			
	NH45	NH77	NH78 & NHT78	NH82
0.1	800	1100	1750	2400
0.1	750	1050	1650	2250
0.5	700	950	1350	2100
1.0	600	800	1100	1700
2.0	500	680	925	1400
5.0	400	540	750	1200
10.0	330	450	650	950

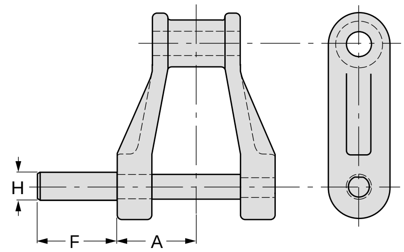
*Working load ratings for Polymeric Chains are established according to chain speed (FPM) and sprocket centers (FT).

■ POLYMERIC CHAINS – Attachments

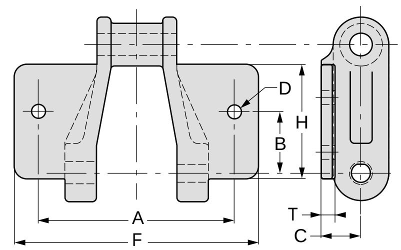
STRAIGHT RUNNING CHAINS – ATTACHMENTS



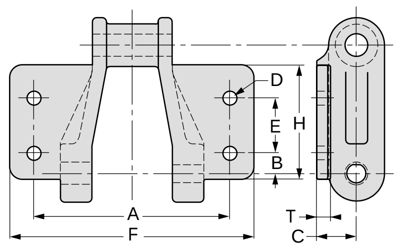
A1



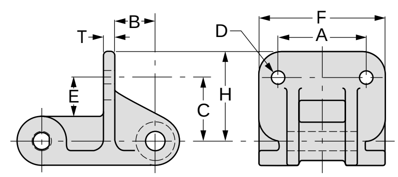
D5, D6, D7, D8 & D9



K1



K2



F2

Dimensions are in inches. Strengths, loads and weights are in pounds.

Rex Chain No.	A	B	C	D① Bolt Dia.	D① Bolt Hole	E	F	H	T	Weight	Link Weight W/O Pins Per 100 Pieces	Pin Weight Per 100 Pieces
A1												
NH45	1.63	.38	.69	1/4	.28	–	2.00	1.47	.19	1.4	9	4.5
NH78	1.94	1.06	.81	1/4	.28	–	2.50	2.31	.25	1.7	25	11.8
NH82	2.13	1.00	.88	1/4	.28	–	2.68	2.25	.31	2.4	44	17.8
D5												
NH45	1.09	–	–		–	–	1.50	.31	–	1.1	7	7.7
D6												
NH45	1.09	–	–		–	–	1.50	.38	–	1.2	7	9.2
NH77	1.09	–	–		–	–	1.50	.38	–	1.3	13	11.2
D7												
NH45	1.09	–	–		–	–	1.50	.44	–	1.3	7	10.8
NH78	1.44	–	–		–	–	1.50	.44	–	1.7	20	18.2
NH82	1.66	–	–		–	–	1.50	.44	–	2.6	43	24.2
D8												
NH45	1.09	–	–		–	–	1.50	.50	–	1.5	7	12.8
NH78	1.44	–	–		–	–	1.50	.50	–	1.8	20	20.1
NH82	1.66	–	–		–	–	1.50	.50	–	2.7	43	26.1
D9												
NH45	1.09	–	–		–	–	1.50	.56	–	1.6	7	15.0
NH78	1.44	–	–		–	–	1.50	.56	–	1.9	20	22.4
NH82	1.66	–	–		–	–	1.50	.56	–	2.8	43	28.3
F2												
NH78	2.03	.94	1.47	1/4	.28	.90	2.90	2.06	.25	1.7	25	11.8
NH822②	2.22	1.25	1.91	1/4	.28	1.25	3.28	2.50	.38	2.5	46	17.8
K1												
NH45	3.25	.38	.69	1/4	.28	–	4.00	1.47	.19	1.2	12	4.5
NH78	4.00	1.25	.81	1/4	.28	–	5.00	2.31	.25	1.9	30	11.8
NH82	4.25	1.00	.88	1/4	.28	–	5.38	2.25	.31	2.6	49	17.8
K2												
NH45	3.25	–	.69	1/4	.28	.81	4.00	1.47	.19	1.2	12	4.5
NH78	4.00	.41	.81	1/4	.28	1.13	5.00	2.31	.25	1.9	30	11.8
NH82	4.25	.34	.88	1/4	.28	1.31	5.38	2.25	.31	2.6	49	17.8

① Style of hole: round.
② Custom bolt-on attachment available – contact Rexnord.
A attachments are available right hand and left hand.
A, F, and K attachments are available blank (no holes), with holes as shown, or as required.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

■ POLYMERIC CHAIN

DOUBLE FLEX CHAINS

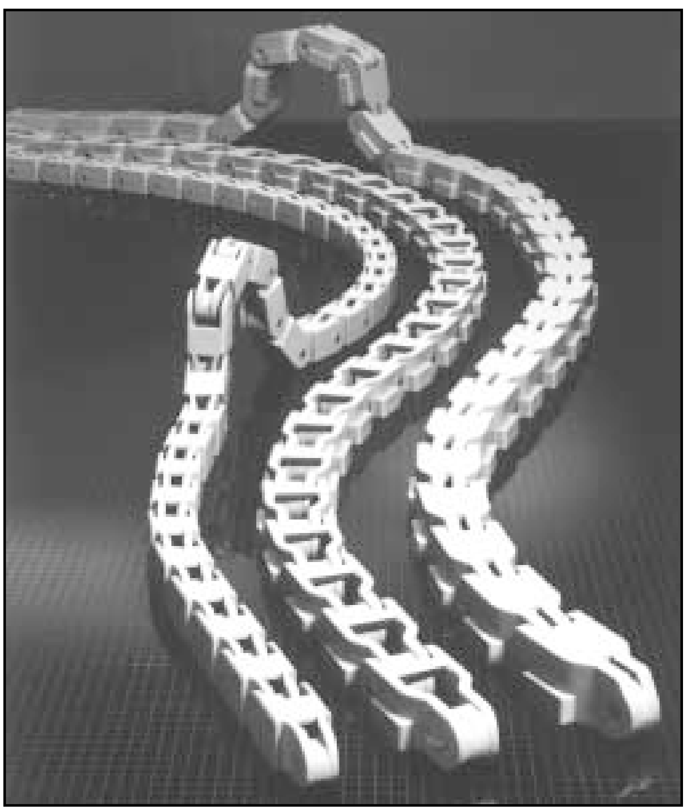
Design Features

The Rex® Polymeric Double Flex Chains are designed for curved or straight unit handling conveyors. The chain will flex in the vertical and horizontal planes.

The chains are made from an exclusive low friction material that has proven itself as long wearing and shock resistant. With a stainless steel pin, the chains will not rust and will resist the same chemicals as acetal thermoplastic. Non-metallic pins are also available, contact Rexnord for details.

The latest technology in chain design has been used to provide the greatest chain strength and wear life at a reasonable cost.

Conveyor operators will appreciate the quiet running chains that reduce daily work area stress. Maintenance people laud the chain's light weight and ease of installation.



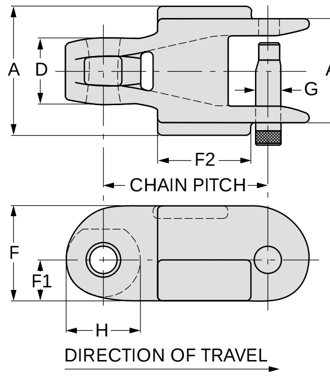
FDA and USDA – Chains materials used are in compliance with FDA regulations and guidelines for use in direct food contact. Also, the chain materials have been found chemically acceptable for direct food contact with meat or poultry products by the Product Safety Branch of USDA. Also, the chain designs have been found acceptable for direct contact with meat or poultry products by the Equipment Branch of the Facilities, Equipment, and Sanitation Division of USDA.

Design Benefits

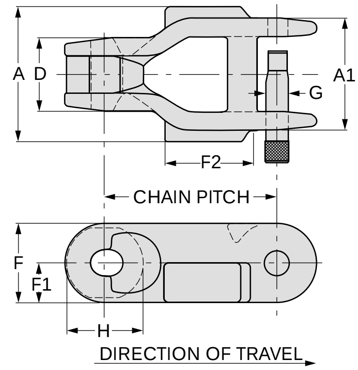
- **Simple Two Piece Construction –** Pins are easily assembled into links – yet pins will not "work out" or rotate in service. No extra spring pins or cotters to fall out or snag conveyor apparatus.
- **Lightweight –** Less "dead weight" in your conveyor system will extend conveyor component life – longer chain life – longer conveyor "way" life – longer sprocket life – longer bearing life – longer reducer life – longer motor life!
- **Clean –** In normal service, chains will not corrode and contaminate the product. They are easily washed with water during operation, saving both time and money.
- **Easy Maintenance –** Chains are engineered for ease of assembly or disassembly. Since it is lightweight, a 10 foot strand of N325WS weighs 12 pounds, so one person can handle routine maintenance.
- **Operating Range –** Allowable temperature range of Rex polymeric chains is enough to handle most applications, -40°F to +180°F.
- **Completely Interchangeable –** A replacement for metal chains. These chains will run on existing carrying and return "ways." Chains will not intercouple with metal chains and require proper care with catenary design – consult Rexnord.
- **Low Coefficient of Friction –** Rex chain materials have a very low coefficient of friction. This means less chain load and less energy consumption to convey the same tonnage.
- **Brute Strength –** These chains have the highest possible rated Working Load. This is accomplished through "Balanced Design" of the link and pin. For a comparison to your current chain or for chain recommendations consult Rexnord.
- **Protects Conveyed Material –** The polymeric chains will not damage most products.
- **Quiet Running –** Because of its unique design, these chains are ideal for reducing noise in many applications… make your own test to prove if the noise level is adequate for your needs.

DOUBLE FLEX CHAINS

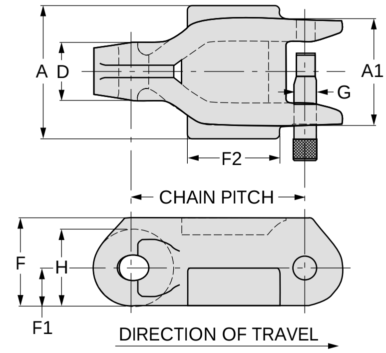
See pages 130-132 for important application information.



N250 (WS)*



N325 (WS)*



N9350 (WS)*

Dimensions are in inches. Weights are in pounds.

Rex Chain No.	Average Pitch	Overall Width		Length of Barrel	Max. Allowable Sprocket Face	Height of Sidebar	Wear Shoe		Diameter of Pin or Rivet	Diameter of Barrel	Minimum Flex Radius	Average Weight	Bottom Sliding Area Includnig Shoes Sq. Inches Per Foot
		With Wear Shoes	Without Wear Shoes				Height	Length					
		A	A1	D		F	F1	F2	G	H	R		
N250(WS)	2.500	1.94	1.56	1.00	.75	1.44	.63	1.41	.38	1.13	20	0.9	2.1
N325(WS)	3.268	2.56	2.13	1.38	.63	1.50	.75	1.63	.44	1.44	24	1.2	3.2
N9350(WS)	3.500	2.66	2.13	1.16	.81	1.75	.75	1.84	.44	1.50	24	1.8	4.2

* Note: WS version has wear shoes. Chains are normally stocked. Chains travel open end forward. Chains are patented: #4682687
CAUTION: ANY UNUSUAL burrs, ridges or protrusions on sprocket teeth or in conveyor system which would cut into polymeric chains must be removed.

Dimensions are in inches. Weights are in pounds.

Ratio of Chain Speed (FPM) to Sprocket Centers (FT)	Rated Working Load – Pounds*		
	NH250(WS)	NH325(WS)	NH9350(WS)
0.1	800	1500	1875
0.2	750	1500	1875
0.5	700	1250	1565
1.0	600	1030	1290
2.0	500	850	1065
5.0	400	650	815
10.0	330	540	675

*Working load ratings for Polymeric Chains are established according to chain speed (FPM) and sprocket centers (FT).

NOTE: The purpose of the table to the left is to account for cycles of load. This is an important consideration relating to fatigue and is critical to the successful application of chains made from any nonmetallic material.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

■ LIVE ROLLER CHAIN

NOW MANUFACTURED AT THE ENGINEERED CHAIN OPERATION!

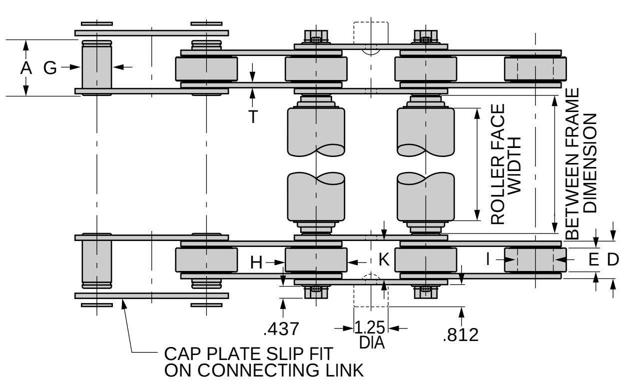
Rex® Live Roller Conveyor Chains are precision conveyor carrier roller chains which may be combined with quiet running Rex Whisperol polymeric rollers or with standard hexagonal axle conveyor rollers.

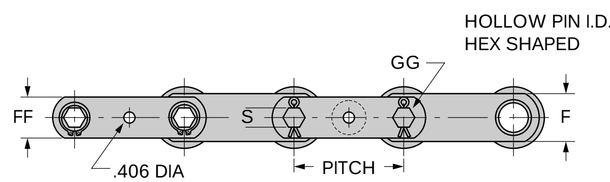
The conveyor chain's special Rexnord engineered hexagonal shaped hollow pin allows the chain to accept standard size hexagonal axles offered on conveyor rollers.

The combination of precision conveyed carrier roller chain and the free turning conveyor rollers produces a heavy duty roller flight conveyor which can be used as an accumulating and minimum pressure conveyor.

The combination of Rex live roller conveyor chain with conveyor rollers is ideally suited for conveyor lines handling items which must be blocked, stopped or accumulated without stopping the conveyor.

The conveyed object, which is carried directly on the conveyor rollers, can be halted for accumulation, assembly or inspection at any location on the conveyed line. Because the conveyor rollers are free turning, line pressure is held to a minimum allowing fragile items, such as furniture, sub-assemblies, and light cartons, to be conveyed or accumulated without fear of damage.





Dimensions are in inches. Loads and weights are in pounds.

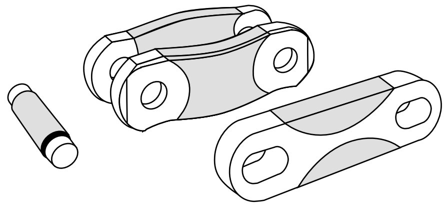
Rex Chain No.	Average Pitch	Rated Working Load	Average Weight	Overall Pin	Conn. End to Center Line	Rivet End to Center Line	Between Sidebar	Thru-Hardened Sidebars Thickness Pin Link	Thru-Hardened Sidebars Thickness Roller Link	Thru-Hardened Sidebars Height Pin Link	Thru-Hardened Sidebars Height Roller Link	Carburized Pins O. D.	Carburized Pins Hex	Carburized Rollers Face Width	Carburized Rollers O. D.	Carburized Bushings Length	Carburized Bushings O. D.	Sprocket Unit No.
				A	B	C	K	T	TT	FF	F	G	GG	E	H	D	I	
RF3007	3.000	4,000	3.9	1.78	.94	.81	1.18	.16	.19	1.13	1.31	.75	7/16	.75	1.75	1.16	.94	RF3007
RF4007	4.000	4,000	3.4	1.78	.94	.81	1.18	.16	.19	1.13	1.31	.75	7/16	.75	1.75	1.16	.94	RF4007
RF3011	3.000	5,000	6.9	2.13	1.16	.97	1.41	.19	.19	1.50	1.75	1.06	11/16	.97	2.25	1.38	1.31	RF3011
RF4011	4.000	5,000	5.7	2.13	1.16	.97	1.41	.19	.19	1.50	1.75	1.06	11/16	.97	2.25	1.38	1.31	RF4011

NOTE: Shaft extension for any live roller chain is A + 0.437.
Chains are normally in stock.
Sidebars are thru-hardened; bushings are carburized.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

3500 STEEL DOUBLE FLEX CHAIN

Fabricated steel 3500 chain is designed to operate in either direction. This feature plus its ability to flex in two planes, and its excellent wear durability, makes it popular for a wide range of applications in the unit handling industry.

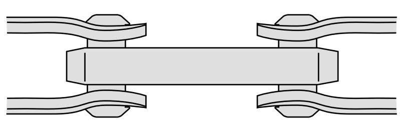


Induction Hardening

Pin bearing surfaces and all sliding surfaces are induction hardened.

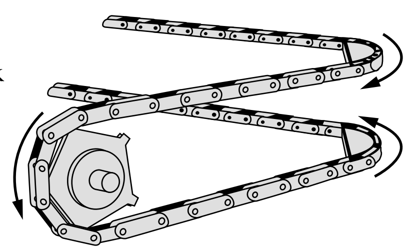
Selective hardened areas provide long life, yet leave tough chain with high strength to handle big loads.

Shielded Rivets



Cupped configuration on the outer sidebar both protects and shields rivet ends, as well as provide relief for side-flex. No rivet wear prevents the possibility of disassembly while in operation.

Beveled Block Link

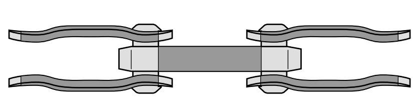


The 3500 block link is beveled to provide additional protection for conveyors handling plastic cases.

Large Sliding Area

3500 Double Flex Chain presents solid, substantial sliding surfaces to channel tracks.

Nearly 50% greater sliding bearing area than drop-forged chain results in lower sliding bearing pressure, thus decreasing wear on chain and channels. Again, increased chain life, lower chain replacement costs.



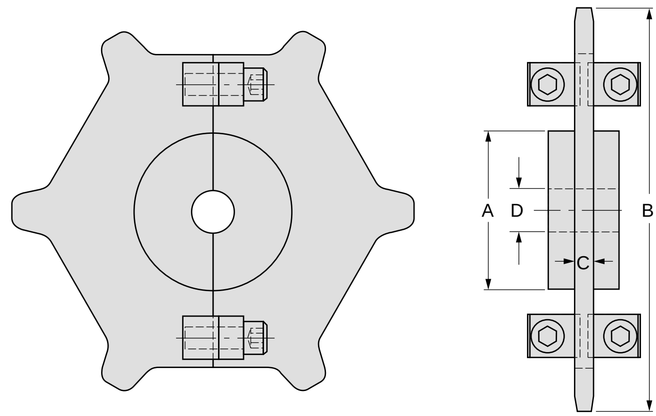
Make multiple turns in one run, saving on transfer points. It flexes around 20" radius corners, assuring more compact plant layouts.

Fewer terminal units mean lower cost installations, easier maintenance.

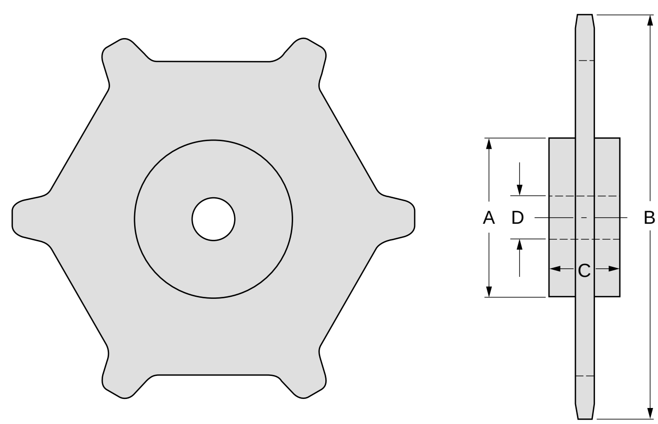
3500 Fabricated Steel Sprockets

These sprockets can be furnished split, solid and bronze bushed. Heat treated keys are recommended.

Flanged idler wheels available, specifications and price on application.



Split



Solid

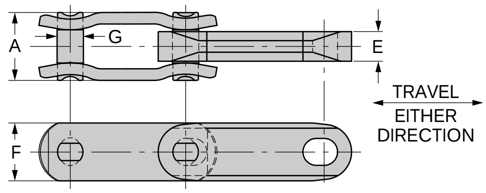
Dimensions are in inches. Weights are in pounds.

No. of Teeth	No. of Pitches	Pitch Diam.	Hub Diam. A	Outside Diam. B	Hub① Length C	Max. KS Bore② D	Approx. Weight Each Split	Approx. Weight Each Solid
5	10	8.90	4.00	9.75	2	2.44	14.5	12.5
6	12	10.63	4.50	11.50	2	2.69	20.5	18.5
7	14	12.36	5.00	13.31	2	2.94	25.5	23.5
8	16	14.10	5.00	15.25	2	2.94	31.0	29.0
9	18	15.84	5.00	16.88	2	2.94	38.5	36.0

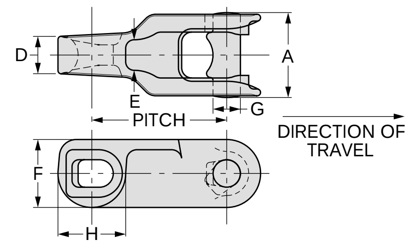
① Overall width of split sprocket is $2^5/_8$ inches.
② Stock bore is $1^1/_4$ inches.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

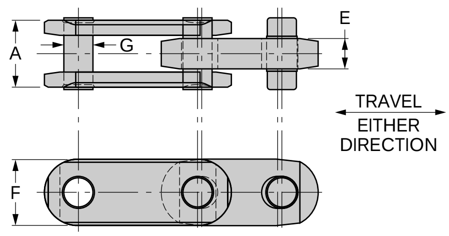
■ DOUBLE FLEX CHAIN



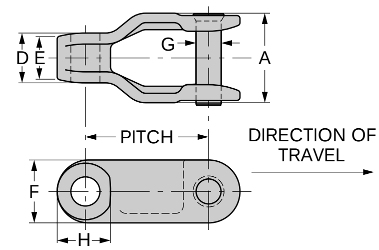
3500 Steel Chain



9250 Cast Chain



3498 Steel Chain



SM120 Cast Chain

Dimensions are in inches. Loads and weights are in pounds.

Rex Chain No.	Average Pitch	Rated Working Load①	Overall Width	Length of Barrel	Max. Allowable Sprocket Face	Height of Sidebar	Diameter of Pin or Rivet	Diameter of Barrel	Minimum Flex Radius	Average Weight	Sprocket Unit No.
			A	D	E	F	G	H	R		
3500②	2.5③ 3.0	See Table Below	1.50	–	.63	1.25	.56	–	20	3.3	3500
9250	2.5	900	1.56	.69	.75④	1.25	.50	1.25	18	3.3	9250
SM120	2.5	1,100	1.78	1	.75④	1.25	.50	1.13	36	3.6	9250
3498	1.75 2.5⑤	See Table Below	1.44	–	.63	1.38	.63	–	16	4.5	3498

Ratio of Chain Speed (FPM) to Conveyor Length (Ft)	Rated Working Load – Pounds	
	3500 Chain	3498 Chain
0.1 to 0.6	4000	5000
1.0	3400	4250
1.5	2900	3650
2.0	2600	3250
2.5	2300	2850
3.0	2100	2600
3.0 to 15.0	2100	2600

① Refer to page 151 for use of "Rated Working Load" in conveyor chain selection.
② When chain is to be run in channel, 2" x 1" x 3/16" (2.32 lbs. per foot), standard bar channel is suggested.
③ Block link is 3-inch pitch and outside link is 2 1/2" pitch.
④ Face on drive side of tooth.
⑤ Block link is 1.75" pitch and outside link is 2 1/2" pitch.

Note: For ratios below 0.1 and above 15.0, consult Rexnord for recommended rated working load.

In applications without static operating conditions (shock loads), a service factor must be applied to provide for dynamic fluctuations. Speed Factors are found on page 153 or contact Rexnord. Design Working Load = P_m x Service Factor x Speed Factor.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

■ LF (LOW FRICTION) BUSHED CHAIN

Developed initially for the meat industry, the rollers of this engineered steel conveyor chain are bushed with acetal thermoplastic to resist corrosion and reduce rolling friction by 40%.

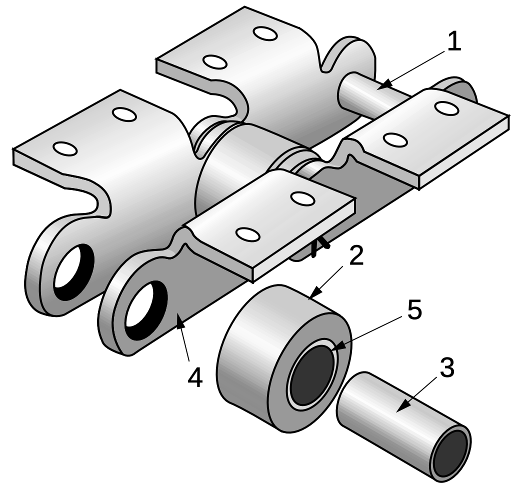
Improved Handling –The extremely low friction of LF bushed rollers on either stainless or carbon steel chain bushings minimizes pulsating action on long slow-moving conveyors.

Saves Power – Because of low coefficient of rolling friction LF bushed rollers drastically reduce horse-power requirements, thereby reducing operating costs.

No Lubrication – Built in self lubricating properties of this material assures smooth trouble free operation under dry conditions.

Cleaning – LF bushed rollers may be safely applied in applications where steam or commercial cleaning agents are required.

1. Pins are case hardened steel with three (3) diameter construction for easier assembly, disassembly.
2. Rollers are case hardened steel and have low-friction bushed surface for smooth, long-life performance.
3. Chain bushings are of stainless steel, heat treated for extra corrosion and wear resistance. Carbon steel bushings available where corrosion is not a threat.
4. Sidebars are accurately punched for good pitch control. Chain can be galvanized, or provided with other coatings for added corrosion resistance at slight additional cost.
5. LF materials resist corrosion and wear, have low friction: require no lubrication.



Dimensions are in inches. Loads and weights are in pounds.

Rex Chain No.	Average Pitch	Rated Max. Load ①	Max. RPM 12T Spkt.	MUTS x 10³	Pin Length	Sidebars			Pins	Rollers		Bushings		Sprocket Unit No.②
						Between	Thickness	Height	Diam.	Face Width	O. D.	Length	O. D.	
					A	K	T	F	G	E	H	D	I	
BA3420	4.04	3,150	75	23	3.25	1.25	.31	1.50	.63	1.94	2.00	1.94	.94	1113
SRD196	6.00	1,950	40	18	2.72	1.13	.25	1.50	.44	1.06	2.00	1.69	.63	196
SRH1114	6.00	3,150	40	23	3.25	1.31	.31	1.50	.63	1.19	2.00	1.94	.94	196
BA1670	6.00	3,150	40	23	3.25	1.31	.31	1.50	.63	1.19	2.25	1.94	.94	2180

① Refer to Engineering Manual for use of 'Rated Working Load' in conveyor chain selection.
② Fabricated steel sprockets are recommended.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

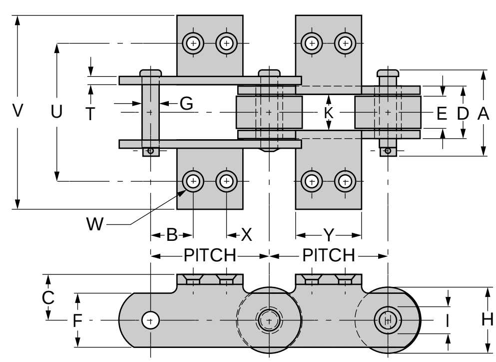
■ LF (LOW FRICTION) BUSHED CHAIN

The configurations shown are versions commonly used in the meat industry:
Pins and rollers are case hardened (carburized).
Sidebars and chain bushings are thru-hardened. Roller bushings are LF Acetal.
Pins, rollers and sidebars are galvanized, and chain bushings are stainless steel.

For a greater degree of corrosion resistance, these chains are available with the following optional finishes:
Sidebars can be provided with an optional coating for a higher level of corrosion resistance.
Pins and rollers can be electroless nickel plated (ENP).

LF bushed chains are available for other applications.

ATTACHMENTS



K ATTACHMENT

Dimensions are in inches. Loads and weights are in pounds.

Rex Chain No. w/K-Attachment Every Pitch	U	V	W①		B	X	Y	C	Wgt. Per Ft. K-Attachment Every Pitch
			Bolt Dia.	Bolt Hole					
BA3420-K28	4.13	5.93	3/8	.41	1.27	1.50	2.75	1.25	11.0
SRD196-K201	4.00	5.66	7/16	.50	2.00	2.00	3.50	1.25	7.5
SRH1114-K28	4.00	5.38	3/8	.41	2.00	2.00	3.50	1.12	10.7
BA1670-K241	4.06	5.31	11/16	.78	2.00	2.00	3.50	1.38	11.2

① Attachment holes are countersunk.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

■ CHAIN INTERCHANGE

The following tables can be used to interchange Rex® and Link-Belt® chains. Details on chains included in the listings can be found in the Engineered Steel and Cast Chains sections of this catalog. To interchange Drive Chains see pages 34-35. To interchange Standard Series Cast Combination Chains see page 53.

In some cases, Rex and Link-Belt brands may couple – but this should not be assumed. Attachments should be compared by catalog data rather than number. For interchange verification or assistance, contact Rexnord.

Chains are listed in numerical order. To find the desired chain follow down the first column to the number of the chain to be replaced.

REX TO LINK-BELT INTERCHANGE

Rex Chain No.	Link-Belt Chain No.	Catalog Page	Rex Chain No.	Link-Belt Chain No.	Catalog Page	Rex Chain No.	Link-Belt Chain No.	Catalog Page
4	RS4019	10	531	RS4328	10	FR1222	SS1222	13
6	RS6238	11	RR588	RS887	10	FR1233	SS1233	13
81X	RS81X	10	RR778	RS886	10	C1288	SS1088	10
81XH	RS81XH	10	SR844	SBS844	14	1535	SBS2162	14
81XHH	RS81XHH	10	RO850	SBO850 Plus	14	1536	SBS1972	14
S102B	SBS102B	14	RS856	SBX856	14	1539	RS1539	10
S102.5	SBS102.5	14	ER857	SBX2857	14	BR2111	RS944 Plus	11
S110	SBS110	14	ER859	SBX2859	14	A2124	RS996	11
ES111	SBS111	14	ER864	SBX2864	14	2126	RS1116	11
S131	SBS131	14	ER911	RS911	12	2183	RS951	11
SX150	SBS150 Plus	14	ER922	SS927	12	FX2184	RO2184	11
SR183	RS3013	10	FR922	SS922	12	2188	RS2188	10
S188	SBS188	14	FR933	SS933	12	2190	RS2190	11
SR194	RS4216	10	SR1114	RS1114	11	A2198	RS960	11
SR196	RS6018	11	RR1120	RS4013	10	3420	RS1113	10
270	SS2004	10	RS1131	RS1131	11	X4004	RS4852	12
RR362	RS625	10	E1211	RS1211	13	R4009	RS4851	12
RR432	RS627	10	ER1222	SS1227	13	4065	RS4065	12

LINK-BELT TO REX INTERCHANGE

Rex Chain No.	Link-Belt Chain No.	Catalog Page	Rex Chain No.	Link-Belt Chain No.	Catalog Page	Rex Chain No.	Link-Belt Chain No.	Catalog Page
RS81X	81X	10	SS922	FR922	12	SS2004	270	10
RS81XH	81XH	10	SS927	ER922	12	SBS2162	1535	14
RS81XHH	81XHH	10	SS933	FR933	12	RS2188	2188	10
SBS102B	S102B	14	RS944 Plus	BR2111	11	RS2190	2190	11
SBS102.5	S102.5	14	RS951	2183	11	RO2184	FX2184	11
SBS110	S110	14	RS960	A2198	11	SBX2857	ER857	14
SBS111	ES111	14	RS996	A2124	11	SBX2859	ER859	14
SBS131	S131	14	SS1088	C1288	10	SBX2864	ER864	14
SBS150 Plus	SX150	14	RS1113	3420	10	RS3013	SR183	10
SBS188	S188	14	RS1114	SR1114	11	RS4013	RR1120	10
RS625	RR362	10	RS1116	2126	11	RS4019	4	10
RS627	RR432	10	RS1131	RS1131	11	RS4065	4065	12
SBS844	SR844	14	RS1211	E1211	13	RS4216	SR194	10
SBO850 Plus	RO850	14	SS1227	ER1222	13	RS4328	531	10
SBX856	RS856	14	SS1222	FR1222	13	RS4851	R4009	12
RS886	RR778	10	SS1233	FR1233	13	RS4852	X4004	12
RS887	RR588	10	RS1539	1539	10	RS6018	SR196	11
RS911	ER911	12	SBS1972	1536	14	RS6238	6	11

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

■ SPROCKETS

SPROCKET TYPES

Sprockets can be supplied in various materials and styles, depending upon the application and severity of service requirements. For most engineered chain applications, fabricated steel sprockets are recommended as offering the best combination of performance, availability, and price. Fabricated steel sprockets can be provided for every chain-tooth combination and are readily available.

Sprockets can also be supplied in various cast materials, with or without hardened teeth. The cast sprocket tables present the available patterns for producing cast sprockets.

Whatever the types selected, our sprockets are designed for proper chain-sprocket interaction. Rexnord engineers have selected the proper tooth pressure angle, pitch line clearance, bottom diameter and tooth pocket radius for optimum performance and service life.

SPROCKET STYLES

Cast Arm Body – This type of sprocket is generally used where larger sizes are required. The use of arms reduces weight, facilitates handling, and lowers cost.

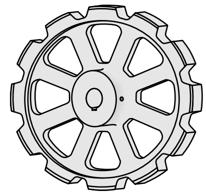
Cast Split (Arm or Plate) Body – The split body design facilitates mounting and removal from shafts without disturbing bearings or other connected equipment, which greatly reduces installation and downtime.

Cast Plate Body – Plate bodies are generally required for the smaller sizes where the use of arms is impractical, and on larger sizes when the chain pull exceeds the strength of the arm body sprockets.

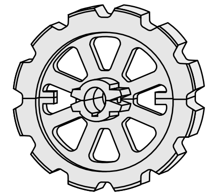
Fabricated Steel Sprockets – Fabricated steel sprockets are flame cut and manufactured from plain carbon steel. The teeth are flame or induction hardened.

Shear Pin – A sprocket is modified by the addition of shear pin hubs and shear pins. They are used in applications where jamming or overloading is prevalent. The shear pins are designed to transmit the required torque under normal operating conditions, but to fail when an overload or jam occurs, thus protecting machinery and equipment from damage.

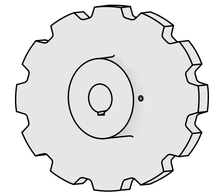
Special Sprockets – Sprockets can be made of special design, such as flanged-rim (used particularly in the rock products and fertilizer industries). Long-tooth or gapped-tooth sprockets can also be made.



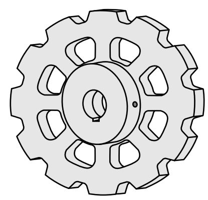
Cast Sprocket Arm Body



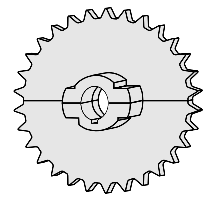
Cast Split Arm Body



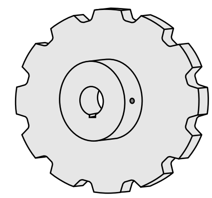
Cast Steel Plate Body



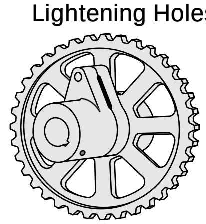
Fabricated Steel with Lightening Holes



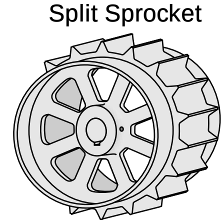
Fabricated Steel Split Sprocket



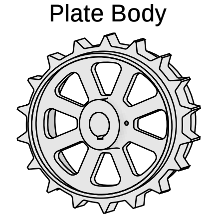
Fabricated Steel Plate Body



Shear Pin Sprocket



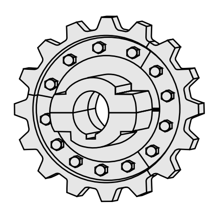
Drum Flanged Arm Body Sprocket



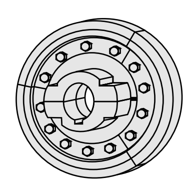
Flanged Rim Sprocket

SEGMENTAL SPROCKETS AND TRACTION WHEELS

Can be supplied with either solid or split bodies, and have removable and replaceable sprocket segments or traction wheel rims. Rims are made of specially hardened steel for superior wear resistance. Accurate machining and precisely drilled holes permit sprocket segments to be reversed, thus doubling sprocket life and minimizing downtime.



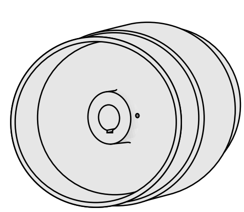
Segmental Sprocket with Split Body



Segmental Traction Wheel with Split Body

TRACTION WHEELS

Primarily designed for single-strand bucket elevator service, traction wheels can also be used on other type conveyors providing the coefficient of friction is sufficient under normal load to allow the traction wheel to drive the unit. A distinct advantage of a traction wheel is that the chain will slip on the wheel in the event of an obstruction or overload, thereby preventing damage to elevator or conveyor components. Traction wheels are ideal for service in abrasive environments since there is less scrubbing of the chain on a traction wheel as compared to sprocket.



SELECTION, SPECIFICATION AND ORDERING INFORMATION

Number of Teeth

Sprockets preferably should have no less than 12 teeth, particularly if speeds are high and the chain loads great. Sprockets having less than 12 teeth should be adapted only to slow and medium speeds. The number of teeth and sprocket speed (revolutions per minute) control the amount of impact of the chain seating on the sprocket. Impact is reduced as the number of teeth is increased or as speed is decreased. Likewise the chain pull is reduced as the sprocket size is increased for any one power drive. Consequently, a lighter chain – for greater economy – may often be used. With a greater number of teeth angular motion or friction in the chain joints is reduced.

Height of Teeth

Height of teeth of standard sprockets is generally based on providing a working face what will accept the maximum possible amount of wear elongation combined with a smooth topping curve. A further limitation that takes precedence over the above is that when a sprocket series is capable of being used with chains designed for conveyor/elevator service, the top of the tooth of all standard sprockets having ten or more teeth is designed to be low enough to clear a slat or carrier mounted on the lowest possible "K" attachment of any chain using sprockets of that series.

As a precaution, it is recommended that orders for sprockets specify whether it is necessary for the top of the tooth to clear any slat, bucket or carrier mounted to a chain attachment, or welded to the chain.

Bore and Hub Size

The size of the bore and hub are determined by the torque to be transmitted. The hub specification charts included in this catalog provide selections based on a design shear stress of 6000 psi, maximum.

Gapped Sprockets

Some attachments require gapped sprockets to avoid interference between the sprocket and chain or assembled fittings. Such attachments usually are those wherein the space between side bars is utilized by the attachment or its fitting. The gap spacing must be a multiple of the particular attachment spacing in the chain, also of the number of teeth on the sprocket.

When some teeth must be topped off (that is, omitted) – as distinguished from gaps that extend within the root diameter, it will be assumed that topping off the teeth flush with the root diameter will suffice to clear the obstruction. If gaps are required, complete details must accompany the order.

HEAT TREATMENT

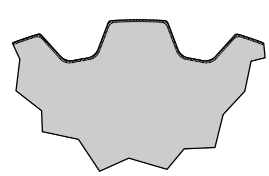
Fabricated steel sprockets are normally supplied with induction hardened teeth. Cast sprockets, if hardened, are either induction hardened or cast as chill iron. The catalog cast sprocket tables identify cast sprockets with hardened teeth.

Rexnord takes an extra step when heat treating segmental sprockets and tractions wheels to provide the utmost in hardness and case depth.

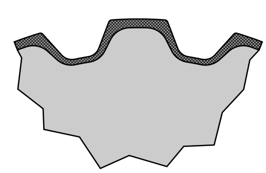
Prior to induction hardening, segmental rims are "soaked" with carbon in large carburizing pits specifically designed for this purpose. The carburizing process provides deep penetration of carbon into the segment's working surfaces, thereby increasing its hardenability.

After the carburizing process, the segments are taken to Rexnord's induction heat treat area where the segments are enveloped in a large electrical coil, heated to a "cherry red", and quickly quenched. This final process produces the hardest, deepest cases available in an engineered sprocket or traction wheel today.

The carburizing/induction heat treatment process is standard for most all of our segmental sprockets and traction wheels. If you have a very severe sprocket wear problem this may be the answer – contact Rexnord to find out if it is available for your particular sprocket type because not all sizes and styles are available.



Relative depth of hardened material developed from flame, induction or chill rim hardening methods.



Relative depth of hardened material developed through the two-step carburizing/induction hardening process used in our segmental sprockets and traction wheels. More hardened material means longer sprocket and chain life!

SELECTION, SPECIFICATION & ORDERING INFORMATION – (Cont'd.)

Web Holes

Large plate or web-body sprockets can be furnished, when specified, with holes for hoisting slings or hooks. Such holes may necessitate an extra charge.

Weights

Listed weights represent averages only and may differ from those of the sprockets furnished, because of the differences in hub sizes. Average weights do not necessarily indicate the relative strengths of the various sprockets. They are given primarily for estimating shaft loads and freight charges. All weights are based on arm body construction.

Style Plate-Body or Arm-Body Construction

It will be noted that the smaller sprockets in each series (both stock and order-size) are furnished only with plate-body. Lack of space between the hub and the sprocket rim makes it impractical to furnish these sprockets with arm-body construction. All stock and order sizes will be furnished plate body. For arm body design, consult Rexnord.

Hubs

All hubs are furnished long central (style C) unless specified by the customer or if footnoted in the tables. Depending on how mounted, offset hubs or flush one side (style B) may be preferable for driver sprockets mounted on gearbox output shafts. Offset hubs are where hubs are not of equal length. If other than long central hubs are desired, be sure to specify this on the order.

All hubs are given a squaring cut, (faced) then sprockets are finish bored. Facing is provided as follows:

	CAST HUBS	FABRICATED HUBS
Long Central	Faced 1 side	Faced both sides
Flush one side	Hub faced	Hub faced
Offset hubs	Faced both sides	Both hubs faced

Bore

Sprockets are bored to commercial tolerances (see table below) Closer tolerances are available at extra cost.

BORE RANGE	TOLERANCE (INCES)
Up thru 2.000	+.001/+.003
Over 2.000 thru 4.000	+.001/+.004
Over 4.000 thru 6.000	+.001/+.005
Over 6.000	+.001/+.006

Keyseat and Keyscrews

Standard straight keyseats on the centerline of a tooth are finished with one setscrew over the keyseat and one at 90°.

Multiple Sprocket Alignment

On a multiple strand conveyor or elevator, it is important that driving sprockets teeth be properly aligned in service. It is recommended that drive sprockets be ordered in sets with keyseats properly located relative to the teeth. Sprockets ordered as matched sets will be match marked. Sprockets are to be installed such that all match marks face the same end of the shaft.

At the tail end of a multiple strand conveyor, only one sprocket should be fixed (keyed or set screwed) to the shaft. The remainder of the tail sprockets should be allowed to turn freely on the shaft to compensate for differences in strand length that may change over time.

- **Sprockets with Hubs Central**
  Order should specify "Matched in Sets of Two," "Matched in Sets of Three," etc.
- **Sprockets with Unequal Hubs**
  If sprockets will be installed with like hubs all facing the same end of the shaft, the order should specify "Matched in Line."

If sprockets will be assembled with like hubs facing opposite ends of the shaft, the order should specify "Matched in Pairs."

Sprocket Availability

Fabricated Steel sprockets (split or solid) are readily available and most any sprocket design can be provided. For the quickest possible delivery, Rexnord maintains an inventory of plates and hubs for many commonly used sprockets.

Cast sprockets with solid hubs are stocked and identified in the cast sprocket tables. The stocked sprocket is bored and keyed to order. Split sprockets, sprockets with hub dimensions other than shown, or sprockets with any other non-standard feature are available but must be cast to order. If delivery is an important factor, fabricated steel sprockets are recommended.

SELECTION, SPECIFICATION & ORDERING INFORMATION – (Cont'd.)

How To Order

1. **Quantity –**
   Number of sprockets required.

2. **Sprocket Unit Number and Chain Number –**
   Refer to the chain and sprocket index.

3. **Teeth –**
   Number of teeth on sprocket.

4. **Material –**
   Cast or fabricated steel should be specified. Standard materials will be provided unless specified.

5. **Heat Treatment –**
   Fabricated steel sprockets will have induction hardened teeth. Cast sprockets will have hardened teeth if specified in the cast tooth sprocket tables. Specify any non-standard heat treatments.

6. **Hub Construction –**
   Hubs will be provided as standard with solid hubs, long central (Style C) unless specified otherwise. Refer to page 79 for standard hub specifications.

7. **Hub Size – CAST SPROCKETS:**
   Stocked cast tooth sprockets are listed in the tables with hub dimensions and a maximum bore. Sprockets with hub or bore dimensions other than as shown require a CAST TO ORDER sprocket. These special sprockets are available but if lead time is a factor, consider using a fabricated steel sprocket which is more readily available.

   If no hub size is specified by the customer, the standard hub will be provided unless the shaft exceeds the maximum allowable bore, in which case a cast to order sprocket will be necessary.

   For CAST TO ORDER sprockets: If no hub size is specified, a hub will be selected appropriate for the shaft size and most readily available from the foundry.

   If desired, hub sizes may be specified on CAST TO ORDER sprockets, refer to the selection procedures on pages 81-82.

   Hub Size – FABRICATED STEEL SPROCKETS
   For fabricated steel sprockets, most any size hub is readily available. When delivery is especially critical, standard hub sizes are recommended. Standard fabricated steel hubs as shown in the table on page 79 will be provided unless specified on the order.

8. **Bore –**
   Specify size and type of bore. Standard tolerances will be provided unless specified.

9. **Keyseat and Setscrews –**
   A keyway with two setscrews will be provided on all sprockets unless specified otherwise.

10. **Previous Order or Quotation –**
    Provide information regarding previous order or quotation to assure compliance.

11. **Gapped Sprockets –**
    Specify chain attachment used and spacing.

12. **Drop Forged Chain Sprockets –**
    Specify number of actual teeth.

13. **Shear Pin Sprockets –**
    Specify torque level sprockets should shear. A bore size must be specified.

■ SPROCKETS

FABRICATED STEEL SPROCKETS

Listed below is the plate thickness for each sprocket unit. Refer to chain and sprocket index to determine proper unit number for each chain.

All sprockets are readily available as fabricated steel. Fabricated assemblies for traction wheels, drum flanged, sprockets, and for wide mill chain sprockets are also readily available.

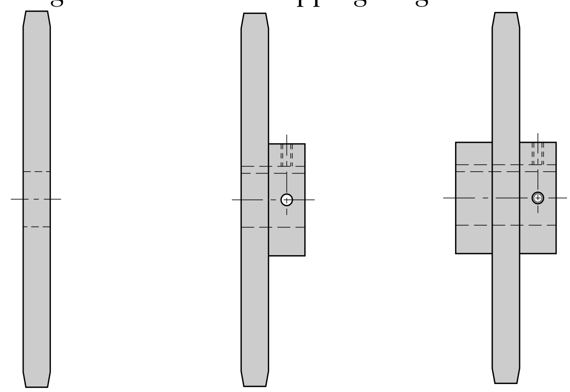
PLATE SIZE

Sprocket Unit No.	Plate Width Inches	Sprocket Unit No.	Plate Width Inches	Sprocket Unit No.	Plate Width Inches
4	.63	698[1]	1.25	X1365	2.75
6SP	1.13	710	2.25	1535	1.00
25[1]	.38	720S[1]	1.13	1536	1.25
32[1]	.50	CS720S[1]	1.13	B1537	1.25
34	.50	A730[1]	1.13	1568	1.25
42[1]	.56	CS730[1]	1.13	1604	.88
45[2]	.63	823[1]	1.13	1654	2.00
51[1]	.56	825[1]	1.25	E1822	1.75
S51[1]	.56	830[1]	1.25	F1822	1.00
52[1]	.63	833	2.25	F1833	1.25
55[1]	.63	844[1]	2.25	E1836	2.00
57	.63	847	1.75	F1844	1.50
D60[1]	.88	RO850	2.00	F1855	1.50
H60	.63	SX850	2.00	1903	3.00
RS60	1.12	856	2.75	2047	1.25
62[1]	.75	859	3.25	2064	2.25
64S[1]	1.25	RS860	1.75	2111	1.25
67[1]	.63	864	3.25	2113	1.12
78[2]	.88	SX877	2.50	2124[1]	1.25
H78[1]	1.00	SX886	2.25	2136	1.75
102B[1]	1.75	E922	1.75	2180[1]	1.13
102-1/2[1]	1.75	E911	1.25	F2183	1.00
103[1]	1.13	F922[1]	1.13	2198	1.25
106	1.75	E928	1.75	2231	.63
110[1]	1.75	E933	2.00	2236	1.75
111SP	2.25	F933[1]	1.25	2342[1]	1.50
111[1]	2.25	S951	1.00	2348[1]	1.25
114	1.13	952[1]	.63	2397	1.75
119[1]	3.50	953	1.25	2405	1.50
SM120[1]	.75	958	2.75	2452	2.50
H124[1]	1.50	984	3.50	2590	2.50
130[1]	1.00	998[1]	1.25	2614	2.25
131T[1]	1.50	1030	1.25	2800	1.50
132[1]	2.75	1036	1.25	2804	3.00
R133	1.25	1039[1]	1.50	2806	4.00
152	.75	1112	.88	2848	1.75
183[1]	.75	1113[1]	1.13	2858	1.75
SX175	2.75	1120[1]	.75	2868	1.75
183[1]	.75	1124	.88	RF3007	.63
188	1.00	1131[1]	1.25	RF3011	.88
194[1]	1.00	1204	2.00	3112	1.00
196[1]	1.00	1207	2.25	3125	1.25
197[1]	1.13	E1211	1.25	D3125	1.25
238	1.25	E1222	1.75	3285	1.75
270	1.00	F1222[1]	1.00	3433	1.75
303	.38	F1232	1.25	4004	2.25
X345	1.75	E1233	2.00	4005	1.13
348[1]	.63	F1233	1.25	RF4007	.63
458[1]	.88	1240	1.75	4009	1.75
468[1]	1.50	E1244	2.25	4010	2.75
501	.75	FR1244	1.50	4011	2.00
506	.75	1251	1.75	RF4011	.88
508	.88	1301	2.50	4038	1.25
514	1.25	RO1305	2.25	4539	1.25
520	.88	1306	2.50	4855	2.25
A522	.75	1307	2.75	5157	2.75
S521	1.25	A1309	2.75	5208	1.75
531[1]	1.13	X1311	2.75	6065	2.50
CA550	.63	AX1338	1.25	6121	3.50
568	1.25	X1343	1.50	6826	2.00
584	1.50	X1345	1.50	7539	1.25
589	1.13	X1351	1.75	8755	2.75
CA620	.88	X1353	2.00	9118	1.75
635	1.75	RO1355	2.25	9250[2]	.75
678[1]	1.13	RO1356	2.50	9856	2.50

[1] Available in cast, see pages 81-88.
[2] Available in cast or polymeric, see pages 81-88 and 94-98.

Sprocket Weight

Total Sprocket Weight = [.22 (PD)2 PW] + W
PD = Pitch Diameter of Sprocket
PW = Plate Width of Sprocket (See table at left)
W = Hub Weight (See table below)
Calculated weight is an approximate to be used for estimating shaft loads and shipping weights.



STYLE "A" HUB STYLE "B" HUB STYLE "C" HUB

TABLE INSTRUCTIONS
When using the tables below, and only the torque or Hub Size Letter is known, locate the appropriate row which will give you the recommended bore and hub size based on the limitations of typical SHAFT material having a maximum torsional shear stress of 6,000 psi.
If the shaft size is known, use the bore diameter column to find the recommended hub dimensions.

SOLID HUBS

Dimensions are in inches. Strengths and weights are in pounds.

Bore[1] Diameter	Hub[2] Letter	Maximum[3] Torque	Hub Diameter	Length[4]	Weight[5]
15/16	B	1.0	2.50	1.50	1.0
1 3/16	C	2.0	2.50	1.50	1.0
1 7/16	D	3.5	2.50	1.50	2.7
1 11/16	E	5.6	3.00	1.50	3.7
1 15/16	F	8.5	3.00	1.50	3.7
2 3/16	G	12.5	3.50	2.00	6.0
2 7/16	H	17.0	4.50	2.00	10.0
2 11/16	I	23.0	4.50	2.00	10.0
2 15/16	J	30.0	4.50	2.00	10.0
3 3/16	K	38.0	5.25	3.00	20.0
3 7/16	L	47.0	5.25	3.00	20.0
3 11/16	M	60.0	6.00	3.00	26.0
3 15/16	N	70.0	6.00	3.00	26.0
4 7/16	O	100.0	7.25	4.00	46.0
4 11/16	–	120.0	7.25	4.00	46.0
4 15/16	P	140.0	7.25	4.00	46.0
5 7/16	Q	190.0	8.75	5.00	85.0
5 15/16	R	245.0	8.75	5.00	85.0
6 1/2	S	320.0	9.50	6.50	115.7

SPLIT HUBS

Dimensions are in inches. Strengths and weights are in pounds.

Bore Sizes	Maximum Torque	Hub Length	Bolt Clearance Diameter	Weight
1 15/16 – 2 15/16	30	2.88	7.50	20.0
3 – 3 15/16	70	2.88	8.75	27.0
4 – 4 15/16	140	3.88	10.75	57.0
5 – 5 15/16	245	4.88	11.50	80.0

Consult factory for larger bores.
[1] See instructions above.
[2] Hub letter – From Drive Chain Selection tables.
[3] In-Lbs. (in thousands)
[4] Add plate thickness for length through bore (see table at left); Hubs furnished long central unless specified by customer.
[5] Weight shown for solid hub. Actual weight should be reduced by bore.

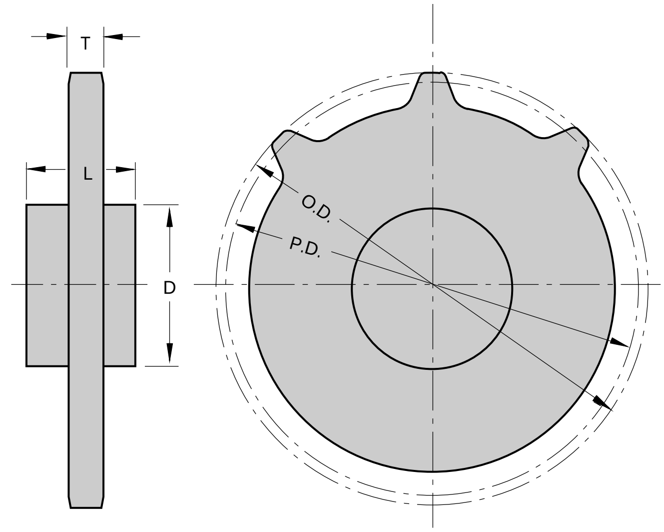
FABRICATED STEEL SPROCKETS AND OCTAGONAL TAIL WHEELS FOR HEAVY DUTY WELDED STEEL DRAG CHAINS

Drive Sprockets

Rex Unit Number	Number of Teeth	Pitch Diameter	Outside Diameter	Tooth Width "T" Inches	"T" Average Plate Only Weight Lbs.
5157	6	12.10	12.10	2.75	93
	7	13.94	14.11		127
	8	15.81	16.13		166
	9	17.69	18.16		209
	10	19.58	20.18		256
	11	21.47	22.20		308
	12	23.38	24.22		365
6121	8	23.50	23.94	3.50	360
	9	26.30	26.95		440
	10	29.12	29.96		550
	11	31.95	32.40		680

① Sprockets listed are most common. Any number of teeth are readily available. Split sprockets are available.

Flame Cut Steel Sprocket with Hardened Teeth



(Teeth are hardened to Rc57)

Unit No. 5157 for WHX 5157 Chain

Finished Bore Range Inches	Solid Hub Dia. x Length Inches	Average Hub Only Weight Lbs.
2 - 4	6 x 5.50	15
4 - 5	7.25 x 6.50	25
5 - 6	9 x 7.75	50

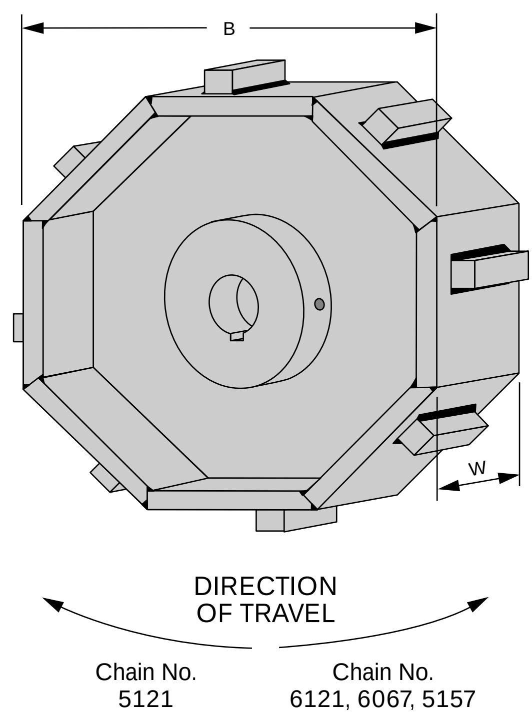
Unit No. 6121 for WHX 5121/6121/6067 Chain

Finished Bore Range Inches	Solid Hub Dia. x Length Inches	Average Hub Only Weight Lbs.
2 – 4	6 x 5.50	15
4 – 5	7.50 x 6.50	25
5 – 6	9 x 7.75	50
6 – 7	10.50 x 8.50	100
7 – 8	11.50 x 10.50	130

OCTAGONAL TAIL WHEELS

Octagonal tail wheels offer several advantages over conventional sprockets. Chain/tail wheel forces are transmitted directly between sidebars and the octagon surfaces, eliminating barrel and sprocket tooth wear. Side guide lugs are provided to keep the chain centralized on the tail wheel.

Octagon plates and guide lugs are made of hardened steel. Sidebar contact surfaces can be hardfaced for maximum wear resistance.



Rex Chain Number	Bottom Flat "B" (Inches)	Width "W" (Inches)
WHX5157	11.85	6.50
WHX6067	18.88	7.50
WHX5121/WHX6121	18.88	9.00

Finished Bore Range (Inches)	Hub Dia. x Length (Inches)
0 to 3.937	6 x 5
4 to 4.937	7.25 x 6.50
5 to 5.937	9 x 7.75

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

CAST SPROCKETS

Cast to Order Hub Specifications

The following table provides recommended hub specifications for use when ordering cast to order sprockets.

Procedure

If torque and bore size are known:

1. Locate torque in left hand column. The next column over gives the minimum hub length.
2. Locate bore size in top row.
3. The intersection of the top row and the column selected in Step 1 is the minimum hub O.D.

If torque only is known:

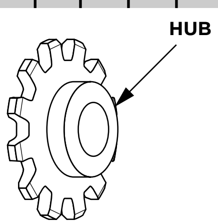
1. Locate torque in left hand column. The next column over gives the minimum hub length.
2. Move to the right to the first number shown (this is the minimum hub O.D.).
3. Move vertically to the top row to determine the minimum bore.

Hub Sizes are Based on Use with Commercial Cold Finished Steel Shafting and Keys①

Dimensions are in inches. Strengths are in pounds.

Bore			13/16	1 3/16	1 7/16	1 11/16	1 15/16	2 3/16	2 7/16	2 11/16	2 15/16	3 3/16	3 7/16	3 11/16	3 15/16	4 7/16	4 15/16	5 7/16	5 15/16	6 1/2	7	7 1/2	8	8 1/2	9	9 1/2	10
Key Size		Width	1/4	1/4	3/8	3/8	1/2	1/2	5/8	5/8	3/4	3/4	7/8	7/8	1	1	1 1/4	1 1/4	1 1/2	1 1/2	1 3/4	1 3/4	2	2	2	2 1/2	2 1/2
		Height	1/4	1/4	3/8	3/8	1/2	1/2	5/8	5/8	3/4	3/4	7/8	7/8	1	1	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 3/4	1 3/4
Hub Size Letter	Allowable Torque	Hub② Length	Square Key																		Flat Key						
			Diameters of Hugs – Keyseated																								
A	500	1 1/2	1 1/2	2	2 1/2	2 1/2	3	3 1/2	4	4	4 1/2	5															
B	1,000	1 1/2	1 1/2	2	2 1/2	2 1/2	3	3 1/2	4	4	4 1/2	5	5 1/2														
C	2,000	1 1/2		2	2 1/2	2 1/2	3	3 1/2	4	4	4 1/2	5	5 1/2	5 1/2													
D	3,500	2			2 1/2	2 1/2	3	3 1/2	4	4	4 1/2	5	5 1/2	5 1/2	6												
E	5,600	2				3	3 1/2	3 1/2	4	4	4 1/2	5	5 1/2	5 1/2	6	6 1/2											
F	8,500	3					3 1/2	3 1/2	4	4	4 1/2	5	5 1/2	5 1/2	6	6 1/2	7 1/2										
G	12,500	3						4	4	4 1/2	4 1/2	5	5 1/2	5 1/2	6	6 1/2	7 1/2	8									
H	17,000	3			C				4 1/2	4 1/2	5	5	5 1/2	5 1/2	6	6 1/2	7 1/2	8	9								
I	23,000	4		R	O	W				4 1/2	5	5	5 1/2	5 1/2	6	6 1/2	7 1/2	8	9	9 1/2							
J	30,000	4			L						5	5	5 1/2	6	6	6 1/2	7 1/2	8	9	9 1/2	10						
K	38,000	5			U							5	5 1/2	5 1/2	6	6 1/2	7 1/2	8	9	9 1/2	10	10 1/2					
L	47,000	5			M								6	6	6 1/2	6 1/2	7 1/2	8	9	9 1/2	10	10 1/2	11				
M	60,000	5			N									6 1/2	6 1/2	7	7 1/2	8	9	9 1/2	10	10 1/2	11	12			
N	70,000	6													6 1/2	7	7 1/2	8	9	9 1/2	10	10 1/2	11	12	12		
O	100,000	6														7 1/2	8	8 1/2	9	9 1/2	10	10 1/2	11	12	12	13	
P	140,000	6															8 1/2	9	9 1/2	10	10 1/2	11	12	12	13	13	14
Q	190,000	8																9	9 1/2	10	10 1/2	11	12	12	13	13	14
R	245,000	8																	10	10 1/2	11	12	12	12	13	13	14
S	320,000	8																		11	12	12	12	13	13	14	14
T	400,000	10																			12	12	12	13	13	14	14
U	500,000	10																				13	13	13	14	14	15
V	600,000	10																					13	14	14	15	15
W	720,000	12																						14	14	15	15
X	850,000	12																							15	15	16
Y	1,000,000	12																								16	16
Z	1,250,000	12																									17

When torque and bore intersect in one of these blank spaces, it indicates that the shaft is larger than required to transmit the torque produced by the chain operating at its working load. Use the first hub diameter below in the same column for the bore required. The correct hub length and the torque this hub will safely transmit is found in the same row as the hub diameter used.



When torque and bore intersect in one of these blank spaces, it indicates that the shaft is subject to greater than 6,000 psi torsional shear stress.

① Design shear stress = 6,000 psi.
② These lengths are the minimum recommended; longer hubs can be furnished at additional cost. For drives, offset hubs, one side flush, are recommended for all Driver sprockets. Long central hubs are recommended for all DriveN. For improved system performance – fab steel drive sprockets are recommended over cast.
③ For a sprocket without a keyseat, a somewhat smaller hub may be used. Consult Rexnord for assistance.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

CAST SPROCKETS – (Cont'd.)

Cast Split Hubs – For Cast to Order Tooth Sprockets and Traction Wheels (*Hub sizes are based on use with commercial, cold finished, steel shafting and keys.*①)

Use of Tables. After having determined torque and knowing the required bore, refer to Table No. 1, below, to obtain the hub identification number.

Hub dimensions are listed in Table No. 2, below. The hub over-all length (F) – see drawing to the right – is definitely fixed for a given sprocket or wheel pattern and bore. It is determined by standard fixed hub pattern projections (D) and pattern body thickness (E) – the latter depending on the sprocket or traction wheel pattern involved. When length F must be maintained or known, refer to the factory for certified dimensions.

These hubs are furnished central and of fixed length only.

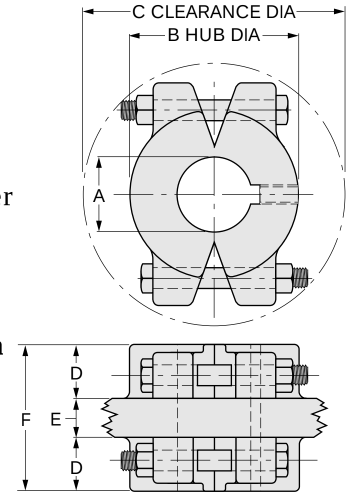


Table No. 1 – Hub Number for Given Class and Bore

Dimensions are in inches. Strengths are in pounds.

Bore	15/16	1 3/16	1 7/16	1 11/16	1 15/16	2 3/16	2 7/16	2 11/16	2 15/16	3 3/16	3 7/16	3 11/16	3 15/16	4 7/16	4 15/16	5 7/16	5 15/16
Sq. Key Size In.	1/4	1/4	3/8	3/8	1/2	1/2	5/8	5/8	3/4	3/4	7/8	7/8	1	1	1 1/4	1 1/4	1 1/2
Allow Torque ②	Hub Number																
500	L2-015	L2-103	L2-107	L2-111	L2-115	L2-203	L2-207	L2-211	L2-215	L2-303							
1,000	L2-015	L2-103	L2-107	L2-111	L2-115	L2-203	L2-207	L2-211	L2-215	L2-303	L2-307						
2,000		L2-103	L2-107	L2-111	L2-115	L2-203	L2-207	L2-211	L2-215	L2-303	L2-307	L2-311					
3,500			L2-107	L2-111	L2-115	L2-203	L2-207	L2-211	L2-215	L2-303	L2-307	L2-311	L2-315				
5,600				L2-111	L2-115	L2-203	L2-207	L2-211	L2-215	L2-303	L2-307	L2-311	L2-315	L2-407			
8,500					L2-115	L2-203	L2-207	L2-211	L2-215	L2-303	L2-307	L2-311	L2-315	L2-407	L2-415		
12,500						L2-203	L2-207	L2-211	L2-215	L2-303	L2-307	L2-311	L2-315	L2-407	L2-415	L2-507	
17,000							H2-207	H2-211	L2-215	L2-303	L2-307	L2-311	L2-315	L2-407	L2-415	L2-507	L2-515
23,000								H2-211	H2-215	L2-303	L2-307	L2-311	L2-315	L2-407	L2-415	L2-507	L2-515
30,000									H2-215	H2-303	H2-307	L2-311	L2-315	L2-407	L2-415	L2-507	L2-515
38,000										H2-303	H2-307	L2-311	L2-315	L2-407	L2-415	L2-507	L2-515
47,000											H2-307	H2-311	L2-315	L2-407	L2-415	L2-507	L2-515
60,000												H2-311	H2-315	H2-407	L2-415	L2-507	L2-515
70,000													H2-315	H2-407	L2-415	L2-507	L2-515
100,000														H2-407	H2-415	L2-507	L2-515
140,000															H2-415	H2-507	H2-515
190,000																H2-507	H2-515
245,000																	H2-515
Maximum Pitch Diameter (Inches) of Sprockets or Wheels for Use Without Rim-Lugs																	
	15	16	17	18	20	21	22	23	24	26	26	27	28	30	33	37	39

When torque and bore intersect in one of these blank spaces, it indicates that the shaft is larger than required to transmit the torque produced by the chain operating at its working load. Use the first hub diameter below in the same column for the bore required. The correct hub length and the torque this hub will safely transmit is found in the same row as the hub diameter used.

When torque and bore intersect in one of these blank spaces, it indicates that the shaft is subject to greater than 6,000 psi torsional shear stress.

Table No. 2 – Standard Split Hubs – Dimensions In Inches

Hub No.	A Bore	B	C	D	E Max.	Wt. Ea. W/Bolts	Hub No.	A Bore	B	C	D	E Max.	Wt. Ea. W/Bolts	Hub No.	A Bore	B	C	D	E Max.	Wt. Ea. W/Bolts
L2-015	15/16	2.00	4.31	1.38	1.13	1	L2-215	2 15/16	5.25	8.06	1.69	2.00	7	H2-315	3 15/16	7.25	11.94	2.50	2.50	–
L2-103	1 3/16	2.25	4.56	1.38	1.13	1	H2-215	2 15/16	6.00	10.31	2.13	2.00	16	L2-407	4 7/16	7.50	11.50	2.31	2.50	17
L2-107	1 7/16	3.00	5.75	1.56	1.25	4	L2-303	3 3/16	6.00	9.44	1.81	2.00	10	H2-407	4 7/16	8.00	13.88	2.94	2.50	33
L2-111	1 11/16	3.50	6.38	1.69	1.25	5	H2-303	3 3/16	6.50	10.31	2.13	2.00	16	L2-415	4 15/16	8.50	12.88	2.56	2.50	28
L2-115	1 15/16	3.75	6.63	1.69	1.50	5	L2-307	3 7/16	6.25	9.63	1.81	2.00	10	H2-415	4 15/16	9.00	14.25	2.94	2.50	37
L2-203	2 3/16	4.25	7.25	1.69	1.50	7	H2-307	3 7/16	6.75	10.63	2.13	2.00	17	L2-507	5 7/16	9.50	14.63	1.75	2.50	37
L2-207	2 7/16	4.50	7.38	1.69	1.75	7	L2-311	3 11/16	6.75	10.63	2.13	2.00	17	H2-507	5 7/16	10.00	17.00	3.50	2.50	65
H2-207	2 7/16	5.00	8.63	1.81	1.75	9	H2-311	3 11/16	7.00	11.63	2.38	2.00	18	L2-515	5 15/16	10.00	15.00	1.75	3.00	34
L2-211	2 11/16	4.75	7.88	1.69	2.00	7	L2-315	3 15/16	7.25	11.13	2.25	2.50	25	H2-515	5 15/16	11.00	17.50	3.44	3.00	65
H2-211	2 11/16	5.50	8.88	1.81	2.00	15														

Rim Lugs. Sprockets and traction wheels with plate (web) body, or small-diameter arm body, require split rim-lugs projecting on each side. When the arm body is sufficiently large, single split rim-lugs are used between the arms. Some chain attachments (as G19) will interfere with projecting split rim-lugs, thus making special construction necessary; refer to factory.

① Design shear stress = 6,000 psi

② Inch-Pounds

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

CAST TOOTH SPROCKETS

No. of Teeth	Pitch Dia.	Stocked Sprockets ② Hub Dia.	Hub Length	Max. Bore	Cast to Order Max. Bore	Avg. Wt.
25 CAST – PITCH 0.902						
Tooth Face at Pitch Line .375 Inches						
6	1.80				.62	.5
7	2.08				.88	.6
8	2.36				.94	.8
9	2.64				1.06	1.1
10	2.92				1.18	1.4
11	3.49				1.44	1.5
12	3.49				1.68	1.6
13	3.77				1.68	1.7
14	4.50				1.68	1.9
15	4.34				1.94	2.5
16	4.62				2.18	2.9
17	4.91				2.44	3.1
18	5.19				2.44	3.2
19	5.48				2.94	3.4
21	6.05				2.94	4.2
22	6.34				3.18	4.4
23	6.62				3.18	4.7
24	6.91				3.44	5.2
25	7.20				3.44	5.8
26	7.48				3.94	6.3
28	8.06				3.94	7.2
29	8.34				4.44	7.5
30	8.63				4.44	8.3
32	9.20				4.94	9.0
36	10.33				4.94	10.4
37	10.63				4.94	10.8
40	11.50				4.94	8.9
52	14.94				4.94	14.0
32 CAST – PITCH 1.154						
Tooth Face at Pitch Line .500 Inches						
6	2.31				.94	1.0
7	2.66				.94	1.2
8	3.02				1.18	1.3
9	3.37				1.18	1.5
10	3.73				1.44	1.7
11	4.10				1.94	2.0
12	4.46				2.18	2.5
13	4.82				2.18	2.9
14	5.19				2.44	3.4
15	5.55				2,94	4.0
16	5.92				3.18	4.2
17	6.28				3.18	4.7
18	6.65				3.44	5.2
19	7.01				3.94	5.8
20	7.38				3.94	6.3
22	8.11				4.44	7.5
24	8.84				4.94	9.0
25	9.21				5.44	10.0
26	9.57				③	11.5
28	10.31					12.0
32	11.77					15.5
34	12.51					17.9
38	13.97					17.0
40	14.71					19.0
48	17.64					24.0

No. of Teeth	Pitch Dia.	Stocked Sprockets ② Hub Dia.	Hub Length	Max. Bore	Cast to Order Max. Bore	Avg. Wt. Hub Dia.
42 CAST – PITCH 1.375						
Tooth Face at Pitch Line .625 Inches						
6	2.75				.94	1.3
7	3.17				1.18	1.7
8	3.59				1.18	2.8
9	4.02				1.68	3.2
10	4.45				1.94	3.5
11	4.88				2.18	5.5
12①	5.31				2.68	4.9
13	5.75				2.94	5.5
14	6.18				3.18	6.0
15	6.66				3.44	6.5
16	7.03				3.94	7.5
18	7.92				4.44	9.5
19	8.34				③	10.5
20	8.77					11.5
21	9.21					12.5
22	9.65					13.5
24	10.51					16.0
27	11.82					17.5
28	12.25					18.0
32	14.03					23.0
41	17.97					31.0
45 CAST – PITCH 1.630						
Tooth Face at Pitch Line .687 Inches Also available in polymeric.						
5	2.77				.94	1.3
6①	3.26	2.00	1.50	1.25	1.18	2.3
7①	3.76	2.50	1.50	1.62	1.68	2.6
8S①	4.26	3.00	1.50	1.82	1.94	4.0
8L	4.26	3.00	2.00	2.25	2.18	5.5
9①	4.77	2.50	1.50	1.62	2.18	3.8
10①	5.27	2.50	1.50	1.62	2.18	7.0
11	5.79	4.00	3.00	2.50	2.68	10.3
12S	6.30	2.50	2.00	1.62	2.94	6.3
12L	6.30	4.00	3.00	2.50	2.94	10.5
13	6.81	4.00	3.00	2.50	3.68	11.5
14	7.33	3.50	2.00	2.25	3.94	10.1
15	7.84				4.44	12.9
16	8.36	3.50	2.00	2.25	4.44	12.4
17	8.87				4.44	12.0
18	9.39	2.50	2.00	1.18	5.44	14.5
19	9.90				5.44	13.8
20	10.42	4.00	3.00	2.50	5.44	15.8
21	10.93				6.50	16.3
22	11.45				7.00	18.6
23	11.97				7.50	20.8
24	12.49	4.00	3.00	2.50	8.00	23.5
25	13.01					23.4
26	13.53					24.6
27	14.07					25.8
28	14.54					27.0
30	15.60					29.0
31	16.11					30.0
32	16.64					31.0
34	17.68					32.0
35	18.18					33.0
36	18.68					34.0
38	19.75					36.0
39	20.26					37.0
40	20.79					38.0
42	21.81					40.0
44	22.85					42.0
45	23.37					43.0
48	24.94					46.0
58	30.11					57.0

No. of Teeth	Pitch Dia.	Stocked Sprockets ② Hub Dia.	Hub Length	Max. Bore	Cast to Order Max. Bore	Avg. Wt.
S51 CAST – PITCH 1.136						
Tooth Face at Pitch Line .562 Inches						
12	4.39				1.94	3.5
15	5.46				2.44	5.0
18	6.58				3.18	6.0
51 CAST – PITCH 1.150						
Tooth Face at Pitch Line .562 Inches For Chain No. 51 (Cast) & 51 (Steel)						
6	2.31				.94	1.2
7	2.65				.94	2.0
8	3.02				.94	2.4
9	3.37				1.18	3.0
10	3.75				1.44	3.4
11	4.10				1.44	3.8
12	4.46				1.94	4.0
13	4.90				2.18	4.5
14	5.19				2.18	5.5
15	5.54				2.44	6.0
16	5.90				2.94	6.8
17	6.19				3.18	7.4
18	6.63				3.18	7.8
19	7.02				3.44	8.0
20	7.35				3.94	8.4
21	7.75				4.44	9.0
22	8.12				4.44	9.5
24	8.85				4.94	11.0
25	9.19				③	12.5
26	9.58					13.0
27	9.95					13.8
28	10.32					14.5
30	11.05					16.0
31	11.42					16.5
32	11.75					17.0
33	12.15					17.8
34	12.52					18.0
36	13.25					19.0
40	14.66					23.0
55	20.23					38.0
52 CAST – PITCH 1.506						
Tooth Face at Pitch Line .625 Inches						
5	2.56					2.3
6	3.01				.94	3.5
7	3.47				.94	4.0
8	3.94				1.68	4.4
9①	4.40	3.00	1.50	1.82	1.94	3.3
10	4.87	3.00	2.00	1.82	2.18	3.4
11	5.34				2.68	4.3
12	5.82	3.00	2.00	1.82	2.68	5.4
13	6.29				2.94	5.8
14	6.77	4.00	3.00	2.50	3.18	11.1
15	7.24				3.68	7.4
16	7.72	4.00	3.00	2.50	3.94	12.0
17	8.20				4.44	9.0
18	8.67				4.44	14.0
19	9.15				③	12.0
20	9.60					14.0
21	10.10					15.0
22	10.56					17.0
23	11.06					18.0
24	11.54	4.00	3.00	2.50		21.0
25	12.00					22.0
26	12.49				③	23.0
27	12.97					19.0
28	13.45					19.0

52 Cast continued on next page

All dimensions given in inches and weight in Lbs.
① Hub one side. All other hubs are long central.
② If no hub data is listed, sprocket is cast to order.
③ Consult Rexnord for max. bore information.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

CAST TOOTH SPROCKETS – (Cont'd.)

No. of Teeth	Pitch Dia.	Stocked Sprockets ② Hub Dia.	Hub Length	Max. Bore	Cast to Order Max. Bore	Avg. Wt.
52 CAST – PITCH 1.506 (*Cont'd.*)						
Tooth Face at Pitch Line .625 Inches						
32	15.33					22
34	16.32					32
35	16.80					27
36	17.28					31
37	17.72					30
38	18.24					32
40	19.15					34
42	20.16					35
44	21.11					39
48	23.03					45
50	23.98					48
60	28.78					58
75	39.95					78
55 CAST – PITCH 1.631						
Tooth Face at Pitch Line .687 Inches						
5	2.77				.94	2
6	3.26				.94	3
7①	3.76	2.50	1.50	1.62	1.68	2
8①	4.26	2.50	1.50	1.62	1.68	3
9	4.77	3.00	2.00	1.94	1.94	3
10	5.28	3.50	2.00	2.18	2.18	4
11	5.79	4.50	3.00	2.88	2.94	9
12	6.30	4.50	3.00	2.88	2.94	11
13	6.82				3.18	10
14	7.33	4.50	3.00	2.88	3.68	17
15	7.84				3.94	15
16	8.36	4.50	3.00	2.88	4.44	16
17	8.88				4.44	17
18	9.39	4.50	3.00	2.88	4.94	18
19	9.90				5.44	20
20	10.43	4.50	3.00	2.88	5.44	22
21	10.94				5.94	23
22	11.43				5.94	24
23	11.97				6.50	26
24	12.50	5.00	4.00	3.25	6.50	33
26	13.53					31
27	14.07					24
28	14.54					25
29	15.08					26
30	15.60					27
31	16.11					23.5
32	16.64					29
34	17.68					31
35	18.20					32
36	18.68					33
38	19.75					35
40	20.79					37
41	21.31					36
48	24.94					45
50	25.98					47
54	28.00					50
D60 CAST – PITCH 2.307						
Tooth Face at Pitch Line .938 Inches						
6	4.61					4
7	5.32				2.68	8
8	6.03				2.88	8.4
9	6.75				2.94	13
10	7.46				3.18	14
13	9.64					27

No. of Teeth	Pitch Dia.	Stocked Sprockets ② Hub Dia.	Hub Length	Max. Bore	Cast to Order Max. Bore	Avg. Wt.
62 CAST – PITCH 1.654 (With Hardened Teeth)						
Tooth Face at Pitch Line .812 Inches④						
5	2.81					1.5
6	3.32				.94	3
7	3.82	2.50	2.00	1.62	1.68	2
8	4.32	3.00	2.00	1.82	1.94	4
9	4.84	3.00	2.00	1.82	1.94	5
10	5.35	4.00	3.00	2.50	2.68	9
11	5.87	4.00	3.00	2.50	2.68	9
12	6.39	3.00	2.00	1.82	2.94	7
13	6.91	4.00	3.00	2.50	3.18	14
14	7.43	5.00	3.00	3.25	3.68	24
15	7.96	5.50	4.00	3.62	3.94	26
16	8.48				4.44	25
17	9.00				4.44	26
18	9.53	5.50	4.00	3.62	4.94	28
19	10.05	4.00	3.00	2.50	5.44	22
20	10.57	5.50	4.00	3.62	5.44	32
21	11.10				5.94	39
22	11.63				5.94	27
23	12.15				5.94	30
24	12.67	5.00	3.00	3.25	6.50	36
25	13.20				6.50	36
26	13.72				7.00	36
27	14.25				7.00	58
28	14.77				7.50	60
29	15.30					31.6
30	15.83				7.50	44
32	16.88				8.00	48
33	17.44				8.00	50
34	17.93				8.00	77
36	18.98					90
38	20.03	6.00	4.00	4.00	③	93
39	20.55					61
40	21.07					40.2
41	21.61					65
42	22.13					72
43	22.66					74
45	23.71					77
46	24.24					80
47	24.77					48.6
48	25.29					83
49	25.82					84
54	28.45					93
60	31.60					71
67 CAST – PITCH 2308 (With Hardened Teeth)						
Tooth Face at Pitch Line .687 Inches						
5	3.93				1.18	4
6	4.62	3.00	2.00	1.82	1.94	4
7	5.32	3.50	3.00	2.18	2.18	8
8	6.03	4.00	3.00	2.50	2.68	11
9	6.75	4.50	3.00	2.88	2.94	13
10	7.47	4.50	3.00	2.88	3.18	15
11	8.19	4.50	3.00	2.88	3.94	16
12	8.92	4.50	3.00	2.88	4.44	18
13	9.64				4.44	18
14	10.37	5.00	3.00	3.25	5.44	28
15	11.10				5.44	27
16	11.83	5.00	3.00	3.25	6.50	30
17	12.56				7.00	31
18	13.29				7.00	34
19	14.02				7.50	37
20	14.75	5.00	4.00	3.25	7.50	47
21	15.49				③	43
22	16.22					24
23	16.95					48
24	17.60					50

No. of Teeth	Pitch Dia.	Stocked Sprockets ② Hub Dia.	Hub Length	Max. Bore	Cast to Order Max. Bore	Avg. Wt.
67 CAST – PITCH 2.308 (*Cont'd*) (With Hardened Teeth)						
Tooth Face at Pitch Line .687 Inches Also available in polymeric.						
25	18.41					53
26	19.14					54
27	19.89					59
28	20.61					34
30	22.07				③	67
32	23.54					23
33	24.27					75
34	25.00					78
35	25.74					80
36	26.47					84
38	27.94					88
40	29.40					94
44	32.34					120
45	33.06					125
48	35.27					115
60	44.08					148
78 CAST – PITCH 2.609						
Tooth Face at Pitch Line .937 Inches Also Available in polymeric.						
5	4.44				1.18	5
6	5.22	3.00	2.00	1.44	1.94	6
7	6.00	4.00	3.00	2.44	2.94	11
8	6.82	4.50	3.00	2.50	2.94	15
9	7.63	4.50	3.00	2.50	3.18	24
10	8.44	4.50	3.00	2.75	3.94	19
11	9.26	5.00	4.00	3.25	4.44	29
12	10.08	6.00	4.00	4.00	5.44	40
13	10.90	5.00	4.00	3.25	5.44	36
14	11.72	5.00	4.00	3.25	6.50	39
15	12.55	6.00	4.00	4.00	7.00	44
16	13.37	6.00	5.00	4.00	7.00	55
17	14.20	5.00	4.00	3.25	7.50	53
18	15.02	6.00	4.00	4.00	7.50	61
19	15.85				③	64
20	16.68	6.00	5.00	4.00		89
21	17.50					90
22	18.33	6.00	5.00	4.00		87
23	19.16					95
24	19.99	7.00	5.00	4.56		111
25	20.77					99
26	21.64					107
27	22.42					112
28	23.31					114
29	24.13					116
30	24.96					119
31	25.79					123
32	26.62					85
33	27.38					136
34	28.28					141
35	29.11					146
36	29.94					153
38	31.60					162
39	32.42					176
40	33.25	8.00	6.00	5.50		267
41	34.08					180
42	34.91					193
43	35.65					197
44	36.57					202
45	37.31					190
46	38.18					212
48	39.89					221
54	44.87					249
55	45.70					253
58	48.19					267

All dimensions given in inches and weight in Lbs.
① Hub one side. All other hubs are long central.
② If no hub data is listed, sprocket is cast to order.
③ Consult Rexnord for max. bore information.
④ For 962 chain, use unit no. 62 sprocket from 6 to 23 teeth, over 23 teeth, consult Rexnord.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

CAST TOOTH SPROCKETS – (Cont'd.)

No. of Teeth	Pitch Dia.	Stocked Sprockets ② Hub Dia.	Stocked Sprockets ② Hub Length	Stocked Sprockets ② Max. Bore	Cast to Order Max. Bore	Avg. Wt.
H102 DRUM FLANGED CAST – PITCH 5.000						
Tooth Face at Pitch Line 6.250 Inches						
8	13.07				6.50	160
10	16.18				7.00	175
H102 CAST – PITCH 5.000						
Tooth Face at Pitch Line 6.250 Inches						
6	10.00				3.94	70
7	11.52				4.94	80
8	13.07				6.50	100
9	14.62				7.00	120
10	16.18				③	140
12	19.32					165
13	20.89					180
102B CAST – PITCH 4.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.875 Inches						
6	8.00				3.94	31
7	9.22				3.94	44
8	10.45				4.44	57
9	11.70	7.00	5.00	4.56	5.44	64
10	12.94	7.00	5.00	4.56	7.00	74
11	14.20	7.00	5.00	4.56	7.50	87
12	15.45	7.00	5.00	4.56	8.00	90
13	16.71				8.00	116
14	17.98	7.00	5.00	4.56	8.50	124
15	19.24	7.00	5.00	4.56		122
16	20.50	7.00	5.00	4.56		128
17	21.76					111
18	23.04					155
19	24.30	7.00	5.00	4.50		165
20	25.57					175
21	26.84					185
22	28.11					194
24	30.65					214
102 1/2 CAST – PITCH 4.040 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.875 Inches						
6	8.08				3.94	30
8	10.56				4.44	55
9	11.81				5.44	62
10	13.07				5.94	64
11	14.34				6.50	70
12	15.61				7.00	78
13	16.88				7.50	85
14	18.16					94
15	19.43					105
16	20.71					112
17	21.98					122
19	24.55					140
20	25.83					150
22	28.39					175
24	30.95					190
25	32.23					210
26	33.33					230

No. of Teeth	Pitch Dia.	Stocked Sprockets ② Hub Dia.	Stocked Sprockets ② Hub Length	Stocked Sprockets ② Max. Bore	Cast to Order Max. Bore	Avg. Wt.
103 CAST – PITCH 3.075 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.125 Inches. Also available in polymeric.						
6	6.15				1.94	20
7	7.09				2.68	23
8	8.04	5.50	4.00	3.62	2.94	31
9	8.99	5.50	4.00	3.62	3.68	42
10	9.95	6.00	4.00	4.00	4.44	41
11	10.91	6.00	4.00	4.00	4.94	45
12	11.88	6.50	4.00	4.50	5.44	57
13	12.85					59
14	13.82					63
15	14.79				7.00	75
16	15.76					76
17	16.74				8.00	100
18	17.71	6.50	4.00	4.50	8.00	93
19	18.68	7.00	5.00	4.56	8.50	114
20	19.66	7.00	5.00	4.56	③	98
21	20.63					114
22	21.61					122
23	22.58					131
24	23.56					128
25	24.54					144
26	25.51					151
27	26.49					157
28	27.49					164
29	28.44					170
30	29.42					177
31	30.39					184
32	31.37					132
33	32.35					197
34	33.33					142
35	34.30					210
36	35.28					216
38	37.24					230
40	39.19					243
42	41.15					256
44	43.11					269
48	47.02					295
49	48.00					301
H104 CAST – PITCH 6.000						
Tooth Face at Pitch Line 4.000 Inches.						
5	10.21					52
6	12.00					64
7	13.83					70
8	15.68				7.00	100
9	17.54				③	112
10	19.42					126
11	21.30					130
12	23.18					149
13	25.07					185
H104 DRUM FLANGED CAST – PITCH 6.000						
Tooth Face at Pitch Line 4.000 Inches.						
9	17.54					240
10	19.42					290

No. of Teeth	Pitch Dia.	Stocked Sprockets ② Hub Dia.	Stocked Sprockets ② Hub Length	Stocked Sprockets ② Max. Bore	Cast to Order Max. Bore	Avg. Wt.
110 CAST – PITCH 6.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.875 Inches.						
6	12.00				3.94	63
7	13.84					68
8	15.68	7.00	5.00	4.56	4.94	121
9	17.54	7.00	5.00	4.56	5.44	98
9.5	18.45					120
10	19.42	7.00	5.00	4.56	5.94	123
11	21.30				7.00	143
11.5	23.00				③	126
12	23.18					256
12.5	24.12					124
13	25.07	7.00	5.00	4.50		169
14	26.96					
16	30.76					181
18	34.55					206
19	36.46					214
H110 CAST – PITCH 6.000 (With Hardened Teeth)						
Tooth Width at Pitch Line Matches Barrel Length.						
5	10.15					120
6	12.00				5.44	100
8	15.68				③	150
9	17.54					180
10	19.42					217
11	21.30					225
12	23.18					296
15	28.86					610
H110 DRUM FLANGED CAST – PITCH 6.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 8.875 Inches.						
8	15.68				③	310
9	17.54					360
10	19.42					410
11	21.30					450
111 CAST – PITCH 4.760 (With Hardened Teeth)						
Tooth Face at Pitch Line 2.375 Inches.						
6	9.52					47
7	10.99					54
8	12.44	7.50	6.00	5.06	5.94	98
9	13.92				5.94	107
10	15.40	7.50	6.00	5.06		122
11	16.90				③	136
12	18.39	6.00	5.00	3.44		130
13	19.89					170
14	21.39					175
15	22.89					134
16	24.40	7.50	6.00	4.82		189
17	25.90					218
18	27.41					185
20	30.43					510
22	33.44					230
24	36.47					351
111SP CAST DOUBLE PITCH – PITCH 4.760 & 7.240 (With Hardened Teeth)						
Tooth Face at Pitch Line 2.375 Inches.						
8	15.74					90
10	19.40					107
12	23.22	–	–	5.94	9.00	190

All dimensions given in inches and weight in Lbs.
① Hub one side. All other hubs are long central.
② If no hub data is listed, sprocket is cast to order.
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Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

■ SPROCKETS

CAST TOOTH SPROCKETS – (Cont'd.)

No. of Teeth	Pitch Dia.	Stocked Sprockets ② Hub Dia.	Stocked Sprockets ② Hub Length	Stocked Sprockets ② Max. Bore	Cast to Order Max. Bore	Avg. Wt.
H112 CAST – PITCH 8.000						
Tooth Face at Pitch Line 9.000 Inches.						
7	18.44				6.94	230
8	20.90				③	267
H116 CAST – PITCH 8.000						
Tooth Face at Pitch Line 12.750 Inches.						
7	18.44					400
8	20.90				6.94	325
9	23.39					460
H119 CAST – PITCH 6.000						
Tooth Face at Pitch Line 3.625 Inches.						
6	12.00				4.44	95
H120 CAST – PITCH 6.000						
Tooth Face at Pitch Line 8.750 Inches.						
6	12.00				5.44	130
8	15.68				6.94	250
9	17.54					190
10	19.42					215
H121 CAST – PITCH 9.000						
Tooth Face at Pitch Line 8.625 Inches.						
8	23.52	9.50		6.44		
H122 CAST – PITCH 8.000						
Tooth Face at Pitch Line 8.000 inches.						
7	18.44					210
H123 CAST – PITCH 9.000						
Tooth Face at Pitch Line 6.250 inches.						
8	23.52	9.50		6.44		
H124 CAST – PITCH 4.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.500 inches.						
7	9.22				3.94	38
8	10.45				4.94	46
9	11.70				5.44	58
10	12.94				5.44	62
11	14.20				5.94	69
12	15.45				6.50	82
14	17.98				③	98
15	19.24					100
16	20.50					122
17	21.77					136
18	23.04					147
19	24.30					154
20	25.57					161
22	28.11					176
27	34.46					240
28	35.73					250
30	38.27					290
37	47.18					410
130 CAST – PITCH 4.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.000 Inches						
5	6.77					18
6	8.00					21
7	9.22				3.94	25
8	10.45				4.94	32
9	11.70	5.00	4.00	3.25	③	44
10	12.94					48
11	14.20					52
12	15.45					59
13	16.71					58
14	17.95					61
16	20.50					75

No. of Teeth	Pitch Dia.	Stocked Sprockets ② Hub Dia.	Stocked Sprockets ② Hub Length	Stocked Sprockets ② Max. Bore	Cast to Order Max. Bore	Avg. Wt.
132 CAST – PITCH 6.050 (With Hardened Teeth)						
Tooth Face at Pitch Line 2.750 inches.						
5	10.29				2.94	102
6	12.10					92
7						
8	15.81	7.50	6.00	4.62	5.44	190
9	17.69				5.94	269
10	19.58	7.50	6.00	4.44	5.94	210
11	21.47	7.50	6.00	4.25	5.94	232
12	23.38	7.50	6.00	4.00	6.50	251
13	25.28				6.50	317
14	27.19				③	352
15	29.10					372
16	31.01					302
18	34.84					445
19	36.76					486
20	38.67					495
132 DRUM FLANGED CAST – PITCH 6.050						
Tooth Face at Pitch Line 3.000 inches.						
10						
11						
12						
183 CAST – PITCH 3.000 (With Hardened Teeth)						
Tooth Face at Pitch Line .812 inches.						
6	6.00	4.00	3.00	2.50	2.68	11
7	6.91				2.68	14
8	7.84				2.68	16
9	8.77				2.94	22
10	9.71				2.94	25
11	10.65				2.94	30
12	11.59				3.18	32
13	12.54	5.00	4.00	3.25	3.49	38
14	13.48				4.94	40
15	14.43				5.44	45
16	15.38				5.94	47
18	17.28					55
19	18.23				③	58
20	19.18					65
25	23.94					85
38	36.33					140
188 CAST – PITCH 4.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 0.937 inches.						
5	6.78					14
6	8.00				3.44	25
7	9.22				3.68	27
8	10.45				3.94	36
9	11.70				3.94	32
10	12.94				3.94	33
12	15.45				4.44	36
13	16.71				4.44	36
15	19.24				③	39
19	24.30					48
24	30.64					58

No. of Teeth	Pitch Dia.	Stocked Sprockets ② Hub Dia.	Stocked Sprockets ② Hub Length	Stocked Sprockets ② Max. Bore	Cast to Order Max. Bore	Avg. Wt.
194 CAST – PITCH 4.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.031 inches.						
7	9.22				3.18	30
8	10.45	5.50	4.00	3.62	3.68	38
9	11.70	5.50	4.00	3.62	3.94	46
10	12.94	5.50	4.00	3.62	4.44	55
11	14.20				4.44	62
12	15.45	5.50	4.00	3.62	4.94	70
14	17.98				5.44	90
15	19.24				③	72
19	24.30					100
196 CAST – PITCH 6.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.031 inches.						
5	10.21					
6	12.00	6.00	4.00	4.00	3.94	33
7	13.82	4.50	3.00	2.75	4.44	49
8	15.68	7.00	5.00	4.56	4.94	84
9	17.54				5.44	93
10	19.42	7.00	5.00	4.56	4.44	114
12	23.18				6.50	148
13	25.07				③	119
14	26.96					128
16	30.75					160
18	34.55					195
19	36.45					210
25	47.87					304
197 CAST – PITCH 6.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.125 inches.						
6	12.00	6.50	5.00	4.75	4.44	56
7	13.83					61
8	15.68	6.50	5.00	4.56	4.94	90
9	17.54				5.44	80
10	19.42				5.94	95
12	23.18				③	115
15	28.86					178
348 CAST – PITCH 3.031 (With Hardened Teeth)						
Tooth Face at Pitch Line .687 inches.						
4	7.92				1.94	15
5	9.81				1.94	23
6	11.59				2.18	24
7	13.48				2.44	43
9	17.28					56
10	19.18				③	68
11	21.03					75
12	22.98					83
16	30.60					120
19	36.33					159
458 CAST – PITCH 4.031 (With Hardened Tooth)						
(With Hardened Tooth) Tooth Face at Pitch Line .875 inches.						
3	7.95					20
4	10.53				3.18	44
5	13.04	7.50	5.00	5.06	5.06	54
6	15.57	7.50	5.00	5.06	5.06	81
7	18.12				5.06	71
8	20.66				5.06	95
9	23.13				③	130
10	25.77					145
11	28.33					193
12	30.68					200
14	35.87					228
19	48.63					345

All dimensions given in inches and weight in Lbs.

① Hub one side. All other hubs are long central.
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■ SPROCKETS

CAST TOOTH SPROCKETS – (Cont'd.)

No. of Teeth	Pitch Dia.	Stocked Sprockets ② Hub Dia.	Hub Length	Max. Bore	Cast to Order Max. Bore	Avg. Wt.
468 CAST–PITCH 4.031						
Tooth Face at Pitch Line 1.375 inches.						
4	10.53				3.44	36
5	13.05				3.44	65
6	15.57				5.94	100
7	18.12					92
8	20.66					118
9	23.21					148
10	25.77					160
12	30.88					240
480 CAST – PITCH 8.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 11.250 inches.						
6	16.00				7.00	250
7	18.44				7.50	295
8	20.90				③	330
9	23.39					385
10	25.89					440
480 DRUM FLANGED CAST (With Hardened Teeth)						
Tooth Face at Pitch Line 11.250 inches.						
6	16.00				③	490
7	18.44					560
8	20.90					654
9	23.39					750
10	25.89					840
483 CAST – PITCH 4.000						
Tooth Face at Pitch Line .875 inches.						
8	10.45					30
9	11.70					35
12	15.45					65
13	16.72					70
19	24.30					124
520 CAST – PITCH 2.563 (With Hardened Teeth)						
Tooth Face at Pitch Line .875 inches.						
10	8.29	–	–	30	6.00	4
12	9.90	–	–	40	6.50	5
18	14.76					65
24	19.64	–	–	84		10
30	24.52					100
40	32.67					165
531 CAST – PITCH 4.000						
Tooth Face at Pitch Line 1.187 inches. For Chain No. 531.						
6	8.00				2.94	34
8	10.45				3.44	43
10	12.94				3.94	49
12	15.46				4.44	85
14	17.98					80
15	19.24					85
16	20.50					94
17	21.77					107
19	24.30					120

No. of Teeth	Pitch Dia.	Stocked Sprockets ② Hub Dia.	Hub Length	Max. Bore	Cast to Order Max. Bore	Avg. Wt.
678 CAST – PITCH 6.031 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.187 inches.						
3	12.06					50
4	15.72				5.44	75
5	19.52				③	115
6	23.24					148
7	27.03					190
8	30.83					240
10						
698 CAST – PITCH 6.031 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.375 inches.						
5	19.52				6.94	122
6	23.24				③	162
7	26.96					200
8	30.92					275
CS720S CAST – PITCH 6.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.000 inches.						
6.5-13T	12.89					65.0
8.5P-17T	16.59				③	98.2
9-9T	17.51					80.0
9.5P-19T	18.48					115.3
10-10T	19.42					95.0
10.5-21T	20.33					110.0
11-11T	21.30					105.0
11.5P-23T	22.24					127.7
12.5P-25T	24.12					141.3
13-13T	25.07					130.0
16-16T	30.75					180.0
720S CAST – PITCH 6.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.000 inches.						
6P-6T	12.00				③	47.9
6.5P-13T	12.91					53.1
8P-8T	15.68					71.3
8.5P-17T	16.61					92.2
9P-9T	17.54					99.5
9.5P-19T	18.48					107.3
10P-10T	19.42					115.4
10.5-21T	20.33					110.0
11P-11T	21.30					98.3
11.5P-23T	22.24					118.2
12P-12T	23.18					120.0
12.5P-25T	24.12					131.5
13P-13T	25.07					138.7
15P-15T	28.86					155.0
16P-16T	30.75					180.0
19P-19T	36.45					245.9
20P-20T	38.36					267.8
CS730 CAST – PITCH 6.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.125 inches.						
9.5P-19T	18.48					114.8
11.5P-23T	22.24					113.5
12.5P-25T	24.01					127.9
18P-18T	34.55					207.0
27P-27T						

No. of Teeth	Pitch Dia.	Stocked Sprockets ② Hub Dia.	Hub Length	Max. Bore	Cast to Order Max. Bore	Avg. Wt.
A730 CAST – PITCH 6.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.125 inches.						
6P-6T	12.00				③	47.9
8P-8T	15.68					71.3
9P-9T	17.54					85.5
9.5P-19T	18.48					107.3
10P-20T	19.42					115.4
11P-11T	21.30					105.0
11.5P-23T	22.24					104.5
12P-12T	23.14					110.8
12.5P-25T	24.12					117.9
13P-13T	25.07					125.1
13.5P-27T	26.02					132.5
14P-14T	26.96					153.7
15P-15T	28.86					170.0
16P-16T	30.75					187.2
18P-18T	34.55					225.2
24P-24T	45.79					363.5
823 CAST – PITCH 4.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.125 inches.						
8	10.45				2.44	25
10	12.95				3.18	45
11	14.20				3.68	54
12	15.46				3.94	56
13	16.71				4.44	60
14	17.98				4.94	65
16	20.51				5.44	81
17	21.77				5.94	86
18	23.04				5.94	91
19	24.26					95
24	30.65				③	138
825 CAST – PITCH 4.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.250 inches.						
10	12.94				6.44	58
12	15.45					78
13	16.71					82
14	17.98					94
15	19.24					112
16	20.50					115
19	24.30					140
830 CAST – PITCH 6.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.312 inches.						
6	12.00					58.5
8	15.68				6.44	79
9	17.54				③	88
10	19.42					102
11	21.20					105
11.5-23T	22.21					125
12	23.18					121
13	25.07					142
15	28.86					168
16	30.75					180

All dimensions given in inches and weight in Lbs.
① Hub one side. All other hubs are long central.
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CAST TOOTH SPROCKETS – (Cont'd.)

No. of Teeth	Pitch Dia.	Stocked Sprockets ② Hub Dia.	Stocked Sprockets ② Hub Length	Stocked Sprockets ② Max. Bore	Cast to Order Max. Bore	Avg. Wt.
844 CAST – PITCH 6.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 2.125 inches.						
6						
8	15.88				6.44	94
9	17.54					112
10	19.42					125
11	21.30					140
12	23.18					160
13	25.07					171
15	28.86					200
16	30.75					217
19	36.45					275
F922 CAST – PITCH 9.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.125 inches.						
6	18.00				5.94	74
8	23.52				③	150
9	26.31					160
10	29.12					175
F933 CAST – PITCH 9.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.250 inches.						
6	18.00				5.94	93
7	20.74				③	120
8	23.52					152
951 CAST – PITCH 6.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.062 inches.						
6	12.00				5.44	62
8	15.68				5.44	81
998 CAST – PITCH 9.031 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.375 inches.						
4	23.53				6.44	195
5	29.14				③	258
6	34.81					325

No. of Teeth	Pitch Dia.	Stocked Sprockets ② Hub Dia.	Stocked Sprockets ② Hub Length	Stocked Sprockets ② Max. Bore	Cast to Order Max. Bore	Avg. Wt.
1113 CAST – PITCH 4.040 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.062 inches.						
6	8.08				2.44	24
8	10.56				2.94	38
9	11.81				3.18	40
10	13.07				3.68	45
11	14.34				3.94	50
12	15.61				4.44	60
13	16.88				4.94	68
14	18.16				③	85
16	20.71					95
17	21.99					104
18	23.67					110
24	30.95					178
1120 CAST – PITCH 4.000 (With Hardened Teeth)						
Tooth Face at Pitch Line .687 inches.						
5	6.81				2.18	12
6	8.00				2.44	23
7	9.22				3.68	72
8	10.45				3.68	29
9	11.70				3.94	38
10	12.94				3.94	40
11	14.19				③	50
12	15.45					65
14	17.98					77
15	19.24					86
16	20.50					97
18	23.04					115
19	24.30					125
22	28.11					165
24	30.65					190
31	39.54					244
35	44.62					322
1131 CAST – PITCH 6.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.250 inches.						
6	12.00				3.94	62
8	15.68				3.94	78
9	17.54				3.95	120
12	23.18				4.44	153
13	25.03					175
14	26.96				③	190
16	30.75					225
25	47.87					350
F1222 CAST – PITCH 12.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.000 inches.						
6	24.00				5.94	157
8	31.36					210

No. of Teeth	Pitch Dia.	Stocked Sprockets ② Hub Dia.	Stocked Sprockets ② Hub Length	Stocked Sprockets ② Max. Bore	Cast to Order Max. Bore	Avg. Wt.
2124 CAST – PITCH 6.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.375 inches.						
6	12.00					50
8	15.68				6.44	62
10	19.42				③	95
12	23.18					133
13	25.07					150
15	28.86					186
16	30.76					220
24	45.97					250
2180 CAST – PITCH 6.000 (With Hardened Teeth)						
Tooth Face at Pitch Line 1.125 inches.						
6	12.00				4.94	50
8	15.68				7.00	90
16	30.76					200
20	38.36					260
9250 CAST – PITCH 2.500 (With Hardened Teeth)						
Tooth Face at Pitch Line .750 inches. Also available in polymeric.						
6	5.00					5
7	5.76					9
8	6.53					10
10	8.09	4.00	3.00	2.50	2.68	13
11	8.87	4.00	3.00	2.50	2.68	16
12	9.66	4.00	3.00	2.50	3.18	18
14	11.24					23
15	12.03				3.94	28
16	12.81					30

All dimensions given in inches and weight in Lbs.

① Hub one side. All other hubs are long central.

② If no hub data is listed, sprocket is cast to order.

③ Consult Rexnord for max. bore information.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

CAST TRACTION WHEELS AND DRUM FLANGED TRACTION WHEELS

Traction Wheels are used primarily on the headshafts of bucket elevators and elevating conveyors to protect the system from obstructions. Providing the frictional grip between the chain and the traction wheel is sufficient to transmit the power under normal load. In the case of obstruction, the chain will slip on the wheel, and avoid damaging some machinery or part of the system.

Drum Flanged Traction Wheels are used on drag chain conveyors where discharge is over the head wheel.

Materials. Traction wheels are furnished cast and fabricated steel. Segmental rim traction wheels are available with fabricated bodies. See pages 90-93.

Standard Sprocket Bore Tolerances; Keyseat and Set-screws; and Hubs. See page 140 for key and set screw sizes. The corresponding paragraphs on page 90 applies to traction wheels.

To determine a shaft's pitch diameter, add to its outside diameter, the barrel diameter of the chain to be used.

NOTE: For Replaceable Segmental-Rim Traction Wheels, see pages 90-93.

All dimensions given in inches and weight in Lbs.

Unit No.	O. D.	x = HDN	Face Width	Drum Width	Wt.
78	10	x	.94	–	30.0
	12	x	.94	–	45.0
	12.50	x	.94	–	50.0
	13.25	x	.94	–	58.0
	14	x	.94	–	62.0
	15	x	.94	–	65.0
	15.50	x	.94	–	68.0
	16	x	.94	–	70.0
	18	x	.94	–	75.0
	19	x	.94	–	80.0
	20	x	.94	–	85.0
102B	12	x	1.88	–	50.0
	13.50	x	1.88	–	60.0
	14	x	1.88	–	63.0
	14.63	x	1.88	–	68.0
	15.75	x	1.88	–	78.0
	16.75	x	1.88	–	89.0
	17	x	1.88	–	92.0
	18	x	1.88	–	100.0
	19.75	x	1.88	–	108.0
	21	x	1.88	–	117.0
	22	x	1.88	–	127.0
	23	x	1.88	–	139.0
	23.75	x	1.88	–	143.0
	27.63	x	1.88	–	160.0
	29.63	x	1.88	–	166.0
	33	x	1.88	–	175.0
H102	11.50		6.25	11.50	185.0
	14.63		6.25	11.50	230.0
103	7	x	1.13	–	25.0
	9.63	x	1.13	–	38.0
	14.63	x	1.13	–	49.0
	16	x	1.13	–	60.0
	17	x	1.13	–	70.0
	18	x	1.13	–	75.0
	20	x	1.13	–	90.0
	22	x	1.13	–	115.0
	22.50	x	1.13	–	125.0
	24	x	1.13	–	135.0
	29.38	x	1.13	–	170.0
H104	10.50		4	12	125.0
	12.38		4	12	145.0
	14		4	12	170.0
	16		4	12	205.0
	17.75		4	12	250.0
	19.75		4	12	305.0
	20.13		4	12	345.0

Unit No.	O. D.	x = HDN	Face Width	Drum Width	Wt.
H110	10.25		8.88	16.38	175.0
	14		8.88	16.38	250.0
	15.88		8.88	16.38	290.0
	17.75		8.88	16.38	335.0
	19.63		8.88	16.38	365.0
111	9.50	x	2.25	–	50.0
	14.56	x	2.25	–	85.0
	15.50	x	2.25	–	91.0
	18	x		–	105.0
	20	x	2.25	–	135.0
	22	x	2.25	–	143.0
	23	x	2.25	–	146.0
	23.75	x	2.25	–	149.0
	26	x	2.25	–	165.0
	29.50	x	2.25	–	198.0
	30.75	x	2.25	–	210.0
H112	16.75		9	16.50	200.0
	19.25		9	16.50	230.0
H116	16.88		13	20.50	395.0
	19		13	20.50	485.0
	21.75		13	20.50	550.0
H118	13.88		13	20	495.0
	16.50		13	20	560.0
132	13	x	2.75	–	120.0
	13.75	x	2.75	–	124.0
	16	x	2.75	–	128.0
	16.25		2.75	14	510.0
	17	x	2.75	–	138.0
	18	x	2.75	–	147.0
	18.25		2.75	14	570.0
	20.25		2.75	14	620.0
	21.63	x	2.75	–	186.0
	22	x	2.75	–	190.0
	24	x	2.75	–	205.0
	26.19	x	2.75	–	210.0
	27.75	x	2.75	–	225.0
	30	x	2.75	–	280.0
H480	13.88		11.13	22	440.0
	16.25		11.13	22	510.0
	18.75		11.13	22	540.0
	21.13		11.13	22	600.0
	23.75		11.13	22	630.0

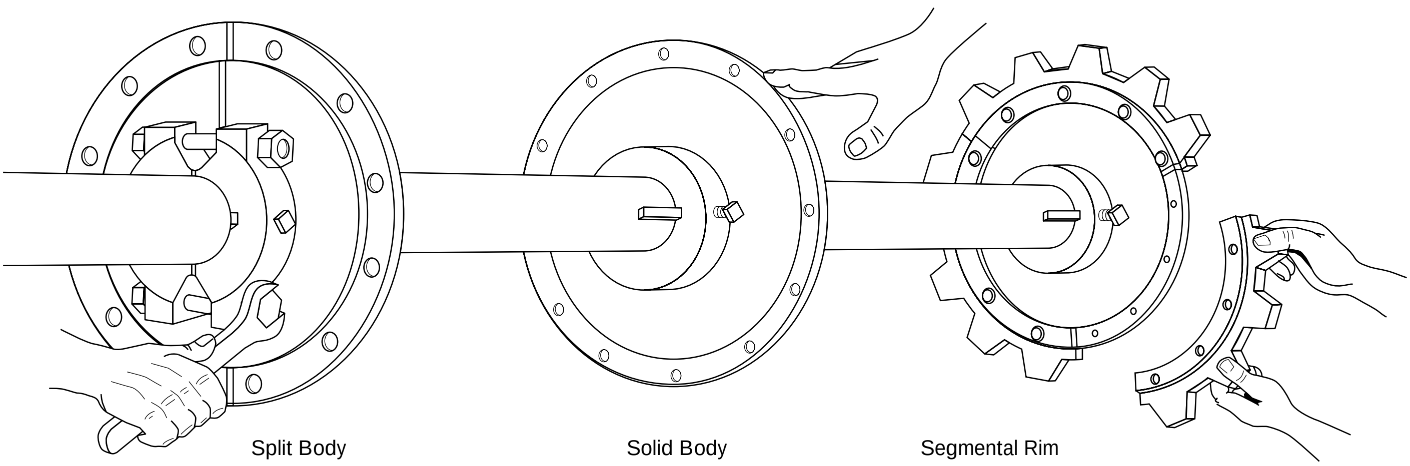
Unit No.	O. D.	x = HDN	Face Width	Drum Width	Wt.
S825	10.50	x	1.25	–	45.0
	14	x	1.25	–	60.0
	15.50	x	1.25	–	68.0
	16	x	1.25	–	72.0
	17	x	1.25	–	79.0
	18.25	x	1.25	–	86.0
	20	x	1.25	–	95.0
	22	x	1.25	–	105.0
	24	x	1.25	–	120.0
	27.75	x	1.25	–	140.0
	31	x	1.25	–	160.0
844	12	x	2.13	–	65.0
	16	x	2.13	–	90.0
	19.75	x	2.13	–	109.0
	22.25	x	2.13	–	130.0
	23.75	x	2.13	–	148.0
	27.75	x	2.13	–	172.0
	29	x	2.13	–	190.0
720	15	x	1	–	62.0
	15.50	x	1	–	65.0
	18.25	x	1	–	85.0
S856	29	x	2.75	–	170.0
	21.50	x	2.75	–	187.0
	26	x	2.75	–	200.0
	27.75	x	2.75	–	218.0
	29.50	x	2.75	–	225.0
	30	x	2.75	–	236.0
955	8	x	.69	–	24.0
	18.75	x	.69	–	65.0

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

SEGMENTAL RIM SPROCKETS AND TRACTION WHEELS

Segmental sprockets and traction wheels significantly reduce the labor and down time associated with replacing worn standard type units. Worn segments can be replaced one at a time without removing the chain, disassembling shaft and/or bearing assemblies or realigning hub placement.

Sprockets and traction wheel rims are made of hardened steel and may be furnished with split or solid hub bodies.



Solid Hub Bodies

Solid hub bodies are recommended for new installations. They are accurately machined of close-grained cast iron. The bodies can be made of steel, but dimensions will differ.

Split Hub Bodies

Split hub bodies can be easily installed on existing installations without removing the shaft, bearings, or chain. They are accurately machined of close-grained cast iron. A complete set of hub bolts and nuts included. The bodies can be made of steel, but dimensions will differ.

Traction Wheels vs. Sprockets at the Head Shaft

When properly applied, the use of a traction wheel at the head end of a centrifugal elevator will result in an increase in both chain and wheel life. In addition, the traction wheel will minimize peak chain tensions under impact or starting conditions.

Successful application of a traction wheel is dependent upon a frictional force between the traction wheel and the chain bushing which is great enough to handle the applied chain load without excessive slippage. Factors which can detract from the effectiveness of a traction wheel are:

1. Handling material with lubricating qualities.
2. Heavy digging loads.
3. Handling very dense material.

Dry and abrasive materials, on the other hand, have the desirable effect of increasing the coefficient of friction. Traction wheels have been used very successfully in the cement mill industry. Chain with rollers should not be used with a traction wheel.

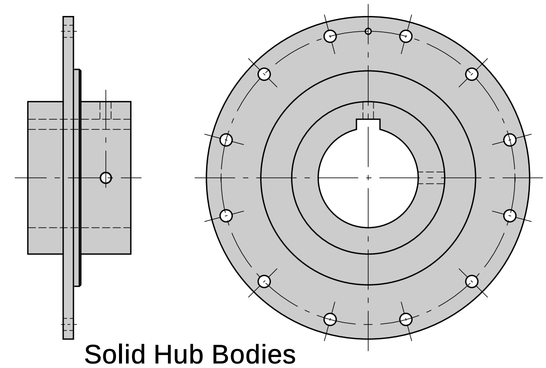
SEGMENTAL RIM SPROCKETS AND TRACTION WHEELS – (Cont'd.)

Solid Hub Bodies

Solid hub bodies are recommended for new or existing installation where it is expedient to install a solid hub to save added cost and weight of a split hub.

Solid hub bodies can be made of cast iron or fabricated steel. The outer rim of both cast and fabricated steel hub bodies is machined to exact concentricity and the flange base is machined to provide a mating surface for the rim. This insures correct fit and proper installation of segmental traction wheel and sprocket rims. Hubs are central with the center line of rims.

Fabricated steel bodies are recommended for use in severe applications, such as cement mill, to provide maximum fatigue and wear life.



Solid Hub Bodies

CAST SOLID BODIES[1]

Body No.[2]	Bore Size	Hub Length	Wt.
10	1.94	4.25	43
	2.44	4.25	42
	2.94	4.25	41
	3.44	6.00	63
	3.94	6.00	60
	4.44	6.00	56
12	1.94	4.25	62
	2.44	4.25	60
	2.94	4.25	58
	3.44	6.00	90
	3.94	6.00	85
	4.44	6.00	80
	4.94	6.50	96
16	1.94	3.25	80
	2.44	5.00	86
	2.94	5.00	97
	3.44	5.00	94
	3.94	6.50	139
	4.44	6.50	134
	4.94	6.50	127
	5.44	7.75	189
	5.94	7.75	180
	6.44	8.50	225
	6.94	8.50	272
20	2.44	5.00	140
	2.94	5.00	138
	3.44	5.00	134
	3.94	6.50	180
	4.44	6.50	174
	4.94	6.50	168
	5.44	7.75	229
	5.94	7.75	220
	6.44	9.50	323
	6.94	9.50	310

FABRICATED SOLID BODIES

Body No.[2]	Bore Size	Hub Length	Wt.
10	1.94	3.75	44
	2.44	3.75	44
	2.94	3.75	43
	3.44	3.75	41
	3.94	3.75	38
	4.44	6.50	61
	4.94	6.50	55
12	1.94	4.25	65
	2.44	4.25	63
	2.94	4.25	61
	3.44	4.25	58
	3.94	4.25	54
	4.44	6.00	87
	4.94	6.00	79
	5.44	7.75	110
	5.94	7.75	100
16	1.94	5.00	105
	2.44	5.00	103
	2.94	5.00	100
	3.44	5.00	96
	3.94	5.00	92
	4.44	7.00	116
	4.94	7.00	108
	5.44	7.00	136
	5.94	7.00	127
	6.44	8.50	178
	6.94	8.50	165
	7.44	8.50	186
	7.94	8.50	172
	8.44	10.50	259
20	1.94	5.50	157
	2.44	5.50	154
	2.94	5.50	151
	3.44	5.50	147
	3.94	5.50	142
	4.44	7.75	169
	4.94	7.75	161
	5.44	7.75	193
	5.94	7.75	183
	6.44	8.50	225
	6.94	8.50	213
	7.44	8.50	234
	7.94	8.50	220
	8.44	8.50	247
	9.94	11.50	300

FABRICATED SOLID BODIES (Cont'd.)

Body No.[2]	Bore Size	Hub Length	Wt.
25	1.94	5.50	250
	2.44	5.50	289
	2.94	5.50	244
	3.44	5.50	240
	3.94	5.50	235
	4.44	7.75	262
	4.94	7.75	254
	5.44	7.75	286
	5.94	7.75	276
	6.44	8.50	314
	6.94	8.50	301
	7.44	8.50	322
	7.94	8.50	308
	8.44	11.50	414
35	1.94	5.50	325
	2.44	5.50	375
	2.94	5.50	448
	3.44	5.50	444
	3.94	5.50	440
	4.44	8.50	459
	4.94	8.50	452
	5.44	8.50	478
	5.94	8.50	469
	6.44	8.50	518
	6.94	8.50	506
	7.44	8.50	526
	7.94	8.50	512
	8.44	11.50	619

All dimensions given in inches and weight in Lbs.

[1] Steel bodies are recommended for use with RS856, ER956, ER857, ER859, ER864, SBX856, SBX2857, SBX2859 and SBX2864 rims used in severe service such as cement mill elevators.

[2] Body no. represents bolt circle diameter. See page 93 for bolting information.

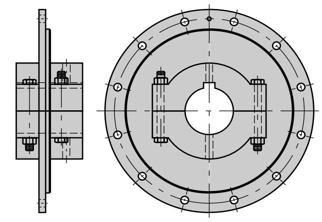
Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

SEGMENTAL RIM SPROCKETS AND TRACTION WHEELS – (Cont'd.)

Split Hub Bodies

Split hub bodies can be easily installed in existing applications without removing the shaft, bearing or chain. Split hub bodies can be furnished in cast iron or fabricated steel. Complete set of hub bolts and nuts included.

The outer rim of both cast and fabricated steel hub bodies is machined to precise concentricity and the flange base is machined to provide a mating surface for the rim. This insures correct fit and proper installation of segmental traction wheels and sprocket rims. Hubs are central with the center line of rims.



Fabricated steel bodies are recommended for use in severe applications, such as cement mill, to provide maximum fatigue and wear life.

CAST SPLIT BODIES①

Body No.②	Bore Size	Hub Length	Wt.
10	1.94	5.63	53
	2.44	5.63	51
12	1.94	5.63	75
	2.44	5.63	72
	2.94	7.00	125
	3.44	7.00	120
	3.94	7.00	115
16	1.94	6.50	97
	2.44	6.50	125
	2.94	7.25	168
	3.44	7.25	164
	3.94	7.25	158
	4.44	8.25	237
	4.94	8.25	229
20	1.94	4.38	126
	2.44	5.00	163
	2.94	5.00	160
	3.44	5.00	157
	3.94	6.50	235
	4.44	6.50	229
	4.94	6.50	223
	5.44	7.63	328
	5.94	7.63	319
	6.44	11.13	641
	6.94	11.13	626
	7.44	11.13	610

FABRICATED SPLIT BODIES

Body No.②	Bore Size	Hub Length	Wt.
12	1.94	6.75	109
	2.44	6.75	105
	2.94	6.75	101
	3.44	6.75	97
	3.94	6.75	91
	4.44	7.75	134
	4.94	7.75	126
16	1.94	6.75	145
	2.44	6.75	142
	2.94	6.75	138
	3.44	6.75	133
	3.94	6.75	127
	4.44	7.75	169
	4.94	7.75	161
	5.44	7.75	212
	5.94	7.75	202
20	1.94	6.75	198
	2.44	6.75	195
	2.94	6.75	191
	3.44	6.75	186
	3.94	6.75	181
	4.44	7.75	217
	4.94	7.75	209
	5.44	7.75	271
	5.94	7.75	261
	6.44	9.50	361
	6.94	9.50	347
	7.44	8.75	367
	7.94	8.75	352
	8.44	8.75	430
25	1.94	6.75	289
	2.44	6.75	286
	2.94	6.75	282
	3.44	6.75	277
	3.94	6.75	272
	4.44	7.75	307
	4.94	7.75	299
	5.44	7.75	359
	5.94	7.75	349
	6.44	8.75	447
	6.94	8.75	433
	7.44	8.75	453
	7.94	8.75	438
	7.44	8.75	513
35	1.94	6.75	375
	2.44	6.75	372
	2.94	6.75	487
	3.44	6.75	482
	3.94	6.75	476
	4.44	7.75	511
	4.94	7.75	503
	5.44	7.75	564
	5.94	7.75	554
	6.44	8.75	652
	6.94	8.75	638
	7.44	8.75	657
	7.94	8.75	642
	8.44	8.75	717

BODY BOLTING

Body No.	Bolt Quantity	Bolt Size	Bolt Torque Ft./Lbs.
10	12	5/8	180
12	12	5/8	180
16	12	3/4	320
20	24	3/4	320
25	24	1	710
35	24	1	710

Torque values based on dry conditions.
1 Ft. Lb. Torque = 1 Lb. Force With 1 Ft. Lever Arm.

All dimensions given in inches and weight in Lbs.

① Steel bodies are recommended for use with RS856, ER956, ER857, ER859, ER864, SBX856, SBX2857, SBX2859 and SBX2864 rims used in severe service such as cement mill elevators.

② Body no. represents bolt circle diameter.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

SEGMENTAL RIM SPROCKETS AND TRACTION WHEELS – (Cont'd.)

Cast Rims

Each traction wheel rim and sprocket rim is induction case-hardened to the highest practical hardness around the entire circumference. The hardness depth is controlled to give the longest wear life, yet leaving the interior tough and ductile – perfect qualities for absorbing the impact and shock loads encountered in "elevator-conveyor" service.

Segmental sprocket rims can be reversed (back side of tooth becomes the working face), in order to maximize wear life.

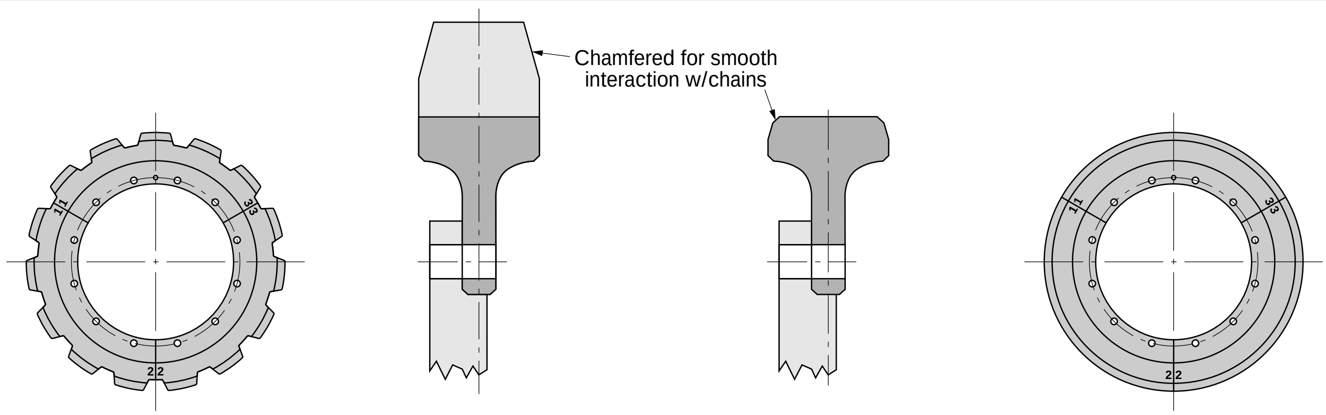
Segmental traction wheel rims can be easily installed, no need to even remove the chain in order to replace worn out rims. No burning or cutting is necessary.

Our "T" head traction wheel design moves the center of the chain load more closely over the body flange, thus reducing the possibility of hub fatigue problems.

Segmental rim traction wheels are split with cuts in the rims that are made diagonally. These diagonal cuts eliminate the possibility of the segments spalling or chipping at the line of split as a result of chain bushing or barrel line impact.

The sides of the segmental traction wheel & sprocket rims are chamfered to allow the chain to "enter" and "leave" smoothly without damaging the chain components.

All rims are furnished with high strength UNC thread nuts and bolts as standard.



Sprocket Rims | Sprocket Cross Section | Rex "T-head" Traction Wheel Cross Section | Traction Wheel Rims

Available Cast Traction Wheel Rims
(with Bolts, Washers and Nuts)

Rex Chain No.	Link-Belt Chain No.	No. of Teeth	Use Body No.①	Pitch Dia. In.	Wt. Each Lbs.
S110 A102B S102B A102½ S102½	SBS110 C102B SBS102B C102½ SBS102½	24	16	115	1.75
ES111 A111	SBS111 C111	22	16	110	2.25
		24	16	130	
		26	20	140	
		30	20	165	
RS856 ER857 ER956	SBX856 SBX2857	20	12	90	2.75
		22	16	115	
		24	16	145	
		26	20	155	
		28	20	170	
		30	20	185	
ER859 ER864	SBX2859 SBX2864	24	16	165	3.50
		26	20	175	
		30	20		
		36	20		
		42	35	235	
		49	35		

NOTE: Fabricated steel rims are readily available for most every chain. Consult Rexnord.
① Body No. represents bolt circle diameter in inches.

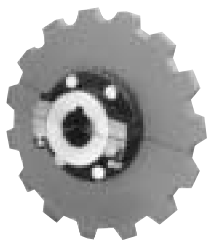
Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

POLYMERIC SPROCKET AND IDLER WHEELS

Cast Body Segmental Polymeric Sprocket

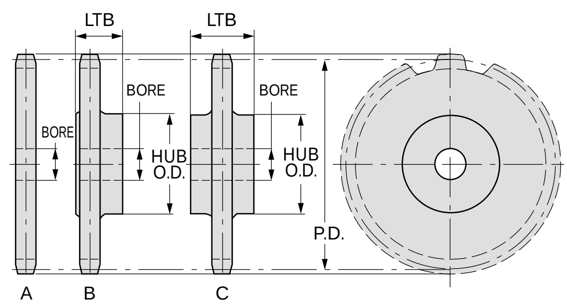
All Polymeric Dished Sprocket

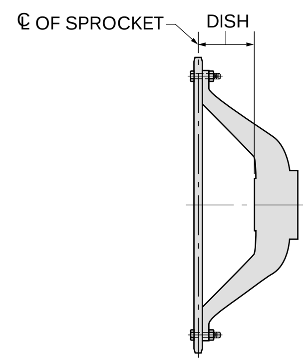
Polymeric Sprocket



Split Polymeric Sprocket

HUB STYLE





POLYMERIC SPROCKET AND IDLER WHEELS

Polymeric chains will provide the ultimate in service when operated with properly designed sprockets. Just like polymeric chains differ from metal chains, so do polymeric sprockets differ vastly from metal sprockets.

The polymeric sprocket must be designed for the particular chain, considering the chain's special capability and intended use. Many factors are taken into account when designing these sprockets: Tooth pressure angle, pitch line clearance, bottom diameter, pocket and topping radii and tooth working face, to name a few. A poor design in any of these areas may cause chain failure.

Rex® Polymeric chain run better on Rex Polymeric sprockets. Polymeric sprockets resist corrosion and reduce friction, maximizing both chain and sprocket life. These quiet running, shock absorbing sprockets also improve system reliability.

The American Chain Association recommends that "Sprockets normally be obtained from the manufacturer of the chain involved." The Association further cautions that "worn sprockets should always be replaced when new chain is installed… "

Features

- **Designed specifically for use with polymeric chains** for greatest chain and sprocket life.
- **Made from super tough urethane.** Rex sprockets resist particle embedment (and the rapid chain wear that can result), a common problem with other plastic materials.
- **One-piece design** – Rex polymeric sprockets are all polymeric, or available with a steel insert cast integral with the body.
- **Absorbs vibration and large shock loads better than steel sprockets,** thus protecting the chain and providing quieter operation.
- **Reduces friction,** which improves chain life.
- **Split sprockets** – most sprockets are available in split design for ease of installation.

POLYMERIC SPROCKET AND IDLER WHEELS – (Cont'd.)

Dimensions are in inches. Weights are in pounds.

	Number of Teeth	P. D.	Hub③		Bore Capacities			Weight③
					W/O Key	With Key①		
			O. D.	L. T. B.	Max.	Min.	Max.	
N45 Polymeric Sprocket Pitch 1.630 Tooth Face at Pitch Line .75 Hub Style B Mandrel Bore .44	7	3.76	2.50	1.75	1.50	.88	1.25	.6
	8	4.26	3.00	1.75	2.00	.88	1.25	.9
	9	4.77	3.00	1.75	2.00	1.00	1.25	1.0
	10	5.27	3.75	1.75	2.75	1.13	2.63	2.0
	11	5.79	3.75	1.75	2.75	1.13	2.63	2.1
	12	6.30	3.75	1.75	2.75	1.25	2.63	2.3
	13	6.81	4.75	1.75	3.75	1.25	2.88	2.9
	14	7.33	4.75	1.75	3.75	1.25	2.88	3.1
	15	7.84	4.75	1.75	3.75	1.25	2.88	3.3
	16	8.36	4.75	1.75	3.75	1.38	2.88	3.5
	17	8.87	4.75	1.75	3.75	1.50	2.88	3.7
	18	9.39	4.75	1.75	3.75	1.50	2.88	4.0
N77 Polymeric Sprocket Pitch 2.308 Tooth Face at Pitch Line .75 Hub Style B Mandrel Bore .44	7	5.32	3.75	2.00	2.75	1.25	2.25	1.1
	8	6.03	3.75	2.00	2.75	1.25	2.25	1.3
	9	6.75	4.75	2.00	3.75	1.25	2.88	1.2
	10	7.47	4.75	2.00	3.75	1.50	2.88	1.5
	11	8.19	4.75	2.00	3.75	1.50	2.88	1.7
	12	8.92	4.75	2.00	3.75	1.50	2.88	2.0
	13	9.64	4.75	2.00	3.75	1.50	2.88	2.3
	14	10.37	4.75	2.00	3.75	1.63	2.88	2.7
	15	11.10	4.75	2.00	3.75	1.75	2.88	3.0

	Number of Teeth	P. D.	Hub Diameter	L. T. B.	Bolt Circle	Max. Bore	Weight③
N77 Polymeric Sprocket Tooth sprocket with Cast Iron Body Pitch 2.308 Tooth Face at Pitch Line .75 Hub Style C Deep or Shallow Dished	39	28.68	②	②	25	②	②

① Based upon keyed driver sprocket used with polymeric chain at the maximum rated working load. Consult Rexnord for information on steel hub inserts.
② Contact factory for hub sizes and weights.
③ Data without steel hub inserts.
IMPORTANT: Polymeric sprockets with steel hub inserts are recommended for applications using metal chains.

SPROCKETS

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

POLYMERIC SPROCKET AND IDLER WHEELS – (Cont'd.)

Dimensions are in inches. Weights are in pounds.

	Number of Teeth	P. D.	Hub③		Bore Capacities			Weight③
					W/O Key	With Key①		
			O. D.	L. T. B.	Max.	Min.	Max.	
N78 Polymeric Sprocket Pitch 2.609 Tooth Face at Pitch Line .94 Hub Style B 7-15 Teeth Hub Style C 16-31 Teeth Mandrel Bore .94	7	6.01	3.75	2.25	2.75	1.25	2.25	2.4
	8	6.82	3.75	2.25	2.75	1.50	2.25	3.1
	9	7.63	4.75	2.25	3.75	1.50	2.75	4.7
	10	8.44	4.75	2.25	3.75	1.50	2.75	5.0
	11	9.26	4.75	2.25	3.75	1.63	2.75	5.7
	12	10.08	4.75	2.25	3.75	1.75	2.75	6.2
	13	10.90	4.75	2.25	3.75	1.88	2.75	6.7
	14	11.73	4.75	2.25	3.75	1.88	2.75	7.3
	15	12.55	4.75	2.25	3.75	1.88	2.75	8.0
	16	13.37	7.00	4.00	6.00	1.50	4.00	15.8
	17	14.20	7.00	4.00	6.00	1.63	4.00	16.7
	18	15.03	7.00	4.00	6.00	1.63	4.00	17.4
	19	15.85	7.00	4.00	6.00	1.63	4.00	18.2
	20	16.68	7.00	4.00	6.00	1.75	4.00	19.3
	21	17.51	7.00	4.00	6.00	1.88	4.00	20.2
	22	18.33	7.00	4.00	6.00	1.88	4.00	21.4
	23	19.16	7.00	4.00	6.00	1.88	4.00	22.3
	24	19.99	7.00	4.00	6.00	1.88	4.00	22.5
	25	20.82	7.00	4.00	6.00	1.88	4.00	24.6
	26	21.64	7.00	4.00	6.00	1.88	4.00	26.1
	27	22.47	7.00	4.00	6.00	1.88	4.00	27.1
	28	23.30	7.00	4.00	6.00	1.88	4.00	28.6
	29	24.13	7.00	4.00	6.00	1.88	4.00	30.3
	30	24.96	7.00	4.00	6.00	1.88	4.00	31.4
	31	25.79	7.00	4.00	6.00	1.88	4.00	33.0

	Number of Teeth	P. D.	Hub Diameter	L. T. B.	Bolt Circle	Max. Bore	Weight③
N78 Polymeric Sprocket Segmental Tooth Sprocket with Cast Iron Body Pitch 2.609 Tooth Face at Pitch Line .94 Hub Style C Deep or Shallow Dished Contact Factory For Hub Sizes and Weights	40	33.25	②	②	30	②	②
	43	35.65			30		
	48	39.89			30		
	54	44.87			30		

	Number of Teeth	P. D.	Max.Hub Diameter	L. T. B.	Bolt Circle	Max. Bore	Weight③
N78 All Polymeric Dished Sprocket with Segmental Tooth Pitch 2.609 Tooth Face at Pitch Line .94 Hub Style C Shallow or Deep Dished • Shallow Dished (SD) 1.5", 1.75", 2" • Deep Dished (DD) 6.25", 6.5"	40	33.25	8.0SD	7.31	30	5.44	81
	40	33.25	10.0SD	5.00	30	4.94	93
	43	35.65	8.0SD	7.31	30	5.44	92
	43	35.65	10.0SD	5.00	30	4.94	101
	48	39.89	8.0SD	7.31	30	5.44	112
	48	39.89	10.0SD	5.00	30	4.94	122

① Based upon keyed driver sprocket used with polymeric chain at the maximum rated working load. Consult Rexnord for information on steel hub inserts.
② Contact factory for hub sizes and weights.
③ Data without steel hub inserts.
IMPORTANT: Polymeric sprockets with steel hub inserts are recommended for applications using metal chains.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

POLYMERIC SPROCKET AND IDLER WHEELS – (Cont'd.)

Dimensions are in inches. Weights are in pounds.

	Number of Teeth	P. D.	Hub③ O. D.	Hub③ L. T. B.	Bore Capacities W/O Key Max.	Bore Capacities With Key① Min.	Bore Capacities With Key① Max.	Weight③
N82 Polymeric Sprocket Pitch 3.075 Tooth Face at Pitch Line 1.13 Hub Style B 7-8 Teeth Hub Style C 9-18 Teeth Mandrel Bore .94	7	7.09	4.75	2.75	3.75	1.25	2.50	4.6
	8	8.04	4.75	2.75	3.75	1.38	2.50	5.2
	9	8.99	6.00	4.00	5.00	1.50	4.25	6.0
	10	9.95	7.00	4.00	5.00	1.50	4.25	6.8
	11	10.91	7.00	4.00	5.00	1.63	4.25	7.6
	12	11.88	7.00	4.00	5.00	1.75	4.25	8.6
	13	12.85	7.00	4.00	6.00	1.88	5.00	9.7
	14	13.82	7.00	4.00	6.00	1.88	5.00	10.8
	15	14.79	7.00	4.00	6.00	1.88	5.00	11.9
	16	15.76	7.00	4.00	6.00	1.88	5.00	13.0
	17	16.73	7.00	4.00	6.00	1.88	5.00	14.1
	18	17.71	7.00	4.00	6.00	1.88	5.00	15.2

	Number of Teeth	P. D.	Hub Diameter	L. T. B.	Bolt Circle	Max. Bore	Weight③
N82 Segmental Sprocket Tooth sprocket with Cast Iron Body Pitch 3.075 Tooth Face at Pitch Line 1.13 Hub Style C Deep or Shallow Dished	36	35.28	②	②	25	②	②

	Number of Teeth	P. D.	Max.Hub Diameter	L. T. B.	Bolt Circle	Max. Bore	Weight③
N82 Polymeric Dished Sprocket with Segmental Teeth Pitch 3.075 Tooth Face at Pitch Line 1.3 Hub Style C Shallow or Deep Dished • Shallow Dished (SD) 1.5", 1.75", 2" • Deep Dished (DD) 6.25", 6.5"	36	35.28	8.0SD	7.31	30	5.44	88
	36	35.28	10.0DD	5.00	30	4.94	100

	Number of Teeth	P. D.	Hub③ O. D.	Hub③ L. T. B.	Bore Capacities W/O Key Max.	Bore Capacities With Key① Min.	Bore Capacities With Key① Max.	Weight③
N250 All Polymeric Pitch 2.500 Tooth Face at Pitch Line .63 Hub Style B Mandrel Bore .94	11	8.87	4.75	2.25	3.75	1.50	3.00	3.5
	12	9.66	4.75	2.25	3.75	1.50	3.00	4.1
	14	11.24	4.75	2.25	5.00	1.75	2.75	4.5

	Number of Teeth	P. D.	Hub③ O. D.	Hub③ L. T. B.	Bore Capacities W/O Key Max.	Bore Capacities With Key① Min.	Bore Capacities With Key① Max.	Weight③
N325 Polymeric Sprocket Pitch 3.268 Tooth Face at Pitch Line .81 Hub Style C Mandrel Bore .94	10	10.58	4.75	3.00	3.75	1.50	3.00	5.7

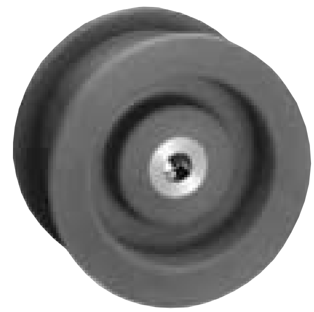
	Number of Teeth	P. D.	Hub③ O. D.	Hub③ L. T. B.	Bore Capacities W/O Key Max.	Bore Capacities With Key① Min.	Bore Capacities With Key① Max.	Weight③
N9350 Polymeric Sprocket Pitch 3.50 Tooth Face at Pitch Line .81 Hub Style C Mandrel Bore .94	10	11.33	4.75	3.00	3.75	1.88	2.75	6.2

① Based upon keyed driver sprocket used with polymeric chain at the maximum rated working load. Consult Rexnord for information on steel hub inserts.
② Contact factory for hub sizes and weights.
③ Data without steel hub inserts.
IMPORTANT: Polymeric sprockets with steel hub inserts are recommended for applications using metal chains.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

DOUBLE-FLANGED POLYMERIC IDLERS

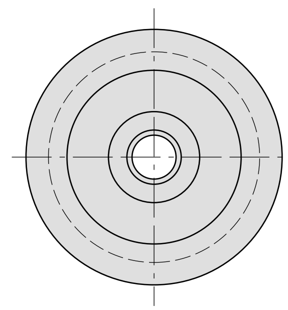
Corrosion resistant Polymeric Double-Flanged Idlers are designed for use with polymeric chains to insure longer system life and quieter operation. The six inch (DF6) and eight inch (DF8) diameter double-flanged idler wheels are manufactured from high-strength, wear-resistant polymeric material with a bronze bushing assembled into each idler. Some of the chains used on these wheels: NH45, NH77, NH78*, NHT78*, N250, N250WS, N325, N348, N9350, N9350WS. DF8 – NH45, NH77, NH78, NHT78, WH78, NH82, WH82, WH260, WH784, WHT78, WHT130, WHT138.

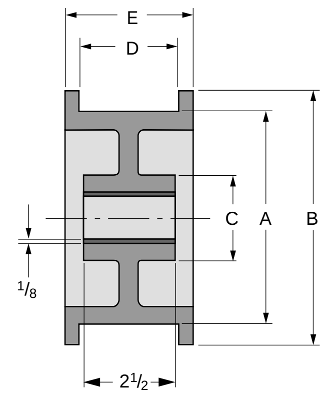


Features

- Made from polymeric and bronze materials that will not rust.
- Bronze bushed so that it can be used on nonrotating shafts as tail wheels, return support rollers, or drive take-up idlers.
- Double tapered flanges to effectively guide the chain into the center of the idler without unnecessary noise and chain wear.
- Engineered polymer reduces noise.
- Simple design means the idler is shaft ready and no machining is required.
- Designed so that two set collars will easily hold the idler in place.

** Must machine "D" Dimension to 3 inches.*





NOTE: For chains with extended rivets, single-flanged Polymeric idlers are available upon request.

Dimensions are in inches. Weights are in pounds.

Double Flanged Idler Wheels	Diameter Inside A	Diameter Outside B	Diameter Hub C	Length Thru Bore (L. T. B.)	Width Inside D	Width Outside E	Max. Bore	Weight①
6 D.F. Wheel	6	7.25	3.25	2.50	2.69	3.50	1.44	2.8
8 D.F. Wheel	8	9.50	4.25	3.00	3.63	4.50	2.44	4.5

① Approx. – Not Bushed   Wheels are normally stocked.

ELEVATOR BUCKETS

Rexnord combined three styles of elevator buckets into one series designated "Mill Duty". The section thickness of the cast bucket has been increased to accommodate those applications requiring old style AA-RB buckets. Rex® CAST and POLYMERIC buckets are available in two configurations, Mill Duty and AC Style.

Rex buckets were designed with over sixty years of experience in the design and manufacturing of bucket elevators. Rex buckets are designed to fill, carry and discharge material efficiently without trouble.

Guide to Selection
Scale: 1 – Excellent; 2 – Very Good; 3 – Good

Property	Bucket Material		
	Cast	Polymeric	Fabricated
Strength	1	3	2
Weight	3	1	2
Corrosion Resistance	2	1	3
Clean Discharge	3	1	2
Abrasion Resistance	1	3	2
Cost	2	3	1

POLYMERIC BUCKETS

The Rex light-weight, corrosion resistant, non-metallic bucket was designed, developed and tested to meet industry's demands. There are numerous advantages and benefits in the use of these buckets; some are noted here:

1. **Increases Belt (Chain) Life** by double or better. The polymeric weighs one-fourth as much as a cast bucket, significantly reducing belt (chain) tension. For example, an 80-foot high elevator uses about 110-16 x 8 buckets weighing a total of 2,722 pounds. The use of polymeric buckets reduces this dead weight to 650 pounds, resulting in greater belt (chain) life.
2. **Excellent Wear Resistance.** After many years on the market and tens of thousands of buckets sold, the Rex polymeric bucket has proven itself highly wear resistant. Also, the heavy front lip will help give the longest possible wear life.
3. **Corrosion Resistant.** It won't "rust away" your profits. Rex polymeric buckets are produced from a very stable material that will not break down under most operating conditions and materials.
4. **Good Discharge.** A clean, smooth, low friction surface allows bulk materials to discharge efficiently – less backlegging, more capacity, less recycled material, less elevator boot flooding.
5. **Strength** has been designed into the bucket at strategic locations for the best impact resistance, resulting in fewer broken buckets. Yet, if there is a major obstruction in the elevator, the bucket will give way, rather than destroying the belt or chain.
6. **Food Service Buckets** are available and made from material approved by the USDA and FDA for direct contact with meat and food products prepared under federal inspection. Food service buckets are colored white.
7. **Temperature Range** from -40° to +250°F allows this bucket to be used in most applications.
8. **Designed by elevator manufacturer for elevator user.** This bucket was designed by Rexnord – the bucket manufacturer with over half a century of bucket elevator experience. The bucket is designed to fill, carry and discharge material efficiently without trouble.
9. **Applications:** Foundry sand, limestone, barite ore, granulated triple phosphate, glass cullet, soda ash, clay bauxite ore, potash, fertilizer, sand, gravel and cement products are only a few of the hundreds of applications in which Rex polymeric buckets are currently being used.
10. **Dimensionally Interchangeable** with cast buckets so that the polymeric bucket will fit into the attachment hole punching presently used.
11. **Samples:** Request samples of this economical, durable bucket for your elevator – it will prove itself in all respects.

CAUTION
POLYMERIC BUCKETS

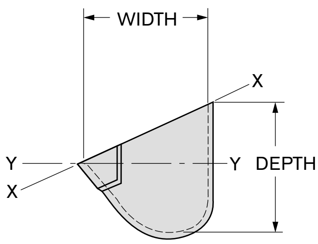
Because of an inherent ability to retain a static charge, an electrical spark may be produced by this bucket. Therefore, it should not be used in a combustible environment.

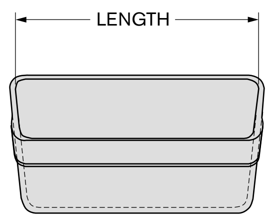
ELEVATOR BUCKETS

Cast – Mill Duty

Polymeric – Mill Duty

Cast – AC Style





NOTE: AC style buckets include vent holes to allow air to escape (cast and polymeric).

Polymeric – AC Style

Dimensions are in inches. Weights are in pounds.

Length	Width	Depth	Back Thickness		Capacity – Cu. Ft.		Weight	
			Cast	Polymeric	(X-X)	(Y-Y)	Cast	Polymeric①
MILL DUTY								
4	2.75	3.00	.10	–	.011	.007	1.3	–
5	3.50	3.75	.20	–	.020	.013	3.2	–
6	4.00	4.25	.20	.28	.029	.021	4.0	.6
7	4.50	5.00	.20	–	.050	.030	5.5	–
8	5.00	5.50	.20	.28	.07	.044	7.1	1.2
10	6.00	6.25	.20	.38	.12	.081	10	1.8
12	6.00	6.25	.30	–	.14	.087	20	–
12	7.00	7.25	.30	.41	.19	.12	17	2.4
14	7.00	7.25	.30	.41	.23	.14	18	2.8
14	8.00	8.50	.32	–	.30	.16	24	–
16	7.00	7.25	.32	–	.27	.16	28	–
16	8.00	8.50	.32	.41	.34	.21	30	4.2
18	8.00	8.50	.32	.41	.39	.23	39	5.1
18	10.00	10.50	.36	.50	.53	.40	43	6.7
20	8.00	8.50	.32	–	.42	.28	48	–
24	8.00	8.50	.38	–	–	–	–	–
AC STYLE								
12	8.00	8.50	.38	.59	.28	.21	25	4.6
16	8.00	8.50	.38	.59	.38	.28	35	7.0
18	10.00	10.50	.44	.50	.62	.49	58	10.5
24	10.00	10.50	.44	.50	.85	.68	78	13.8

① Mill Duty polymeric buckets are made out of impact – modified nylon. AC style polymeric buckets are made out of polyurethane.

For FABRICATED STEEL BUCKETS
please contact Rexnord's
Conveying Equipment Division.

CAUTION

POLYMERIC BUCKETS

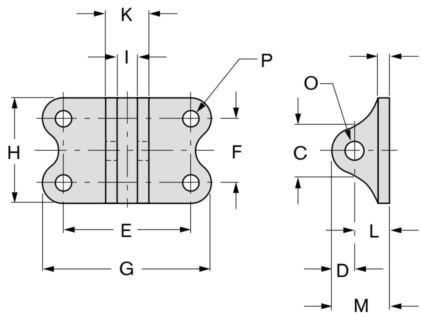
Because of an inherent ability to retain a static charge, an electrical spark may be produced by this bucket. Therefore, it should not be used in a combustible environment.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

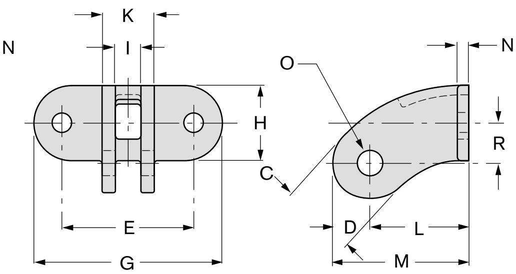
■ BUCKETS

BUCKET AND FLIGHT WINGS

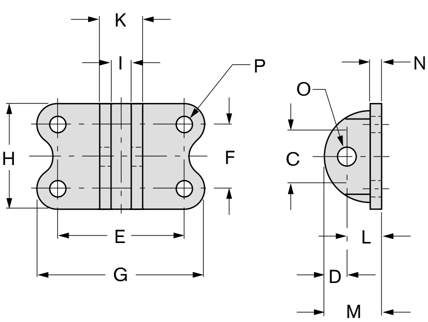
These wings are usually used with an “A” attachment.



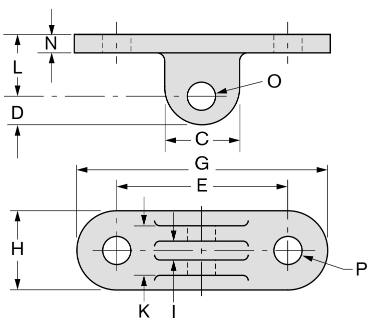
REX Style “A” Bucket Wing



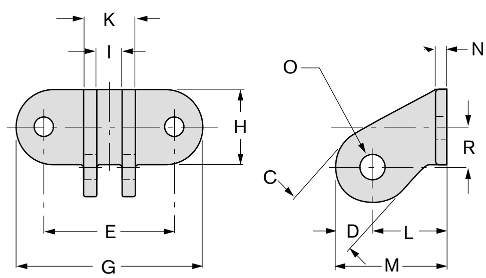
REX Style “C” & “F” Flight Wing



LINK-BELT Style “A” Bucket Wing



LINK-BELT Style “B” Bucket Wing



LINK-BELT Style “C” & “F” Flight Wing

BUCKETS

Dimensions are in inches. Weights are in pounds.

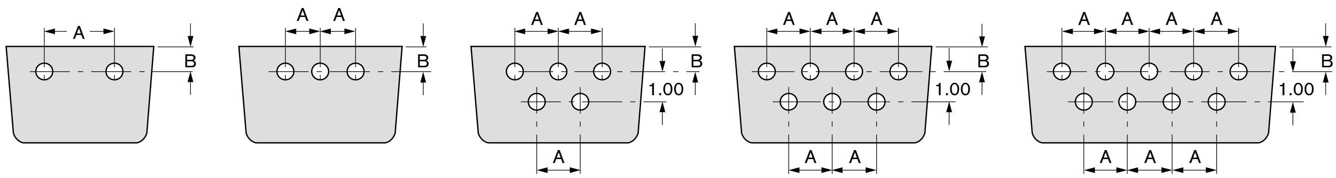
Rex Wing No.	Link-Belt Wing No.	C	D	E	F	G	H	I	K	L	M	N	O①	P②	R	Wt. with Rivet
5A		1.13	.50	2.75	1.38	3.63	2.25	.44	.94	.75	1.25	.25	.38	.31	–	.6
1C		1.75	.81	3.50	–	5.00	2.00	.56	1.31	1.56	2.38	.31	.63	.50	1.00	1.6
2C		2.00	1.00	3.50	–	5.00	2.00	.66	1.38	2.63	3.63	.31	.63	.50	1.06	2.1
5C		1.69	.84	2.75	–	4.75	2.00	.56	1.31	1.38	2.22	.31	.63	.50	.81	1.3
15C		1.31	.50	2.50	–	3.50	1.75	.44	1.00	1.13	1.63	.28	.38	.31	.81	.7
4F		–	.63	3.50	–	6.00	2.00	–	1.06③	2.50	3.13	.31	.63	.50	1.00	2.3
	4A	4.38	.69	4.00	3.26	5.50	4.76	.63	1.38	1.31	2.00	.31	.66	.56	.81	2.8
	5A	1.25	.59	2.75	1.38	3.63	2.48	.44	.94	.75	1.34	.25	.39	.33	–	.6
	6A	2.00	.69	3.38	1.26	4.88	2.38	.63	1.38	1.31	2.00	.31	.66	.41	–	1.3
	30A	3.38	.88	4.00	3.50	5.50	5.00	1.09	2.25	1.44	2.32	.38	.91	.56	–	4.4
	37A	1.00	.38	2.50	1.12	3.32	1.94	.28	.88	.69	1.07	.22	.41	.34	–	.5
	39A	1.25	.59	2.13	1.38	3.01	2.48	.44	.94	.75	1.34	.25	.39	.33	–	.6
	1B	1.88	.75	3.76	–	5.26	2.00	.56	1.31	1.31	–	.31	.66	.56	–	1.3
	2B	–	.41	1.76	–	2.52	.75	.28	.66	.69	–	.19	.41	.28	–	.2
	1C	1.56	.69	3.50	–	5.00	2.00	.56	1.31	1.56	2.56	.31	.63	.56	1.00	1.6
	2C	2.00	1.00	3.50	–	5.00	2.00	.63	1.38	2.63	3.63	.31	.63	.56	1.00	2.1
	2C+	2.00	1.06	3.50	–	5.00	2.00	.63	1.38	3.06	4.12	.75	.66	.53	1.00	3.2
	5C	–	.84	2.75	–	4.75	2.00	.56	1.31	1.38	2.22	.31	.66	.56	–	1.3
	10C	.88	.44	2.13	–	3.01	.88	.28	.66	.63	1.07	.19	.34	.34	.63	.3
	11C	1.44	.72	3.25	–	4.25	1.50	.56	1.19	1.13	1.85	.25	.66	.38	.75	.8
	15C	1.00	.58	2.50	–	3.50	1.76	.44	1.00	1.13	1.71	.28	.41	.34	.81	.7
	4F	1.75	–	3.50	–	6.00	2.00	–	1.06 ③	2.50	3.13	.31	.66	.53	1.00	2.3
	5F	3.50	.94	3.50	–	5.50	5.00	–	1.31 ③	1.44	2.38	.38	.91	.56	–	5.0

① Swivel-rivet diameters.
② Bucket-or-flight-bolt diameters.
③ This wing has solid lug – no clevis.

Note: Dimensions are subject to change. Certified dimensions of ordered material are furnished upon request.

■ BUCKETS

PUNCHING FOR USE WITH BELTS



Punching B1 Punching B2 Punching B6 Punching B8 Punching B9

The bucket punching dimensions shown are Manufacturers' Standard for mill duty style and continuous style buckets.

Belt width should exceed bucket length by one inch for buckets up to 16 inches, and by two inches for buckets 16 inches or over.

Bolt diameters for all buckets are 1/4 inch for buckets up to 10 inches, 5/16 inch for buckets 10 inches or over.

Minimum length of bolts, of attaching buckets to belts, is determined as follows: Add (1) thickness of belt body (all 1/6 inch per ply), (2) total thickness of rubber covers, (3) thickness of rubber washer (allow 1/4 inch), (4) thickness of bucket back, and (5) thickness of nut (assumed equal to bolt diameter).

A rubber washer is used one each bolt, between bucket and belt, to act as a cushion when bucket passes around the pulleys, and to provide open spaces which prevent fine material from accumulating or packing between bucket and belt. Tight-fitting bolts prevent moisture from working into belt.

Dimensions are in inches.

Bucket Length	A	B①	Bucket Length	A	B①	Bucket Length	A	B①	Bucket Length	A	B①	Bucket Length	A	B①
PUNCHING B1			PUNCHING B2			PUNCHING B6			PUNCHING B8			PUNCHING B9		
4	2 5/16	3/4	7	2 1/2	1	8	3	7/8	14	4	7/8	20	4	7/8
5	3 3/16	1	8	3	1	9	3	7/8	16	4 1/2	7/8	22	4 1/2	7/8
6	4 3/8	1				10	3 1/2	7/8	18	5	7/8	24	5	7/8
						11	4	7/8						
						12	4 1/2	7/8	1.00	1.13	1.63	.28	.38	.31

① For continuous style buckets, centerline for single row of holes, or centerline between double row, will be at mid-depth of bucket.

SELECTION OF CHAINS

The following sections of this catalog are devoted to presenting comprehensive selection procedures for drive, conveyor, and elevator chains. The information included provides economical selections, yet assures the correct choice of components which can withstand the rigors of the application. Because there is an almost unlimited variety of component applications, these selections are meant only to serve as a guide when designing new systems. On existing installations, the selection guides will prove helpful in determining whether a component in use is the most economical choice. They will also serve to guide the upgrading of present installations where service life is not satisfactory.

Rexnord Selection Services

Rexnord application engineers are available to assist in the selection of chains and components. Gather all pertinent technical information regarding the application, and call us at (414) 643-3000 or fax us at (414) 643-2609.

Chain Ratings

As a result of extensive testing and field experience, load ratings have been established for **drive** chains based on **wear durability** and **fatigue strength** to provide 15,000 hours chain life under the ideal conditions of clean environment, proper installation, maintenance, and lubrication. Drive chains are selected in the tables by horsepower and speed.

All other types of metal chains should be selected based on working load and chain speed limitations, with due regard for experience in similar application environments. A chain's working load is the maximum load (chain pull) a chain can withstand without a shortened life due to accelerated wear or breakage. Polymeric (non-metallic) chains have unique selection considerations which are covered in the Polymeric section of this catalog.

Rex® and Link-Belt® chains are also rated according to the Standards and Policies and Procedure Recordings of the American Chain Association. Most notably, we publish a **minimum ultimate tensile strength (MUTS)**. This represents the minimum force at which an unused, undamaged chain could fail when subjected to a single tensile loading test.

It should be noted that chains **should not** be selected based on ultimate strength ratings. Design considerations chosen to maximize ultimate strengths frequently are not consistent with obtaining the best possible resistance to the modes of failure that most often limit a chain's life (e.g. low-cycle fatigue, corrosion induced embrittlement, etc.). Chains that sacrifice some degree of tensile strength to obtain greater ductility, toughness, and resistance to embrittling conditions are far better suited to most application environments.

DRIVE CHAIN SELECTION

Rex and Link-Belt drive chains of all steel construction are ruggedly built, dependable chains for service in the **slow to moderate speed ranges and heavy loads**. Since they operate over cast sprockets with hardened teeth or fabricated steel sprockets, and are long in pitch compared to ANSI roller chain, **they are a more economical choice than other chains**.

Under exposed conditions, or where dust and dirt are present, the designed, built-in clearance between the working parts of our drive chains make them very suitable for service. Conveyor and elevator drives are ideal for Rex and Link-Belt drive chains since they **withstand heavy shock loads and exposed operating conditions**.

Rexnord's 3100 Series of steel chain is designed to have advantages and features of our other steel chains and to be a replacement for ANSI roller chains.

Rex and Link-Belt drive chains are not designed for attachments. See pages 10 to 29 for chains with attachments.

GENERAL DESIGN CONSIDERATIONS

Basis for Selection

Selections are based on laboratory tested and field proven horsepower capacity and speed data rather than "working loads." The horsepower capacity ratings have been developed on the basis of fatigue strength and wear capacity of the chain components. Under ideal conditions of clean environment, proper installation, maintenance, and lubrication, the selections listed are intended to provide 15,000 hours chain life for 100 pitch strands.

More economical chain selections are available. For applications where a a chain life of less than 15,000 hours is acceptable, contact your Rexnord representative.

Economy

When selecting a chain drive, consider all elements, but use only those that are required for the safe and successful operation of the drive application.

In evaluating the economy of a chain-sprocket drive system, consider the overall cost of the chain and sprockets in the system and not merely the cost per foot of chain.

Chain

The best chain and sprocket combination is selected in the **12-tooth** column. Occasionally, the same chain will appear under the three sprocket selections; that is 9T, 12T, and 15T. This same chain is the most **economical** choice of all the other chains that were considered.

Selection for 9-tooth sprockets are limited, in some cases, by commercial steel shafting. Where alloy shafting is required, see Rexnord for recommendations.

SPROCKETS

Rex® sprockets are designed with full attention to the requirements for proper chain-sprocket interaction. For each size and type of sprocket, Rexnord Engineers have selected the proper tooth pressure angle, pitch-line-clearance, bottom diameter and tooth pocket radius for maximum service.

Fabricated steel sprockets are recommended as the preferred choice for all chain drives. Cast sprockets with hardened teeth are also available for use on slower drives.

Largest Keyseated Bore

The "largest keyseated bore" shown in the drive chain selection tables (pages 110-118), indicates the largest shaft that may be used with the sprocket hub selected. Sprocket hubs will deliver the HP and RPM used for the selection but are not designed for the torque that could be delivered by the largest keyseated shaft shown in the table.

If a larger bore than shown is required, select a larger sprocket. The largest bore is selected from the hub size table for the material shown, either Cast Sprockets with hardened teeth or Fabricated Steel, and defines the largest hub diameter which will fit without interfering with the chain.

Chain Slack

For best operating service, allow a sag in the slack strand equal to 3% of sprocket centers.

DRIVE ARRANGEMENTS

Relative position of sprockets in drives should receive careful consideration. Satisfactory operation can be secured with the centerline of the drive at any angle to the horizontal, if proper consideration is given. Certain arrangements require less attention and care than others are, therefore, less apt to cause trouble. Various arrangements are illustrated in the diagrams. The direction of rotation of the drive sprocket is indicated.

Best Arrangements

Arrangements considered good practice are illustrated in Figs. 1, 2, 3, and 4. The direction of rotation of the drive sprockets in Figs. 1 and 4 can be reversed.

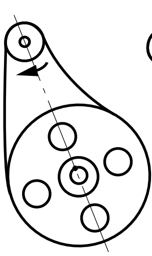


Fig. 1

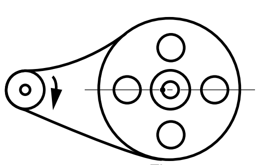


Fig. 2

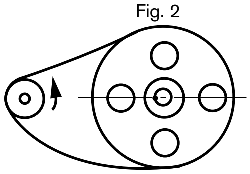


Fig. 3

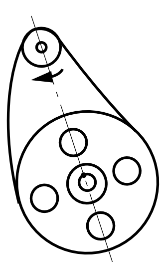


Fig. 4

Other Acceptable Arrangements

If none of the above arrangements can be followed, an attempt should be made to use an arrangement as illustrated in Figs. 5, 6, and 7.

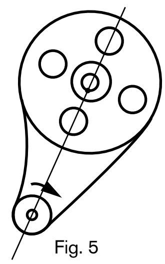


Fig. 5

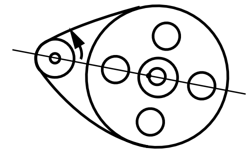


Fig. 6

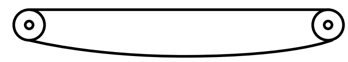


Fig. 7

When the large sprocket is directly above the small sprocket, Fig. 8, a drive cannot operate with much chain slack. As the chain wears, shaft-center distance must be adjusted or an idler be placed against the outside of the slack strand (near the small sprocket) to adjust slack and keep the chain in proper contact with the small sprocket.

With the drive slightly inclined, Fig. 5, less care will be required, because the weight of the slack chain strand helps to maintain better contact between the chain and the sprockets.

Where center distances are short, or drives nearly horizontal, the slack should be in the bottom strand, especially where take-up adjustment is limited, Fig. 6 rather than Fig. 9. An accumulation of slack in the top strand may allow the chain to be pinched between the sprockets, Fig. 9.

When small sprockets are used on horizontal drives, it is better to have the slack strand on the bottom, Fig. 7, rather than on the top, Fig. 10. Otherwise, with the appreciable amount of slack, the strands may strike each other.

Least Recommended Arrangements

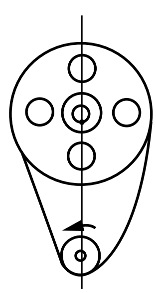


Fig. 8

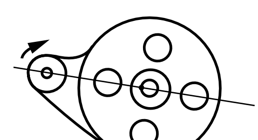


Fig. 9


Fig. 10

DRIVE CHAIN SELECTION

Selecting a Chain Using Selection Tables

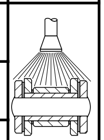
Step 1. Determine Horsepower… Motor or actual.

Step 2. Select Service Factor (SF)… See Table 1, pages 108-109.

Step 3. Calculate Design Horsepower (DHP). DHP = SF x HP.

Step 4. Determine Speed… DriveR Shaft RPM.

Step 5. Select the chains in the 12T. column from Table 2, pages 110-118.
Example: 20 HP; 70 RPM; 1.25 SF: (DHP = HP)

RPM Driver Sprocket	25 DHP – Driver Sprocket – No. of Teeth – Hub Size Letter: 9T		12T		15T		Hub Letter	Type of Lub
80-90	R1037	$3\frac{3}{16}$	1030	$5\frac{15}{16}$	R3112	$4\frac{15}{16}$	I	
			3160	$3\frac{3}{16}$	3160	$4\frac{7}{16}$		
70-80	R1037	$3\frac{3}{16}$	1030	$5\frac{15}{16}$	R514	$5\frac{15}{16}$	I	
			3180	$3\frac{11}{16}$	3160	$4\frac{7}{16}$		
60-70	R1037	$3\frac{15}{16}$	R1033	$5\frac{15}{16}$	1030	7	J	
			3180	$3\frac{11}{16}$	3160	$4\frac{7}{16}$		

Note: If the RPM appears in two rows in the RPM column of the Selection Table (i.e. 70 RPM appears in 60-70 and 70-80 RPM rows) use the faster speed range for greatest economy. Also, see Step 6 for alternate selection.

12-Tooth Sprocket Selection Advantages

1. **Most economical "Power Package" of chain and sprockets.**
2. **Quiet operation.**
3. **Increased wear life – approximately 70% greater chain wear life than a 9-tooth selection.**
4. **Best for space available and system economy.**
5. **Offers large speed ratio possibilities.**

Step 6. Choose the proper drive… When an alternative is listed for a given selection (i.e. 3100 Series Chain is listed) choose the better drive based on the following considerations:

- **a. Cost** – Evaluate the total cost of each drive package: chain and sprockets.
- **b. Space Limitations** – The smaller pitch chain (usually 3100 Series) should provide the drive requirements in less space.
- **c. Availability** – If delivery is crucial, consult Rexnord to see which of the two chains is more readily available.
- **d. ANSI Replacement** – The 3100 Series Chains replace corresponding ANSI roller chains up to 350 RPM. This series chain operates over the same sprockets.
- **e. Shaft Size** – The larger pitch chain of the two will probably have to be used when the driver shaft size exceeds the maximum bore listed for the smaller chain.
- **f. Noise** – Smaller pitch chain operating over cut tooth sprockets will provide quieter and smoother operation.

Step 7. For alternates to the 12-Tooth Sprocket Selection, see the 9- or 15-Tooth Sprocket Selections.

Check:

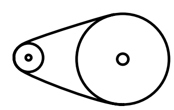
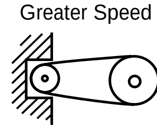
Space – Will sprocket and chain fit in the allowable space? For pitch diameter, see table on page 139.

Generally minimum space required for chain and sprocket = 1.2 x Pitch Diameter.

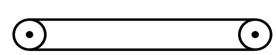
Speed Ratio = $\frac{\textit{DriveR Shaft RPM}}{\textit{DriveN Shaft RPM}}$

Availability – Is DriveN sprocket available for required speed ratio?

Select a 9T Sprocket where greater **speed ratios** and **minimum space** are required. The majority of 9-tooth selections will result in a space advantage.

9-Tooth Sprocket Selection	
Advantages	**Limitations**
1.  Greater Speed Ratios 2.  Generally, require less space that the 12T sprocket selection	1. Generally higher cost 2. Greater noise 3. Maximum wear 4. Less smooth running, more pulsations. (See Chordal Action Table on next page.)

Select a 15T Sprocket where **long centers** are necessary and space is not a limiting factor…
where maximum **speed ratios** are not required…
or where **quiet operation** is desired.

15-Tooth Sprocket Selection	
Advantages	**Limitations**
 1. Most economical for long centers. 2. Least wear – approximately 150% greater chain wear life than the 9T. selection. 3. Least noise.	1. More space required. 2. Fewer speed ratio possibilities. 3. More costly than minimum center distances. 4. More chain required in the system.

Step 8. Determine number of teeth on the DriveN sprocket, minimum center distance and chain length.

a. Multiply number of teeth on DriveR by desired speed ratio (Step 7) to determine number of teeth on DriveN sprocket.

b. Refer to pages 140-141 for minimum center distance and chain length calculations.

Step 9. Select DriveR and DriveN Sprocket Hubs and Material.

a. DriveR Sprocket and Hub

The sprocket hub size letter in the selection table identifies the minimum "Torque Rated" hub that will transmit the desired horsepower. Refer to the example shown in Step 5 on page 105. For this example, the hub is specified as letter I. The table on page 81 recommends a hub size of 4.5" by 2.0" (for a solid sprocket). The table also identifies the torque being transmitted, in this case up to 23,000 in-lbs. The hub size and bore diameter listed are recommended based on the limitations of the typical **shaft** material having a maximum torsion shear stress of 6,000 psi. If the shaft has already been determined, use the bore size column to select the appropriate hub dimensions.

Note: Fabricated steel sprockets with induction hardened teeth are the recommended first choice for drive applications but, if a cast sprocket is desired, be sure to check availability of the cast pattern as listed beginning on page 83. If the sprocket unit number is not listed, a pattern is not available. The table gives stocked hub dimensions. **Cast to order** sprocket hubs would be sized per page 81.

b. DriveN Sprocket and Hub

The proper DriveN sprocket hub can be determined from the following:

Driven Hub Torque =
Speed Ratio x Driver Hub Torque

The speed ratio and driver torque were determined in Step 8b and Step 9a. The DriveN sprocket hub is selected based on the driven hub torque and using the tables on page 81.

Referring to the example above, the driver hub was size I and the torque transmitted was 23,000 in-lbs. If the speed ratio were 2 to 1, we would be transmitting 46,000 in.-lbs. and would require a size L hub, (5.25 by 3) or larger.

c. Largest Keyseated Bore

The "Largest Keyseated Bore" next to each chain selection indicates the largest shaft that can be used with the sprocket, sprocket material, and hub size letter selected.

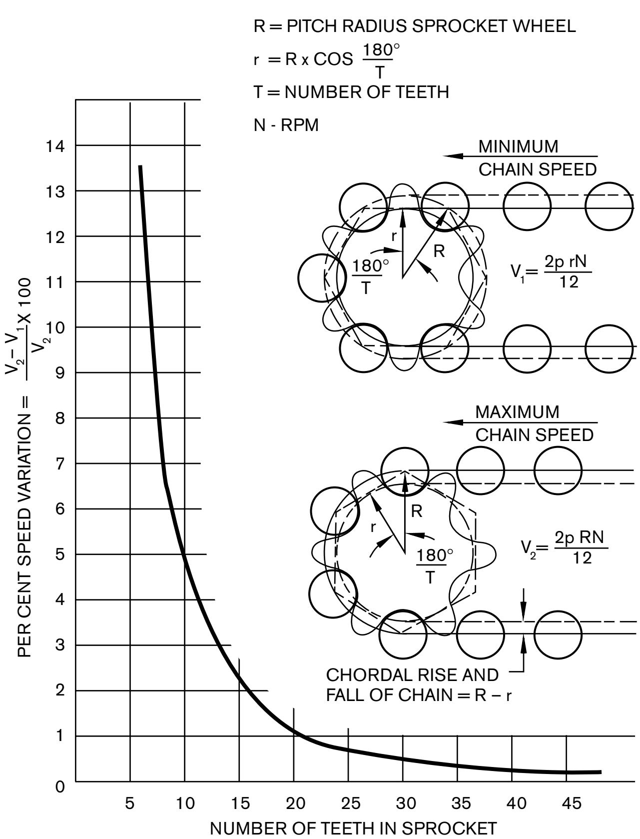
Step 10. Use the recommended lubrication method as shown in Table 2, pages 110-118. For the recommended lubricant, see page 135.

Note: For example of selection, see page 107.

Chordal Action

The rise and fall of each pitch of chain as it engages a sprocket is termed "chordal action" and causes repeated chain speed variations (pulsations). As illustrated by the chart below, chordal action and speed variation decreases as the number of teeth in the small sprocket is increased, and becomes negligible when 21 or more teeth are used. For example, the variation between minimum and maximum chain speed due to chordal action is 13% for a 6-tooth sprocket, 4% for an 11-tooth sprocket, and 1% for a 21-tooth sprocket. Where smooth operation is essential, use as many teeth as possible in the small sprocket.

Variation in Chain Speed Due to Chordal Action



DRIVE CHAIN SELECTION

Selecting a Chain Using Selection Tables

Drive Chain Selection Example:

A single roll rock crusher is to be operated at 44 RPM driven by a 50 HP engine. The speed reducer has an output shaft of 3.94", operating at 90 RPM. The crusher shaft is 5.94". The crusher will operate 8 hours per day. DriveR sprocket space restriction is 16".

Step 1. Horsepower
Motor or actual: 50 HP

Step 2. Service Factor
Type of Application: Crusher
Service Factor: (See Table 1 and "Converted Service Factor" chart on page 108.)
10 HR, Motor drive = 1.75 SF
10 HR, Engine driven = 2.0 SF

Step 3. Design Horsepower
DHP = 50 HP x 2.0 SF = 100 DHP

Step 4. Speed and Shaft Size
Speed and diameter of DriveR shaft:
90 RPM; 3.94"
Speed and diameter of DriveN shaft:
44 RPM; 6.94"

Step 5. Drive Chain and Driver Sprocket
A chain is selected for a 12-tooth DriveR sprocket at 100 DHP, 90 RPM (see Table 2 for selection).
RX238 Chain; 12-tooth DriveR Sprocket

Step 6. Choice of Drives
A choice must be made between two drives when both appear. However, at this rating, there is only one chain available – RX238.

Step 7. Space and Speed Ratio
Check space available for DriveR sprocket:
Using the pitch diameter table on page 140 –

a. A 12-tooth sprocket has a pitch diameter equivalent to 3.8637 pitches. The diameter in inches would be 3.8637 x the pitch (3.5" for RX238) = 13.52".

b. The minimum space required = 1.2 x 13.52" = 16.23" which is larger than the space available. Repeat steps 5 and 6 using the 9-tooth column in the selection tables.

c. For a 9-tooth sprocket R0635 would be selected. The minimum space would be 1.2 x 13.16" = 15.79" which meets the space restriction.

Determine Speed Ratio:

$$\text{Ratio} = \frac{\text{DriveR Shaft RPM}}{\text{DriveN Shaft RPM}} = \frac{90\text{ RPM}}{44\text{ RPM}} = 2.05 \text{ to } 1$$

Step 8. Drive Sprocket and Center Distance and Change Length
The nearest ratio to 2.05 to 1 is 2.00, with an 18-tooth DriveN sprocket. The minimum center distance is 2.06 feet and 9.38 feet of chain is required.
Determine the minimum center distance per the formula on page 140:

$$\text{Min. CDp } (18+9)/6+1 = 5.5 \text{ pitches } \frac{18+9+1}{6} = 55$$

$$\text{Min. CD"} \quad \frac{5.5 \times 4.5"}{12} = 2.06 \text{ feet}$$

Determine the approximate chain length per the formula on page 141:

$$LP = 2(5.5) + (18+9)/2 + (0.0258 \times (18\text{-}9)^2 /5.5) = 24.9 \text{ pitches}$$

25 pitches is the minimum (rounded up)

$$L" = \frac{25 \times 4.5}{12} = 9.38 \text{ feet}$$

Step 9. Drive and Drive Sprocket Material and Hub Selection
For the selection table used in Step 7, the required hub letter is N. Per the table on page 79 an N style hub is rated for 70,000 inch pounds and has a diameter of 6" and a length of 3". The plate thickness is 1.75". The total length through bore is 4.75" (3" + 1.75"). Since the sprocket is to be mounted on a reducer, it is recommended that the hub style is offset hubs, one side flush. This would need to be specified as such on the order.

The drive hub will need to handle 140,000 inch pounds since the speed ratio is 2 to 1. Per the table on page 79 a size P hub is required. This hub would be 8.75" in diameter and the length through bore would be 10.50".

Step 10. Lubrication
The type of lubrication for this drive selection, as shown in Selection Table 2, is oil bath.

Service Factors

Use the table to find the application or the closest similar application. Note whether the operating time will be up to 10 hours a day or from 10 hours to 24 hours a day. In the column to the right of the application, select the Service Factor. This Service Factor determines the Design Horsepower for use in the Chain Selection Table.

Occasional and Intermittent Service or Engine Driven Applications

The Service Factors listed in Table 1 are for electric motor drives and normal conditions. For multi-cylinder engine driven applications and all applications operating intermittently up to 3 hours per day, use the values shown in the Converted Service Factors table. First, find the Service Factor of the same application operating 10 hours per day in Table 1. Next, in the first column of the chart below, find this same service factor in bold face type. Then, to the right under the desired hours service and prime mover locate the Converted Service Factor. For example, in the segment of Table 1 showing service factors by application on page 109, the Service Factor for a uniformly loaded belt conveyor at 10 hours a day is 1.00. From the chart, for the same application, the following are the service factors for various conditions:

1. Engine driven 10 hours per day; use 1.25 Service Factor.
2. Engine driven 3 hours intermittently; use 1.00 Service Factor.
3. Motor driven 3 hours intermittently; use .80 Service Factor.

Converted Service Factors					
10 Hrs. Per Day		24 Hrs. Per Day		Intermittent 3 Hrs Per Day①	
Motor	Engine	Motor	Engine	Motor	Engine
1.00	1.25	1.25	1.50	.80	1.00
1.25	1.50	1.50	1.75	1.00	1.25
1.75	2.00	2.00	2.25	1.50	1.75

① For applications operating less than 3 hours per day and applications driven by single cylinder engines, refer to Factory for other service factors.
② These service factors are based on the assumption that the system is free from serious critical and torsional vibrations and that maximum momentary or starting loads do not exceed 200% of the normal load.
Note: For extremely wet or abrasive environments add 0.25 to the applicable service factor.

TABLE 1
SERVICE FACTORS LISTED BY INDUSTRY

AGMA Recommendations… Factors are minimum and normal conditions are assumed.

Application	Service Factor		Application	Service Factor		Application	Service Factor		Application	Service Factor	
	10 Hours	24 Hours		10 Hours	24 Hours		10 Hours	24 Hours		10 Hours	24 Hours
Brewing & Distilling			Lumber Industry			Paper Mills			Rubber Industry		
Bottling Machinery	1.00	1.25	Barkers–Hydraulic Mechanical	1.25	1.50	Agitators (Mixers)	1.25	1.50	Calender	1.25	1.50
Brew Kettles Continuous	1.00	1.25	Burner Conveyor	1.25	1.50	Barket Auxiliaries, Hydraulic	1.25	1.50	Mixer	–	2.00
Can Filling Machinery	1.00	1.25	Chain & Drag Saw	1.50	1.75	Barker Mechanical	1.25	1.50	Mill (2 or more)	–	1.50
Cookers Continuous	1.00	1.25	Chain & Craneway Transfer	1.50	1.75	Barking Drum	1.75	2.00	Sheeter	–	1.50
Mash Tub Continuous	1.00	1.25	Debarking Drum	1.75	2.00	Beater & Pulper	1.25	1.50	Tire Building Machine	①	①
Scale Hopper Frequent Start	1.25	1.50	Edger & Gang Feed	1.25	1.50	Bleacher	1.00	1.25	Tire & Tube Press Opener	①	①
Clay Working Industry			Green Chain	1.50	1.75	Calendars	1.25	1.50	Tubers & Strainers	–	1.50
Brick Press	1.75	2.00	Line Rolls, Log Deck, Log Haul			Calendars, Super	1.75	2.00	Sewage Disposal		
Briquette Machine	1.75	2.00	(Incline & Well Type)	1.75	2.00	Converting Machine (Except			Bar Screws	1.00	1.25
Clay Working Machinery	1.25	1.50	Log Turning Device	1.75	2.00	Cutters, Platters)	1.25	1.50	Chemical Feeders	1.00	1.25
Pug Mill	1.25	1.50	Main Log Conveyor	1.75	2.00	Conveyor	1.00	1.25	Collectors	1.00	1.25
Distilling (See Brewing)			Off Bearing Rolls	1.75	2.00	Couch	1.25	1.50	Dewatering Screens	1.25	1.50
Dredges			Planer Feed & Floor Chains	1.25	2.50	Cutters, Platters	1.75	2.00	Grit Collectors	1.00	1.25
Cable Reels	1.25	1.50	Planer Tilting Hoist	1.50	1.50	Cylinder	1.25	1.50	Scum Breakers	1.25	1.50
Conveyors	1.25	1.50	Re-Saw Merry-Go-Round Conv	1.25	1.50	Dryer	1.25	1.50	Slow or Rapid Mixer	1.25	1.50
Cutter Head Drives	1.75	2.00	Roll Cases, Slab Conveyor	1.75	2.00	Felt Stretcher	1.25	1.50	Sludge Collectors	1.00	1.25
Jig Drives	1.75	2.00	Small Waste Conveyor – Belt	1.00	1.25	Felt Whipper	1.75	2.00	Thickeners	1.25	1.50
Maneuvering Winches	1.25	1.50	Small Waste Conveyor – Chain	1.25	1.50	Jordan	1.75	2.00	Vacuum Filters	1.25	1.50
Pumps	1.25	1.50	Sorting Table	1.25	1.50	Log Haul	1.75	2.00	Textile Industry		
Screen Drive	1.75	2.00	Tipple Hoist Conv. & Drive	1.25	1.50	Press	1.00	1.25	Batcher, Calendar	1.25	1.50
Stackers	1.25	1.50	Transfer Conveyor & Rolls	1.25	1.50	Pulp Machine	1.25	1.50	Card Machine	1.25	1.50
Utility Winches	1.25	1.50	Tray Drive, Trimmer Feed & Waste			Reel	1.25	1.50	Cloth Finishing Machine	1.25	1.50
Food Industry			Conveyor	1.25	1.50	Stock Chest	1.25	1.50	Dry Cans, Dryers	1.25	1.50
Beet Slicer	1.25	1.50	Oil Industry			Suction Roll	1.00	1.25	Dyeing Machinery	1.25	1.50
Bottling Machine, Can Filling	1.25	1.25	Chiller	1.25	1.50	Washer & Thickeners	1.25	1.50	Knitting Machine	①	①
Cooker	1.00	1.25	Oil Well Pumping	①	①	Winders	1.00	1.25	Loom, Mangle, Napper Pads	1.25	1.50
Dough Mixer, Meat Grinder	1.25	1.50	Paraffin Filter Pass	1.25	1.50				Range Drives	①	①
			Rotary Kiln	1.25	1.50				Slashers, Soapers	1.25	1.50
									Spinners	1.25	1.50
									Tenter Frames, Washers	1.25	1.50
									Winders (Except Batchers)	1.25	1.50

① Refer to Factory.
Table 1 extracted from AGMA Standard Application Classification for Gearmotors (AGMA 150.02) with the permission of the American Gear Manufacturers Association, One Thomas Circle, Washington 5, D.C.

DESIGN AND SELECTION

TABLE 1
SERVICE FACTORS LISTED BY INDUSTRY

AGMA Recommendations… Factors are minimum and normal conditions are assumed.

Application	Service Factor 10 Hours	Service Factor 24 Hours
Agitators		
Paper Mills (Mixers)	1.25	1.50
Pure Liquid (Blade or Prop.)	1.00	1.25
Liquids & Solids	1.25	1.50
Variable Density Liquids	1.25	1.50
Apron Conveyor		
Uniform	1.00	1.25
Heavy Duty	1.25	1.50
Apron Feeder	1.25	1.50
Assembly Conveyor		
Uniform	1.00	1.25
Heavy Duty	1.25	1.50
Ball Mills	–	1.50
Barge Haul Puller	1.75	2.00
Barking Drum	1.75	2.00
Hydraulic Auxiliaries	1.2	1.50
Mechanical	1.25	1.50
Bar Screen (Sewage)	1.00	1.25
Batchers (Textile)	1.25	1.50
Beater & Pulper (Paper)	1.25	1.50
Belt Conveyor		
Uniform	1.00	1.25
Heavy Duty	1.25	1.50
Belt Feeder	1.25	1.50
Bending Roll (Mach.)	1.25	1.50
Bleacher (Paper)	1.00	1.25
Blowers		
Centrifugal	1.00	1.25
Lobe	1.25	1.50
Vane	1.00	1.25
Bottling Machinery	1.00	1.25
Brewing	②	②
Brick Press (Clay Working)	1.75	2.00
Briquette Machine		
(Clay Working)	1.75	2.00
Bucket		
Conveyor Uniform	1.00	1.25
Conveyor Heavy Duty	1.25	1.50
Elevator Continuous	1.00	1.25
Elevator Uniform Load	1.00	1.25
Elevator Heavy Duty	1.25	1.50
Calenders		
(Paper)	1.25	1.50
Super (Paper)	1.75	2.00
(Rubber) (Textile)	1.25	1.50
Cane Knives	–	1.50
Can Filling Machines	1.00	1.25
Card Machine (Textile)	1.25	1.50
Car Dumpers	1.75	2.00
Car Pullers	1.25	1.50
Cement Kilns	①	①
Centrifugal		
Blowers, Compressors,		
Discharge Elevators, Fans		
or Pumps	1.00	1.25
Chain Conveyor		
Uniform	1.00	1.25
Heavy Duty	1.25	1.50
Chemical Feeder (Sewage)	1.00	1.25
Clarifiers	1.00	1.25
Classifiers	1.25	1.50
Clay Working	②	②
Collectors (Sewage)	1.00	1.25
Compressors		
Centrifugal	1.00	1.25
Lobe, Recipr. Multi-Cylinder	1.25	1.50
Recipr. Single-Cylinder	1.75	2.00
Concrete Mixers		
Continuous	1.25	1.50
Intermittent	1.25	1.50
Converting Machine		
(Paper)	1.25	1.50
Conveyors – Uniformly Loaded		

Application	Service Factor 10 Hours	Service Factor 24 Hours
or Fed: Apron, Assembly, Belt		
Bucket, Chain, Flight, Oven or		
Screw	1.00	1.25
Conveyors – Heavy Duty, Not		
Uniformly Fed: Apron		
Assembly, Belt, Bucket, Chain,		
Flight, Oven or Screw	1.25	1.50
Conveyors – Severe Duty:		
Reciprocating, Shaker	1.75	2.00
Conveyors Live Rolls	①	①
Cookers (Brewing and Distilling)		
Food	1.00	1.25
Cooling Tower Fans		
Forced Draft	①	①
Induced Draft	1.25	1.50
Couch (Paper)	1.25	1.50
Cranes & Hoists		
Heavy Duty	1.75	2.00
Cranes & Hoists – Medium		
Duty: Reversing, Skip, Travel		
or Trolley Motion	1.25	1.50
Crushers – Ore or Stone	1.75	2.00
Cutters (Paper)	1.75	2.00
Cylinder (Paper)	1.25	1.50
Dewatering Screen		
(Sewage)	1.25	1.50
Disc Feeder	1.00	1.25
Distilling	②	②
Double Action Pump		
2 or more Cylinders	1.25	1.50
Single Cylinder	①	①
Dough Mixer (Food)	1.25	1.50
Draw Bench		
Carriage	1.25	1.50
Main Drive	1.25	1.50
Dredges	②	②
Dyeing Machine (Textile)	1.25	1.50
Dryers (Paper)	1.25	1.50
Dryers & coolers		
(Mills Rotary)	–	1.50
Elevators		
Bucket Uniform Load	1.00	1.25
Bucket Heavy Load	1.25	1.50
Bucket Continuous	1.00	1.25
Centrifugal Discharge	1.00	1.25
Escalators	1.00	1.25
Freight	1.25	1.50
Gravity Discharge	1.00	1.25
Man Lift, Passenger	①	①
Service Hand Lift	1.75	–
Escalators	1.00	1.25
Fans		
Centrifugal	1.00	1.25
Cooling Tower Induced Dr.	1.25	1.50
Cooling Tower – Forced Dr.	①	①
Induced Draft	1.25	1.50
Large Industrial	1.25	1.50
Large (Mine, etc.)	1.25	1.50
Light (Small Diameter)	1.00	1.25
Feeders		
Apron or Belt	1.25	1.50
Disc.	1.00	1.25
Reciprocating	1.75	2.00
Screw	1.25	1.50
Felt		
Stretcher (Paper)	1.25	1.50
Whipper (Paper)	1.75	2.00
Flight		
Conveyor Uniform	1.00	1.25
Conveyor Heavy	1.25	1.50
Food Industry	②	②
Forming Machine		
(Metal Mills)	1.75	2.00
Freight Elevator	1.25	1.50

Application	Service Factor 10 Hours	Service Factor 24 Hours
Generator (Not Welding)	1.00	1.25
Welding	①	①
Gravity Discharge Elevator	1.00	1.25
Grit Collector (Sewage)	1.00	1.25
Hammer Mills	1.75	2.00
Induced Draft Fan	1.25	1.50
Jordans (Paper)	1.75	2.00
Kilns (Rotary)	1.25	1.50
Laundry Washers & Tumblers	1.25	1.50
Line Shafts		
Heavy Shock Load	1.75	2.00
Moderate Shock Load	1.25	1.50
Uniform Load	1.00	1.25
Live Roll Conveyors	①	①
Lobe Blowers or Compressors	1.25	1.50
Log Haul (Paper)	1.75	2.00
Looms (Textile)	1.25	1.50
Lumber Industry	②	②
Machine Tools		
Auxiliary Drives	1.00	1.25
Bending Roll	1.25	1.50
Main Drives	1.25	1.50
Notching Press (Belted)	①	①
Plate Planer	1.75	2.00
Punch Press (Gear)	1.75	2.00
Tapping Machines	1.75	2.00
Mangle (Textile)	1.25	1.50
Man Lifts (Elevator)	①	①
Mash Tubs (Brewing)	1.00	1.25
Meat Grinder (Food)	1.25	1.50
Metal Mills		
Draw Bench Carriage	1.25	1.50
Draw Bench Main Drive	1.25	1.50
Forming Machine	1.75	2.00
Slitters	1.25	1.50
Table Conveyors Non-Rev.	1.25	1.50
Wire Drawing of Flattening	1.25	1.50
Wire Winding	1.25	1.50
Mills Rotary		
Ball	1.75	2.00
Cement Kilns	①	①
Coolers, Dryers, Kilns	1.25	1.50
Pebble, Rod, Tumbling Barrels	1.75	2.00
Mine Fan	1.25	1.50
Mixers		
Concrete (Cont)	1.25	1.50
Concrete (Inter)	1.25	1.50
Constant Density	1.00	1.25
Variable Density	1.25	1.50
Rubber	–	2.00
Sewage	1.25	1.50
Nappers (Textile)	1.25	1.50
Notching Press		
Belt Driven	1.00	1.25
Oil Industry	②	②
Ore Crusher	1.75	2.00
Oven Conveyor – Uniform	1.00	1.25
Heavy	1.25	1.50
Paper Mill	②	②
Passenger Elevator	①	①
Pebble Mills	–	1.50
Planer (Reversing)	1.75	2.00
Presses (Paper)	1.00	1.25
(Printing)	1.00	1.25
Propeller Type Agitator		
(Pure Liquid)	1.00	1.25
Proportioning Pump	1.25	1.50
Pug Mills (Clay)	1.25	1.50
Pullers (Barge Haul)	1.75	2.00
Pulp Machines (Paper)	1.25	1.50
Pulverizers (Hammermill)	1.75	2.00
Pumps		
Centrifugal	1.00	1.25

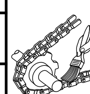
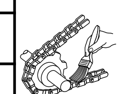
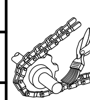
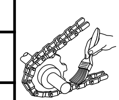
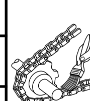
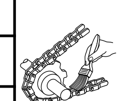
Application	Service Factor 10 Hours	Service Factor 24 Hours
Proportioning	1.25	1.50
Single Acting, 3 or more Cyl.	1.25	1.50
Double Acting, 2 or more Cyl.	1.25	1.50
Rotary Gear, Lobe or Vane	1.00	1.25
Punch Press – Gear Driven	1.75	2.00
Reciprocating Compressor		
Single Cylinder	1.25	1.50
Multi-Cylinder	1.75	2.00
Reciprocating		
Conveyor, Feeder	1.75	2.00
Pump, 3 or more Cyl.	1.25	1.50
Reel (Paper)	1.25	1.50
Rod Mills	–	1.50
Rotary Pumps	1.00	1.25
Rotary Screen	1.25	1.50
Rubber Industry	②	②
Scale Hopper (Brewing)	1.25	1.50
Screens		
Air Washing	1.00	1.25
Dewatering	1.25	1.50
Rotary Stone or Gravel	1.25	1.50
Traveling Water Intake	1.00	1.25
Screw Conveyor		
Uniform	1.00	1.25
Heavy Duty or Feeder	1.25	1.50
Scum Breaker (Sewage)	1.25	1.50
Service Elevator Hand Lift	1.75	–
Sewage Disposal	②	②
Shaker Conveyor	1.75	2.00
Sheeter (Rubber)	–	1.50
Single Action Pump		
1 or 2 Cylinder	①	①
3 or More	1.25	1.50
Single Cylinder Pump	①	①
Skip Hoist	1.25	1.50
Slab Pusher	*1.25*	*1.50*
Slitters	1.25	1.50
Sludge Collector		
(Sewage)	1.00	1.25
Soapers (Textile)	1.25	1.50
Spinners (Textile)	1.25	1.50
Steering Gear	1.25	1.50
Stock Chest (Paper)	1.25	1.50
Stokers	1.00	1.25
Stone Crushers	1.75	2.00
Suction Roll (Paper)	1.00	1.25
Table Conveyor		
Non-Reversing	1.25	1.50
Tapping Machines	–	2.00
Tenter Frames		
(Textile)	1.25	1.50
Textile Industry	②	②
Thickeners (Sewage)	1.25	1.50
Tire Building Machine	①	①
Tire & Tube Press Opener	①	①
Travel Motion (Crane)	1.25	1.50
Trolley Motion (Crane)	1.25	1.50
Tumbling Barrels	1.75	2.00
Vacuum Filters		
(Sewage)	1.25	1.50
Vane Blower	1.00	1.25
Washers and Thickeners		
(Paper)	1.25	1.50
Winches, Maneuvering		
(Dredge)	1.25	1.50
Winders		
(Paper)	1.00	1.25
(Textile)	1.25	1.50
Windlass	1.25	1.50
Wire		
Drawing Machine	1.25	1.50
Winding Machine	1.25	1.50

① Refer to Factory.
② Page 108.

TABLE 2
DRIVE CHAIN SELECTION TABLES

Note: Rex® drive chain selections are displayed in the tables. To interchange Link-Belt® and Rex chain numbers see pages 34-35.

Table 2

RPM Driver Sprocket	DESIGN HORSEPOWER (DHP) = HP x SF For (SF) see pages 108-109 — DRIVER SPROCKET – NO. OF TEETH LARGEST KEYSEATED BORE 9T	12T	15T	Hub Letter②	Type of Lubrication	RPM Driver Sprocket	DESIGN HORSEPOWER (DHP) = HP x SF For (SF) see pages 108-109 — DRIVER SPROCKET – NO. OF TEETH LARGEST KEYSEATED BORE 9T	12T	15T	Hub Letter②	Type of Lubrication
1 DHP											
17 1/2–20	R432 1 15/16 3140 1 11/16	R362 2 11/16	R362 3 11/16	E	 Manual	4–5	R514 2 15/16 3180 ①	R3112 7/16 3180 3 11/16	R588 5 15/16 3140 3 15/16	H	 Manual
15–17 1/2	R432 1 15/16 3140 1 11/16	R362 2 11/16	R362 3 11/16	E		3–4	1030 3 7/16 3180 ①	R3112 3 7/16 3180 3 11/16	R3112 4 15/16 3140 3 15/16	I	
12 1/2–15	R778 3 11/16 3140 1 11/16	R432 2 11/16 3120 2 3/16	R362 3 11/16	E		2–3	1030 4 7/16	1030 5 15/16 3180 3 11/16	R514 5 15/16 3160 4 7/16	K	
10–12 1/2	R778 3 7/16 3160 1 15/16	R778 4 15/16 3120 2 3/16	R432 3 11/16	F		1–2	R1248 5 7/16	R1037 5 7/16	R1033 8 3180 4 15/16	N	
7 1/2–10	R588 3 7/16 3160 1 15/16	R778 4 15/16 3140 2 11/16	R778 4 15/16 3120 3 3/16	F		3/4–1	R1248 5 7/16	R1037 4 15/16	R1037 8 3180 4 15/16	O	
5–7 1/2	R558 3 3/16 3180 2 3/16	R588 4 15/16 3160 3 3/16	R778 5 7/16 3120 3 3/16	G		1/2–3/4	R1248 5 7/16	AX1568 5 7/16	R1037 8	P	
						1/4–1/2	R01306 9	RX238 7	RX238 10	S	
2 DHP											
35–40	R432 1 15/16 3140 1 11/16	R362 2 11/16	R362 3 11/16	E	 Manual	7 1/2–10	R514 2 15/16 3180 ①	R3112 3 7/16 3140 2 11/16	R3112 4 15/16 3140 3 15/16	H	 Manual
30–35	R432 1 15/16 3140 1 11/16	R362 2 11/16	R362 3 11/16	E		5–7 1/2	1030 3 7/16	R514 4 7/16 3160 3 3/16	R3112 4 15/16 3140 3 15/16	J	
25–30	R778 3 11/16 3140 1 11/16	R432 2 11/16	R362 3 11/16	E		4–5	R1037 3 15/16	1030 5 15/16 3180 3 11/16	R514 5 15/16 3160 4 7/16	K	
20–25	R778 3 7/16 3160 1 15/16	R778 4 15/16 3120 2 3/16	R432 3 11/16	F		3–4	R1037 3 15/16	R1037 4 15/16 3180 3 11/16	R1033 8 3180 4 15/16	L	
17 1/2–20	R588 3 7/16 3160 1 15/16	R778 4 15/16 3140 2 3/16	R432 3 11/16	F		2–3	R1248 5 7/16	R1037 5 15/16	R1037 8 3180 4 15/16	N	
15–17 1/2	R588 3 7/16 3160 1 15/16	R778 4 15/16 3140 2 11/16	R778 4 15/16 3120 3 3/16	F		1–2	R1248 5 7/16	RX238 7	AX1568 8 1/2	P	
						3/4–1	RO635 5 7/16	R1248 7 1/2	RX238 10	Q	
12 1/2–15	R514 2 7/16 3180 2 3/16	R588 4 15/16 3120 2 3/16	R778 5 7/16 3120 3 3/16	G		1/2–3/4	RO1306 9	R1248 9	RX238 10	S	
10–12 1/2	R514 2 7/16 3180 2 3/16	R3112 3 7/16 3140 2 11/16	R588 5 7/16 3120 3 3/16	G		1/4–1/2	X1307 10	RX1207 ①	RO635 ①	U	
3 DHP											
45–50	R432 1 15/16 3140 1 11/16	R362 2 11/16	R362 3 11/16	E	 Manual	10–12 1/2	1030 3 7/16 3180 ①	R514 4 7/16 3160 3 3/16	R3112 4 15/16 3140 3 15/16	I	 Manual
40–45	R778 3 11/16 3140 1 11/16	R432 2 11/16	R362 3 11/16	E		7 1/2–10	R1033 3 7/16	1030 5 15/16 3160 3 3/16	R514 5 15/16 3140 3 15/16	J	
35–40	R778 3 11/16 3140 1 11/16	R432 2 11/16	R362 3 11/16	E		5–7 1/2	R1037 3 15/16	R1033 5 15/16 3180 3 11/16	1030 7 1/2 3160 4 7/16	K	
30–35	R778 3 7/16 3160 1 15/16	R778 4 15/16 3120 2 3/16	R432 3 11/16	F		4–5	R1037 3 15/16	R1037 5 7/16 3180 3 11/16	R1037 8 3160 4 7/16	L	
25–30	R588 3 7/16 3160 1 15/16	R778 4 15/16 3140 2 3/16	R432 3 11/16	F		3–4	R1248 5 7/16	AX1568 5 7/16	R1037 8 3180 4 15/16	N	
20–25	R514 2 7/16 3180 2 3/16	R588 4 15/16 3120 2 3/16	R778 5 7/16 3120 3 3/16	G		2–3	R1248 5 7/16	RX238 7	AX1568 8 1/2	O	
17 1/2–20	R514 2 7/16 3180 2 3/16	R588 4 15/16 3120 2 3/16	R778 5 7/16 3120 3 3/16	G		1–2	RX1207 6 1/2	R1248 7 1/2	RX238 10	Q	
15–17 1/2	R514 2 7/16 3180 2 3/16	R3112 3 7/16 3140 2 11/16	R588 5 7/16 3120 3 3/16	G		3/4–1	RO1306 9	RX1245 9	R1248 10	S	
						1/2–3/4	X1307 10	RO635 9 1/2	RO635 ①	T	
12 1/2–15	R514 2 15/16 3180 ①	R3112 3 7/16 3140 2 11/16	R3112 4 15/16 3140 3 15/16	H		1/4–1/2	①	RX1207 ①	RX1207 ①	X	

Note: 1. 3100 Series chain operates over roller chain cut tooth sprockets.
2. Fabricated steel sprockets are recommended.

① Consult Rexnord

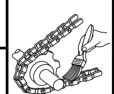
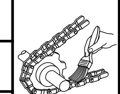
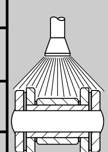
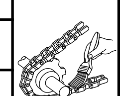
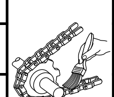
② Hub size letter – See page 79.

TABLE 2 (Cont'd.)
DRIVE CHAIN SELECTION TABLES

Note: Rex® drive chain selections are displayed in the tables. To interchange Link-Belt® and Rex chain numbers see pages 34-35.

Table 2 – (Cont'd.)

DESIGN HORSEPOWER (DHP) = HP x SF. For (SF) see pages 108-109. DRIVER SPROCKET – NO. OF TEETH / LARGEST KEYSEATED BORE

RPM Driver Sprocket	9T	12T	15T	Hub Letter②	Type of Lubrication	RPM Driver Sprocket	9T	12T	15T	Hub Letter②	Type of Lubrication
4 DHP											
80 – 90	R362 1 15/16 3120 1 7/16	R362 2 15/16	R362 3 11/16	D	 Manual	15 – 17 1/2	1030 3 11/16 3180 ①	R514 4 7/16 3160 3 3/16	R3112 4 15/16 3140 3 15/16	H	 Manual
70 – 80	R432 1 15/16 3140 1 11/16	R362 2 11/16	R362 3 11/16	E		12 1/2 – 15	R1035 3 7/16	1030 5 15/16 3160 3 3/16	R514 5 15/16 3140 3 15/16	I	
60 – 70	R432 1 15/16 3140 1 11/16	R362 2 11/16	R362 3 11/16	E		10 – 12 1/2	R1037 3 15/16	R1033 5 15/16 3160 3 3/16	1030 7 3160 4 7/16	J	
50 – 60	R778 3 11/16 3140 1 11/16	R432 2 11/16	R362 3 11/16	E		7 1/2 – 10	R1037 3 15/16	R1037 5 7/16 3180 3 11/16	R1033 7 1/2 3160 4 7/16	K	
45 – 50	R778 3 11/16 3140 1 11/16	R432 2 11/16 3120 2 3/16	R362 3 11/16	E		5 – 7 1/2	R1037 3 15/16	R1037 5 7/16 3180 3 11/16	R1037 8 3160 4 7/16	M	
40 – 45	R778 3 7/16 3160 1 15/16	R778 4 15/16 3120 2 3/16	R432 3 11/16	F		4 – 5	R1248 5 7/16	AX1568 5 7/16	R1037 8 3180 4 15/16	N	
35 – 40	R778 3 7/16 3160 1 15/16	R778 4 15/16 3120 2 3/16	R432 3 11/16 3120 3 3/16	F		3 – 4	R1248 5 7/16	RX238 7	AX1568 8 1/2 3180 4 15/16	O	
30 – 35	R588 3 7/16 3160 1 15/16	R778 4 15/16 3120 2 3/16	R778 4 15/16 3120 3 3/16	F		2 – 3	R1248 5 7/16	RX238 7	RX238 10	P	
25 – 30	R514 2 7/16 3180 2 3/16	R588 4 15/16 3140 2 11/16	R778 5 7/16 3120 3 3/16	G		1 – 2	RO1306 9	RX1245 9	R1248 10	S	
20 – 25	R514 2 7/16 3180 2 3/16	R3112 3 7/16 3140 2 11/16	R588 5 7/16 3120 3 3/16	G		3/4 – 1	RO1306 9	RX1207 ①	RO635 ①	T	
17 1/2 – 20	R514 2 15/16 3180 ①	R3112 3 7/16 3140 2 11/16	R588 5 15/16 3140 3 15/16	H		1/2 – 3/4	X1307 10	RX1207 ①	RO635 ①	U	
						1/4 – 1/2		RO1306 ①	RX1207 ①	G	
5 DHP											
100 – 125	R362 1 15/16 3120 1 7/16	R362 2 15/16	R362 3 11/16	D	 Flow	17 1/2 – 20	1030 3 7/16 3180 ①	R514 4 7/16 3160 3 3/16	R3112 4 15/16 3140 3 15/16	I	 Manual
90 – 100	R432 1 15/16 3120 1 7/16	R362 2 15/16	R362 3 11/16	D		15 – 17 1/2	R1037 3 3/16	1030 5 15/16 3160 3 3/16	R514 5 15/16 3160 4 7/16	I	
80 – 90	R432 1 15/16 3120 1 11/16	R362 2 11/16	R362 3 11/16	E		12 1/2 – 15	R1037 3 15/16	R1033 5 15/16 3160 3 3/16	1030 7 3160 4 7/16	J	
70 – 80	R432 1 15/16 3140 1 11/16	R362 2 11/16	R362 3 11/16	E		10 – 12 1/2	R1037 3 15/16	R1035 5 7/16 3180 3 11/16	R1033 7 1/2 3160 4 7/16	K	
60 – 70	R778 3 11/16 3140 1 11/16	R432 2 11/16	R362 3 11/16	E		7 1/2 – 10	AX1568 3 11/16	R1037 5 7/16 3180 3 11/16	R1037 8 3180 4 15/16	L	
50 – 60	R778 3 7/16 3160 1 15/16	R788 4 15/16 3120 2 3/16	R432 3 11/16	F		5 – 7 1/2	R1248 5 7/16	AX1568 5 7/16	R1037 8 3180 4 15/16	N	
45 – 50	R588 3 7/16 3160 1 15/16	R788 4 15/16 3120 2 3/16	R432 3 11/16	F	 Manual	4 – 5	R1248 5 7/16	RX238 7	AX1568 8 1/2	O	
40 – 45	R588 3 7/16 3160 1 15/16	R778 4 15/16 3120 2 3/16	R778 4 15/16 3120 3 3/16	F		3 – 4	R1248 5 7/16	RX238 7	RX238 10	P	
35 – 40	R514 2 7/16 3180 2 3/16	R588 4 15/16 3140 2 11/16	R778 5 7/16 3120 3 3/16	G		2 – 3	RO635 5 7/16	R1248 7 1/2	RX238 10	Q	
30 – 35	R514 2 7/16 3180 2 3/16	R588 4 15/16 3140 2 11/16	R778 5 7/16 3120 3 3/16	G		1 – 2	RO1306 9	RO635 9 1/2	RX1245 10	S	
25 – 30	R514 2 7/16 3180 2 3/16	R3112 3 7/16 3140 2 11/16	R588 5 7/16 3140 3 15/16	G		3/4 – 1	X1307 10	RX1207 ①	RO635 ①	U	
20 – 25	R514 2 15/16 3180 ①	R3112 3 7/16 3160 3 3/16	R3112 4 15/16 3140 3 15/16	H		1/2 – 3/4	X1307 9 1/2	RX1207 ①	RX1207 ①	W	
						1/4 – 1/2	①	RO1306 ①	RO1306 ①	Z	

Note: 1. 3100 Series chain operates over roller chain cut tooth sprockets.
2. Fabricated steel sprockets are recommended.

① Consult Rexnord

② Hub size letter – See page 79.

■ DESIGN AND SELECTION

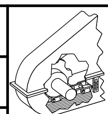
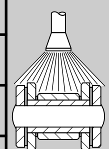
TABLE 2 (Cont'd.)
DRIVE CHAIN SELECTION TABLES

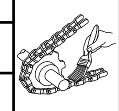
Note: Rex® drive chain selections are displayed in the tables. To interchange Link-Belt® and Rex chain numbers see pages 34-35.

Table 2 – (Cont'd.)

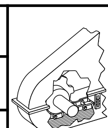
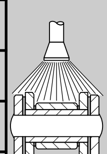
DESIGN HORSEPOWER (DHP) = HP x SF — For (SF) see pages 108-109
DRIVER SPROCKET – NO. OF TEETH — LARGEST KEYSEATED BORE

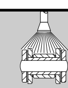
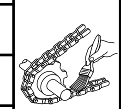
7 1/2 DHP

RPM Driver Sprocket	9T	12T	15T	Hub Letter②	Type of Lubrication
300 – 350	R362 1 11/16 3120 1 7/16	R362 2 15/16	R362 3 11/16	C	 Oil Bath
250 – 300	R362 1 11/16 3120 1 7/16	R362 2 15/16	R362 3 11/16	C	
200 – 250	R362 1 15/16 3120 1 7/16	R362 2 15/16	R362 3 11/16	D	
175 – 200	R432 1 15/16 3120 1 7/16	R362 2 15/16	R362 3 11/16	D	 Flow
150 – 175	R432 1 15/16 3120 1 7/16	R362 2 15/16	R362 3 11/16	D	
125 – 150	R432 1 15/16 3140 1 11/16	R362 2 11/16	R362 3 11/16	E	
100 – 125	R778 3 11/16 3140 1 11/16	R362 2 11/16 3120 2 3/16	R362 3 11/16	E	
90 – 100	R778 3 11/16 3140 1 11/16	R432 2 11/16 3120 2 3/16	R362 3 11/16 3120 3 3/16	E	
80 – 90	R778 3 7/16 3160 1 15/16	R432 2 7/16 3120 2 3/16	R432 3 11/16 3120 3 7/16	F	
70 – 80	R588 3 7/16 3160 1 15/16	R778 4 15/16 3140 2 11/16	R432 3 11/16 3120 3 3/16	F	
60 – 70	R588 3 7/16 3160 1 15/16	R778 4 15/16 3140 2 11/16	R778 4 15/16 3140 3 15/16	F	
50 – 60	R588 3 3/16 3180 2 3/16	R588 4 15/16 3140 2 11/16	R778 5 7/16 3140 3 15/16	G	
45 – 50	R514 2 15/16 3180 2 3/16	R588 4 15/16 3140 2 11/16	R778 5 7/16 3140 3 15/16	G	
40 – 45	R514 2 15/16 3180 2 3/16	R588 4 15/16 3160 3 3/16	R588 5 7/16 3140 3 15/16	G	

RPM Driver Sprocket	9T	12T	15T	Hub Letter②	Type of Lubrication
35 – 40	R514 2 15/16 3180 ①	R3112 3 7/16 3160 3 3/16	R588 5 15/16 3140 3 15/16	H	 Manual
30 – 35	R514 2 15/16 3180 ①	R3112 3 7/16 3160 3 3/16	R3112 4 15/16 3160 4 7/16	H	
25 – 30	R1033 3 11/16 3180 ①	R514 4 7/16 3160 3 3/16	R3112 4 15/16 3160 4 7/16	I	
20 – 25	R1037 3 3/16	1030 5 15/16 3160 3 3/16	R514 5 15/16 3160 4 7/16	I	
17 1/2 – 20	R1037 3 15/16	R1033 5 15/16 3180 3 11/16	1030 7 3160 4 7/16	J	
15 – 17 1/2	R1037 3 15/16	R1035 5 7/16 3180 3 11/16	R1033 7 1/2 3160 4 7/16	K	
12 1/2 – 15	AX1568 3 11/16	R1037 5 7/16 3180 3 11/16	R1037 7 1/2 3180 4 15/16	K	
10 – 12 1/2	RX238 4 7/16	AX1568 5 7/16 3180 3 11/16	R1037 8 3180 4 15/16	L	
7 1/2 – 10	RX238 4 7/16	RX238 7	AX1568 8 1/2 3180 4 15/16	N	
5 – 7 1/2	R1248 5 7/16	RX238 7	RX238 10	O	
4 – 5	RX1245 5 7/16	RX1248 8	RX238 10	P	
3 – 4	RO635 5 7/16	RX1245 9	R1248 10	Q	
2 – 3	RO1306 9	RO635 9 1/2	RX1245 10	R	
1 – 2	X1307 10	RX1207 ①	RX1207 ①	U	
3/4 – 1	X1307 9 1/2	RO1306 ①	RX1207 ①	W	
1/2 – 3/4	①	RO1306 ①	RO1306 ①	Y	
1/4 – 1/2	①	①	X1307 ①	①	

10 DHP

RPM Driver Sprocket	9T	12T	15T	Hub Letter②	Type of Lubrication
300 – 350	R423 1 15/16 3120 1 7/16	R362 2 15/16	R362 3 11/16	D	 Oil Bath
250 – 300	R432 1 15/16 3120 1 7/16	R362 2 15/16	R362 3 11/16	D	
200 – 250	R432 1 15/16 3120 1 7/16	R362 2 15/16	R362 3 11/16	D	
175 – 200	R432 1 15/16 3140 1 11/16	R362 2 11/16	R362 3 11/16	E	
150 – 175	R432 1 15/16 3140 1 11/16	R362 2 11/16 3120 2 3/16	R362 3 11/16	E	 Flow
125 – 150	R778 3 11/16 3140 1 11/16	R432 2 11/16 3120 2 3/16	R362 3 11/16 3120 3 3/16	E	
100 – 125	R588 3 7/16 3160 1 15/16	R778 4 15/16 3120 2 3/16	R432 3 11/16 3120 3 3/16	F	
90 – 100	R588 3 7/16 3160 1 15/16	R778 4 15/16 3140 2 11/16	R432 3 11/16 3120 3 3/16	F	
80 – 90	R588 3 7/16 3160 1 15/16	R778 4 15/16 3140 2 11/16	R778 4 15/16 3120 3 3/16	F	
70 – 80	R514 2 7/16 3180 2 3/16	R588 4 15/16 3140 2 11/16	R778 5 7/16 3140 3 15/16	G	
60 – 70	R514 2 7/16 3180 2 3/16	R588 4 15/16 3140 2 11/16	R778 5 7/16 3140 3 15/16	G	
50 – 60	R514 2 7/16 3180 2 3/16	R3112 3 7/16 3160 3 3/16	R588 5 7/16 3140 3 15/16	G	
45 – 50	R514 2 15/16 3180 ①	R3112 3 7/16 3160 3 3/16	R588 5 15/16 3140 3 15/16	H	

RPM Driver Sprocket	9T	12T	15T	Hub Letter②	Type of Lubrication
40 – 45	1030 3 11/16 3180 ①	R3112 3 7/16 3160 3 3/16	R3112 4 15/16 3160 4 7/16	H	 Flow
35 – 40	1030 3 7/16 3180 ①	R514 4 7/16 3160 3 3/16	R3112 4 15/16 3160 4 7/16	I	
30 – 35	R1035 3 7/16	1030 5 15/16 3160 3 3/16	R514 5 15/16 3160 4 7/16	I	 Manual
25 – 30	R1037 3 15/16	1030 5 15/16 3180 3 11/16	R514 5 15/16 3160 4 7/16	J	
20 – 25	R1037 3 15/16	R1037 5 7/16 3180 3 11/16	1030 7 1/2 3160 4 7/16	K	
17 1/2 – 20	AX1568 3 11/16	R1037 5 7/16 3180 3 11/16	R1035 7 1/2 3180 4 15/16	K	
15 – 17 1/2	RX238 4 7/16	R1037 5 7/16 3180 3 11/16	R1037 8 3180 4 15/16	L	
12 1/2 – 15	RX238 4 7/16	AX1568 5 7/16	R1037 8 3180 4 15/16	M	
10 – 12 1/2	RX238 4 7/16	RX238 7	AX1568 8 1/2	N	
7 1/2 – 10	R1248 5 7/16	RX238 7	RX238 10	O	
5 – 7 1/2	RX1245 5 7/16	R1248 8	RX238 10	P	
4 – 5	RO635 5 7/16	RO635 9 1/2	R1248 10	Q	
3 – 4	RX1207 6 1/2	RO635 9 1/2	RX1245 10	R	
2 – 3	RO1306 9	RX1207 ①	RO635 ①	S	
1 – 2	X1307 9 1/2	RO1306 ①	RX1207 ①	W	
3/4 – 1	①	RO1306 ①	RO1306 ①	X	

Note: 1. 3100 Series chain operates over roller chain cut tooth sprockets.
2. Fabricated steel sprockets are recommended.

① Consult Rexnord

② Hub size letter – See page 79.

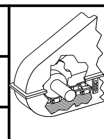
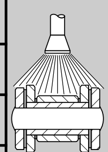
TABLE 2 (Cont'd.)
DRIVE CHAIN SELECTION TABLES

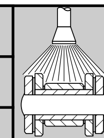
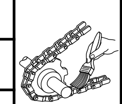
Note: Rex® drive chain selections are displayed in the tables. To interchange Link-Belt® and Rex chain numbers see pages 34-35.

Table 2 – (Cont'd.)

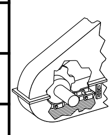
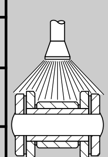
DESIGN HORSEPOWER (DHP) = HP x SF. For (SF) see pages 108-109. DRIVER SPROCKET – NO. OF TEETH, LARGEST KEYSEATED BORE.

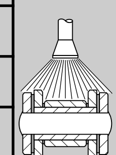
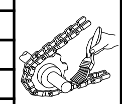
15 DHP

RPM Driver Sprocket	9T	12T	15T	Hub Letter②	Type of Lubrication
300 – 350	R432 1 15/16 3140 1 11/16	R432 2 15/16	R362 3 11/16	D	 Oil Bath
250 – 300	R432 1 15/16 3140 1 11/16	R432 2 11/16	R362 3 11/16	E	
200 – 250	R778 3 11/16 3140 1 11/16	R432 2 11/16 3120 2 3/16	R362 3 11/16	E	
175 – 200	R588 3 11/16 3160 1 15/16	R432 2 11/16 3120 2 3/16	R432 3 11/16	E	
150 – 175	R588 3 7/16 3160 1 15/16	R778 4 15/16 3120 2 3/16	R432 3 11/16 3120 3 3/16	F	 Flow
125 – 150	R3112 2 3/16 3160 1 15/16	R778 4 15/16 3120 2 3/16	R432 3 11/16 3120 3 3/16	F	
100 – 125	R514 2 7/16 3160 2 3/16	R588 4 15/16 3140 2 11/16	R788 5 7/16 3120 3 3/16	G	
90 – 100	R514 2 7/16 3180 2 3/16	R588 4 15/16 3140 2 11/16	R788 5 7/16 3140 3 15/16	G	
80 – 90	R514 2 7/16 3180 2 3/16	R3112 3 7/16 3140 2 11/16	R588 5 7/16 3140 3 15/16	G	
70 – 80	R514 2 15/16 3180 ①	R3112 3 7/16 3140 2 11/16	R588 5 15/16 3140 3 15/16	H	
60 – 70	1030 3 11/16 3180 ①	R3112 3 7/16 3160 3 7/16	R3112 4 15/16 3140 3 15/16	H	
50 – 60	R1033 3 11/16	R514 4 7/16 3160 3 3/16	R3112 4 15/16 3160 4 7/16	I	
45 – 50	R1037 3 3/16	1030 5 15/16 3160 3 3/16	R514 5 15/16 3160 4 7/16	I	

RPM Driver Sprocket	9T	12T	15T	Hub Letter②	Type of Lubrication
40 – 45	R1037 3 15/16	1030 5 15/16 3160 3 3/16	R514 5 15/16 3160 4 7/16	J	 Flow
35 – 40	R1037 3 15/16	R1033 5 15/16 3180 3 11/16	1030 7 3160 4 7/16	J	
30 – 35	R1037 3 15/16	R1037 5 7/16 3180 3 11/16	R1003 7 1/2 3160 4 7/16	K	
25 – 30	AX1568 3 11/16	R1037 5 7/16 3180 3 11/16	R1037 7 1/2 3180 4 15/16	K	
20 – 25	RX238 4 7/16	AX1568 5 7/16	R1037 8 3180 4 15/16	L	 Manual
17 1/2 – 20	RX238 4 7/16	RX238 7	R1037 8	M	
15 – 17 1/2	R1248 4 7/16	RX238 7	AX1568 8 1/2	N	
12 1/2 – 15	R1248 5 7/16	RX238 7	RX238 10	O	
10 – 12 1/2	RX1245 5 7/16	R1248 8	RX238 10	O	
7 1/2 – 10	RO635 5 7/16	RX1245 8	R1248 10	P	
5 – 7 1/2	RX1207 6 1/2	RO635 9 1/2	RX1245 10	Q	
4 – 5	RO1306 9	RO635 9 1/2	RO635 ①	R	
3 – 4	RO1306 9	RX1207 ①	RO635 ①	S	
2 – 3	X1307 10	RO1306 ①	RX1207 ①	U	
1 – 2	①	RO1306 ①	RO1306 ①	Y	
3/4 – 1	①	RO1306 ①	RO1306 ①	Z	
1/2 – 3/4	①	①	X1307 ①	①	

20 DHP

RPM Driver Sprocket	9T	12T	15T	Hub Letter②	Type of Lubrication
300 – 350	R514 2 15/16 3160 1 15/16	R432 2 15/16 3120 2 3/16	R432 3 11/16	E	 Oil Bath
250 – 300	R514 2 15/16 3160 1 15/16	R432 2 11/16 3120 2 3/16	R342 3 11/16 3120 3 3/16	E	
200 – 250	R514 2 11/16 3160 1 15/16	R778 4 15/16 3120 2 3/16	R432 3 11/16 3120 3 3/16	F	
175 – 200	R514 2 11/16 3160 1 15/16	R778 4 15/16 3120 2 3/16	R432 3 11/16 3120 3 3/16	F	
150 – 175	R514 2 11/16 3180 2 3/16	R778 4 15/16 3140 2 11/16	R778 4 15/16 3120 3 3/16	F	
125 – 150	R514 2 7/16 3180 2 3/16	R3112 3 7/16 3140 1 11/16	R778 5 7/16 3140 3 15/16	G	
100 – 125	R514 2 7/16 3180 2 3/16	R3112 3 7/16 3140 2 11/16	R588 5 7/16 3140 3 15/16	G	 Flow
90 – 100	R514 2 15/16 3180 ①	R3112 3 7/16 3160 3 3/16	R588 5 15/16 3140 3 15/16	H	
80 – 90	1030 3 11/16	R3112 3 7/16 3160 3 3/16	R3112 4 15/16 3160 4 7/16	H	
70 – 80	R1033 3 11/16	1030 5 15/16 3160 3 3/16	R3112 4 15/16 3160 4 7/16	I	
60 – 70	R1037 3 3/16	1030 5 15/16 3160 3 3/16	R514 5 15/16 3160 4 7/16	I	
50 – 60	R1037 3 15/16	R1033 5 15/16 3180 3 11/16	1030 7 3160 4 7/16	J	

RPM Driver Sprocket	9T	12T	15T	Hub Letter②	Type of Lubrication
40 – 50	R1037 3 15/16	R035 5 7/16 3180 3 11/16	1030 7 3160 4 7/16	J	 Flow
40 – 45	R1037 3 15/16	R1037 5 7/16 3180 3 11/16	R1033 7 1/2 3180 4 15/16	K	
35 – 40	AX1568 3 11/16	R1037 5 7/16 3180 3 11/16	R1035 7 1/2 3180 4 15/16	K	
30 – 35	RX236 4 7/16	R1037 5 7/16	R1037 8 3180 4 15/16	L	
25 – 30	RX238 4 7/16	AX1568 5 7/16	R1037 8	M	
20 – 25	R1248 4 7/16	RX238 7	AX1568 8 1/2	N	
17 1/2 – 20	R1248 5 7/16	RX238 7	RX238 10	O	
15 – 17 1/2	RX1245 5 7/16	R1248 8	RX238 10	O	 Manual
12 1/2 – 15	RO635 5 7/16	R1248 8	RX238 10	O	
10 – 12 1/2	RO635 5 7/16	RX1245 8	RX1248 10	O	
7 1/2 – 10	RX1207 6 1/2	RO635 9 1/2	RO635 ①	Q	
5 – 7 1/2	RO1306 9	RO635 9 1/2	RO635 ①	S	
4 – 5	RO1306 9	RX1207 ①	RX1207 ①	S	
3 – 4	X1307 10	RO1306 ①	RX1207 ①	U	
2 – 3	X1307 9 1/2	RO1306 ①	RO1306 ①	W	
1 – 2	①	X1307 ①	RO1307 ①	Z	

Note: 1. 3100 Series chain operates over roller chain cut tooth sprockets.
2. Fabricated steel sprockets are recommended.

① Consult Rexnord

② Hub size letter – See page 79.

■ DESIGN AND SELECTION

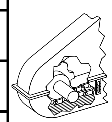
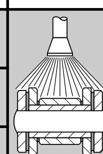
TABLE 2 (Cont'd.)
DRIVE CHAIN SELECTION TABLES

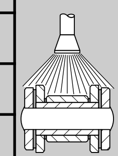
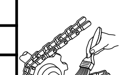
Note: Rex® drive chain selections are displayed in the tables. To interchange Link-Belt® and Rex chain numbers see pages 34-35.

Table 2 – (Cont'd.)

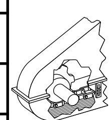
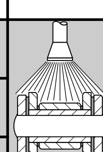
DESIGN HORSEPOWER (DHP) = HP x SF — For (SF) see pages 108-109
DRIVER SPROCKET – NO. OF TEETH — LARGEST KEYSEATED BORE

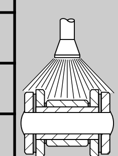
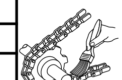
25 DHP

RPM Driver Sprocket	9T	12T	15T	Hub Letter②	Type of Lubrication
300 – 350	R3112 2 3/16 3160 1 15/16	R432 2 11/16 3120 2 3/16	R432 3 11/16	E	 Oil Bath
250 – 300	R3112 2 3/16 3160 1 15/16	R778 4 15/16 3120 2 3/16	R432 3 11/16 3120 3 3/16	F	
200 – 250	R3112 2 3/16 3180 2 3/16	R588 4 15/16 3140 2 11/16	R788 4 15/16 3120 3 3/16	F	
175 – 200	R514 2 7/16 3180 2 3/16	R3112 3 7/16 3140 2 11/16	R778 5 7/16 3120 3 3/16	G	
150 – 175	R514 2 7/16 3180 2 3/16	R3112 3 7/16 3140 2 11/16	R778 5 7/16 3140 3 15/16	G	
125 – 150	R514 2 7/16 3180 2 3/16	R3112 3 7/16 3160 3 3/16	R588 5 7/16 3140 3 15/16	G	
100 – 125	1030 3 11/16	R3112 3 7/16 3160 3 3/16	R3112 3 7/16 3140 3 15/16	H	
90 – 100	R1030 3 15/16	R514 4 7/16 3160 3 3/16	R3112 4 15/16 3160 4 7/16	I	 Flow
80 – 90	R1037 3 3/16	1030 5 15/16 3160 3 3/16	R3112 4 15/16 3160 4 7/16	I	
70 – 80	R1037 3 3/16	1030 5 15/16 3180 3 11/16	R514 5 15/16 3160 4 7/16	I	
60 – 70	R1037 3 15/16	R1033 5 15/16 3180 3 11/16	1030 7 3160 4 7/16	J	

RPM Driver Sprocket	9T	12T	15T	Hub Letter②	Type of Lubrication
50 – 60	R1037 3 15/16	R1037 5 7/16 3180 3 11/16	R1033 7 1/2 3180 4 15/16	K	 Flow
45 – 50	AX1568 3 11/16	R1037 5 7/16 3180 3 11/16	R1035 7 1/2 3180 4 15/16	K	
40 – 45	RX238 4 7/16	R1037 5 7/16	R1037 8 3180 4 15/16	L	
35 – 40	RX238 4 7/16	R1037 5 7/16	R1037 8	L	
30 – 35	RX238 4 7/16	AX1568 5 7/16	R1037 8	M	
25 – 30	R1248 4 7/16	RX238 7	AX1568 8 1/2	N	
20 – 25	RX1245 5 7/16	RX238 7	RX238 10	O	
17 1/2 – 20	RO635 5 7/16	R1248 8	RX238 10	O	
15 – 17 1/2	RO635 5 7/16	R1248 8	R1238 10	P	 Manual
12 1/2 – 15	RO635 5 7/16	RO635 9 1/2	R1248 10	P	
10 – 12 1/2	RX1207 6 1/2	RO635 9 1/2	RO635 ①	Q	
7 1/2 – 10	RX1207 6 1/2	RO635 9 1/2	RO635 ①	R	
5 – 7 1/2	RO1306 9	RX1207 ①	RX1207 ①	S	
4 – 5	X1307 10	RO1306 ①	RX1207 ①	T	
3 – 4	X1307 9 1/2	RO1306 ①	RO1306 ①	V	
2 – 3	①	X1037 ①	RO1306 ①	X	

30 DHP

RPM Driver Sprocket	9T	12T	15T	Hub Letter②	Type of Lubrication
300 – 350	R3112 2 3/16 3180 2 3/16	R3112 3 7/16 3140 2 11/16	R432 3 11/16 3120 3 3/16	F	 Oil Bath
250 – 300	R3112 2 3/16 3180 2 3/16	R3112 3 7/16 3140 2 11/16	R432 3 11/16 3120 3 3/16	F	
200 – 250	R514 2 7/16 3180 2 3/16	R3112 3 7/16 3160 3 3/16	R788 5 7/16 3140 3 15/16	G	
175 – 200	R514 2 7/16 3180 2 3/16	R3112 3 7/16 3160 3 3/16	R588 5 7/16 3140 3 15/16	G	
150 – 175	R415 2 7/16	R3112 3 7/16 3160 3 3/16	R588 5 7/16 3140 3 15/16	G	
125 – 150	1030 3 11/16	R3112 3 7/16 3160 3 3/16	R3112 4 15/16 3140 3 15/16	H	
100 – 125	R1035 3 7/16	1030 5 15/16 3160 3 3/16	R3112 4 15/16 3160 4 7/16	I	
90 – 100	R1037 3 3/16	1030 5 15/16 3180 3 11/16	R514 5 15/16 3160 4 7/16	I	
80 – 90	R1037 3 15/16	1030 5 15/16 3180 3 11/16	1030 7 3160 4 7/8	J	 Flow
70 – 80	R1037 3 15/16	R1035 5 7/16 3180 3 11/16	1030 7 3160 4 7/16	J	
60 – 70	R1037 3 15/16	R1037 5 7/16 3180 3 11/16	R1033 7 1/2 3180 4 15/16	K	

RPM Driver Sprocket	9T	12T	15T	Hub Letter②	Type of Lubrication
50 – 60	AX1568 3 11/16	R1037 5 7/16	R1037 7 1/2 3180 4 15/16	K	 Flow
45 – 50	RX238 4 7/16	R1037 5 7/16	R1037 8 3180 4 15/16	L	
40 – 45	RX238 4 7/16	AX1568 5 7/16	R1037 8	L	
35 – 40	RX238 4 7/16	RX238 7	R1037 8	M	
30 – 35	R1248 4 7/16	RX238 7	AX1568 8 1/2	N	
25 – 30	R1248 5 7/16	RX238 7	RX238 10	O	
20 – 25	RO635 5 7/16	R1248 8	RX238 10	O	
17 1/2 – 20	RO635 5 7/16	RX1245 8	R1248 10	P	
15 – 17 1/2	RO635 5 7/16	RO635 9 1/2	R1248 10	P	 Manual
12 1/2 – 15	RX1207 6 1/2	RO635 9 1/2	RX1245 10	Q	
10 – 12 1/2	RX1207 6 1/2	RO635 9 1/2	RO635 ①	Q	
7 1/2 – 10	RO1306 9	RX1207 ①	RO635 ①	S	
5 – 7 1/2	X1307 10	RO1306 ①	RX1207 ①	T	
4 – 5	X1307 10	RO1306 ①	RO1306 ①	U	
3 – 4	X1307 9 1/2	RO1306 ①	RX1306 ①	W	
2 – 3	①	X1307 ①	RO1306 ①	Y	

Note: 1. 3100 Series chain operates over roller chain cut tooth sprockets.
2. Fabricated steel sprockets are recommended.

① Consult Rexnord

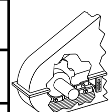
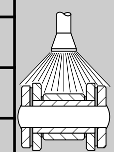
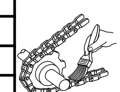
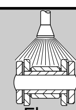
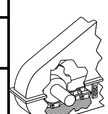
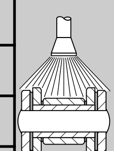
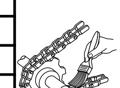
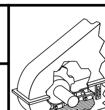
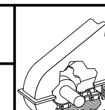
② Hub size letter – See page 79.

■ DESIGN AND SELECTION

TABLE 2 (Cont'd.)
DRIVE CHAIN SELECTION TABLES

Note: Rex® drive chain selections are displayed in the tables. To interchange Link-Belt® and Rex chain numbers see pages 34-35.

Table 2 – (Cont'd.)

RPM Driver Sprocket	DESIGN HORSEPOWER (DHP) = HP x SF For (SF) see pages 108-109 — DRIVER SPROCKET – NO. OF TEETH LARGEST KEYSEATED BORE 9T	12T	15T	Hub Letter②	Type of Lubrication	RPM Driver Sprocket	DESIGN HORSEPOWER (DHP) = HP x SF For (SF) see pages 108-109 — DRIVER SPROCKET – NO. OF TEETH LARGEST KEYSEATED BORE 9T	12T	15T	Hub Letter②	Type of Lubrication
35 DHP											
300 – 350	R514 2 11/16 3180 2 3/16	R3112 3 7/16 3140 2 11/16	R432 3 11/16 3120 3 3/16	F	 Oil Bath	50 – 60	RX238 4 7/16	R1037 5 7/16	R1037 8 3180 4 5/16	L	 Flow
250 – 300	R514 2 7/16 3180 2 3/16	R3112 3 7/16 3160 3 3/16	R3112 4 5/16 3140 3 5/16	G		45 – 50	RX238 4 7/16	AX1568 5 7/16	R1037 8	M	
200 – 250	R514 2 7/16 3180 2 3/16	R3112 3 7/16 3160 3 3/16	R3112 4 5/16 3140 3 5/16	G		40 – 45	RX238 4 7/16	RX238 7	R1037 8	M	
175 – 200	R514 2 7/16	R3112 3 7/16 3160 3 3/16	R3112 4 5/16 3140 3 5/16	G		35 – 40	R1248 4 7/16	RX238 7	AX1568 8 1/2	N	
150 – 175	1030 3 11/16	R3112 3 7/16 3160 3 3/16	R3112 4 5/16 3140 3 5/16	H		30 – 35	R1248 5 7/16	RX238 7	RX238 10	O	
125 – 150	R1035 3 7/16	1030 5 5/16 3160 3 3/16	R3112 4 5/16 3160 4 7/16	I		25 – 30	RX1245 5 7/16	R1248 8	RX238 10	O	
100 – 125	R1037 3 3/16	1030 5 5/16 3180 3 11/16	R514 5 5/16 3160 4 7/16	I		20 – 25	RO635 5 7/16	R1248 8	R1248 10	P	
						17 1/2 – 20	RO635 5 7/16	RO635 9 1/2	R1248 10	P	
90 – 100	R1037 3 5/16	R1033 5 5/16 3180 3 11/16	1030 7 3160 4 7/16	J		15 – 17 1/2	RX1207 6 1/2	RO635 9 1/2	RO635 ①	Q	 Manual
						12 1/2 – 15	RX1207 6 1/2	RO635 9 1/2	RO635 ①	Q	
80 – 90	R1037 3 5/16	R1035 5 7/16 3180 3 11/16	1030 7 3160 4 7/16	J		10 – 12 1/2	RO1306 9	RX1207 ①	RO635 ①	R	
						7 1/2 – 10	RO1306 9	RX1207 ①	RX1207 ①	S	
70 – 80	R1037 3 5/16	R1037 5 7/16 3180 3 11/16	R1033 7 1/2 3180 4 5/16	K	 Flow	5 – 7 1/2	X1307 10	RO1306 ①	RO1306 ①	U	
						4 – 5	X1307 9 1/2	RO1306 ①	RO1306 ①	V	
60 – 70	RX238 4 7/16	R1037 5 7/16	R1035 7 1/2 3180 4 5/16	K		3 – 4	①	RO1306 ①	RO1306 ①	X	
						2 – 3	①	①	X1307 ①	Z	
40 DHP											
300 – 350	R514 2 11/16 3180 2 3/16	R3112 3 7/16 3140 2 11/16	R3112 4 5/16 3120 3 3/16	F	 Oil Bath	60 – 70	RX238 4 7/16	R1037 5 7/16	R1037 8 3180 4 15/16	L	 Flow
250 – 300	R514 2 7/16 3180 2 3/16	R3112 3 7/16 3160 3 3/16	R3112 4 5/16 3140 3 5/16	G		50 – 60	RX238 4 7/16	AX1568 5 7/16	R1037 8	M	
200 – 250	R514 2 7/16	R3112 3 7/16 3160 3 3/16	R3112 4 5/16 3140 3 5/16	G		45 – 50	RX238 4 7/16	RX238 7	R1037 8	M	
175 – 200	R514 2 5/16	1030 5 5/16 3160 3 3/16	R3112 4 5/16 3140 3 5/16	H		40 – 45	R1248 4 7/16	RX238 7	AX1568 8 1/2	N	
150 – 175	R1033 3 5/16	1030 5 5/16 3160 3 3/16	R3112 4 5/16 3160 4 7/16	H		35 – 40	R1248 5 7/16	RX238 7	RX238 10	O	
						30 – 35	RX1245 5 7/16	R1248 8	RX238 10	O	
125 – 150	R1037 3 7/16	1030 5 5/16 3180 3 11/16	R3112 4 5/16 3160 4 7/16	I		25 – 30	RO635 5 7/16	R1248 8	RX238 10	O	
						20 – 25	RO635 5 7/16	RO635 9 1/2	R1248 10	P	
100 – 125	R1037 3 5/16	R1033 5 5/16 3180 3 11/16	1030 7 3160 4 7/16	J		17 1/2 – 20	RX1207 6 1/2	RX635 9 1/2	RX1245 10	Q	
						15 – 17 1/2	RX1207 6 1/2	RO635 9 1/2	RO635 ①	Q	
90 – 100	R1037 3 5/16	R1035 5 7/16 3180 3 11/16	1030 7 3180 4 5/16	J		12 1/2 – 15	RX1207 6 1/2	RX1207 ①	RO635 ①	R	 Manual
						10 – 12 1/2	RO1306 9	RX1207 ①	RX1207 ①	S	
80 – 90	R1037 3 5/16	R1037 5 7/16	R1033 7 1/2 3180 4 5/16	K		7 1/2 – 10	RO1306 9	RX1306 ①	RX1207 ①	T	
						5 – 7 1/2	X1307 10	RO1306 ①	RO1306 ①	U	
70 – 80	AX1568 3 11/16	R1037 5 7/16	R1035 8 3180 4 5/16	L	Flow	4 – 5	X1307 9 1/2	RO1306 ①	RO1306 ①	W	
						2 – 3	①	RO1306 ①	RO1306 ①	X	
45 DHP											
300 – 350	R514 2 7/16 3180 2 3/16	R3112 3 7/16 3160 3 3/16	R3112 4 5/16 3140 3 5/16	G	 Oil Bath	175 – 200	R1033 3 5/16	1033 5 5/16 3160 3 3/16	R3112 4 5/16 3140 3 5/16	H	 Oil Bath
250 – 300	R514 2 7/16	R3112 3 7/16 3160 3 3/16	R3112 4 5/16 3140 3 5/16	G		150 – 175	R1037 3 3/16	1030 5 5/16 3180 3 11/16	R3112 4 5/16 3160 4 7/16	I	
200 – 250	R1033 3 5/16	1030 5 5/16 3160 3 3/16	R3112 4 5/16 3140 3 5/16	H		125 – 150	R1037 3 7/16	R1033 5 5/16 3180 3 11/16	1030 6 1/2 3160 4 7/16	I	

Note: 1. 3100 Series chain operates over roller chain cut tooth sprockets.
2. Fabricated steel sprockets are recommended.

① Consult Rexnord

② Hub size letter – See page 79.

■ DESIGN AND SELECTION

TABLE 2 (Cont'd.)
DRIVE CHAIN SELECTION TABLES

Note: Rex® drive chain selections are displayed in the tables. To interchange Link-Belt® and Rex chain numbers see pages 34-35.

RPM Driver Sprocket	DESIGN HORSEPOWER (DHP) = HP x SF For (SF) see pages 108-109 / DRIVER SPROCKET – NO. OF TEETH LARGEST KEYSEATED BORE 9T	12T	15T	Hub Letter②	Type of Lubrication	RPM Driver Sprocket	DESIGN HORSEPOWER (DHP) = HP x SF For (SF) see pages 108-109 / DRIVER SPROCKET – NO. OF TEETH LARGEST KEYSEATED BORE 9T	12T	15T	Hub Letter②	Type of Lubrication
45 DHP – Cont'd.											
100 – 125	R1037 3 15/16	R1035 5 7/16 3180 3 11/16	R1033 7 3180 4 15/16	J	Oil Bath	30 – 35	RO635 5 7/16	R1248 8	RX238 10	O	Flow
90 – 100	AX1568 3 11/16	R1037 5 7/16	R1033 7 1/2 3180 4 15/16	K		35 – 30	RO635 5 7/16	RX1245 8	RX1248 10	P	
						20 – 25	RX1207 6 1/2	RO635 9 1/2	RX1245 10	Q	
80 – 90	RX238 4 7/16	R1037 5 7/16	R1035 7 1/2 3180 4 15/16	K		17 1/2 – 20	RX1207 6 1/2	RO635 9 1/2	RO635 ①	Q	
						15 – 17 1/2	RX1207 6 1/2	RO635 9 1/2	RO635 ①	Q	
70 – 80	RX238 4 7/16	R1037 5 7/16	1037 8	L	Flow	12 1/2 – 15	RO1036 9	RX1207 ①	RO635 ①	R	Manual
60 – 70	RX238 4 7/16	AX1568 5 7/16	1037 8	L		10 – 12 1/2	RO1036 9	RX1207 ①	RX1027 ①	S	
50 – 60	R1248 4 7/16	RX238 7	1037 8	M		7 1/2 – 10	X1307 10	RO1306 ①	RX1027 ①	T	
45 – 50	R1248 4 7/16	RX238 7	AX1568 8 1/2	N		5 – 7 1/2	X1307 9 1/2	RO1306 ①	RO1306 ①	V	
40 – 45	R1248 4 7/16	RX238 7	RX238 10	N		4 – 5	①	RO1306 ①	RO1306 ①	W	
35 – 40	RX1245 5 7/16	R1248 8	RX238 10	O		3 – 4	①	①	RO1306 ①	Y	
50 DHP											
300 – 350	R514 2 7/16	R514 4 7/16 3160 3 3/16	R3112 4 15/16 3140 3 15/16	G	Oil Bath	60 – 70	RX238 4 7/16	RX238 7	R1037 8	M	Flow
250 – 300	R1035 3 15/16	R514 4 7/16 3160 3 3/16	R3112 4 15/16 3140 3 15/16	G		50 – 60	R1248 4 7/16	RX238 7	AX1568 8 1/2	N	
200 – 250	R1035 3 11/16	1030 5 15/16 3160 3 3/16	R3112 4 15/16 3140 3 15/16	H		45 – 50	R1248 4 7/16	RX238 7	RX238 9	N	
175 – 200	R1037 3 7/16	R1033 5 15/16 3180 3 11/16	R3112 4 15/16 3160 4 7/16	I		40 – 45	RX1245 5 7/16	RX238 7	RX238 9 1/2	O	
						35 – 40	RO635 5 7/16	R1248 8	RX238 9 1/2	O	
150 – 175	R1037 3 7/16	R1033 5 15/16 3180 3 11/16	1033 6 1/2 3160 4 7/16	I		30 – 35	RO635 5 7/16	RX1245 8	R1248 10	P	
						25 – 30	RO635 5 7/16	RO635 9 1/2	R1248 10	P	
125 – 150	R1037 3 15/16	R1033 5 15/16 3180 3 11/16	1030 7 3160 4 7/16	J		20 – 25	RX1207 6 1/2	RO635 9 1/2	RO635 ①	Q	
						17 1/2 – 20	RX1207 6 1/2	RO635 9 1/2	RO635 ①	Q	
100 – 125	R1037 3 15/16	R1037 5 7/16 3180 3 11/16	R1033 7 1/2 3180 4 15/16	K		15 – 17 1/2	RO1306 9	RX1207 ①	RO635 ①	R	
						12 1/2 – 15	RO1306 9	RX1207 ①	RX1207 ①	S	
90 – 100	AX1568 3 11/16	R1037 5 7/16	R1035 7 1/2 3180 4 15/16	K		10 – 12 1/2	RO1306 9	RO1036 ①	RX1207 ①	S	Manual
						7 1/2 – 10	X1307 10	RO1036 ①	RO1306 ①	U	
80 – 90	RX238 4 7/16	R1037 5 7/16	1037 8 3180 4 15/16	L		5 – 7 1/2	X1307 9 1/2	RO1036 ①	RO1306 ①	W	
						4 – 5	①	X1307 ①	RO1306 ①	X	
70 – 80	RX238 4 7/16	R1037 5 7/16	1037 8	L		3 – 4	①	①	X1307 ①	Z	
60 DHP											
300 – 350	R1035 3 15/16	R514 4 7/16 3160 3 3/16	R3112 4 15/16 3140 3 15/16	G	Oil Bath	70 – 80	RX238 4 7/16	RX238 7	R1037 8	M	Oil Bath
250 – 300	R1037 3 11/16	R514 4 7/16 3180 3 11/16	R3112 4 15/16 3160 4 7/16	H		60 – 70	R1248 4 7/16	RX238 7	AX1568 8 1/2	N	
200 – 250	R1037 3 7/16	R1033 5 15/16 3180 3 11/16	1030 6 1/2 3160 4 7/16	I		50 – 60	RX1245 5 7/16	RX238 7	RX238 9 1/2	O	
						45 – 50	RO635 5 7/16	R1248 8	RX238 9 1/2	O	Flow
175 – 200	R1037 3 7/16	R1033 5 15/16 3180 3 11/16	1030 6 1/2 3160 4 7/16	I		40 – 45	RO635 5 7/16	R1248 8	RX238 9 1/2	O	
						35 – 40	RO635 5 7/16	RX1245 8	R1248 10	P	
150 – 175	R1037 3 15/16	R1033 5 15/16 3180 3 11/16	1033 7 3180 4 15/16	J		30 – 35	RO635 5 7/16	RO635 9 1/2	R1248 10	P	
						25 – 30	RX1207 6 1/2	RO635 9 1/2	RO635 ①	Q	
125 – 150	AX1568 3 11/16	R1037 5 7/16	R1033 7 3180 4 15/16	J		20 – 25	RX1207 6 1/2	RO635 9 1/2	RO635 ①	Q	
						17 1/2 – 20	RO1306 9	RX1207 ①	RO635 ①	R	
100 – 125	RX238 4 7/16	R1037 5 7/16	1037 7 1/2 3180 4 15/16	K		15 – 17 1/2	RO1306 9	RX1207 ①	RX1207 ①	S	
						12 1/2 – 15	RO1306 9	RO1306 ①	RX1207 ①	S	
90 – 100	RX238 4 7/16	R1037 5 7/16	1037 8	L		10 – 12 1/2	RO1306 9	RO1306 ①	RX1207 ①	T	Manual
80 – 90	RX238 4 7/16	AX1568 5 7/16	1037 8	L		7 1/2 – 10	X1307 10	RO1306 ①	RO1306 ①	U	

Note: 1. 3100 Series chain operates over roller chain cut tooth sprockets.
2. Fabricated steel sprockets are recommended.

① Consult Rexnord

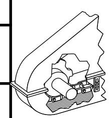
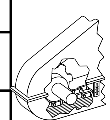
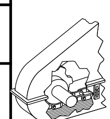
② Hub size letter – See page 79.

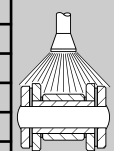
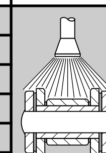
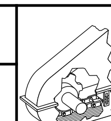
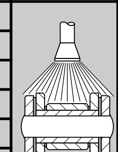
TABLE 2 (Cont'd.)
DRIVE CHAIN SELECTION TABLES

Note: Rex® drive chain selections are displayed in the tables. To interchange Link-Belt® and Rex chain numbers see pages 34-35.

Table 2 – (Cont'd.)

DESIGN HORSEPOWER (DHP) = HP x SF — For (SF) see pages 108-109. DRIVER SPROCKET – NO. OF TEETH, LARGEST KEYSEATED BORE.

RPM Driver Sprocket	9T	12T	15T	Hub Letter②	Type of Lubrication
70 DHP					
300 – 350		R514 4 7/16 3180 3 11/16	R514 5 15/16 3160 4 7/16	H	 Oil Bath
250 – 300	R1037 3 7/16	1030 5 15/16 3180 3 11/16	R514 5 15/16 3160 4 7/16	I	
200 – 250	R1037 3 7/16	R1033 5 15/16 3180 3 11/16	R1033 6 1/2 3160 4 7/16	I	
175 – 200	R1037 3 15/16	R1033 5 15/16 3180 3 11/16	R1033 7 3180 4 15/16	J	
150 – 175	AX1568 3 11/16	R1037 5 7/16	R1033 7 3180 4 15/16	J	
125 – 150	RX238 4 7/16	R1037 5 7/16	R1035 7 1/2 3180 4 15/16	K	
100 – 125	RX238 4 7/16	R1037 5 7/16	R1037 8	L	
90 – 100	RX238 4 7/16	AX1568 5 7/16	R1037 8	M	
80 – 90	R1248 4 7/16	RX238 7	R1027 8	M	
70 – 80	R1248 4 7/16	RX238 7	AX1568 8 1/2	N	
80 DHP					
300 – 350		R1035 5 7/16 3180 3 11/16	R514 5 15/16 3160 4 7/16	H	 Oil Bath
250 – 300	AX1568 2 15/16	R1035 5 7/16 3180 3 11/16	R514 5 15/16 3180 4 15/16	I	
200 – 250	AX1568 3 11/16	R1035 5 7/16 3180 3 11/16	R1033 7 3180 4 15/16	J	
175 – 200	AX1568 3 11/16	R1037 5 7/16	R1033 7 3180 4 15/16	J	
150 – 175	RX238 4 7/16	R1037 5 7/16	R1035 7 1/2 3180 4 15/16	K	
125 – 150	RX238 4 7/16	R1037 5 7/16	R1037 8	L	
100 – 125	RX238 4 7/16	AX1568 5 7/16	R1037 8	M	
90 – 100	R1248 4 7/16	RX238 7	AX1568 8 1/2	M	
80 – 90	RX1245 4 7/16	RX238 7	AX1568 8 1/2	N	
70 – 80	RO635 5 7/16	RX238 7	RX238 9 1/2	O	
60 – 70	RO635 5 7/16	R1248 8	RX238 9 1/2	O	
90 DHP					
300 – 350		R1035 5 7/16 3180 3 11/16	R514 5 15/16 3160 4 7/16	I	 Oil Bath
250 – 300	AX1568 2 15/16	R1035 5 7/16 3180 3 11/16	R514 5 15/16 3180 4 15/16	I	
200 – 250	AX1568 3 11/16	R1037 5 7/16	R514 5 15/16 3180 4 15/16	J	
175 – 200	RX238 4 7/16	R1037 5 7/16	R1033 7 1/2 3180 4 15/16	K	
150 – 175	RX238 4 7/16	R1037 5 7/16	R1037 7 1/2	K	
125 – 150	RX238 3 11/16	AX1568 5 7/16	R1037 8	L	
100 – 125	R1248 4 7/16	RX238 7	AX1568 8 1/2	M	
90 – 100	RX1245 4 7/16	RX238 7	AX1568 8 1/2	N	
80 – 90	RO635 5 7/16	RX238 7	RX238 9 1/2	O	
70 – 80	RO635 5 7/16	R1248 8	RX238 9 1/2	O	

RPM Driver Sprocket	9T	12T	15T	Hub Letter②	Type of Lubrication
70 DHP					
60 – 70	RX1245 5 7/16	RX238 7	RX238 9 1/2	O	Oil Bath
50 – 60	RO635 5 7/16	R1248 8	RX238 9 1/2	O	
45 – 50	RO635 5 7/16	R1248 8	RX238 9 1/2	O	 Flow
40 – 45	RO635 5 7/16	RX1245 8	R1248 10	P	
35 – 40	RX1207 6 1/2	RO635 9 1/2	R1248 10	P	
30 – 35	RX1207 6 1/2	RO635 9 1/2	RO635 ①	Q	
25 – 30	RX1207 6 1/2	RO635 9 1/2	RO635 ①	Q	
20 – 25	RO1306 9	RX1207 ①	RO635 ①	R	
17 1/2 – 20	RO1306 9	RX1207 ①	RX1027 ①	S	
15 – 17 1/2	RO1306 9	RO1306 ①	RX1027 ①	S	
12 1/2 – 15	RO1306 9	RO1306 ①	RX1027 ①	T	
10 – 12 1/2	X1307 10	RO1306 ①	RO1306 ①	U	
7 1/2 – 10	①	RO1306 ①	RO1306 ①	V	
5 – 7 1/2	①	X1307 ①	X1307 ①	Y	Manual
80 DHP					
50 – 60	RO635 5 7/16	R1248 8	RX238 9 1/2	O	Oil Bath
45 – 50	RO635 5 7/16	RO635 9 1/2	R1248 10	P	
40 – 45	RX1207 6 1/2	RO635 9 1/2	R1248 10	P	
35 – 40	RX1207 6 1/2	RO635 9 1/2	RO635 ①	Q	 Flow
30 – 35	RX1207 6 1/2	RO635 9 1/2	RO635 ①	Q	
25 – 30	RO1306 9	RX1207 ①	RO635 ①	R	
20 – 25	RO1306 9	RX1207 ①	RX1207 ①	S	
17 1/2 – 20	RO1306 9	RO1306 ①	RX1207 ①	S	
15 – 17 1/2	RO1306 9	RO1306 ①	RX1207 ①	T	
12 1/2 – 15	RO1306 8 1/2	RO1306 ①	RO1306 ①	U	
10 – 12 1/2	①	RO1036 ①	RO1306 ①	U	
7 1/2 – 10	①	X1307 ①	RO1306 ①	W	
5 – 7 1/2	①	①	X1307 ①	Y	Manual
90 DHP					
60 – 70	RO635 5 7/16	R1248 8	RX238 9 1/2	O	 Oil Bath
50 – 60	RO635 5 7/16	RO635 9 1/2	R1248 10	P	
45 – 50	RX1207 6 1/2	RO635 9 1/2	R1248 10	P	
40 – 45	RX1207 6 1/2	RO635 9 1/2	RO635 ①	Q	
35 – 40	RX1207 6 1/2	RO635 9 1/2	RO635 ①	Q	 Flow
30 – 35	RX1207 6 1/2	RO635 9 1/2	RO635 ①	Q	
25 – 30	RX1207 6 1/2	RX1207 ①	RO635 ①	R	
20 – 25	RO1306 9	RO1306 ①	RX1207 ①	S	
17 1/2 – 20	RO1306 9	RO1306 ①	RX1207 ①	S	
15 – 17 1/2	X1307 10	RO1306 ①	RO1306 ①	T	
12 1/2 – 15	①	RO1306 ①	RO1306 ①	U	
10 – 12 1/2	①	RO1306 ①	RO1306 ①	V	

Note: 1. 3100 Series chain operates over roller chain cut tooth sprockets.
2. Fabricated steel sprockets are recommended.

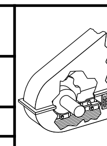
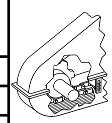
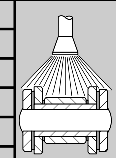
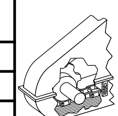
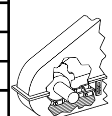
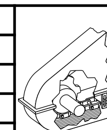
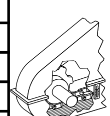
① Consult Rexnord

② Hub size letter – See page 79.

TABLE 2 (Cont'd.)
DRIVE CHAIN SELECTION TABLES

Note: Rex® drive chain selections are displayed in the tables. To interchange Link-Belt® and Rex chain numbers see pages 34-35.

Table 2 – (Cont'd.)

RPM Driver Sprocket	DESIGN HORSEPOWER (DHP) = HP x SF For (SF) see pages 108-109 / DRIVER SPROCKET – NO. OF TEETH LARGEST KEYSEATED BORE 9T	12T	15T	Hub Letter②	Type of Lubrication	RPM Driver Sprocket	DESIGN HORSEPOWER (DHP) = HP x SF For (SF) see pages 108-109 / DRIVER SPROCKET – NO. OF TEETH LARGEST KEYSEATED BORE 9T	12T	15T	Hub Letter②	Type of Lubrication
100 DHP											
300 – 350		3180 3 11/16	R514 5 15/16 3180 4 15/16	I		50 – 60	RX1207 6 1/2	RO635 9 1/2	R1248 10	P	
250 – 300		R1037 5 7/16	R1035 7 3180 4 15/16	J		45 – 50	RX1207 6 1/2	RO635 9 1/2	RX1245 10	P	
200 – 250		R1037 5 7/16	R1035 7 1/2 3180 4 15/16	K		40 – 45	RX1207 6 1/2	RO635 9 1/2	RO635 ①	Q	
						35 – 40	R1035 9	RO635 9 1/2	RO635 ①	R	Oil Bath
175 – 200		R1037 5 7/16	R1037 7 1/2	K		30 – 35	RO1306 9	RX1207 ①	RO635 ①	R	
150 – 175	RX238 4 7/16	R1037 5 7/16	R1037 8	L		25 – 30	RO1306 9	RX1207 ①	RX1207 ①	S	
125 – 150	R1248 4 7/16	RX238 7	R1037 8	M	Oil Bath	20 – 25	RO1306 9	RO1306 ①	RX1207 ①	S	
100 – 125	RX1245 4 7/16	RX238 7	AX1568 8 1/2	N		17 1/2 – 20	RO1306 9	RO1306 ①	RX1207 ①	T	
90 – 100	RO635 5 7/16	RX238 7	RX238 9	N		15 – 17 1/2	①	RO1036 ①	RO1036 ①	U	
80 – 90	RO635 5 7/16	R1248 8	RX238 9 1/2	O		12 1/2 – 15	①	RO1036 ①	RO1036 ①	U	
70 – 80	RO635 5 7/16	R1248 8	R238 9 1/2	O		10 – 12 1/2	①	X1307 ①	RO1036 ①	W	
60 – 70	RX1245 5 7/16	RX1245 8	R1248 10	P		7 1/2 – 10	①	①	X1307 ①	X	Flow
125 DHP											
200 – 250		AX1568 5 7/16		L		45 – 50		RO635 9 1/2	RO635 ①	Q	
175 – 200		AX1568 5 7/16	R1037 8	L							
150 – 175		RX238 7	R1037 8	M		40 – 45		RX1207 ①	RO635 ①	R	
125 – 150		RX238 7	AX1568 7 1/2	N		35 – 40		RX1207 ①	RO635 ①	R	
100 – 125		R1248 8	RX238 9 1/2	O		30 – 35		RX1207 ①	RX1207 ①	S	
90 – 100		R1248 8	RX238 9 1/2	O		25 – 30		RO1306 ①	RX1207 ①	S	Oil Bath
80 – 90		R1248 8	RX238 9 1/2	O	Oil Bath	20 – 25		RO1306 ①	RO1306 ①	T	
70 – 80		RO635 9 1/2	R1248 10	P		17 1/2 – 20		RO1306 ①	RO1306 ①	U	
60 – 70		RO635 9 1/2	R1248 10	P		15 – 17 1/2		RO1306 ①	RO1306 ①	V	Flow
50 – 60		RO635 9 1/2	RO635 ①	Q		12 1/2 – 15		①	RO1306 ①	W	
150 DHP											
175 – 200			R1037 8	M		45 – 50			RO635 ①	R	
150 – 175			AX1568 7 1/2	N		40 – 45			RX1207 ①	R	
125 – 150			RX238 9 1/2	O		35 – 40			RX1207 ①	S	
100 – 100			RX238 9 1/2	O		30 – 35			RX1207 ①	S	
90 – 100			R1248 10	P		25 – 30		RO1306 ①	RO1306 ①	T	
80 – 90			R1248 10	P		20 – 25		RO1306 ①	RO1306 ①	U	Oil Bath
70 – 80			RX1245 10	P	Oil Bath	17 1/2 – 20		①	RO1306 ①	V	
60 – 70			RO635 ①	Q		15 – 17 1/2		①	RO1306 ①	W	Flow
50 – 60			RO635 ①	Q		12 1/2 – 15		①	RO1306 ①	X	

Note: 1. 3100 Series chain operates over roller chain cut tooth sprockets.
2. Fabricated steel sprockets are recommended.

① Consult Rexnord

② Hub size letter – See page 79.

CONVEYOR CHAIN SELECTION PROCEDURES

Conveyor Classes

A second consideration closely related to the type of conveyor is the conveyor class. Six conveyor classes have been established on the basis of friction factors involved with the movement of the chain (sliding or rolling) and the movement of the material (sliding or carried). These six classes are described in terms of chain and material movement in the following table:

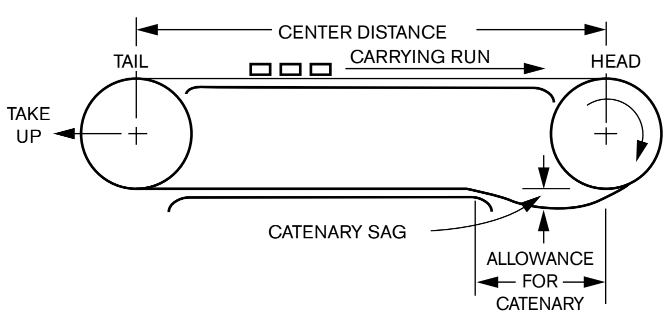
Conveyor Classes		
Class	**Chain**	**Material**
1	Sliding, with flights	Sliding
1A	Sliding, without flights	Sliding
2	Rolling	Sliding
3	Sliding	Carried
4	Rolling	Carried
4A	Supplemental Roller	Carried

Basic Conveyor Arrangements

There are several basic conveyor arrangements. The recommended arrangement (see illustration) is with the drive at the head end and with the carrying and return runs well supported. Note the catenary sag in the return run at the head end. In general, the catenary sag should be at least equal to 3% of the span over which the chain is hanging. The illustrated arrangement offers two advantages:

- The catenary force tends to keep the chain engaged on the drive sprocket.
- Wear at the chain joints is minimal because the return run is under minimum tension and flexture at the chain joints is reduced by the well-supported return line.

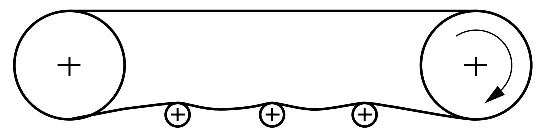
If a take-up is used to adjust the center distance and maintain the correct catenary sag, be extremely cautious not to impose excessive loads on the chain.



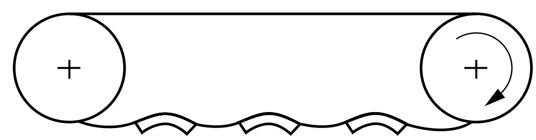
Other Arrangements

Other methods of supporting the return run are shown in the following illustrations.

These methods of support will result in faster chain wear because of the additional flexure at the joints in the return line and the higher pressure between the chain and the return support because of the small area of support.



Return Strand Supported by Rollers

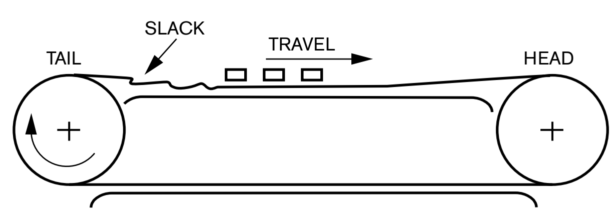


Return Strand Supported by Shoes

Conveyors sometimes are driven from the tail end as shown in the following illustration.

This arrangement is not recommended for two main reasons:

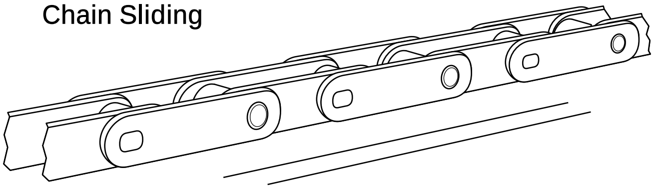
- Chain wear at the joints is greater because chain is flexing under load at both the head and tail sprockets.
- Excess chain tends to accumulate on the carrying run just after the tail sprocket and the resulting wedging action can cause the chain to jump the sprocket.



Method of Chain Travel

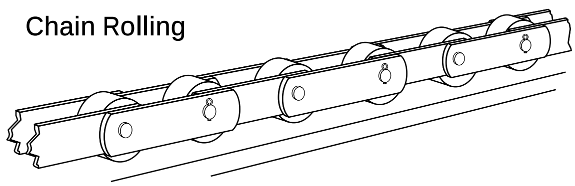
Another basic consideration is whether the chain will slide or roll. In deciding on the method of chain travel, the following points should be evaluated:

Chain Sliding



- Simple in construction, fewer moving parts and usually the lowest in cost for a given load.
- Most effective in "dirty" applications.
- Greater horsepower required.

Chain Rolling



- Smoother operation, less pulsation.
- Lower friction which permits longer centers, smaller motors, and lower operating costs.
- Not suited to "dirty" applications, foreign matter jams rollers.
- Less horsepower required.

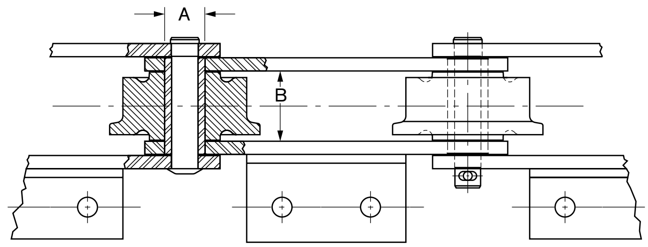
Conveyor Pulsation

Another consideration is the amount of pulsation that can be tolerated in the conveyor. This will vary from one installation to another and the permissible amount is a matter of judgement. When pulsation must be minimized, consider the possible causes and remedies listed in the following table:

Possible Cause	Remedy
Excessive friction	Clean and lubricate moving parts.
Conveyor too long	Use shorter conveyor sections.
Conveyor speed too low (10 fpm or less)	Increase conveyor speed, or use non-metallic-bushed chain.
Velocity fluctuation caused by chordal action	Use drive sprocket with 12 or more teeth, or – Use compensating sprocket. (Consult your Rexnord representative.)

Carrying Loads of Rollers

A basic consideration on conveyors using chain with rollers is the load imposed on the chain. This load includes the weight of the slats or flights, and the weight of the material being carried. This load must be limited so that the pressure of the bushing on the roller is kept within permissible limits.



A = Roller-bore diameter
B = Roller hub length } *Applies also to outboard rollers.*
Roller-bearing area = A x B
The roller carrying pressure, per roller, is distributed over the roller-bearing area.

The table below lists allowable bearing pressures between bushings and roller. Note the method of determining the roller bearing area. The listed bearing pressures are for "ideal conditions", i.e. slow speeds in non-gritty service with lubricated bearings. As any of these conditions become more severe, the allowable pressures must be reduced accordingly.

The allowable working bearing pressures, in pounds per square inch between rollers and bushings, are approximately as follows:

Roller and Bushing Materials in Contact	Allowable Bearing Pressure P.S.I.
Casehardened steel against casehardened steel	1400
Casehardened steel against white iron	1400
Casehardened steel against untreated steel	1200
Casehardened steel against cast iron	1000 ①
Casehardened steel against malleable iron	1000
Casehardened steel against bronze	400
Gray iron against malleable iron	800
Malleable iron against malleable iron	800
Gray iron against bronze	800
Non-metallic against carburized steel or heat treated stainless steel (LF bushed rollers)	100

① Applies also to chill iron.

CONVEYOR CHAIN SELECTION PROCEDURES – (Cont'd.)

Wear Strips and Ways

Generally, it is desirable that the chain wear slower than the wear strips or liner since it is the more critical and expensive part of the conveyor components. Therefore, the most compatible wear strip should be considered after the proper chain has been selected. Conveyor may wear for chains rolling is not a critical consideration but cold finished steel is used for best operation.

The subject of wear is extremely complicated and influenced by many factors. It is impossible to predict with accuracy the wear life of various chain – liner combinations. This is due to the effect of many variable and uncontrollable factors such as abrasion, corrosion, lubrication, load, speed, and break-in period. Thus, prior experience of a successful chain – liner combination for a specific application is the best guide to predict performance.

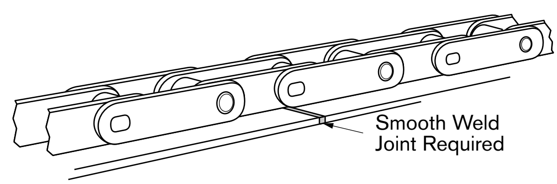
For new installations, where no previous experience can be applied as a guide, the chain should be slightly harder than a metal liner to protect it and insure that the liner wears first. The material should be at least comparable to the chain in surface finish or smoother.

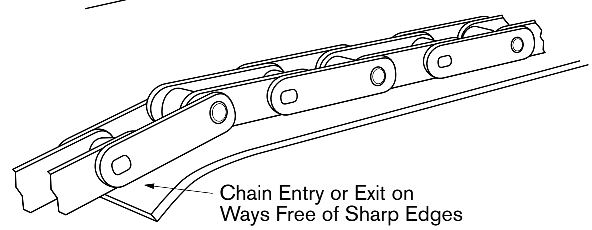
Non-metallic materials such as, wood and plastic, are occasionally used as liner materials. These may result in wear strip economy, but should not be used where severe impacting loads exist or under extremely dirty conditions.

If wear is a problem, neglecting the effect of corrosion, experience has shown that generally by increasing the hardness of either the chain or the metallic wear strip in an abrasive environment should decrease the wear on both. Lubrication, even if only water will reduce wear.

Some general comments to insure proper installation of liners in the conveyor and things to do before start-up are:

1. See that the joints on the liners and frame are smooth so that no sharp edges protrude.
2. Take reasonable care in eliminating welding slag, weld spatter, metal filings and/or mill scale from the conveyor.
3. Break in chain and liner by operating the conveyor without load, and with plenty of lubricant, for a short period of time (generally 8-24 hours) or until the mating wear surfaces are polished smooth.





Note: The above comments are guidelines that normally will increase or improve chain – liner compatibility.

ABRASION RESISTANT STEEL ALLOYS THAT MAY BE USED AS LINER MATERIAL①					
Name	Producer Code②	Condition	Mechanical Properties		
			Hardness BHN	Yield 1000 PSI	Tensile 1000 PSI
SSS-321	ARM	Q & T	321	–	–
SSS-360	ARM	Q & T	360	–	–
SSS-400	ARM	Q & T	400	–	–
Sheffield AR	ARM	HR	225	–	–
AR-No. 235	B	HR	(235)	70	100
Abrasion Resisting, Med. Hard.	IN	HR	235	–	–
Abrasion Resisting, Full Hard.	IN	HR	270	–	–
Jalloy AR-280	JL	Q & T	260	110	117
Jalloy AR-320	JL	Q & T	300	135	142
Jalloy AR-360	JL	Q & T	340	160	166
Jalloy AR-400	JL	Q & T	400	184	190
Jalloy S-340	JL	Q & T	320	149	157
Jalloy 3 (AR)	JL	HR	(225)	90	104
T-1-A-360	L	Q & T	360	(145)	(180)
XAR-15	N	Q & T	360	165	180
XAR-30	N	Q & T	360	165	180
USS-AR	US	HR	(235)	–	100
T-1	US/L	Q & T	321	(100)	(115)
T-1-A	US/L	Q & T	321	(100)	(115)
T-1-A-321	US/L	Q & T	321	(137)	(171)
T-1-B-321	US/L	Q & T	321	(137)	(171)
T-1-321	US/L	Q & T	321	(141)	(175)
T-1-360	US/L	Q & T	360	(145)	(180)
Astralloy	V	N	440	(141)	(228)

① Presented as a guide only. If additional information is required, contact the designated steel company.
② Producer Code: ARM = Armco Steel Corp.; B = Bethlehem Steel Corp.; IN = Inland Steel Co.; JL = Jones & Laughlin Steel Corp.; L = Lukens Steel Co.; N = National Steel Corp.; US = United States Steel Corp.; V = Vulcan Steel Corp.

Note: Q & T = quenched and tempered; HR = hot rolled; N = normalized. Typical values are enclosed in parentheses.
Mechanical properties are those of sheet or hot rolled plate up to 1/2" thick and are minimums unless typical is indicated by parentheses.

■ DESIGN AND SELECTION

This procedure is intended to serve primarily as a guide for selecting a general type, or class, of chain when a new conveyor is designed. When following the step-by-step instruction outlined, the user may find that more than one type of chain will fit the particular conveyor requirement. In such a case the final selection of the chain may be affected by such factors as allowable sprocket diameters, space limitations for chain, chain pitch, and many other environmental and design factors peculiar to the particular conveyor being designed. Consult your Rexnord representative for assistance in selecting the best chain when a choice of more than one class is indicated.

Parts of this section will prove useful in determining whether the chain on existing installations is the most economical choice, and will also serve as a guide to upgrading existing installations where service life is not satisfactory.

Procedure

There are six basic steps in selecting the proper type of chain for a conveyor installation.

1. Determine the class of conveyor.
2. Estimate the total chain pull.
3. Determine the design working load.
4. Make a tentative chain selection.
5. Make tentative selection of attachment links.
6. Verify chain selection and re-check design working load.

Step 1. Determine the Class of Conveyor

Check the sections on Conveyor Types, Conveyor Classes, and Method of Chain Travel in relation to your conveying problem.

Make a tentative selection of a conveyor class required from the table on page 119.

Step 2. Estimate the Total Chain Pull (Pm).

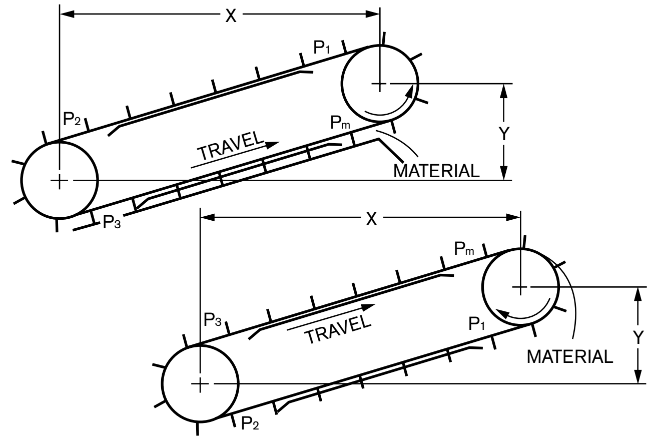
Use the formula which applies to the conveyor class tentatively selected and calculate total chain pull (Pm) which is total conveyor chain pull.

For conveyors that are partly horizontal and partly inclined, calculate the chain pull for each section, and add to obtain total chain pull.

Note: Calculations assume properly adjusted take-up equipment. If take-up force is adjusted to exceed the calculated value ($P_2 + P_3$), excessive chain loading may result.

Class 1, 1A and 2 Conveyors

(Chain sliding or rolling; Material sliding)



Formulas for Calculating Total Chain Pull (P_m)

Horizontal: $\left(\frac{Y}{X} \text{ is less than } f_1\right)$

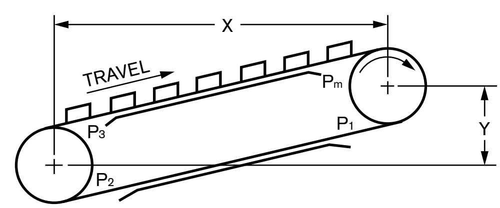
$$P_m = X\left(2f_1W + f_2M + \frac{h^2}{c}\right) + MY$$

Inclined: $\left(\frac{Y}{X} \text{ is greater than } f_1\right)$

$$P_m = X\left(f_1W + f_2M + \frac{h^2}{c}\right) + Y(W + M)$$

Class 3, 4 and 4A Conveyors

(Chain sliding, rolling or in tension; Material carried)



Formulas for Calculating Total Chain Pull (Pm)

Horizontal: $\left(\frac{Y}{X} \text{ is less than } f_1\right)$

$$P_m = f_1X(2W + M) + MY + \frac{h^2}{c}X$$

Inclined: $\left(\frac{Y}{X} \text{ is greater than } f_1\right)$

$$P_m = (M + W)(f_1X + Y) + \frac{h^2}{c}X$$

Formulas for Calculating Horsepower (HP)

Horizontal:

$$HP = \frac{1.15\,(S)(P_m)}{33{,}000}$$

Inclined:

$$HP = \frac{1.15\,(S)(P_m - P_1)}{33{,}000}$$

$$P_1 = W(Y - f_1X)$$

$$P_2 = P_3 = 0$$

Note: Symbol identification given on page 152.

CONVEYOR CHAIN SELECTION PROCEDURES – (Cont'd.)

Symbols

f_1 = Coefficient of Friction – chain sliding or rolling on runway. See next column for specific value of the coefficient.
If chain is supported by flights, etc., f_1 should be coefficient for flights sliding on conveyor ways.

f_2 = Coefficient of Friction – material sliding on trough. (See Table in next column).

M = Wt. of material handled per foot of conveyor (lb./ft.)

$$M = \frac{(TPH)(33.3)}{S}$$

$$M = \frac{(CFH)\ (\text{Mat'l. Density in LB/FT}^3)}{60(S)}$$

W = Weight of moving conveyor parts – chains, flights, slats, etc., per foot of chain (lbs/ft). Depending on the method of chain travel, use the following factors for estimating approximate chain weight (lbs/ft) if actual chain weight is unknown.

Material or chain sliding – .0015 x Total weight of material on conveyor at any time (lbs.). (Classes 1, 1A, 2 or 3)

Material carried and Chain rolling – .0005 x Total weight of material on conveyor at any time (lbs.). (Classes 4 and 4A)

For example: If a Class 4 Conveyor is used and the total material weight is 40,000 pounds, then 40,000 x .0005 = 20.0

Use 20.0 Lbs/Ft. as an estimated chain weight for "W" in the above equation. Add the estimated Weight/Ft. on the flights or slats that will be used.

h = Height of material rubbing against side of conveyor trough (inches).

c = Trough side friction constant (see Table in next column).

P_m = Total Maximum Chain pull (lbs)

P_1, P_2, P_3 = Chain pull at point indicated (lbs)

HP = Required horsepower at headshaft

S = Conveyor Speed (ft/min)

TPH = Capacity in Tons per Hour $= \frac{MS}{33.3}$

CFH = Capacity in cubic feet per hour

$$= \frac{\text{TPH x 2000}}{(\text{Mat'l. Density in lb/ft}^3)}$$

X = Horizontal center distance (ft.)

Y = Vertical rise (ft.)

Chain Friction Factors (f_1)

Chain Sliding

Chain Sliding on Steel Track – unlubricated 3-.5

Chain Sliding on Steel Track – lubricated 2

Chain Sliding on Hard Wood 5

Chain Sliding on Non-Metallic Wear Strips:

Chain Sliding on Ultra-High Molecular Weight Polyethylene .... .15-.4

Chain Rolling

$$f_1 = f_r \frac{d_a}{d_r}$$

Where: d_a = axle diameter (inches) (usually bushing O.D.)
d_r = roller outside diameter (inches)

(F_r) For Metal Rollers			
Cast Rollers		Steel Rollers	
Dry	.5	Dry	.4
Lubricated	.4	Lubricated	.3

For LF (Low Friction material) Bushed Rollers, f_r = .25

Material Friction Factors

Materials	Friction Factor Mat'l Sliding on Steel Trough (f_2)	Trough Side Friction Fadctor (c)
Aluminum	.40	27
Ashes, Coal, Dry	.50	36
Ashed, Coal, Wet	.60	55
Bagasse	.40	200
Cement, Portland	.65	12
Cement Clinker	.70	12
Coal, Anthracite, Sized	.40	25
Coal, Anthracite, Run of Mine	.45	20
Coal, Bituminous, Sized	.50	21
Coal, Bituminous, Run of Mine	.55	20
Coke, Mixed	.55	42
Coke, Breeze	.65	36
Grains	.40	23
Gravel, Dry	.45	12
Gravel, Run of Bank	.60	11
Ice, Crushed	.15	34
Lime, Pebble	.50	28
Sand, Dry	.60	7
Sand, Damp	.85	6
Stone, Screened	.60	9
Wood Chips, Pulp Logs	.40	48

Step 3. Determine the Design Working Load

The determination of chain pull (Pm) is for static conditions and does not include consideration of the following dynamic conditions:

a. Loading fluctuations that may exceed the static load condition. These fluctuations are provided for by the Service Factor. (See table below.)

b. The conveyor chain speed and the number of teeth in the sprockets used. These items are provided for by the Speed Factor (F_s). (See table below.)

Calculate the Design Working load by modifying $\mathbf{P_m}$ as follows:

For single strand conveyor:

Design Working Load = P_m x Service Factor x Speed Factor

For multiple strand conveyor:

$$\text{Design Working Load} = P_m \times \text{Service Factor} \times \text{Speed Factor} \times \frac{1.2}{\text{No. of Strands}}$$

The multiplier (1.2) is used to provide for possible overloads in one of the strands caused by unequal load sharing distribution.

Speed Factors (Fs)

No. of Teeth on Sprocket	50		100		150		200		300		400	
	Cast Chain	Engineered and Welded Steel Chain	Cast Chain	Engineered and Welded Steel Chain	Cast Chain	Engineered and Welded Steel Chain	Cast Chain	Engineered and Welded Steel Chain	Cast Chain	Engineered and Welded Steel Chain	Cast Chain	Engineered and Welded Steel Chain
6	1.6	1.4	2.3	2.0	2.3	2.9	5.0	4.4	–	–	–	–
7	1.3	1.1	1.6	1.4	2.0	1.8	2.6	2.3	4.5	4.0	–	–
8	1.2	1.0	1.4	1.3	1.7	1.5	2.0	1.8	2.9	2.5	4.2	3.6
9	1.1	1.0	1.3	1.2	1.6	1.4	1.8	1.6	2.3	2.0	2.9	2.6
10	1.0	0.9	1.3	1.1	1.4	1.2	1.6	1.4	1.9	1.7	2.3	2.0
11	1.0	0.9	1.2	1.0	1.3	1.2	1.5	1.3	1.7	1.5	2.1	1.8
12	1.0	0.9	1.1	1.0	1.3	1.1	1.4	1.2	1.6	1.4	1.9	1.6
14	1.0	0.8	1.1	0.9	1.2	1.0	1.3	1.1	1.5	1.3	1.7	1.4
16	0.9	0.8	1.0	0.9	1.1	1.0	1.2	1.0	1.4	1.2	1.5	1.3
18	0.9	0.8	1.0	0.9	1.0	0.9	1.2	1.0	1.3	1.1	1.5	1.3
20	0.9	0.8	1.0	0.9	1.0	0.9	1.1	1.0	1.3	1.1	1.5	1.2
24	0.9	0.8	0.9	0.8	1.0	0.9	1.1	0.9	1.2	1.0	1.3	1.2

Note: If sprocket size has not yet been determined, use a speed factor for a 12-tooth sprocket. Refer to sprocket selection beginning on page 75.

Determination of Speed Factor for Traction Wheels

1. Determine effective pitch diameter (PD_{eff}): (PD_{eff}) = Traction wheel O.D. + barrel O.D. (chain)
2. Compare (PD_{eff}) to pitch diameters of standard engineering sprockets. If (PD_{eff}) falls between two standard pitch diameters, go to the lower value.
3. The standard pitch diameter chosen from No. 2 above will give number of teeth.
4. Knowing number of teeth and chain speed, speed factor (F_s) can be determined.

Service Factor

Type of Load	Operating Conditions①		Daily Operated Period	
	Start Stop Frequency Under Load	% Load Added At a Time	8-10 Hrs.	24 Hrs.
Uniform	Less Than 5/Day	Less Than 5%	1.0	1.2
Moderate Peaks	5/Day to 2/Hr.	5-20%	1.2	1.4
High Peaks	2/Hr. to 10/Hr.	20% to 40%	1.5	1.8
Temperature	Operating Conditions		Service Factors	
	Up to 200°F (93°C)		1.0	
	200°F to 350°F (93°C to 177°C)		1.1	
	350°F to 500°F (177°C to 260°C)		1.2	
	Above 500°F (260°C)		Contact Rexnord	

① Reversing under load can be damaging and requires special consideration. Consult Rexnord for selection assistance.

The "Start-Stop" and "% loaded" parameters are intended to guide you in classifying the severity of loading for your conveyor. If these two parameters fall into different categories (ex. start-stop less than 5/Day, % loaded at a time 5-20%) use the more severe classification (moderate).

CONVEYOR CHAIN SELECTION PROCEDURES – (Cont'd.)

Step 4. Make Tentative Chain Selection

To aid in making the selection, consider the following:

a. The wear life and relative cost of each type.
b. Short conveyor centers and high chain speeds produce rapid joint wear and chain elongation. These conditions suggest a chain with a high (A or B) wear rating.
c. Heavy loads produce rapid sliding and rolling wear. These conditions suggest a chain with a high (A or B) sliding or rolling wear rating.
d. Conveyors operating in highly abrasive surroundings require hard bearing surfaces. This condition would suggest a steel chain.
e. Mildly abrasive or moderately corrosive conditions may indicate that a cast chain is the economical choice.
f. Corrosive atmospheres reduce the fatigue strength of component parts. In this case, chain with armor cased pins are recommended.
g. The chain pitch may be dictated by the required spacing of attachment links. A longer pitch is more economical while a shorter pitch requires less room for sprockets. In many cases a 4" to 6" pitch chain is considered a good compromise.
h. The selection procedure outlined is applicable only if temperatures of the chain will remain within -40°F and +350°F. Special lubricants may be needed above 250°F. If these temperature limits will be exceeded, consult your Rexnord representative.

Additional factors such as sprocket availability and price, chain delivery lead time and chain price should also be considered in making the final choice.

In making the final selection reliability should be a primary consideration. Cast chains, in general, do a good job in sliding applications and have excellent corrosion resistance. However, in critical applications where overloads may be encountered, Engineered Steel and Welded Steel chains will usually provide longer and more dependable service. It is recommended, therefore, that the final selection be made from the listings of Engineered Steel and Welded Steel Chains. Refer to the detail listings for the type of chain selected and select a specific chain that has a working load at least equal to the design working load and meets the pitch and space requirements.

REXNORD DOES NOT RECOMMEND CAST, CAST COMBINATION NOR WELDED STEEL CHAINS FOR ELEVATOR SERVICE.

Step 5. Make Tentative Selection of Attachment Links

Refer to the section on attachments. On the basis of the information here and on the basis of the chain selected, tentatively select the desired attachment links.

Step 6. Verify Chain Selection and Re-Check Design Working Load

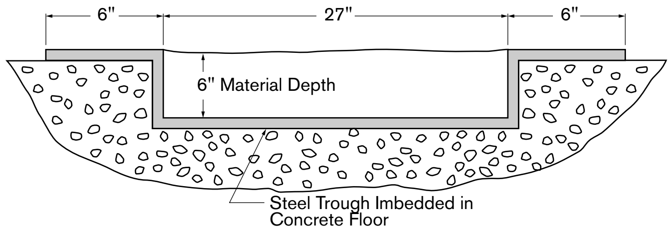
Recalculate total chain pull (Pm) and design working load using the exact chain and attachment weight as given in the listings to verify that the selected chain will meet the requirements.

Selection Procedure for Double Flex Chains

This procedure is the same as that for standard chains except that the "Chain Pull" as determined must be modified. The modification is necessary because the chain is flexing around curves and additional tension is developed because of the friction between the **sides** of the chain and curves. The chain pull must be calculated on a **cumulative** basis, with the "Turn Factor" for each curve taken into account. Consult Rexnord for assistance in applying the proper "Turn Factor" for your conveyor.

Conveyor Chain Selection

A horizontal scraper flight conveyor has been tentatively designed to handle Bituminous coals, and will feed an incinerator from a coal storage hopper. The coal is to be conveyed in an existing trough which is approximately 100 feet long and has a cross section as shown in the sketch below.



Conveyor Data

Material Handled:	*Bituminous Coal (1/2" maximum lump size)*
Material Density:	*50 Lbs. per cubic foot*
Conveyor Centers:	*100 Feet*
Conveyor Capacity:	*170 Tons per hour*
Conveyor Speed:	*100 Feet per minute*

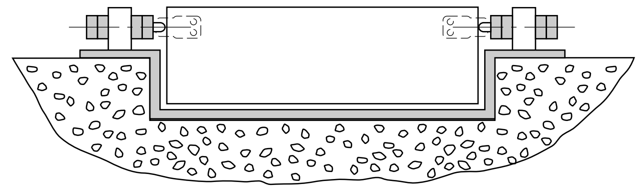
Other Considerations

1. Approximately 100 steel plates (1/4" x 10" x 27"; Weight 10 Lbs.) are left over from another project, complete with attachment wings. It is desired to use these as flights if possible. Attachment wings are available to suit chain.
2. No space restrictions.
3. Conveyor to operate 16 hours per day. 5 days per week.
4. Drive will be selected to suit conveyor.

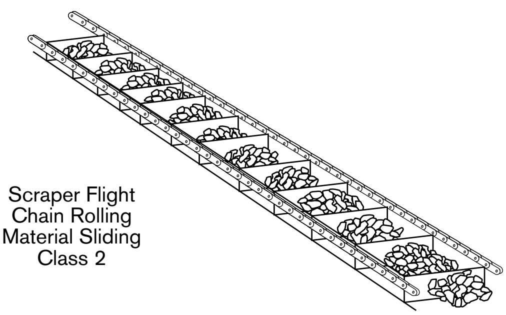
Select Suitable Chain

Step 1. Determine Conveyor Class

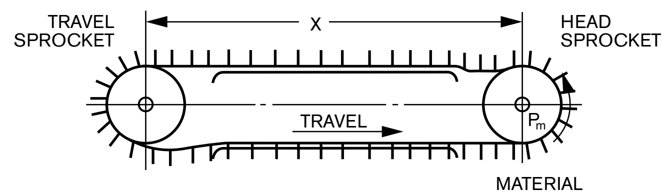
In the basic considerations section of this procedure, it was pointed out that a conveyor using a chain that rolled would result in smoother operation. Since a rolling chain also has less friction, smaller drive units could be used, at lower operating costs. Therefore, tentatively pick a chain with rollers to run on the existing trough. Also tentatively figure on using the available 10" x 27" steel flights and attachment wings. The basic conveyor cross section might become a two-chain conveyor with scraper flights connected between the chains as shown in the following sketch.



The unit becomes a scraper flight conveyor, similar to that indicated as a basic type of conveyor.



Step 2. Estimate Total Chain Pull



$$P_m = X\left(2f_1W + f_2M + \frac{h^2}{c}\right) + MY$$

Where:

P_m = Maximum chain pull (Lbs.)

X = Conveyor centers (100 Ft.)

f_1 = Coefficient of friction – chain rolling on runway

$f_1 = \frac{f_r d_a}{d_r}$ (See Table, page 123)

f_1 = 0.20 (This factor will range from 0.10 to 0.20, depending upon the chain roller-bushing proportions. Since the chain pull is only being estimated at this point, use the highest range 0.20 in the first calculation.)

M = Weight of material handled per foot of conveyor

$$M = \frac{TPH \times 33.3}{S} = \frac{170 \times 33.3}{100} = 56.6 \text{ Lbs./Ft.}$$

W = Weight per foot of moving conveyor parts

S = Conveyor speed (feet/minute)

CONVEYOR CHAIN SELECTION PROCEDURES – (Cont'd.)

Since the weight of the chain and attachment links has not yet been determined, use the empirical factor given on page 123 to establish chain weight.

W = .0015 x 56.6 Lbs./Ft. x 100 Ft. = 8.49 Lbs./Ft.
Add to this the weight of the flights.
(There are approximately 100 flights available; assume a flight spacing of every 2 feet)
10 Lbs./ Flight x 1 Flight/2 Ft. = 5 Lbs./Ft.

W = 8.49 Lbs./Ft. + 5 Lbs./Ft. = 13.49 Lbs./Ft.

f_2 = Coefficient of friction of material

f_2 = 0.50 (Material friction factor table, page 123)

h = Height of material (see sketch of trough)

h = 6 inches

c = Trough side friction factor

c = 21 (Material friction factor table, page 123)

y = Vertical rise = 0 (Horizontal Conveyor)

Substitute Values in Formula:

$$P_m = X\left(2f_1W + f_2M + \frac{h_2}{c}\right) + MY$$

$$= 100\left[2\,(.20)(13.49) + .50\,(56.6) + \frac{6^2}{21}\right] + 56.6 \times 0$$

$$= 100\,(5.4 + 28.3 + 1.7)$$

$$P_m = 3540 \text{ Lbs.}$$

Step 3. Determine Design Working Load

$$\text{Design W.L.} = \text{Pm} \times \text{Service Factor} \times \text{Speed Factor} \times \frac{1.2}{\text{No. of Strands}}$$

$$= 3540 \times 1.2 \times 1.0 \times \frac{1.2}{2}$$

$$= 2545 \text{ Lbs.}$$

The Service Factor was picked from the table on page 153 for uniform loading since the conveyor is being fed from a hopper. A factor of 1.2 was selected because the conveyor will be in operation for more than 10 hours per day.

The speed factor was picked for a 12 tooth sprocket, although final sprocket selection has not been made. As indicated in the drive chain selection section (pages 94-95), a 12 tooth sprocket is a good first choice.

Step 4. Make Tentative Chain Selection

Refer to the chain selection chart and note that an engineered steel roller type chain is recommended for a Class 2 Conveyor.

Refer to pages 10-15 of the chain listing section and note that these chains all have rollers. For the conveyor arrangement tentatively selected, a Style "R" chain, whose rollers are larger than the sidebars, should be used. As indicated in the selection procedure, Step 4-g. (Page 125), a 4- to 6-inch pitch chain is good first choice. Also, from the calculation of Design Working Load, a chain having a working load rating of 2548 pounds or greater will be required.

Checking the chain listings, you will note a number of Style "R" chains in the desired pitch range. SR196 would be selected as the chain that most closely matches the desired working load. Chains such as 2188 and 1604 have working loads substantially higher and would not be economical choices. SR196 would be the tentative selection.

Step 5. Make Tentative Selection of Attachment Links

From the basic conveyor arrangement decided upon, an attachment lug which projects on one side of the chain only is required. Also, it is desired to select an attachment link to which the available flight wings can be adapted, if possible. This suggests a single-attachment lug such as the "A" attachment. The A1 (single hole) attachment is available for the SR196 Chain. Make this the tentative selection.

Step 6. Verify Chain Selection & Recheck Design Working Load

The exact chain and attachment link weight/ft. can now be used to calculate the Design Working Load. Also, the chain roller and bushing diameters can be used to determine the chain friction factor (f_1).

Chain Weight

SR196 Plain Chain	= 5.0 Lbs./Ft.
SR196 A1 Attachment Link	= 6.6 Lbs./Ft.

The weight per foot for the attachment link is based on a link interspersed every pitch. For the conveyor arrangement to be used, an attachment link will be required every 2 feet, or every 4th pitch (6 inch pitch chain).

3 plain links at 5.0 Lbs./Ft.	= 15.0 Lbs.
1 Attachment link at 6.6 Lbs./Ft.	= 6.6 Lbs.
	21.6 Lbs.

21.6 ÷ 4 = 5.4 Lbs./Ft.

SR196 A1 every 4th link	= 5.4 Lbs./Ft.
2 strands of chain x 5.4 Lbs./Ft.	= 10.8 Lbs./Ft.
Flight Weight	= 5.0 Lbs./Ft.
	15.8 Lbs./Ft.

15.8 Lbs./Ft. = W = Total weight of moving conveyor parts.

Chain Friction Factors

$f_1 = fr \frac{d_a}{d_r}$

f_r = 0.4 (from table, page 154 for steel roller)

d_a = Bushing diameter (5/8" from chain listing, page 11)

d_r = Roller O.D. (2" from chain listing, page 11)

$f_1 = \left[\frac{0.4\ (5/8)}{2}\right]$

$f_1 = 0.125$

Use the final values of chain weight (W) and chain factor (f_1) in the chain pull formula

Use the same values for all other factors as in Step 2.

$P_m = X\ (2f_1W + f_2M + \frac{h^2}{c}) + MY$

$= 100 \left[(2 \times .125 \times 15.8) + (.50 \times 56.6) + \frac{6^2}{21}\right] + (56.6 \times 0)$

$= 100\ [(3.95) + (28.3) + (1.7)]$

P_m = 3395 Lbs. total conveyor chain pull

Design Working Load = P_m x Service Factor x Speed Factor x $\frac{1.2}{\text{No. of Strands}}$

Design W.L. = $3395 \times 1.2 \times 1.0 \times \frac{1.2}{2}$

= 2444 Lbs. chain pull per strand

Since the final design working load of 2444 pounds does not exceed the maximum recommended working load of 2600 as given in the chain specifications (pages 11), the SR196 chain selection is acceptable.

ELEVATOR CHAIN PULL CALCULATION PROCEDURE

Bucket Elevator Formulas

To Determine Chain Pull (P_m):

$Pm = 0.5\ P_t + MKD + Y\ (M + W)$

Knowing the chain pull, determine the design working load and select chain service and speed factors found on page 126.

To Determine Horsepower (HP):

$HP = \frac{1.15\ (S)\ (MDK + MY)}{33000}$

Where:

M = Weight of material handled per foot of elevator (lb./ft.)

$M = \frac{\text{Mat'l. Density (Lb./Ft.}^3) \times \text{Bucket Cap. (Ft.}^3)}{\text{Bucket Spacing (Ft.)}}$

W = Weight of chain and buckets per foot of elevator (lbs./ft.)

$$W = \frac{\left(\text{Attach. Spacing in Pitches} - 1\right) \times \left(\text{Wt. of plain chain (lbs./ft.)}\right) + \left(\text{Wt. of attach. chain (lbs./ft.)}\right)}{\text{attachment spacing in pitches}} + \frac{\text{Wt. of a bucket (lbs.)}}{\text{bucket spacing (ft.)}}$$

P_t = Take Up Force (Lbs.)

P_1 = 1/2 of P_t + WY

D = Footshaft sprocket pitch diameter (feet)

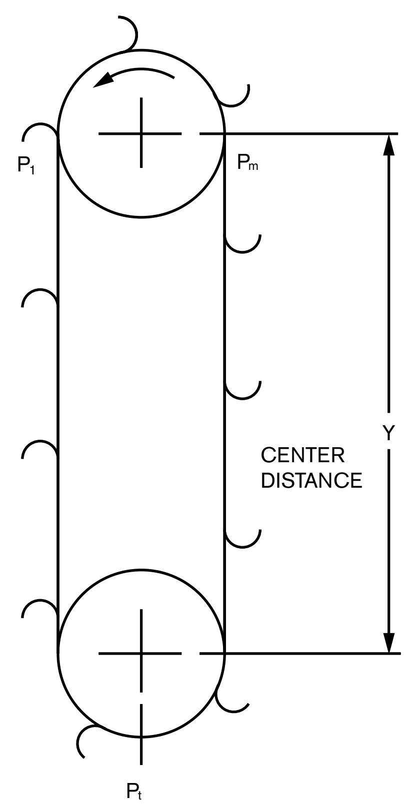
K = digging factor (10 for centrifugal, 6 for continuous)

Y = Elevator center distance (feet)

S = Elevator speed (feet/minute)

$TPH = \text{Tons/Hour} = \frac{.75\ (S)\ (M)}{33.3}$

$CFH = \frac{TPH \times (2000)}{\text{Mat'l Density (lbs./ft.}^3)}$



DESIGN AND SELECTION

APPLICATIONS BEYOND SCOPE OF CATALOG SELECTION PROCEDURES

Data Required for Selection

The selection procedures in this catalog were intended to cover the majority of conveyor, elevator and drive applications. However, some installations involve conditions or applications which require special consideration in the selection process. The items listed below will aid in obtaining selection assistance. The items on this page are basic considerations which are necessary, if known, to insure selection of components best suited to the application.

General Information

1. Answer Required by (date): ____________________
2. Product: ☐ Chain ☐ Sprockets ☐ Other
3. Application: ☐ New Installation ☐ Replacement Component
4. Equipment OperatingTime ___ Hours/Day; ____ Days/Week

Drives

1. Horsepower: Maximum ____ ; Percent of operating time at or above 75% Maximum Horsepower ____________________
2. RPM DriveR ______________ DriveN ______________ ;
   Ratio ________ Permissible Variation + ______________
   – ____
3. Center Distance ______________________________
   ☐ Fixed ☐ Adjustable Permissible Variation ± __________
4. Layout: Please provide sketch. Show Centers, DriveR, Direction of Rotation and Relation to Horizontal.

Conveyor and Elevator Components

1. Type: ☐ Elevator ☐ Bulk Material Conveyor ☐ Unit Handling Conveyor
2. Chain Speed: ________________________ Feet/Minute
3. Material Handled:
   (a) If Bulk:
   Characteristics: ☐ Dry ☐ Wet ☐ Sticky
   Lump Size: ____________________ Inches (Maximum)
   Quantity: ________________________ Tons/Hour;
   ______________________ Cubic Feet/Hour
   Density: ______________________ Lbs./Cubic Foot
   If material density is not known, refer to material properties table on pages 173 and 174.
   (b) If Units:
   Quantity: ____________________________ Units/Hour
   Size: __________ x ____________ x ______________
   Spacing: ☐ Random ☐ Regular
   Weight: _____ Lbs. (each) _____ Lbs. (per foot of conveyor)
   Total weight on conveyor at one time: _________ Lbs. (Max.)
4. Loading (in Cubic Feet/Hour or Units/Hour):
   Normal ________________ Peak ________________
   Percent of Time at Peak __________________________
5. Layout: Sketch showing centers, inclines, distance between chains, special attachments.

General

1. Desired Equipment Life: __________________ Hours/Years
2. Environment
   (a) Temperature: Surrounding ____________________ °F
   Component ________________________________ °F
   If Cycling, Time at Temperature ____________________
   (b) Abrasion: Material ____________________________
   Particle Size ____________ Abrasiveness __________
   (Refer to tables on pages 143-144).
   (c) Corrosion: Material ____________________________
   Corrosiveness ______________________________
   (d) Lubrication: Lubricant ___________________________
   How Applied ________________________________

Conveyor and Elevator

1. Sprockets (or Traction Wheels) – No. of Teeth (or Outside Diameter):
   Head ________________ Tail ____________________
2. Shaft Size: Head ________ Tail ____________________
3. Chain Attachments: Type __________ Spacing __________
4. Weight of Flights or Slats ________________________
5. Takeup Type: ☐ Screw ☐ Gravity – Weight
6. Elevator Buckets: Style ____________
   Size ____________ x ____________ x ____________

Drives

1. Shaft Diameters: DriveR __________ DriveN __________
2. Application Description: ___________________________
   ____
   ____
   ____
   ____
   ____
   ____
3. Peak Load Factor ________________________________
   Ratio of peak tension to mean tension while maximum horsepower is being transmitted.

POLYMERIC CHAINS AND ACCESSORIES – APPLICATION INFORMATION

Materials

Standard Materials

Chain links are made from an acetal thermoplastic which which offers several advantages over steel and stainless steel chains. The coefficient of friction for acetal is lower than either steel chains, reducing the horsepower requirement for the conveyor and preventing product damage when the chain slides under products backed up at various points in the conveyor. Acetal chains also reduce noise in a conveying system.

Combined with a stainless steel pin, the chain will not rust and has good resistance to many chemicals.

Special Materials

For applications requiring special chain capabilities, a wide range of materials and processing treatments have been developed. Consult Rexnord for details. (See the listing below for frequently encountered requirements).

FDA / USDA Compliance

Chain materials used are in compliance with FDA regulations and guidelines for use in direct food contact. Also, the chain materials have been found chemically acceptable for direct food contact with meat or poultry products by the Product Safety Branch of USDA. Also, the chain designs have been found acceptable for direct contact with meat or poultry products by the Equipment Branch of the Facilities, Equipment and Sanitation Division of USDA.

Environmental Factors

Chemical Resistance

Rex® polymeric chains, sprockets and idlers have good resistance to hydrocarbons, most neutral organic and inorganic materials, and to weak acids and bases in a pH range from 4 to 10.

To prolong chain life in the above situations, it is recommended to:

1. Avoid high temperatures of questionable liquids and/or solids. The closer to room temperature, the better.
2. Clean the chain! Thorough and frequent cleanings can limit prolonged exposure to questionable liquids and/or solids, decreasing the damaging effects of chemical attack.

Temperature Range

The allowable temperature range for Rex polymeric chains is -40°F to +180°F.

Consult Rexnord Corp. for operation beyond these temperatures.

Abrasion Resistance

Care should be taken when operating Rex polymeric chains in abrasive environments. Of particular concern is abrasive particles embedded in wearstrips and sprockets. These particles, once embedded, can work like a file to wear away the chain.

Rex sprockets are manufactured from super tough urethane. This material was selected because it is harder than most other available non-metallic sprocket materials and resists particle embedding. UHMW sprockets are not recommended for any application where dirt or other abrasives are present.

Sprockets

Rex polymeric chains are designed specifically for applications where corrosion resistance is desired. The current line of polymeric sprockets compliments the product line by offering additional corrosion resistance components. There are, however, situations that require metallic sprockets.

If a decision is made to use steel or cast sprockets, it is imperative to carefully inspect the sprocket for any unusual burrs, ridges, or protrusions and remove them before they come in contact with the polymeric chain. Such abrasive components have the capability of severely reducing the expected service life of the chain.

Flammability

Rex polymeric material will burn and support combustion. Acetal thermoplastics will burn with a clear flame and little smoke. Care should be taken to keep chain and accessories away from heat sources. Do not weld around conveyors or machinery without taking care to protect polymeric materials.

Ultra-Violet (UV) Resistance

Exposure to ultra-violet light can degrade polymeric chain materials. UV stabilized materials are available for use in direct sunlight.

Wear Strips

Metal Wear Strips

Metal wear strips are harder than non-metallics and, in addition, can be heat treated or work hardened to increase hardness. They are, therefore, suited for applications where abrasive particles are present either from the environment or from the products carried. Abrasive particles are less likely to imbed in metal wear strips.

For non-corrosive environments, plain carbon steel, cold finished, is recommended. For corrosive environments, use stainless steel, one quarter temper minimum (25Rc) cold finish.

POLYMERIC CHAINS AND ACCESSORIES – APPLICATION INFORMATION – (Cont'd)

Wear Strips –(Cont'd.)

Steel

Plain carbon, cold rolled steel is recommended. Surface finish should be 32-63 RMS. Use heat treatable grades where available and hardened to 25-30R_c. Surface lubricants used should have rust inhibitors added.

Stainless Steel

Cold rolled finish (32-63 RMS) is recommended. An austenitic grade offers the best corrosion resistance.

The softer annealed grades of austenitic stainless steel are **not recommended**. Interaction between the chain material and the soft stainless steel might develop. When this happens, the resulting wear debris consists almost entirely of finely divided stainless steel particles, nearly black in color, similar to molydisulfide or graphite. The wear of the stainless steel might be rapid while the thermoplastic chain by contrast exhibits only slight wear.

Therefore, one quarter temper minimum austenitic grade stainless is recommended. Martensitic stainless steels can also be use. They offer excellent wear resistance when heat treated to 25-35R_c, but they are not as corrosion resistant as austenitic.

Aluminum

Not recommended due to poor wear resistance.

Non-Metallic Wear Strips

Non-metallic wear strips have a lower coefficient of friction than metals. They are generally easier to install and remove and provide for quieter operation. Nylatron is the preferred material, especially for dry operation at high load or high speed conditions around corners. Ultra high molecular weight polyethylene is also recommended for all well lubricated applications and some dry applications.

Acetal

Not recommended for use with acetal chains. It is best not to run identical plastics together.

Nylatron

Nylatron (nylon with molydisulfide filler) is the preferred material for dry applications because of its low wear state and low friction. It is especially suited for dry operation on double flex chain corners.

Although nylatron is more stable in wet applications than most nylons, it will absorb moisture and expand. Therefore, room for expansion must be provided and fasteners must allow for movement.

Ultra High Molecular Weight Polyethylene (UHMWPE)

UHMW polyethylene (molecular weight of at least 1.0 million) is recommended for both dry and wet applications on straight runs. It is also recommended for all well lubricated corners and non-lubricated corners where chain load and speed are low. It is not recommended for dry operation on corners where the chain load or speed are high. It is also not recommended for operation in environments where particulate matter is present and can embed in the UHMW, subsequently wearing the chain.

UHMWP has a wear rate equivalent to nylon in non-lubricated applications. It is virtually unaffected by moisture and is more resistant to corrosive chemicals than nylon. It is not as rigid as cast nylon and may deflect when subjected to high loads from sideflexing chains.

Teflon

This material has perhaps the lowest coefficient of friction available in a plastic wear strip material. It is soft and tends to flow off the surface and is not practical as a wear strip material except in low load – low speed applications.

Lubricant Impregnated Wood

Suitable for dry applications where self-lubricating properties of the material are best utilized. Not recommended for abrasive conditions where particles may imbed in the surface and wear the chain.

Catenary Sag

Rex® polymeric chain conveyors should provide for proper amount of catenary sag to allow proper chain and sprocket interaction. Ample space should be provided for the catenary. If chain sag is excessive or increased due to wear, it should be adjusted to the proper amount of sag by removing links. If space does not permit catenary sag, consult Rexnord.

Rex polymeric chains should never be run tight. Attempting to operate the chain with too little catenary sag can result in excessively high chain tension, leading to rapid chain wear to chain breakage. For this reason, screw take-ups are not recommended.

POLYMERIC CHAINS AND ACCESSORIES – APPLICATION INFORMATION – (Cont'd)

General Chain Pull Calculations

Overhead Conveyors

Chain pull = Moving Load + $\frac{\text{Lift Load}^{①}}{\text{CS}}$

Where:

MTW = Moving Total Weight lbs: (Weight of all N348 Chain, Trolleys, Shackle Hangers, Carriers and Product Weight in the **entire** conveyor.)

f1 = Friction Factor (see table). Select the Friction Factor indicated for your trolley wheel diameter. **Note:** A large number of vertical bends and horizontal turns will create slightly higher friction (consult Rexnord).

TR = Total Rise: (this is the total of all vertical rises) Example: three four-foot rises, TR = 3 x 4 = 12 ft.

BW = Product Weight lbs. (average weight product)

CS = Carrier Spacing (feet)

Friction Factor f1

Operating Conditions	Ball Bearing Trolleys Wheel Diameter		
	2"	3"	4"
0° to 180°F (clean conditions)	.025	.020	.018

① The worst condition (uncompensated loaded inclines) should be used in determining Lift Load.

Well **lubricated** anti-friction wheel turns and ball bearing trolley wheels are recommended; sliding corners are not recommended.

Rated Allowable Chain Pull

The maximum recommended chain pull/working load of N348 chain is **700 pounds**; if this chain pull is exceeded, additional drives must be used.

For more detailed information on chain pull calculations, refer to CEMA standard No. 601 – 1995 entitled "Overhead Trolley Chain Conveyors." It is available from Conveyor Equipment Manufacturers Association, 9384-D Forestwood Lane, Manassas, VA 20110.

POLYMERIC CHAINS AND ACCESSORIES – MAINTENANCE INFORMATION

Installation

1. When connecting or disconnecting chain:
   - Always lock out the equipment power switch before removing or installing chains.
   - Always use safety glasses to protect your eyes.
   - Support the chain to prevent uncontrolled movement of chain and parts.
   - Tools for assembly or disassembly should be in good condition and properly used.
   - Always sight the pin with the hole before driving it home.
2. *The chains operate* ***open end forward!***

   Generally, it is best to run offset chains with the open end leading. This arrangement provides the smoothest action during sprocket engagement and assures getting the longest service life out of the chain and sprockets.

   When chains are operated in this way, the wear from joint articulation is restricted primarily to the bearing surface (pin or bar) which is best able to withstand wear. In addition, sprocket wear is minimized because the motion between the chain and sprocket teeth during engagement is reduced.
3. *Any unusual burrs, ridges, or protrusions in the conveyor system that could cut into and destroy the chain, sprockets, or idlers must be removed.*

Cleaning

In many applications rapid build-up of grease, dirt, grit, sand and spilled liquid can occur. This can result in:

1. Soiling and damage to the conveyed product.
2. Increased work demands for the chain and motor.
3. Accelerated sprocket tooth wear.
4. Conveyor pulsation and wear.
5. Excessive chain wear on the flight and in the joint areas.
6. Rapid wear of the wear strips.

Frequent cleaning of the chain and conveyor frame is advised. Such agents as steam, warm water, and soap are commonly used. Many times combined "cleaners/lubricants" are applied continuously. Strong caustic agents used with metal chains should not be used with plastic chains. Always rinse cleaning agents completely off of the chain and conveyor frame. When excessive amounts of liquids, broken glass or debris accumulate, cleaning will be required on a regular basis to remove these undesirable materials. It is advisable to have operating personnel keep brushes and cleaning solutions nearby to remove broken glass and excessive spillage.

CONNECTING AND DISCONNECTING CHAIN

Introduction

Chains are manufactured with connectors, either pins or rivets of various constructions depending upon the chain type, i.e., offset or straight sidebar, Roller Chain, Fabricated Steel Chain, Welded Steel Chain, Cast Chain, Combination Chain, etc. The particular connector link construction dictates the proper method and direction of connector insertion or removal from chain.

The connectors can have uniform diameters, multiple stepped diameters, locking flats, various head styles, riveted ends or various pinlocks (cotters, etc.).

A pin with either a flat on the head end, or a larger stepped diameter will not pass through the smaller cotter-side sidebar hole. Likewise, the round shank of a pin with locking flats on the cotter end will not pass through the slotted cotter-side sidebar hole.

Field Repair

When repairing chains in the field, the repair should be confined to replacement of complete links or sections. Replacement of individual components (bushings, rollers, etc.) is generally not recommended. Therefore, this connect-disconnect discussion has been limited to removal and replacement of connectors.

CAUTION: Rexnord does not recommend altering or rebuilding standard press-fit chains, or sub-assemblies especially the removal of press-fit components and their replacement with others. Such alterations destroys the integrity of the press-fits of the chain assembly.

CAUTION

When Connecting or Disconnecting Chain

- *Always lockout equipment power switch before removing or installing chains.*
- *Always USE SAFETY GLASSES to protect your eyes.*
- *Wear protective clothing, gloves and safety shoes.*
- *Support the chain to prevent uncontrolled movement of chain and parts.*
- *Use of pressing equipment is recommended. Tools should be in good condition and properly used.*

Do not attempt to connect or disconnect chain unless you know the chain construction, including the correct direction for pin/rivet removaL or insertion.

Rexnord

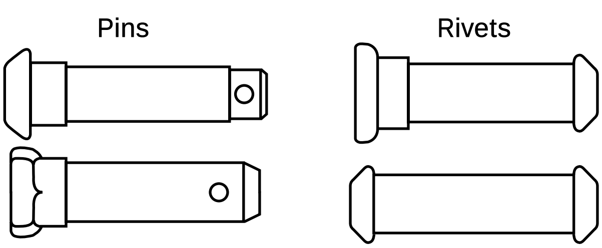


Figure 1 – Type I Connectors

Type I Connectors

The connector construction found in the majority of chains would be of the type shown in Fig. 1.

Head Identification

The head of a connector can usually be identified by a alpha-numeric code stamped on it, or the appropriate sidebar is designated head side.

Type I Connector Removal

Type I connectors are removed by driving on the end opposite the head and supporting the link as shown in Fig. 2. Refer to pages 137-138 for disassembly tools

For Type I single diameter rivets, the method of removal suggested for Type II connectors may be preferred. (See next page).

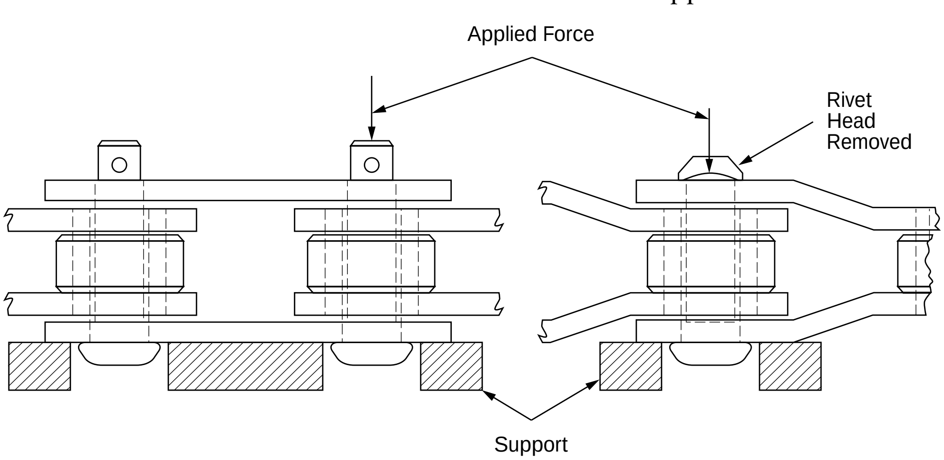


Figure 2 – Type I Connector Removal

Connection

The connector is inserted by driving on the head end of the connector and supporting the link similar to the manner shown in Fig. 2.

CONNECTING AND DISCONNECTING CHAIN – (Cont'd.)

Connection

For connection, one sidebar is pushed onto one of the ends of the connectors and the other sidebar is pushed onto the opposite ends of the connectors. Refer to pages 137-138 for assembly tools.

Pinlocks

For cast and roller chains, the pinlocks (cotters, etc.) should be removed before pin removal. Cast chains could be damaged from the pinlock if left in during pin removal. Roller chains normally use hardened pinlocks making cutting or shearing difficult. However, for most other chains, both ends of pinlocks should be cut flush (with chisel or equivalent) with outside diameter of pin to prevent pin collapse during pin removal.

Riveted Ends

For chains of riveted construction, the riveted end should be ground flush with the sidebar before connector removal.

Loose Chain

When disconnecting and connecting loose chain, the chain should always be solidly supported against the floor, or on a bench. When employing method of Fig. 2, enough space should be provided below the end (at least twice the sidebar thickness) to allow the connector end to pass through the sidebar.

TYPE II CONNECTORS

Connectors of Type II construction shown in (Fig. 3) are typically found in hollow rivet, draw bench, double flex and S-Series Chains.

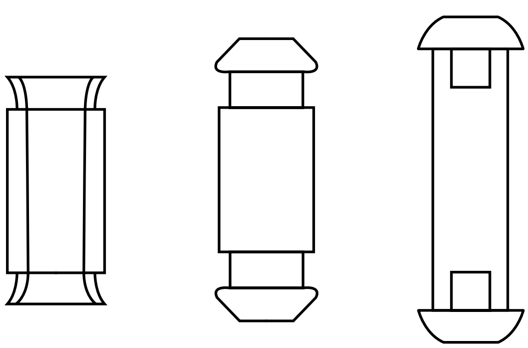


Figure 3 – Type II Connectors

Removal

Type II connectors are moved in the method shown in Fig. 4. They are removed by supporting the top sidebar and pushing the ends of the connectors free of the sidebar. An alternate method is to wedge or pry the sidebars free of the connectors.

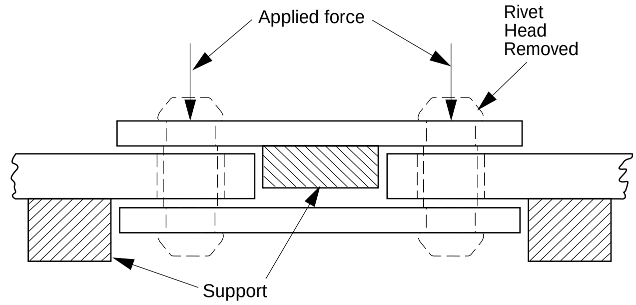


Figure 4 – Type II Connector Removal

To Disconnect Chains on Sprockets

1. Decrease chain tension by loosening, take-ups, etc.
2. Restrain sprockets from rotating and secure chain on both sides of disassembly point.
3. Apply penetrating oil around connectors.
4. Remove where chain wraps over the sprockets. Support against removal force with heavy bar or tubing held against opposite side of the chain and sprocket.
5. Grind riveted end (if present) of connector flush with the sidebar.
6. Remove pinlocks or cut ends flush with outside diameter of pin.
7. Use press equipment to remove connectors, e.g., hydraulic press or jack, or arbor press.

IMPORTANT! SAFETY INSTRUCTIONS
- **Follow safety guidelines on preceding Caution Tag.**
- **Don't heat or cut chain with torch unless absolutely necessary. Any links or pins heated by such a process should be replaced during reassembly.**

To Connect Chains on Sprockets

1. When connecting strand use sprocket for rigid support. Support against assembly force with heavy bar or tubing held against opposite side of chain and sprocket.
2. Grease or oil the connector before replacing it.
3. Check connectors to assure proper positioning of flats or cotter holes before assembly.
4. Use press equipment to insert connectors, e.g., hydraulic press or jack or arbor press.
5. Check to see that assembled joint(s) flex freely. If not, a light blow exerted on opposite end of connector(s) should free joint(s).

IMPORTANT! SAFETY INSTRUCTIONS
- **Follow safety guidelines on preceding Caution Tag.**
- **Don't grind the circumference of the connector of the sidebar hole to ease insertion of the connector.**
- **Do not heat sidebars to ease pin insertion.**

DRIVE CHAINS

The following suggestions are practical methods of increasing chain and sprocket life. The more of them that are followed, the longer the chain and sprocket life will be.

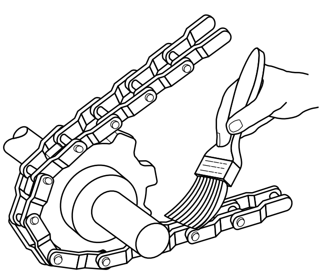
Lubrication

Lubrication is essential for maximum chain and sprocket life. Drive chains can and should be lubricated.

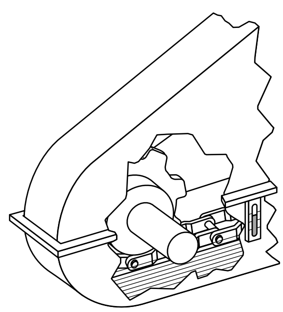
Lubrication effectiveness will vary with the amount of lubricant used and frequency of application. Ideally, a lubricant film should constantly be maintained between working parts.

Chain Operation

If possible, manually lubricate the chain once a week when the chain is not under load. It is important to get the lubrication between the pin and the bushing and between the roller and the bushing. The chain is under the least load after it exits from the driver sprocket. This area will contain a catenary sag and this is the area to which manual lubrication should be applied. Pour or brush on a copious amount of oil in a continuous manner. Allow the chain to travel two complete cycles.



Manual Lubrication



Oil Bath Lubrication

Chains operating at relatively high speeds should be completely enclosed in an oil case. The lower strand of the chain should just dip into the oil when the chain is running. Maintain the proper oil level. Excess oil causes churning and heat.

Type of Lubricant

Oil is recommended as a lubricant using the highest viscosity that will flow at the prevailing temperature:

Temperature (°F)	Lubricant
Below 40	SAE 30
40-100	SAE 40
Above 100	SAE 50

Sprockets

Worn or improperly designed sprockets are one of the main causes for premature chain life or chain failure. Here are a few hints on how to get the most out of sprockets.

New Sprockets

1. When receiving new sprockets check to see if the sprockets are in pitch by wrapping the chain around sprocket and coupling.
2. Make a "Painted Pattern" by holding a piece of wood behind the new sprocket tooth and spray paint the tooth outline onto the wood. As the sprocket wears, a check on what the original shape was and how much wear has taken place can be made by putting the painted pattern behind the tooth.

Tooth Wear

On single direction drives only one side of the tooth wears. Reverse the sprocket on the shaft and put the unworn tooth face to work.

Chain and Sprocket Interaction

Closely inspect the Chain and Sprocket interaction to insure a smooth and noiseless operation. The chain should easily enter and exit the sprocket without a hitch.

Chain Elongation

Wear on the pin outside diameter and bushing inside diameter causes chain elongation. Once the chain has elongated or worn past acceptable limits, jumping of sprocket teeth and/or improper chain-sprocket interaction can be expected. Typical allowable elongations are 3 to 5% of chain pitch for drive chains. After the chain has been elongated or worn past acceptable limits, it should be replaced.

How to Dimensionally Identify Chain:
First check chain for any markings!

1. Determine if sidebars have straight or offset construction.
2. Measure chain pitch.
3. Measure pin diameter.
4. Measure roller diameter & width.
5. Measure sidebar thickness & height.
6. Measure bushing length.

FOR BEST RESULTS, CLEAN CHAIN AND SPROCKET PERIODICALLY.

CONVEYOR CHAINS

Wherever possible, lubrication of chain is always recommended to assure maximum chain life and optimum conveyor operation. The reduction in friction and increase in wear life usually justifies the additional cost.

Under normal conditions, chains with roller are selected only when proper lubrication is possible.

In some applications the presence of a lubricant cannot be tolerated, but it still may be possible to attain satisfactory service with sacrifice to chain and conveyor life.

The following are general guides:

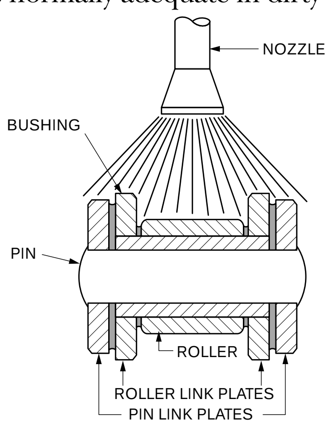
Type of Lubricant

Oil is recommended as a lubricant. Use the same lubricants recommended for drive chains at the same temperature ranges.

Grease can be used if it is applied internally into the joint with lubrication fittings on rivets or bushings.

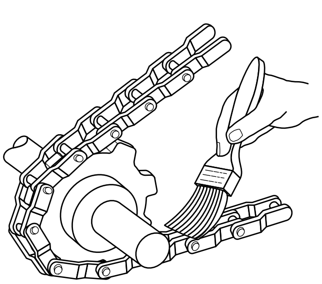
Method of Lubrication

Oil flow or brush type lubrication is adequate under relatively clean conditions, but they are ineffective with dirty conditions. "Flush" lubrication (flooding the chain) once per day is normally adequate in dirty environments.

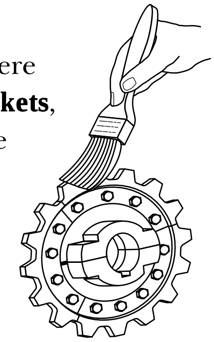


When manually lubricating, the oil should be directed between adjacent outer and inner sidebars (for the joint) and between inner sidebar and roller face (for roller-bushing lubrication). **For best results, clean chain and sprocket periodically.**

The effectiveness of any lubrication method will vary with the amount of lubricant used and the frequency of application. Ideally, a lubricant film should be maintained between working parts.



Chain and Sprocket Storage



Do not store in an "open" area where dust, dirt and water are present. **Sprockets**, especially the tooth face and the inside of the bore, should be painted with a heavy lubricant to prevent corrosion.

Most manufacturers pre-lubricate chain when it is shipped from the manufacturing plant. If you do not intend to use the chain when you receive it and it will be stored for a period of time, the chain should be lubricated periodically. If possible, store chain in a fifty gallon drum or other container filled with "Used Drain Oil." This will provide excellent protection for the chain as well as good break-in lubrication for the chain when it is finally used. This pre-lubrication will allow the chain and sprockets to "break in" or "shine-up" properly. If a chain is installed into the application completely dry this will reduce its overall life.

If it is impossible to store in "lubricated" environment, then oil the chain after installation but before any load is applied. Run the chain for 24 hours without any load to allow for good break-in. It is also a good idea to lubricate drag chain conveyor ways with moly-disulfide so that a proper surface will develop between the chain ways and the chain.

Chain Installation

Do not grind the chain pins or the holes in the sidebar in order to assemble the chain. Chain reliability if based upon a good press fit of the pins into the sidebars. If you reduce that press fit you can reduce chain life. Lubricate the pin when installing it, this eases assembly.

Chains on Idle Equipment

If the equipment is to be idle for any length of time, clean the chain and sprockets by brushing or swabbing if possible, or with a steam hose. Then cover the chain and sprockets with a light oil.

Chain Operation

If possible, manually lubricate the chain once a week when the chain is not under load. Try to flow the oil between the pin and bushing and between the roller and the bushing. Usually the chain is under the least load after it exits from the driver sprocket. This area should contain a catenary sag, and this is the area that manual lubrication should be applied. Flow or brush on a predetermined amount of oil in the shortest amount of time possible, but still allowing the chain to travel two complete cycles.

CHAIN ASSEMBLY / DISASSEMBLY TOOLS – DRIVEMASTER®

Assemble and disassemble Rex® and Link-Belt® Drive Chains quickly and safely with these portable tools. Keep the advantages of interference fit, thereby maintaining optimum chain fatigue life. The design of these tools will facilitate assembly or disassembly of catalog listed drive chains, through 7 inch pitch.

Features	Benefits
1. Easy-to-use	Reduces down-time. Eliminates cumbersome assembly/disassembly methods.
2. Maintains Press-Fits	No hammering or back-up required. Insures optimum chain fatigue life.

Drivemaster I*

No. 3	RO635	RX1207	B3112
RX238	R778	1240	R3112
R362	1030	1244	B3113
R432	R1033	RX1245	3120
R506	R1035	R1248	3125
R514	1037	X1343	3140
A520	A1204	X1345	3160CN
B578	RO1205	AX1568	3180
R588			

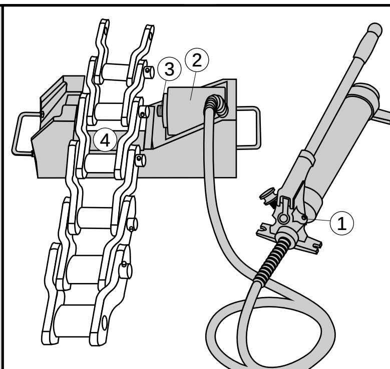
Drivemaster II*

RO1306	RX9506	X1311	X1365
ROS1306	1301	X1307	A1309

① Contact Rexnord for non-listed chains. Rex drive chains are listed. To interchange Link-Belt and Rex chain numbers see pages 34-35.

TO DISASSEMBLE CHAIN:

1. READ AND FOLLOW ALL PRECAUTIONS LISTED ON CHAIN TOOL.
2. Be sure to use the correct chain adapters for the chain being disassembled.
3. Remove dust cover from cylinder and connect pump hose to cylinder by finger tightening.
4. Be sure cylinder is completely collapsed. If not, open relief valve (counterclockwise) and push ram in.
5. Close relief valve on hand pump (clockwise).
6. Remove cotters or pinlocks. If this is not possible, tool will shear off without damage to chain or tool, but repinning may be difficult due to the sheared cotter or pinlock that is pressed in the hole. Cover cotter with rag before shearing.
7. Place chain link to be disassembled securely in saddle with cotter end of pin facing toward ram.
8. For stability it may be helpful to secure pump to steel plate or flat board.
9. Apply pressure by pumping hand pump. Be sure ram is squarely on end of pin and that head end will clear discharge slot on opposite end.
10. After pin is free of sidebars remove pin from chain link by pulling through discharge slot.
11. To remove chain from unit, open relief valve – (counterclockwise) and close cylinder by pushing ram in.
12. Replace dust cover on cylinder.



Part Identification
① Relief Valve
② Cylinder
③ Ram
④ Saddle and Support Plate

TO ASSEMBLE CHAIN:

1. READ AND FOLLOW ALL PRECAUTIONS LISTED ON CHAIN TOOL.
2. Be sure to use the correct chain adapters for the chain being assembled. Adapters are labeled with chain number.
3. Remove dust cover from cylinder and connect pump hose to cylinder by finger tightening.
4. Place pin in chain joint to be assembled by hand as far as possible. Line up pin locking flats where applicable; tap pin with hammer to "Snug-Up", (improper alignment could shear hole).
5. Close relief valve on hand pump (clockwise).
6. Place chain joint securely in saddle (4) with pin head facing toward ram.
7. For stability – it may be helpful to secure pump to steel plate or flat board.
8. Apply pressure by pumping hand pump. Be sure that ram is squarely on pin head.
9. After pin head is flush with sidebars open relief valve – (counterclockwise) and close cylinder by pushing ram down. Remove chain.
10. If chain does not flex freely, hit pin cotter end hard with hammer to establish clearance.
11. Replace dust cover on cylinder.

PRECAUTIONS

1. Always wear safety glasses.
2. Take necessary precautions to secure chain.
3. Be sure to use correct chain adapters.
4. This tool is not to be used to manufacture chain.
5. Do not hammer on this unit when it is under pressure, or at any other time!
6. Always use the hand pump supplied with this unit. Drivemaster will not be supplied without hand pump.
7. When not in use, be sure dust covers are replaced.
8. Use this tool only with the chains recommended by Rexnord Corp.

■ MAINTENANCE INFORMATION

CHAIN ASSEMBLY / DISASSEMBLY TOOLS – LINKMASTER®

Keep the advantages of interference fit by eliminating pin grinding or heating of sidebars which decreases the fatigue strength of the chain, resulting in premature chain failure.

The design of this tool will facilitate assembly or disassembly of larger straight sidebar chains including the Rex® ER800 and ER900 Series and Link-Belt® SBX800 and SBX2800 Series elevator chains. The outstanding “mobility” of this tool allows usage “in the elevator” as well as on the floor.

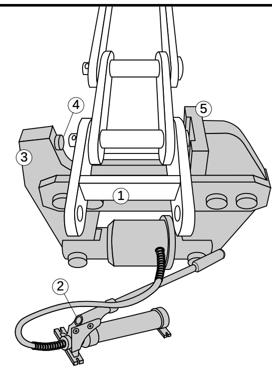
Contact Rexnord for chains not mentioned above.

Elevator Chains – Rex ER800 and ER900 Series – Link-Belt SBX800 and SBX2800 Series

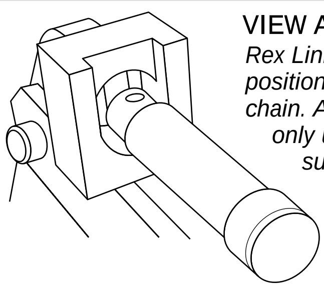
For detailed dimensions of these chains, see “Numerical Chain and Sprocket” index for page location.

ASSEMBLY

1. Insert pin in joint as far as possible. A light coat of oil may be applied to the pin O.D. and sidebar holes to facilitate assembly. Tap the pin lightly with a hammer to provide a snug fit as improper alignment could damage the holes.
2. Place the Linkmaster over the chain joint, and apply pressure squarely on the pin head. Make sure the cotter end clears the recessed contact plate on the opposite end (see View “A”).
3. Apply pressure until the pin head is almost flush with the sidebar. Check the Linkmaster periodically so it doesn’t slip off of the pin.
4. Open the relief valve to reduce pressure.
5. Insert the cotter.
6. Apply a firm hammer blow on the end of the pin to loosen the joint so it may flex freely.
7. Insert spacer gage between the inside surfaces of the outside sidebars to verify the proper width between them has been maintained.
8. Replace the dust cover on the cylinder.



Part Identification
① Spacer Gage (Rectangular Flat Bar)
② Relief Valve
③ Force Arm
④ Ram
⑤ Support Plate



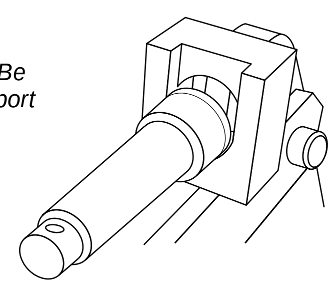
VIEW A
Rex Linkmaster tool shown positioned to assemble ER864 chain. Apply pressure to pin head only until it contacts sidebar. Be sure pin end will clear support plates shown in View “A”.

DISASSEMBLY

Tool shown in chain disassembly position. To reassemble chain, reverse tool so ram (4) contacts pin head.

1. Be sure cylinder is completely collapsed.
2. Close relief valve on hand pump.
3. Remove cotters, if possible. Otherwise, the Linkmaster will shear them off without damage to the chain or itself.
4. Apply pressure by pumping hand pump. Be sure ram is squarely on end of pin and that the head end clears the recessed contact plate on the opposite end (see View “B”). Check this periodically until pin is free of sidebars. Failing to do this could damage pump.
5. To remove unit from chain, open relief valve and close cylinder by pushing force arms together. Newer models have automatic spring return cylinders.
6. Replace the dust cover on the cylinder.

VIEW B
Tool shown positioned to disassemble ER864 chain. Be sure pin head will clear support plate as shown in View “B”.



PRECAUTIONS

1. Always wear safety glasses.
2. Take necessary precautions to secure chain.
3. Be sure to use correct chain adapters.
4. This tool is not to be used to manufacture chain.
5. Do not hammer on this unit when it is under pressure, or at any other time!
6. Always use the hand pump supplied with this unit. Drivemaster will not be supplied without hand pump.
7. When not in use, be sure dust covers are replaced.
8. Use this tool only with the chains recommended by Rexnord Corp.

SPROCKET PITCH DIAMETERS

The following table (based on chordal pitch) shows the correct sprocket pitch diameters for all types of chains having a taut, uniform pitch of one inch. Sprocket pitch diameters for other uniform chain pitches are directly proportional to the chain pitch. To determine sprocket pitch diameters for any other chain pitch, multiply the tabular diameter by the chain pitch used.

Dimensions are in inches.

No. or Teeth "N"	Pitch Diameter	No. or Teeth "N"	Pitch Diameter	No. or Teeth "N"	Pitch Diameter	No. or Teeth "N"	Pitch Diameter
4	1.4142	28	8.9314	52	16.5621	76	24.1985
5	1.7013	29	9.2491	53	16.8802	77	24.5166
6	2.0000	30	9.5668	54	17.1984	78	24.8349
7	2.3048	31	9.8844	55	17.5166	79	25.1532
8	2.6131	32	10.2023	56	17.8349	80	25.4713
9	2.9238	33	10.5201	57	18.1527	81	25.7896
10	3.2361	34	10.8379	58	18.4710	82	26.1079
11	3.5494	35	11.1558	59	18.7891	83	26.4261
12	3.8637	36	11.4737	60	19.1073	84	26.7442
13	4.1786	37	11.7916	61	19.4254	85	27.0626
14	4.4940	38	12.1096	62	19.3737	86	27.3807
15	4.8097	39	12.4276	63	20.0619	87	27.6989
16	5.1258	40	12.7455	64	20.3800	88	28.0170
17	5.4422	41	13.0635	65	20.6981	89	28.3355
18	5.7588	42	13.3815	66	21.0136	90	28.6537
19	6.0755	43	13.6995	67	21.3347	91	28.9724
20	6.3925	44	14.0175	68	21.6528	92	29.2901
21	6.7095	45	14.3356	69	21.9710	93	29.6082
22	7.0276	46	14.6536	70	22.2890	94	29.9268
23	7.3439	47	14.9717	71	22.6073	95	30.2447
24	7.6613	48	15.2898	72	22.9256	96	30.5628
25	7.9787	49	15.6079	73	23.2438	97	30.8811
26	8.2962	50	15.9269	74	23.5620	98	31.1994
27	8.6138	51	16.2441	75	23.8802	99	31.5177
						100	31.8362

CONVERSION TABLE

Fraction	Decimal	Millimeters	Fraction	Decimal	Millimeters
1/64	.015625	.3969	33/64	.515625	13.0969
1/32	.03125	.7938	17/32	.53125	13.4938
3/64	.046875	1.1906	35/64	.546875	13.8907
1/16	.0625	1.5875	9/16	.5625	14.2876
5/64	.078125	1.9844	37/64	.578125	14.6844
3/32	.09375	2.3813	19/32	.59375	15.0813
7/64	.109375	2.7781	39/64	.609375	15.4782
1/8	.125	3.1750	5/8	.625	15.8751
9/64	.140625	3.5719	41/64	.640625	16.2719
5/32	.15625	3.9688	21/32	.65625	16.6688
11/64	.171875	4.3656	43/64	.671875	17.0657
3/16	.1875	4.7625	11/16	.6875	17.4626
13/64	.203125	5.1594	45/64	.703125	17.8594
7/32	.21875	5.5563	23/32	.71875	18.2563
15/64	.234375	5.9531	47/64	.734375	18.6532
1/4	.250	6.3500	3/4	.750	19.0501
17/64	.265625	6.7469	49/64	.765625	19.4470
9/32	.28125	7.1438	25/32	.78125	19.8438
19/64	.296875	7.5406	51/64	.796875	20.2407
5/16	.3125	7.9375	13/16	.8125	20.6376
21/64	.328125	8.3344	53/64	.828125	21.0345
11/32	.34375	8.7313	27/32	.84375	21.4313
23/64	.359375	9.1282	55/64	.859375	21.8282
3/8	.375	9.5250	7/8	.875	22.2251
25/64	.390625	9.9219	57/64	.890625	22.6220
13/32	.40625	10.3188	29/32	.90625	23.0188
27/64	.421875	10.7157	59/64	.921875	23.4157
7/16	.4375	11.1125	15/16	.9375	23.8126
29/64	.453125	11.5094	61/64	.953125	24.2095
15/32	.46875	11.9063	31/32	.96875	24.6063
31/64	.484375	12.3032	63/64	.984375	25.0032
1/2	.500	12.7001	1	1.000	25.4001

■ ENGINEERING DATA

STANDARD KEY AND SETSCREW SIZES

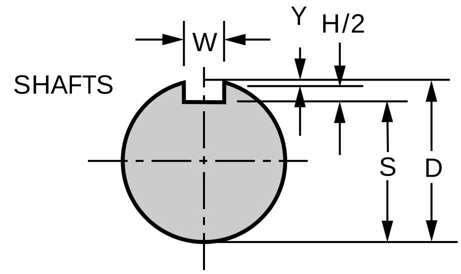
Keyseats and Keys

Drawings and formulas at right illustrate how the depth and width of standard keyseats in shafts and hubs are determined. Refer to explanation of symbols.

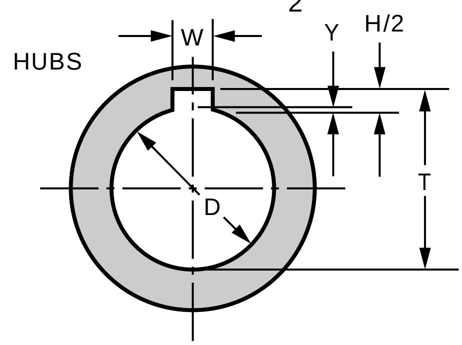
Symbols:

C = Allowance or clearance for key (normally .005" for parallel keys).
D = Nominal shaft or bore diameter, inches
H = Nominal key height, inches
W = Nominal key width, inches
Y = Chordal height, inches

$$T = \frac{D - \sqrt{D^2 - W^2}}{2}$$



$$S = D - Y - \frac{H}{2}$$



$$T = D - Y + \frac{H}{2} + C$$

STANDARD KEYWAY AND SETSCREW SIZES

Dimensions are in inches.

Shaft Diameters Over	Shaft Diameters Thru	Key W x H/2	Set Screw	Shaft Diameters Over	Shaft Diameters Thru	Key W x H/2	Set Screw	Shaft Diameters Over	Shaft Diameters Thru	Key W x H/2	Set Screw	Shaft Diameters Over	Shaft Diameters Thru	Key W x H/2	Set Screw
$\frac{7}{16}$	$\frac{9}{16}$	$\frac{1}{8} \times \frac{1}{16}$	#10	$1\frac{3}{4}$	$2\frac{1}{4}$	$\frac{1}{2} \times \frac{1}{4}$	$\frac{1}{2}$	$4\frac{1}{2}$	$5\frac{1}{2}$	$1\frac{1}{4} \times \frac{5}{8}$	$\frac{7}{8}$	11	13	3 x 1	1
$\frac{9}{16}$	$\frac{7}{8}$	$\frac{3}{16} \times \frac{3}{32}$	$\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{3}{4}$	$\frac{5}{8} \times \frac{5}{16}$	$\frac{1}{2}$	$5\frac{1}{2}$	$6\frac{1}{2}$	$1\frac{1}{2} \times \frac{3}{4}$	1	13	15	$3\frac{1}{2} \times 1\frac{1}{4}$	1
$\frac{7}{8}$	$1\frac{1}{4}$	$\frac{1}{4} \times \frac{1}{8}$	$\frac{5}{16}$	$2\frac{3}{4}$	$3\frac{1}{4}$	$\frac{3}{4} \times \frac{3}{8}$	$\frac{5}{8}$	$6\frac{1}{2}$	$7\frac{1}{2}$	$1\frac{3}{4} \times \frac{3}{4}$	1	15	18	$4 \times 1\frac{1}{2}$	1
$1\frac{1}{4}$	$1\frac{3}{8}$	$\frac{5}{16} \times \frac{5}{32}$	$\frac{3}{8}$	$3\frac{1}{4}$	$3\frac{3}{4}$	$\frac{7}{8} \times \frac{7}{16}$	$\frac{3}{4}$	$7\frac{1}{2}$	9	$2 \times 1\frac{3}{4}$	1	18	22	$5 \times 1\frac{3}{4}$	1
$1\frac{3}{8}$	$1\frac{3}{4}$	$\frac{3}{8} \times \frac{3}{16}$	$\frac{3}{8}$	$3\frac{3}{4}$	$4\frac{1}{2}$	$1 \times \frac{1}{2}$	$\frac{3}{4}$	9	11	$2\frac{1}{2} \times \frac{7}{8}$	1	22	26	6 x 2	1
												26	30	$7 \times 2\frac{1}{2}$	1

MINIMUM SHAFT CENTER DISTANCE

At least 120° wrap is desirable. The minimum center distance to assure 120° wrap may be found by using the following equation:

$$\textbf{CDp} = \frac{N - n}{3.1}$$

On ratios of less than 3:1, wrap will always be at least 120° in a two sprocket system. The minimum center distance to avoid interference between the two sprockets is:

$$\textbf{Min. CDp} = \frac{N + n}{6} + 1$$

Where: **CDp** = center distance in pitches
N = number of teeth on driven sprocket
n = number of teeth on driver sprocket

Use the larger value of CDp for your center distance.

Feet of center distance =

$$\frac{\text{Center Distance (pitches) x Chain Pitch (Ins.)}}{12}$$

■ ENGINEERING DATA

MINIMUM CHAIN LENGTH

The approximate chain length may be obtained using this formula:

$$\mathbf{Lp} = 2CDp + \frac{N + n}{2} + K$$

Where: **Lp** = Length of chain, in Pitches
CDp = Distance between shaft centers, in Pitches
N = Number of teeth on DriveN sprocket
n = Number of teeth on DriveR sprocket
K = $.0258 \times \frac{(N - n)^2}{CDp}$

Feet of chain =

$$\frac{\text{Chain Length (pitches) x Pitch of Chain (Ins.)}}{12}$$

POWER AND CYCLE CALCULATIONS

Horsepower

$$\mathbf{HP} = \frac{T\ (RPM)}{63000}$$

$$\mathbf{HP} = \frac{P\ (FPM)}{33000}$$

Where: **T** = Torque (Inch-Lb.)
P = Net chain pull (lbs.)
RPM = Shaft speed (Rev./Minute)
FPM = Chain speed (Ft./Minute)

Chain Speed (In FPM)

$$\mathbf{FPM} = \frac{\text{RPM (no. of teeth) (pitch in inches)}}{12}$$

Number of Cycles of Chain Operation

A cycle is defined as one complete traverse of a given link around the sprockets and back to its starting point. The number of cycles a chain has been operated can be calculated as follows:

$$\textbf{Total Cycles} = \frac{\text{(no. of teeth) (RPM) (60) (HR)}}{\text{(no. of Pitches in Chain)}}$$

Where: **HR** = Total operating time (hours)

Catenary Tension

The tension in the chain on the slack side, caused by the catenary sag of the unsupported chain, can be calculated from the following formula:

$$\mathbf{T} = \frac{B^2 \times W +}{96\ CS} \frac{W \times CS}{12}$$

Where: **T** = Chain tension due to cantenary sag (lbs.)
B = Center Distance (inches)
W = Weight of chain (lbs./ft.)
CS = Catenary sag (inches)

Catenary tension for a chain weighing one pound per foot is shown in the accompanying table. To find the tension in a chain weighing "W" pounds per foot, multiply the listed value by "W".

ENGINEERING DATA

CATENARY TENSION – POUNDS

Dimensions are in inches.

Center Distance	Amount of Catenary Sag																	
	.125	.25	.375	.50	.75	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	12.0	14.0	16.0
10	8.3	4.2	2.8	2.1	1.5	1.1	0.7	0.6	0.6	0.6	0.7	0.7	0.8	0.9	0.9	1.1	1.2	1.4
20	33.3	16.7	11.1	8.4	5.6	4.3	2.3	1.6	1.4	1.3	1.2	1.2	1.2	1.2	1.3	1.3	1.5	1.6
30	75.0	37.5	25.0	18.8	12.6	9.5	4.9	3.4	2.7	2.3	2.1	1.9	1.8	1.8	1.8	1.8	1.8	1.9
40	133.3	66.7	44.5	33.4	22.3	16.8	8.5	5.8	4.5	3.8	3.3	3.0	2.8	2.6	2.5	2.4	2.4	2.4
50	208.3	104.2	69.5	52.1	34.8	26.1	13.2	8.9	6.8	5.6	4.8	4.3	3.9	3.6	3.4	3.2	3.0	3.0
60	300.0	150.0	100.0	75.0	50.1	37.6	18.9	12.8	9.7	7.9	6.8	5.9	5.4	4.9	4.6	4.1	3.8	3.7
70	408.3	204.2	136.1	102.1	68.1	51.1	25.7	17.3	13.1	10.6	9.0	7.9	7.0	6.4	5.9	5.3	4.8	4.5
80	533.3	266.7	177.8	133.4	89.0	66.8	33.5	22.5	17.0	13.8	11.6	10.1	9.0	8.2	7.5	6.6	5.9	5.5
90	675.0	337.5	225.0	168.8	112.6	84.5	42.4	28.4	21.4	17.3	14.6	12.6	11.2	10.1	9.3	8.0	7.2	6.6
100	833.3	416.7	277.6	208.4	139.0	104.3	52.3	35.0	26.4	21.3	17.9	15.5	13.7	12.3	11.3	9.7	8.6	7.8
110	1008.0	504.2	336.1	252.1	168.1	126.1	63.2	42.3	31.8	25.6	21.5	18.6	16.4	14.8	13.4	11.5	10.2	9.2
120	1200.0	600.0	400.0	300.0	200.1	150.1	75.2	50.3	37.8	30.4	25.5	22.0	19.4	17.4	15.8	13.5	11.9	10.7
130	1406.0	704.2	469.5	352.1	234.8	176.1	88.2	58.9	44.3	35.6	29.8	25.7	22.7	20.3	18.4	15.7	13.7	12.3
140	1633.0	816.7	544.5	408.4	272.3	204.3	102.3	68.3	51.4	41.3	34.5	29.8	26.2	23.4	21.3	18.0	15.8	14.1
150	1875.0	937.5	625.0	468.8	312.6	234.5	117.4	78.4	58.9	47.3	39.6	34.1	30.0	26.8	24.3	20.5	17.9	16.0
160	2133.0	1067.0	711.1	533.4	355.6	266.8	133.5	89.1	67.0	53.8	44.9	38.7	34.0	30.4	27.5	23.2	20.2	18.0
170	2408.0	1204.0	802.8	602.1	401.5	301.1	150.7	100.6	75.6	60.6	50.7	43.6	38.3	34.2	30.9	26.1	22.7	20.1
180	2700.0	1350.0	900.0	675.0	450.1	337.6	168.9	112.8	84.7	67.9	56.8	48.8	42.9	38.3	34.6	29.1	25.3	22.4
190	3008.0	1504.0	1003.0	752.1	501.5	376.1	188.2	125.6	94.3	75.6	63.2	54.3	47.7	42.5	38.4	32.2	28.0	24.8
200	3333.0	1667.0	1111.0	833.4	555.6	416.8	208.5	139.1	104.5	83.8	69.9	60.1	52.8	47.0	42.5	35.7	30.9	27.4

① For chain weighing one pound per foot.

■ ENGINEERING DATA

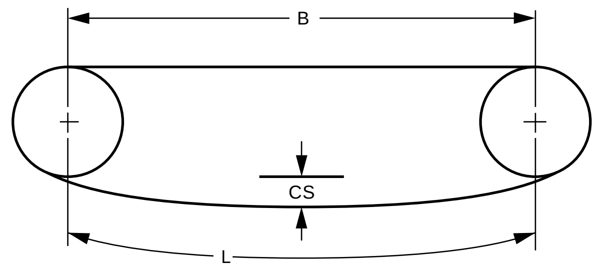
Catenary Sag

The return strand of a chain normally has some slack. This slack results in a sag, called catenary sag, of the chain. This sag must be of the correct amount if the chain is to operate properly. If the return strand is too tight (too little catenary sag), the load and the wear on working parts will be excessive. If the return strand is too loose, vibration and unwanted chain flexure will result. A chain that is properly installed will permit flexing of the return strand by hand. This flexure, measured from a straight line, should not be less than about 3% of the horizontal center distance. The amount of catenary sag that will be present can be calculated as follows:

$$\mathbf{CS} = \sqrt{.375\ BE}$$

Where: **CS** = Catenary sag (inches)
L = Return strand length (inches)
B = Center distance (inches)
E = Excess chain, L – B (inches)

Depending on the combination of chain pitch, sprocket center distance, and number of teeth in the sprockets, there will always be excess chain in the system. The catenary sag resulting from this excess chain for various sprocket center distances is given in the table below.



CATENARY SAG

Dimensions are in inches.

Center Distance	Excess Chain																	
	.063	.125	.188	.250	.313	.375	.438	.500	.625	.750	.875	1.00	1.50	2.00	2.50	3.00	3.50	4.00
10	0.5	0.7	0.8	1.0	1.1	1.2	1.3	1.4	1.5	1.7	1.8	1.9	2.4	2.7	3.1	3.4	3.6	3.9
20	0.7	1.0	1.2	1.4	1.5	1.7	1.8	1.9	2.2	2.4	2.6	2.7	3.4	3.9	4.3	4.7	5.1	5.5
30	0.8	1.2	1.5	1.7	1.9	2.1	2.2	2.4	2.7	2.9	3.1	3.4	4.1	4.7	5.3	5.8	6.3	6.7
40	1.0	1.4	1.7	1.9	2.2	2.4	2.6	2.7	3.1	3.4	3.6	3.9	4.7	5.5	6.1	6.7	7.2	7.7
50	1.1	1.5	1.9	2.2	2.4	2.7	2.9	3.1	3.4	3.8	4.1	4.3	5.3	6.1	6.8	7.5	8.1	8.7
60	1.2	1.7	2.1	2.4	2.7	2.9	3.1	3.4	3.8	4.1	4.4	4.7	5.8	6.7	7.5	8.2	8.9	9.5
70	1.3	1.8	2.2	2.6	2.9	3.1	3.4	3.6	4.1	4.4	4.8	5.1	6.3	7.2	8.1	8.9	9.6	10.2
80	1.4	1.9	2.4	2.7	3.1	3.4	3.6	3.9	4.3	4.7	5.1	5.5	6.7	7.7	8.7	9.5	10.2	11.0
90	1.5	2.1	2.5	2.9	3.2	3.6	3.8	4.1	4.6	5.0	5.4	5.8	7.1	8.2	9.2	10.1	10.9	11.6
100	1.5	2.2	2.7	3.1	3.4	3.8	4.1	4.3	4.8	5.3	5.7	6.1	7.5	8.7	9.7	10.6	11.5	12.2
110	1.6	2.3	2.8	3.2	3.6	3.9	4.2	4.5	5.1	5.6	6.0	6.4	7.9	9.1	10.2	11.1	12.0	12.8
120	1.7	2.4	2.9	3.4	3.8	4.1	4.4	4.7	5.3	5.8	6.3	6.7	8.2	9.5	10.6	11.6	12.5	13.4
130	1.7	2.5	3.0	3.5	3.9	4.3	4.6	4.9	5.5	6.0	6.5	7.0	8.6	9.9	11.0	12.1	13.1	14.0
140	1.8	2.6	3.1	3.6	4.1	4.4	4.8	5.1	5.7	6.3	6.8	7.2	8.9	10.2	11.5	12.5	13.6	14.5
150	1.9	2.7	3.2	3.8	4.2	4.6	5.0	5.3	5.9	6.5	7.0	7.5	9.2	10.6	11.9	13.0	14.0	15.0
160	1.9	2.7	3.4	3.9	4.3	4.7	5.1	5.5	6.1	6.7	7.2	7.7	9.5	11.0	12.2	13.4	14.5	15.5
170	2.0	2.8	3.5	4.0	4.5	4.9	5.3	5.6	6.3	6.9	7.5	8.0	9.8	11.3	12.6	13.8	14.9	16.0
180	2.1	2.9	3.6	4.1	4.6	5.0	5.4	5.8	6.5	7.1	7.7	8.2	10.1	11.6	13.0	14.2	15.4	16.4
190	2.1	3.0	3.7	4.2	4.7	5.2	5.6	6.0	6.7	7.3	7.9	8.4	10.3	11.9	13.3	14.6	15.8	16.9
200	2.2	3.1	3.8	4.3	4.8	5.3	5.7	6.1	6.8	7.5	8.1	8.7	10.6	12.2	13.7	15.0	16.2	17.3

NOTE: Values above and to the right of the heavy stepped line represent 3% or greater sag.

WEIGHTS AND CONVEYING CHARACTERISTICS OF MATERIALS

Table (A) lists CEMA material class descriptions and corresponding codes referred to in Table (B). Table (B) lists typical values. Some materials, particularly ores, vary widely. Weight and angle or repose depend largely on the size distribution in a given material. Degree of aeration may be important factor in density of very fine material. Angle of repose may increase with the percentage of fines as well as the angularity of the particles. Fines carry most of the moisture content, which is often the controlling factor. For these reasons, the values given can only be approximate.

TABLE A – CEMA MATERIAL CLASS DESCRIPTION

	Material Characteristics	Code
SIZE	Very fine – 100 mesh and under	A
	Fine – 1/8 inch and under	B
	Granular – Under 1/2 inch	C
	Lumpy – containing lumps over 1/2 inch	D
	Irregular – string, interlocking, mats together	E
FLOWABILITY ANGLE OF REPOSE	Very free flowing – angle of repose less than 20°	1
	Free flowing – angle of repose 20 degrees to 30°	2
	Average flowing – angle of repose 30° to 45°	3
	Sluggish – angle of repose 45° and over	4
ABRASIVENESS	Non-abrasive	5
	Abrasive	6
	Very abrasive	7
	Very sharp – cuts or gouges belt covers	8
MISCELLANEOUS CHARACTERISTICS (Sometimes more than one of these characteristics may apply.)	Very dusty	L
	Aerates and develops fluid characteristics	M
	Contains explosive dust	N
	Contaminable affecting use of saleability	P
	Degradable, affecting use of saleability	Q
	Gives off harmful fumes or dust	R
	Highly corrosive	S
	Mildly corrosive	T
	Hygroscopic	U
	Interlocks or mats	V
	Oils or chemicals present – may affect rubber products	W
	Packs under pressure	X
	Very light and fluffy – may be wind swept	Y
	Elevated temperature	Z

TABLE B – CONVEYING PROPERTIES OF MATERIALS

Material	Lbs. per Cu. Ft.	Angle of Repose	Recom'd Max. Inclin.	Code	Material	Lbs. per Cu. Ft.	Angle of Repose	Recom'd Max. Inclin.	Code
Alfalfa meal	17	45°	–	B46Y	Carbon black, powder	4-7	30-44°	–	*A35Y
Alum, fine	45-50	30-44°	–	B35	Carborundum, 3" and under	100	20-29°	–	D27
Alum, lumpy	50-60	30-44°	–	D35	Casein	36	30-44°	–	B35
Alumina	50-65	22°	10-12°	B27M	Cast iron chips	90-120	45°	–	C46
*Aluminum chips	7-15	45°	–	E46Y	Cement, Portland	72-99	30-44°	20-23°	A36M
Aluminum hydrate	18	34°	20-24°	C35	Cement, Portland, aerated	60-75	–	–	A16M
Aluminum oxide	70-120	29°	–	A27M	Cement, rock (see limestone)	100-110	–	–	D36
Aluminum silicate	49	30-44°	–	B35S	Cement clinker	75-95	30-40°	18-20°	D37
Aluminum sulphate	54	32°	17°	D35	Chalk, lumpy	75-85	45°	–	D46
Ammonium chloride, crystalline	45-52	30-44°	–	B36S	*Charcoal	18-25	35°	20-25°	D36Q
Ammonium nitrate	45	30-44°	–	*C36NUS	Chrome ore (chromite)	125-140	30-44°	–	D37
Ammonium sulphate, granular	45-58	44°	–	*C35TU	Cinders, blast furnace	57	35°	18-20°	*D37T
Asbestos, ore or rock	81	30-44°	–	D37R	Cinders, coal	40	35°	20°	*D37T
Asbestos, shred	20-25	45°	–	E46XY	Clay, calcined	80-100	–	–	B37
Ashes, coal, dry, 3" and under	35-40	45°	–	D46T	Clay, dry, fines	100-120	35°	20-22°	C37
Ashes, coal, wet, 3" and under	45-50	45°	–	D46T	Clay, dry, lumpy	60-75	35°	18-20°	D36
Ashes, fly	40-45	42°	20-25°	A37	Coal, anthracite, sized	55-60	27°	16°	C26
Ashes, gas-producer, wet	78	–	–	D47T	Coal, bituminous, mined 50 mesh and less	50-54	45°	24°	B45T
Asphalt, binder for paving	80-85	–	–	C45	Coal, bituminous, mined and sized	45-55	35°	16°	D35T
Asphalt, crushed, 1/2" and under	45	30-44°	–	C35	Coal, bituminous, mined, run of mine	45-55	38°	18°	D35T
Bagasse	7-10	45°	–	E45Y	Coal, bituminous, stripping, not cleaned	50-60	–	–	D36T
Bakelite and similar plastics, powdered	35-45	45°	–	B45	Coal, lignite	40-45	38°	22°	D36T
Barite	180	30-44°	–	B36	Coke, loose	23-35	30-44°	18°	B37QVT
Barium carbonate	72	45°	–	A45	Coke, petroleum calcined	35-45	30-44°	20°	D36Y
Barium oxide	150-200	–	–	A46	Coke breeze, 1/4" and under	25-35	30-44°	20-22°	C37Y
*Bark, wood, refuse	10-20	45°	27°	E45VY	Compost	30-50	–	–	E45ST
Basalt	80-103	20-28°	–	B26	Concrete, cinder	90-100	–	12-30°	D46
Bauxite, ground, dry	68	20-29°	20°	B26	Copper ore	120-150	30-44°	20°	*D37
Bauxite, mine run	80-90	31°	17°	E37	Copper sulfate	75-85	31°	17°	D36
Bauxite, crushed, 3" and under	75-85	30-44°	20°	D37	Cork, granulated	12-15	–	–	C45
*Bentonite, crude	35-40	42-44°	–	D36X	Corn, shelled	45	21°	10°	C25NW
Bentonite, 100 mesh and under	50-60	42°	20°	A36XY	Cottonseed cake, crushed	40-45	30-44°	–	B35
Boneblack, 100 mesh and under	20-25	20-29°	–	A25Y	Cottonseed cake, lumpy	40-45	30-44°	–	D35W
Bonechar	27-40	30-44°	–	B36	Cottonseed meal	35-40	35°	22°	B35W
Bonemeal	50-60	30-44°	–	B36	Cottonseed meats	40	30-44°	–	B35W
Borate of lime	60	30-44°	–	A35	Cryolite, dust	75-90	30-44°	–	A36
Borax, 1/2" screenings	55-60	30-44°	–	C36	Cryolite, lumpy	90-100	30-44°	–	D36
Borax, 3" and under	60-70	30-44°	–	D35	Cullet	80-120	30-44°	20°	D37Z
Boric acid, fine	55	20-29°	–	B26T	Diatomaceous earth	11-14	30-44°	–	A36MY
Brewer's grain, spent, dry	25-30	45°	–	C45	Dicalcium phosphate	40-50	45°	–	A45
Brewer's grain, spent, wet	55-60	45°	–	C45T	Disodium phosphate	25-31	30-44°	–	B36QT
Calcium carbide, crushed	70-80	30-44°	–	D36N	Dolomite, lumpy	80-100	30-44°	22°	D36
Carbon, activated, dry, fine	8-20	20-29°	–	B26Y	Earth, as excavated – dry	70-80	35°	20°	B36
Carbon black, pelletized	20-25	25°	–	B25Q	Earth, wet, containing clay	100-110	45°	23°	B46

*May vary considerably. Consult your Rexnord representative.

TABLE B – CONVEYING PROPERTIES OF MATERIALS – (CONT'D.)

Material	Lbs. per Cu. Ft.	Angle of Repose	Recom'd Max. Inclin.	Code	Material	Lbs. per Cu. Ft.	Angle of Repose	Recom'd Max. Inclin.	Code
Ebonite, crushed 1/2" and under	65-70	30-44°	–	C35	Potassium nitrate	76-80	20-29°	–	C26T
Emery	230	20-29°	–	A27	Potassium sulfate	42-48	45°	–	B36X
Epson salts	40-50	30-44°	–	B35	Pumice, 1/8" and under	40-45	45°	–	B47
Feldspar, 1/2" screenings	70-85	38°	18°	B36	Pyrites, iron, 2" to 3" lumps	135-145	20-29°	–	D26T
Feldspar, 1 1/2" to 3" lumps	90-110	34°	17°	D36	Pyrites, pellets	120-130	30-44°	–	C36T
Ferrous sulfate	50-75	–	–	C36	Quartz, 1/2" screenings	80-90	20-29°	–	C27Z
Filter press mud, sugar factory	70	–	–	A15	Quartz, 1 1/2" to 3" lumps	85-95	20-29°	–	D27Z
Flue dust, boiler house, dry	35-40	20°	–	A17MTY	Rock, crushed	125-145	20-29°	–	D26
Fluorspar, 1/2" screenings	85-105	45°	–	C46	Rock, soft, excavated with shovel	100-110	30-44°	22°	D36
Fluorspar, 1 1/2" to 3" lumps	110-120	45°	–	D46	Rubber, pelletized	50-55	35°	22°	D35
Foundry refuse, old sand cores, etc.	70-100	30-44°	–	D37Z	Rubber, reclaim	25-30	32°	18°	D35
Fuller's earth, dry	30-35	23°	–	B26	Salicylic acid	29	–	–	B25U
Fuller's earth, oily	60-65	20-29°	–	B26	Salt, common dry, coarse	40-55	–	18-22°	C36TU
Fuller's earth, oil filter, burned	40	20-29	–	B26	Salt, common dry, fine	70-80	25°	11°	D26TUW
Fuller's earth, oil filter, raw	35-40	35°	20°	*B26	Salt cake, dry, coarse	85	36°	21°	B36TW
Glass batch, wool and container	80-100	30-44°	20-22°	D38Z	Salt cake, dry, pulverized	60-85	20-29°	–	B26NT
Glue, pearl	40	25°	11°	C25	Sand, bank, damp	105-130	45°	20-22°	B47
Grain, distillery, spent, dry	30	30-44°	–	E35WY	Sand, bank, dry	90-110	35°	16-18°	B37
Grain, distillery, spent, wet	40-60	45°	–	C45V	Sand, core	65	41°	26°	B35X
Granite, 1/2" screenings	80-90	20-29°	–	C27	Sand, foundry, prepared	80-90	30-44°	24°	B37
Granite, 1 1/2" to 2" lumps	85-90	20-29°	–	D27	Sand, foundry, shakeout	90-100	39°	22°	D37
Granite, broken	95-100	30-44°	–	D37	Sand, silica, dry	90-100	20-29°	10-15°	B27
Graphite, flake	40	30-44°	–	C35	Sandstone, broken	85-90	30-44°	–	D37
Gravel, bank run	90-100	38°	20°		Sawdust	10-13	36°	22°	*B35
Gypsum, 1/2" screenings	70-80	40°	21°	C36	Sewage sludge, moist	55	30-44°	–	B36
Gypsum, 1 1/2" to 3" lumps	70-80	30°	15°	D36	Shale, broken	90-100	20-29°	–	D26QZ
Guano, dry	70	20-29°	–	B26	Shale, crushed	85-90	39°	22°	C36
Hops, spent, wet	50-55	45°	–	E45T	Shellac	80	45°	–	C45
Ice, crushed	35-45	19°	–	D16	Shellac, powdered or granulated	31	–	–	B35PY
Ilmenite ore	140-160	30-44°	–	B37	Sinter	100-135	35°	–	*D37
Iron ore	100-200	35°	18-20°	*D36	Slag, blast furnace, crushed	80-90	25°	10°	A27
Iron ore pellets	116-130	30-44°	13-15°	D37Q	Slag, furnace, granular, dry	60-65	25°	13-16°	C27
Iron sulfide	120-135	30-44°	–	D36	Slag, furnace, granular, wet	90-100	45°	20-22°	B47
Kaolin clay, 3" and under	63	35°	19°	D36	Slate, crushed, 1/2" and under	80-90	28°	15°	C36
Lactose	32	30-44°	–	A35PX	Slate, 1 1/2" to 3" lumps	85-95	–	–	D26
Lead arsenate	72	45°	–	B45R	Soap beads or granules	15-25	30-44°	–	C35Q
Lead ores	200-270	30°	15°	*B36RT	Soda ash, briquettes	50	22°	7°	C26
Lead oxides	60-150	45°	–	B45	Soda ash, heavy	55-65	32°	19°	B36
Lead oxides, pulverized	200-250	30-44°	–	A36	Soda ash, light	20-35	37°	22°	A36Y
Lead sulfide	240-260	30-44°	–	A36	Sodium aluminate, ground	72	30-44°	–	B36
Lignite, air-dried	45-55	30-44°	–	*D35	Sodium aluminum sulfate	75	30-44°	–	A36
Lime, ground, 1/8" and under	60-65	43°	23°	B35X	Sodium antimonate, crushed	49	31°	–	C36
*Lime, hydrated, 1/8" and under	40	40°	21°	B35MX	Sodium nitrate	70-80	24°	11°	*D25
Lime, hydrated, pulverized	32-40	42°	22°	A35MXY	Sodium phosphate	50-65	37°	–	B36
Lime, pebble	53-56	30°	17°	D35	Soybeans, whole	45-50	21-28°	12-16°	C27NW
Limestone, agricultural, 1/8" and less	68	30-44°	20°	B36	Starch	25-50	24°	12°	*B25
Limestone, crushed	85-90	38°	18°	C36X	Steel chips, crushed	100-150	30-44°	–	D37WZ
Magnesium chloride	33	40°	–	C45	Steel trimmings	75-150	35°	18°	E37V
Magnesium sulfate	40-50	30-44°	–		Sugar, raw, cane	55-65	45°	–	B46TX
Malt, dry, whole	27-30	20-29°	–	C25N	Sugar, refined, granulated, dry	50-55	30-44°	–	B35PU
Malt, wet or green	60-65	45°	–	C45	Sugar, refined, granulated, wet	55-65	30-44°	–	C35X
Manganese dioxide	80	–	–	*	Sugar, beet pulp, dry	12-15	20-29°	–	C26
Manganese ore	125-140	39°	20°	*D37	Sugar, beet pulp, wet	25-45	20-29°	–	C26X
Manganese sulfate	70	30-44°	–	C37	Sugar cane, knifed	15-18	45°	–	E45V
Marble, crushed 1/2" and under	80-95	30-44°	–	D37	Sulfate, crushed, 1/2" and under	50-60	30-44°	20°	C35NS
Marl	80	30-44°	–	C37	Sulfate, 3" and under	80-85	30-44°	18°	D35NS
Mica, flakes	17-22	19°	–	B16MY	Taconite, pellets	116-130	30-44°	13-15°	D37Q
Mica, ground	13-15	34°	23°	*B36	Talc, 1/2" screenings	80-90	20-29°	–	C25
Milk, malted	30-35	45°	–	A45PX	Talc, 1 1/2" to 3" lumps	85-95	20-29°	–	D25
*Molybdenite, powdered	107	40°	25°	B35	Titanium dioxide	140	30-44°	–	B36
Molybdenum ore	107	40°	–	B36	Titanium sponge	60-70	45°	–	E47
Nickel-cobalt, sulfate ore	80-150	30-44°	–	*D37T	Tobacco scraps	15-25	45°	–	D45Y
Oil cake	48-50	45°	–	D45W	Tobacco stems	15	45°	–	E45Y
Oxalic acid crystals	60	30-44°	–	B35SU	Traprock, 1/2" screenings	90-100	30-44°	–	C37
Oyster shells, ground, under 1/2"	50-60	30-44°	–	C36T	Traprock, 2" to 3" lumps	100-110	30-44°	–	D37
Oyster shells, whole	80	30-44°	–	D36TV	Trisodium phosphate, granular	60	30-44°	11°	B35
Paper pulp stock	40-60	19°	–	*E15MV	Trisodium phosphate, pulverized	50	40°	25°	B35
Peanuts, in shells	15-24	30-44°	–	D35Q	Vermiculite, expanded	16	45°	–	C45Y
Peanuts, shelled	35-45	30-44°	–	C35Q	Vermiculite ore	70-80	–	20°	D36Y
Phosphate, acid, fertilizer	60	26°	13°	B25T	Walnut shells, crushed	35-45	30-44°	–	B37
Phosphate, triple super, ground fertilizer	50-55	45°	30°	B45T	Wood chips	10-30	45°	27°	E45WY
Phosphate rock, broken, dry	75-85	25-29°	12-15°	D26	Wood chips, hogged, fuel	15-25	45°	–	D45
Phosphate rock, pulverized	60	40°	25°	B36	Zinc concentrates	75-80	–	–	B26
Polystyrene pellets	35	23°	–	B25PQ	Zinc ore, crushed	160	38°	22°	*
Potash salts, sylvite, etc.	80	20-29°	–	B25T	Zinc ore, roasted	110	38°	–	C36
Potassium carbonate	51	20-29°	–	B26	Zinc oxide, heavy	30-35	45-55°	–	A45X
Potassium chloride, pellets	120-130	30-44°	–	C36T	Zinc oxide, light	10-15	45°	–	A45XY

*May vary considerably. Consult your Rexnord representative.

ENGINEERING CONSTANTS

28.8 = equivalent mol. wgt. of air
288,000 Btu per 24 hr. = 1 ton of refrigeration
29.921 in. Hg at 32° F = atm. press.
299 792 458 m/s = velocity of light (c)
3 ft. = 1 yard
30 in. Hg at 62° F = atmos. press. (very closely)
31 (31.5 for some substances) gallons = 1 barrel
3.1416 = π (Greek letter "pi") = ratio circumference of circle to diameter = ratio area of circle to square of radius
32 deg. F = freezing point of water = 0° C.
32 = atomic wgt. sulphur (S)
32 = mol. wgt. oxygen gas (O_2)
32.16 feet/sec^2 = acceleration of gravity (g)
3.2808 ft. = 1 meter
33,000 ft.-lb. per min. = 1 hp.
33.947 ft. water at 62° F = atm. press.
3,415 Btu = 1 kw-hr.
3.45 lb. steam "f.&a. 212" per sq. ft. of heating surface per hr. = rated boiler evaporation.
34.56 lb. = wgt. air to burn 1 lb. hydrogen (H)
35.314 cu. ft. = 1 cu. meter
3.785 liters = 1 gal.
39.2° F (4° C) water is at greatest density
39.37 in. = 1 meter = 100 cm = 1000 mm
3.9683 Btu = 1 kg calorie
4,000 Btu (4,050) = cal. val. of sulphur (S)
4.32 lb. = wgt. air req. to burn 1 lb. sulphur (S)
0.433 lb. per sq. in. = 1 ft. of water at 62° F
43,560 sq. ft. = acre
44 = mol. wgt. carbon dioxide (CO_2)
0.45359 kg. = 1 lb.
–460°F (459.6°F) = absolute zero.
0.47 Btu per pound per °F = approx. specific heat of super-heated steam at atm. press.
0.491 lb. per sq. in. = 1 in. Hg at 62° F
5.196 lb. per sq. ft. = 1 in. water at 62° F
5,280 ft. = 1 mile
53.32 = R, a constant for air, expansion equation: PV = MRT
550 ft.-lb. per sec. = 1 hp.
57.296° = 1 radian (angle)
58.349 grains per gal = 1 gram per liter
59.76 lb. = wgt. 1 cu. ft. water at 212° F
61.023 cu. in. = 1 liter
62,000 Btu = cal. val. (higher) hydrogen (H)
0.62137 miles = 1 kilometer
0.062428 lb. per cu. ft. = 1 kg per cu. meter
62.5 (62.355) lb. = wgt. 1 cu. ft. water at 62° F
645 mm^2 = 1 sq. in.
7,000 grains = 1 lb.
0.0735 in. Hg at 62° F = 1 in. water at 62° F
746 (745.7) watts = 1 hp.
7.5 (7.4805) gal. = 1 cu. ft.
760 millimeters Hg = atm. press. at 0° C
0.07608 lb. = wgt. 1 cu. ft. air at 62° F and 14.7 per sq. in.
778 (777.5) ft.-lb. = 1 Btu (work required to raise 1 lb. water 1° F)
0.7854 (= 3.1416 ÷ 4) x diameter squared = area circle
8 = lb. oxygen required to burn 1 lb. hydrogen (H)
8.025 (= square root of 2g) x square root of head (ft.) = theoretical velocity of fluids in ft. per sec.
0.08073 lb. = wgt. 1 cu. ft. air at 32° F and 14.7 lb. per sq. in.
8⅓ (8.3356) lb. = wgt. 1 gal. water at 62° F
8,760 hr. = 1 year of 365 days
88 ft. per sec. (min.) = 1 mile per min. (hr.)
9 sq. ft. = 1 sq. yard
0.0929 sq. meters = 1 sq. ft.
970.4 Btu = Latent heat of evap. of water at 212° F

STRENGTH OF MATERIALS
HARDNESS AND STRENGTH COMPARISON TABLES

Hardened Steel and Hard Alloys

C 150 kg	A 60 kg	D 100 kg	15-N 15 kg	30-N 30 kg	45-N 45 kg	Diamond Pyramid Hardness 10 kg	Knoop Hardenss 500 g & over	Brinell Hardness 3000 kg	Tensile Strength Approx. Only	
ROCKWELL			SUPERFICIAL							
BRALE	BRALE	BRALE	N BRALE	N BRALE	N BRALE				ksi	MPa
65	84.0	74.5	92.0	82.0	72.0	820	846	–	–	–
64	83.5	74.0	–	81.0	71.0	789	822	–	–	–
63	83.0	73.0	91.5	80.0	70.0	763	799	–	–	–
62	82.5	72.5	91.0	79.0	69.0	739	776	–	–	–
61	81.5	71.5	90.5	78.5	67.5	716	754	–	–	–
60	81.0	71.0	90.0	77.5	66.5	695	732	614	314	2160
59	80.5	70.0	89.5	76.5	65.5	675	710	600	306	2110
58	80.0	69.0	–	75.5	64.0	655	690	587	299	2060
57	79.5	68.5	89.0	75.0	63.0	636	670	573	291	2010
56	79.0	67.5	88.5	74.0	62.0	617	650	560	284	1960
55	78.5	67.0	88.0	73.0	61.0	598	630	547	277	1910
54	78.0	66.0	87.5	72.0	59.5	580	612	534	270	1860
53	77.5	65.5	87.0	71.0	58.5	562	594	522	263	1815
52	77.0	64.5	86.5	70.5	57.5	545	576	509	256	1765
51	76.5	64.0	86.0	69.5	56.0	538	558	496	250	1720
50	76.0	63.0	85.5	68.5	55.0	513	542	484	243	1675
49	75.5	62.0	85.0	67.5	54.0	498	526	472	236	1630
48	74.5	61.5	84.5	66.5	52.5	485	510	460	230	1585
47	74.0	60.5	84.0	66.0	51.5	471	495	448	223	1540
46	73.5	60.0	83.5	65.0	50.0	458	480	437	217	1500
45	73.0	59.0	83.0	64.0	49.0	446	466	426	211	1460
44	72.5	58.5	82.5	63.0	48.0	435	452	415	205	1415
43	72.0	57.5	82.0	62.0	46.5	424	438	404	199	1375
42	71.5	57.0	81.5	61.5	45.5	413	426	393	194	1335
41	71.0	56.0	81.0	60.5	44.5	403	414	382	188	1295
40	70.5	55.5	80.5	59.5	43.0	393	402	372	182	1255
39	70.0	54.5	80.0	58.5	42.0	383	391	362	177	1220
38	69.5	54.0	79.5	57.5	41.0	373	380	352	171	1180
37	69.0	53.0	79.0	56.5	39.5	363	370	342	166	1145
36	68.5	52.5	78.5	56.0	38.5	353	360	332	162	1115
35	68.0	51.5	78.0	55.0	37.0	343	351	322	157	1080
34	67.5	50.5	77.0	54.0	36.0	334	342	313	153	1050
33	67.0	50.0	76.5	53.0	35.0	325	334	305	148	1020
32	66.5	49.0	76.0	52.0	33.5	317	326	297	144	990
31	66.0	48.5	75.5	51.5	32.5	309	318	290	140	965
30	65.5	47.5	75.0	50.5	31.5	301	311	283	136	935
29	65.0	47.0	74.5	49.5	30.0	293	304	276	132	910
28	64.5	46.0	74.0	48.5	29.0	285	297	270	129	885
27	64.0	45.5	73.5	47.5	28.0	278	290	265	126	865
26	63.5	44.5	72.5	47.0	26.5	271	284	260	123	850
25	63.0	44.0	72.0	46.0	25.5	264	278	255	120	830
24	62.5	43.0	71.5	45.0	24.0	257	272	250	117	810
23	62.0	42.5	71.0	44.0	23.0	251	266	245	115	795
22	61.5	41.5	70.5	43.0	22.0	246	261	240	112	775
21	61.0	41.0	70.0	42.5	20.5	241	256	235	110	760
20	60.5	40.0	69.5	41.5	19.5	236	251	230	108	745

Soft Steel, Grey and Malleable Cast Iron

B 100 kg	G 150 kg	15-T 15 kg	30-T 30 kg	45-T 45 kg	A 60 kg Rock-well	Knoop Hard-ness 500 g & over	Brinell Hardness 3000 kg		Tensile Strength Approx. Only	
ROCKWELL		SUPERFICIAL					500 kg	3000 kg		
1/16" Ball	1/16" Ball	1/16" Ball	1/16" Ball	1/16" Ball	BRALE		10 mm Ball	D.P.H. 10 kg	ksi	MPa
100	82.5	93.0	82.0	72.0	61.5	251	201	240	116	790
99	81.0	92.5	81.5	71.0	61.0	246	195	234	112	770
98	79.0	–	81.0	70.0	60.0	241	189	228	109	750
97	77.5	92.0	80.5	69.0	59.5	236	184	222	106	730
96	76.0	–	80.0	68.0	59.0	231	179	216	103	710
95	74.0	91.5	79.0	67.0	58.0	226	175	210	101	695
94	72.5	–	78.5	66.0	57.5	221	171	205	98	675
93	71.0	91.0	78.0	65.5	57.0	216	167	200	96	660
92	69.0	90.5	77.5	64.5	56.5	211	163	195	93	640
91	67.5	–	77.0	63.5	56.0	206	160	190	91	625
90	66.0	90.0	76.0	62.5	55.5	201	157	185	89	615
89	64.0	89.5	75.5	61.5	55.0	196	154	180	87	600
88	62.5	–	75.0	60.5	54.0	192	151	176	85	585
87	61.0	89.0	74.5	59.5	53.5	188	148	172	83	570
86	59.0	88.5	74.0	58.5	53.0	184	145	169	81	560
85	57.5	–	73.5	58.0	52.5	180	142	165	80	550
84	56.0	88.0	73.0	57.0	52.0	176	140	162	78	540
83	54.0	87.5	72.0	56.0	51.0	173	137	159	77	530
82	52.5	–	71.5	55.0	50.5	170	135	156	75	520
81	51.0	87.0	71.0	54.0	50.0	167	133	153	74	510
80	49.0	86.5	70.0	53.0	49.5	164	130	150	72	500
79	47.5	–	69.5	52.0	49.0	161	128	147	71	490
78	46.0	86.0	69.0	51.0	48.5	158	126	144	70	480
77	44.0	85.5	68.0	50.0	48.0	155	124	141	68	470
76	42.5	–	67.5	49.0	47.0	152	122	139	67	460
75	41.0	85.0	67.0	48.5	46.5	150	120	137	66	455
74	39.0	–	66.0	47.5	46.0	147	118	135	–	–
73	37.5	84.5	65.5	46.5	45.5	145	116	132	–	–
72	36.0	84.0	65.0	45.5	45.0	143	114	130	–	–
71	34.5	–	64.0	44.5	44.5	141	112	127	–	–
70	32.5	83.5	63.5	43.5	44.0	139	110	125	–	–
69	31.0	83.0	62.5	42.5	43.5	137	109	123	–	–
68	29.5	–	62.0	41.5	43.0	135	107	121	–	–
67	28.0	82.5	61.5	40.5	42.5	133	106	119	–	–
66	26.5	82.0	60.5	39.5	42.0	131	104	117	–	–
65	25.0	–	60.0	38.5	–	129	102	116	–	–

NOTE: Hardness and Strength Comparison Tables can only be approximate. They depend on a number of assumptions, such as metal being homogeneous and having certain hardening characteristics. Therefore, these tables are provided only for comparing different hardness scales with each other and with strength in a general way.

Strength of Materials*

MATERIAL	ULTIMATE STRENGTH						Yield Point		MODULUS OF ELASTICITY	
	Tension		Compression		Shear				psi x 10^6 (million psi)	Pa x 10^9 (GPa)
	ksi	MPa	ksi	MPa	ksi	MPa	ksi	MPa		
Gray Cast Iron (average) Class 20	22	152	90	620	–	–	–	–	14	96
Gray Cast Iron (good) Class 30	32	221	115	790	–	–	–	–	16	110
Gray Cast Iron (high-str) Class 40	43	296	150	1030	–	–	–	–	20	138
Malleable Iron, Grade 32510	55	379	–	–	40	276	36	248	25	172
Malleable Iron, Grade 35018	58	400	–	–	42	290	40	276	25	172
Malleable Iron, Grade 60004	88	606	–	–	62	427	66	455	25	172
Wrought Iron	48	331	46	317	40	276	25	172	27	186
Cast Steel Med. Carbon	70	483	70	483	50	345	38	262	30	207
Steel: Structural A 36	60	413	60	413	45	310	36	248	29	200
1020 cold finished	70	483	70	483	50	345	50	345	29	200
HSLA (Cor-Ten, Tri-Ten, etc.)	80	550	80	550	56	386	55	379	29	200
1035 cold finished	85	586	85	586	63	434	65	448	29	200
4140 cold finished	110	758	110	758	70	483	85	586	29	200
Stressproof	132	910	132	910	79	545	100	690	29	200
Aluminum 30003-0 – annealed	16	110	16	110	11	–	6	–	10	69
Aluminum 5052-0 – annealed	28	193	28	193	18	124	13	90	10.2	70
Aluminum 5052-H34 hard	38	262	38	262	21	145	31	214	10.2	70
Aluminum 6061-0 – annealed	18	124	18	124	12	83	8	55	10	69
Aluminum 6061-T6 hard	42	290	42	290	27	186	37	255	10	69
Brass, Naval, annealed	57	393	57	393	38	262	25	172	15	103
Bronze, commercial	37	255	37	255	28	193	10	69	17	117

*Typical values; minimum or "guaranteed" values would be at least 10% less.

EXPANSION TEMPERATURE AND COLOR

Expansion of Bodies by Heat

The coefficient of linear expansion (ε) is the change in length, per unit of length, for a change of one degree of temperature. The coefficient of surface expansion is approximately two times the linear coefficient, and the coefficient of volume expansion, for solids, is approximately three times the linear coefficient.

A bar, free to move, will increase in length with an increase in temperature and will decrease in length with a decrease in temperature. The change in length will be εtl, where (ε) is the coefficient of linear expansion, (t) the change in temperature, and (l) the length. If the ends of a bar are fixed, a change in temperature (t) will cause a change in the unit stress of $E\varepsilon t$, and in the total (stress of) $AE\varepsilon t$, where A is the cross-sectional area of the bar and (ε) the modulus of elasticity.

The table below gives coefficients of linear expansion for 10,000,000 degrees (or 10^7 times the value indicated above).

Example: A piece of ferritic malleable iron is exactly 40 inches long at 60° Fahrenheit. Find the length at 90° Fahrenheit, assuming the ends are free to move.

$$\text{Change of length} = \varepsilon tl = \frac{59 \times 30 \times 40}{10^7} = 0.0007 \text{ inches}$$

The length at 90° Fahrenheit is 40.007 inch.

Example: A piece of ferritic malleable is exactly 40 inches long, ends are fixed. If the temperature increases 30° Fahrenheit, what is the resulting change in unit stress?

$$\text{Change in unit stress} = E\varepsilon t = \frac{29{,}000{,}000 \times 59 \times 30}{10^7} = 5133 \text{ pounds per square inch}$$

COEFFICIENTS OF LINEAR EXPANSION

Substance	Expansion		Substance	Expansion	
	per 10^7 °F	per 10^7 °C		per 10^7 °F	per 10^7 °C
Aluminum	123-134	221-241	Plastics (acetal, acrylic, nylon, etc.)	445-500	800-900
Brass & Bronzes	90-118	162-212		(may be half these values if glass reinforced)	
Carbides & Ceramets	25-46	45-83			
Cast Iron (gray & ductile)	56-88	102-122	Polyethylene	900-1200	1600-2200
Chromium	34	61	Porcelain	20	36
Concrete	59-79	106-142	Rubber	428	770
Copper	90-98	162-176	Sandstone	55-61	99-110
Glass (plate, crown, flint, soda lime)	44-50	79-90	Silver	108	194
Glass (ferrosilicate, pyrex)	18	32	Slate	48-58	86-104
Granite	40-47	72-85	Solder	134	241
Ice	283	509	Stainless Steel		
Lead & Alloys	157-163	283-293	Ferritic & Martinsitic	52-66	94-119
Limestone	33-50	59-90	Austentic & Cast	83-104	149-187
Magnesium & Alloys	140-180	252-324	Steel, High Carbon & Alloy	73-84	131-151
Malleable Iron, Ferritic	59	106	Steel, Low Carbon	56-67	101-121
Malleable Iron, Pearlitic	75	135	Tin	116	209
Masonry	31-53	56-95	Titanium & Alloys	45-60	81-108
Phenolics	90-180	160-320	Wood	24-36	43-65
Plaster	92	166	Zinc	141	254

HIGH TEMPERATURES JUDGED BY COLOR*

Color	Temperature °F	Color	Temperature °F
Dark blood red, black red	990	Orange, free scaling heat	1650
Dark red, blood red, low red	1050	Light orange	1725
Dark cherry red	1175	Yellow	1825
Medium cherry red	1250	Light Yellow	1975
Cherry, full red	1375	White	2200
Light cherry, light red	1550		

*This table associating color and temperature of iron or steel is due to White and Taylor.

■ CHAIN AND SPROCKET INDEX

Chain No.	Cat. Page	Chain Pitch	Type of Chain	Sprocket
CHAMP 3	34	3.075	Drive Chain	1030
4	10	4.000	Elevator and Conveyor	1120
6	11	6.000	Elevator and Conveyor	197
6 SP	11	6.000	Elevator and Conveyor	1131
ROA 40	34	3.075	Drive Chain	1030
ROA 40 HYPER	34	3.075	Drive Chain	1030
NH 45	65	1.630	Polymeric	N45
C 55	54	1.630	Combination	55
C 56	54	1.630	Combination	56
RS 60	10	4.040	Elevator and Conveyor	RS60
H 74	47	2.609	H Mill	78
C 77	54	2.308	Combination	67
NH 77	65	2.308	Polymeric	N77
H 78	47	2.609	H Mill	78
H 78 RT	51	2.609	Roof-Top	78
NH 78	65	2.609	Polymeric	N78
NHT 78	65	2.609	Polymeric	N78
WH 78	65	2.609	Welded Steel	78
WHT 78	65	2.609	Welded Steel	78
WR 78	65	2.609	Welded Steel	78
81 X	65	2.609	Elevator and Conveyor	78
RS 81 X	65	2.609	Elevator and Conveyor	78
81 XH	65	2.609	Elevator and Conveyor	78
RS 81 XH	65	2.609	Elevator and Conveyor	78
81 XHH	65	2.609	Elevator and Conveyor	78
RS 81 XHH	65	2.609	Elevator and Conveyor	78
H 82	65	3.075	H Mill	103
NH 82	65	3.075	Polymeric	N82
WH 82	38	3.075	Welded Steel	103
C 102 B	54	4.000	Combination	102B
ER 102 B	14	4.000	Elevator and Conveyor	102B
S 102 B	14		Renamed ER102B	
SBS 102 B	14	4.000	Elevator and Conveyor	102B
WD 102	39	5.000	Welded Steel	H102
WDH 102	39	5.000	Welded Steel	H102
C 102.5	54	4.040	Combination	102.5
ER 102.5	14	4.040	Elevator and Conveyor	102.5
S 102.5	14		Renamed ER102.5	
SBS 102.5	14	4.040	Elevator and Conveyor	102.5
H 104	48	6.000	Cast Drag	H104
WD 104	39	6.000	Welded Steel	H104
WDH 104	39	6.000	Welded Steel	H104
WHX 106	38	6.000	Welded Steel	106
WHX 106 SHD	38	6.000	Welded Steel	106
WHX 106 XHD	38	6.050	Welded Steel	106
C 110	54	6.000	Combination	110
ER 110	14	6.000	Elevator and Conveyor	110
H 110	48	6.000	Cast Drag	H110
S 110	14		Renamed ER110	
SBS 110	14	6.000	Elevator and Conveyor	110
WD 110	39	6.000	Welded Steel	H110
WH 110	39	6.000	Welded Steel	110
WHD 110	39	6.000	Welded Steel	H110
C 111	54	4.760	Combination	111
C 111 W2	54	4.760	Combination	111
ER 111	14	4.760	Elevator and Conveyor	111
ES 111			Renamed ER111	
ER 111 SP	14	4.760* 7.420*	Elevator and Conveyor	111SP
ES 111 SP	14		Renamed ER111SP	
SBS 111	14	4.760	Elevator and Conveyor	111
WHX 111	38	4.760	Welded Steel	111
WD 112	39	8.000	Welded Steel	H112
WDH 112	39	8.000	Welded Steel	H112
WD 113	39	6.000	Welded Steel	H110
WDH 113	39	6.000	Welded Steel	H110
WD 116	39	8.000	Welded Steel	H116
WDH 116	39	8.000	Welded Steel	H116
WD 118	39	8.000	Welded Steel	WD118
WDH 118	39	8.000	Welded Steel	WD118
CC 119	48	6.000	Cast Steel Drag	119
SM 120	71	2.500	Double Flex	9250

Chain No.	Cat. Page	Chain Pitch	Type of Chain	Sprocket
WD 120	39	6.000	Welded Steel	H120
WDH 120	39	6.000	Welded Steel	H120
CC 123	48	9.000	Cast Steel Drag	H123
H 124	47	4.000	Cast Drag	H124
C 124 W	54	4.063	Combination	1240
ROA 124	34	4.063	Drive Chain	1240
WHX 124	38	4.000	Welded Steel	H124
WHX 124 HD	38	4.063	Welded Steel	H124
WSX 124	38	4.000	Welded Steel	H124
XHD 124	52	4.060	Combination	XDH124
130 RT	51	4.000	Roof-Top	130
WHT 130/138	38	4.000	Welded Steel	130
C 131	54	3.075	Combination	103
ER 131	14	3.075	Elevator and Conveyor	103
S 131	14		Renamed ER131	
SBS 131	14	3.075	Elevator and Conveyor	103
AX 132 WS	54	6.050	Combination	132
AZ 132 WS	54	6.050	Combination	132
C 132	54	6.050	Combination	132
C 132 W1	54	6.050	Combination	132
C 132 W2	54	6.050	Combination	132
WHX 132	38	6.050	Welded Steel	132
WSX 132	38	6.050	Welded Steel	132
XHD 132	52	6.050	Combination	XDH132
C 133	54	6.000	Combination	133
138 RT	51	4.000	Roof-Top	130
SBS 150 +	14	6.050	Elevator and Conveyor	132
SBS 150 +	14	6.050	Elevator and Conveyor	132
ER 150	14	6.050	Elevator and Conveyor	132
ERA 150	14	6.050	Elevator and Conveyor	132
SX 150	14		Renamed ER150	
SXA 150	14		Renamed ERA150	
WHX 150	38	6.050	Welded Steel	132
SS 152	38	1.506	Elevator and Conveyor	152
WHX 155	38	6.050	Welded Steel	132
WHX 157	38	6.050	Welded Steel	132
XHD 157	52	6.050	Combination	XDH157
WHX 159	38	6.125	Welded Steel	132
SX 175	14	6.050	Elevator and Conveyor	SX175
SR 183	10	3.000	Elevator and Conveyor	183
C 188	54	2.609	Combination	78
S 188	14	2.609	Elevator and Conveyor	78
SBS 188	14	2.609	Elevator and Conveyor	78
SR 188	10	4.000	Elevator and Conveyor	188
SR 194	10	4.000	Elevator and Conveyor	194
SR 196	11	6.000	Elevator and Conveyor	196
SRC 196	72	6.000	LF Bushed Chains	196
SRD 196	72	6.000	SS Bushed Chains	196
RX 238	34	3.500	Drive Chain	238
N 250 WS	70	2.500	Polymeric Double Flex	N250
270	10	2.609	Elevator and Conveyor	270
RS 303	10	3.000	Elevator and Conveyor	303
N 325 WS	68	2.268	Polymeric Double Flex	N325
X 345	35	3.000	Drive Chain	X345
N 348	59	3.015	Drop Forged	348
S 348	59	3.031	Drop Forged	348
X 348	59	3.015	Drop Forged	348
R 362	34	1.654	Drive Chain	62
RR 362	10	1.654	Elevator and Conveyor	62
R 432	34	1.654	Drive Chain	62
RR 432	10	1.654	Elevator and Conveyor	62
S 458	59	4.031	Drop Forged	458
X 458	59	4.031	Drop Forged	458
468	59	4.031	Drop Forged	468
S 468	59	4.031	Drop Forged	468
WD 480	39	8.000	Welded Steel	H480
WDH 480	39	8.000	Welded Steel	H480
R 506	39	2.300	Drive Chain	506
B 508 H	39	2.620	Drive Chain	508
R 514	39	2.500	Drive Chain	514
A 520	39	2.563	Drive Chain	520
531	39	4.000	Elevator and Conveyor	531

*Two-Pitch Chain

■ CHAIN AND SPROCKET INDEX

■ CHAIN AND SPROCKET INDEX

Chain No.	Cat. Page	Chain Pitch	Type of Chain	Sprocket
1670	11	6.000	Elevator and Conveyor	2180
A 1670	72	6.000	LF Bushed Chains	2180
B 1670	72	6.000	SS Bushed Chains	2180
R 1706	13	12.000	Elevator and Conveyor	2452
ER 1822	13	18.000	Elevator and Conveyor	E1822
FR 1822	13	18.000	Elevator and Conveyor	F1822
F 1833	13	18.000	Elevator and Conveyor	F1833
FR 1844	13	18.000	Elevator and Conveyor	F1844
SBS 1972	14	3.075	Elevator and Conveyor	1536
SS 2004	10	2.609	Elevator and Conveyor	270
ROA 2010	34	2.500	Drive Chain	514
RS 2047	11	6.000	Elevator and Conveyor	2047
RS 2064	12	9.000	Elevator and Conveyor	2064
SBO 2103	14	3.075	Elevator and Conveyor	103
BR 2111	11	6.000	Elevator and Conveyor	2111
RO 2113	10	4.040	Elevator and Conveyor	1113
A 2124	11	6.000	Elevator and Conveyor	2124
C 2124	11	6.000	Elevator and Conveyor	2124
2126	11	6.000	Elevator and Conveyor	196
SBS 2162	14	3.075	Elevator and Conveyor	1535
A 2178	11	6.000	Elevator and Conveyor	2124
2180	11	6.000	Elevator and Conveyor	2180
2183	11	6.000	Elevator and Conveyor	1131
F 2183	11	6.000	Elevator and Conveyor	S951
FX 2184	11	6.000	Elevator and Conveyor	1131
2188	10	4.000	Elevator and Conveyor	188
RS 2188	10	4.000	Elevator and Conveyor	188
RO 2184	11	6.000	Elevator and Conveyor	1131
2190	11	6.000	Elevator and Conveyor	197
RS 2190	11	6.000	Elevator and Conveyor	197
A 2198	11	6.000	Elevator and Conveyor	2124
WDH 2210	40	6.136	Welded Steel Drag	H110
SBS 2236	14	4.000	Elevator and Conveyor	2236
RO 2284	11	6.000	Elevator and Conveyor	1131
RO 2284 +	11	6.000	Elevator and Conveyor	1131
WDH 2316	40	8.126	Welded Steel Drag	H116
R 2342	12	9.000	Elevator and Conveyor	2342
WDH 2380	40	8.161	Welded Steel Drag	H480
RR 2397	13	12.000	Elevator and Conveyor	2397
R 2405	12	9.000	Elevator and Conveyor	2342
ROA 2512	34	3.067	Drive Chain	1568
RS 2600	11	6.000	Elevator and Conveyor	2600
R 2614	13	12.000	Elevator and Conveyor	2614
A 2800	12	8.000	Elevator and Conveyor	2800
RS 2800	12	8.000	Elevator and Conveyor	2800
RS 2804	12	8.000	Elevator and Conveyor	2804
RS 2806	12	8.000	Elevator and Conveyor	2806
ROA 2814	34	3.500	Drive Chain	238
R 2823	14	4.000	Elevator and Conveyor	823
C 2848	10	4.040	Elevator and Conveyor	2848
WHX 2855	38	6.050	Welded Steel	132
SBX 2857	14	6.000	Elevator and Conveyor	856
2858	10	4.083	Elevator and Conveyor	2858
SBX 2859	14	6.000	Elevator and Conveyor	859
SBX 2864	14	7.000	Elevator and Conveyor	864
A 2868	10	4.000	Elevator and Conveyor	2868
RF 3007	69	3.000	Roller Conveyor	RF3007
RF 3011	69	3.000	Roller Conveyor	RF3011
RS 3013	10	3.000	Elevator and Conveyor	183
RS 3017	35	3.000	Drive Chain	X345
R 3112	34	2.000	Drive Chain	3112
B 3113	34	2.000	Drive Chain	3112
3120 CM	35	1.500	Drive Chain	ANSI #120
ROA 3120	35	1.500	Drive Chain	ANSI #120
3125	34	3.125	Drive Chain	3125
3125-2	34	3.125	Drive Chain	D31
ROA 3125 HYPER	34	3.125	Drive Chain	3125
ROA 3125-2 HYPER	34	3.125	Drive Chain	D31
SR 3130	11	6.000	Elevator and Conveyor	197
3140 CM	35	1.750	Drive Chain	ANSI #140
ROA 3140	35	1.750	Drive Chain	ANSI #140
3160 CM	35	2.000	Drive Chain	ANSI #160
ROA 3160	35	2.000	Drive Chain	ANSI #160
ROA 3160 S	35	2.000	Drive Chain	3112
3180	35	2.250	Drive Chain	ANSI #180
RS 3206	13	12.000	Elevator and Conveyor	3206
3285	10	4.500	Elevator and Conveyor	3285
ROA 3315	34	4.073	Drive Chain	1240
3420	10	4.040	Elevator and Conveyor	1113
A 3420	72	4.040	LF Bushed Chains	1113
B 3420	72	4.040	SS Bushed Chains	1113
X 3433	10	4.000	Elevator and Conveyor	3433
3498	71	1.750* 2.500*	Double Flex	3498
3500	71	2.500* 3.500*	Double Flex	3500
ROA 3618	34	4.500	Drive Chain	635
WHX 3855	38	6.050	Welded Steel	132
X 4004	12	9.000	Elevator and Conveyor	4004
RF 4007	69	4.000	Roller Conveyor	RF4007
R 4009	69	9.000	Elevator and Conveyor	4009
R 4010	69	12.000	Elevator and Conveyor	4010
4011	69	12.000	Elevator and Conveyor	4011
RF 4011	69	4.000	Roller Conveyor	RF4011
RS 4013	10	4.000	Elevator and Conveyor	1120
RS 4019	10	4.000	Elevator and Conveyor	1120
ROA 4020	34	5.000	Drive Chain	1207
SS 4038	13	12.000	Elevator and Conveyor	4038
4065	12	9.000	Elevator and Conveyor	4065
RS 4065	12	9.000	Elevator and Conveyor	4065
RS 4113	10	4.000	Elevator and Conveyor	188
4124	49	4.043	Pintle	4124
RS 4216	10	4.000	Elevator and Conveyor	194
RS 4328	10	4.000	Elevator and Conveyor	531
A 4539	10	3.075	Elevator and Conveyor	4539
ROA 4824	34	6.000	Drive Chain	1306
ROB 4824	34	6.000	Drive Chain	1306
RS 4850	13	12.000	Elevator and Conveyor	4011
RS 4851	12	9.000	Elevator and Conveyor	4009
RS 4852	12	9.000	Elevator and Conveyor	4004
WHX 4855	38	12.000	Welded Steel	4855
SBS 4871	14	9.000	Elevator and Conveyor	1903
ROA 5035	34	5.000	Drive Chain	RO1315
WHX 5121	41	9.000	Welded Steel Drag	6121
WHX 5157	41	6.050	Welded Steel Drag	5157
5208	11	6.000	Elevator and Conveyor	5208
RO 5542	34	5.500	Drive Chain	RO1356
ROA 5738	34	5.750	Drive Chain	1301
RS 6018	11	6.000	Elevator and Conveyor	196
SBO 6065	14	6.000	Elevator and Conveyor	6065
WHX 6067	41	9.000	Welded Steel Drag	6121
WHX 6121	41	9.000	Welded Steel Drag	6121
RO 6214	34	4.000	Drive Chain	RO6214
RS 6238	11	6.000	Elevator and Conveyor	197
6425 R	35	2.500	Drive Chain	645
RS 6438	11	6.000	Elevator and Conveyor	1131
RO 6555	34	7.000	Drive Chain	X1311
RO 6706	34	3.075	Drive Chain	RO6706
6826	14	6.000	Elevator and Conveyor	6826
RO 7080	35	7.000	Drive Chain	A1309
7539	10	3.110	Elevator and Conveyor	7539
7774	10	2.609	Elevator and Conveyor	270
C 9103	49	3.075	Pintle	103
WH 9103 HD	38	3.075	Welded Steel	103
SCA 9103	49	3.075	Pintle	103
9118	59	9.031	Drop Forged	9118
S 9118	59	9.031	Drop Forged	9118
FX 9184	11	6.000	Elevator and Conveyor	9184
9250	71	2.500	Double Flex	9250
N 9350 WS	68	3.500	Polymeric Double Flex	N9350
RX 9506 H	34	6.000	Drive Chain	1306
C 9856	11	6.000	Elevator and Conveyor	9856

*Two-Pitch Chain

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