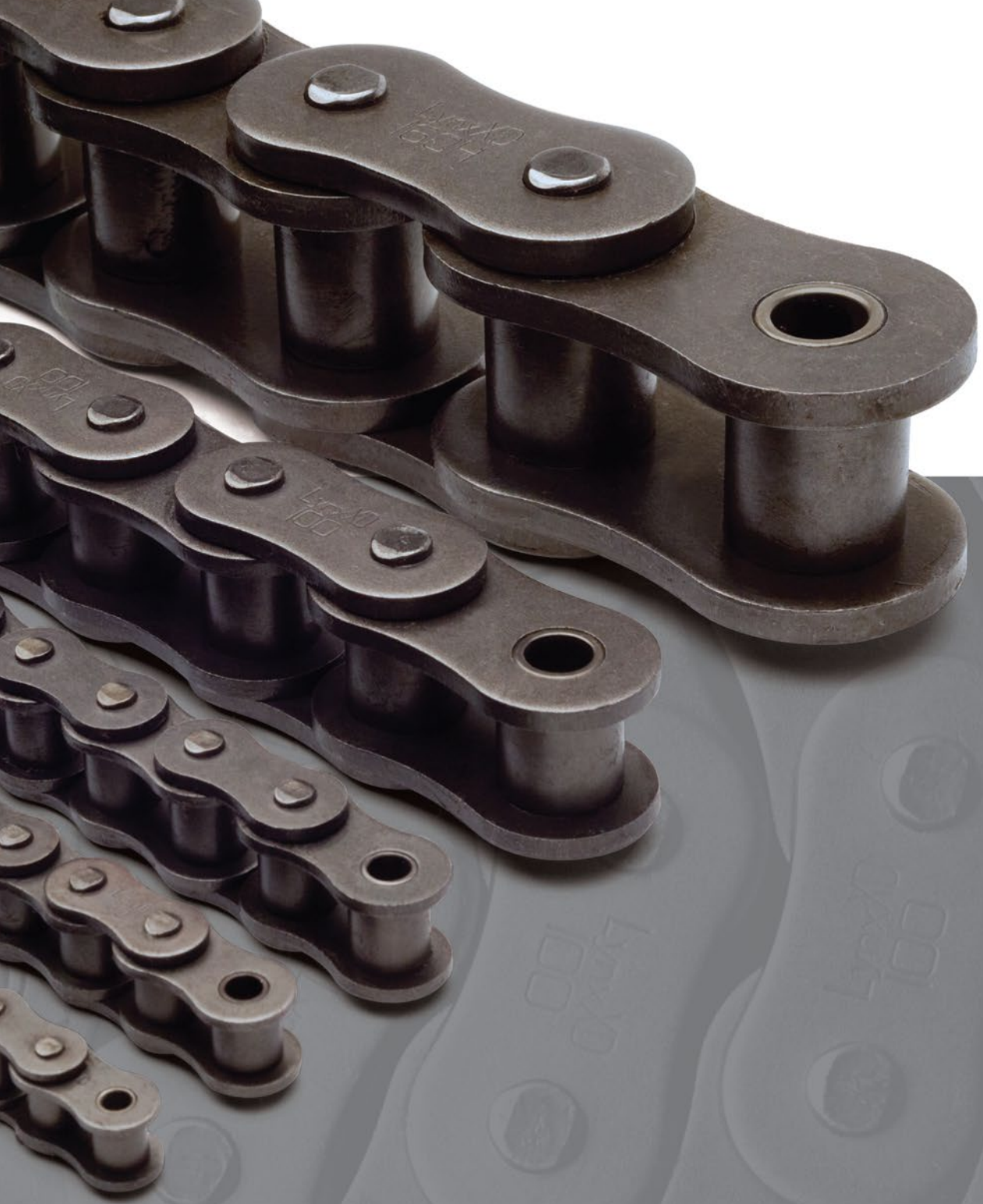


LYNX®

NINE LIVES!

LYNX CHAIN

Catalog

TABLE OF CONTENTS

Rugged.
Durable.
Efficient.
Versatile.
Reliable.

Choose the hard-working Lynx chain that suits your application.

HD — Tested Tough

XD® — Extreme Duty®

SH — Super Heavy

Contact us at sales@lynxchain.com

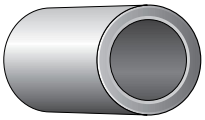
HD
TESTED TOUGH

HD Chain

HD ANSI Standard roller chain features include:

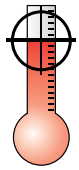
- Solid Rollers
- Seam-Aligned Bushing
- Precision Heat Treatment
- Shot-Peened Parts
- Factory Preloading

The result of all these features: ***Longer Life.***



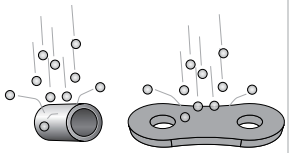
SOLID ROLLER

Split rollers, although cheaper to manufacturer, cannot provide the same level of performance as solid rollers, especially in high-speed and high-shock load applications.



PRECISION HEAT TREATMENT

Consistency in hardness is the key to consistency in performance. Lynx uses computer-controlled heat treatment.



SHOT-PEENED PARTS

Link plates and rollers are shot peened after heat treatment, increasing fatigue strength and alleviating stress concentrations.

FACTORY PRELOADING

In the final step of the manufacturing process, the chain is preloaded, which reduces initial stretch and aligns the components.

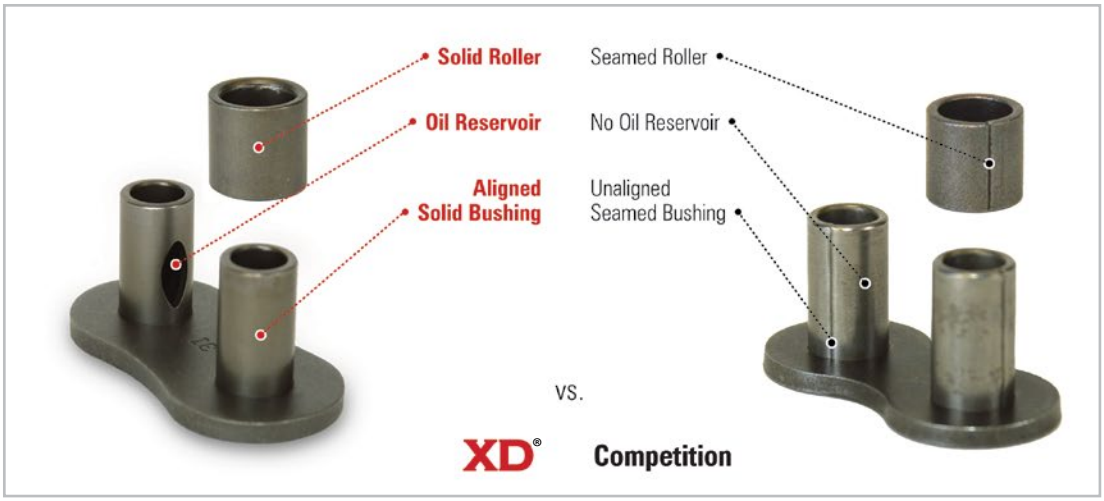
XD Chain

XD® EXTREME DUTY®

Lynx XD Extreme Duty roller chain features include:

- Solid Rollers
- Solid Bushing with Aligned Oil Reservoir
- Wide-Waist Link Plates
- Precision Heat Treatment
- Shot-Peened Parts
- Factory Preloading

Split bushings are cheaper to manufacture than solid bushings, but solid bushings resist distortion under heavy or shock-loads much better than split bushings. Because they are stamped and rolled, it is easy and inexpensive to add an oil reservoir to a split bushing, therefore some split bushings come with one. Solid bushings don't. Therefore, the advantage that split bushings have had over solid is lubricant retention. That is until now.
Lynx XD chain uses a solid roller and solid bushing with an aligned oil reservoir.*



This gives Lynx XD the advantages of both designs without the disadvantages of either. In fact, XD chain lasts 30% longer than solid bushing chain in non-relubed operations.

In addition, Lynx offers the latest innovation in connecting link design. Press-fit connecting links maintain the full load rating of the chain, but are often difficult to install. Many times a slip-fit connecting link is used for ease of installation. However, slip-fit connecting links can reduce the load rating of the chain by as much as 20%.

A new process has enabled Lynx to attain extremely precise tolerances between the connecting link pins and the holes in the removable plate. These precise tolerances allow for ease of installation without reducing the load ratings.

*Aligned oil reservoir is a standard feature on chain sizes 40—140.

SH Chain

SH Series chain is designed to endure in ultra-heavy load applications. It is dimensionally identical to the ANSI B29.1 Heavy Series and single-strand SH chain will run on standard sprockets.

SH
SUPER HEAVY

Superior features of Super Heavy chain not found in ordinary Heavy chain:

SUPER-STRENGTH PINS

Special high-strength through-hardened alloy pins give this chain a much higher load capacity.

WIDE-WAIST LINK PLATES

Wider-than-standard waist link plates greatly increase fatigue resistance and shock-load resistance.

QUAD-STAKED PINS

Quad-staked pins provide increased holding power on the sideplates to better withstand shock loads.

SOLID BUSHINGS AND SOLID ROLLERS

Solid bushings and rollers have superior roundness and strength. They resist distortion in heavy or shock-load applications.

EXTENDED HOT OIL BATH

SH chain is submerged in an extended hot oil bath. This insures that all parts of the chain come properly lubricated.

NOTE: Only use connecting links that are specifically designed for use with SH Series chain.

LYNX NUMBERING SYSTEM

XD 80H- N- 3R-10'

Lynx Series

Designator	Name
HD	ANSI Standard
XD	Extreme Duty
SH	Super Heavy
[ ]	Other

Link-Plate Style

Single Pitch	Double Pitch
Feature	Sideplate
[ ] Standard	A Figure-eight C Straight

Pitch

Single Pitch		Double Pitch	
Size	Pitch	Size	Pitch
25	1/4"	—	—
35	3/8"	—	—
40	1/2"	2040	1"
50	5/8"	2050	1-1/4"
60	3/4"	2060	1-1/2"
80	1"	2080	2"
100	1-1/4"	2100	2-1/2"
120	1-1/2"	2120	3"
140	1-3/4"	—	—
160	2"	2160	4"
180	2-1/4"	—	—
200	2-1/2"	—	—
240	3"	—	—

Standard/Nonstandard

Single Pitch	Double Pitch
Duty or Design	Roller Size
0 Standard 1 Light Duty 5 Rollerless	0 Standard 2 Large roller

Link-Plate Thickness

Single Pitch	Double Pitch
Gauge	Gauge
[ ] Standard link-plate thickness is equal to pitch x 0.125 inches **H Heavy Series** link-plate thickness is equal to the next larger pitch	**[ ] Standard** link-plate thickness is equal to pitch x 0.062 inches **H Heavy Series** link-plate thickness is equal to pitch x 0.062 + 0.031 inches

Standard Lengths

Single Pitch		Double Pitch	
Length	Packaging	Length	Packaging
10-feet	box	10-feet	box
50-feet	reel	50-feet	reel
100-feet	reel	100-feet	reel

Securing Method

Single Pitch	Double Pitch
Pin-link plate secured by:	Pin-link plate secured by:
R Riveted the pins are riveted and hold the pin-link plate in place **C Cottered** holes are drilled in the ends of the pins and cotter pins are inserted to hold the link plate in place.	**R Riveted** the pins are riveted and hold the pin-link plate in place

Strands

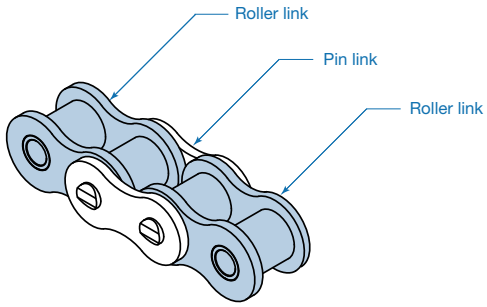
Single Pitch	Double Pitch
Strands	Strands
-1 Single Strand -2 Double Strand -3 Triple Strand Quadruple strand and above are available by special order.	[ ] Single Strand

Special Features

Single Pitch	Double Pitch
Type	Type
[ ] Standard DR Dacroclad HP Hollow Pin N Nickel Plated SL Self-Lube SS Stainless Steel	[ ] Standard HP Hollow Pin SL Self-Lube

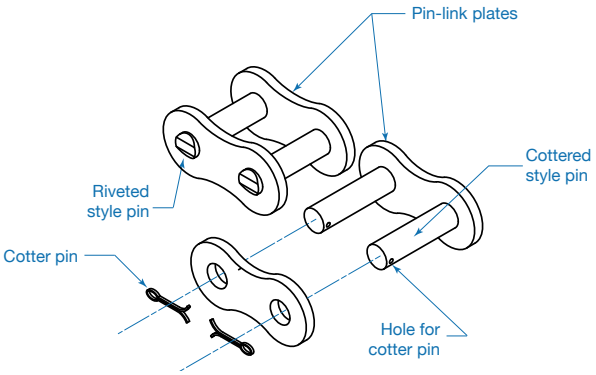
CONSTRUCTION

Roller Chain—
A series of alternately assembled **pin links** and **roller links**. The pins articulate inside the bushings and the rollers are free to turn on the bushings.

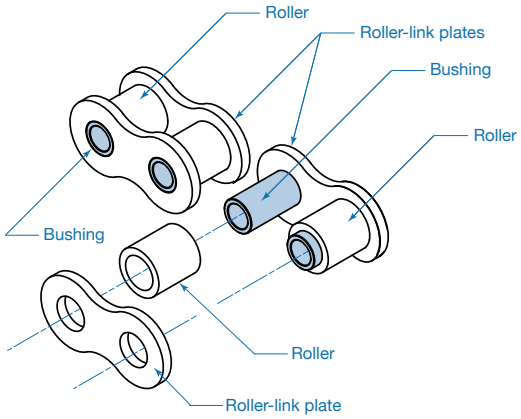


COMPONENTS

Pin Link—
An outside link consisting of two pin-link plates assembled using a press-fit with two pins which do not turn. On riveted chain, pin-link plates are held in place by riveting both sides. On cottered chain, pin-link plates are fastened by riveting one side and using cotter pins on the other.

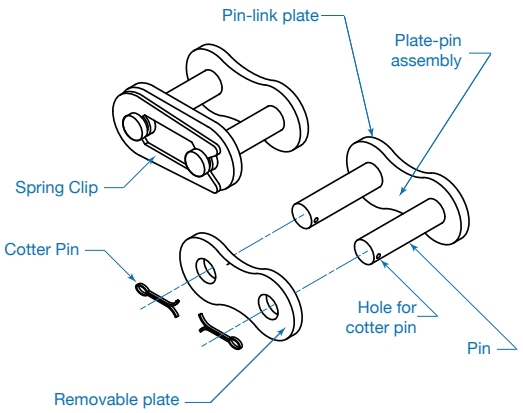


Roller Link—
An inside link consisting of two roller-link plates, press-fit on two bushings which do not turn, and two rollers which turn freely.

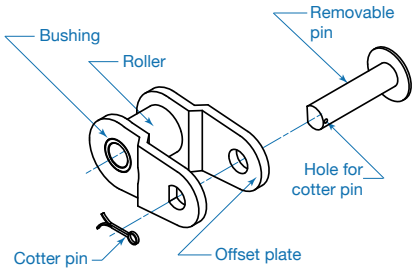


CONNECTORS

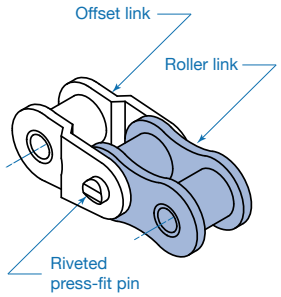
Connecting Link—
An outside link consisting of a plate-pin assembly, a removable plate, and two cotter pins or a spring clip. The removable plate is available in slip-fit, tap-fit, or press-fit.



Offset Link—
A link consisting of two offset-link plates, a bushing, a roller, a removable pin and cotter pin. On the cotter pin side, the removable pin has a flat to keep it from turning.



Offset Section—
A two-link section consisting of an offset link and a roller link connected by a riveted press-fit pin.



Lynx offers three kinds of corrosion-resistant chain. For applications ranging from frequent washdown to chemical exposure, Lynx has you covered.

Stainless Steel

Stainless-steel chain has very high corrosion resistance on all surfaces, including internal surfaces such as pins and bushings. Typically stainless-steel chain has 25% of the strength of standard chain.

Nickel Plated

Nickel-plated chain has the same strength as standard-steel chain. It also provides moderate corrosion resistance on external surfaces at a much lower price than stainless or coated chain.

Dacroclad

Dacroclad chain provides an excellent combination of corrosion resistance and strength. It has the same strength as standard steel chain, and the coating provides a barrier that is more corrosion resistant than nickel plating. Unlike nickel-plated chain, this coating is evenly applied to all surfaces. Dacroclad chain will last longer in harsh environments such as saltwater and salt spray.

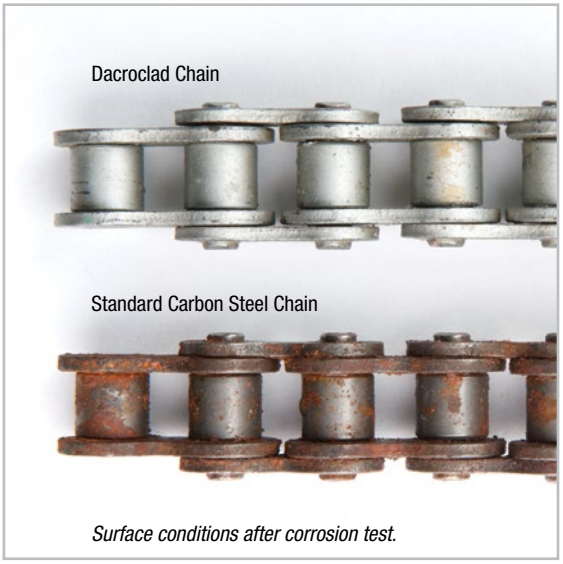
DACROCLAD®

Full protection. Full strength.

The Dacroclad Advantage

Since plating causes dimensional changes, nickel-plated chain is not plated on the internal parts due to clearance issues. This leaves part of the chain unprotected. In addition, nickel-plated chain sometimes flakes and chips.

Dacroclad chain does not flake or chip and all surfaces are protected.



Surface conditions after corrosion test.

Barrier Protection

Layers of overlapping zinc and aluminum platelets provide an excellent barrier.

Self-Repairing

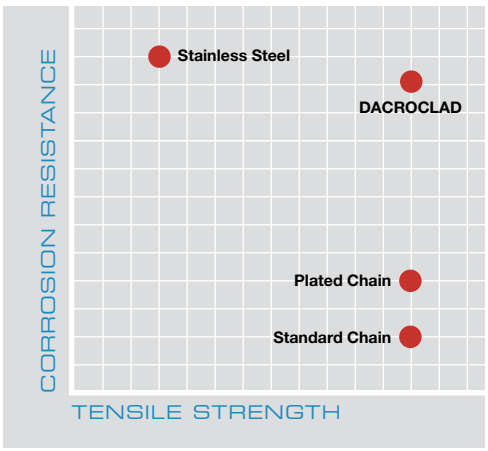
Damaged areas in the coating fill with zinc oxides and carbonates.

Galvanic Action

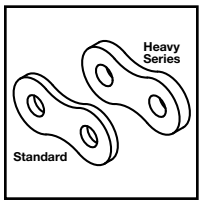
Zinc corrodes to protect steel.

Passivation

Metal oxides in the matrix retard corrosion reactions.

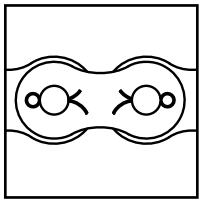


ROLLER CHAIN TERMS



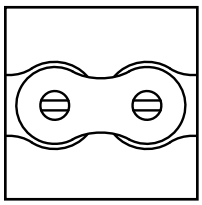
Heavy Series

Heavy series roller chain has thicker side plates and slightly longer pins. Thicker side plates increase the working load by approximately 10%. In applications where the working load is the primary consideration, heavy series chain can be the most economical way to increase chain life.



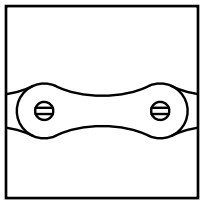
Cottered

On cottered roller chain the side plates on one side are held in place by cotter pins. Therefore, adjusting the length of the chain is easier than with riveted chain. This is because each individual link can be assembled or disassembled without breaking the chain.



Riveted

On riveted roller chain the side plates on both sides are held in place by riveting the pins. In order to disassemble riveted chain it is necessary to destroy the rivet in order to break the chain. Therefore it is more difficult to adjust the length of riveted chain than it is with cottered.

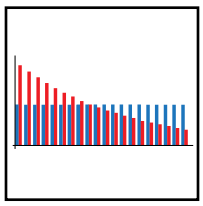


Double Pitch

The pitch length of double-pitch (aka extended-pitch) roller chain is twice that of standard. The width and roller size are equal to standard. Up to 22 teeth, sprockets specifically designed for double-pitch chain are used. These may be single- or double-cut. Above 22 teeth, it is customary to use standard sprockets. Double-pitch chain is cheaper on long center-distance drives.

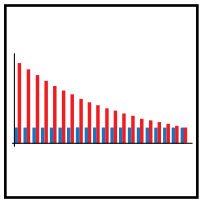
Self Lube

On self-lube chain an oil-impregnated sintered-steel bushing provides continuous lubrication to the pins and rollers. It is useful in applications where relubrication is difficult or where cleanliness is important.



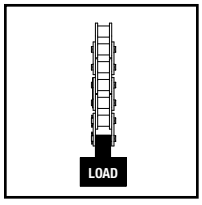
Average Tensile Strength

A load is applied to a strand of chain and is increased until the chain breaks. This procedure is repeated many times. The average of the loads required to break each of these strands of chain is then calculated. The result is the average tensile strength.



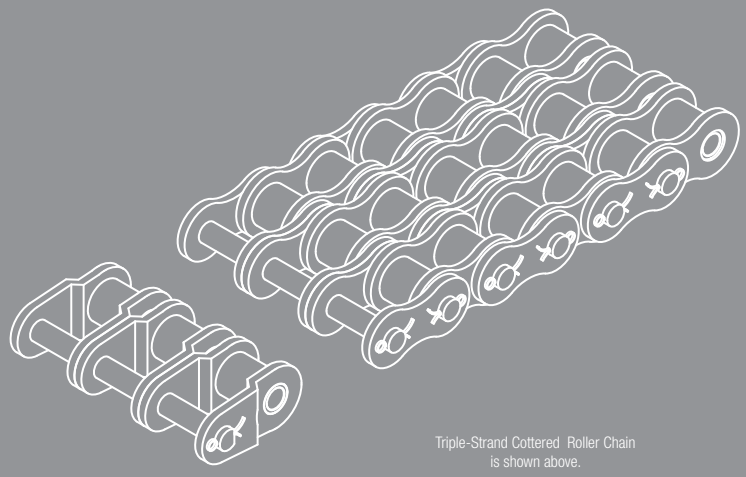
Minimum Ultimate Tensile Strength

This is the minimum load at which a new strand of chain could break when subjected to a single tensile-loading test.



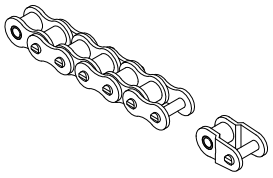
Maximum Working Load

The largest load under which a chain is designed to operate in normal conditions without fatigue failure.



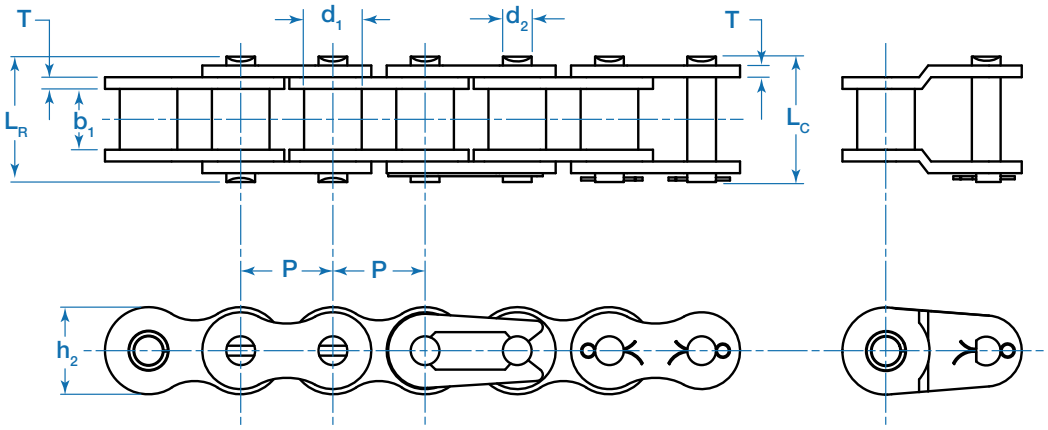
Triple-Strand Cottered Roller Chain
is shown above.

ROLLER CHAIN



HD (Riveted)

Single Strand

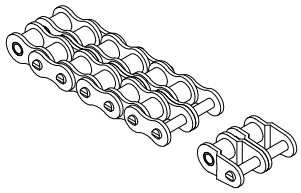


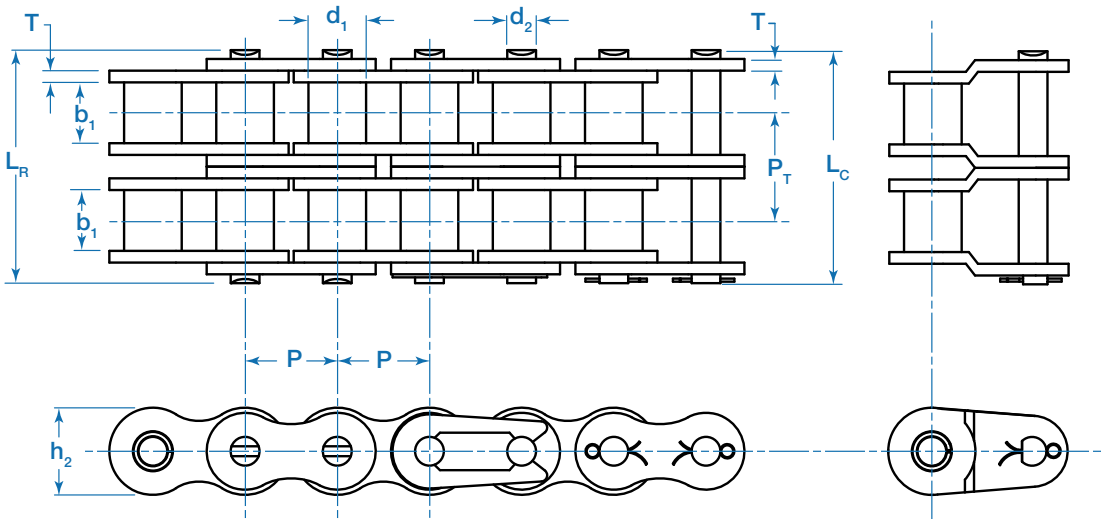
Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_C max	h_2 max	T max				
	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
HD25 RIV*	0.250	0.130	0.125	0.091	0.36	0.46	0.24	0.030	795	1034	142	0.1
HD35 RIV*	0.375	0.200	0.188	0.141	0.52	0.64	0.35	0.050	1795	2428	490	0.2
HD41 RIV	0.500	0.306	0.250	0.141	0.59	0.72	0.39	0.050	1516	2832	505	0.3
HD40 RIV	0.500	0.312	0.312	0.156	0.70	0.83	0.47	0.060	3205	3934	830	0.4
HD50 RIV	0.625	0.400	0.375	0.200	0.86	1.01	0.59	0.080	5045	6609	1478	0.7
HD60 RIV	0.750	0.469	0.500	0.234	1.06	1.23	0.71	0.094	7227	9329	2035	1.0
HD80 RIV	1.000	0.625	0.625	0.312	1.34	1.54	0.94	0.125	12886	15601	3402	1.8
HD100 RIV	1.250	0.750	0.750	0.375	1.62	1.85	1.18	0.156	20114	24548	5222	2.6
HD120 RIV	1.500	0.875	1.000	0.437	2.03	2.30	1.41	0.187	28864	35136	7009	3.8
HD140 RIV	1.750	1.000	1.000	0.500	2.19	2.49	1.61	0.219	39182	47658	9253	5.0
HD160 RIV	2.000	1.125	1.250	0.562	2.60	2.94	1.88	0.250	51545	62697	12268	6.8
HD180 RIV	2.250	1.406	1.406	0.687	2.91	3.28	2.11	0.281	63682	76837	13757	9.0
HD200 RIV	2.500	1.562	1.500	0.781	3.16	3.56	2.36	0.312	80409	97024	16560	10.9
HD240 RIV	3.000	1.875	1.875	0.937	3.86	4.33	2.85	0.375	115977	139938	22958	15.6

*Bushing chain: d_1 in the table indicates the external diameter of the bushing.

HD (Riveted)

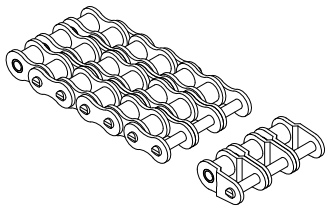
Double Strand





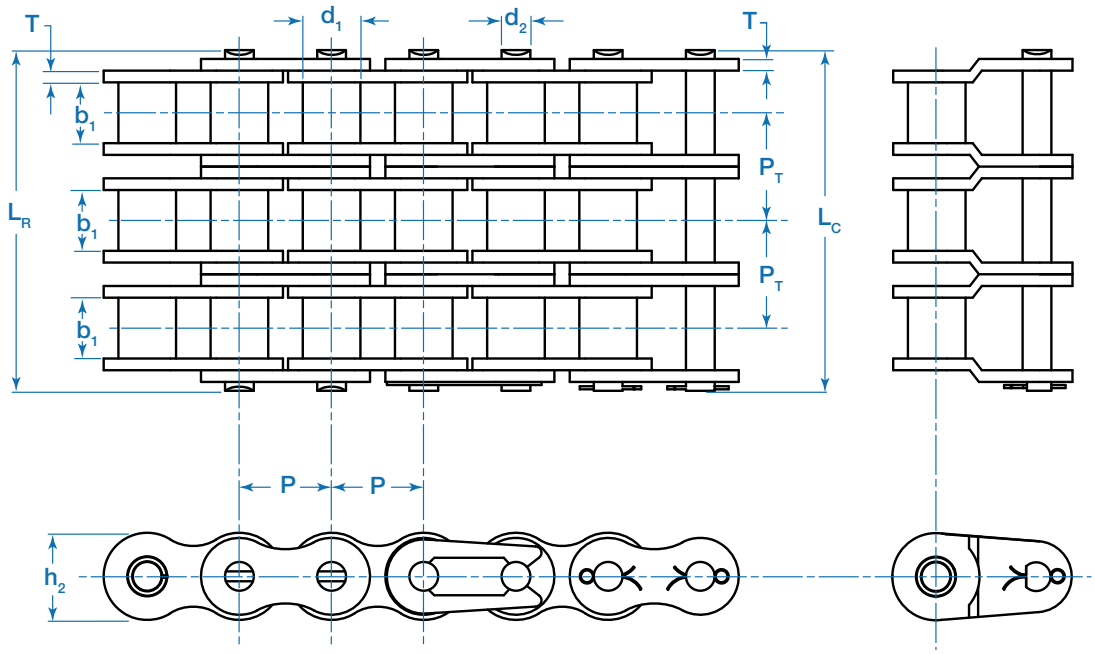
Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness	Transverse Pitch	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_c max	h_2 max	T max	P_T				
	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
HD25-2 RIV*	0.250	0.130	0.125	0.091	0.61	0.71	0.24	0.030	0.25	1595	1933	245	0.2
HD35-2 RIV*	0.375	0.200	0.188	0.141	0.92	1.04	0.35	0.050	0.40	3591	4429	826	0.4
HD40-2 RIV	0.500	0.312	0.312	0.156	1.27	1.40	0.47	0.060	0.57	6409	8070	1405	0.8
HD50-2 RIV	0.625	0.400	0.375	0.200	1.57	1.72	0.59	0.080	0.71	10091	13061	2512	1.3
HD60-2 RIV	0.750	0.469	0.500	0.234	1.95	2.12	0.71	0.094	0.90	14455	18456	3454	2.0
HD80-2 RIV	1.000	0.625	0.625	0.312	2.49	2.69	0.94	0.125	1.15	25773	31876	5783	3.5
HD100-2 RIV	1.250	0.750	0.750	0.375	3.03	3.26	1.18	0.156	1.41	40227	49321	8867	5.2
HD120-2 RIV	1.500	0.875	1.000	0.437	3.82	4.09	1.41	0.187	1.79	57727	70790	11740	7.9
HD140-2 RIV	1.750	1.000	1.000	0.500	4.11	4.41	1.61	0.219	1.92	78364	96102	15721	10.2
HD160-2 RIV	2.000	1.125	1.250	0.562	4.90	5.24	1.88	0.250	2.31	103091	126428	20855	13.5
HD180-2 RIV	2.250	1.406	1.406	0.687	5.50	5.87	2.11	0.281	2.59	127386	156236	23381	19.6
HD200-2 RIV	2.500	1.562	1.500	0.781	5.98	6.38	2.36	0.312	2.82	160818	197240	28159	21.7
HD240-2 RIV	3.000	1.875	1.875	0.937	7.31	7.78	2.85	0.375	3.46	213955	282191	35992	30.4

*Bushing chain: d_1 in the table indicates the external diameter of the bushing.



HD (Riveted)

Triple Strand

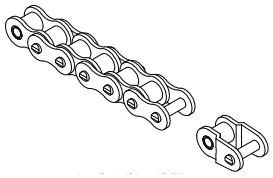


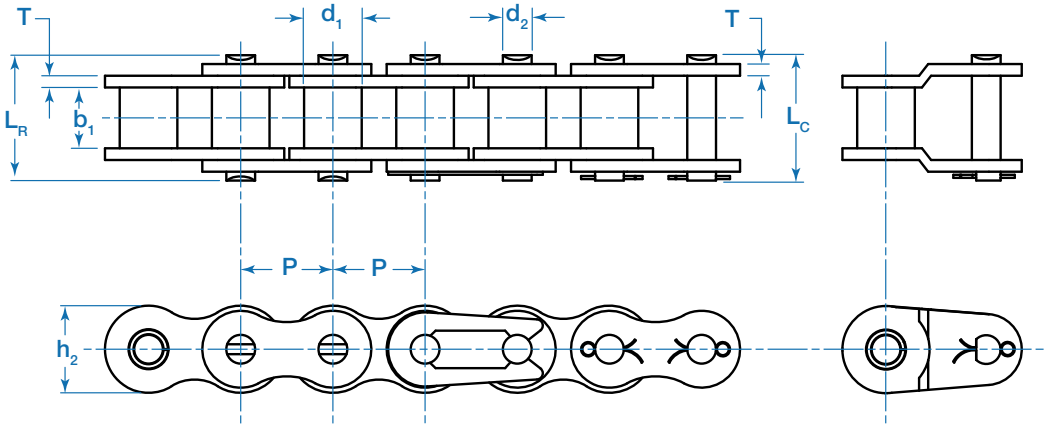
Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness	Transverse Pitch	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_c max	h_2 max	T max	P_T				
	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
HD25-3 RIV	0.250	0.130	0.125	0.091	0.86	0.96	0.24	0.030	0.25	2386	2832	355	0.3
HD35-3 RIV	0.375	0.200	0.188	0.141	1.32	1.44	0.35	0.050	0.40	5386	6429	1224	0.7
HD40-3 RIV	0.500	0.312	0.312	0.156	1.83	1.96	0.47	0.060	0.57	9614	11240	2071	1.3
HD50-3 RIV	0.625	0.400	0.375	0.200	2.29	2.44	0.59	0.080	0.71	15136	17489	3691	2.1
HD60-3 RIV	0.750	0.469	0.500	0.234	2.85	3.02	0.71	0.094	0.90	21682	24975	5088	3.1
HD80-3 RIV	1.000	0.625	0.625	0.312	3.65	3.85	0.94	0.125	1.15	38659	44600	8505	5.3
HD100-3 RIV	1.250	0.750	0.750	0.375	4.44	4.67	1.18	0.156	1.41	60341	69598	13048	7.9
HD120-3 RIV	1.500	0.875	1.000	0.437	5.61	5.88	1.41	0.187	1.79	86591	98283	17518	11.8
HD140-3 RIV	1.750	1.000	1.000	0.500	6.04	6.34	1.61	0.219	1.92	117545	133374	23132	14.9
HD160-3 RIV	2.000	1.125	1.250	0.562	7.21	7.55	1.88	0.250	2.31	154636	175479	30670	20.2
HD180-3 RIV	2.250	1.406	1.406	0.687	8.09	8.46	2.11	0.281	2.59	191068	221133	34391	25.7
HD200-3 RIV	2.500	1.562	1.500	0.781	8.80	9.20	2.36	0.312	2.82	241227	273761	41395	32.9
HD240-3 RIV	3.000	1.875	1.875	0.937	10.77	11.24	2.85	0.375	3.46	347932	394861	57391	48.1

*Bushing chain: d_1 in the table indicates the external diameter of the bushing.

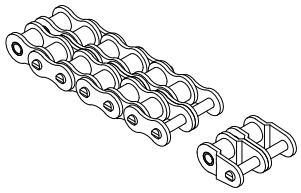
HD Heavy (Riveted)

Single Strand



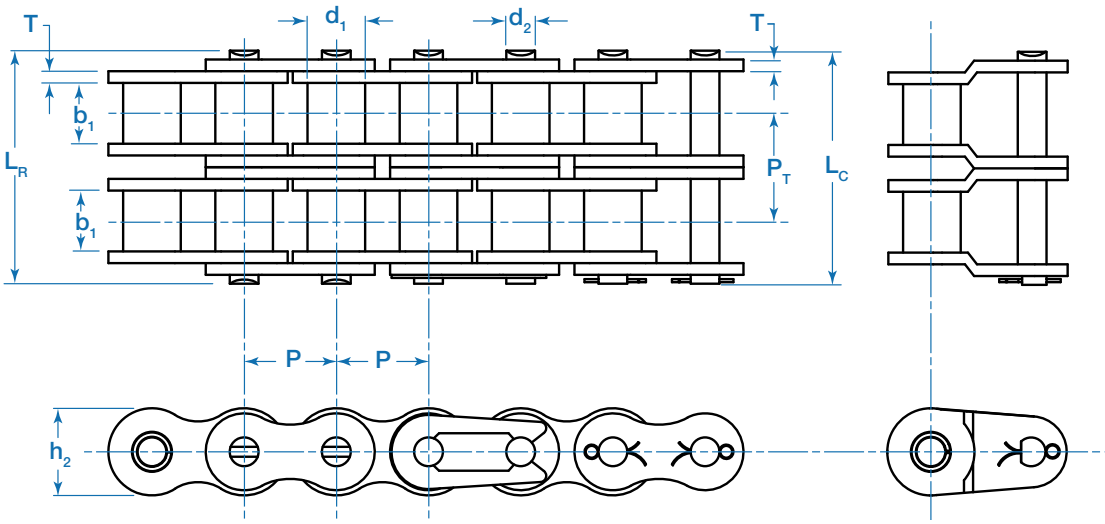


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_c max	h_2 max	T max				
	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
HD60H RIV	0.750	0.469	0.500	0.234	1.19	1.36	0.71	0.125	7227	9599	2261	1.3
HD80H RIV	1.000	0.625	0.625	0.312	1.47	1.67	0.94	0.156	12886	16051	3742	2.1
HD100H RIV	1.250	0.750	0.750	0.375	1.75	1.98	1.18	0.187	20114	25268	5674	3.0
HD120H RIV	1.500	0.875	1.000	0.437	2.16	2.43	1.41	0.219	28864	36170	7461	4.4
HD140H RIV	1.750	1.000	1.000	0.500	2.32	2.62	1.61	0.250	39182	48849	9815	5.6
HD160H RIV	2.000	1.125	1.250	0.562	2.73	3.07	1.88	0.281	51545	64248	12886	6.9
HD180H RIV	2.250	1.406	1.406	0.687	3.04	3.41	2.11	0.312	63863	76837	15131	10.0
HD200H RIV	2.500	1.562	1.500	0.781	3.43	3.83	2.36	0.375	80409	99924	18114	12.9
HD240H RIV	3.000	1.875	1.875	0.937	4.38	4.85	2.85	0.500	115977	139938	26081	20.4



HD Heavy (Riveted)

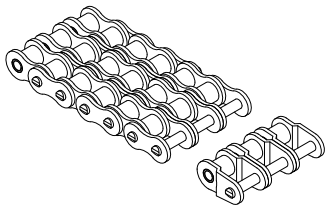
Double Strand

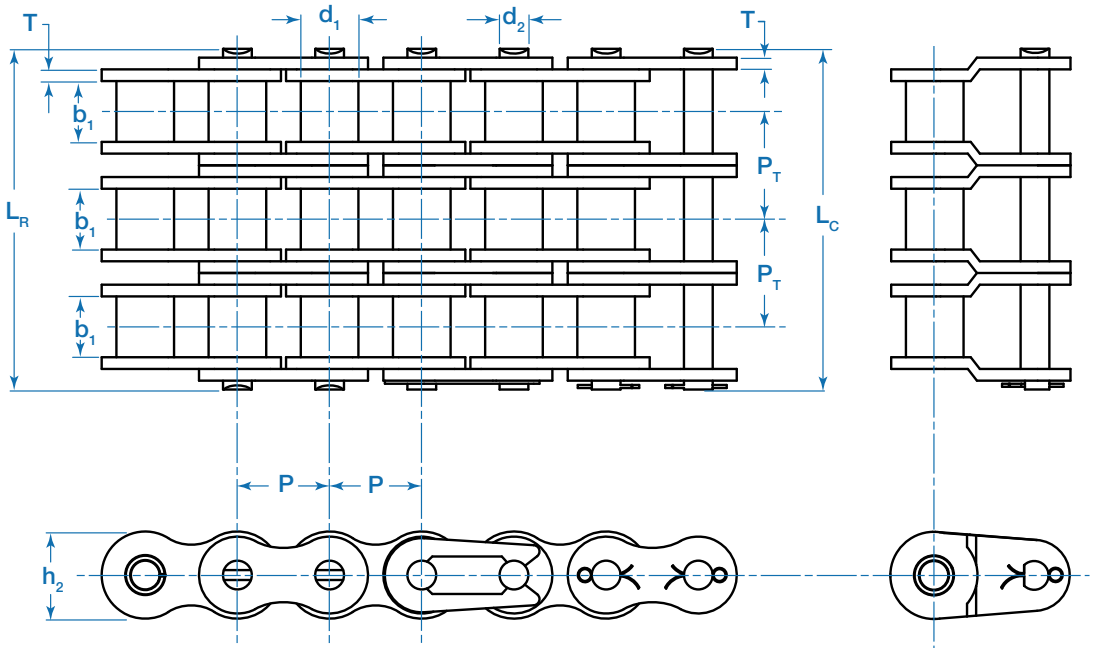


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness	Transverse Pitch	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_c max	h_2 max	T max	P_T				
	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs	lbs.	lbs./ft.
HD60H-2 RIV	0.750	0.469	0.500	0.234	2.22	2.39	0.71	0.125	1.03	14455	18996	3803	2.5
HD80H-2 RIV	1.000	0.625	0.625	0.312	2.75	2.95	0.94	0.156	1.28	25773	32665	6288	4.1
HD100H-2 RIV	1.250	0.750	0.750	0.375	3.29	3.52	1.18	0.187	1.54	40227	50784	9578	6.1
HD120H-2 RIV	1.500	0.875	1.000	0.437	4.09	4.36	1.41	0.219	1.92	57727	72546	12623	8.8
HD140H-2 RIV	1.750	1.000	1.000	0.500	4.38	4.68	1.61	0.250	2.06	78364	98398	16684	11.2
HD160H-2 RIV	2.000	1.250	1.250	0.562	5.17	5.51	1.88	0.281	2.44	103091	128501	21855	13.6
HD200H-2 RIV	2.500	1.562	1.500	0.781	6.51	6.91	2.36	0.375	3.08	160818	201181	30774	25.6

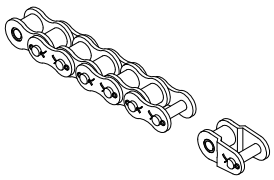
HD Heavy (Riveted)

Triple Strand



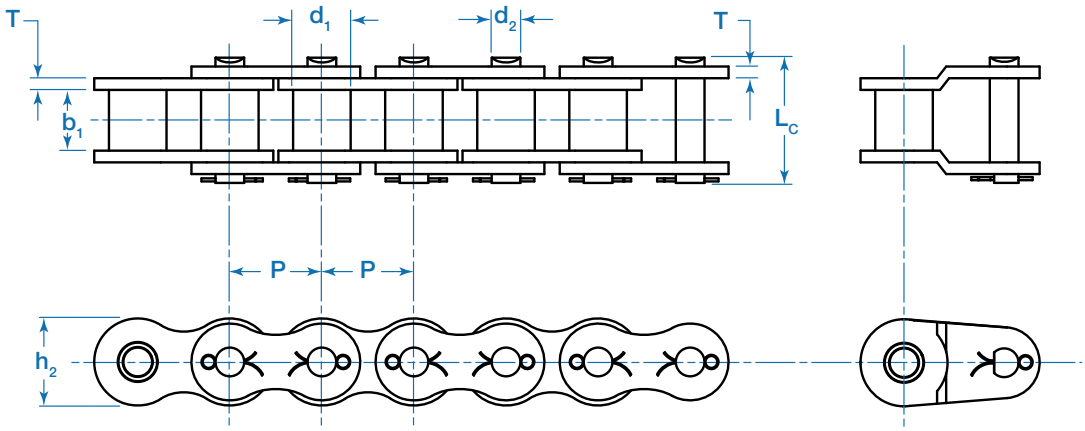


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness	Transverse Pitch	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_c max	h_2 max	T max	P_T				
	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
HD60H-3 RIV	0.750	0.469	0.500	0.234	3.24	3.41	0.71	0.125	1.03	21682	25605	5447	3.7
HD80H-3 RIV	1.000	0.625	0.625	0.312	4.04	4.24	0.94	0.156	1.28	38659	45749	9278	6.3
HD100H-3 RIV	1.250	0.750	0.750	0.375	4.83	5.06	1.18	0.187	1.54	60341	70769	14109	8.7
HD120H-3 RIV	1.500	0.875	1.000	0.437	6.01	6.28	1.41	0.219	1.92	86591	99973	18575	13.2
HD140H-3 RIV	1.750	1.000	1.000	0.500	6.43	6.73	1.61	0.250	2.06	117545	134526	24462	16.7
HD160H-3 RIV	2.000	1.125	1.250	0.562	7.60	7.94	1.88	0.281	2.44	154636	176992	32164	20.2
HD200H-3 RIV	2.500	1.562	1.500	0.781	9.59	9.99	2.36	0.375	3.08	241227	276110	45286	38.3



HD (Cottered)

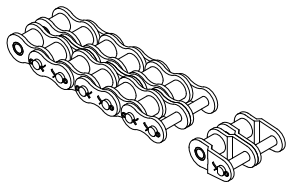
Single Strand

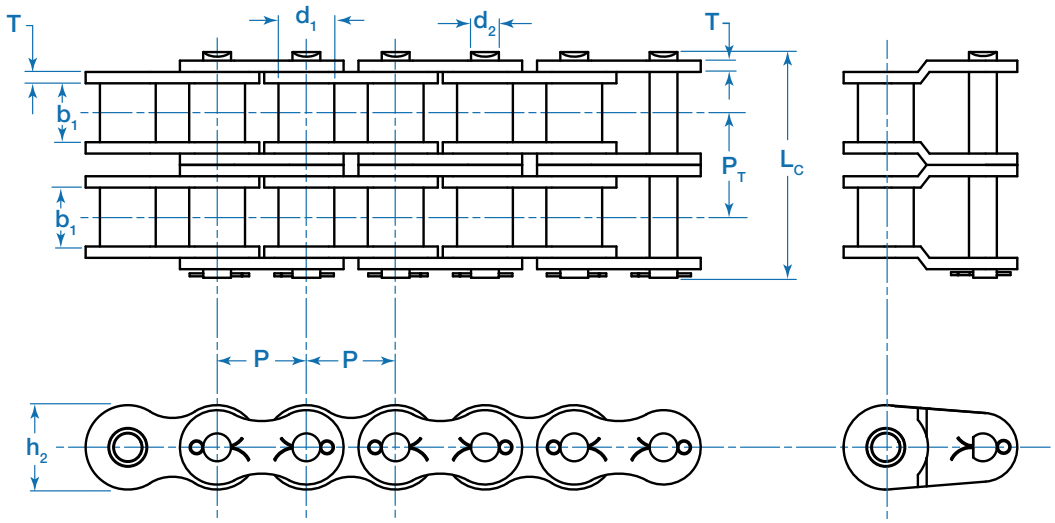


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length	Inner Plate Height	Plate Thickness	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_c max	h_2 max	T max				
	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
HD50 COTT	0.625	0.400	0.375	0.200	1.01	0.59	0.080	5045	6609	1478	0.7
HD60 COTT	0.750	0.469	0.500	0.234	1.23	0.71	0.094	7227	9330	2035	1.0
HD80 COTT	1.000	0.625	0.625	0.312	1.54	0.94	0.125	12886	15602	3402	1.7
HD100 COTT	1.250	0.750	0.750	0.375	1.85	1.18	0.156	20114	24549	5222	2.6
HD120 COTT	1.500	0.875	1.000	0.437	2.30	1.41	0.187	28864	35138	7009	3.8
HD140 COTT	1.750	1.000	1.000	0.500	2.49	1.61	0.219	39182	47654	9253	5.0
HD160 COTT	2.000	1.125	1.250	0.562	2.94	1.88	0.250	51545	62699	12268	6.8
HD180 COTT	2.250	1.406	1.406	0.687	3.28	2.11	0.281	63682	76840	13757	9.0
HD200 COTT	2.500	1.562	1.500	0.781	3.56	2.36	0.312	80409	97028	16560	10.9
HD240 COTT	3.000	1.875	1.875	0.937	4.33	2.85	0.375	115977	139944	22958	15.6

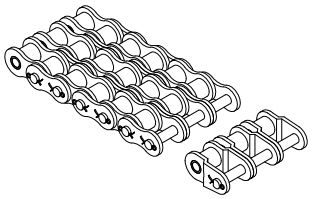
HD (Cottered)

Double Strand



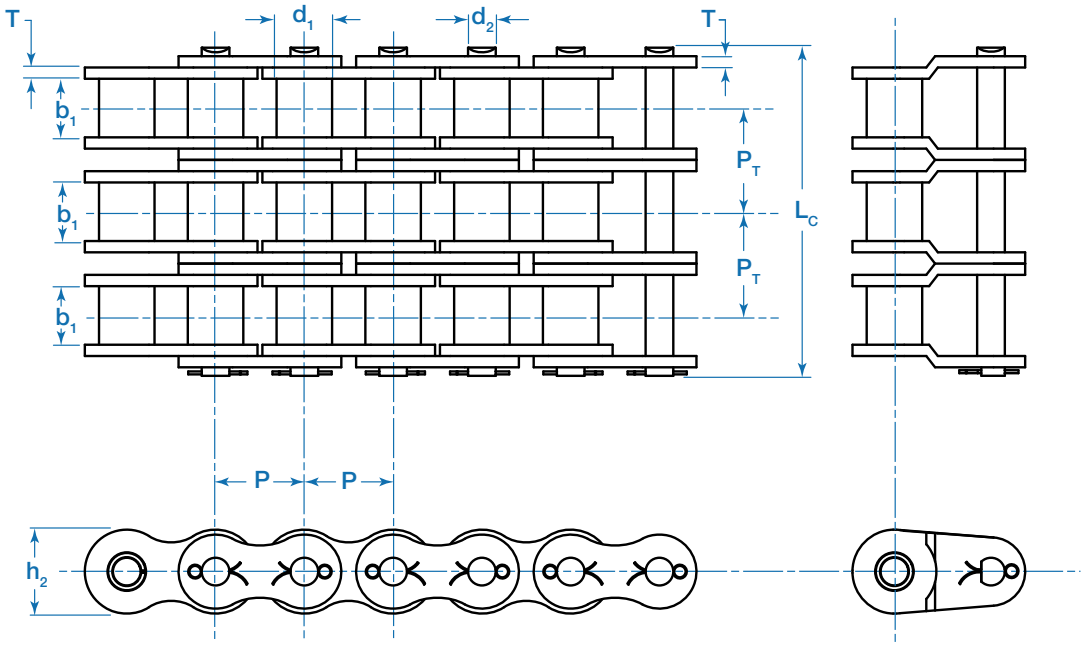


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length	Inner Plate Height	Plate Thickness	Transverse Pitch	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_c max	h_2 max	T max	P_T				
	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
HD50-2 COTT	0.625	0.400	0.375	0.200	1.72	0.59	0.080	0.71	10091	13061	2512	1.3
HD60-2 COTT	0.750	0.469	0.500	0.234	2.12	0.71	0.094	0.90	14455	18457	3454	2.0
HD80-2 COTT	1.000	0.625	0.625	0.312	2.69	0.94	0.125	1.15	25773	31878	5783	3.5
HD100-2 COTT	1.250	0.750	0.750	0.375	3.26	1.18	0.156	1.41	40227	49323	8867	5.2
HD120-2 COTT	1.500	0.875	1.000	0.437	4.09	1.41	0.187	1.79	57727	70792	11740	7.9
HD140-2 COTT	1.750	1.000	1.000	0.500	4.41	1.61	0.219	1.92	78364	96106	15721	10.2
HD160-2 COTT	2.000	1.125	1.250	0.562	5.24	1.88	0.250	2.31	103091	126433	20855	13.5
HD180-2 COTT	2.250	1.406	1.406	0.687	5.87	2.11	0.281	2.59	127386	156242	23381	19.6
HD200-2 COTT	2.500	1.562	1.500	0.781	6.38	2.36	0.312	2.82	160818	197247	28159	21.7
HD240-2 COTT	3.000	1.875	1.875	0.937	7.78	2.85	0.375	3.46	213955	282203	35992	30.4



HD (Cottered)

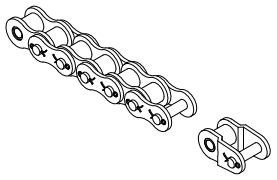
Triple Strand

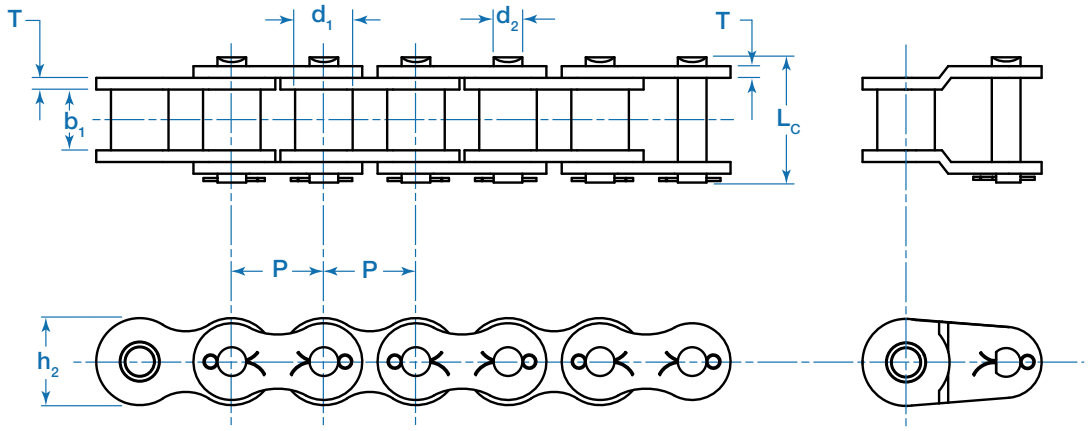


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length	Inner Plate Height	Plate Thickness	Transverse Pitch	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_c max	h_2 max	T max	P_T				
	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./in.
HD50-3 COTT	0.625	0.400	0.375	0.200	2.44	0.59	0.080	0.71	15136	17490	3691	2.1
HD60-3 COTT	0.750	0.469	0.500	0.234	3.02	0.71	0.094	0.90	21682	24976	5088	3.1
HD80-3 COTT	1.000	0.625	0.625	0.312	3.85	0.94	0.125	1.15	38659	44602	8505	5.3
HD100-3 COTT	1.250	0.750	0.750	0.375	4.67	1.18	0.156	1.41	60341	69601	13048	7.9
HD120-3 COTT	1.500	0.875	1.000	0.437	5.88	1.41	0.187	1.79	86591	98286	17518	11.8
HD140-3 COTT	1.750	1.000	1.000	0.500	6.34	1.61	0.219	1.92	117545	133379	23132	14.9
HD160-3 COTT	2.000	1.125	1.250	0.562	7.55	1.88	0.250	2.31	154636	175486	30670	20.2
HD180-3 COTT	2.250	1.406	1.406	0.687	8.46	2.11	0.281	2.59	191068	221122	34391	25.7
HD200-3 COTT	2.500	1.562	1.500	0.781	9.20	2.36	0.312	2.82	241227	273772	41395	32.9
HD240-3 COTT	3.000	1.875	1.875	0.937	11.24	2.85	0.375	3.46	347932	394877	57391	48.1

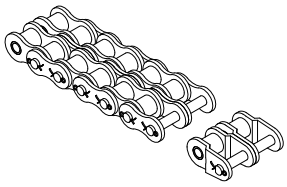
HD Heavy (Cottered)

Single Strand



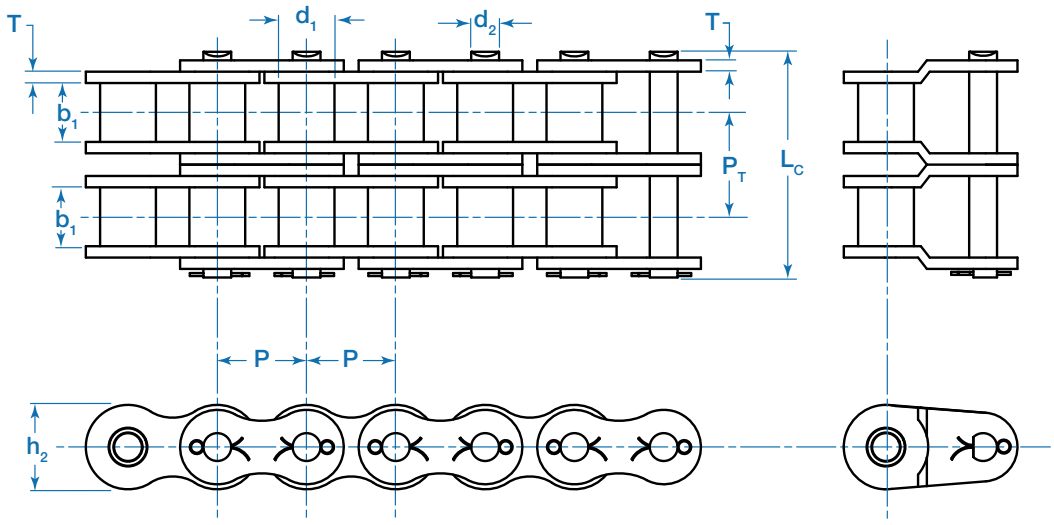


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length	Inner Plate Height	Plate Thickness	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_c max	h_2 max	T max				
	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
HD60H COTT	0.750	0.469	0.500	0.234	1.36	0.71	0.125	7227	9599	2261	1.3
HD80H COTT	1.000	0.625	0.625	0.312	1.67	0.94	0.156	12886	16051	3742	2.1
HD100H COTT	1.250	0.750	0.750	0.375	1.98	1.18	0.187	20114	25268	5674	3.0
HD120H COTT	1.500	0.875	1.000	0.437	2.43	1.41	0.219	28864	36172	7461	4.4
HD140H COTT	1.750	1.000	1.000	0.500	2.62	1.61	0.250	39182	48851	9815	5.6
HD160H COTT	2.000	1.125	1.250	0.562	3.07	1.88	0.281	51545	64250	12886	6.9
HD200H COTT	2.500	1.562	1.500	0.781	3.83	2.36	0.375	80409	99928	18114	12.9



HD Heavy (Cottered)

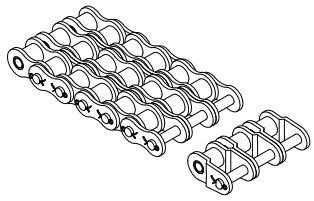
Double Strand

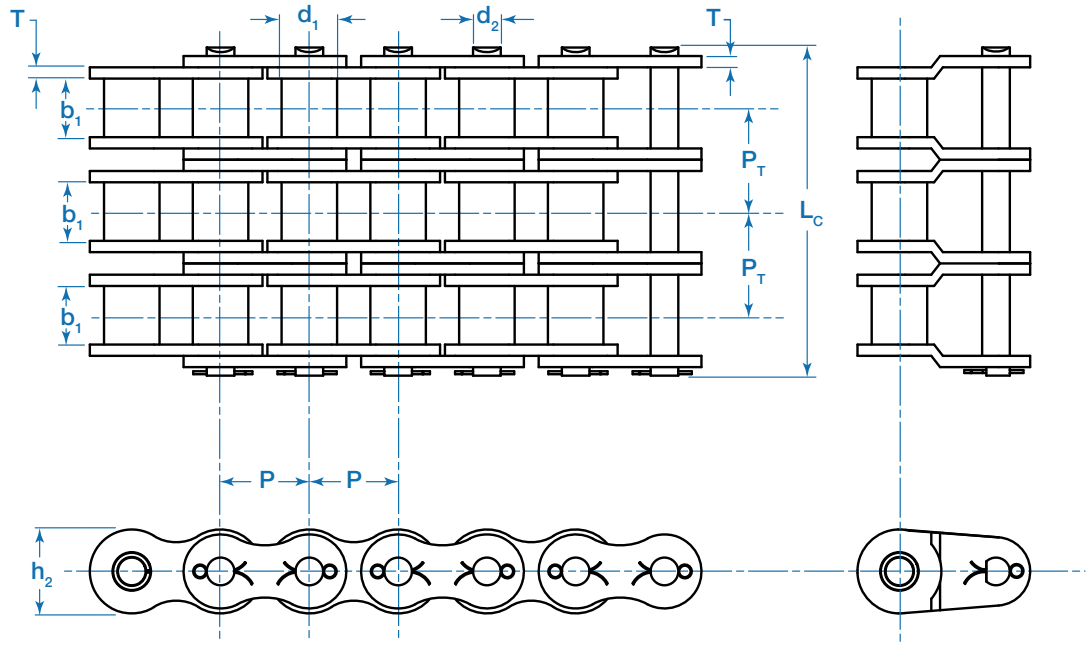


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length	Inner Plate Height	Plate Thickness	Transverse Pitch	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_c max	h_2 max	T max	P_T				
	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
HD60H-2 COTT	0.750	0.469	0.500	0.234	2.39	0.71	0.125	1.03	14454	18996	3803	2.5
HD80H-2 COTT	1.000	0.625	0.625	0.312	2.95	0.94	0.156	1.28	25773	32665	6288	4.1
HD100H-2 COTT	1.250	0.750	0.750	0.375	3.52	1.18	0.187	1.54	40227	50784	9518	6.1
HD120H-2 COTT	1.500	0.875	1.000	0.437	4.36	1.41	0.219	1.92	57727	72546	12623	8.8
HD140H-2 COTT	1.750	1.000	1.000	0.500	4.68	1.61	0.250	2.06	78364	98399	16684	11.2
HD160H-2 COTT	2.000	1.125	1.250	0.562	5.51	1.88	0.281	2.44	103091	128501	21855	13.6
HD200H-2 COTT	2.500	1.562	1.500	0.781	6.91	2.36	0.375	3.08	160818	201182	30774	25.6

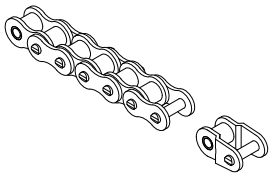
HD Heavy (Cottered)

Triple Strand



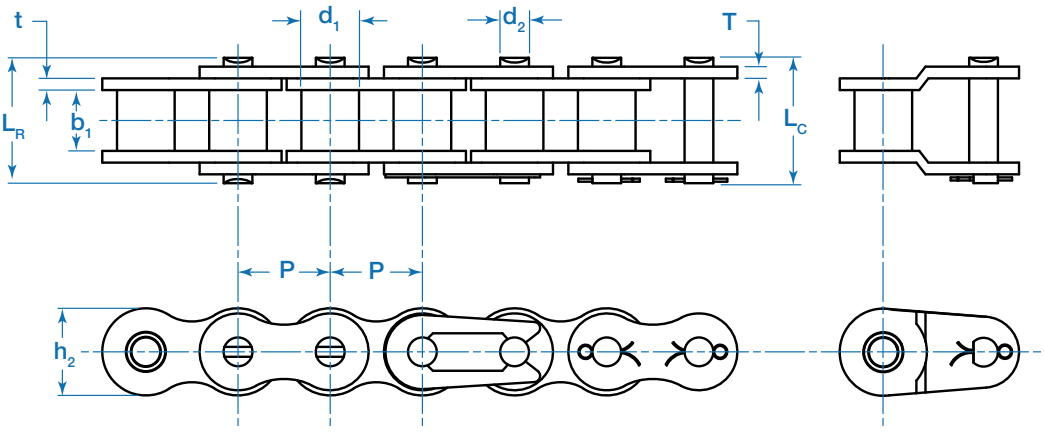


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length	Inner Plate Height	Plate Thickness	Transverse Pitch	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_c max	h_2 max	T max	P_T				
	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
HD60H-3 COTT	0.750	0.469	0.500	0.234	3.41	0.71	0.125	1.03	21682	25606	5447	3.7
HD80H-3 COTT	1.000	0.625	0.625	0.312	4.24	0.94	0.156	1.28	38659	45749	9278	6.3
HD100H-3 COTT	1.250	0.750	0.750	0.375	5.06	1.18	0.187	1.54	60341	70770	14109	8.7
HD120H-3 COTT	1.500	0.875	1.000	0.437	6.28	1.41	0.219	1.92	86591	99973	18575	13.2
HD140H-3 COTT	1.750	1.000	1.000	0.500	6.73	1.61	0.250	2.06	117545	134526	24462	16.7
HD160H-3 COTT	2.000	1.125	1.250	0.562	7.94	1.88	0.281	2.44	154636	176992	32164	20.2
HD200H-3 COTT	2.500	1.562	1.500	0.781	9.99	2.36	0.375	3.08	241227	276110	45286	38.3



British Standard

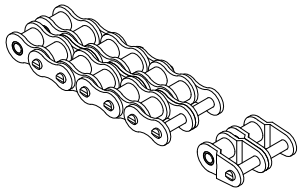
Single Strand

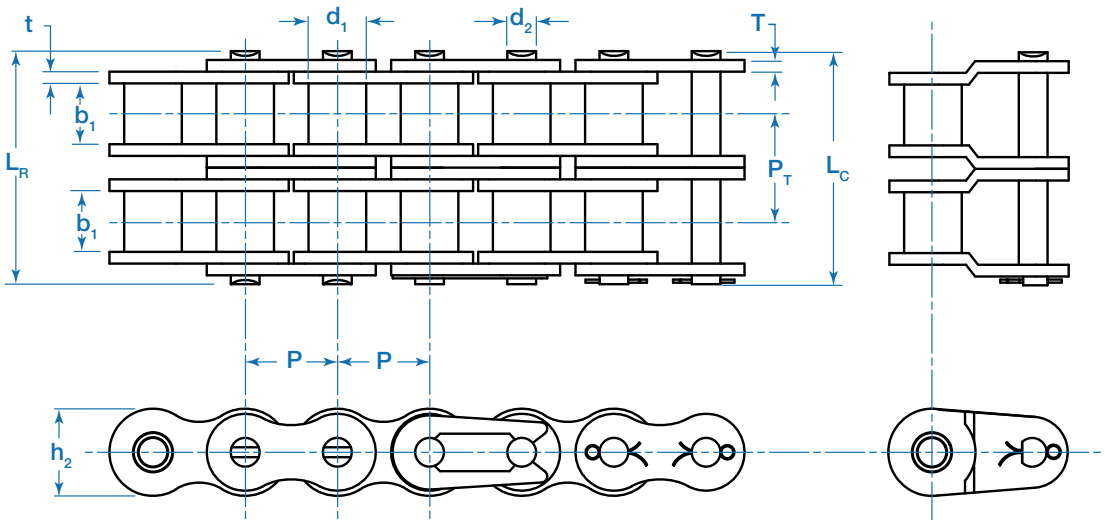


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness		Minimum Ultimate Tensile Strength	Average Tensile Strength	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_c max	h_2 max	t max	T max			
	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs./ft.
HD04B RIV	0.236	0.157	0.110	0.073	0.27	0.31	0.20	0.024	0.024	682	719	0.1
HD05B RIV	0.315	0.197	0.118	0.091	0.32	0.35	0.28	0.031	0.031	1136	1326	0.1
HD06B RIV	0.375	0.250	0.225	0.129	0.52	0.56	0.32	0.051	0.051	2045	2338	0.3
HD08B RIV	0.500	0.335	0.305	0.175	0.66	0.72	0.46	0.063	0.063	4091	4361	0.5
HD10B RIV	0.625	0.400	0.380	0.200	0.77	0.82	0.58	0.067	0.067	5091	6182	0.6
HD12B RIV	0.750	0.475	0.460	0.225	0.89	0.95	0.63	0.073	0.073	6591	7239	0.8
HD16B RIV	1.000	0.625	0.670	0.326	1.42	1.47	0.83	0.163	0.122	13636	16366	1.8
HD20B RIV	1.250	0.750	0.770	0.401	1.63	1.77	1.04	0.172	0.138	21591	23987	2.5
HD24B RIV	1.500	1.000	1.000	0.576	2.10	2.28	1.31	0.236	0.189	36364	40016	4.8
HD28B RIV	1.750	1.100	1.220	0.626	2.56	2.74	1.44	0.295	0.236	45455	49908	5.7
HD32B RIV	2.000	1.150	1.220	0.701	2.60	2.80	1.65	0.276	0.236	56818	62384	6.9
HD40B RIV	2.500	1.550	1.500	0.901	3.24	3.51	2.09	0.325	0.315	80682	88575	11.0
HD48B RIV	3.000	1.900	1.800	1.151	3.90	4.21	2.51	0.472	0.394	127272	139741	16.8
HD56B RIV	3.500	2.125	2.100	1.351	4.51	4.84	3.06	0.531	0.472	193180	211320	24.0
HD64B RIV	4.000	2.500	2.400	1.551	5.12	5.45	3.55	0.591	0.512	254544	278763	30.9
HD72B RIV	4.500	2.850	2.700	1.751	5.80	6.16	4.08	0.669	0.591	318180	348454	40.9

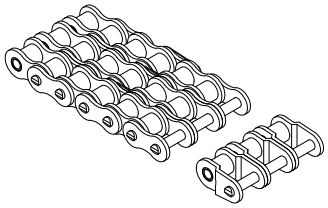
British Standard

Double Strand



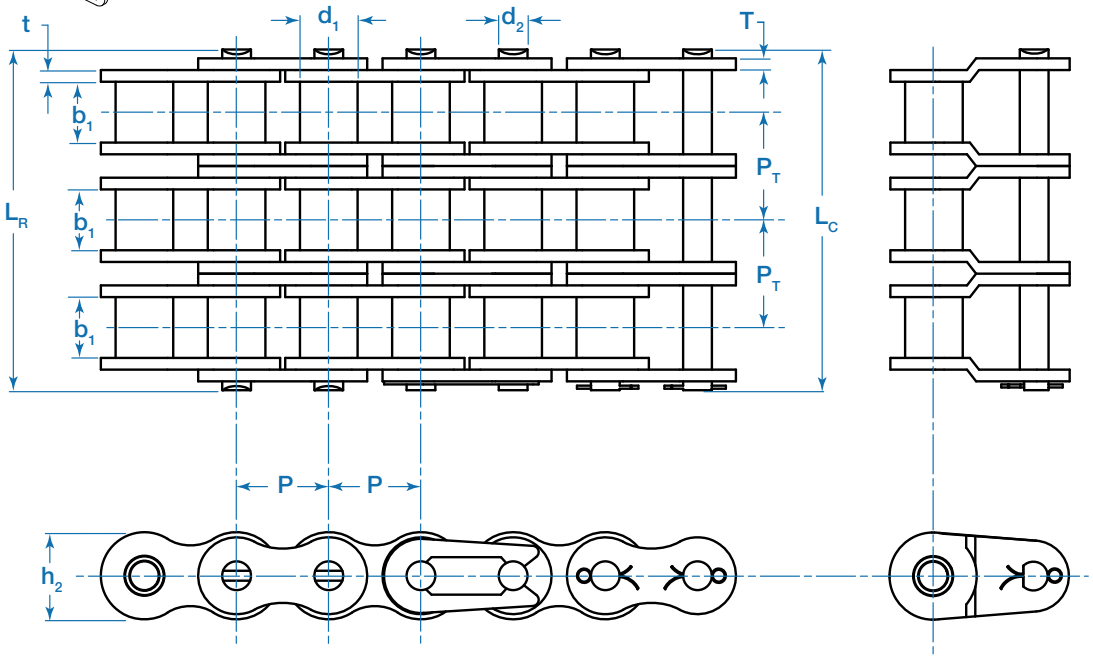


Lynx Chain No.	Pitch	Roller Diam-eter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness		Transverse Pitch	Minimum Ultimate Tensile Strength	Average Tensile Strength	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_c max	h_2 max	t max	T max	P_T			
	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs./ft.
HD06B-2 RIV	0.375	0.250	0.225	0.129	0.92	0.96	0.32	0.051	0.051	0.40	3841	4204	0.5
HD08B-2 RIV	0.500	0.335	0.305	0.175	1.23	1.27	0.46	0.063	0.063	0.55	7273	8700	0.9
HD10B-2 RIV	0.625	0.400	0.380	0.200	1.42	1.48	0.58	0.067	0.067	0.65	10114	12634	1.2
HD12B-2 RIV	0.750	0.475	0.460	0.275	1.65	1.72	0.63	0.073	0.073	0.77	13136	14860	1.6
HD16B-2 RIV	1.000	0.625	0.670	0.326	2.68	2.73	0.83	0.163	0.122	1.26	24091	29900	3.6
HD20B-2 RIV	1.250	0.750	0.770	0.401	3.06	3.21	1.04	0.177	0.138	1.44	38636	47480	4.8
HD24B-2 RIV	1.500	1.000	1.000	0.576	4.00	4.18	1.31	0.236	0.189	1.90	63636	71759	9.0
HD28B-2 RIV	1.750	1.100	1.220	0.626	4.91	5.08	1.44	0.295	0.236	2.34	81818	91452	11.2
HD32B-2 RIV	2.000	1.150	1.220	0.701	4.91	5.10	1.65	0.276	0.236	2.31	102273	114315	14.1
HD40B-2 RIV	2.500	1.550	1.500	0.901	6.08	6.36	2.09	0.335	0.315	2.85	143182	160041	21.5
HD48B-2 RIV	3.000	1.900	1.800	1.151	7.50	7.80	2.51	0.475	0.394	3.59	227272	254034	33.6
HD56B-2 RIV	3.500	2.125	2.100	1.351	8.71	9.04	3.06	0.531	0.472	4.20	363635	395664	48.0
HD64B-2 RIV	4.000	2.500	2.400	1.551	9.84	10.17	3.55	0.591	0.512	4.72	454544	494580	61.1
HD72B-2 RIV	4.500	2.850	2.700	1.751	11.17	11.52	4.08	0.669	0.591	5.36	568180	618225	80.9



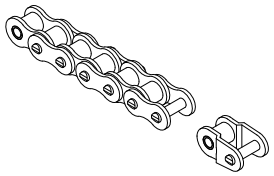
British Standard

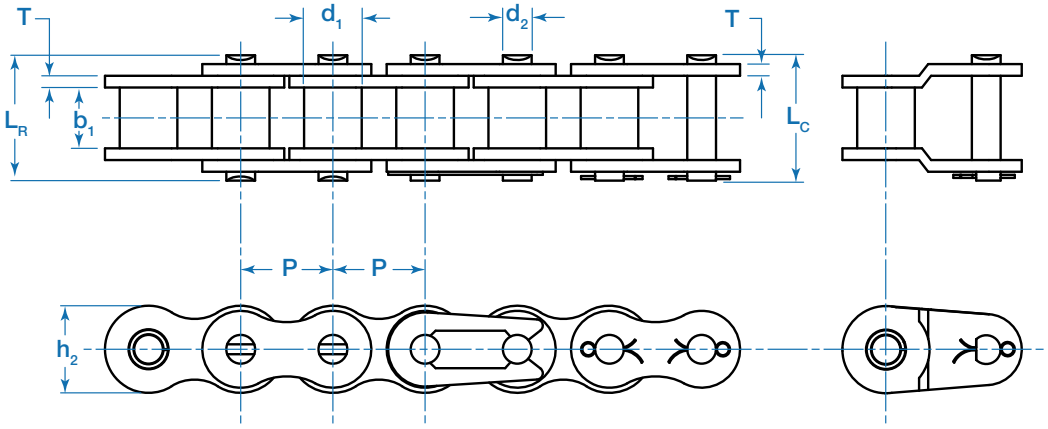
Triple Strand



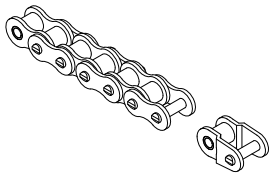
Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness		Transverse Pitch	Minimum Ultimate Tensile Strength	Average Tensile Strength	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_c max	h_2 max	t max	T max	P_T			
	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs./ft.
HD06B-3 RIV	0.375	0.250	0.225	0.129	1.32	1.36	0.32	0.051	0.051	0.40	5659	6767	0.8
HD08B-3 RIV	0.500	0.335	0.305	0.175	1.78	1.81	0.46	0.063	0.063	0.55	10795	12994	1.4
HD10B-3 RIV	0.625	0.400	0.380	0.200	2.07	2.13	0.58	0.067	0.067	0.65	15159	18996	1.9
HD12B-3 RIV	0.750	0.475	0.460	0.225	2.42	2.48	0.63	0.073	0.073	0.77	19705	22885	2.3
HD16B-3 RIV	1.000	0.625	0.670	0.326	3.93	3.98	0.83	0.163	0.122	1.26	36364	45794	5.5
HD20B-3 RIV	1.250	0.750	0.770	0.401	4.50	4.64	1.04	0.177	0.138	1.44	56818	65195	7.3
HD24B-3 RIV	1.500	1.000	1.000	0.576	5.91	6.09	1.31	0.236	0.189	1.90	96591	110831	13.5
HD28B-3 RIV	1.750	1.100	1.220	0.626	7.25	7.43	1.44	0.295	0.236	2.34	120454	137021	16.8
HD32B-3 RIV	2.000	1.150	1.220	0.701	7.21	7.41	1.65	0.276	0.236	2.31	152273	173215	21.2
HD40B-3 RIV	2.500	1.550	1.500	0.901	8.93	9.20	2.09	0.325	0.315	2.85	215909	245604	32.3
HD48B-3 RIV	3.000	1.900	1.800	1.151	11.09	11.39	2.51	0.475	0.394	3.59	340909	384423	50.4
HD56B-3 RIV	3.500	2.125	2.100	1.351	12.91	13.24	3.06	0.531	0.472	4.20	545450	503572	72.0
HD64B-3 RIV	4.000	2.500	2.400	1.551	14.56	14.89	3.55	0.595	0.512	4.72	681820	741870	91.4
HD72B-3 RIV	4.500	2.850	2.700	1.751	16.54	16.89	4.08	0.669	0.591	5.36	852270	927337	121.0

DACROCLAD®

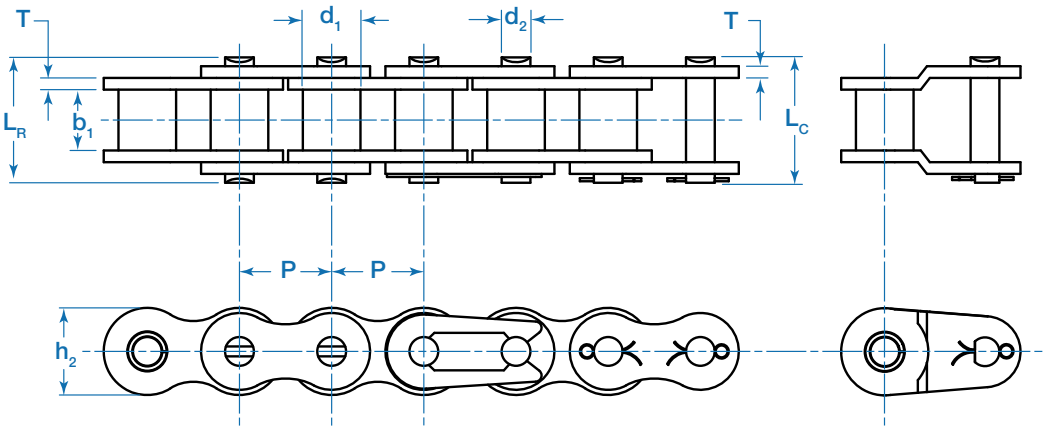




Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness	Minimum Ultimate Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_c max	h_2 max	T max			
	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs./ft.
HD25 DR RIV	0.250	0.130	0.125	0.091	0.36	0.46	0.24	0.030	795	142	0.1
HD35 DR RIV	0.375	0.200	0.188	0.141	0.52	0.64	0.35	0.050	1795	490	0.2
HD41 DR RIV	0.500	0.306	0.250	0.141	0.59	0.72	0.39	0.050	1516	505	0.3
HD40 DR RIV	0.500	0.312	0.312	0.156	0.70	0.83	0.47	0.060	3205	830	0.4
HD50 DR RIV	0.625	0.400	0.375	0.200	0.86	1.01	0.59	0.080	5045	1478	0.7
HD60 DR RIV	0.750	0.469	0.500	0.234	1.06	1.23	0.71	0.094	7227	2035	1.0
HD80 DR RIV	1.000	0.625	0.625	0.312	1.34	1.54	0.94	0.125	12886	3402	1.8
HD100 DR RIV	1.250	0.750	0.750	0.375	1.62	1.85	1.18	0.156	20114	5222	2.6
HD120 DR RIV	1.500	0.875	1.000	0.437	2.03	2.30	1.41	0.187	28864	7009	3.8
HD140 DR RIV	1.750	1.000	1.000	0.500	2.19	2.49	1.61	0.219	39182	9253	5.0
HD160 DR RIV	2.000	1.125	1.250	0.562	2.60	2.94	1.88	0.250	51545	12268	6.8

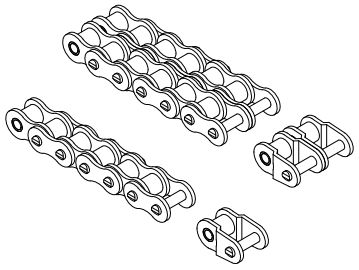


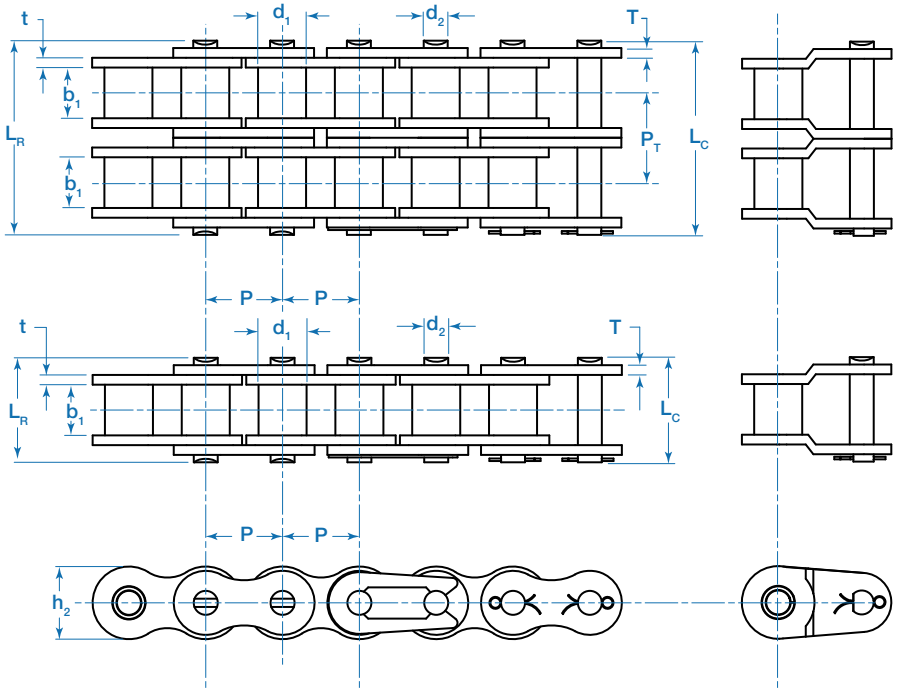
Nickel Plated



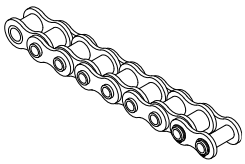
Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness	Minimum Ultimate Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_c max	h_2 max	T max			
	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs./ft.
HD25 N RIV	0.250	0.130	0.125	0.091	0.36	0.46	0.24	0.030	795	142	0.1
HD35 N RIV	0.375	0.200	0.188	0.141	0.52	0.64	0.35	0.050	1795	490	0.2
HD41 N RIV	0.500	0.306	0.250	0.141	0.59	0.72	0.39	0.050	1516	505	0.3
HD40 N RIV	0.500	0.312	0.312	0.156	0.70	0.83	0.47	0.060	3205	830	0.4
HD50 N RIV	0.625	0.400	0.375	0.200	0.86	1.01	0.59	0.080	5045	1478	0.7
HD60 N RIV	0.750	0.469	0.500	0.234	1.06	1.23	0.71	0.094	7227	2035	1.0
HD80N RIV	1.000	0.625	0.625	0.312	1.34	1.54	0.94	0.125	12886	3402	1.8
HD100 N RIV	1.250	0.750	0.750	0.375	1.62	1.85	1.18	0.156	20114	5222	2.6
HD120 N RIV	1.500	0.875	1.000	0.437	2.03	2.30	1.41	0.187	28864	7009	3.8
HD140 N RIV	1.750	1.000	1.000	0.500	2.19	2.49	1.61	0.219	39182	9253	5.0
HD160 N RIV	2.000	1.125	1.250	0.562	2.60	2.94	1.88	0.250	51545	12268	6.8

Self Lubricating

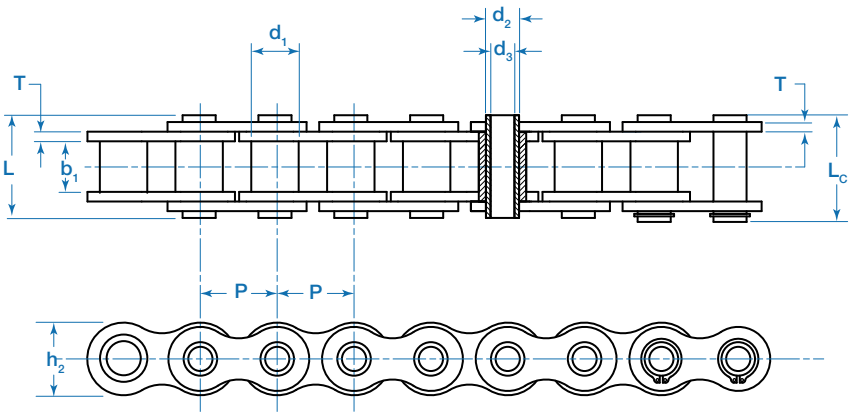




Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness		Transverse Pitch	Minimum Ultimate Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_c max	h_2 max	t max	T max	P_T			
	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs./ft.
HD40 SL RIV	0.500	0.312	0.312	0.156	0.70	0.83	0.47	0.059	0.059	-	3205	860	0.4
HD40 SL-2 RIV	0.500	0.312	0.312	0.156	1.27	1.40	0.47	0.059	0.059	0.57	6409	1462	0.8
HD50 SL RIV	0.625	0.400	0.375	0.200	0.86	1.01	0.59	0.080	0.080	-	5045	1389	0.7
HD50 SL-2 RIV	0.625	0.400	0.375	0.200	1.57	1.72	0.59	0.080	0.080	0.71	10091	2361	1.3
HD60 SL RIV	0.750	0.469	0.500	0.234	1.06	1.23	0.71	0.128	0.095	-	7772	2094	1.1
HD60H SL RIV	0.750	0.469	0.500	0.234	1.19	1.36	0.71	0.128	0.128	-	7149	2410	1.3
HD60 SL-2 RIV	0.750	0.469	0.500	0.234	1.95	2.12	0.71	0.128	0.095	0.90	15544	3559	2.2
HD80 SL RIV	1.000	0.625	0.625	0.312	1.34	1.54	0.95	0.128	0.128	-	12886	3638	1.7
HD80H SL RIV	1.000	0.625	0.625	0.312	1.47	1.67	0.95	0.128	0.157	-	12746	3742	2.0
HD80 SL-2 RIV	1.000	0.625	0.625	0.312	2.49	2.69	0.95	0.137	0.128	1.15	25773	6184	3.5
HD100 SL RIV	1.250	0.750	0.750	0.375	1.62	1.85	1.18	0.157	0.157	-	19699	5512	2.6
HD100 SL-2 RIV	1.250	0.750	0.750	0.375	3.03	3.26	1.18	0.157	0.157	1.41	39399	9370	5.3

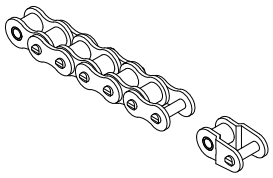


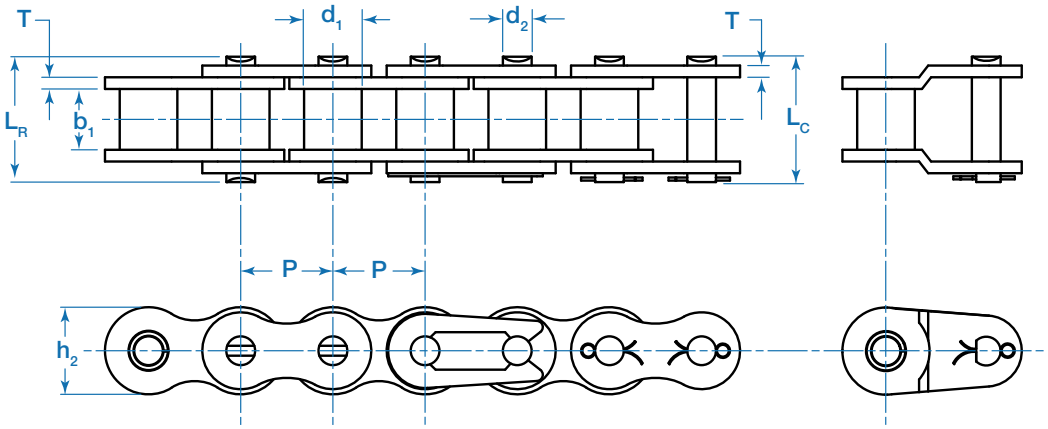
Hollow Pin



Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Hollow Pin Outside Diameter	Hollow Pin Inside Diameter	Hollow Pin Length		Inner Plate Height	Plate Thickness	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	d_3 max	L max	L_C max	h_2 max	T max				
	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
HD40 HP RIV	0.500	0.312	0.312	0.222	0.157	0.65	0.69	0.47	0.060	2500	2743	319	0.4
HD50 HP RIV	0.625	0.400	0.375	0.277	0.202	0.81	0.86	0.59	0.080	4545	5081	652	0.7
HD60 HP RIV	0.750	0.469	0.500	0.327	0.236	1.02	1.06	0.71	0.094	5455	6047	730	1.0
HD80 HP RIV	1.000	0.625	0.625	0.449	0.317	1.28	1.33	0.94	0.125	11364	11690	1551	1.8

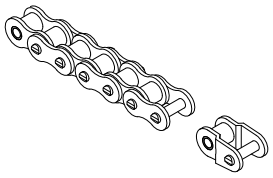
Stainless Steel*





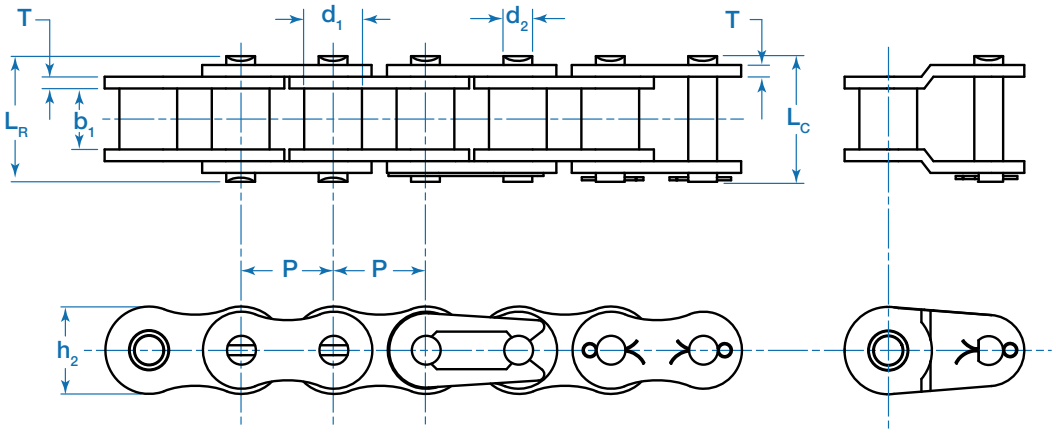
Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness	Minimum Ultimate Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_c max	h_2 max	T max			
	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs./ft.
HD25 SS RIV	0.250	0.130	0.125	0.091	0.36	0.46	0.24	0.030	562	50	0.1
HD35 SS RIV	0.375	0.200	0.188	0.141	0.52	0.64	0.35	0.050	1708	115	0.2
HD40 SS RIV	0.500	0.312	0.312	0.156	0.70	0.83	0.47	0.060	2403	190	0.4
HD50 SS RIV	0.625	0.400	0.375	0.208	0.86	1.01	0.59	0.080	3779	300	0.7
HD60 SS RIV	0.750	0.469	0.500	0.234	1.06	1.23	0.71	0.094	6744	450	1.0
HD80 SS RIV	1.000	0.625	0.625	0.312	1.34	1.54	0.95	0.125	11465	770	1.8
HD100 SS RIV	1.250	0.750	0.750	0.375	1.62	1.85	1.18	0.156	13713	1130	2.7
HD120 SS RIV	1.500	0.875	1.000	0.437	2.03	2.30	1.41	0.187	20906	1700	3.8

*AISI 304



XD (Riveted)

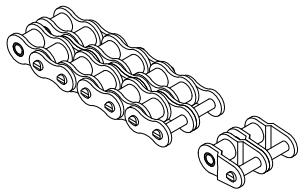
Single Strand

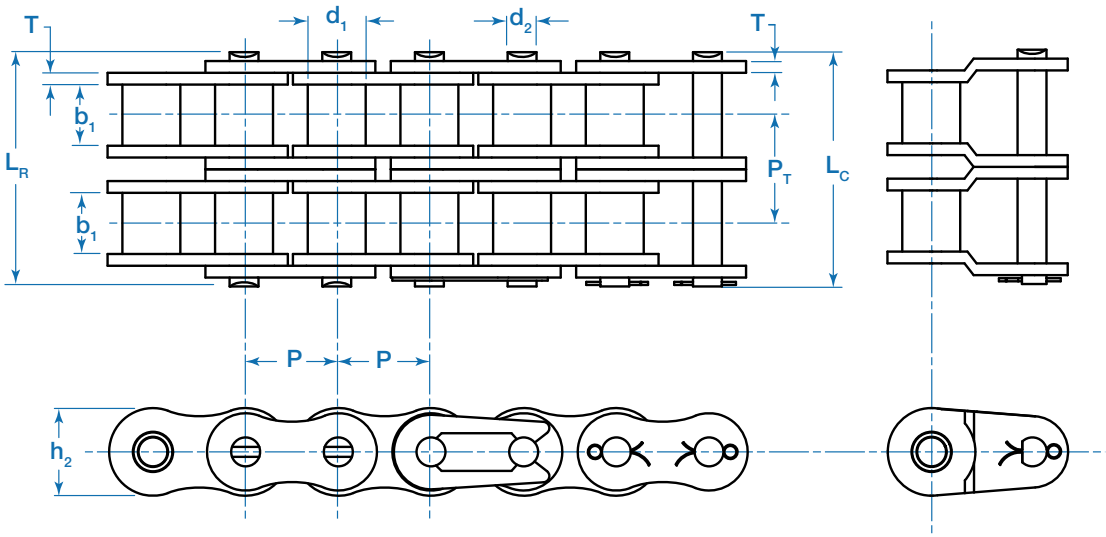


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_c max	h_2 max	T max				
	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
XD40 RIV	0.500	0.312	0.313	0.156	0.63	0.72	0.47	0.059	3527	4290	860	0.4
XD50 RIV	0.625	0.400	0.376	0.200	0.80	0.89	0.59	0.079	5952	7160	1389	0.7
XD60 RIV	0.750	0.469	0.500	0.234	1.00	1.10	0.71	0.094	8487	9920	2094	1.1
XD80 RIV	1.000	0.625	0.626	0.313	1.29	1.49	0.95	0.126	15872	17630	3637	1.9
XD100 RIV	1.250	0.750	0.754	0.375	1.57	1.77	1.19	0.157	23809	26450	5511	2.8
XD120 RIV	1.500	0.875	1.006	0.437	1.97	2.19	1.43	0.189	33288	37030	7275	4.2
XD140 RIV	1.750	1.000	1.004	0.500	2.13	2.40	1.66	0.220	42988	48720	9700	5.2
XD160 RIV	2.000	1.125	1.262	0.563	2.48	2.82	1.90	0.252	56215	60180	12125	6.7
XD180 RIV	2.250	1.407	1.407	0.688	3.12	3.22	2.14	0.284	70544	73630	14112	9.0
XD200 RIV	2.500	1.562	1.512	0.781	3.06	3.50	2.37	0.315	94794	101410	15872	11.1
XD240 RIV	3.000	1.875	1.902	0.937	3.72	4.20	2.85	0.374	139986	149910	21825	16.7

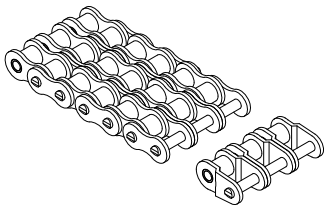
XD (Riveted)

Double Strand



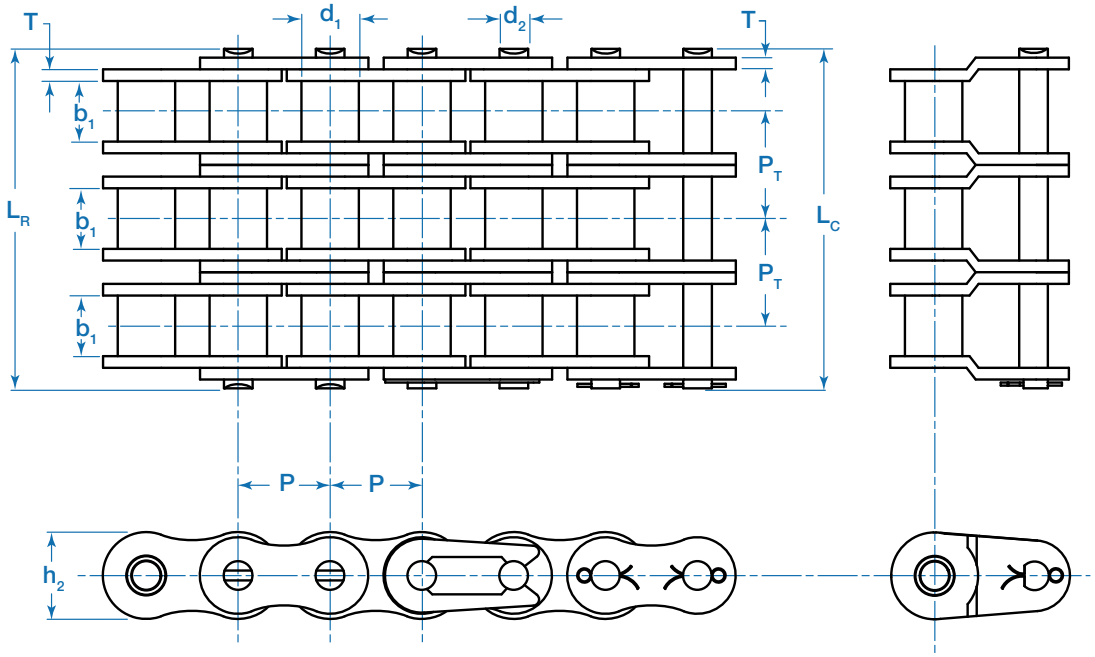


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness	Transverse Pitch	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_c max	h_2 max	T max	P_T				
	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
XD40-2 RIV	0.500	0.312	0.312	0.156	1.20	1.29	0.47	0.059	0.57	7054	8590	1462	0.9
XD50-2 RIV	0.625	0.400	0.375	0.200	1.51	1.60	0.59	0.079	0.71	11904	14330	2361	1.4
XD60-2 RIV	0.750	0.469	0.500	0.234	1.90	2.00	0.71	0.094	0.90	16975	19840	3560	2.1
XD80-2 RIV	1.000	0.625	0.625	0.313	2.45	2.63	0.95	0.126	1.15	31745	35270	6184	3.8
XD100-2 RIV	1.250	0.750	0.750	0.375	2.98	3.18	1.19	0.157	1.41	47617	52900	9369	5.6
XD120-2 RIV	1.500	0.875	1.000	0.437	3.76	3.98	1.43	0.189	1.79	66576	74070	12367	8.2
XD140-2 RIV	1.750	1.000	1.000	0.500	4.06	4.33	1.66	0.220	1.93	85976	97440	16490	10.2
XD160-2 RIV	2.000	1.125	1.262	0.563	4.78	5.12	1.90	0.252	2.30	112430	120370	20612	13.2
XD180-2 RIV	2.250	1.407	1.407	0.688	5.71	5.81	2.14	0.284	2.59	141088	147260	23990	17.7
XD200-2 RIV	2.500	1.562	1.512	0.781	5.88	6.31	2.37	0.315	2.82	189587	202820	26983	21.8
XD240-2 RIV	3.000	1.875	1.902	0.937	7.17	7.66	2.85	0.374	3.46	279972	299820	37102	32.9



XD (Riveted)

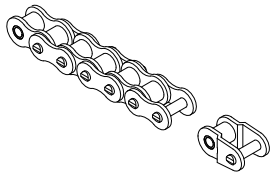
Triple Strand

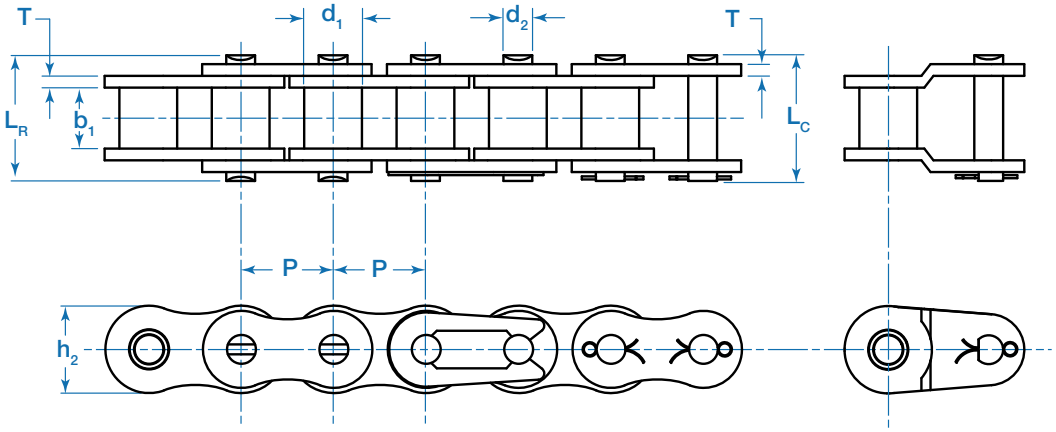


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness	Transverse Pitch	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_c max	h_2 max	T max	P_T				
	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
XD40-3 RIV	0.500	0.312	0.312	0.156	1.77	1.86	0.47	0.059	0.57	10582	12880	2149	1.3
XD50-3 RIV	0.625	0.400	0.375	0.200	2.23	2.31	0.59	0.079	0.71	17856	21400	3472	2.1
XD60-3 RIV	0.750	0.469	0.500	0.234	2.80	2.89	0.71	0.094	0.90	25462	29760	5236	3.1
XD80-3 RIV	1.000	0.625	0.625	0.313	3.60	3.79	0.95	0.126	1.15	47617	52900	9094	5.6
XD100-3 RIV	1.250	0.750	0.750	0.375	4.39	4.59	1.19	0.157	1.41	71426	79360	13778	8.4
XD120-3 RIV	1.500	0.875	1.000	0.437	5.55	5.76	1.43	0.189	1.79	99864	111110	18187	12.3
XD140-3 RIV	1.750	1.000	1.000	0.500	5.99	6.25	1.66	0.220	1.93	128963	146160	24250	15.2
XD160-3 RIV	2.000	1.125	1.262	0.563	7.08	7.42	1.90	0.252	2.30	168644	180550	30312	19.7
XD180-3 RIV	2.250	1.407	1.407	0.688	8.31	8.40	2.14	0.284	2.59	211632	220900	35280	25.5
XD200-3 RIV	2.500	1.562	1.512	0.781	8.70	9.13	2.37	0.315	2.82	284381	304230	39681	32.7
XD240-3 RIV	3.000	1.875	1.902	0.937	10.63	11.11	2.85	0.374	3.46	419957	449740	54561	49.1

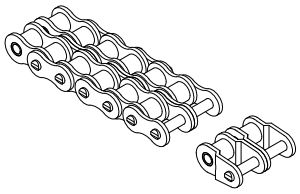
XD Heavy (Riveted)

Single Strand



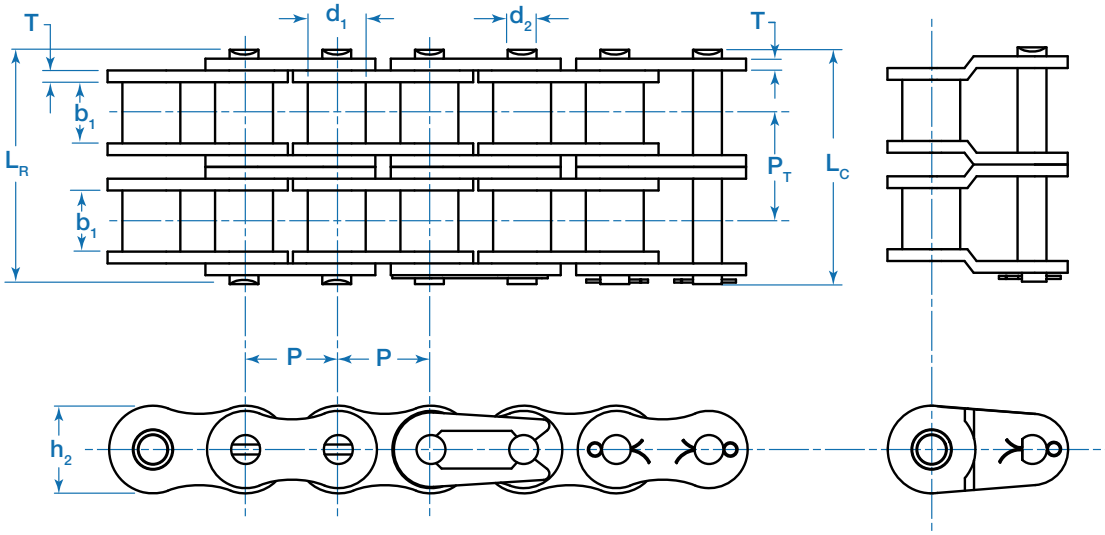


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_c max	h_2 max	T max				
	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
XD60H RIV	0.750	0.469	0.500	0.234	1.13	1.21	0.71	0.126	8493	9921	2424	1.3
XD80H RIV	1.000	0.625	0.625	0.313	1.41	1.55	0.95	0.157	15877	17637	3969	2.1
XD100H RIV	1.250	0.750	0.750	0.375	1.70	1.84	1.19	0.189	23799	26455	6172	3.1
XD120H RIV	1.500	0.875	1.000	0.437	2.11	2.24	1.43	0.220	33297	37038	7935	4.4
XD140H RIV	1.750	1.000	1.000	0.500	2.26	2.45	1.66	0.252	43000	48722	10362	5.6
XD160H RIV	2.000	1.125	1.250	0.563	2.67	2.86	1.90	0.283	56230	60186	12565	7.2
XD200H RIV	2.500	1.562	1.500	0.781	3.40	3.61	2.37	0.374	96876	103617	16314	12.2



XD Heavy (Riveted)

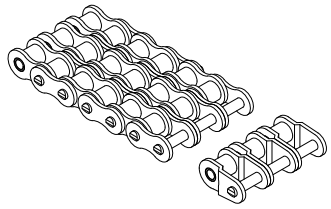
Double Strand

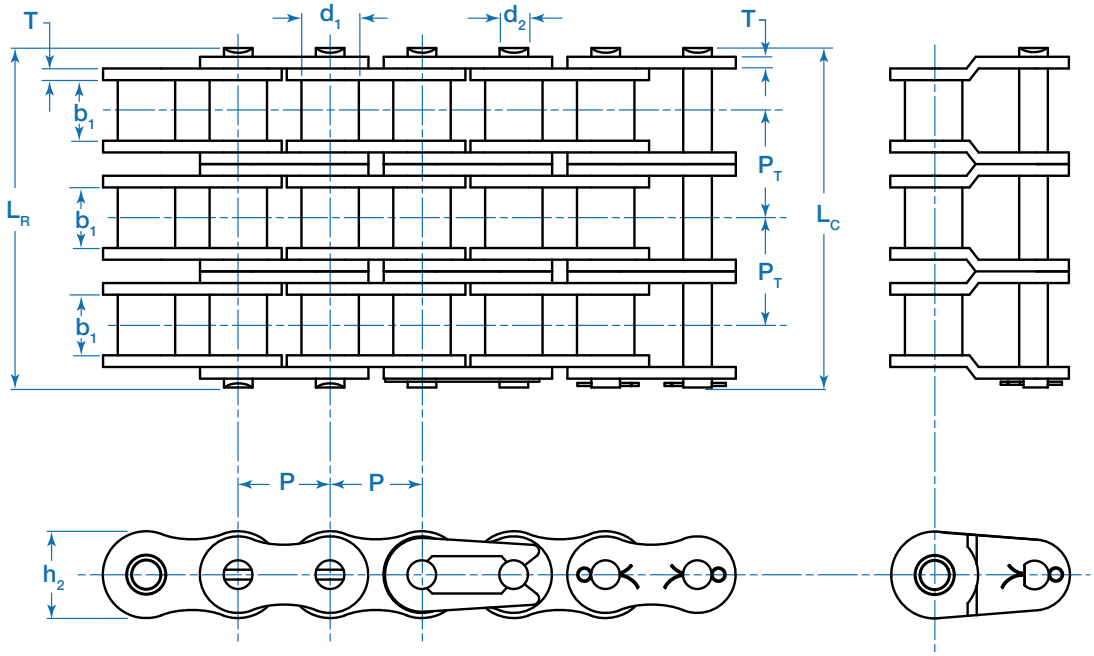


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness	Transverse Pitch	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_c max	h_2 max	T max	P_T				
	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
XD60H-2 RIV	0.750	0.469	0.500	0.234	2.16	2.24	0.71	0.126	1.03	16986	19851	4120	2.5
XD80H-2 RIV	1.000	0.625	0.625	0.313	2.70	2.83	0.95	0.157	1.28	31754	35273	6747	4.2
XD100H-2 RIV	1.250	0.750	0.750	0.375	3.24	3.38	1.19	0.189	1.54	47598	52920	10492	8.9
XD120H-2 RIV	1.500	0.875	1.000	0.437	4.04	4.17	1.43	0.220	1.93	66594	74074	13489	11.3
XD140H-2 RIV	1.750	1.000	1.000	0.500	4.32	4.50	1.66	0.252	2.06	86000	114648	17615	13.7
XD160H-2 RIV	2.000	1.125	1.250	0.563	5.11	5.30	1.90	0.283	2.44	112460	145451	21361	14.4
XD200H-2 RIV	2.500	1.562	1.500	0.781	6.48	6.69	2.37	0.374	3.08	193752	260104	27734	24.5

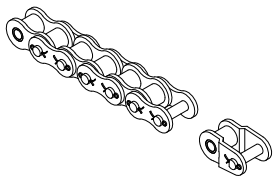
XD Heavy (Riveted)

Triple Strand



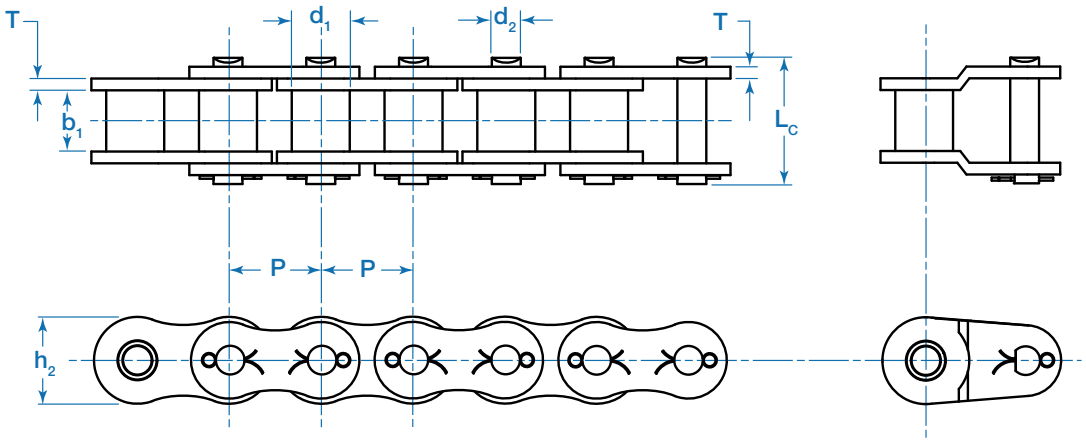


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness	Transverse Pitch	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_c max	h_2 max	T max	P_T				
	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
XD60H-3 RIV	0.750	0.469	0.500	0.234	3.19	3.27	0.71	0.126	1.03	25479	29765	6060	3.8
XD80H-3 RIV	1.000	0.625	0.625	0.313	3.98	4.11	0.95	0.157	1.28	47631	52920	9922	6.3
XD100H-3 RIV	1.250	0.750	0.750	0.375	4.78	4.92	1.19	0.189	1.54	71397	79358	15430	9.3
XD120H-3 RIV	1.500	0.875	1.000	0.437	5.96	6.09	1.43	0.220	1.93	99891	111056	19837	13.3
XD140H-3 RIV	1.750	1.000	1.000	0.500	6.37	6.56	1.66	0.252	2.06	129000	171979	25905	16.9
XD160H-3 RIV	2.000	1.125	1.250	0.563	7.55	7.73	1.90	0.283	2.44	168690	218289	31413	21.6
XD200H-3 RIV	2.500	1.562	1.500	0.781	9.56	9.77	2.37	0.374	3.08	290628	390268	40785	36.7



XD (Cottered)

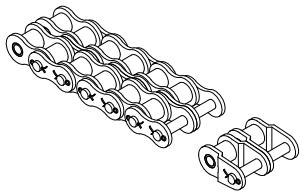
Single Strand

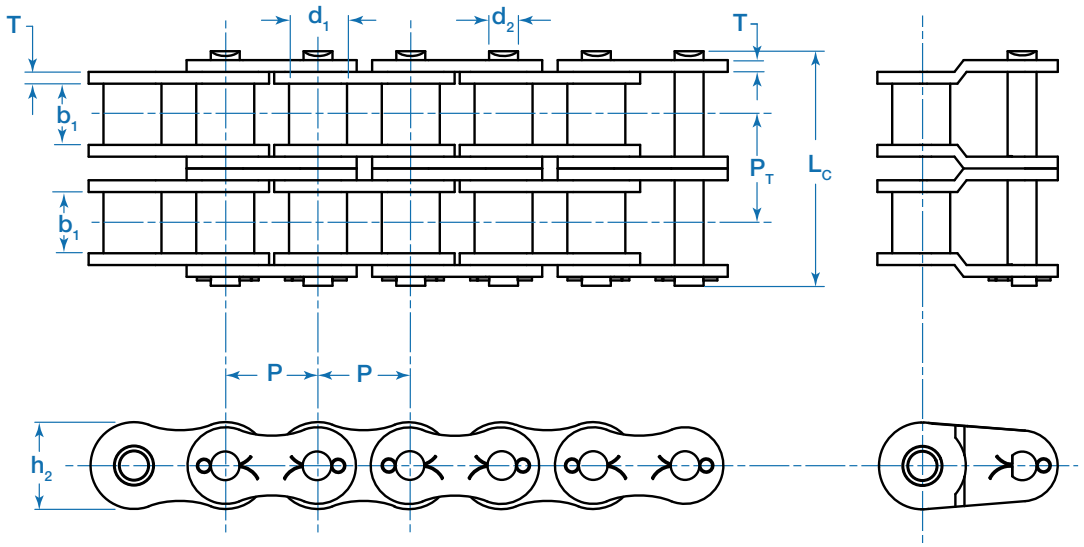


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length	Inner Plate Height	Plate Thickness	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_c max	h_2 max	T max				
	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
XD40 COTT	0.500	0.312	0.312	0.156	0.72	0.47	0.059	3527	4290	860	0.4
XD50 COTT	0.625	0.400	0.375	0.200	0.89	0.59	0.079	5952	7160	1389	0.7
XD60 COTT	0.750	0.469	0.500	0.234	1.10	0.71	0.094	8487	9920	2094	1.1
XD80 COTT	1.000	0.625	0.625	0.313	1.49	0.95	0.126	15872	17630	3637	1.9
XD100 COTT	1.250	0.750	0.750	0.375	1.77	1.19	0.157	23809	26450	5511	2.8
XD120 COTT	1.500	0.875	1.000	0.437	2.19	1.43	0.189	33288	37030	7275	4.2
XD140 COTT	1.750	1.000	1.000	0.500	2.40	1.66	0.220	42988	48720	9700	5.2
XD160 COTT	2.000	1.125	1.262	0.563	2.82	1.90	0.252	56215	60180	12125	6.7
XD180 COTT	2.250	1.407	1.407	0.688	3.22	2.14	0.284	70544	73630	14112	9.0
XD200 COTT	2.500	1.562	1.512	0.781	3.50	2.37	0.315	94794	101410	15872	11.1
XD240 COTT	3.000	1.875	1.902	0.937	4.20	2.85	0.374	139986	149910	21825	16.7

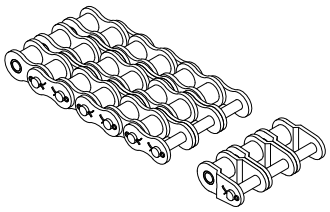
XD (Cottered)

Double Strand



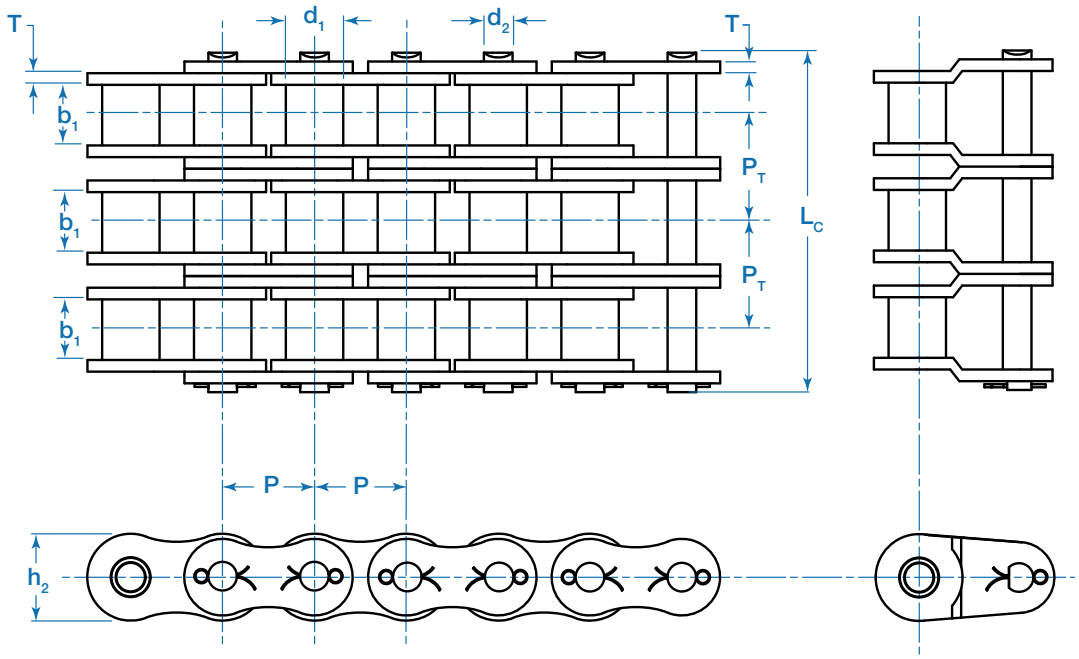


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length	Inner Plate Height	Plate Thickness	Transverse Pitch	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_c max	h_2 max	T max	P_T				
	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
XD40-2 COTT	0.500	0.312	0.312	0.156	1.29	0.47	0.059	0.57	7054	8590	1462	0.9
XD50-2 COTT	0.625	0.400	0.375	0.200	1.60	0.59	0.079	0.71	11904	14330	2361	1.4
XD60-2 COTT	0.750	0.469	0.500	0.234	2.00	0.71	0.094	0.90	16975	19840	3560	2.1
XD80-2 COTT	1.000	0.625	0.625	0.313	2.64	0.95	0.126	1.15	31745	35270	6184	3.8
XD100-2 COTT	1.250	0.750	0.750	0.375	3.18	1.19	0.157	1.41	47617	52900	9369	5.6
XD120-2 COTT	1.500	0.875	1.000	0.437	3.98	1.43	0.189	1.79	66576	74070	12367	8.2
XD140-2 COTT	1.750	1.000	1.000	0.500	4.33	1.66	0.220	1.93	85976	97440	16490	10.2
XD160-2 COTT	2.000	1.125	1.262	0.563	5.12	1.90	0.252	2.30	112430	120370	20612	13.2
XD180-2 COTT	2.250	1.407	1.407	0.688	5.81	2.14	0.284	2.59	141088	147260	23990	17.7
XD200-2 COTT	2.500	1.562	1.512	0.781	6.31	2.37	0.315	2.82	189587	202820	26983	21.8
XD240-2 COTT	3.000	1.875	1.902	0.937	7.66	2.85	0.374	3.46	279972	299820	37102	32.9



XD (Cottered)

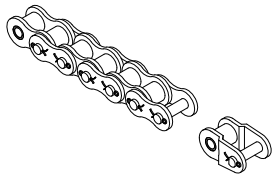
Triple Strand

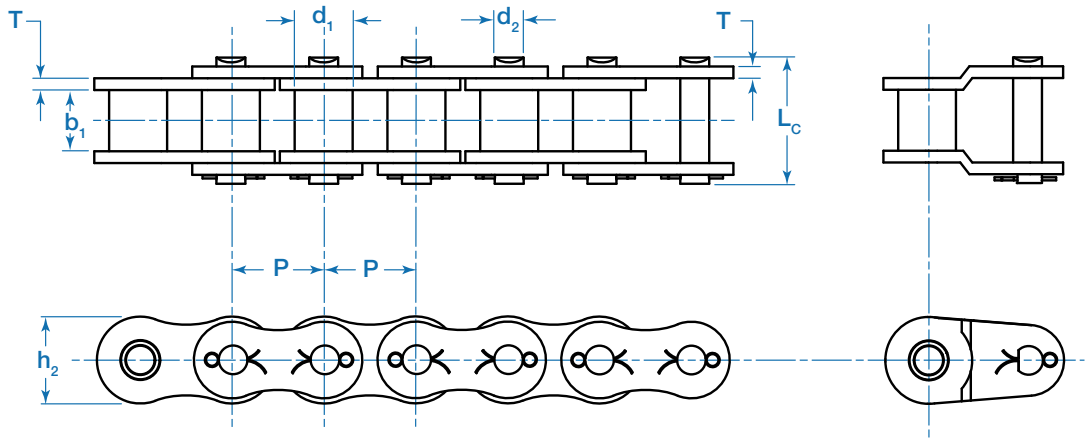


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length	Inner Plate Height	Plate Thickness	Transverse Pitch	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_c max	h_2 max	T max	P_T				
	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
XD40-3 COTT	0.500	0.312	0.312	0.156	1.86	0.47	0.059	0.57	10582	12880	2149	1.3
XD50-3 COTT	0.625	0.400	0.375	0.200	2.31	0.59	0.079	0.71	17856	21400	3472	2.1
XD60-3 COTT	0.750	0.469	0.500	0.234	2.89	0.71	0.094	0.90	25462	29760	5236	3.1
XD80-3 COTT	1.000	0.625	0.625	0.313	3.79	0.95	0.126	1.15	47617	52900	9094	5.6
XD100-3 COTT	1.250	0.750	0.750	0.375	4.59	1.19	0.157	1.41	71426	79360	13778	8.4
XD120-3 COTT	1.500	0.875	1.000	0.437	5.76	1.43	0.189	1.79	99864	111110	18187	12.3
XD140-3 COTT	1.750	1.000	1.000	0.500	6.25	1.66	0.220	1.93	128963	146160	24250	15.2
XD160-3 COTT	2.000	1.125	1.262	0.563	7.42	1.90	0.252	2.30	168644	180550	30312	19.7
XD180-3 COTT	2.250	1.407	1.407	0.688	8.40	2.14	0.284	2.59	211632	220900	35280	25.5
XD200-3 COTT	2.500	1.562	1.512	0.781	9.13	2.37	0.315	2.82	284381	304230	39681	32.7
XD240-3 COTT	3.000	1.875	1.902	0.937	11.11	2.85	0.374	3.46	419957	449740	54561	49.1

XD Heavy (Cottered)

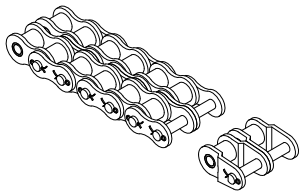
Single Strand





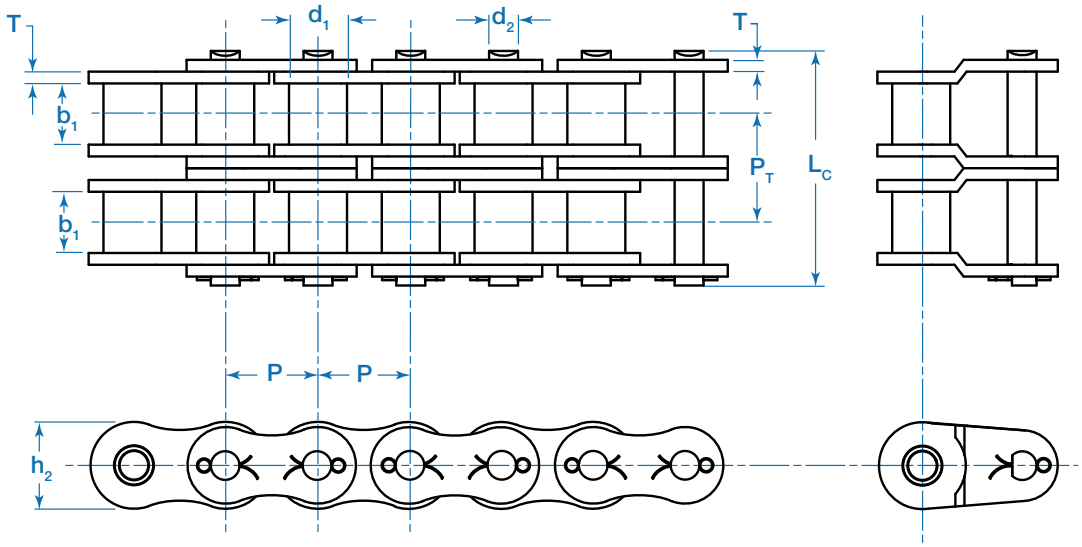
Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length	Inner Plate Height	Plate Thickness	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_c max	h_2 max	T max				
	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
XD60H COTT	0.750	0.469	0.500	0.234	1.21	0.71	0.126	8493	9921	2424	1.3
XD80H COTT	1.000	0.625	0.625	0.313	1.55	0.95	0.157	15877	17637	3969	2.1
XD100H COTT	1.250	0.750	0.750	0.375	1.84	1.19	0.189	23799	26455	6172	3.1
XD120H COTT	1.500	0.875	1.000	0.437	2.24	1.43	0.220	33297	37038	7935	4.4
XD140H COTT	1.750	1.000	1.000	0.500	2.45	1.66	0.252	43000	48722	10362	5.6
XD160H COTT	2.000	1.125	1.250	0.563	2.86	1.90	0.283	56230	60186	12565	7.2
XD200H COTT	2.500	1.562	1.500	0.781	3.61	2.37	0.374	96876	103617	16314	12.2

XD180H COTT is available by special order.



XD Heavy (Cottered)

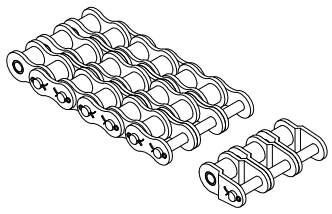
Double Strand

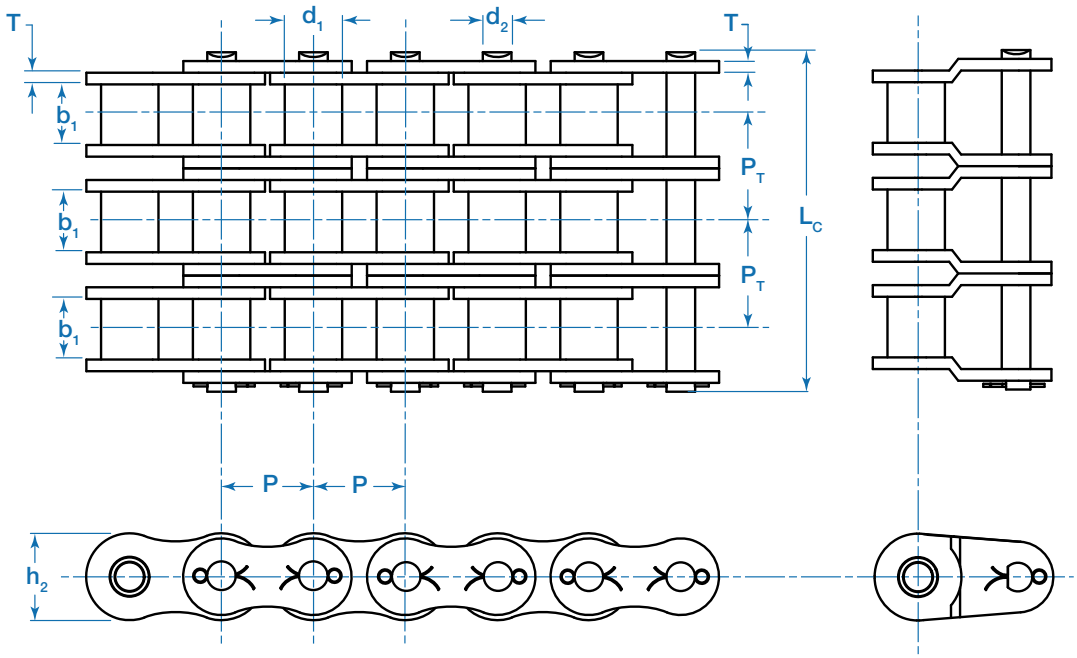


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length	Inner Plate Height	Plate Thickness	Transverse Pitch	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_c max	h_2 max	T max	P_T				
	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
XD60H-2 COTT	0.750	0.469	0.500	0.234	2.24	0.71	0.126	1.03	16986	19851	4120	2.5
XD80H-2 COTT	1.000	0.625	0.625	0.313	2.83	0.95	0.157	1.28	31754	35273	6747	4.2
XD100H-2 COTT	1.250	0.750	0.750	0.375	3.38	1.19	0.189	1.54	47598	52920	10492	8.9
XD120H-2 COTT	1.500	0.875	1.000	0.437	4.17	1.43	0.220	1.93	66594	74074	13489	11.3
XD140H-2 COTT	1.750	1.000	1.000	0.500	4.50	1.66	0.252	2.06	86000	114648	17615	13.7
XD160H-2 COTT	2.000	1.125	1.250	0.563	5.30	1.90	0.283	2.44	112460	145451	21361	14.4
XD200H-2 COTT	2.500	1.562	1.500	0.781	6.69	2.37	0.374	3.08	193752	260104	27734	24.5

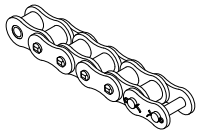
XD Heavy (Cottered)

Triple Strand

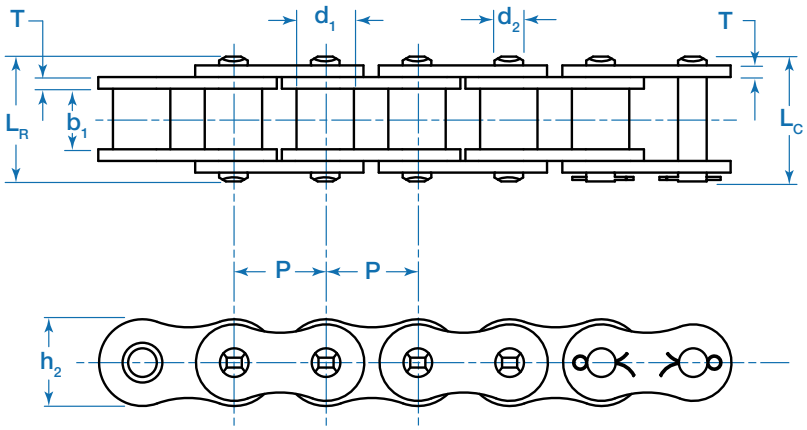




Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length	Inner Plate Height	Plate Thickness	Transverse Pitch	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_c max	h_2 max	T max	P_T				
	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
XD60H-3 COTT	0.750	0.469	0.500	0.234	3.27	0.71	0.126	1.03	25479	29765	6060	3.8
XD80H-3 COTT	1.000	0.625	0.625	0.313	4.11	0.95	0.157	1.28	47631	52920	9922	6.3
XD100H-3 COTT	1.250	0.750	0.750	0.375	4.92	1.19	0.189	1.54	71397	79358	15430	9.3
XD120H-3 COTT	1.500	0.875	1.000	0.437	6.09	1.43	0.220	1.93	99891	111056	19837	13.3
XD140H-3 COTT	1.750	1.000	1.000	0.500	6.56	1.66	0.252	2.06	129000	171979	25905	16.9
XD160H-3 COTT	2.000	1.125	1.250	0.563	7.73	1.90	0.283	2.44	168690	218289	31413	21.6
XD200H-3 COTT	2.500	1.562	1.500	0.781	9.77	2.37	0.374	3.08	290628	390268	40785	36.7



Super Heavy

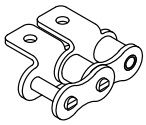


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_c max	h_2 max	T max				
	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
SH60H RIV	0.750	0.469	0.500	0.234	1.15	1.24	0.71	0.125	10023	11330	2826	1.3
SH80H RIV	1.000	0.625	0.625	0.312	1.43	1.48	0.95	0.157	20045	20906	5292	2.1
SH100H RIV	1.250	0.783	0.783	0.375	1.72	1.85	1.18	0.189	26500	29022	6864	3.0
SH120H RIV	1.500	0.875	1.000	0.437	2.11	2.26	1.41	0.220	35954	39407	9568	4.4
SH140H RIV	1.750	1.000	1.000	0.500	2.27	2.45	1.61	0.252	46818	59909	11049	5.6
SH160H RIV	2.000	1.125	1.250	0.562	2.69	2.87	1.88	0.283	62273	65866	14820	6.9
SH200H RIV	2.500	1.562	1.500	0.781	3.41	3.68	2.36	0.374	115023	126405	24845	12.9

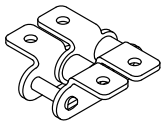
Use only connecting links that are specifically designed for use with SH Series chain.

SINGLE-PITCH ROLLER CHAIN ATTACHMENTS

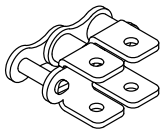
Standard Attachments



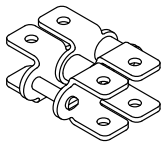
A-1
Single-bent lug, one side, one hole
(see page 48)



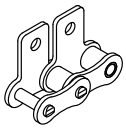
K-1
Single-bent lug, both sides, one hole
(see page 48)



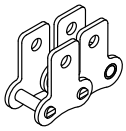
AA-1
Double-bent lug, one side, one hole
(see page 49)



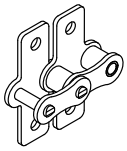
KK-1
Double-bent lug, both sides, one hole
(see page 49)



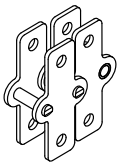
SA-1
Single extension, straight lug,
one side, one hole (see page 50)



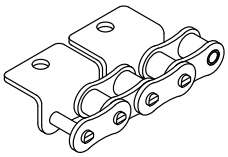
SK-1
Single extension, straight lug,
both sides, one hole (see page 50)



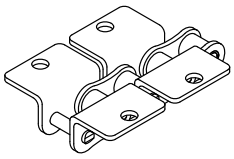
SAA-1
Double extension, straight lug,
one side, one hole (see page 51)



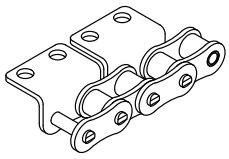
SKK-1
Double extension, straight lug,
both sides, one hole (see page 51)



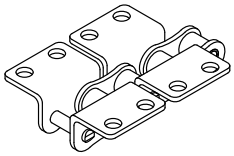
WA-1
Wide contour, bent lug,
one side, one hole (see page 52)



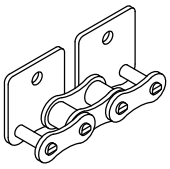
WK-1
Wide contour, bent lug,
both sides, one hole (see page 52)



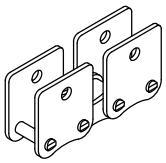
WA-2
Wide contour, bent lug,
one side, two holes (see page 53)



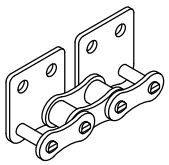
WK-2
Wide contour, bent lug,
both sides, two holes (see page 53)



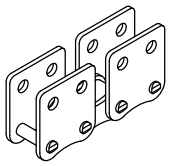
WSA-1
Single extension, straight lug,
one side, one hole (see page 54)



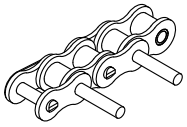
WSK-1
Single extension, straight lug,
both sides, one hole (see page 54)



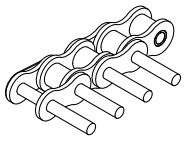
WSA-2
Single extension, straight lug,
one side, two holes (see page 55)



WSK-2
Single extension, straight lug,
both sides, two holes (see page 55)



D-1
Extended pin every-other link
(see page 56)



D-3
Extended pin every link
(see page 56)

Ordering Procedure

When ordering separate attachment links the following information must be supplied:

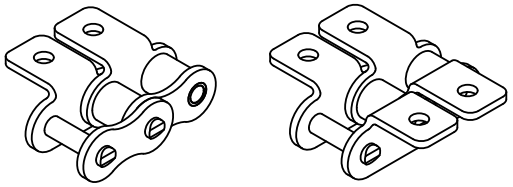
1. Chain number
2. Attachment number
3. Attachment on pin link or roller link

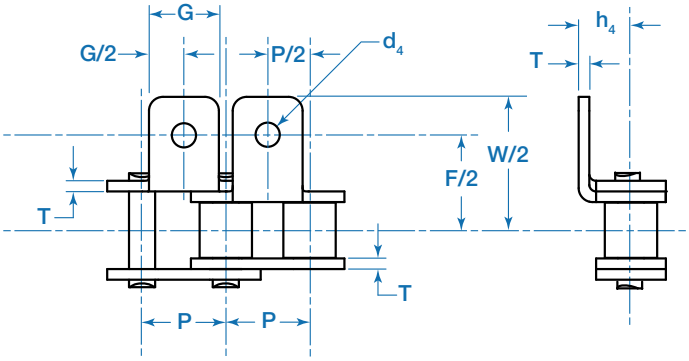
When ordering attachments assembled in chain the following information must be supplied:

1. Chain number*
2. Attachment number
3. Attachment spacing (in pitches)—evenly spaced attachments are placed on pin-links unless specified otherwise
4. Number of pitches in one length of chain
5. Number of lengths of chain

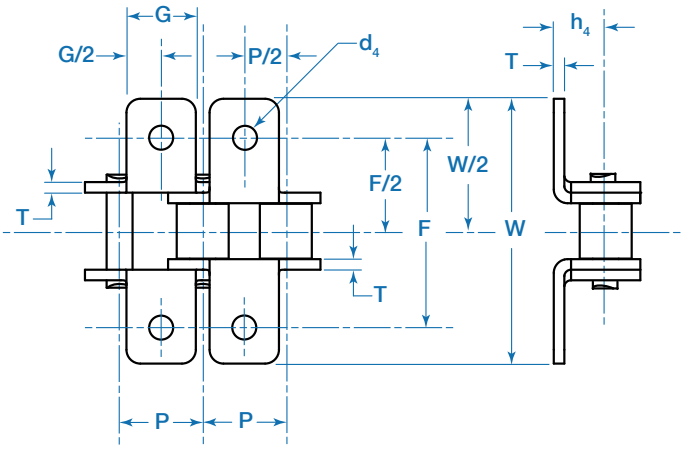
* Riveted supplied unless cottered specified

Single, Bent-Lug





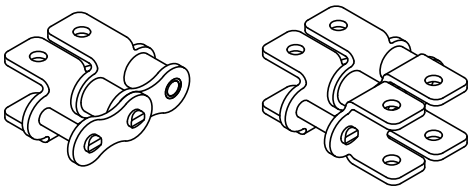
A-1

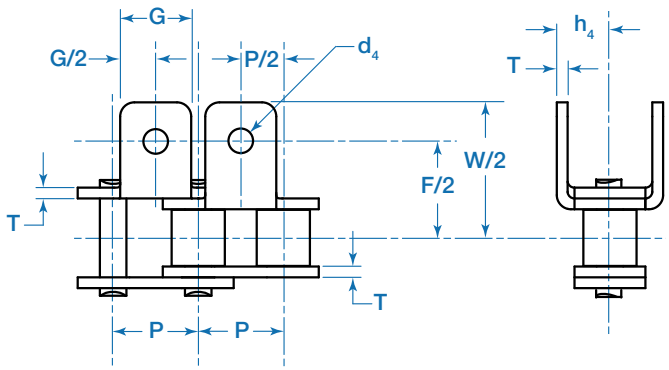


K-1

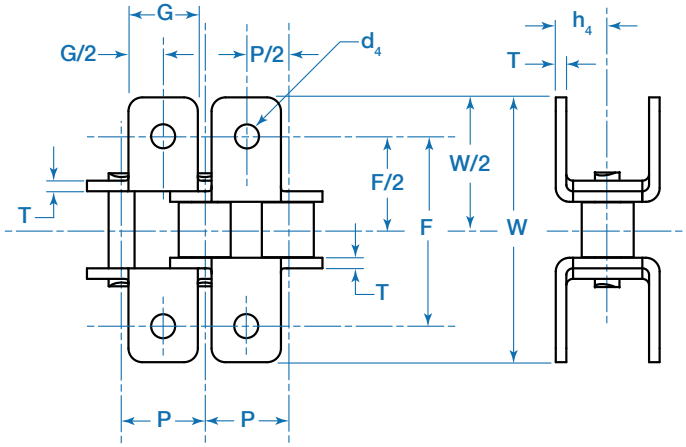
Lynx Chain No.	P	G	F	W	T	h4	d4
	inch	inch	inch	inch	inch	inch	inch
35	0.375	0.311	0.748	1.126	0.051	0.250	0.134
40	0.500	0.374	1.000	1.386	0.059	0.311	0.134
41	0.500	0.374	0.945	1.315	0.051	0.272	0.142
50	0.625	0.500	1.250	1.819	0.080	0.406	0.217
60	0.750	0.626	1.500	2.189	0.095	0.469	0.217
80	1.000	0.752	2.000	2.551	0.128	0.626	0.268
100	1.250	1.000	2.500	3.437	0.157	0.780	0.362
120	1.500	1.126	3.000	4.272	0.189	0.906	0.386
140	1.750	1.374	3.500	4.843	0.220	1.126	0.449
160	2.000	1.500	4.000	5.622	0.252	1.250	0.516
200	2.500	2.000	5.000	7.047	0.315	1.688	0.642

Double, Bent-Lug





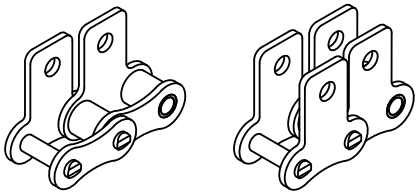
AA-1

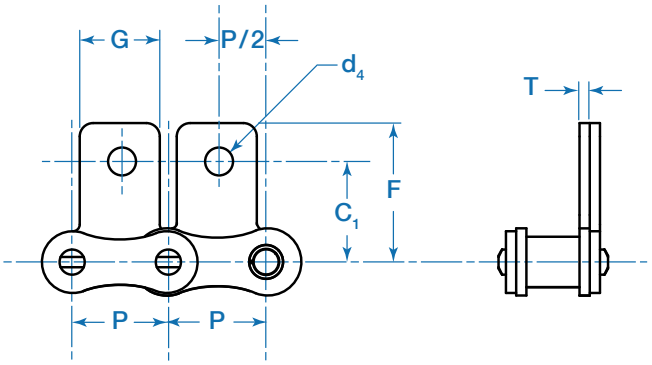


KK-1

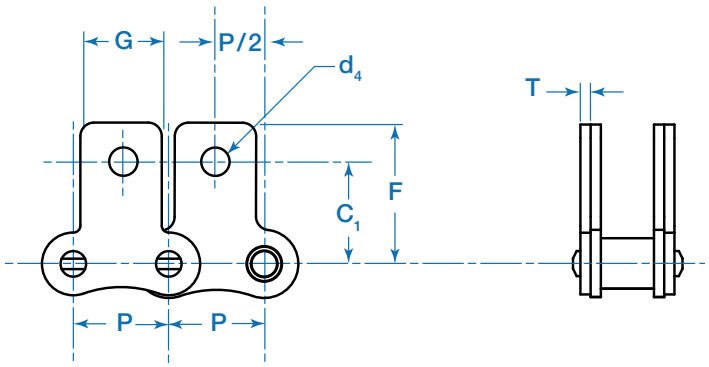
Lynx Chain No.	P	G	F	W	T	h_4	d_4
	inch	inch	inch	inch	inch	inch	inch
40	0.500	0.374	1.000	1.386	0.060	0.311	0.134
50	0.625	0.500	1.250	1.819	0.080	0.406	0.217
60	0.750	0.626	1.500	2.189	0.095	0.469	0.217
80	1.000	0.752	2.000	2.551	0.128	0.626	0.268
100	1.250	1.000	2.500	3.437	0.157	0.780	0.362

Single-Extension, Straight-Lug





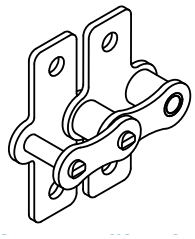
SA-1

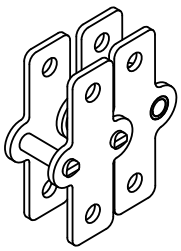


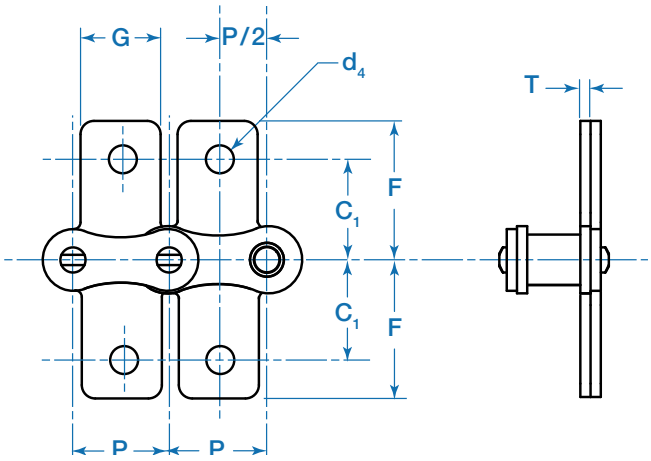
SK-1

Lynx Chain No.	P	G	F	T	C_1	d_4
	inch	inch	inch	inch	inch	inch
35	0.375	0.311	0.573	0.050	0.375	0.134
40	0.500	0.374	0.750	0.060	0.500	0.131
41	0.500	0.374	0.652	0.051	0.467	0.142
50	0.625	0.500	0.994	0.080	0.625	0.217
60	0.750	0.626	1.155	0.094	0.719	0.217
80	1.000	0.752	1.366	0.125	0.969	0.268
100	1.250	1.000	1.705	0.156	1.250	0.362
120	1.500	1.126	2.031	0.188	1.438	0.386
140	1.750	1.374	2.441	0.219	1.750	0.448
160	2.000	1.500	2.750	0.250	2.000	0.516
200	2.500	2.000	3.500	0.312	2.500	0.641

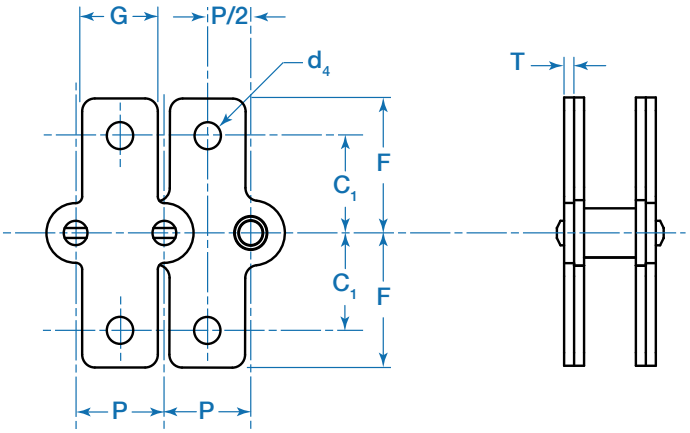
Double-Extension, Straight-Lug







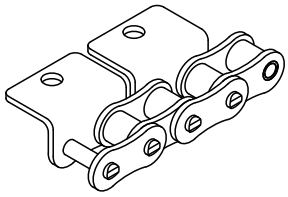
SAA-1

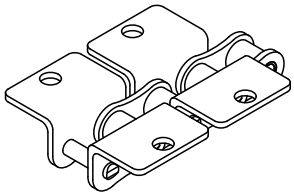


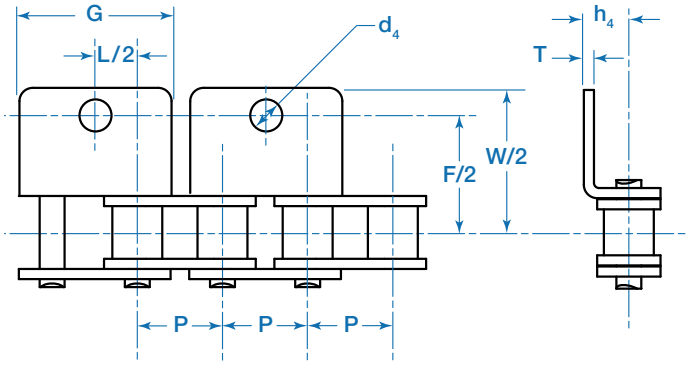
SKK-1

Lynx Chain No.	P	G	T	F	C_1	d_4
	inch	inch	inch	inch	inch	inch
40	0.500	0.374	0.060	0.750	0.500	0.134
50	0.625	0.500	0.080	0.994	0.626	0.217
60	0.750	0.626	0.095	1.155	0.720	0.217
80	1.000	0.752	0.128	1.366	0.969	0.268
100	1.250	1.000	0.157	1.705	1.252	0.362

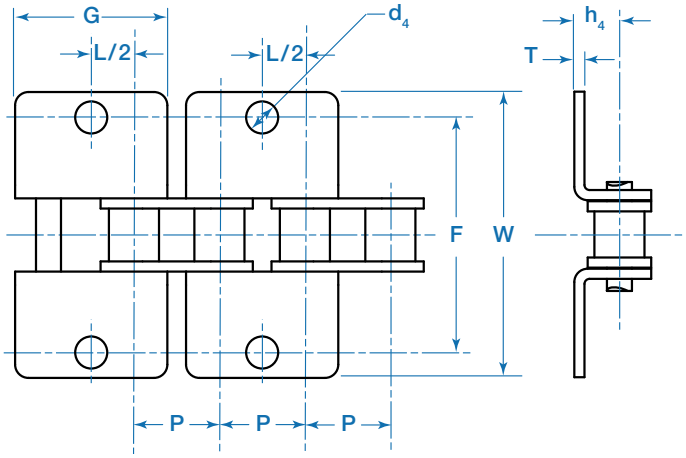
Wide-Contour, Bent-Lug







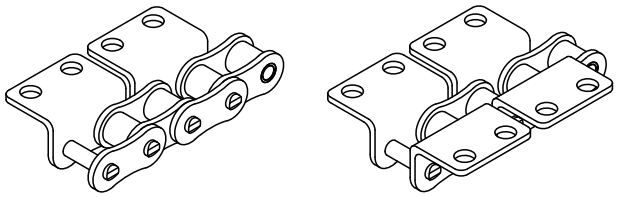
WA-1

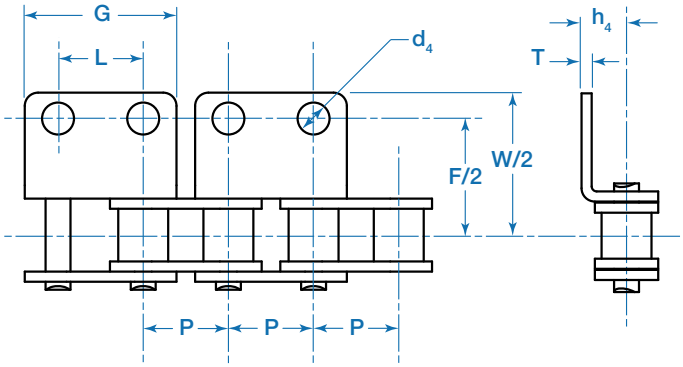


WK-1

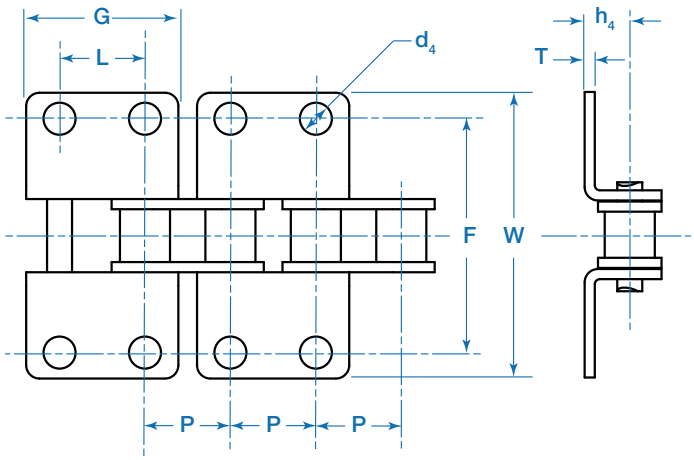
Lynx Chain No.	P	G	L	F	W	T	h_4	d_4
	inch	inch	inch	inch	inch	inch	inch	inch
35	0.375	0.682	0.375	0.750	1.126	0.050	0.250	0.110
40	0.500	0.906	0.500	1.000	1.402	0.060	0.312	0.131
41	0.500	0.878	0.500	0.945	1.378	0.051	0.283	0.191
50	0.625	1.134	0.625	1.250	1.843	0.080	0.406	0.217
60	0.750	1.364	0.750	1.500	2.220	0.094	0.469	0.217
80	1.000	1.807	1.000	2.000	2.882	0.125	0.625	0.261
100	1.250	2.270	1.250	2.500	3.535	0.156	0.751	0.362
120	1.500	2.728	1.500	3.000	4.283	0.188	0.906	0.386
140	1.750	3.167	1.750	3.500	4.843	0.219	1.125	0.448
160	2.000	3.622	2.000	4.000	5.622	0.250	1.250	0.516
200	2.500	4.547	2.500	5.000	7.047	0.312	1.688	0.641

Wide-Contour, Bent-Lug





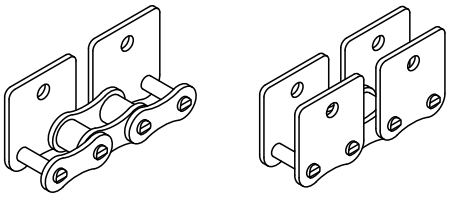
WA-2

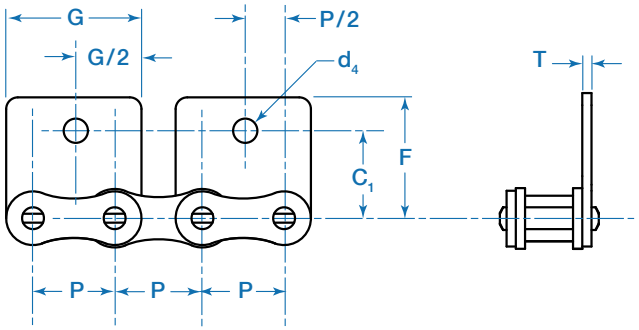


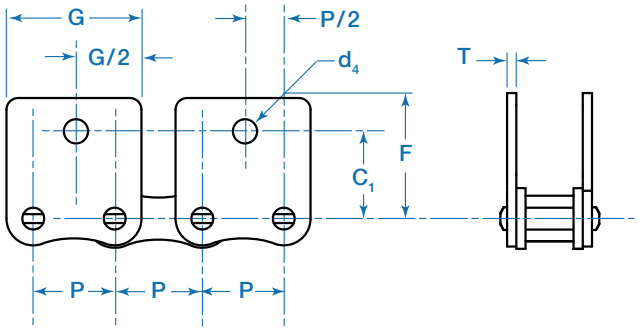
WK-2

Lynx Chain No.	P	G	L	F	W	T	h_4	d_4
	inch	inch	inch	inch	inch	inch	inch	inch
35	0.375	0.682	0.375	0.750	1.126	0.050	0.250	0.110
40	0.500	0.906	0.500	1.000	1.402	0.060	0.312	0.131
41	0.500	0.878	0.500	0.945	1.378	0.051	0.283	0.191
50	0.625	1.134	0.625	1.250	1.843	0.080	0.406	0.217
60	0.750	1.364	0.750	1.500	2.220	0.094	0.469	0.217
80	1.000	1.807	1.000	2.000	2.882	0.125	0.625	0.268
100	1.250	2.270	1.250	2.500	3.535	0.156	0.751	0.362
120	1.500	2.728	1.500	3.000	4.283	0.188	0.906	0.386
140	1.750	3.167	1.750	3.500	4.843	0.219	1.125	0.448
160	2.000	3.622	2.000	4.000	5.622	0.250	1.250	0.516
200	2.500	4.547	2.500	5.000	7.047	0.312	1.688	0.641

Wide-Contour, Single-Extension, Straight-Lug





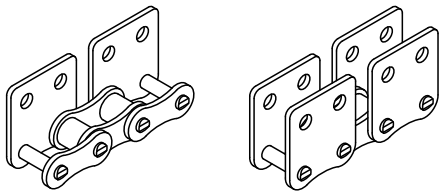


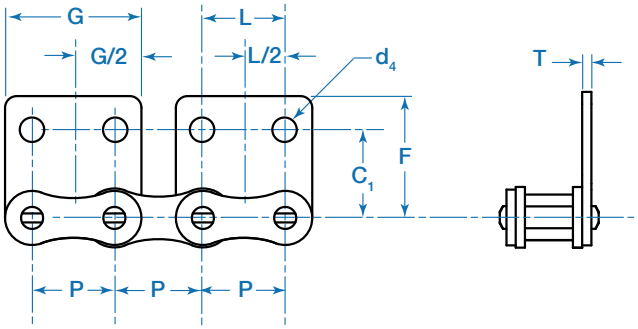
WSA-1

WSK-1

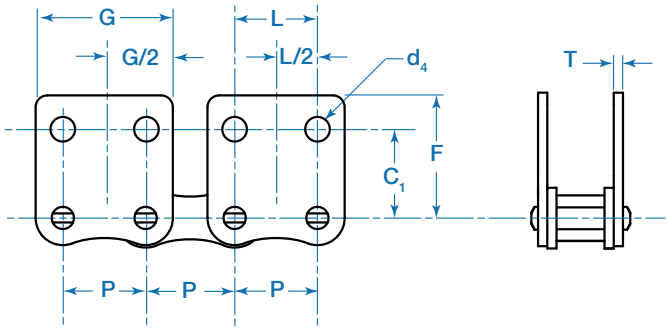
Lynx Chain No.	P	G	C_1	F	T	d_4
	inch	inch	inch	inch	inch	inch
35	0.375	0.682	0.374	0.573	0.051	0.110
40	0.500	0.906	0.500	0.685	0.060	0.134
41	0.500	0.835	0.467	0.652	0.051	0.142
50	0.625	1.134	0.626	0.907	0.080	0.217
60	0.750	1.364	0.720	1.057	0.095	0.217
80	1.000	1.807	0.969	1.396	0.128	0.268
100	1.250	2.270	1.252	1.732	0.157	0.362
120	1.500	2.728	1.437	2.031	0.189	0.386
140	1.750	3.167	1.752	2.441	0.220	0.449
160	2.000	3.622	2.000	2.750	0.252	0.516
200	2.500	4.547	2.500	3.500	0.315	0.642

Wide-Contour, Single-Extension, Straight-Lug





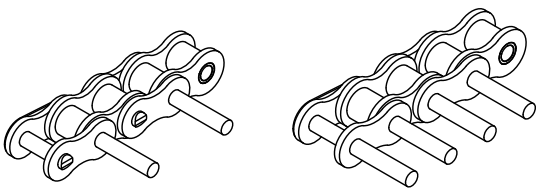
WSA-2

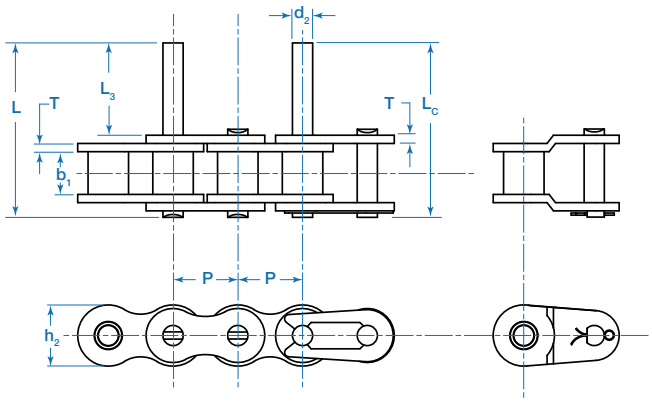


WSK-2

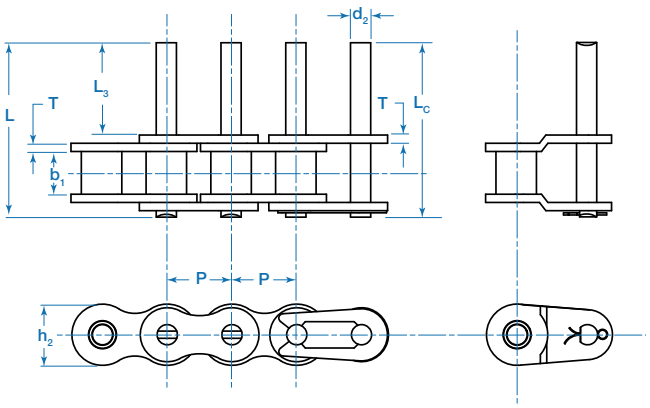
Lynx Chain No.	P	G	L	C_1	F	T	d_4
	inch	inch	inch	inch	inch	inch	inch
35	0.375	0.682	0.375	0.374	0.573	0.051	0.110
40	0.500	0.906	0.500	0.500	0.685	0.060	0.134
41	0.500	0.835	0.500	0.467	0.652	0.051	0.142
50	0.625	1.134	0.625	0.626	0.907	0.080	0.217
60	0.750	1.364	0.750	0.720	1.057	0.095	0.217
80	1.000	1.807	1.000	0.969	1.396	0.128	0.268
100	1.250	2.270	1.250	1.252	1.732	0.157	0.362
120	1.500	2.728	1.500	1.437	2.031	0.189	0.386
140	1.750	3.167	1.750	1.752	2.441	0.220	0.449
160	2.000	3.622	2.000	2.000	2.750	0.252	0.516
200	2.500	4.547	2.500	2.500	3.500	0.315	0.642

Extended Pin





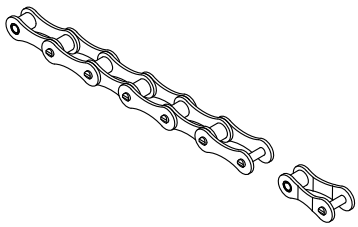
D-1



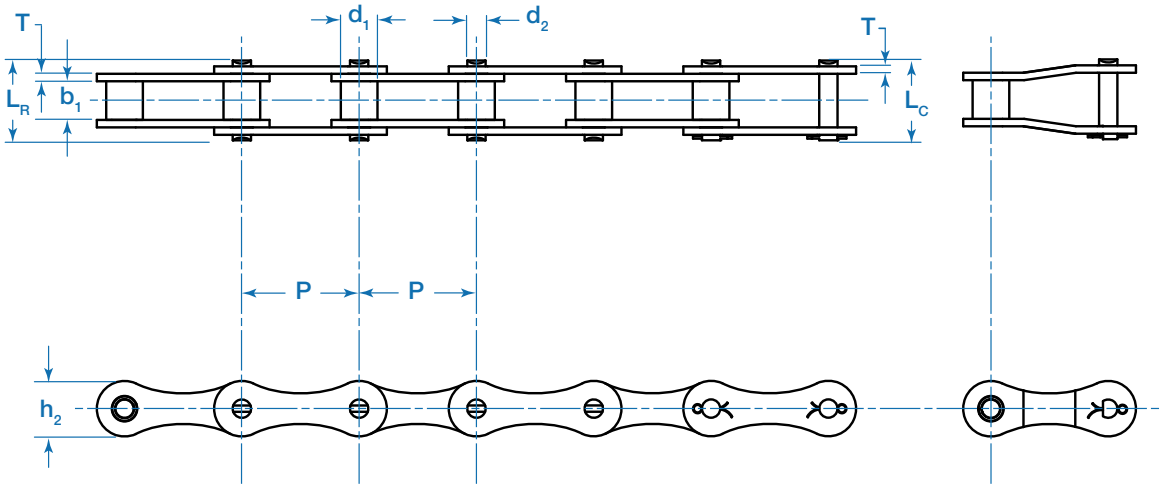
D-3

Lynx Chain No.	Pitch	Width Between Inner Plates	Pin Diameter	Pin Length			Plate Thickness
	P	b_1 min	d_2 max	L max	L_c max	L_3	T
	inch	inch	inch	inch	inch	inch	inch
35	0.375	0.188	0.141	0.819	0.850	0.374	.050
40	0.500	0.310	0.156	0.988	1.031	0.374	.060
50	0.625	0.370	0.200	1.232	1.303	0.469	.080
60	0.750	0.495	0.234	1.520	1.598	0.563	.094
80	1.000	0.620	0.312	1.980	2.098	0.752	.125
100	1.250	0.744	0.375	2.433	2.602	0.937	.156
120	1.500	0.993	0.437	3.008	3.165	1.126	.187
140	1.750	0.993	0.500	3.339	3.520	1.311	.219
160	2.000	1.242	0.562	3.921	4.110	1.500	.250

DOUBLE-PITCH ROLLER CHAIN

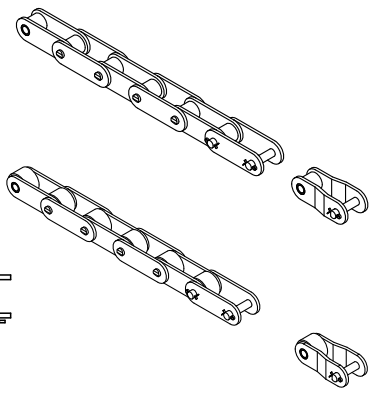


Power Transmission



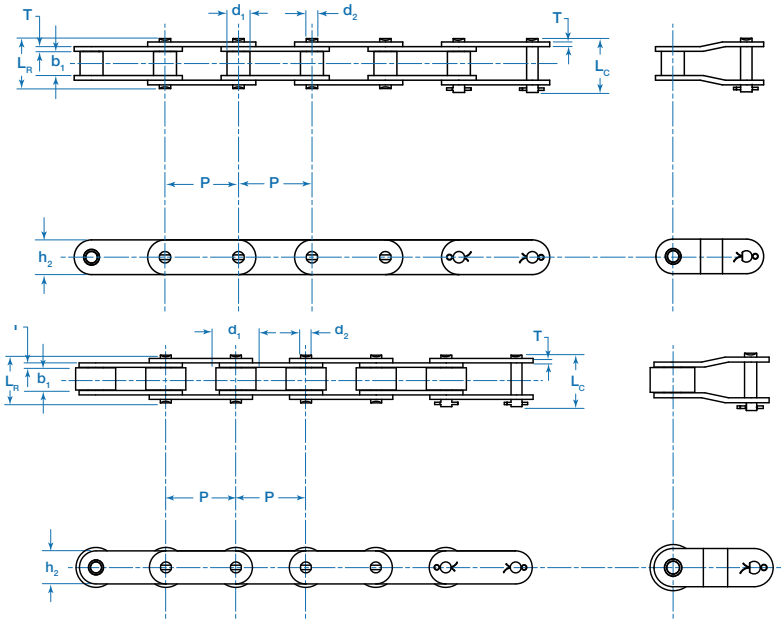
Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_C max	h_2 max	T max				
	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
A2040	1.000	0.312	0.312	0.156	0.65	0.70	0.47	0.060	3205	3754	830	0.3
A2050	1.250	0.400	0.370	0.200	0.86	0.87	0.59	0.080	5045	6317	1478	0.5
A2060	1.500	0.469	0.500	0.234	1.02	1.09	0.71	0.094	7227	8273	2038	0.7
A2080	2.000	0.625	0.620	0.312	1.29	1.44	0.94	0.125	12886	14769	3402	1.1
A2100	2.500	0.750	0.744	0.375	1.59	1.76	1.18	0.156	20114	23064	5210	1.7
A2120	3.000	0.875	0.993	0.437	1.98	2.14	1.41	0.187	28864	33113	7014	2.7

Small and Large Roller Conveyor



SMALL ROLLER SERIES

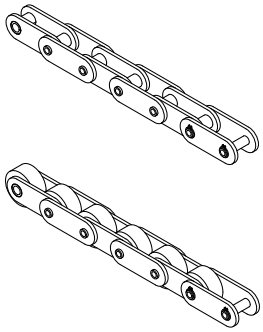
LARGE ROLLER SERIES

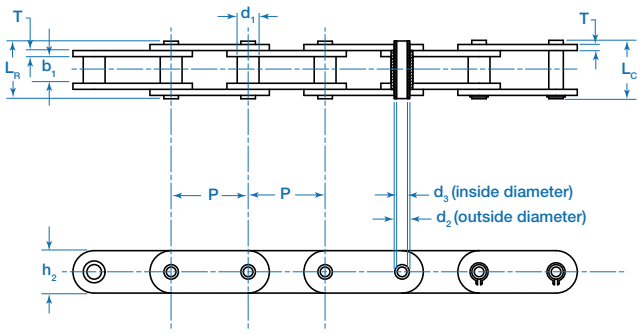


HD Double-Pitch Large-Roller Conveyor Chain

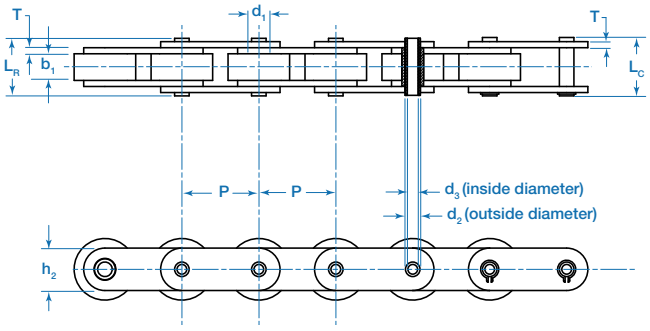
Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_C max	h_2 max	T max				
	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
C2040	1.000	0.312	0.312	0.156	0.65	0.70	0.47	0.060	3205	3754	534	0.3
C2050	1.250	0.400	0.370	0.200	0.82	0.87	0.59	0.080	5045	6317	841	0.5
C2060	1.500	0.469	0.500	0.234	1.02	1.09	0.71	0.094	7227	8273	1205	0.8
C2080	2.000	0.625	0.620	0.312	1.29	1.44	0.95	0.125	12886	14769	2148	1.4
C2100	2.500	0.750	0.744	0.375	1.59	1.76	1.18	0.156	20114	23064	3352	2.0
C2120	3.000	0.875	0.993	0.437	1.98	2.14	1.41	0.187	28864	33113	4811	3.1
C2160	4.000	1.125	1.250	0.562	2.55	2.74	1.88	0.250	51545	62697	8591	5.5
C2040H	1.000	0.312	0.312	0.156	0.74	0.78	0.47	0.080	3205	3867	534	0.4
C2060H	1.500	0.469	0.500	0.234	1.15	1.24	0.71	0.125	7227	9352	1205	1.0
C2080H	2.000	0.625	0.620	0.312	1.43	1.55	0.95	0.156	12886	15736	2148	1.7
C2100H	2.500	0.750	0.744	0.375	1.72	1.85	1.18	0.187	20114	25268	3352	2.4
C2120H	3.000	0.875	0.993	0.437	2.11	2.26	1.41	0.219	28864	36170	4811	3.5
C2160H	4.000	1.125	1.250	0.562	2.69	2.87	1.88	0.281	51545	64248	8591	6.1
Large Roller												
C2042	1.000	0.625	0.312	0.156	0.65	0.70	0.47	0.060	3205	3754	534	0.6
C2052	1.250	0.750	0.370	0.200	0.82	0.87	0.59	0.080	5045	6317	841	0.9
C2062	1.500	0.875	0.500	0.234	1.02	1.09	0.71	0.094	7227	8273	1205	1.1
C2082	2.000	1.125	0.620	0.312	1.29	1.44	0.95	0.125	12886	14769	2148	2.1
C2102	2.500	1.562	0.744	0.375	1.59	1.76	1.18	0.156	20114	23064	3352	3.3
C2122	3.000	1.750	0.993	0.437	1.98	2.14	1.41	0.187	28864	33113	4811	5.2
C2162	4.000	2.250	1.250	0.562	2.55	2.74	1.88	0.250	51545	62697	8591	8.7
C2062H	1.500	0.875	0.500	0.234	1.15	1.24	0.71	0.125	7227	9352	1205	1.4
C2082H	2.000	1.125	0.620	0.312	1.43	1.55	0.95	0.156	12886	15736	2148	2.4
C2102H	2.500	1.562	0.744	0.375	1.72	1.85	1.18	0.187	20114	25268	3352	3.6
C2122H	3.000	1.750	0.993	0.437	2.11	2.26	1.41	0.219	28864	36170	4811	5.6
C2162H	4.000	2.250	1.250	0.562	2.69	2.87	1.88	0.281	51545	64248	8591	8.6

Hollow Pin





SMALL ROLLER SERIES

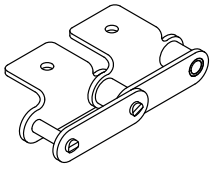


LARGE ROLLER SERIES

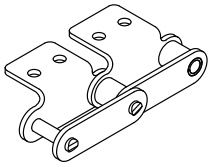
Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Hollow Pin Outside Diameter	Hollow Pin Inside Diameter	Pin Length		Inner Plate Height	Plate Thickness	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	d_3 max	L_R max	L_C max	h_2 max	T max				
	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./in.
C2040 HP	1.000	0.312	0.312	0.222	0.157	0.65	0.69	0.472	0.060	2500	2833	464	0.3
C2050 HP	1.250	0.400	0.375	0.284	0.201	0.81	0.86	0.591	0.080	4636	5126	546	0.5
C2060 HP	1.500	0.469	0.500	0.327	0.236	1.02	1.06	0.669	0.094	5455	6092	1136	0.7
Large Roller													
C2042 HP	1.000	0.625	0.312	0.222	0.157	0.65	0.70	0.472	0.060	2500	2833	464	0.5
C2052 HP	1.250	0.750	0.375	0.284	0.201	0.81	0.86	0.591	0.080	4636	5126	546	0.8
C2062 HP	1.500	0.875	0.500	0.327	0.236	1.02	1.06	0.669	0.094	5455	6092	1136	1.2
C2042H HP	1.000	0.625	0.312	0.222	0.157	0.71	0.78	0.472	0.080	2500	2967	464	0.6
C2052H HP	1.250	0.750	0.375	0.284	0.201	0.87	0.92	0.591	0.094	4636	5283	546	1.0
C2062H HP	1.500	0.875	0.500	0.327	0.236	1.15	1.19	0.669	0.125	5455	6205	1136	1.3

DOUBLE-PITCH ROLLER CHAIN ATTACHMENTS

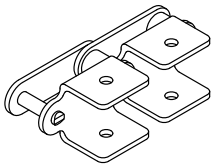
Standard Attachments



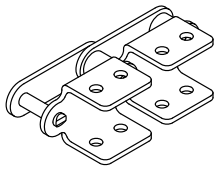
A-1
Single-bent lug, one side, one hole
(see page 66)



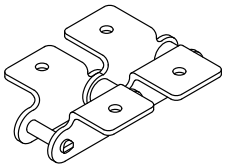
A-2
Single-bent lug, one side, two holes
(see page 66)



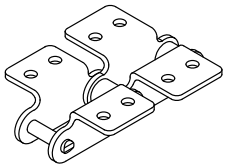
AA-1
Double-bent lugs, one side,
one hole (see page 67)



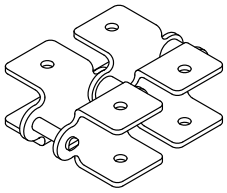
AA-2
Double-bent lugs, one side,
two holes (see page 67)



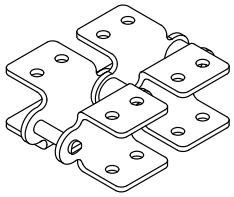
K-1
Single-bent lug, both sides,
one hole (see page 68)



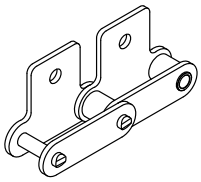
K-2
Single-bent lugs, both sides,
two holes (see page 68)



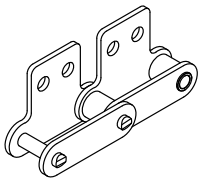
KK-1
Double-bent lugs, both sides,
one hole (see page 69)



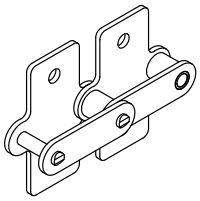
KK-2
Double-bent lugs, both sides,
two holes (see page 69)



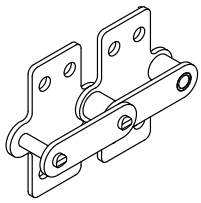
SA-1
Single extension, straight lug,
one side, one hole (see page 70)



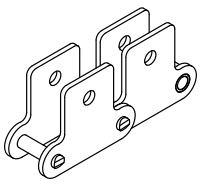
SA-2
Single extension, straight lug,
one side, two holes (see page 70)



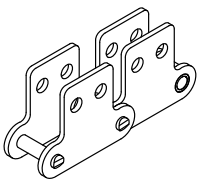
SAA-1
Double extension, straight lug,
one side, one hole (see page 72)



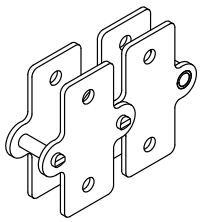
SAA-2
Double extension, straight lug,
one side, two holes (see page 72)



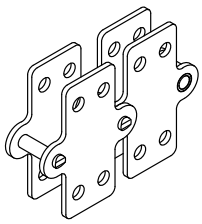
SK-1
Single extension, straight lug,
both sides, one hole (see page 71)



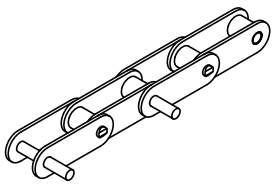
SK-2
Single extension, straight lug,
both sides, two holes (see page 71)



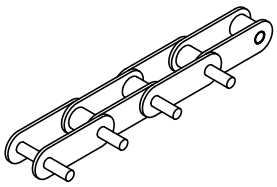
SKK-1
Double extension, straight lug,
both sides, one hole (see page 73)



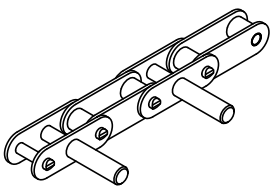
SKK-2
Double extension, straight lug,
both sides, two holes (see page 73)



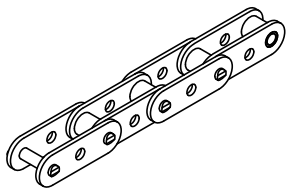
D-1
1 pin extended every pin link
(see page 74)



D-3
2 pins extended every pin link
(see page 74)



D-5
1 extra-large pin extended every pin
link (see page 75)

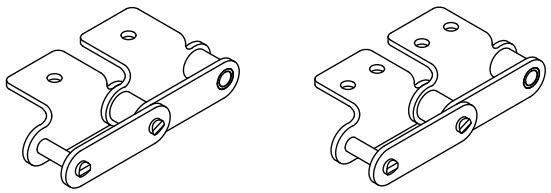


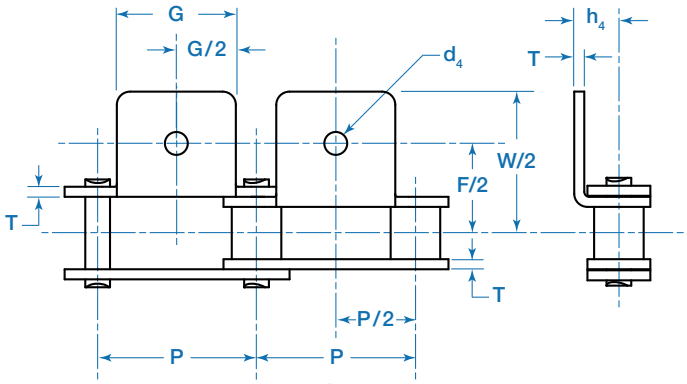
GK-1
1 hole in both link-plates every link,
small roller (see page 76)

Dimensional Differences

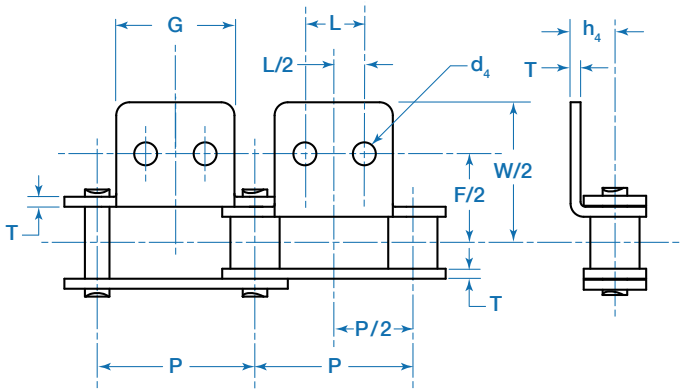
The ASME/ANSI B.29.1 and B29.100 standards do not define the dimensions for many of the above attachments. Dimensions of attachments may vary from manufacturer to manufacturer. Always double-check dimensions before ordering.

Single, Bent-Lug





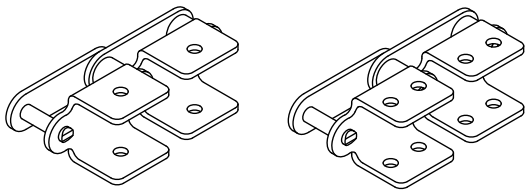
A-1

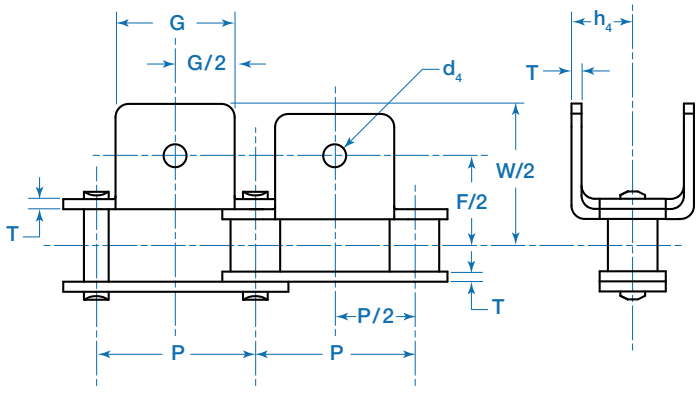


A-2

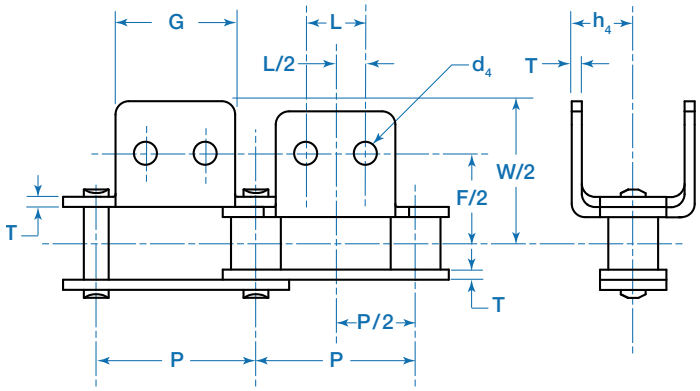
Lynx Chain No.	P	G	L	F	W	T	h_4	d_4
	inch	inch	inch	inch	inch	inch	inch	inch
C2040	1.000	0.752	0.374	1.000	1.559	0.059	0.358	0.134
C2042	1.000	0.752	0.374	1.000	1.559	0.059	0.358	0.134
C2050	1.250	0.937	0.469	1.252	1.929	0.080	0.437	0.217
C2052	1.250	0.937	0.469	1.252	1.929	0.080	0.437	0.217
C2060	1.500	1.125	0.563	1.689	2.669	0.095	0.579	0.217
C2062	1.500	1.125	0.563	1.689	2.669	0.095	0.579	0.217
C2060H	1.500	1.125	0.563	1.689	2.669	0.125	0.579	0.217
C2062H	1.500	1.125	0.563	1.689	2.669	0.125	0.579	0.217
C2080	2.000	1.500	0.752	2.189	3.457	0.125	0.752	0.268
C2082	2.000	1.500	0.752	2.189	3.457	0.125	0.752	0.268
C2080H	2.000	1.500	0.752	2.189	3.457	0.157	0.752	0.268
C2082H	2.000	1.500	0.752	2.189	3.457	0.157	0.752	0.268
C2100	2.500	1.874	0.937	2.622	4.232	0.157	0.921	0.362
C2102	2.500	1.874	0.937	2.622	4.232	0.157	0.921	0.362
C2100H	2.500	1.874	0.937	2.622	4.232	0.187	0.921	0.362
C2102H	2.500	1.874	0.937	2.622	4.232	0.187	0.921	0.362
C2120	3.000	2.252	1.126	3.122	4.780	0.187	1.094	0.433
C2122	3.000	2.252	1.126	3.122	4.780	0.187	1.094	0.433
C2120H	3.000	2.252	1.126	3.122	4.780	0.220	1.094	0.433
C2122H	3.000	2.252	1.126	3.122	4.780	0.220	1.094	0.433
C2160	4.000	3.000	1.500	4.122	5.969	0.250	1.437	0.516
C2162	4.000	3.000	1.500	4.122	5.969	0.250	1.437	0.516
C2160H	4.000	3.000	1.500	4.122	5.969	0.281	1.437	0.516
C2162H	4.000	3.000	1.500	4.122	5.969	0.281	1.437	0.516

Double, Bent-Lug





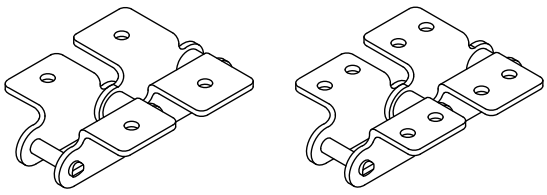
AA-1

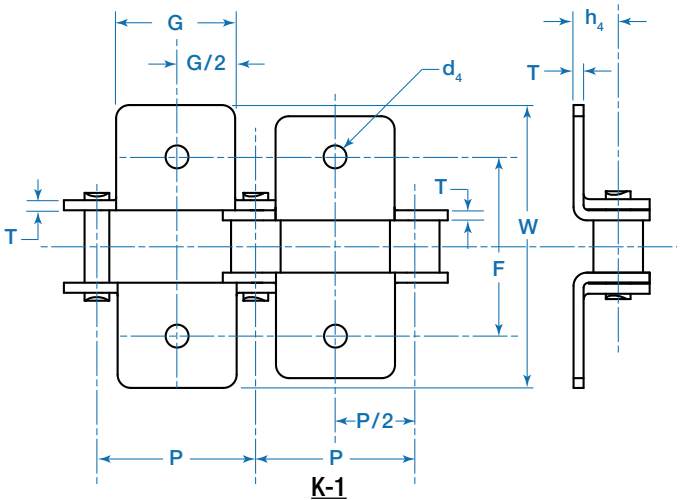


AA-2

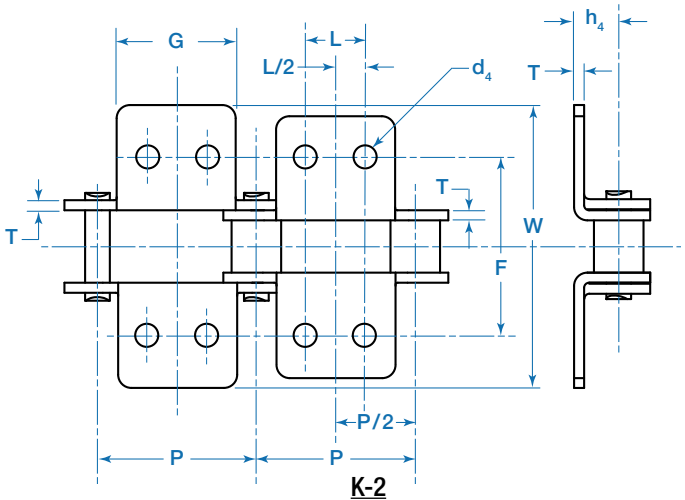
Lynx Chain No.	P	G	L	F	W	T	h_4	d_4
	inch	inch	inch	inch	inch	inch	inch	inch
C2040	1.000	0.752	0.374	1.000	1.559	0.059	0.358	0.134
C2042	1.000	0.752	0.374	1.000	1.559	0.059	0.358	0.134
C2050	1.250	0.937	0.469	1.252	1.929	0.080	0.437	0.217
C2052	1.250	0.937	0.469	1.252	1.929	0.080	0.437	0.217
C2060	1.500	1.125	0.563	1.689	2.669	0.095	0.579	0.217
C2062	1.500	1.125	0.563	1.689	2.669	0.095	0.579	0.217
C2060H	1.500	1.125	0.563	1.689	2.669	0.125	0.579	0.217
C2062H	1.500	1.125	0.563	1.689	2.669	0.125	0.579	0.217
C2080	2.000	1.500	0.752	2.189	3.457	0.125	0.752	0.268
C2082	2.000	1.500	0.752	2.189	3.457	0.125	0.752	0.268
C2080H	2.000	1.500	0.752	2.189	3.457	0.157	0.752	0.268
C2082H	2.000	1.500	0.752	2.189	3.457	0.157	0.752	0.268

Single, Bent-Lug





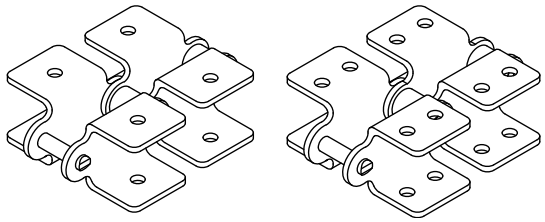
K-1

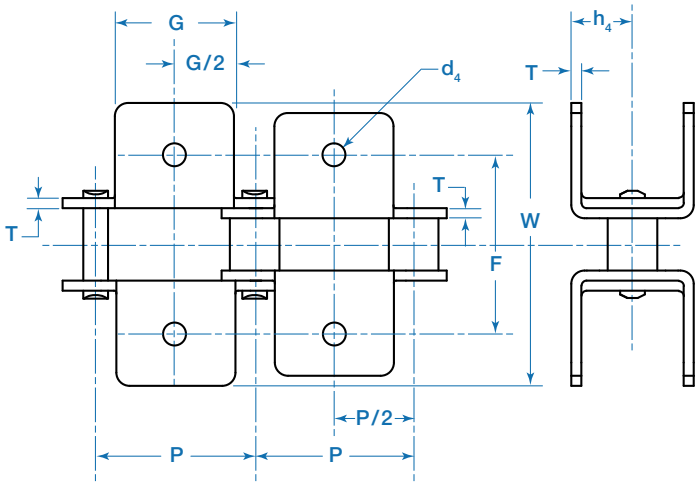


K-2

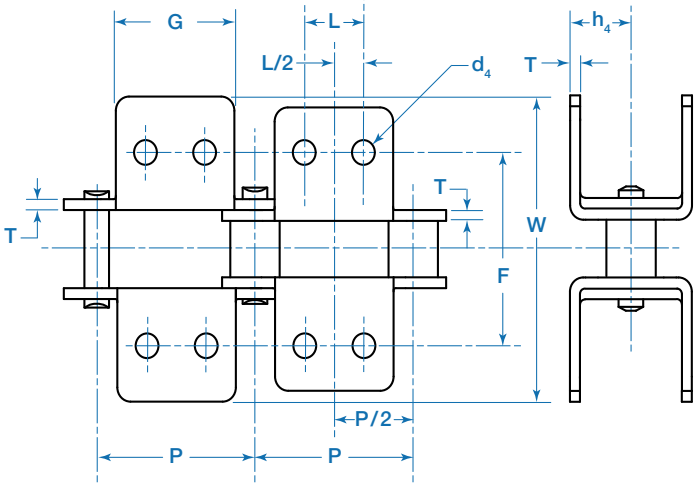
Lynx Chain No.	P	G	L	F	W	T	h_4	d_4
	inch	inch	inch	inch	inch	inch	inch	inch
C2040	1.000	0.752	0.374	1.000	1.559	0.059	0.358	0.134
C2042	1.000	0.752	0.374	1.000	1.559	0.059	0.358	0.134
C2050	1.250	0.937	0.469	1.252	1.929	0.080	0.437	0.217
C2052	1.250	0.937	0.469	1.252	1.929	0.080	0.437	0.217
C2060	1.500	1.125	0.563	1.689	2.669	0.095	0.579	0.217
C2062	1.500	1.125	0.563	1.689	2.669	0.095	0.579	0.217
C2060H	1.500	1.125	0.563	1.689	2.669	0.125	0.579	0.217
C2062H	1.500	1.125	0.563	1.689	2.669	0.125	0.579	0.217
C2080	2.000	1.500	0.752	2.189	3.457	0.125	0.752	0.268
C2082	2.000	1.500	0.752	2.189	3.457	0.125	0.752	0.268
C2080H	2.000	1.500	0.752	2.189	3.457	0.157	0.752	0.268
C2082H	2.000	1.500	0.752	2.189	3.457	0.157	0.752	0.268
C2100	2.500	1.874	0.937	2.622	4.232	0.157	0.921	0.362
C2102	2.500	1.874	0.937	2.622	4.232	0.157	0.921	0.362
C2100H	2.500	1.874	0.937	2.622	4.232	0.187	0.921	0.362
C2102H	2.500	1.874	0.937	2.622	4.232	0.187	0.921	0.362
C2120	3.000	2.252	1.126	3.122	4.780	0.187	1.094	0.433
C2122	3.000	2.252	1.126	3.122	4.780	0.187	1.094	0.433
C2120H	3.000	2.252	1.126	3.122	4.780	0.220	1.094	0.433
C2122H	3.000	2.252	1.126	3.122	4.780	0.220	1.094	0.433
C2160	4.000	3.000	1.500	4.122	5.969	0.250	1.437	0.516
C2162	4.000	3.000	1.500	4.122	5.969	0.250	1.437	0.516
C2160H	4.000	3.000	1.500	4.122	5.969	0.281	1.437	0.516
C2162H	4.000	3.000	1.500	4.122	5.969	0.281	1.437	0.516

Double, Bent-Lug





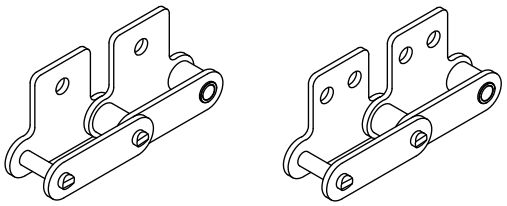
KK-1

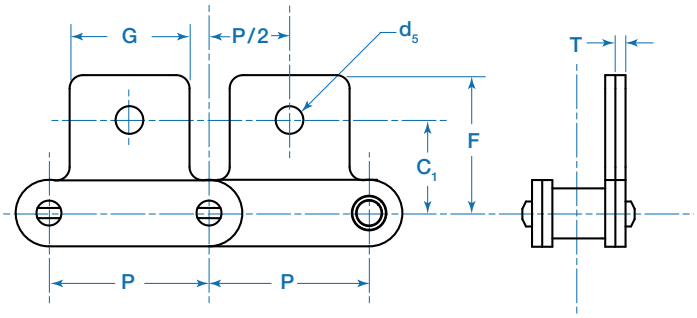


KK-2

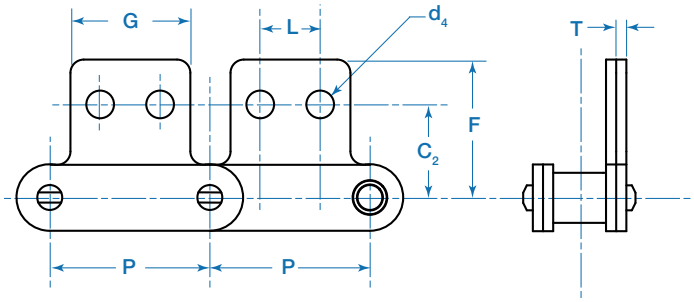
Lynx Chain No.	P	G	L	F	W	T	h_4	d_4
	inch	inch	inch	inch	inch	inch	inch	inch
C2040	1.000	0.752	0.374	1.000	1.559	0.059	0.358	0.134
C2042	1.000	0.752	0.374	1.000	1.559	0.059	0.358	0.134
C2050	1.250	0.937	0.469	1.252	1.929	0.080	0.437	0.217
C2052	1.250	0.937	0.469	1.252	1.929	0.080	0.437	0.217
C2060	1.500	1.125	0.563	1.689	2.669	0.095	0.579	0.217
C2062	1.500	1.125	0.563	1.689	2.669	0.095	0.579	0.217
C2060H	1.500	1.125	0.563	1.689	2.669	0.125	0.579	0.217
C2062H	1.500	1.125	0.563	1.689	2.669	0.125	0.579	0.217
C2080	2.000	1.500	0.752	2.189	3.457	0.125	0.752	0.268
C2082	2.000	1.500	0.752	2.189	3.457	0.125	0.752	0.268
C2080H	2.000	1.500	0.752	2.189	3.457	0.157	0.752	0.268
C2082H	2.000	1.500	0.752	2.189	3.457	0.157	0.752	0.268

Single-Extension, Straight-Lug





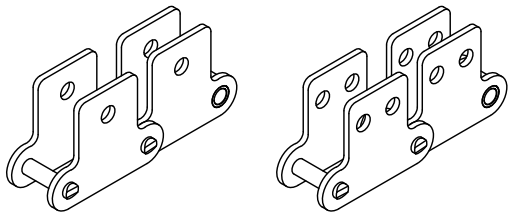
SA-1

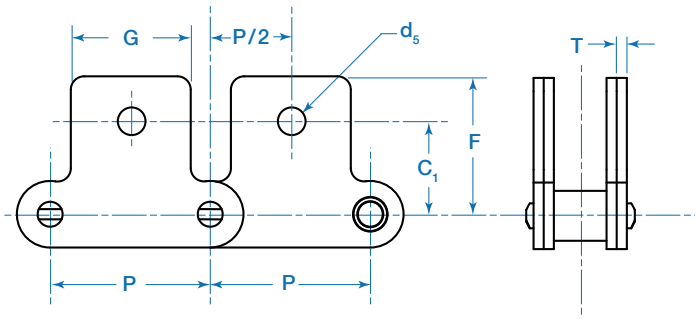


SA-2

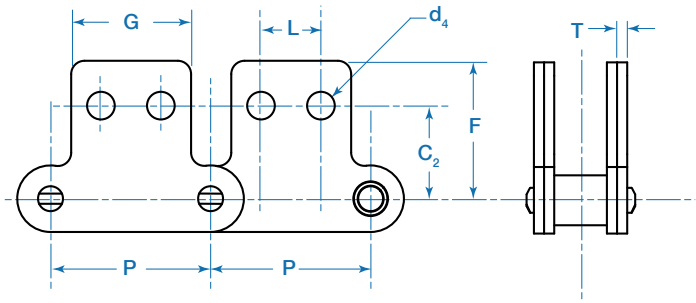
Lynx Chain No.	P	G	L	C_1	C_2	F	T	d_4	d_5
	inch	inch	inch	inch	inch	inch	inch	inch	inch
C2040	1.000	0.752	0.374	0.437	0.531	0.807	0.059	0.134	0.217
C2042	1.000	0.752	0.374	0.437	0.531	0.807	0.059	0.134	0.217
C2050	1.250	0.937	0.469	0.563	0.626	0.984	0.080	0.217	0.260
C2052	1.250	0.937	0.469	0.563	0.626	0.984	0.080	0.217	0.260
C2060	1.500	1.125	0.563	0.689	0.752	1.295	0.095	0.217	0.362
C2062	1.500	1.125	0.563	0.689	0.752	1.295	0.095	0.217	0.362
C2060H	1.500	1.125	0.563	0.689	0.752	1.295	0.125	0.217	0.362
C2062H	1.500	1.125	0.563	0.689	0.752	1.295	0.125	0.217	0.362
C2080	2.000	1.500	0.752	0.874	1.000	1.713	0.125	0.260	0.433
C2082	2.000	1.500	0.752	0.874	1.000	1.713	0.125	0.260	0.433
C2080H	2.000	1.500	0.752	0.874	1.000	1.713	0.157	0.260	0.433
C2082H	2.000	1.500	0.752	0.874	1.000	1.713	0.157	0.260	0.433
C2100	2.500	1.874	0.937	1.126	1.252	1.984	0.157	0.331	0.512
C2102	2.500	1.874	0.937	1.126	1.252	1.984	0.157	0.331	0.512
C2100H	2.500	1.874	0.937	1.126	1.252	1.984	0.187	0.331	0.512
C2102H	2.500	1.874	0.937	1.126	1.252	1.984	0.187	0.331	0.512

Single-Extension, Straight-Lug





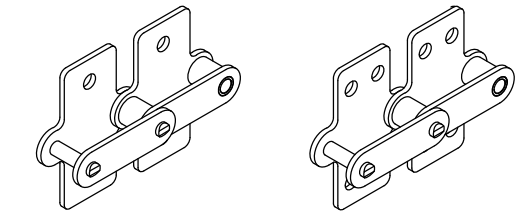
SK-1

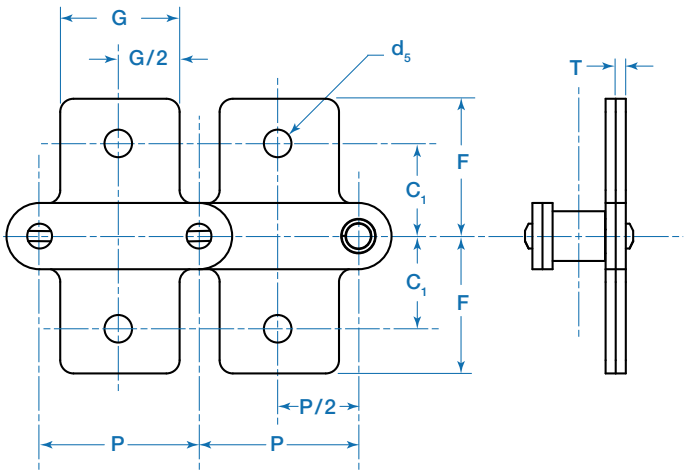


SK-2

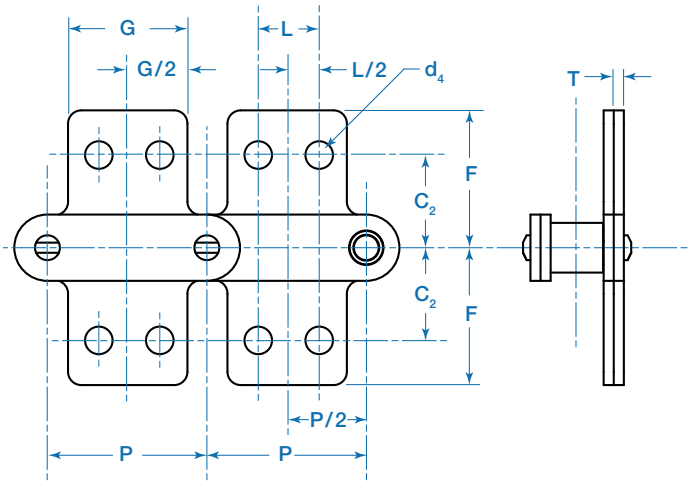
Lynx Chain No.	P	G	L	C_1	C_2	F	T	d_4	d_5
	inch	inch	inch	inch	inch	inch	inch	inch	inch
C2040	1.000	0.752	0.374	0.437	0.531	0.807	0.059	0.134	0.217
C2042	1.000	0.752	0.374	0.437	0.531	0.807	0.059	0.134	0.217
C2050	1.250	0.937	0.469	0.563	0.626	0.984	0.080	0.217	0.260
C2052	1.250	0.937	0.469	0.563	0.626	0.984	0.080	0.217	0.260
C2060	1.500	1.125	0.563	0.689	0.752	1.295	0.095	0.217	0.362
C2062	1.500	1.125	0.563	0.689	0.752	1.295	0.095	0.217	0.362
C2060H	1.500	1.125	0.563	0.689	0.752	1.295	0.125	0.217	0.362
C2062H	1.500	1.125	0.563	0.689	0.752	1.295	0.125	0.217	0.362
C2080	2.000	1.500	0.752	0.874	1.000	1.713	0.125	0.260	0.433
C2082	2.000	1.500	0.752	0.874	1.000	1.713	0.125	0.260	0.433
C2080H	2.000	1.500	0.752	0.874	1.000	1.713	0.157	0.260	0.433
C2082H	2.000	1.500	0.752	0.874	1.000	1.713	0.157	0.260	0.433
C2100	2.500	1.874	0.937	1.126	1.252	1.984	0.157	0.331	0.512
C2102	2.500	1.874	0.937	1.126	1.252	1.984	0.157	0.331	0.512
C2100H	2.500	1.874	0.937	1.126	1.252	1.984	0.187	0.331	0.512
C2102H	2.500	1.874	0.937	1.126	1.252	1.984	0.187	0.331	0.512

Double-Extension, Straight-Lug





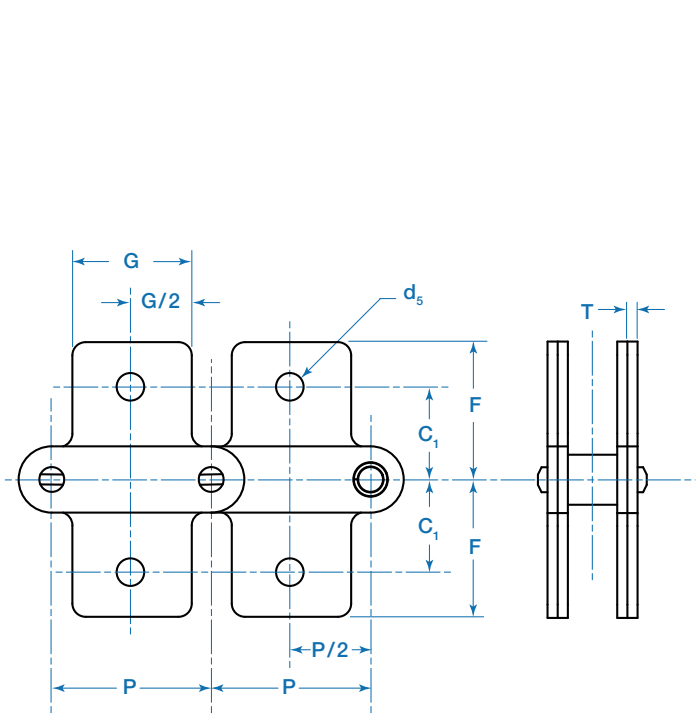
SAA-1



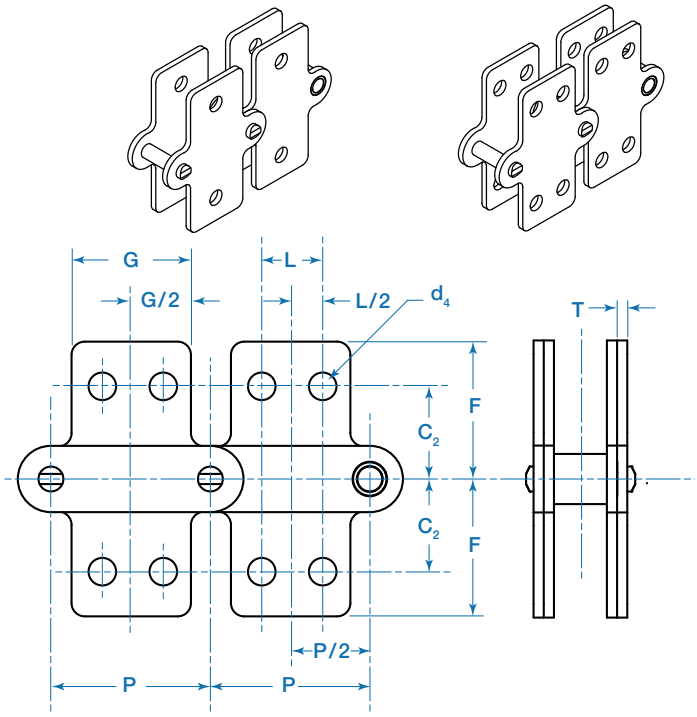
SAA-2

Lynx Chain No.	P	G	L	C_1	C_2	F	T	d_4	d_5
	inch	inch	inch	inch	inch	inch	inch	inch	inch
C2040	1.000	0.752	0.374	0.437	0.531	0.807	0.059	0.134	0.217
C2042	1.000	0.752	0.374	0.437	0.531	0.807	0.059	0.134	0.217
C2050	1.250	0.937	0.469	0.563	0.626	0.984	0.080	0.217	0.260
C2052	1.250	0.937	0.469	0.563	0.626	0.984	0.080	0.217	0.260
C2060	1.500	1.125	0.563	0.689	0.752	1.295	0.095	0.217	0.362
C2062	1.500	1.125	0.563	0.689	0.752	1.295	0.095	0.217	0.362
C2060H	1.500	1.125	0.563	0.689	0.752	1.295	0.125	0.217	0.362
C2062H	1.500	1.125	0.563	0.689	0.752	1.295	0.125	0.217	0.362
C2080	2.000	1.500	0.752	0.874	1.000	1.713	0.125	0.260	0.433
C2082	2.000	1.500	0.752	0.874	1.000	1.713	0.125	0.260	0.433
C2080H	2.000	1.500	0.752	0.874	1.000	1.713	0.157	0.260	0.433
C2082H	2.000	1.500	0.752	0.874	1.000	1.713	0.157	0.260	0.433

Double-Extension, Straight-Lug



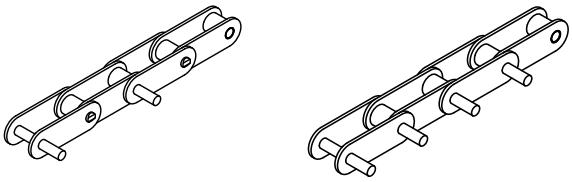
SKK-1

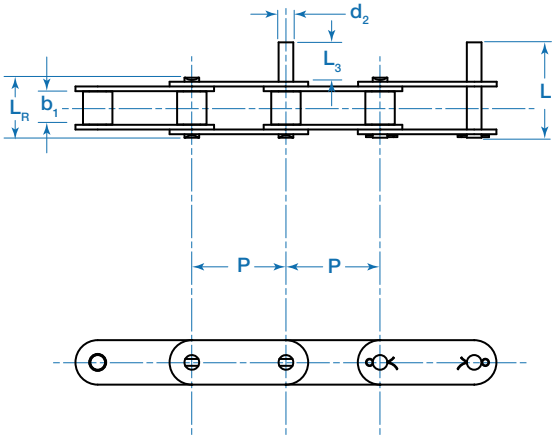


SKK-2

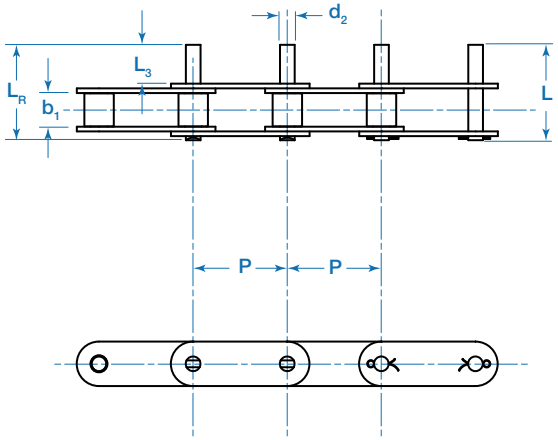
Lynx Chain No.	P	G	L	C_1	C_2	F	T	d_4	d_5
	inch	inch	inch	inch	inch	inch	inch	inch	inch
C2040	1.000	0.752	0.374	0.437	0.531	0.807	0.059	0.134	0.217
C2042	1.000	0.752	0.374	0.437	0.531	0.807	0.059	0.134	0.217
C2050	1.250	0.937	0.469	0.563	0.626	0.984	0.080	0.217	0.260
C2052	1.250	0.937	0.469	0.563	0.626	0.984	0.080	0.217	0.260
C2060	1.500	1.125	0.563	0.689	0.752	1.295	0.095	0.217	0.362
C2062	1.500	1.125	0.563	0.689	0.752	1.295	0.095	0.217	0.362
C2060H	1.500	1.125	0.563	0.689	0.752	1.295	0.125	0.217	0.362
C2062H	1.500	1.125	0.563	0.689	0.752	1.295	0.125	0.217	0.362
C2080	2.000	1.500	0.752	0.874	1.000	1.713	0.125	0.260	0.433
C2082	2.000	1.500	0.752	0.874	1.000	1.713	0.125	0.260	0.433
C2080H	2.000	1.500	0.752	0.874	1.000	1.713	0.157	0.260	0.433
C2082H	2.000	1.500	0.752	0.874	1.000	1.713	0.157	0.260	0.433

Extended Pin





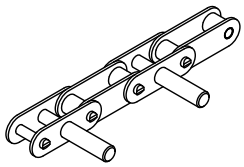
D-1

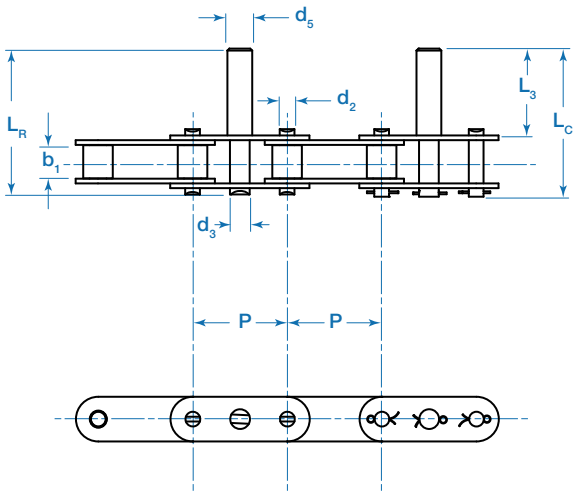


D-3

Lynx Chain No.	Pitch	Width Between Inner Plates	Pin Diameter	Pin Length		Pin Extension
	P	b_1 min	d_2 max	L_R max	L max	L_3
	inch	inch	inch	inch	inch	inch
C2040	1.000	0.309	0.156	0.99	1.03	0.37
C2042	1.000	0.309	0.156	0.99	1.03	0.37
C2050	1.250	0.370	0.200	1.23	1.30	0.47
C2052	1.250	0.370	0.200	1.23	1.30	0.47
C2060	1.500	0.495	0.234	1.52	1.60	0.56
C2062	1.500	0.495	0.234	1.52	1.60	0.56
C2060H	1.500	0.495	0.234	1.65	1.72	0.56
C2062H	1.500	0.495	0.234	1.65	1.72	0.56
C2080	2.000	0.620	0.312	1.98	2.10	0.75
C2082	2.000	0.620	0.312	1.98	2.10	0.75
C2080H	2.000	0.620	0.312	2.11	2.17	0.75
C2082H	2.000	0.620	0.312	2.11	2.17	0.75
C2100	2.500	0.744	0.375	2.43	2.60	0.94
C2102	2.500	0.744	0.375	2.43	2.60	0.94
C2100H	2.500	0.744	0.375	2.56	2.69	0.94
C2102H	2.500	0.744	0.375	2.56	2.69	0.94
C2120H	3.000	0.993	0.437	3.13	3.29	1.13
C2122H	3.000	0.993	0.437	3.13	3.29	1.13
C2160H	4.000	1.250	0.562	4.06	4.24	1.50
C2162H	4.000	1.250	0.562	4.06	4.24	1.50

Extra-Large Extended Pin

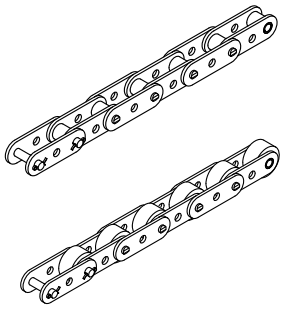


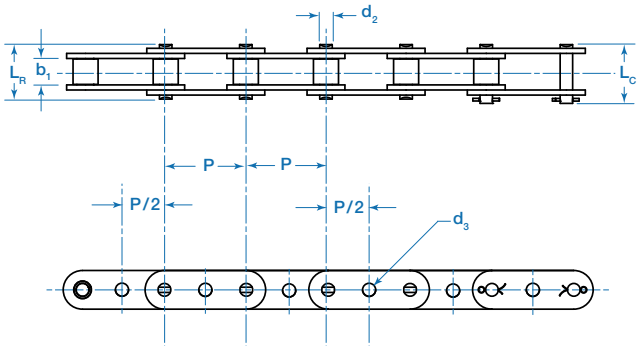


D-5

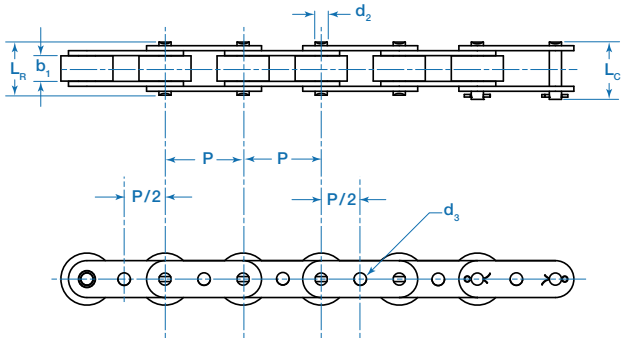
Lynx Chain No.	Pitch	Width Between Inner Plates	Extended Pin Small Diameter	Pin-Link Pin Diameter	Extended Pin Large Diameter	Pin Length		
	P	b_1 min	d_2 max	d_3 max	d_5 max	L_R max	L_C max	L_3
	inch	inch	inch	inch	inch	inch	inch	inch
C2060H D5 1/2	1.500	0.500	0.234	0.313	0.500	2.670	2.740	1.625
C2060H D5 9/16	1.500	0.500	0.234	0.313	0.563	2.670	2.740	1.625

Pin-Link Plate with Holes





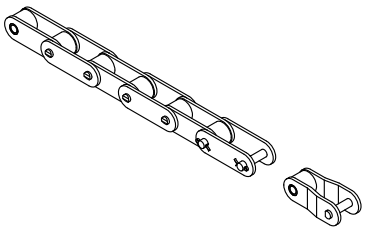
SMALL ROLLER GK-1



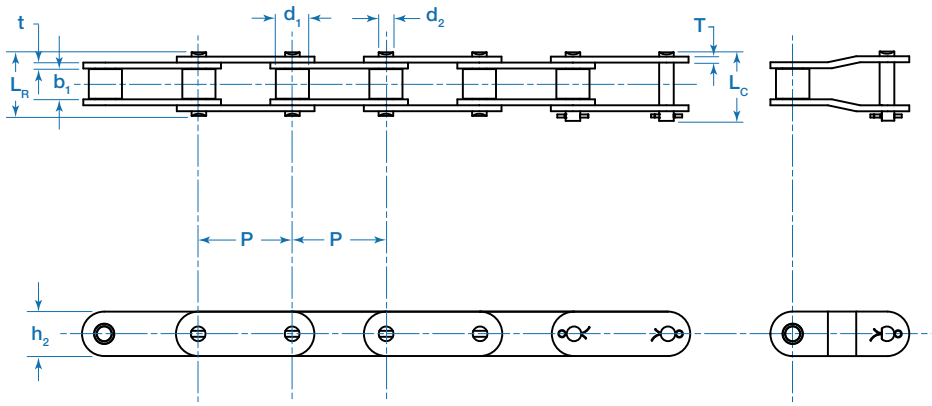
LARGE ROLLER GK-1

Lynx Chain No.	Pitch	Width Between Inner Plates	Pin Diameter	Sideplate Hole Diameter	Pin Length	
	P	b_1 min	d_2 max	d_3	L_R max	L_c max
	inch	inch	inch	inch	inch	inch
C2040	1.000	0.309	0.156	0.161	0.654	0.740
C2042	1.000	0.309	0.156	0.161	0.654	0.740
C2050	1.250	0.370	0.200	0.201	0.815	0.917
C2052	1.250	0.370	0.200	0.201	0.815	0.917
C2060	1.500	0.495	0.234	0.240	1.020	1.114
C2062	1.500	0.495	0.234	0.240	1.020	1.114
C2060H	1.500	0.495	0.234	0.240	1.150	1.244
C2062H	1.500	0.495	0.234	0.240	1.150	1.244
C2080	2.000	0.620	0.312	0.319	1.287	1.437
C2082	2.000	0.620	0.312	0.319	1.287	1.437
C2080H	2.000	0.620	0.312	0.319	1.425	1.551
C2082H	2.000	0.620	0.312	0.319	1.425	1.551
C2100	2.500	0.744	0.375	0.398	1.591	1.760
C2102	2.500	0.744	0.375	0.398	1.591	1.760
C2100H	2.500	0.744	0.375	0.398	1.717	1.846
C2102H	2.500	0.744	0.375	0.398	1.717	1.846

SPECIAL-APPLICATION CHAIN

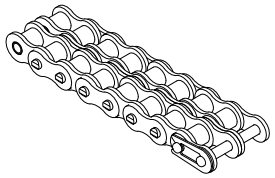


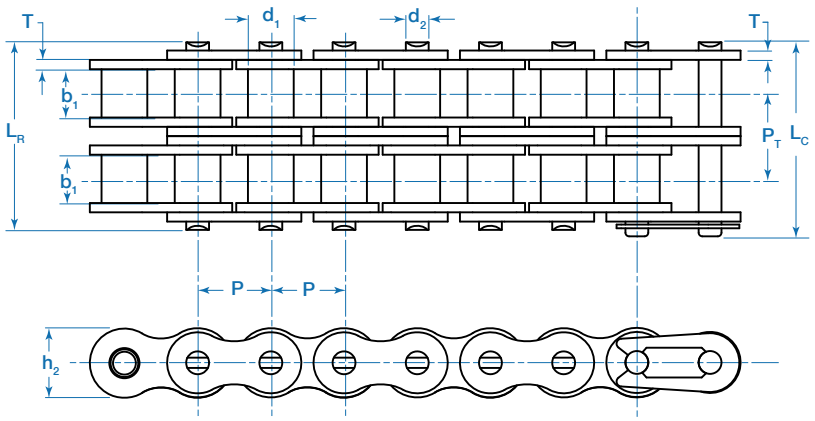
Engineering Class



Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness		Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_C max	h_2 max	t max	T max				
	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
81X	2.609	0.91	1.06	0.437	1.93	2.11	1.12	0.157	0.157	24250	28977	4042	2.5
81XH	2.609	0.91	1.09	0.437	2.39	2.56	1.23	0.313	0.219	34523	39497	5754	4.0
81XHH	2.609	0.91	1.09	0.437	2.58	2.76	1.23	0.313	0.313	43432	47792	7239	4.5

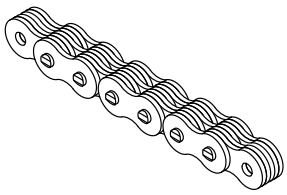
Coupling Chain

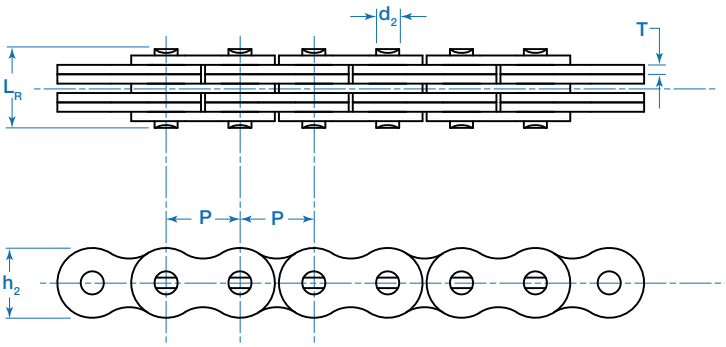


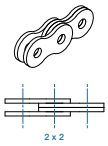


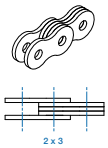
Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness	Transverse Pitch	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_C max	h_2 max	T max	P_T				
	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
4012	0.500	0.313	0.309	0.156	1.22	1.27	0.47	0.059	0.57	6409	8070	1068	0.1
4014	0.500	0.313	0.309	0.156	1.22	1.27	0.47	0.059	0.57	6409	8070	1068	0.1
4016	0.500	0.313	0.309	0.156	1.22	1.27	0.47	0.059	0.57	6409	8070	1068	0.1
5014	0.625	0.400	0.370	0.200	1.53	1.59	0.59	0.080	0.71	10091	13061	1682	0.3
5016	0.625	0.400	0.370	0.200	1.53	1.59	0.59	0.080	0.71	10091	13061	1682	0.4
5018	0.625	0.400	0.370	0.200	1.53	1.59	0.59	0.080	0.71	10091	13061	1682	0.4
6018	0.750	0.469	0.495	0.234	1.92	1.99	0.71	0.095	0.90	14455	18456	2409	0.7
6020	0.750	0.469	0.495	0.234	1.92	1.99	0.71	0.095	0.90	14455	18456	2409	0.7
6022	0.750	0.469	0.495	0.234	1.92	1.99	0.71	0.095	0.90	14455	18456	2409	0.8
8018	1.000	0.625	0.620	0.312	2.47	2.53	0.94	0.128	1.15	25773	31877	4296	1.6
8020	1.000	0.625	0.620	0.312	2.47	2.53	0.94	0.128	1.15	25773	31877	4296	1.8
8022	1.000	0.625	0.620	0.312	2.47	2.53	0.94	0.128	1.15	25773	31877	4296	1.9
10022	1.250	0.750	0.744	0.375	3.01	3.17	1.18	0.157	1.41	40227	49321	6705	3.3
12018	1.500	0.875	0.993	0.437	3.77	3.93	1.41	0.189	1.79	57727	70790	9621	5.5

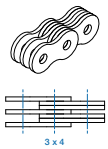
Leaf Chain

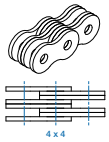


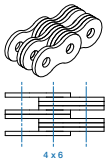


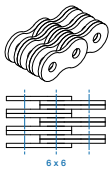


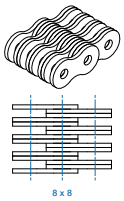






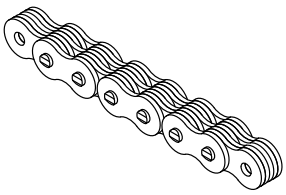


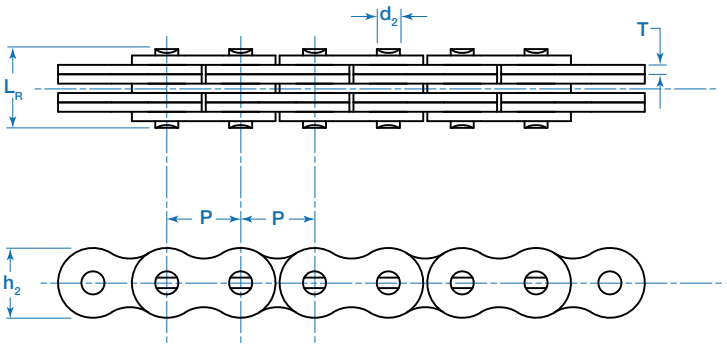


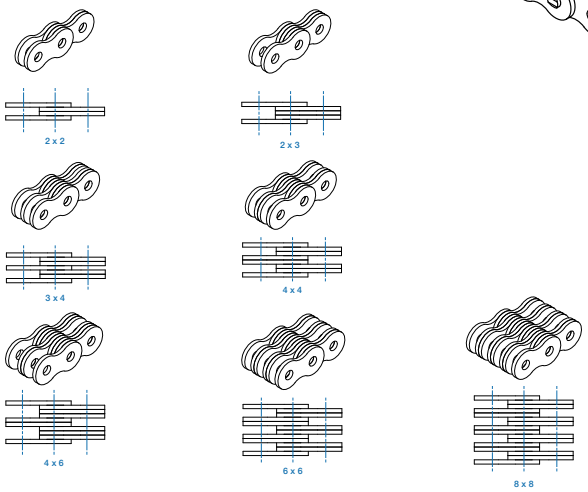


Lynx Chain No.	Pitch	Plate Lacing	Inner Plate Height	Plate Thickness	Pin Diameter	Pin Length	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P		h_2 max	T max	d_2 max	L_R max				
	inch		inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./in
AL322	0.375	2X2	0.30	0.051	0.141	0.27	2045	2293	205	0.2
AL344	0.375	4X4	0.30	0.051	0.141	0.46	4090	4496	409	0.3
AL422	0.500	2X2	0.41	0.059	0.156	0.33	3205	3799	321	0.3
AL444	0.500	4X4	0.41	0.059	0.156	0.57	6409	7913	641	0.5
AL466	0.500	6X6	0.41	0.059	0.156	0.81	9614	11847	961	0.8
AL522	0.625	2X2	0.50	0.080	0.200	0.44	5000	6182	500	0.4
AL534	0.625	3X4	0.50	0.080	0.200	0.67	7500	10341	750	0.7
AL544	0.625	4X4	0.50	0.080	0.200	0.76	10000	12364	1000	0.8
AL566	0.625	6X6	0.50	0.080	0.200	1.08	15000	18546	1500	1.2
AL622	0.750	2X2	0.61	0.095	0.234	0.51	8409	9981	841	0.6
AL644	0.750	4X4	0.61	0.095	0.234	0.89	14450	17714	1445	1.2
AL666	0.750	6X6	0.61	0.095	0.234	1.27	22750	26661	2275	1.8
AL688	0.750	8X8	0.61	0.095	0.234	1.66	30317	35204	3032	2.4
AL822	1.000	2X2	0.81	0.128	0.312	0.63	12886	15421	1289	1.0
AL844	1.000	4X4	0.81	0.128	0.312	1.16	25773	30483	2577	2.0
AL866	1.000	6X6	0.81	0.128	0.312	1.74	38636	45477	3864	3.0
AL1022	1.250	2X2	1.01	0.157	0.375	0.77	20114	24076	2011	1.6
AL1044	1.250	4X4	1.01	0.157	0.375	1.43	40227	45769	4023	3.1
AL1066	1.250	6X6	1.01	0.157	0.375	2.06	60227	70879	6023	4.8
AL1088	1.250	8X8	1.01	0.157	0.375	2.70	80454	94686	8045	6.7
AL1222	1.500	2X2	1.20	0.189	0.437	0.96	28864	33967	2886	2.5
AL1244	1.500	4X4	1.20	0.189	0.437	1.72	57727	67373	5773	4.7
AL1266	1.500	6X6	1.20	0.189	0.437	2.49	86591	95832	8659	7.1
AL1288	1.500	8X8	1.20	0.189	0.437	3.25	11545	127776	1155	9.4
AL1444	1.750	4X4	1.43	0.220	0.498	2.02	84705	92977	8471	7.0
AL1466	1.750	6X6	1.43	0.220	0.498	2.94	127045	139465	12705	10.2
AL1644	2.000	4X4	1.64	0.252	0.559	2.28	107045	117525	10705	8.7
AL1666	2.000	6X6	1.64	0.252	0.559	3.30	160454	176153	16045	13.3
AL1688	2.000	8X8	1.64	0.252	0.559	4.31	214090	235028	21409	17.1

Leaf Chain

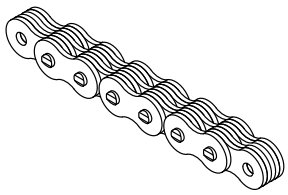


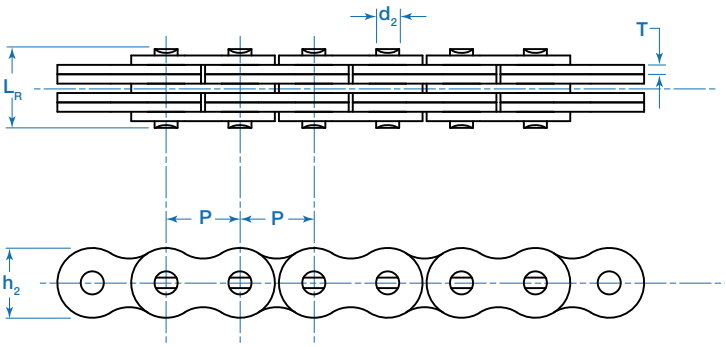


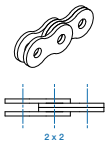


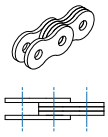
Lynx Chain No.	Pitch	Plate Lacing	Inner Plate Height	Plate Thickness	Pin Diameter	Pin Length	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P		h_2 max	T max	d_2 max	L_R max				
	inch		inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
BL422	0.500	2X2	0.48	0.082	0.200	0.44	5045	6204	631	0.4
BL423	0.500	2X3	0.48	0.082	0.200	0.52	5045	6204	631	0.5
BL434	0.500	3X4	0.48	0.082	0.200	0.69	7591	9306	949	0.8
BL444	0.500	4X4	0.48	0.082	0.200	0.77	10114	12589	1264	0.9
BL446	0.500	4X6	0.48	0.082	0.200	0.94	10114	12589	1264	1.1
BL466	0.500	6X6	0.48	0.082	0.200	1.10	15159	18366	1895	1.3
BL488	0.500	8X8	0.48	0.082	0.200	1.44	20227	24593	2528	1.7
BL522	0.625	2X2	0.59	0.096	0.235	0.51	7591	9689	949	0.6
BL523	0.625	2X3	0.59	0.096	0.235	0.61	7591	9689	949	0.7
BL534	0.625	3X4	0.59	0.096	0.235	0.80	11114	14747	1389	1.0
BL544	0.625	4X4	0.59	0.096	0.235	0.90	15159	18996	1895	1.2
BL546	0.625	4X6	0.59	0.096	0.235	1.09	15159	18996	1895	1.5
BL566	0.625	6X6	0.59	0.096	0.235	1.29	22750	28122	2844	1.8
BL588	0.625	8X8	0.59	0.096	0.235	1.68	30318	38104	3790	2.4
BL622	0.750	2X2	0.71	0.130	0.313	0.68	11114	14297	1389	1.0
BL623	0.750	2X3	0.71	0.130	0.313	0.82	11114	14297	1389	1.2
BL634	0.750	3X4	0.71	0.130	0.313	1.08	17181	23110	2148	1.7
BL644	0.750	4X4	0.71	0.130	0.313	1.21	22250	27178	2781	1.9
BL646	0.750	4X6	0.71	0.130	0.313	1.48	22250	27178	2781	2.4
BL666	0.750	6X6	0.71	0.130	0.313	1.74	33364	42892	4171	2.9
BL688	0.750	8X8	0.71	0.130	0.313	2.27	44477	53682	5560	3.9
BL822	1.000	2X2	0.95	0.161	0.376	0.84	19204	24323	2401	1.5
BL823	1.000	2X3	0.95	0.161	0.376	1.00	19204	24323	2401	1.8
BL834	1.000	3X4	0.95	0.161	0.376	1.33	29318	38216	3665	2.6
BL844	1.000	4X4	0.95	0.161	0.376	1.49	38409	48242	6030	2.9
BL846	1.000	4X6	0.95	0.161	0.376	1.82	38409	48242	6030	3.6
BL866	1.000	6X6	0.95	0.161	0.376	2.14	57636	72948	9119	4.4
BL888	1.000	8X8	0.95	0.161	0.376	2.80	76841	97271	9605	5.8

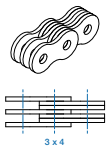
Leaf Chain

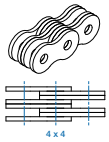


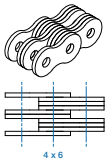


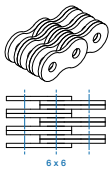


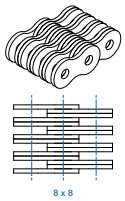






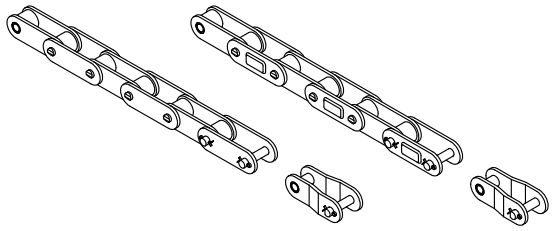




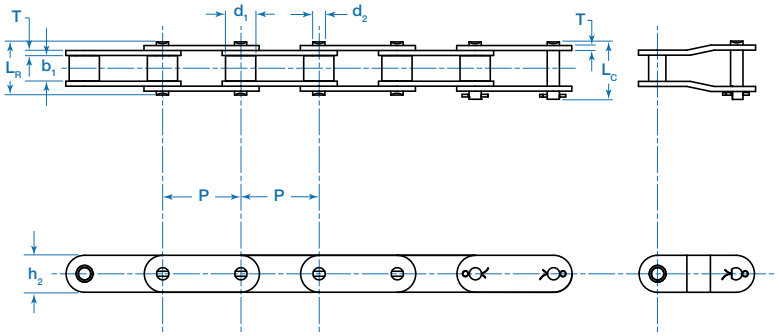


Lynx Chain No.	Pitch	Plate Lacing	Inner Plate Height	Plate Thickness	Pin Diameter	Pin Length	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P		h_2 max	T max	d_2 max	L_R max				
	inch		inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
BL1022	1.250	2x2	1.19	0.193	0.437	1.00	26272	33900	2627	2.3
BL1023	1.250	2x3	1.19	0.193	0.437	1.19	26272	33900	2627	2.9
BL1034	1.250	3x4	1.19	0.193	0.437	1.58	41454	52064	4145	4.0
BL1044	1.250	4x4	1.19	0.193	0.437	1.78	52568	65507	5257	4.6
BL1046	1.250	4x6	1.19	0.193	0.437	2.17	52568	65507	5257	5.8
BL1066	1.250	6x6	1.19	0.193	0.437	2.56	78863	96731	7886	6.9
BL1088	1.250	8x8	1.19	0.193	0.437	3.34	105136	124786	10514	9.3
BL1222	1.500	2x2	1.43	0.227	0.500	1.17	34363	43162	3437	3.1
BL1223	1.500	2x3	1.43	0.227	0.500	1.40	34363	43162	3437	3.9
BL1234	1.500	3x4	1.43	0.227	0.500	1.85	55591	71014	5559	5.4
BL1244	1.500	4x4	1.43	0.227	0.500	2.08	68750	85671	6875	6.3
BL1246	1.500	4x6	1.43	0.227	0.500	2.54	68750	85671	6875	7.8
BL1266	1.500	6x6	1.43	0.227	0.500	3.00	103113	122201	10311	9.3
BL1288	1.500	8x8	1.43	0.227	0.500	3.91	137500	163205	13750	12.5
BL1422	1.750	2x2	1.66	0.258	0.563	1.32	43477	50737	4348	4.1
BL1423	1.750	2x3	1.66	0.258	0.563	1.58	43477	50737	4348	5.1
BL1434	1.750	3x4	1.66	0.258	0.563	2.10	71772	83760	7177	7.1
BL1444	1.750	4x4	1.66	0.258	0.563	2.36	86954	101430	8695	8.2
BL1446	1.750	4x6	1.66	0.258	0.563	2.88	86954	101430	8695	10.2
BL1466	1.750	6x6	1.66	0.258	0.563	3.40	131431	153404	13143	12.2
BL1488	1.750	8x8	1.66	0.258	0.563	4.44	173886	202949	17389	16.3
BL1622	2.000	2x2	1.90	0.296	0.687	1.54	65704	76679	6570	5.4
BL1623	2.000	2x3	1.90	0.296	0.687	1.83	65704	76679	6570	6.7
BL1634	2.000	3x4	1.90	0.296	0.687	2.43	100091	116806	10009	9.4
BL1644	2.000	4x4	1.90	0.296	0.687	2.73	131431	152954	13143	10.8
BL1646	2.000	4x6	1.90	0.296	0.687	3.32	131431	152954	13143	13.4
BL1666	2.000	6x6	1.90	0.296	0.687	3.92	194863	224957	19486	16.1
BL1688	2.000	8x8	1.90	0.296	0.687	5.11	262841	306762	26284	21.5
BL2022	2.500	2x2	2.38	0.390	0.937	2.04	98568	115030	9857	10.6
BL2023	2.500	2x3	2.38	0.390	0.937	2.43	98568	115030	9857	13.3
BL2034	2.500	3x4	2.38	0.390	0.937	3.21	147590	172242	14759	18.6
BL2044	2.500	4x4	2.38	0.390	0.937	3.61	197163	230083	19716	21.2
BL2046	2.500	4x6	2.38	0.390	0.937	4.39	197163	230083	19716	26.5
BL2066	2.500	6x6	2.38	0.390	0.937	5.17	295704	345113	29570	31.9
BL2088	2.500	8x8	2.38	0.390	0.937	6.74	394272	460053	39427	42.5

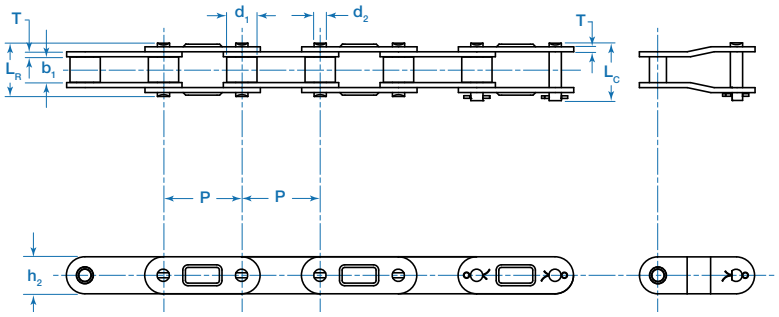
Agricultural Chain



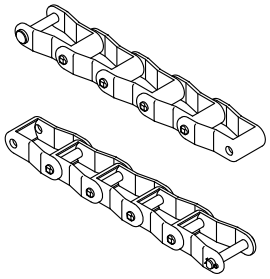
CA



CA-D

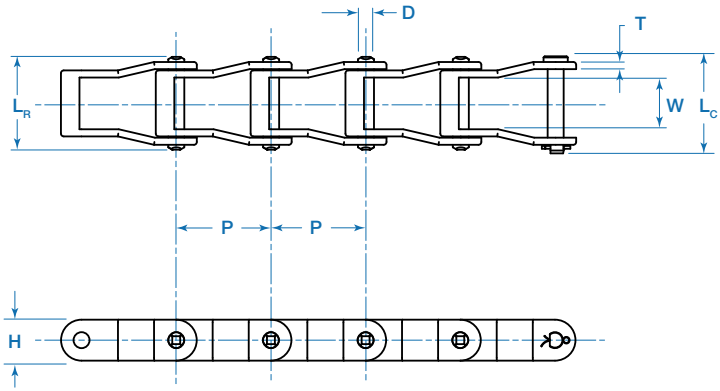


Lynx Chain No.	Pitch	Roller Diameter	Width Between Inner Plates	Pin Diameter	Pin Length		Inner Plate Height	Plate Thickness	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Weight per Foot
	P	d_1 max	b_1 min	d_2 max	L_R max	L_C max	h_2 max	T max				
	inch	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.	lbs./ft.
CA550	1.630	0.664	0.780	0.283	1.38	1.50	0.76	0.110	8886	11509	1481	1.3
CA550D	1.630	0.664	0.780	0.283	1.38	1.50	0.76	0.110	8886	11509	1481	1.3
CA555	1.630	0.664	0.500	0.283	1.15	1.26	0.76	0.122	8886	12588	1481	1.1
CA555D	1.630	0.664	0.500	0.283	1.15	1.26	0.76	0.122	8886	12588	1481	1.1
CA557	1.630	0.700	0.797	0.315	1.47	1.60	0.91	0.122	12639	16703	2107	1.8
CA557D	1.630	0.700	0.797	0.315	1.47	1.60	0.91	0.122	12639	16703	2107	1.8
CA620	1.654	0.705	0.965	0.283	1.65	1.78	0.80	0.128	8886	12386	1481	1.6
CA620D	1.654	0.705	0.965	0.283	1.65	1.78	0.80	0.128	8886	12386	1481	1.6



KINGPIN

Open-Barrel Pintle Chain



Lynx Chain No.	Pitch	Pin Diameter	Plate Thickness	Height	Pin Length		Inside Width	Minimum Ultimate Tensile Strength	Average Tensile Strength	Max Working Load	Links Per 10'	Weight Per 10'
	P	D	T	H	L_R max	L_C max	W					
	inch	inch	inch	inch	inch	inch	inch	lbs.	lbs.	lbs.		
662	1.664	0.281	0.125	0.720	1.625	1.680	.906	8500	11400	1700	72	10.5
667J	2.250	0.375	0.170	0.937	2.047	2.130	1.063	14000	20600	2800	53	18.1
667X	2.250	0.437	0.170	0.937	1.953	2.184	1.063	15000	22100	3000	53	18.6
667KC	2.250	0.437	0.200	1.062	2.125	2.307	1.078	24000	31500	5200	53	28.0
667XH	2.250	0.469	0.224	1.062	2.313	2.516	1.078	26000	33800	5200	53	28.0
667H	2.313	0.312	0.125	0.875	1.734	1.889	1.000	9500	13100	1900	52	11.7
88K	2.609	0.437	0.200	1.062	2.125	2.133	1.078	20000	27500	4000	46	23.0
88C	2.609	0.500	0.250	1.125	2.641	2.787	1.250	30000	38800	6000	46	33.2

ENGINEERING

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Selection Choices

For any given application several different drive selections can usually be made. Life expectancy, space, speed, availability of components, and cost will ultimately guide the best selection.

The chain should generally be the weakest component in a chain drive as it is usually the least costly part to replace. Do not select a chain and sprocket drive with too much excess capacity, as the more expensive shafting and bearings could then become the weakest parts of the drive.

Select roller-chain drives based upon the following guidelines.

Chain Pitch

Use the smallest pitch chain that will meet the design horsepower required. Single-strand chains generally satisfy most applications and are usually the most economical choice. Small pitch chains are generally required for higher speed drives.

Single- vs. Multiple-Strand Chain

The use of multiple-strand chains is most often the best solution when there are space restrictions in the application.

If similar diameter sprockets are used, small-pitch, multiple-strand drives run more smoothly and quietly because of the increased number of teeth on the high-speed sprocket.

Large-pitch, single-strand chains are generally more economical for small ratio drives with long center distances. Small-pitch, multiple-strand chains are generally more economical for large ratio drives with short center distances.

Chain Wear

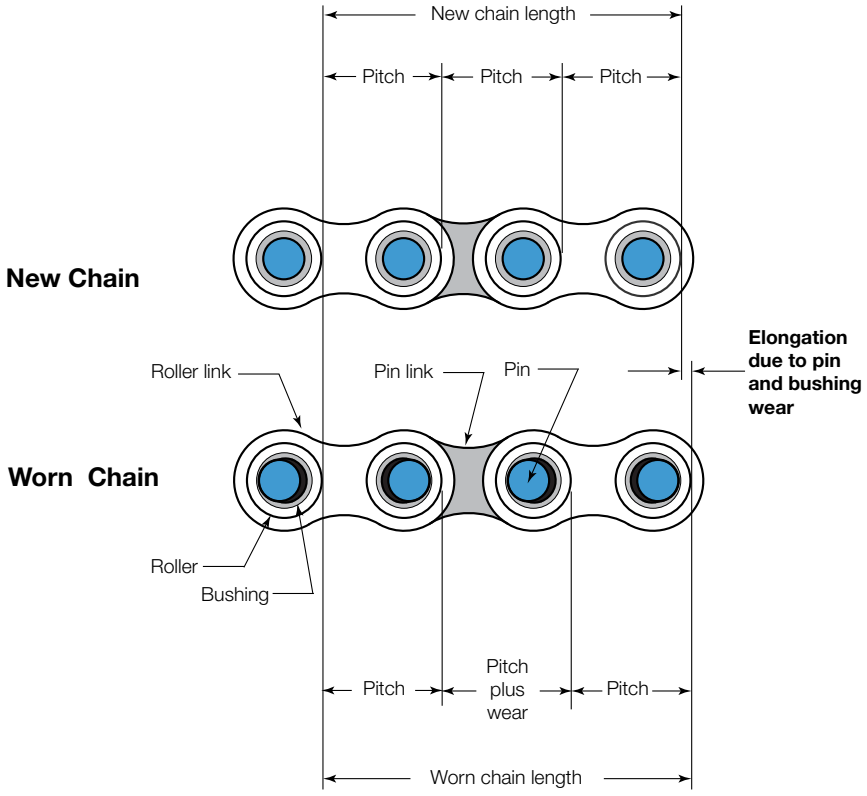
The movement of the individual joints in roller chain as they wrap around a sprocket causes wear on the pins and bushings. As the pin and bushing material is worn away by this motion, the chain will gradually become longer. This is called elongation.

In most applications, the maximum allowable elongation is 3%. This 3% maximum is valid for sprockets with up to 67 teeth. For drives with sprockets having more than 67 teeth, fixed center distances, or chains running in parallel, elongation should be limited to 1.5%.

The rate of elongation depends on the following factors:

- the load on the chain
- the material and finish of the pin and bushing surfaces
- quality of the lubrication
- the number of sprockets in the drive
- the speed of the sprockets
- the number of teeth on the sprockets
- the length of the chain

As illustrated (to the right), roller chain does not stretch. Elongation is the result of material wearing away from the pins and bushings. As chain elongates the distance between rollers on a roller link remains constant. However, the distance between the rollers connected by a pin link increases.



Number of Teeth for Small Sprockets

The speed of roller chain is subject to a regular cyclic variation. This is called chordal action, and is due to the many sided shape of the chain's path around the sprocket. To minimize the negative effects of chordal action, Lynx recommends the following minimum number of small sprocket teeth:

- slow-speed drives (speeds requiring Type I or II lubrication) 11 teeth
- medium-speed drives (speeds requiring Type III lubrication) 17 teeth
- high-speed drives (speeds requiring Type IV lubrication) 25 teeth

The reduced capacities of drives using small sprockets with 17 teeth or less are shown in Table 1 (below).

Table 1
Derated Capacities of Low-Tooth-Count Sprockets

Number of Teeth	Percentage of Maximum RPM	Percentage of Maximum Rated Horsepower
11	50	30
13	65	40
15	75	60
17	85	90

The small sprocket, or any sprocket with fewer than 25 teeth, should have an odd number of teeth. This assures uniform wear distribution. As chain elongates, the distance between the rollers on a roller link remains constant. However, the distance between the rollers connected by a pin link increases. Any given tooth on a sprocket having an even tooth count engages the same type of link on each revolution. The wear pattern on alternate teeth is, therefore, quite different. On a sprocket with an odd tooth count, each tooth will engage a pin link on one revolution and a roller link on the next. This evens out the wear.

The small sprocket of a chain drive should have a minimum of 11 teeth. Sprockets with fewer than 11 teeth will not accommodate a shaft large enough to handle the horsepower capacity of the sprocket and chain. This could cause the more costly shafting to fail before the chain.

Number of Teeth for Large Sprockets

Some manufacturers produce 120 tooth sprockets for some sizes of chain. Special sprockets can be fabricated with even a higher number of teeth. Lynx recommends that sprockets with more than 114 teeth should be avoided if possible. This is suggested because the effects of elongation are increased as the tooth count rises.

Number Teeth for Both Sprockets

Ideally, the total number of teeth on both the large and small sprockets should be at least 50. For instance, on a 1:1 ratio drive, both sprockets should have at least 25 teeth.

Hardened Teeth

Engagement frequency and sprocket tooth loading increase with fewer teeth on the sprocket.

For drives using chain sizes 25—100, sprockets with 30 teeth or less should have hardened teeth.
For drives using chain sizes 120—240, sprockets with 20 teeth or less should have hardened teeth.

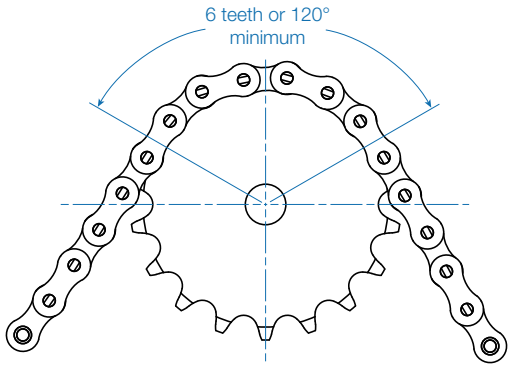
Sprocket teeth should be hardened if used where:

- the drive is heavily loaded
- there are abrasive conditions
- the drive is being run at high speeds
- the drive requires an extremely long service life

Chain Wrap on the Small Sprocket

The chain wrap should be at least 120° or six teeth on the small sprocket. A chain wrap of as small as 90° or four teeth may be considered if excellent chain slack adjustment is maintained.

If the drive ratio is 3:1 or less, the chain wrap on the small sprocket will always exceed 120°. If the drive ratio is above 3:1, the minimum center distance to maintain a 120° wrap is the pitch diameter of the large sprocket minus the pitch diameter of the small sprocket.



Connecting Methods

There are five ways to connect the ends of a strand of roller chain:

- endless chain—connected by rivets or cotter pins at the factory
- slip-fit connecting link—clearance fit between the pins and the plate—secured by either a spring clip or cotter pins
- press-fit or tap-fit connecting link—interference fit between the pins and the plate—secured by either a spring clip or cotter pins
- offset link—clearance fit between the pin and the plate—secured by a cotter pin
- two-pitch offset section—requires the use of two connecting links

Any of these connecting methods can be used with the general selection method (page E-15). However, slip-fit connecting links and offset links may lower horsepower ratings.

When using the low-speed selection method (page E-18), it is necessary to account for the connecting method by multiplying the working load by the percentage shown in Table 2 (below).

Table 2
Derated Maximum Load Capacities for Various Connecting Methods

Connection Type	Percent of Maximum Rated Load Allowable
endless chain assembled at factory	100%
slip-fit connecting link	80%
press-fit or tap-fit connecting link	100%
offset link	65%
two-pitch offset section	75%

Chain Length

Chain length must always be a whole number of pitches. Lynx recommends using a chain length with an even number of pitches in order to avoid using an offset link. Offset links reduce the chain's capacity. See Table 2 (page E-3). If an odd number of pitches cannot be avoided, Lynx recommends a two-pitch offset section instead of a one-pitch offset link.

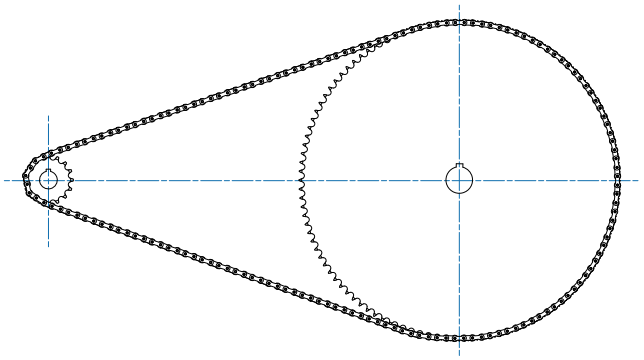
One-Pitch Offset Link

Two-Pitch Offset Section

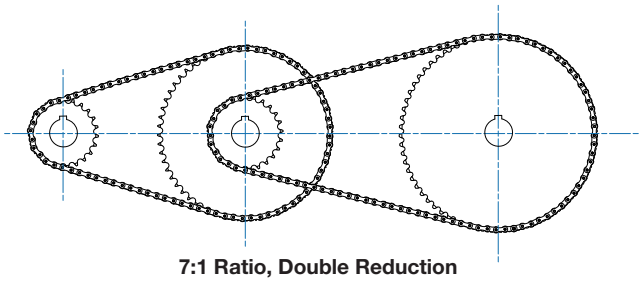
Drive Ratio Considerations

The drive's ratio is calculated by dividing the speed of the high-speed shaft by the speed of the low-speed shaft. Drives with ratios up to 8:1 will perform satisfactorily with careful design and excellent maintenance. Double reduction drives with smaller ratios have better operating characteristics and are often more economical than a large ratio, single-reduction drive.

Always check high-ratio drives for adequate chain wrap around the small sprocket. See illustrations to the right.



7:1 Ratio, Single Reduction



7:1 Ratio, Double Reduction

Center Distance Recommendations

Ideally, the center distance of a sprocket drive should be in the range of 30 to 50 times the pitch of the chain. Lynx recommends avoiding center distances greater than 80 pitches. It may be desirable to have a center distance as short as 20 pitches:

- when there are fewer than 17 teeth on the small sprocket
- in high-speed or pulsating applications to avoid chain whipping

However, the minimum center distance is sometimes based upon the amount of chain wrap on the driver sprocket. Normally, it is good practice to have at least 6 teeth engaged with the chain.

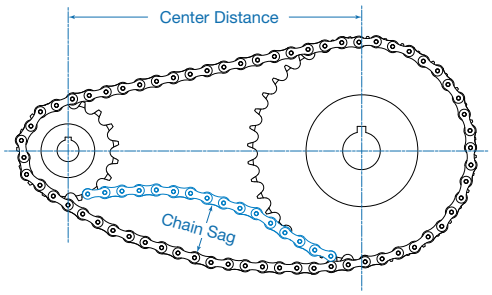
It is best to keep in mind the desirability of using an even number of pitches (to avoid using an offset link) when choosing the appropriate center distance.

Chain Sag

The slack side of the roller-chain drive is usually on the bottom. Chain sag is measured by moving the roller chain, by hand, towards and then away from the centerline between the two sprocket shafts. An adequate amount of chain sag is generally 4% of the center distance. The sag should be 2% of the center distance for the following applications:

- drive layout is vertical or close to it
- heavy load with frequent starts and stops
- long center distance drives
- reversing drives

The design of the chain drive must provide adequate clearance from the bottom of the lubrication case, safety shrouds, or other parts of the driven machine to allow for enlongation.



Chain Tension

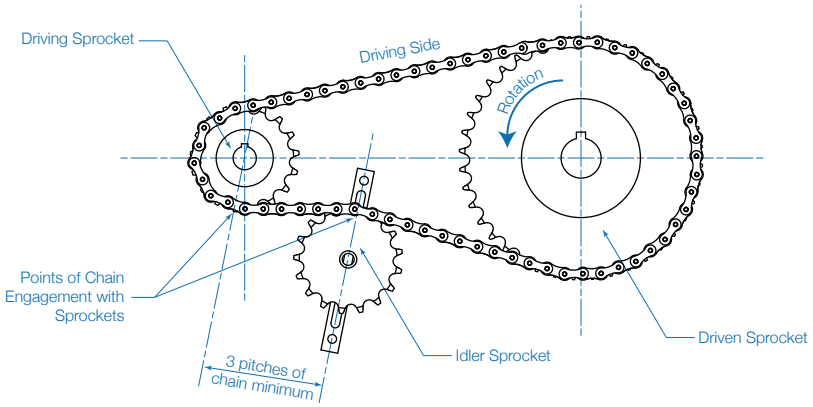
The driving side of a roller-chain drive is usually on top. For maximum chain life, maintain proper chain tension. Chain tension can be adjusted in the following ways:

- moving one of the two shafts and increasing the center distance—for example, electric motors can be mounted on adjustable baseplates or slide rails
- removing chain pitches
- using an idler sprocket

Always provide for enough adjustment to take up slack equal to the maximum allowable elongation percentage (see page E-1).The initial adjustment should be made after approximately the first 100 hours of operation and should remove slack, if any, caused by initial elongation. The frequency of subsequent adjustments is dependent on operating conditions.

Idler Sprockets

Fixed center drives can be kept in tension by an idler sprocket. The idler sprocket should be positioned on the slack side of the drive near, but not less than three pitches from, the small sprocket. To avoid over-tensioning the chain when adjusting an idler sprocket, set it for a chain sag of 2-4% of the longer remaining span depending upon the application, see **Chain Sag** (page E-4). To help determine the proper tooth count for an idler sprocket for your application, see **Number of Teeth for Small Sprockets** (page E-2). Avoid using an idler sprocket on the driving side because there will be more articulations of the chain under load, reducing the service life. Idler sprockets located inside the chain loop should be placed closer to the large sprocket.

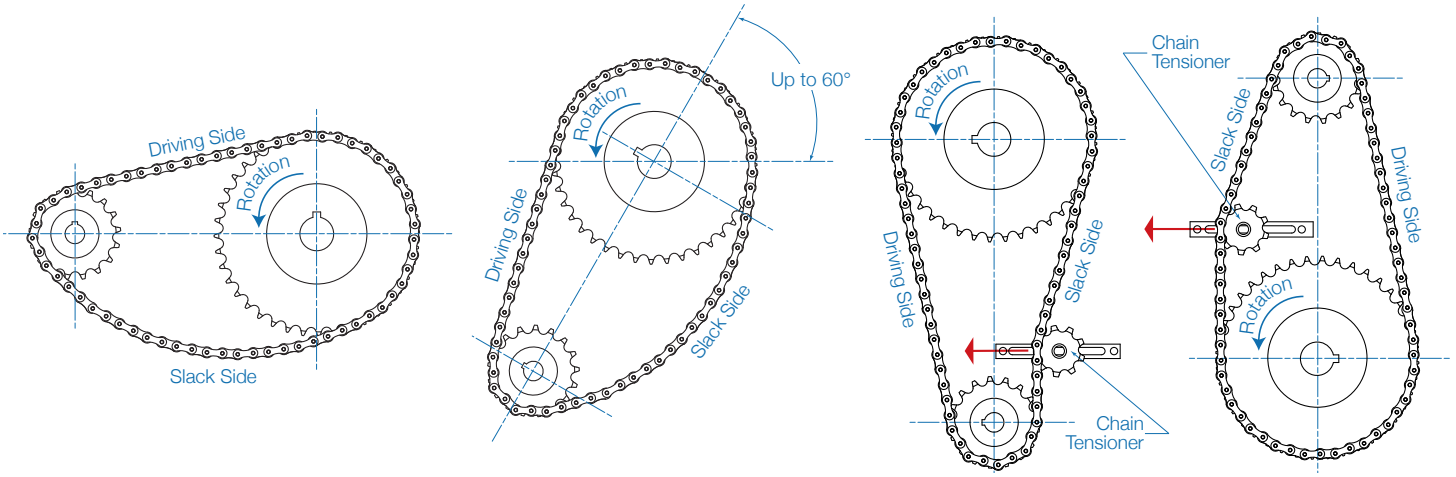


Drive Layout

Ideally, roller-chain drives should be designed so that the centerline of both sprockets should be as close to horizontal as possible. However, the angle of inclination can be up to 60° if needed.

The driving side of the chain should be on the top and the slack side should be on the bottom.

If the centerline of the drive is vertical (or close to it) or the driving sprocket is on the lower side, it is best to install a chain tensioner.



Formulas for Selection Calculations

The following symbols and units of measure are used in the formulas below. These formulas are used in the basic calculations needed to select chain drives.

F_S = safety factor
HP = horsepower
M = working load (pounds)
RPM = rotational speed
P = chain pitch (inches)
R_P = sprocket pitch radius (inches)
T = torque (inch-pounds)
S = chain speed (feet per minute)
N_T = number of sprocket teeth
U_{MN} = minimum ultimate tensile strength (pounds)

Horsepower and Torque

$$HP = \frac{T \times RPM}{63,025}$$

$$T = \frac{63,025 \times HP}{RPM} = M \times R_P$$

Horsepower ratings in this catalog are based on the following:

- single-strand chain
- mechanical service factor of 1.0
- appropriate lubrication
- shafts horizontal and properly aligned
- only minor load variations
- ambient temperature between 15°F and 340°F

Multiple-strand chains are selected from the same rating tables. Apply the multiple-strand factors in Table 5 (page E-8).

Working Load, Tensile Strength, and Safety Factor

The working load on a chain is the chain tension from horsepower.

$$M = \frac{33,000 \times HP}{S} = \frac{396,000 \times HP}{N_T \times P \times RPM} = \frac{T}{R_P}$$

Maximum working load is **NOT minimum ultimate tensile strength** [U_{MN}]. Minimum ultimate tensile strength is the minimum force at which a chain could fail when subjected to a tensile loading test.

The safety factor is calculated using the following formula:

$$F_S = \frac{U_{MN}}{M}$$

Mechanical Service Factors

For normal operating conditions, use the service factors in Table 3 (page E-7). However, under the following conditions, increase the service factor for better chain life.

- frequent starts and stops
- insufficient lubrication
- short center distance
- vertical drive layout
- multiple driven shafts
- reversing
- large load variation

Table 3
Mechanical Service Factors [F_M]

Basis For Service Factor	Typical Driven Equipment	Prime Mover		
		Electric Motor or Turbine	Internal Combustion Engine with Hydraulic Drive	Internal Combustion Engine with Mechanical Drive
Uniform smooth load and non-reversing	**Agitators**—liquids only **Blowers**—centrifugal **Bucket elevators**—uniformly loaded or fed **Conveyors**—uniformly loaded or fed **Feeders**—rotary table **Generators** **Machine tools**—drills, grinders, and lathes **Pumps**—centrifugal **Screens**—rotary, uniformly fed	1.0	1.0	1.2
Mild to moderate shock load	**Beaters** **Bucket elevators**—**not** uniformly loaded or fed **Clay working machinery**—pug mills **Compressors**—reciprocating, 3+ cylinders **Conveyors**—heavy duty, **not** uniformly loaded or fed **Cranes and hoists**—medium duty, skip hoists (travel and trolley motion only) **Dredges**—cable, reel, and conveyor drives **Feeders**—apron, screw, and rotary vane **Food processing machinery**—slicers, mixers, and grinders **Kilns and dryers** **Machine tools**—boring mills, milling machines, hobs, shapers **Mills**—ball, pebble, and tube **Paper processing machinery**—pulp grinders **Pumps**—reciprocating, 3+ cylinders **Textile machinery**—calendars, mangles, and nappers **Woodworking machinery**	1.3	1.2	1.4
Heavy shock load	**Boat propellers** **Briquetting machines** **Compressors**—reciprocating, 1 or 2 cylinders **Conveyors**—reciprocating and shaker **Cranes and hoists**—heavy duty, logging, and rotary drilling **Crushers** **Dredges**—cutter head, jig, and screen drives **Feeders**—reciprocating, shaker **Machine tools**—punch presses, shears, plate hammers, and cold formers **Mills**—draw presses, hammer, rolling, and wire drawing **Paper processing machinery**—calendars, mixers, sheeters **Pumps**—1 or 2 cylinders **Printing presses** **Textile machinery**	1.5	1.4	1.7

Thermal Service Factors

Lynx roller chains are made of heat-treated carbon steel. When exposed to high temperatures the hardness gained by heat treating the components is compromised. The pins, bushings, and rollers lose wear-resistance and the plates lose strength when exposed to heat greater than 340°F. Lynx roller chains can be used in ambient environments up to 500°F, but the horsepower capacity must be adjusted using the thermal service factors in Table 4 (below).

Extremely low temperatures can cause embrittlement of link plates, freezing of lubricant, rust because of condensation, and seizure due to freezing. For applications with very high or very low ambient temperatures, consider using stainless steel rather than carbon steel roller chain.

Table 4
Thermal Service Factors For Carbon Steel Roller Chain [F_T]

Temperature	Percentage of Catalog Capacity Rating	Thermal Service Factor
-20°F to -4°F	25%	4.0
-4°F to 15°F	30%	3.3
15°F to 340°F	100%	1.0
340°F to 390°F	75%	1.3
390°F to 500°F	50%	2.0

Design Horsepower

The design horsepower of a drive equals the required horsepower multiplied by the appropriate factors.

The following symbols and units of measure are used in the formulas below:

HP_D = design horsepower
HP_R = required horsepower
F_M = mechanical service factor
F_T = thermal service factor
F_{MS} = multiple-strand factor (see Table 5, below)

For single-strand chain:

$HP_D = HP_R \times F_M \times F_T$

For multiple-strand chain:

$HP_D = HP_R \times F_M \times F_T \times F_{MS}$

Table 5
Multiple-Strand Factors [F_{MS}]

Number of Strands	Multiple-Strand Factor
2	1.7
3	2.5
4	3.3
5	3.9
6	4.6

Drive Ratio Calculation

The ratio of the drive is equal to the speed of the low-speed shaft divided by the speed of the high-speed shaft.

The following symbols are used in the formulas below:

Ratio = drive ratio
RPM = large sprocket speed
rpm = small sprocket speed
N_T = number of teeth on the large sprocket
n_t = number of teeth on the small sprocket

$$\text{Ratio} = \frac{\text{rpm}}{\text{RPM}} = \frac{N_T}{n_t}$$

Not every drive ratio is available using stock sprockets. It is theoretically possible (above the minimum) to machine a sprocket with any number of teeth, however, most manufacturers do not offer large sprockets of every tooth count as stock items. Table 6 (page E-10) shows drive ratios possible using commonly available stock sprockets. Check with your sprocket manufacturer to make sure they offer the sprockets for your application.

Chain Speed Calculation

To calculate chain speed use the formula below:

S = chain speed (feet per minute)
P = chain pitch (inches)
N_T = number of teeth on the sprocket
RPM = sprocket speed (rpm)

$$S = \frac{N_T \times \text{RPM} \times P}{12}$$

Center Distance Calculation

The center distance is the length between the large and small sprocket shaft centers. The diameter of the large sprocket plus one-half the diameter of the small sprocket is the recommended minimum center distance for most applications.

Use the following formula to calculate the recommended minimum center distance:

L_{CMN} = center distance (recommended minimum)
D_O = outside diameter of the large sprocket
d_o = outside diameter of the small sprocket

$$L_{CMN} = D_O + \frac{d_o}{2}$$

The recommended **maximum** center distance is equal to 80 pitches of chain. See guidelines on page E-4.

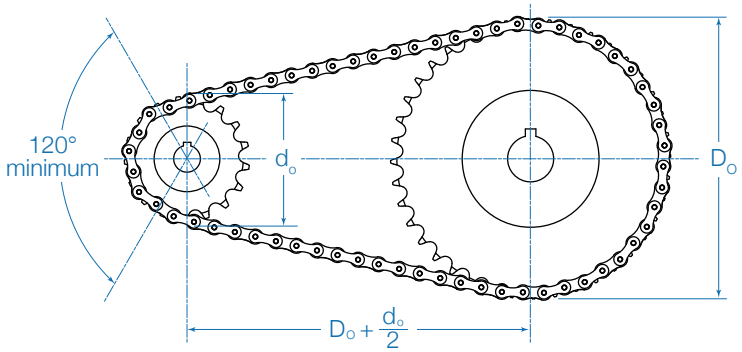


Table 6
Ratios Possible With Stock Sprockets

Number of Teeth on the Large Sprocket	Number of Teeth on the Small Sprocket																						
	11	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**
11	1.00																						
12	1.09	1.00																					
13	1.18	1.08	1.00																				
14	1.27	1.17	1.08	1.00																			
15	1.36	1.25	1.15	1.07	1.00																		
16	1.45	1.33	1.23	1.14	1.07	1.00																	
17	1.55	1.42	1.31	1.21	1.13	1.06	1.00																
18	1.64	1.50	1.38	1.29	1.20	1.13	1.06	1.00															
19	1.73	1.58	1.46	1.36	1.27	1.19	1.12	1.06	1.00														
20	1.82	1.67	1.54	1.43	1.33	1.25	1.18	1.11	1.05	1.00													
21	1.91	1.75	1.62	1.50	1.40	1.31	1.24	1.17	1.11	1.05	1.00												
22	2.00	1.83	1.69	1.57	1.47	1.38	1.29	1.22	1.16	1.10	1.05	1.00											
23	2.09	1.92	1.77	1.64	1.53	1.44	1.35	1.28	1.21	1.15	1.10	1.05	1.00										
24	2.18	2.00	1.85	1.71	1.60	1.50	1.41	1.33	1.26	1.20	1.14	1.09	1.04	1.00									
25	2.27	2.08	1.92	1.79	1.67	1.56	1.47	1.39	1.32	1.25	1.19	1.14	1.09	1.04	1.00								
26	2.36	2.17	2.00	1.86	1.73	1.63	1.53	1.44	1.37	1.30	1.24	1.18	1.13	1.08	1.04	1.00							
27	2.45	2.25	2.08	1.93	1.80	1.69	1.59	1.50	1.42	1.35	1.29	1.23	1.17	1.13	1.08	1.04	1.00						
28	2.55	2.33	2.15	2.00	1.87	1.75	1.65	1.56	1.47	1.40	1.33	1.27	1.22	1.17	1.12	1.08	1.04	1.00					
29	2.64	2.42	2.23	2.07	1.93	1.81	1.71	1.61	1.53	1.45	1.38	1.32	1.26	1.21	1.16	1.12	1.07	1.04	1.00				
30	2.73	2.50	2.31	2.14	2.00	1.88	1.76	1.67	1.58	1.50	1.43	1.36	1.30	1.25	1.20	1.15	1.11	1.07	1.03	1.00			
31	2.82	2.58	2.38	2.21	2.07	1.94	1.82	1.72	1.63	1.55	1.48	1.41	1.35	1.29	1.24	1.19	1.15	1.11	1.07	1.03	1.00		
32	2.91	2.67	2.46	2.29	2.13	2.00	1.88	1.78	1.68	1.60	1.52	1.45	1.39	1.33	1.28	1.23	1.19	1.14	1.10	1.07	1.03	1.00	
33	3.00	2.75	2.54	2.36	2.20	2.06	1.94	1.83	1.74	1.65	1.57	1.50	1.43	1.38	1.32	1.27	1.22	1.18	1.14	1.10	1.06	1.03	1.00
34	3.09	2.83	2.62	2.43	2.27	2.13	2.00	1.89	1.79	1.70	1.62	1.55	1.48	1.42	1.36	1.31	1.26	1.21	1.17	1.13	1.10	1.06	1.03
35	3.18	2.92	2.69	2.50	2.33	2.19	2.06	1.94	1.84	1.75	1.67	1.59	1.52	1.46	1.40	1.35	1.30	1.25	1.21	1.17	1.13	1.09	1.06
36	3.27	3.00	2.77	2.57	2.40	2.25	2.12	2.00	1.89	1.80	1.71	1.64	1.57	1.50	1.44	1.38	1.33	1.29	1.24	1.20	1.16	1.13	1.09
37	3.36	3.08	2.85	2.64	2.47	2.31	2.18	2.06	1.95	1.85	1.76	1.68	1.61	1.54	1.48	1.42	1.37	1.32	1.28	1.23	1.19	1.16	1.12
38	3.45	3.17	2.92	2.71	2.53	2.38	2.24	2.11	2.00	1.90	1.81	1.73	1.65	1.58	1.52	1.46	1.41	1.36	1.31	1.27	1.23	1.19	1.15
39	3.55	3.25	3.00	2.79	2.60	2.44	2.29	2.17	2.05	1.95	1.86	1.77	1.70	1.63	1.56	1.50	1.44	1.39	1.34	1.30	1.26	1.22	1.18
40	3.64	3.33	3.08	2.86	2.67	2.50	2.35	2.22	2.11	2.00	1.90	1.82	1.74	1.67	1.60	1.54	1.48	1.43	1.38	1.33	1.29	1.25	1.21
41	3.73	3.42	3.15	2.93	2.73	2.56	2.41	2.28	2.16	2.05	1.95	1.86	1.78	1.71	1.64	1.58	1.52	1.46	1.41	1.37	1.32	1.28	1.24
42	3.82	3.50	3.23	3.00	2.80	2.63	2.47	2.33	2.21	2.10	2.00	1.91	1.83	1.75	1.68	1.62	1.56	1.50	1.45	1.40	1.35	1.31	1.27
43	3.91	3.58	3.31	3.07	2.87	2.69	2.53	2.39	2.26	2.15	2.05	1.95	1.87	1.79	1.72	1.65	1.59	1.54	1.48	1.43	1.39	1.34	1.30
44	4.00	3.67	3.38	3.14	2.93	2.75	2.59	2.44	2.32	2.20	2.10	2.00	1.91	1.83	1.76	1.69	1.63	1.57	1.52	1.47	1.42	1.38	1.33
45	4.09	3.75	3.46	3.21	3.00	2.81	2.65	2.50	2.37	2.25	2.14	2.05	1.96	1.88	1.80	1.73	1.67	1.61	1.55	1.50	1.45	1.41	1.36
46	4.18	3.83	3.54	3.29	3.07	2.88	2.71	2.56	2.42	2.30	2.19	2.09	2.00	1.92	1.84	1.77	1.70	1.64	1.59	1.53	1.48	1.44	1.39
47	4.27	3.92	3.62	3.36	3.13	2.94	2.76	2.61	2.47	2.35	2.24	2.14	2.04	1.96	1.88	1.81	1.74	1.68	1.62	1.57	1.52	1.47	1.42
48	4.36	4.00	3.69	3.43	3.20	3.00	2.82	2.67	2.53	2.40	2.29	2.18	2.09	2.00	1.92	1.85	1.78	1.71	1.66	1.60	1.55	1.50	1.45
49	4.45	4.08	3.77	3.50	3.27	3.06	2.88	2.72	2.58	2.45	2.33	2.23	2.13	2.04	1.96	1.88	1.81	1.75	1.69	1.63	1.58	1.53	1.48
50	4.55	4.17	3.85	3.57	3.33	3.13	2.94	2.78	2.63	2.50	2.38	2.27	2.17	2.08	2.00	1.92	1.85	1.79	1.72	1.67	1.61	1.56	1.52
51	4.64	4.25	3.92	3.64	3.40	3.19	3.00	2.83	2.68	2.55	2.43	2.32	2.22	2.13	2.04	1.96	1.89	1.82	1.76	1.70	1.65	1.59	1.55
52	4.73	4.33	4.00	3.71	3.47	3.25	3.06	2.89	2.74	2.60	2.48	2.36	2.26	2.17	2.08	2.00	1.93	1.86	1.79	1.73	1.68	1.63	1.58
53	4.82	4.42	4.08	3.79	3.53	3.31	3.12	2.94	2.79	2.65	2.52	2.41	2.30	2.21	2.12	2.04	1.96	1.89	1.83	1.77	1.71	1.66	1.61
54	4.91	4.50	4.15	3.86	3.60	3.38	3.18	3.00	2.84	2.70	2.57	2.45	2.35	2.25	2.16	2.08	2.00	1.93	1.86	1.80	1.74	1.69	1.64
55	5.00	4.58	4.23	3.93	3.67	3.44	3.24	3.06	2.89	2.75	2.62	2.50	2.39	2.29	2.20	2.12	2.04	1.96	1.90	1.83	1.77	1.72	1.67
56	5.09	4.67	4.31	4.00	3.73	3.50	3.29	3.11	2.95	2.80	2.67	2.55	2.43	2.33	2.24	2.15	2.07	2.00	1.93	1.87	1.81	1.75	1.70
57	5.18	4.75	4.38	4.07	3.80	3.56	3.35	3.17	3.00	2.85	2.71	2.59	2.48	2.38	2.28	2.19	2.11	2.04	1.97	1.90	1.84	1.78	1.73
58	5.27	4.83	4.46	4.14	3.87	3.63	3.41	3.22	3.05	2.90	2.76	2.64	2.52	2.42	2.32	2.23	2.15	2.07	2.00	1.93	1.87	1.81	1.76
59	5.36	4.92	4.54	4.21	3.93	3.69	3.47	3.28	3.11	2.95	2.81	2.68	2.57	2.46	2.36	2.27	2.19	2.11	2.03	1.97	1.90	1.84	1.79
60	5.45	5.00	4.62	4.29	4.00	3.75	3.53	3.33	3.16	3.00	2.86	2.73	2.61	2.50	2.40	2.31	2.22	2.14	2.07	2.00	1.94	1.88	1.82
65	5.91	5.42	5.00	4.64	4.33	4.06	3.82	3.61	3.42	3.25	3.10	2.95	2.83	2.71	2.60	2.50	2.41	2.32	2.24	2.17	2.10	2.03	1.97
68	6.18	5.67	5.23	4.86	4.53	4.25	4.00	3.78	3.58	3.40	3.24	3.09	2.96	2.83	2.72	2.62	2.52	2.43	2.34	2.27	2.19	2.13	2.06
70	6.36	5.83	5.38	5.00	4.67	4.38	4.12	3.89	3.68	3.50	3.33	3.18	3.04	2.92	2.80	2.69	2.59	2.50	2.41	2.33	2.26	2.19	2.12
72	6.55	6.00	5.54	5.14	4.80	4.50	4.24	4.00	3.79	3.60	3.43	3.27	3.13	3.00	2.88	2.77	2.67	2.57	2.48	2.40	2.32	2.25	2.18
76	6.91	6.33	5.85	5.43	5.07	4.75	4.47	4.22	4.00	3.80	3.62	3.45	3.30	3.17	3.04	2.92	2.81	2.71	2.62	2.53	2.45	2.38	2.30
80	7.27	6.67	6.15	5.71	5.33	5.00	4.71	4.44	4.21	4.00	3.81	3.64	3.48	3.33	3.20	3.08	2.96	2.86	2.76	2.67	2.58	2.50	2.42
84	7.64	7.00	6.46	6.00	5.60	5.25	4.94	4.67	4.42	4.20	4.00	3.82	3.65	3.50	3.36	3.23	3.11	3.00	2.90	2.80	2.71	2.63	2.55
95		7.92	7.31	6.79	6.33	5.94	5.59	5.28	5.00	4.75	4.52	4.32	4.13	3.96	3.80	3.65	3.52	3.39	3.28	3.17	3.06	2.97	2.88
96		8.00	7.38	6.86	6.40	6.00	5.65	5.33	5.05	4.80	4.57	4.36	4.17	4.00	3.84	3.69	3.56	3.43	3.31	3.20	3.10	3.00	2.91
102			7.85	7.29	6.80	6.38	6.00	5.67	5.37	5.10	4.86	4.64	4.43	4.25	4.08	3.92	3.78	3.64	3.52	3.40	3.29	3.19	3.09
112				8.00	7.47	7.00	6.59	6.22	5.89	5.60	5.33	5.09	4.87	4.67	4.48	4.31	4.15	4.00	3.86	3.73	3.61	3.50	3.39

Bold type indicates the most commonly available tooth counts.

Chain Length Calculation

If the chain size, sprockets, and center distance have already been determined, calculate the required length of chain using the formulas below.

L_C = chain length (inches)
L_{CD} = center distance length
N_P = number of chain pitches
P = chain pitch (inches)
N_T = number of teeth on the large sprocket
n_t = number of teeth on the small sprocket

$$N_P = \frac{N_T + n_t}{2} + \left(2 \times \frac{L_{CD}}{P}\right) + \frac{\left(\frac{N_T - n_t}{6.28}\right)^2}{\frac{L_{CD}}{P}}$$

Any fraction of a pitch (after solving for N_P) is counted as one pitch. An odd number of pitches requires an offset link.

If the length of the chain has already been determined in number of pitches, calculate the length of the chain in inches using the formula below:

$$L_C = N_P \times P$$

If the length of chain has already been determined in inches, calculate the number of pitches of chain using the formula below:

$$N_P = \frac{L_C}{P}$$

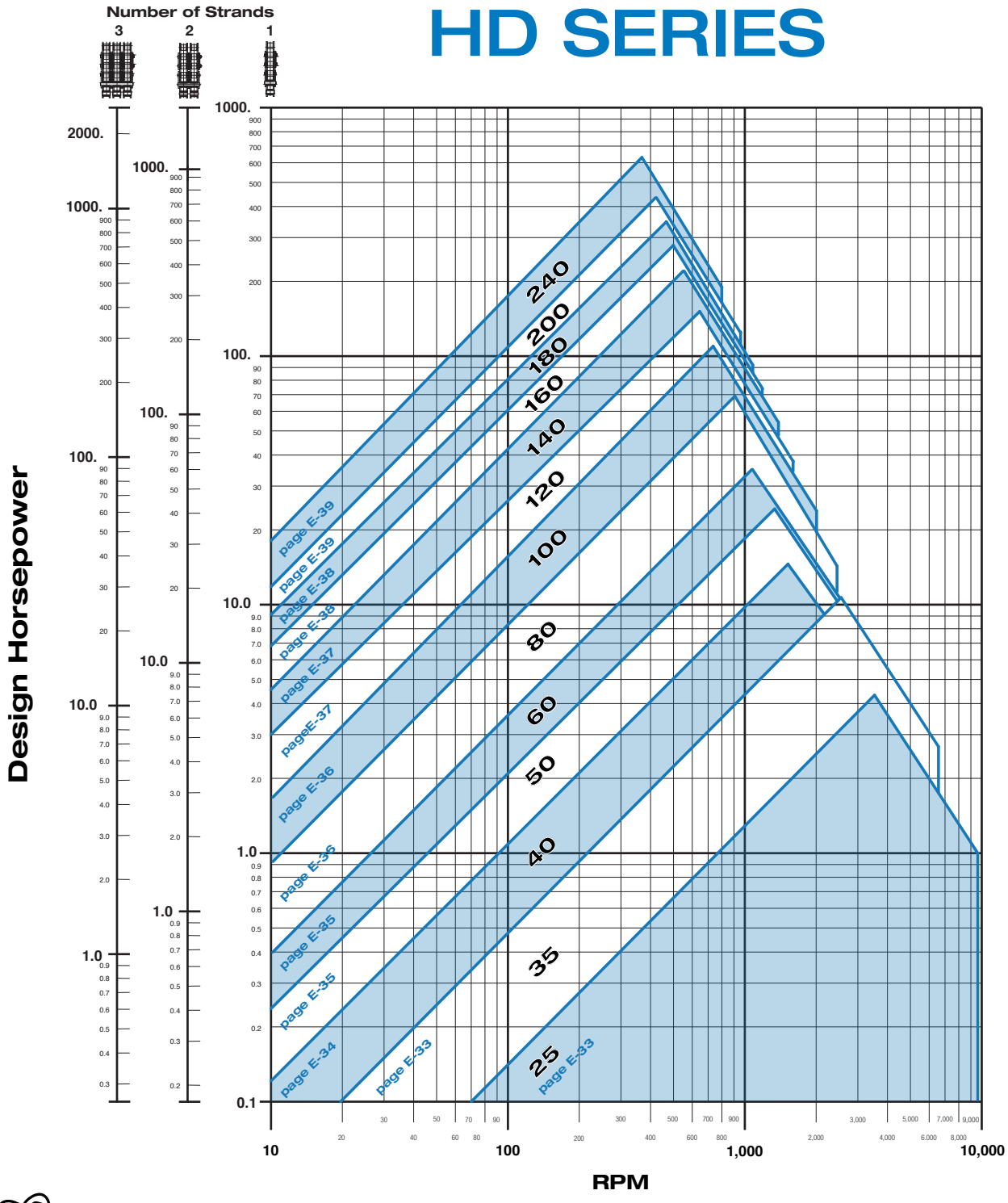
Recommendations:

- avoid using an offset link whenever possible
- use an even number of pitches by changing the center distance or number of teeth on the sprocket

HD Single-Pitch Chain Size Selection Chart

To select a tentative chain size, locate the intersection of the speed of the small sprocket and the design horsepower, on Chart 1 (below). Refer to the horsepower rating tables for the selected chain size (HD series pages E-33—E-39) to determine the minimum number of teeth required on the small sprocket.

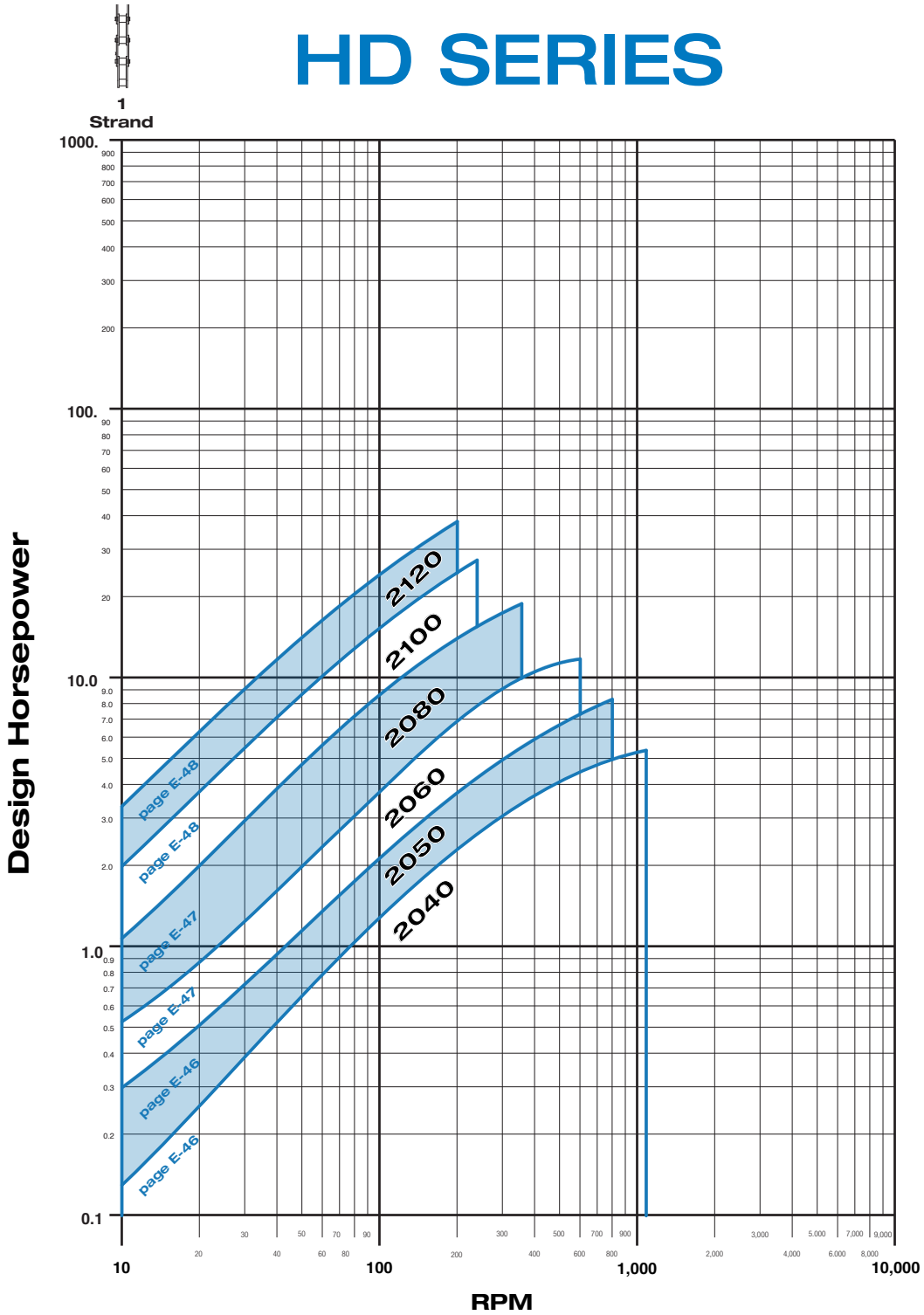
Chart 1
HD Single-Pitch Chain Size Selection Chart



HD Double-Pitch Chain Size Selection Chart

To select a tentative chain size, locate the intersection of the speed of the small sprocket and the design horsepower, on Chart 2 (below). Refer to the horsepower rating tables for double-pitch chain (pages E-46—E-48) to determine the minimum number of teeth required on the small sprocket.

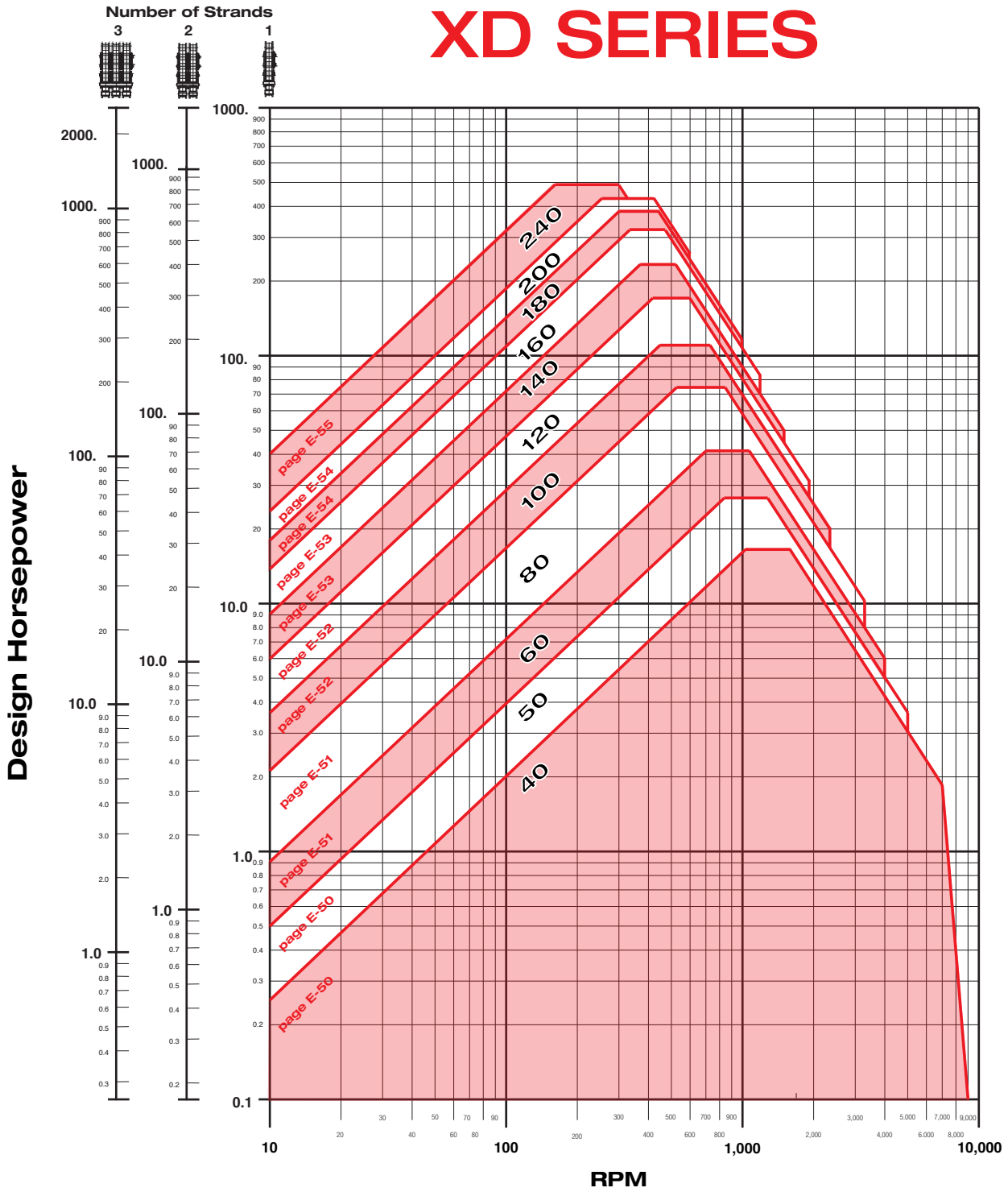
Chart 2
HD Double-Pitch Roller Chain Size Selection Chart



XD Single-Pitch Chain Size Selection Chart

To select a tentative chain size, locate the intersection of the speed of the small sprocket and the design horsepower, on Chart 3 (below). Refer to the horsepower rating tables for the selected chain size (XD series pages E-50—E-55) to determine the minimum number of teeth required on the small sprocket.

Chart 3
XD Single-Pitch Chain Size Selection Chart



Selection Methods

The **General Selection Method** is appropriate for drives with a chain speed of 160 feet per minute or greater because the primary concern in those applications is wear elongation caused by higher chain speeds.

In applications where the chain speed is less than 160 feet per minute, the **Low-Speed Selection Method** (page E-18) is more suitable because the primary concern is working load, rather than wear elongation. It is only necessary that the chain's maximum working load exceeds the application's design working load.

Drives designed using the General Selection Method will be adequate regardless of the chain speed. However, the Low-Speed Selection Method may provide a more economical alternative.

If the chain size, rpm, and number of teeth on the small sprocket are known, determine which method to use by consulting Table 7 (below). If these values are not known, complete steps 1 through 4 of the General Selection Method to obtain them.

Table 7
Sprocket RPM at 160 Feet per Minute Chain Speed

Number of Teeth on Small Sprocket	Chain Size													
	25	35	40	41	50	60	80	100	120	140	160	180	200	240
11	698	465	349	349	279	233	175	140	116	99.7	87.3	77.6	69.8	58.2
12	640	427	320	320	256	213	160	128	107	91.4	80.0	71.1	64.0	53.3
13	591	394	295	295	236	197	148	118	98.5	84.4	73.8	65.6	59.1	49.2
14	549	366	274	274	219	183	137	110	91.4	78.4	68.6	61.0	54.9	45.7
15	512	341	256	256	205	171	128	102	85.3	73.1	64.0	56.9	51.2	42.7
16	480	320	240	240	192	160	120	96.0	80.0	68.6	60.0	53.3	48.0	40.0
17	452	301	226	226	181	151	113	90.4	75.3	64.5	56.5	50.2	45.2	37.6
18	427	284	213	213	171	142	107	85.3	71.1	61.0	53.3	47.4	42.7	35.6
19	404	269	202	202	162	135	101	80.8	67.4	57.7	50.5	44.9	40.4	33.7
20	384	256	192	192	154	128	96.0	76.8	64.0	54.9	48.0	42.7	38.4	32.0
21	366	244	183	183	146	122	91.4	73.1	61.0	52.2	45.7	40.6	36.6	30.5
22	349	233	175	175	140	116	87.3	69.8	58.2	49.9	43.6	38.8	34.9	29.1
23	334	223	167	167	134	111	83.5	66.8	55.7	47.7	41.7	37.1	33.4	27.8
24	320	213	160	160	128	107	80.0	64.0	53.3	45.7	40.0	35.6	32.0	26.7
25	307	205	154	154	123	102	76.8	61.4	51.2	43.9	38.4	34.1	30.7	25.6
26	295	197	148	148	118	98.5	73.8	59.1	49.2	42.2	36.9	32.8	29.5	24.6
27	284	190	142	142	114	94.8	71.1	56.9	47.4	40.6	35.6	31.6	28.4	23.7
28	274	183	137	137	110	91.4	68.6	54.9	45.7	39.2	34.3	30.5	27.4	22.9
29	265	177	132	132	106	88.3	66.2	53.0	44.1	37.8	33.1	29.4	26.5	22.1
30	256	171	128	128	102	85.3	64.0	51.2	42.7	36.6	32.0	28.4	25.6	21.3
32	240	160	120	120	96.0	80.0	60.0	48.0	40.0	34.3	30.0	26.7	24.0	20.0
35	219	146	110	110	87.8	73.1	54.9	43.9	36.6	31.3	27.4	24.4	21.9	18.3
36	213	142	107	107	85.3	71.1	53.3	42.7	35.6	30.5	26.7	23.7	21.3	17.8
40	192	128	96.0	96.0	76.8	64.0	48.0	38.4	32.0	27.4	24.0	21.3	19.2	16.0
42	183	122	91.4	91.4	73.1	61.0	45.7	36.6	30.5	26.1	22.9	20.3	18.3	15.2
45	171	114	85.3	85.3	68.3	56.9	42.7	34.1	28.4	24.4	21.3	19.0	17.1	14.2
48	160	107	80.0	80.0	64.0	53.3	40.0	32.0	26.7	22.9	20.0	17.8	16.0	13.3
54	142	94.8	71.1	71.1	56.9	47.4	35.6	28.4	23.7	20.3	17.8	15.8	14.2	11.9
60	128	85.3	64.0	64.0	51.2	42.7	32.0	25.6	21.3	18.3	16.0	14.2	12.8	10.7

General Selection Method

STEP 1 **Determine the following:**

- power source
- driven equipment
- horsepower required
- small sprocket rpm
- large sprocket RPM
- shaft diameters
- center distance of the shafts
- ambient temperature

General Selection Method (continued)

STEP 2 **Determine service factors.**

- select a mechanical service factor from Table 3 (page E-7) based upon the power source and driven equipment
- select a thermal service factor from Table 4 (page E-8) based upon the ambient temperature

STEP 3 **Calculate design horsepower.**
See **Design Horsepower** (page E-8)

STEP 4 **Determine the chain size and the required number of teeth on the small sprocket.**

- taking into consideration the rpm and required horsepower of the high-speed shaft, refer to Chart 1 or Chart 3 (Chain Size Selection Charts)
- select an appropriate chain size
- using the small sprocket rpm, determine the minimum number of teeth required to accommodate the design horsepower by referring to the horsepower ratings tables (HD series pages E-33—E-39, XD series pages E-50—E-55)
- check the bore capacity of the sprocket selected, making sure it will accommodate the shaft

STEP 5 **Calculate the drive ratio.**
See **Drive Ratio** (page E-9)

STEP 6 **Calculate the number of teeth on the large sprocket.**
Multiply the number of teeth on the small sprocket by the drive ratio and select the closest available tooth count. Make certain the resulting drive speed, center distance, and chain length still fit your requirements.

General Selection Example #1 — Using HD Chain

STEP 1

- power source is an AC motor
- driven equipment is a centrifugal compressor
- horsepower required is 5
- small sprocket rpm is 1,750
- large sprocket RPM is 1,250
- center distance of the shafts can vary to suit the final design
- ambient temperature is 90°F.

STEP 2 Find the mechanical service factor (1.3) from Table 3. Find the thermal service factor (1.0) from Table 4

STEP 3 Calculate the design horsepower using the formula below.

HP_D = design horsepower
HP_R = required horsepower
F_M = mechanical service factor
F_T = thermal service factor

$HP_R \times F_M \times F_T = HP_D$

$5 \times 1.3 \times 1.0 = 6.5$ horsepower

STEP 4 Refer to Chart 1, HD Single-Pitch Chain Size Selection Chart (page E-12) for the intersection of 1750-rpm and 6.5-hp.

For single strand chain, size 40 chain is indicated.

Check the horsepower ratings for size 40 (page E-34). Use 1800-rpm column on the chart.

Then, based upon rating table, sprockets with 14 or more teeth have a rating higher than 6.5-hp and could be selected. However, the recommended minimum number of teeth is 17. So, 17, 19, or 21 teeth are possible choices.

Keep in mind that Lynx recommends that the sum of the teeth on both the large and small sprocket be at least 50. Use a 21 tooth small sprocket.

STEP 5 Calculate the drive ratio using the formula below.

Ratio = drive ratio
RPM = large sprocket speed
rpm = small sprocket speed

$$\frac{rpm}{RPM} = Ratio$$

$$\frac{1,750}{1,250} = 1.4{:}1 \text{ drive ratio}$$

STEP 6 Calculate the number of teeth on the large sprocket using the formula below.

N_T = the number of teeth on the large sprocket
n_t = the number of teeth on the small sprocket
Ratio = drive ratio

$n_t \times Ratio = N_T$

$21 \times 1.4 = 29.40 = 29$ teeth

A #40-29T (size 40 – 29 tooth) is the large sprocket. A 21 tooth small sprocket and a 29 tooth large sprocket equal the recommended minimum 50 tooth count.

General Selection Example #2 — Using HD Chain

STEP 1

- power source is an AC motor
- driven equipment is a heavy duty chain conveyor (mild shock load)
- small sprocket rpm is 600
- large sprocket RPM is 150
- horsepower required is 10
- center distance is fixed at 18 inches and the overall length including the sprockets can not exceed 28 inches
- ambient temperature is 120°F.

STEP 2 Find the mechanical service factor (1.3) from Table 3. Find the thermal service factor (1.0) from Table 4.

STEP 3 Calculate the design horsepower using the formula below.

HP_D = design horsepower
HP_R = required horsepower
F_M = mechanical service factor
F_T = thermal service factor

$HP_R \times F_M \times F_T = HP_D$

$10 \times 1.3 \times 1.0 = 13.0$ horsepower

STEP 4 Refer to Chart 1, HD Single-Pitch Chain Size Selection Chart (page E-12) for the intersection of 600 rpm and 13 horsepower. For single-strand chain, size 60 chain is indicated.

Next, check the horsepower ratings for size 60 chain using the table found on page E-35. The table shows at 600 rpm that sprockets with 15 or more teeth have a horsepower rating higher than 13 horsepower and could be used. Because of space limitation, select a #60-15T small sprocket as it is the smallest size.

STEP 5 Calculate the drive ratio using the formula below.

Ratio = drive ratio
RPM = large sprocket speed
rpm = small sprocket speed

$$\frac{rpm}{RPM} = Ratio$$

$$\frac{600}{150} = 4{:}1 \text{ drive ratio}$$

General Selection Example #2 — Using HD Chain (continued)

STEP 6 Calculate the number of teeth on the large sprocket using the formula below.

N_T = the number of teeth on the large sprocket
n_t = the number of teeth on the small sprocket
Ratio = drive ratio

$n_t \times \text{Ratio} = N_T$

$15 \times 4 = 60$ teeth

#60-60T (size 60 – 60 tooth) large sprocket is tentatively selected

STEP 7 This example requires a drive that will fit within the space limitation of 28 inches.

The minimum space required for the drive is calculated by dividing the sum of the two sprocket diameters by 2 and adding the center distance.

#60-15T sprocket outside diameter is 3.978 inches
#60-60T sprocket outside diameter is 14.761 inches

$$\frac{3.978 \text{ inches} + 14.761 \text{ inches}}{2} + 18 \text{ inches} = 29.370 \text{ inches}$$

The space required exceeds the drive's overall length limitation of 28 inches.

STEP 8 Try again using double-strand chain. Repeat **STEP 4** of the **General Selection Method** on page E-16.

Taking into consideration design horsepower and the speed of the high-speed shaft, select the chain size by referring to Chart 1 (page E-12). Use the double-strand column rather than the single-strand column.

For double-strand chain, size 50-2 chain is indicated.

STEP 9 Determine the small sprocket horsepower.

Remembering that the recommended minimum number of teeth for a small sprocket is 17, try that first.

Use the horsepower rating tables for single-strand size 50 on page E-35. In this case, the table's horsepower ratings must be multiplied by 1.7 (multiple strand factor from Table 5 on page E-8). However, the table does not list 600-rpm and it must be interpolated by adding the 500-rpm value to the 700-rpm value and dividing by 2.

$$\text{\#D50 - 17T sprocket HP} = \frac{7.27 \text{ hp} + 10.04 \text{ hp}}{2} \times F_{MS} = 8.66 \times 1.7 = 14.7 \text{ horsepower}$$

14.7-hp is greater than the 10-hp required horsepower and therefore is satisfactory.

STEP 10 Calculate the number of teeth on the large sprocket using the formula below.

$n_t \times \text{Ratio} = N_T$

$17 \times 4 = 68$

Use size 50-2 chain with a 17-tooth high-speed sprocket and a 68-tooth low-speed sprocket.

STEP 11 Repeat **STEP 7** of this example to check whether the drive will fit within the space limitation.

#D50-17T sprocket outside diameter is 3.718 inches
#D50-68T sprocket outside diameter is 13.894 inches

$$\frac{3.718 \text{ inches} + 13.894 \text{ inches}}{2} + 18 \text{ inches} = 26.8 \text{ inches}$$

26.8-inches fits with the 28-inch available space.

Low-Speed Selection Method

STEP 1 **Determine the following:**

- power source
- driven equipment
- horsepower required
- small sprocket rpm
- large sprocket RPM
- shaft diameters
- center distance of the shafts
- ambient temperature

STEP 2 **Determine the service factors:**

- select a mechanical service factor from Table 3 (page E-7) based upon the power source and driven equipment
- select a thermal service factor from Table 4 (page E-8) based upon the ambient temperature

STEP 3 **Calculate design horsepower.**
See **Design Horsepower** (page E-8).

STEP 4 **Determine the chain size.**
Find the chain size on Chart 1 (page E-12) using the design horsepower. Then, select one chain size smaller.

STEP 5 **Determine the number of teeth on the small sprocket.**
Using the small sprocket rpm, determine the minimum number of teeth required to accommodate the design horsepower found in the horsepower ratings table for the smaller chain size selected in Step 4 (pages E-33 to E-39). Keep in mind that the recommended minimum number of teeth for a small sprocket is 17.

Check the bore capacity of the sprocket selected, making sure it will accommodate the shaft.

STEP 6 **Calculate the chain speed.**
Use the formula below:

S = chain speed (feet per minute)
P = chain pitch (inches)
n_t = number of teeth on small sprocket
rpm = small sprocket rpm

$$S = \frac{n_t \times P \times rpm}{12}$$

STEP 7 **Calculate the required working load.**
Use the formula below:

M_R = required working load (pounds)
HP_R = required horsepower
S = chain speed (feet per minute)

$$M_R = \frac{33,000 \times HP_R}{S}$$

STEP 8 **Calculate the design working load**.
Use the formula below:

M_D = design working load (pounds)
M_R = required working load (pounds)
F_M = mechanical service factor
F_T = thermal service factor
F_{SP} = speed factor (see Table 8, page E-20)

$$M_D = M_R \times F_M \times F_T \times F_{SP}$$

Low-Speed Selection Method Low-Speed Selection Method (continued)

Table 8
Speed Factors [Fsp]

Speed of Roller Chain (feet/min)	Speed Factor	Remarks
Less than 33	1.0	
34 to 65	1.1	
66 to 97	1.2	
98 to 130	1.3	
131 to 159	1.4	
160 to 230	1.6	Applicable only to stainless roller chain

STEP 9 **Compare the maximum and design working loads.**
Find the maximum working load of the chain selected from the specification tables found in the product section of this catalog. Compare this to the design working load (calculated in Step 8). If the design working load exceeds the maximum working load consider increasing the number of small sprocket teeth or using multiple strand chain, or increasing the chain size.

Note: For drives with frequent starts and stops or reversals, increase the service factors to compensate for the conditions or consult with Lynx engineering.

STEP 10 **Calculate the safety factor.**
Use the formula below:

F_S = safety factor
U_{MN} = minimum ultimate tensile strength (pounds)
M_D = design working load (pounds)

$$F_S = \frac{U_{MN}}{M_D}$$

The selected chain must have a 6:1 safety factor when using press-fit connecting links and no offset links. Chain must have a 9:1 safety factor when slip-fit connecting links or offset links are used.

If safety factor requirements cannot be met, consider either increasing the chain size or using multiple-strand chain.

STEP 11 **Calculate the drive ratio.**
Use the formula below:

Ratio = drive ratio
RPM = large sprocket speed
rpm = small sprocket speed

$$\text{Ratio} = \frac{\text{rpm}}{\text{RPM}}$$

STEP 12 **Calculate the number of teeth on the large sprocket.**
Use the formula below:

N_T = the number of teeth on the large sprocket
n_t = the number of teeth on the small sprocket
Ratio = drive ratio

$N_T = n_t \times \text{Ratio}$

N_T must be a whole number. Refer to Table 6 (page E-10) for ratios possible with standard sprockets.

Make certain the resulting drive speed, center distance, and chain length still fit your requirements.

Low-Speed Selection Example #1 (Using HD Chain)

STEP 1

- the power source is a hydraulic motor
- the driven equipment is a small uniformly loaded belt conveyor
- the horsepower required is 1
- small sprocket rpm is 25
- large sprocket RPM is 10
- ambient temperature is 72°F.

STEP 2 Determine the service factors.

The mechanical service factor =1.0, from Table 3 (page E-7)
The thermal service factor = 1.0, from Table 4 (page E-8)

STEP 3 Calculate the design horsepower using the formula below.

HP_D = design horsepower
HP_R = required horsepower
F_M = mechanical service factor
F_T = thermal service factor

$$HP_R \times F_M \times F_T = HP_D$$

$1 \times 1.0 \times 1.0 = 1$horsepower

STEP 4 The Single-Pitch Chain Size Selection Chart (page E-12) would indicate Lynx HD80 chain. So, one size smaller would be Lynx HD60 chain.

STEP 5 Then, based upon the Lynx HD 60 horsepower rating tables on page E-35, for single-strand horsepower at 25 rpm, sprockets with 25 or more teeth have a rating higher than 1-horsepower and any of them could be selected as the small sprocket. Use a #60-25T sprocket.

STEP 6 Calculate the chain speed using the formula below.

S = chain speed (feet per minute)
P = chain pitch (inches)
n_t = number of teeth on small sprocket
rpm = small sprocket rpm

$$\frac{n_t \times P \times rpm}{12} = S$$

$$\frac{25 \times 0.75 \times 25}{12} = 39.06 \text{ feet per minute}$$

STEP 7 Calculate the required working load using the formula below.

M_R = working load (pounds)
HP_R = required horsepower
S = chain speed (feet per minute)

$$\frac{33{,}000 \times HP_R}{S} = M_R$$

$$\frac{33{,}000 \times 1}{39.06} = 844.85 \text{ pounds}$$

Low-Speed Selection Example #1 — Using HD Chain (continued)

STEP 8 Calculate the design working load using the formula below.

M_D = design working load (pounds)
M_R = required working load (pounds)
F_M = mechanical service factor
F_T = thermal service factor
F_{SP} = speed factor (from Table 8 on page E-19)

$M_R \times F_M \times F_T \times F_{SP} = M_D$

$844.85 \times 1.0 \times 1.0 \times 1.0 = 844.85$ pounds

STEP 9 Compare the maximum and design working loads.

The specification table (page 11) shows Lynx HD 60 maximum working load = 2,028 pounds
Design working load = 844.85 pounds
The maximum working load is greater than the design working load. Proceed to **STEP 10**.

STEP 10 Calculate the safety factor using the formula below.

F_S = safety factor
U_{MN} = minimum ultimate tensile strength (pounds)
M_D design working load (pounds)

$$\frac{U_{MN}}{M_D} = F_S$$

U_{MN} for Lynx HD 60 = 9,329.00 pounds

$$\frac{9,329.00}{844.85} = 11.05{:}1 \text{ safety factor}$$

Since the safety factor exceeds 9, the chain can be connected using slip–fit connecting links or offset links.

STEP 11 Calculate the drive ratio using the formula below.
Ratio = drive ratio
RPM = large sprocket speed
rpm = small sprocket speed

$$\frac{rpm}{RPM} = \text{Ratio}$$

$$\frac{25}{10} = 2.5{:}1 \text{ drive ratio}$$

STEP 12 Calculate the number of teeth on the large sprocket using the formula below.

N_T = the number of teeth on the large sprocket
n_t = the number of teeth on the small sprocket
Ratio = drive ratio

$n_t \times \text{Ratio} = N_T$

$25 \times 2.50 = 62.5 = 63$ teeth

Use a #60–60T sprocket if a low-speed of 10.4-rpm is close enough for the given application.

If a more precise low-speed is required the following options are possible:

- a special #60-63T could be produced at considerable expense
- it is likely more economical to use #60-28T and #60-70T sprockets (producing exactly a 2.5:1 drive ratio)—however, the wear distribution will be less uniform as both sprockets have an even number of teeth
- refer to Table 6 (page E-10) for ratios possible with stock sprockets
- always recheck calculations when selecting an alternative sprocket pair
- make certain the resulting drive speed, center distance, and chain length still fit your requirements

Symbols, Meanings, and Units of Measure

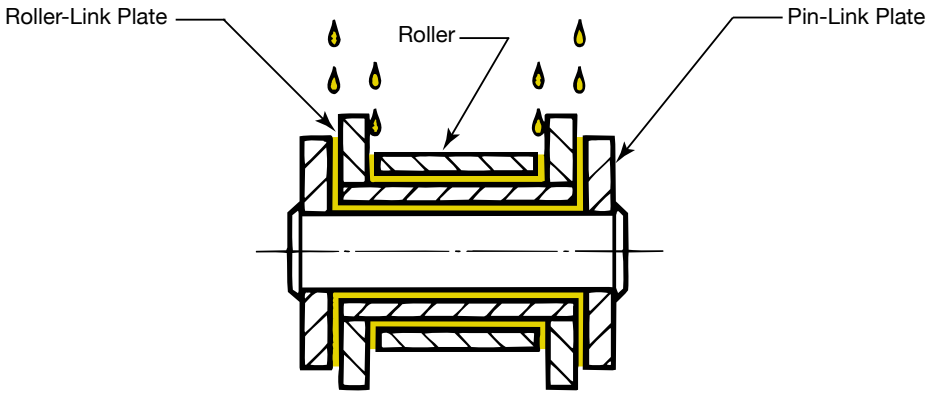
In the engineering section of this catalog, the symbols, meaning, and units of measure found in Table 9 (below) apply. The pages listed as to where the symbols are used only applies to the engineering section.

Table 9
Symbols

Symbol	Meaning	Units of Measure	Where Used
A_{MX}	maximum angular misalignment	inches/foot	E-29
D_O	outside diameter of the large sprocket	inches	E-9
d_o	outside diameter of the small sprocket	inches	E-9
F_S	safety factor	—	E-6, E-20, E-21
F_M	mechanical service factor	—	E-7, E-8, E-16, E-17, E-19, E-20, E-21
F_T	thermal service factor	—	E-8, E-16, E-17, E-19, E-20, E-21
F_{MS}	multiple-strand factor	—	E-8
F_{SP}	speed factor	—	E-19, E-21
HP	horsepower	horsepower	E-6
HP_D	design horsepower	horsepower	E-8, E-16, E-17, E-20
HP_R	required horsepower	horsepower	E-8, E-16, E-17, E-19, E-20, E-21
L_C	chain length	inches	E-11
L_{CD}	center distance	inches	E-11, E-29
L_{CMN}	minimum center distance	inches	E-9
M	working load	pounds	E-6
M_D	design working load	pounds	E-19, E-20, E-21
M_R	required working load	pounds	E-19, E-21
N_P	number of chain pitches	—	E-11
N_S	number of strands in chain	—	E-29
N_T	number of teeth large sprocket (or non-specified)	—	E-6, E-9, E-11, E-17, E-18, E-20, E-22
n_t	number of teeth small sprocket	—	E-9, E-11, E-17, E-18, E-19, E-20, E-21, E-22
Ratio	drive ratio	—	E-9, E-16, E-17, E-18, E-20, E-21, E-22
RPM	large sprocket (or non-specified) rotational speed	revolutions/minute	E-6, E-9, E-15, E-16, E-17, E-20, E-21
rpm	small sprocket rotational speed	revolutions/minute	E-9, E-15, E-16, E-17, E-19, E-20, E21
P	chain pitch	inches	E-6, E-9, E-11, E-19, E-21, E-29
R_P	sprocket pitch radius	inches	E-6
T	torque	inch-pounds	E-6
S	chain speed	feet/minute	E-6, E-9, E-19, E-21
U_{MN}	minimum ultimate tensile strength	pounds	E-6, E-20, E-21
X_{MX}	maximum axial misalignment	inches	E-29

Overview

Roller-chain drives require lubrication—preferably a high-quality, non-detergent, petroleum-based oil. Heavy oils and greases are too stiff to penetrate the chain's working surfaces and should be avoided. Lubricant must reach the bearing surfaces of the chain. An oil film must be maintained between the pin, bushing and roller. This is accomplished by directing the lubricant into the clearances between the roller and the roller-link plate and between the roller-link plate and the pin-link plate. Chain drives should be inspected at appropriate intervals to ensure that the lubrication is functioning properly.



Lubricants

The correct lubricant viscosity for various ambient temperature ranges is shown in Table 10 (below).

Table 10
Recommended Lubricant Viscosity

Ambient Temperature Range	Lubricant SAE
-20°— 80°F	10
10°—110°F	20
20°—130°F	30
30°—140°F	40
40°—150°F	50

When the temperature range allows a choice, use the higher viscosity oil. For most applications between 10°F. and 150°F. a multigrade SAE 20/50 motor oil provides suitable lubrication.

Grease

The use of grease for lubrication is not recommended. However, if a situation requires the use of grease lubrication, the chain speed should be limited to less than 13 feet/second. Simply applying commonly available industrial greases to the outside surfaces of chain drives only seals the bearing surfaces and does not lubricate them. This will cause premature chain wear and shorten the chain's life.

For grease to work as chain lubricant, it must be heated until liquid and the chain soaked in the liquid grease until all air bubbles quit rising. Then at appropriate intervals, the chain needs to be cleaned and regreased.

Lubrication Methods

There are five common methods to lubricate chain drives:

- manual
- drip
- oil bath
- slinger disc
- pump

Lubrication Types

These five methods divide into four lubrication types: I, II, III and IV. Based upon chain speed and horsepower, the recommended lubrication type is shown in the rating charts (pages E-33—E-55). These are the minimum lubrication requirements. Use of a better lube type is acceptable and may be beneficial. Chain life varies significantly depending upon lubrication. Better lubrication leads to longer chain life.

Some manufacturers combine manual and drip lubrication into one type. This is not really accurate as the drip lubrication method is superior to the manual lubrication method and will always provide superior results. Keep in mind that Lynx chain will perform at least as well as other manufacturers using only manual lubrication.

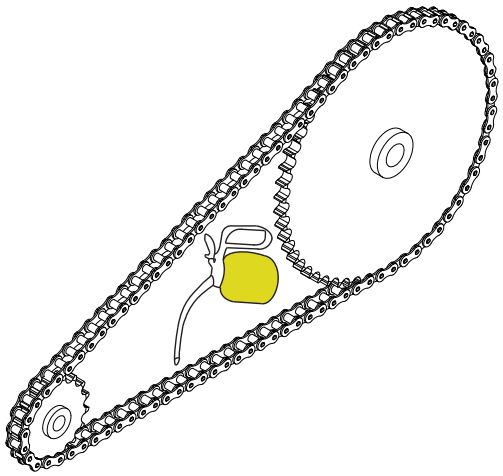
Table 11
Types of Lubrication

Type	I	II	III	IV
Method	Manual	Drip	Bath Slinger Disc	Pump
Quality	Minimum	Good	Better	Best

Manual Lubrication

With manual lubrication, oil is applied with a brush or oil can. At least once every eight hours of operation, lubricant should be applied between link plates in the lower span of the chain. The amount of lubricant and frequency of its application should keep the chain wet with oil and allow penetration into the chain joints. A red-brown discoloration of the oil in the joints tells the user that the frequency is inadequate.

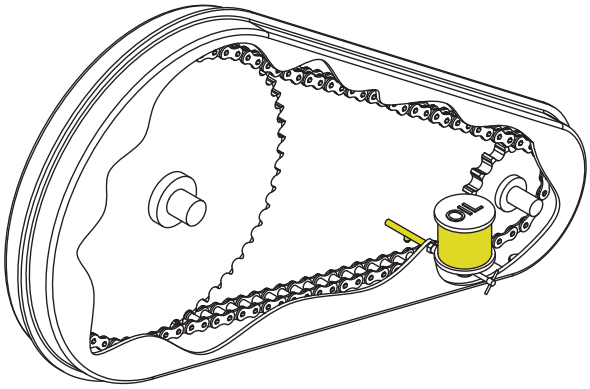
Lubricant should not drip from the chain. If lubricant drips, check the viscosity of the oil used versus recommendations in Table 10 (page E-24), then apply just enough lubricant to penetrate into the chain joints.

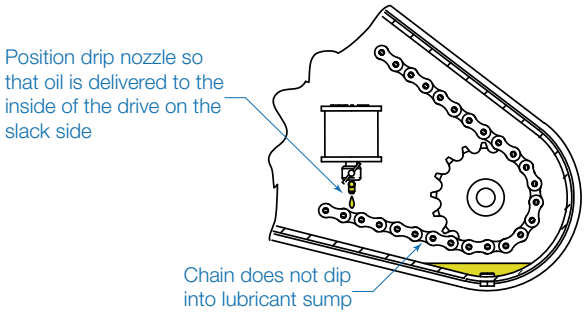


Drip Lubrication

With drip lubrication, a casing is recommended. Oil is distributed between the link plates from a drip lubricator. The drip rate should be sufficient to allow penetration into the wear surfaces. It normally ranges from 4 to 20 drops per minute and must be sufficient to prevent a red-brown discoloration of the oil in the chain joints.

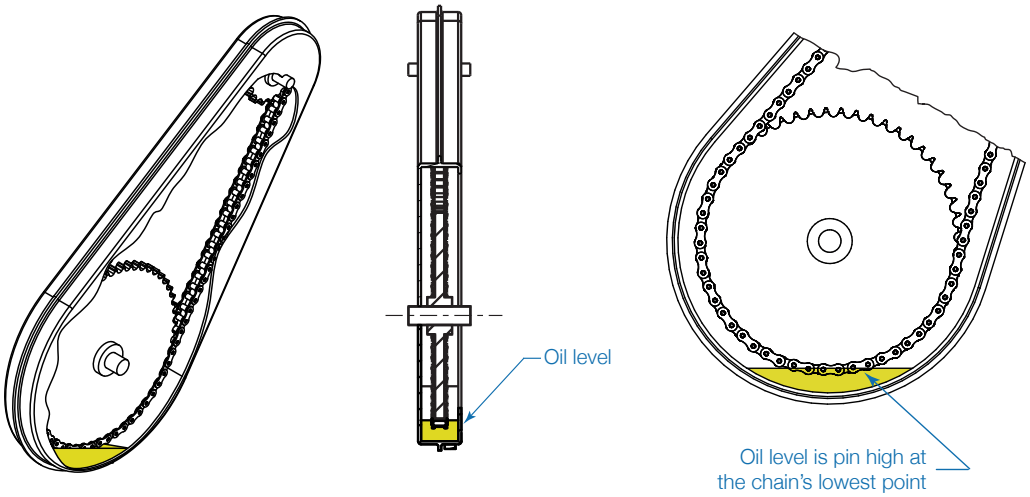
Lubricant should be applied to the slack side so that clearances will be more open for better penetration and to the inside of the drive so gravity and centrifugal force will help the oil to flow into the chain. If no casing is used, then the lubricant should not excessively drip from the chain.





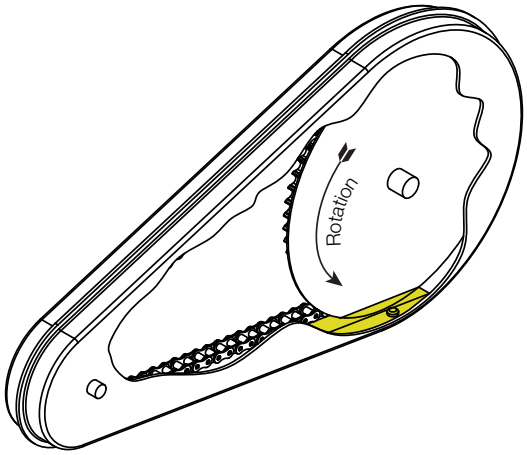
Oil-Bath Lubrication

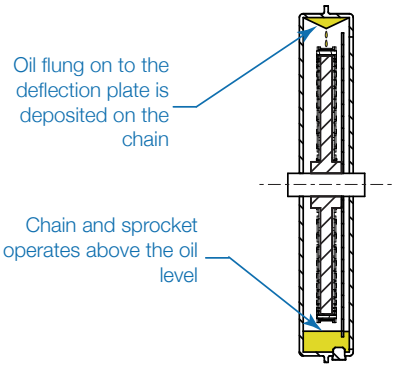
When oil-bath lubrication is used, a leak-proof casing is required. The lowest point of the chain should dip (approximately pin high) into an oil reservoir. If the sprocket dips too deeply, excess heat is generated.



Slinger-Disc Lubrication

When the chain operates above the oil level, a slinger disc is used. The disc dips into the oil and deposits it on the chain using deflection plates. The slinger disc should have a peripheral speed between 600 and 7,400 feet per minute. The disc should dip into the oil to a depth of 1/2" to 1". The rotation direction of the disc must be such as to fling oil into the deflection plates. A leak-proof casing is required.





Pump Lubrication

Pump lubrication is sometimes called stream lubrication. When this method is used, a non-stop stream of lubricant from a circulating pump or central lubricating system is sprayed onto the chain. Align the spray holes from which the lubricant emerges so that they are in line with the clearances between the roller and the roller-link plate and between the roller-link plate and the pin-link plate. Apply lubricant to the inside of the chain drive so that centrifugal force will help the oil to flow into the chain. Pump lubrication is an effective way to cool the chain drive and dampen impact at high speeds. A leak proof casing is required.

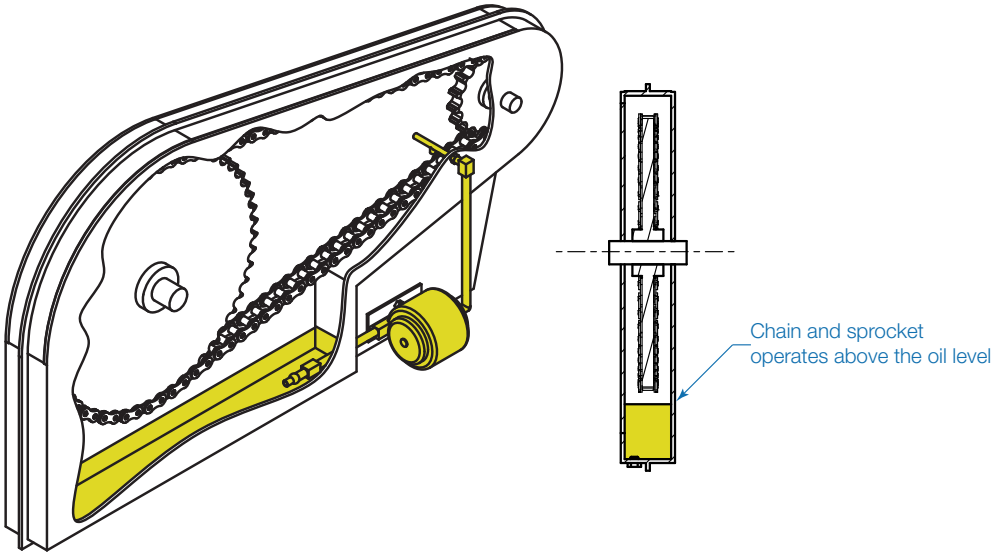


Table 12
Oil Flow Recommended for Roller Chain Drives

Horsepower	Minimum Gallons Per Minute of Lubricant Required
under 50	0.25
100	0.50
150	0.75
200	1.00
250	1.25
300	1.50
400	2.00
500	2.50

Operating Temperature

It is important to monitor and control the chain and chain case temperature. Depending on the drive's operating conditions, special attention to the lubrication method may be required. Operating conditions where the lubricant's temperature rises above 212°F (100°C) should be avoided. Roller chain can generally give acceptable performance up to approximately 482°F (250°C), but special lubricants may be required. Consult your lubricant supplier.

The effectiveness and the cooling ability of the lubrication can be improved simply by increasing the oil flow or by use of an external oil cooler.

Overview

Proper installation of roller chain is important in achieving maximum performance. Installation without adequate attention to details may produce less than satisfactory results.

Safety Precautions

Before installing or removing roller chain always do the following:

- lock out the drive's power
- wear safety glasses, gloves, protective clothing, and safety shoes
- secure the equipment to prevent any unexpected or uncontrolled movement
- use the recommended tools and equipment
- review the warnings and precautions on page E-57

Plan Ahead

Before proceeding, it is advisable to take into account the order of the steps necessary to complete the entire installation. For instance, part of the cover may need to be put in place prior to installing the sprockets. If these types of things are considered before starting the project, a lot of time might be saved.

Installation Steps

The primary steps for installing a roller-chain drive are:

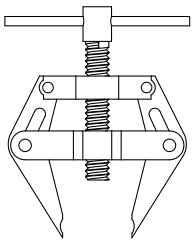
- check the condition of the components
- prepare the drive components for assembly
- align the shafts and sprockets
- install the chain on the sprockets
- adjust the chain tension
- install lubrication system
- test the installation
- install safety guards

Equipment Needed

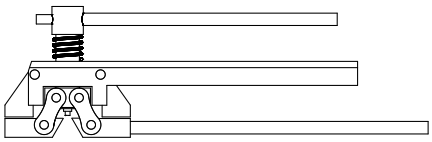
Specialty tools can make connection and disconnection of roller chain much easier. Chain pullers and pin extractors come in several sizes. Choose the size of the puller or extractor suitable for the size of chain with which you are working.

Other useful equipment and tools include:

- hammers
- files
- punches
- straight edge
- level



Chain Puller

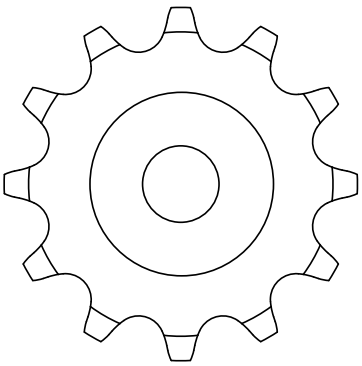


Pin Extractor

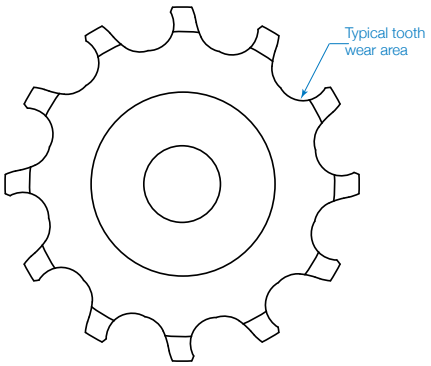
Condition of the Drive Components

Inspect the following:

- the condition and rigidity of the shafts—replace if necessary
- the bearings for wear or damage—replace if necessary
- if not new, the condition of the chain—it should be clean, not excessively worn, and well lubricated
- if not new, the condition of the sprockets—replace if excessively worn or damaged, as badly worn sprockets cause chain to wear prematurely



New Sprocket



Badly Worn Hook-Shaped Sprocket

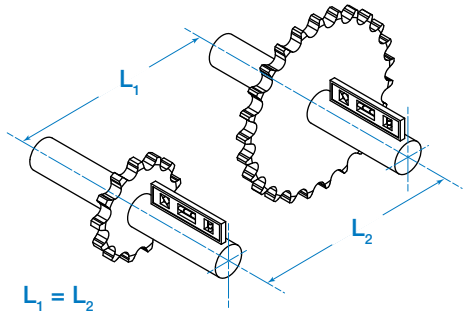
Angular Alignment of the Shafts

Both sprocket shafts should be level and parallel to each other. This also applies to any idler sprocket shaft. Use a spirit level to make sure the shafts are level. Measure the distance between the center lines of the shafts at two points to make sure they are parallel. For single-strand roller chain, shafts should be aligned within 0.050 inches per foot or 0.25 degrees.

For multiple-strand chain the maximum angular misalignment (A_{MX}) is calculated using the formula below:

A_{MX} = the maximum angular misalignment (inches/foot)
L_{CD} = center distance (inches)
P = chain pitch (inches)
N_S = number of strands in chain

$$A_{MX} = \frac{0.00133 \times L_{CD}}{P \times N_S}$$

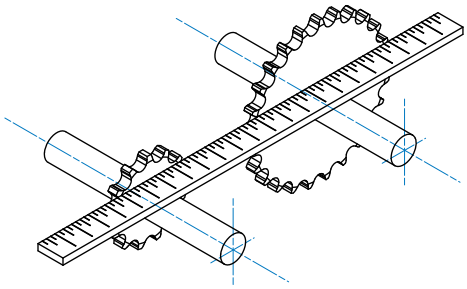


Angular Alignment of Shafts

Axial Alignment of the Sprockets

To axially align the sprockets:

1. Place sprockets on respective shafts in approximate alignment and install the keys (if used). Do not secure keys at this point.
2. If the shaft can float axially, position the sprockets so that they are correctly aligned at the mid-position of "float."
3. Check axial alignment by placing a straightedge across the faces of the sprockets. To help prevent wobble, check sprocket alignment in several different rotational positions. If using split sprockets, be sure that the adjoining faces of each half fit exactly flush.
4. Proceed with the key fitting. Tighten set screws if used. Check to be sure the sprocket is secured on the shaft.

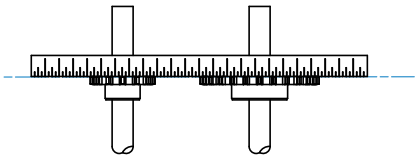


Axial Alignment of Sprockets

The maximum amount of axial misalignment (X_{MX}) for roller-chain drives is calculated using the formula below:

X_{MX} = the maximum amount of axial misalignment (inches)
P = chain pitch (inches)

$$X_{MX} = 0.045 \times P$$

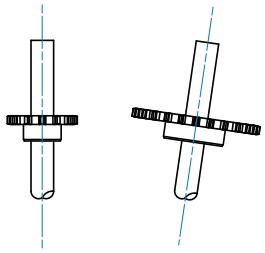


Correct Alignment

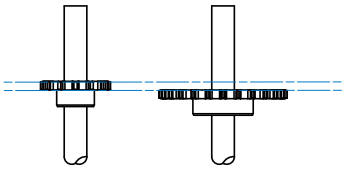
Before Chain Installation

Before installing roller chain on the sprockets:

1. Clean the sprocket teeth.
2. Consider the space available for mounting guards or casings. It may be advisable to position certain parts prior to installing the chain, because the spaces necessary for maneuvering these parts may become obstructed after the chain is in place.
3. Determine the direction of travel of the chain. This is especially important when using offset links, multiple strands of chain with unsymmetrical attachments, or spring-clip connecting links.
4. If reassembling used chain on the sprocket, be sure that chain has been thoroughly cleaned and lubricated.



Angular Misalignment of Shafts



Axial Misalignment of Sprockets

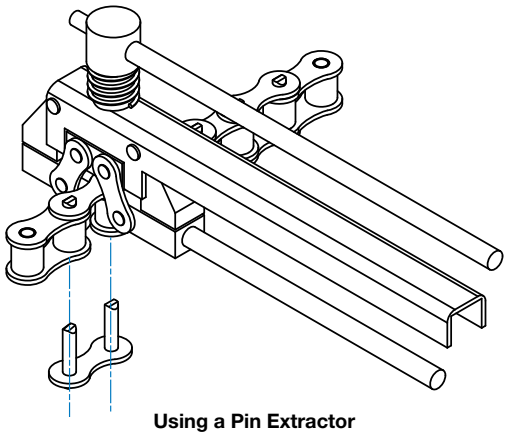
Chain Length

Chain usually comes packaged in 10-foot coils. This is rarely the needed length. Unless the chain was assembled to a specified number of pitches at the factory, pitches must be added or removed to achieve the required length.

Chain Disassembly

There are two types of roller-chain construction: riveted and cottered.

1. For riveted chain, grind off both pin heads (if necessary) on one side of a pin link. For cottered chain, remove both cotter pins of a pin link.
2. If a chain vise is available, mount the chain in the vise, then press or punch both pins out of one link plate.
3. If a pin extractor is available, clamp the jaws on the roller. Then turn the screw to press the pin partially through the link plate. Follow the same procedure on the other pin of the same pin link. Return to the original pin and force it completely through the pin plate. Do the same on the second pin, freeing the link plate from the pins. Remove the disassembled pin link from the chain.

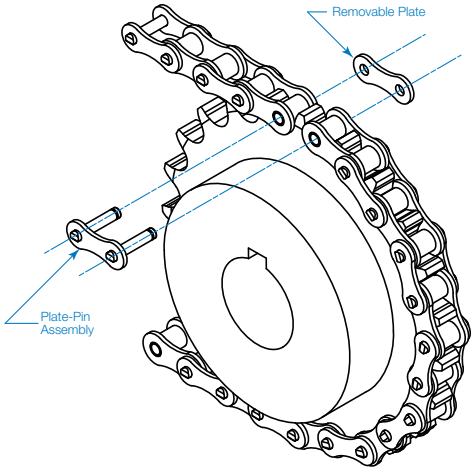


Using a Pin Extractor

Chain Assembly

When the two ends of chain are not connected together at the factory, it is necessary to use connecting links. Connecting links have two main parts: a plate-pin assembly and a removable plate. There are two types of connecting links: those with slip-fit removable plates and those with press-fit removable plates. Slip-fit removable plates are used for ease of assembly and disassembly. However, slip-fit connecting links reduce the chain's working load capacity by as much as 20% and may lower horsepower ratings. Connecting links with press-fit removable plates do not diminish the chain's working load or horsepower ratings, but are more difficult to install.

To assemble the chain, draw the chain ends together on the same sprocket for the final connection. If the ends can not be brought together on a sprocket use a chain puller. Hook the jaws of the chain puller into each end of the chain. Then turn the screw to pull the ends closer together.



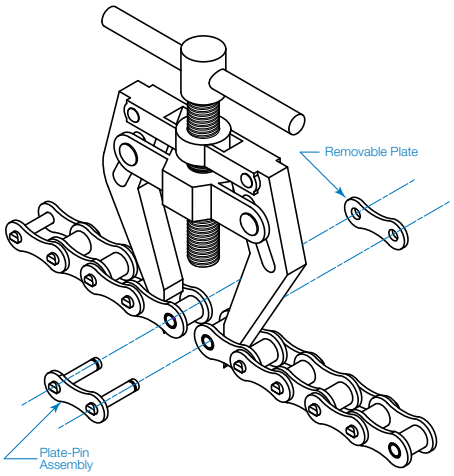
Installing a Connecting Link Using a Sprocket

Using connecting links with slip-fit removable plates:

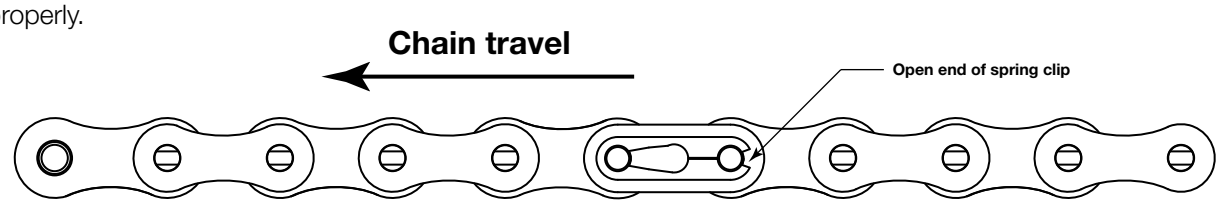
1. Insert the pins of the plate-pin assembly into the roller links of both ends of the chain.
2. Slide the removable plate over the pin ends so that it clears either the pin's cotter pin holes or spring clip groove depending on the style of connecting link used.
3. Install either cotter pins or spring clips. If spring clips are used, determine the direction of chain travel and attach the closed end on the leading pin and the open end on the trailing pin.

Using connecting links with press-fit removable plates:

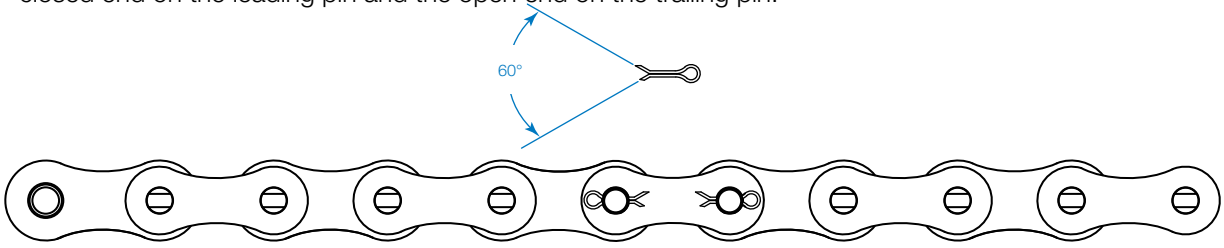
1. Insert the pins of the plate-pin assembly into the roller links of both ends of the chain until pin heads are exposed on the opposite side.
2. Provide support or backing to resist the forces needed to drive the removable plate on.
3. Place the removable plate over the exposed pin heads and align properly.



Installing a Connecting Link Mid-Span



4. While providing support for the pin-plate assembly, drive the removable plate onto the pin heads until it is flush with the ends.
5. Use a hollow punch, a small piece of pipe, or detached chain roller and locate it over the pin head not touching the pin.
6. Alternating from one pin to the other, drive the removable plate until it clears either the pin's cotter pin holes or spring clip groove. Be careful not to drive it on so far that it presses against the roller link and causes binding.
7. Install either cotter pins or a spring clip. If cotter pins are used,the legs should be spread to approximately 60° and if removed should not be reused. If a spring clip is used, determine the direction of chain travel and attach the closed end on the leading pin and the open end on the trailing pin.

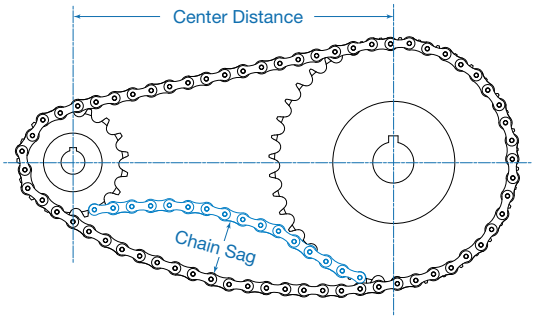


8. Check to be sure the newly connected joints flex freely.
9. Cotter pins are usually used on size 80 to 240 chain connecting links. Keep in mind that commercial cotter pins may not provide satisfactory performance as they are typically not heat treated.

Chain Adjustment

For maximum life, chain length adjustment must be provided. This can best be done by moving one of the shafts. The proper tension is achieved when the slack side allows for a total mid-span movement (chain sag) of 4% of the center distance. Chain sag should be 2% when the drive layout is vertical (or close to it), when there are heavy loads with frequent starts and stops, on long center distance drives, and on reversing drives. Over-tensioning should be avoided. See **Chain Sag** on page E-4.

If center distance adjustment is not possible, use an idler sprocket. See **Idler Sprockets**, on page E-5.



Trial Run

Examine the chain to make sure it has been installed according to the instructions. Prior to full operation, turn on the power and check:

Vibration—excessive chain vibration must be addressed
Articulation—see that chain is articulating smoothly
Sound—there should be no unusual noises
Mesh—inspect chain and sprockets for any problems
Lubrication—be sure the lubrication method is functioning properly

Maintenance

Inspect each drive after the first 100 hours of operation. After the first inspection, subsequent inspections for most drives may be performed at 500-hour intervals. Drives subjected to more severe operating conditions should be inspected more frequently. At each inspection check the following:

Chain wear
Wear (elongation) beyond 3% makes replacement necessary to avoid damage to the sprockets. In severe applications, replacement may be advisable with less than 3% elongation.
Lubrication
Make sure the chain is clean and adequately lubricated. With bath or pump lubrication change the oil. If a pump is used, be sure it is directing oil onto the chain properly.
Chain tension
Adjust the drive to maintain the proper chain sag (normally 4% of the center distance) See page E-5.
Tooth wear
Inspect sprocket for wear. As a general rule, replace the sprockets with every third chain replacement.

Overview

The horsepower ratings apply to single-strand roller chain used under the following conditions:

- a mechanical service factor of 1.0
- a chain length of approximately 100 pitches
- use of recommended lubricant and lubrication method
- clean operating environment
- two sprockets aligned and mounted on two parallel and horizontal shafts
- surrounding temperature between 15° and 340°F.
- a projected service life of 15,000 hours

Drives with more than two sprockets, idlers, unusual duty cycles, ambient temperatures or conditions require special consideration. Contact your Lynx engineering for selection advice.

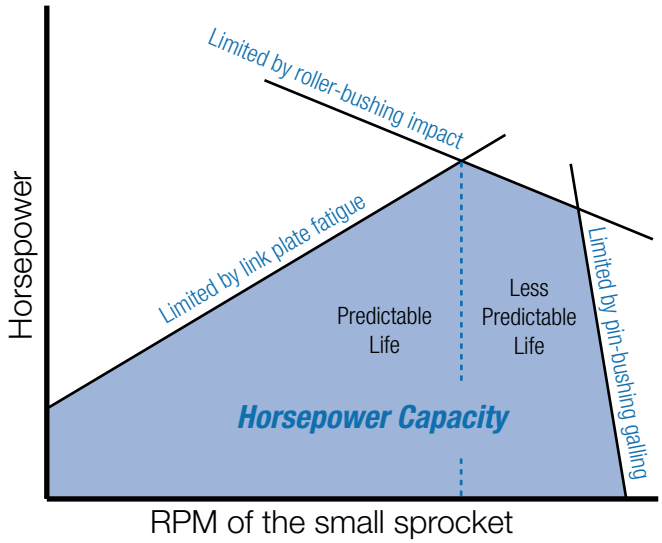
Horsepower Limiting Factors

The power ratings in the tables that follow are based upon the graph shown to the right.

As the speed of the small sprocket increases, the horsepower capacity of roller chain is first limited by link-plate fatigue, next by roller–bushing impact fatigue, and finally galling between the pin and bushing. The horsepower rating for the chain is the least of these values at a given speed and lubrication method.

The following factors must be taken into consideration to correctly use the horsepower ratings (pages E-34—E-55).

- mechanical service factors of Table 3 (page E-7)
- thermal service factors of Table 4 (page E-8)
- multiple-strand factors of Table 5 (page E-8)
- lubricating types (page E-25)
- connecting methods (E-3)



Dashed Lines on Tables

There are three dashed lines on most of the Lynx horsepower rating tables. The blue dashed line indicates the speed at which roller-bushing impact becomes the horsepower limiting factor. The green dashed line indicates the speed at which pin- bushing galling becomes the horsepower limiting factor. The red dashed line indicates the maximum recommended sprocket speed.

Prediction of chain service life is less reliable in applications where the ratings are found to the right of the blue dashed line. This is because it is more difficult to predict the effects of roller-bushing impact and pin-bushing galling that occurs at higher speeds. This is particularly true of applications with shock loads, frequent reversing, or braking. Should your application fall to the right of the blue dashed line, consider using a smaller pitch multiple-strand chain and sprockets.

Should your application fall to the right of the green dashed line, consider some method to slow the speed of the small sprocket, such as a slower speed motor or gear reducer.

If your application falls to the right of the red dashed line, consider redesigning the drive using either a higher tooth count or a smaller pitch multiple-strand chain. Again, this is particularly true of applications with shock loads, frequent reversing, or braking, as higher stress loads are placed on the sprocket teeth.

Stainless Steel Chains

Lynx standard stainless steel roller chain is manufactured from ANSI Type 304 chrome nickel stainless steel. Roller chains made of ANSI Type 316 stainless steel are available by special order.

The horsepower ratings for stainless steel chains, when operated at normal temperatures and properly lubricated, should be multiplied by 0.25 times the values shown in the HD Series rating tables.

No. 25 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																							
	50	100	300	500	700	900	1200	1500	1800	2100	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	10000
11	0.03	0.06	0.19	0.30	0.42	0.53	0.70	0.87	1.03	1.20	1.42	1.69	1.69	1.38	1.16	0.99	0.86	0.75	0.67	0.60	0.54	0.49	0.45	0.41	0.35
12	0.04	0.07	0.20	0.33	0.46	0.58	0.76	0.95	1.13	1.31	1.55	1.84	1.92	1.57	1.32	1.12	0.97	0.86	0.76	0.68	0.61	0.56	0.51	0.47	0.40
13	0.04	0.08	0.22	0.36	0.49	0.63	0.83	1.03	1.22	1.42	1.67	1.99	2.17	1.77	1.49	1.27	1.10	0.96	0.86	0.77	0.69	0.63	0.57	0.53	0.45
14	0.04	0.08	0.24	0.38	0.53	0.68	0.89	1.10	1.32	1.52	1.80	2.15	2.42	1.98	1.66	1.42	1.23	1.08	0.96	0.86	0.77	0.70	0.64	0.59	0.50
15	0.05	0.09	0.25	0.41	0.57	0.72	0.95	1.18	1.41	1.63	1.93	2.30	2.67	2.20	1.84	1.57	1.36	1.20	1.06	0.95	0.86	0.78	0.71	0.65	0.56
16	0.05	0.09	0.27	0.44	0.61	0.77	1.02	1.26	1.50	1.74	2.06	2.45	2.85	2.42	2.03	1.73	1.50	1.32	1.17	1.05	0.94	0.86	0.78	0.72	0.61
17	0.05	0.10	0.29	0.47	0.64	0.82	1.08	1.34	1.60	1.85	2.19	2.61	3.02	2.65	2.22	1.90	1.64	1.44	1.28	1.14	1.03	0.94	0.86	0.79	0.67
18	0.05	0.11	0.30	0.49	0.68	0.87	1.15	1.42	1.69	1.96	2.32	2.76	3.20	2.89	2.42	2.07	1.79	1.57	1.39	1.25	1.12	1.02	0.93	0.86	0.73
19	0.06	0.11	0.32	0.52	0.72	0.92	1.21	1.50	1.78	2.07	2.45	2.91	3.38	3.13	2.62	2.24	1.94	1.70	1.51	1.35	1.22	1.11	1.01	0.93	0.79
20	0.06	0.12	0.34	0.55	0.76	0.97	1.27	1.58	1.88	2.18	2.58	3.07	3.56	3.38	2.83	2.42	2.10	1.84	1.63	1.46	1.32	1.20	1.09	1.00	0.86
21	0.06	0.12	0.35	0.58	0.80	1.01	1.34	1.66	1.97	2.29	2.70	3.22	3.74	3.64	3.05	2.60	2.26	1.98	1.76	1.57	1.42	1.29	1.17	1.08	0.92
22	0.07	0.13	0.37	0.60	0.83	1.06	1.40	1.73	2.07	2.40	2.83	3.37	3.91	3.90	3.27	2.79	2.42	2.12	1.88	1.69	1.52	1.38	1.26	1.16	0.99
23	0.07	0.13	0.39	0.63	0.87	1.11	1.46	1.81	2.16	2.51	2.96	3.53	4.09	4.17	3.50	2.98	2.59	2.27	2.01	1.80	1.62	1.47	1.35	1.24	1.05
24	0.07	0.14	0.40	0.66	0.91	1.16	1.53	1.89	2.25	2.61	3.09	3.68	4.27	4.45	3.73	3.18	2.76	2.42	2.15	1.92	1.73	1.57	1.44	1.32	1.22
25	0.08	0.15	0.42	0.69	0.95	1.21	1.59	1.97	2.35	2.72	3.22	3.84	4.45	4.73	3.96	3.38	2.93	2.57	2.28	2.04	1.84	1.67	1.53	1.40	—
26	0.08	0.15	0.44	0.71	0.99	1.26	1.65	2.05	2.44	2.83	3.35	3.99	4.62	5.01	4.20	3.59	3.11	2.73	2.42	2.17	1.95	1.77	1.62	1.49	—
28	0.08	0.16	0.47	0.77	1.06	1.35	1.78	2.21	2.63	3.05	3.61	4.30	4.98	5.60	4.70	4.01	3.47	3.05	2.70	2.42	2.18	1.98	1.64	—	—
30	0.09	0.18	0.50	0.82	1.14	1.45	1.91	2.37	2.82	3.27	3.86	4.60	5.34	6.07	5.21	4.45	3.85	3.38	3.00	2.68	2.42	1.98	—	—	—
32	0.10	0.19	0.54	0.88	1.21	1.55	2.04	2.52	3.01	3.49	4.12	4.91	5.69	6.47	5.74	4.90	4.25	3.73	3.30	2.96	2.57	0.36	—	—	—
35	0.11	0.21	0.59	0.96	1.33	1.69	2.23	2.76	3.29	3.81	4.51	5.37	6.23	7.08	6.56	5.60	4.86	4.26	3.78	2.77	0.16	—	—	—	—
40	0.12	0.23	0.67	1.10	1.52	1.93	2.55	3.15	3.76	4.36	5.15	6.14	7.11	8.09	8.02	6.85	5.93	4.91	1.87	—	—	—	—	—	—
45	0.14	0.26	0.76	1.24	1.71	2.17	2.86	3.55	4.23	4.90	5.79	6.90	8.00	9.10	9.57	8.17	5.24	1.39	—	—	—	—	—	—	—

Manual (196 ft./min. max.) | **Drip** (489 ft./min. max.) | **Bath/Slinger** (2,446 ft./min. max.) | **Pump** (max. rated speed)

No. 35 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																							
	10	25	50	100	200	300	400	500	700	900	1000	1200	1400	1600	1800	2100	2400	2700	3000	3500	4000	5000	6000	7000	8000
11	0.02	0.06	0.11	0.22	0.42	0.63	0.82	1.02	1.41	1.80	1.99	2.37	2.74	3.12	3.49	4.05	4.11	3.44	2.94	2.33	1.91	1.37	1.04	0.82	0.67
12	0.03	0.06	0.12	0.24	0.46	0.68	0.90	1.11	1.54	1.96	2.17	2.58	2.99	3.40	3.81	4.42	4.68	3.92	3.35	2.66	2.17	1.56	1.18	0.94	0.77
13	0.03	0.07	0.13	0.26	0.50	0.74	0.97	1.21	1.67	2.12	2.35	2.80	3.24	3.69	4.13	4.79	5.27	4.42	3.77	3.00	2.45	1.75	1.33	1.06	0.87
14	0.03	0.07	0.14	0.28	0.54	0.80	1.05	1.30	1.80	2.29	2.53	3.01	3.49	3.97	4.45	5.15	5.86	4.94	4.22	3.35	2.74	1.96	1.49	1.18	0.97
15	0.03	0.08	0.15	0.30	0.58	0.85	1.12	1.39	1.92	2.45	2.71	3.23	3.74	4.25	4.76	5.52	6.28	5.48	4.68	3.71	3.04	2.17	1.65	1.31	1.07
16	0.03	0.08	0.16	0.32	0.62	0.91	1.20	1.49	2.05	2.61	2.89	3.44	3.99	4.54	5.08	5.89	6.70	6.04	5.15	4.09	3.35	2.40	1.82	1.45	1.18
17	0.04	0.09	0.17	0.34	0.65	0.97	1.27	1.58	2.18	2.77	3.07	3.66	4.24	4.82	5.40	6.26	7.12	6.61	5.64	4.48	3.67	2.62	2.00	1.58	1.30
18	0.04	0.09	0.18	0.36	0.69	1.02	1.35	1.67	2.31	2.94	3.25	3.87	4.49	5.10	5.72	6.63	7.53	7.20	6.15	4.88	3.99	2.86	2.17	1.73	1.41
19	0.04	0.10	0.19	0.38	0.73	1.08	1.42	1.76	2.44	3.10	3.43	4.09	4.74	5.39	6.03	7.00	7.95	7.81	6.67	5.29	4.33	3.10	2.36	1.87	0.06
20	0.04	0.10	0.20	0.40	0.77	1.14	1.50	1.86	2.56	3.26	3.61	4.30	4.99	5.67	6.35	7.36	8.37	8.44	7.20	5.72	4.68	3.35	2.55	2.02	—
21	0.05	0.11	0.21	0.42	0.81	1.19	1.57	1.95	2.69	3.43	3.79	4.52	5.24	5.96	6.67	7.73	8.79	9.08	7.75	6.15	5.03	3.60	2.74	2.17	—
22	0.05	0.12	0.22	0.44	0.85	1.25	1.65	2.04	2.82	3.59	3.97	4.73	5.49	6.24	6.99	8.10	9.21	9.73	8.31	6.59	5.40	3.86	2.94	1.43	—
23	0.05	0.12	0.23	0.46	0.89	1.31	1.72	2.14	2.95	3.75	4.15	4.95	5.74	6.52	7.30	8.47	9.63	10.4	8.88	7.05	5.77	4.13	3.14	—	—
24	0.05	0.13	0.24	0.48	0.92	1.36	1.80	2.23	3.08	3.92	4.33	5.16	5.99	6.81	7.62	8.84	10.0	11.1	9.47	7.51	6.15	4.40	3.35	—	—
25	0.05	0.13	0.25	0.50	0.96	1.42	1.87	2.32	3.21	4.08	4.52	5.38	6.24	7.09	7.94	9.20	10.5	11.7	10.1	7.99	6.54	4.68	3.56	—	—
26	0.06	0.14	0.26	0.51	1.00	1.48	1.95	2.41	3.33	4.24	4.70	5.59	6.49	7.37	8.26	9.57	10.9	12.2	10.7	8.47	6.93	4.96	3.41	—	—
28	0.06	0.15	0.29	0.55	1.08	1.59	2.10	2.60	3.59	4.57	5.06	6.02	6.99	7.94	8.89	10.3	11.7	13.1	11.9	9.47	7.75	5.55	—	—	—
30	0.07	0.16	0.31	0.59	1.16	1.71	2.25	2.79	3.85	4.90	5.42	6.45	7.48	8.51	9.53	11.0	12.6	14.1	13.2	10.5	8.59	6.15	—	—	—
32	0.07	0.17	0.33	0.63	1.23	1.82	2.40	2.97	4.10	5.22	5.78	6.88	7.98	9.07	10.2	11.8	13.4	15.0	14.6	11.6	9.47	5.77	—	—	—
35	0.08	0.18	0.36	0.69	1.35	1.99	2.62	3.25	4.49	5.71	6.32	7.53	8.73	9.93	11.1	12.9	14.6	16.4	16.7	13.2	10.8	0.35	—	—	—
40	0.09	0.21	0.41	0.79	1.54	2.27	3.00	3.71	5.13	6.53	7.22	8.61	9.98	11.3	12.7	14.7	16.7	18.7	20.4	16.2	11.1	—	—	—	—
45	0.10	0.24	0.46	0.89	1.73	2.56	3.37	4.18	5.77	7.35	8.13	9.68	11.2	12.8	14.3	16.6	18.8	21.1	23.3	15.6	3.13	—	—	—	—

Manual (156 ft./min. max.) | **Drip** (390 ft./min. max.) | **Bath/Slinger** (1,950 ft./min. max.) | **Pump** (max. rated speed)

- The blue dotted line indicates the speed at which bushing fatigue becomes the horsepower limiting factor. See Boundary Lines on the Horsepower Rating Tables (page E-30).
- The green dotted line indicates the speed at which pin-bushing galling becomes the horsepower limiting factor.
- The red dotted line indicates the maximum recommended sprocket speed.

Number of Strands	Multiple Strand Factor
2	1.7
3	2.5
4	3.3
5	3.9
6	4.6

No. 40 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																							
	10	25	50	100	200	300	400	500	700	900	1000	1200	1400	1600	1800	2100	2400	2700	3000	3500	4000	5000	6000	7000	8000
11	0.06	0.14	0.27	0.52	1.00	1.48	1.95	2.42	3.34	4.25	4.70	5.60	6.49	5.57	4.66	3.70	3.03	2.54	2.17	1.72	1.41	1.01	0.77	0.61	0.50
12	0.06	0.15	0.29	0.56	1.09	1.61	2.13	2.64	3.64	4.64	5.13	6.11	7.09	6.34	5.31	4.22	3.45	2.89	2.47	1.96	1.60	1.15	0.87	0.69	0.57
13	0.07	0.16	0.31	0.61	1.19	1.75	2.31	2.86	3.95	5.02	5.56	6.62	7.68	7.15	5.99	4.76	3.89	3.26	2.79	2.21	1.81	1.29	0.98	0.78	—
14	0.07	0.17	0.34	0.66	1.28	1.88	2.48	3.08	4.25	5.41	5.98	7.13	8.27	7.99	6.70	5.31	4.35	3.65	3.11	2.47	2.02	1.45	1.10	0.87	—
15	0.08	0.19	0.36	0.70	1.37	2.02	2.66	3.30	4.55	5.80	6.41	7.64	8.86	8.86	7.43	5.89	4.82	4.04	3.45	2.74	2.24	1.60	1.22	0.97	—
16	0.08	0.20	0.39	0.75	1.46	2.15	2.84	3.52	4.86	6.18	6.84	8.15	9.45	9.76	8.18	6.49	5.31	4.45	3.80	3.02	2.47	1.77	1.34	—	—
17	0.09	0.21	0.41	0.80	1.55	2.29	3.02	3.74	5.16	6.57	7.27	8.66	10.0	10.7	8.96	7.11	5.82	4.88	4.17	3.31	2.71	1.94	1.47	—	—
18	0.09	0.22	0.43	0.84	1.64	2.42	3.19	3.96	5.46	6.95	7.69	9.17	10.6	11.7	9.76	7.75	6.34	5.31	4.54	3.60	2.95	2.11	1.60	—	—
19	0.10	0.24	0.46	0.89	1.73	2.56	3.37	4.18	5.77	7.34	8.12	9.68	11.2	12.6	10.6	8.40	6.88	5.76	4.92	3.91	3.20	2.29	0.10	—	—
20	0.10	0.25	0.48	0.94	1.82	2.69	3.55	4.39	6.07	7.73	8.55	10.2	11.8	13.4	11.4	9.07	7.43	6.22	5.31	4.22	3.45	2.47	—	—	—
21	0.11	0.26	0.51	0.98	1.91	2.83	3.72	4.61	6.37	8.11	8.98	10.7	12.4	14.1	12.3	9.76	7.99	6.70	5.72	4.54	3.71	2.66	—	—	—
22	0.11	0.27	0.53	1.03	2.01	2.96	3.90	4.83	6.68	8.50	9.40	11.2	13.0	14.8	13.2	10.5	8.57	7.18	6.13	4.87	3.98	2.85	—	—	—
23	0.12	0.28	0.55	1.08	2.10	3.10	4.08	5.05	6.98	8.89	9.83	11.7	13.6	15.4	14.1	11.2	9.16	7.68	6.55	5.20	4.26	3.05	—	—	—
24	0.12	0.30	0.58	1.12	2.19	3.23	4.26	5.27	7.28	9.27	10.3	12.2	14.2	16.1	15.0	11.9	9.76	8.18	6.99	5.54	4.54	0.88	—	—	—
25	0.13	0.31	0.60	1.17	2.28	3.36	4.43	5.49	7.59	9.66	10.7	12.7	14.8	16.8	16.0	12.7	10.4	8.70	7.43	5.89	4.82	—	—	—	—
26	0.13	0.32	0.63	1.22	2.37	3.50	4.61	5.71	7.89	10.0	11.1	13.2	15.4	17.5	17.0	13.5	11.0	9.23	7.88	6.25	5.12	—	—	—	—
28	0.14	0.35	0.67	1.31	2.55	3.77	4.97	6.15	8.50	10.8	12.0	14.3	16.5	18.8	18.9	15.0	12.3	10.3	8.80	6.99	5.72	—	—	—	—
30	0.15	0.37	0.72	1.41	2.74	4.04	5.32	6.59	9.11	11.6	12.8	15.3	17.7	20.1	21.0	16.7	13.6	11.4	9.76	7.75	6.34	—	—	—	—
32	0.16	0.40	0.77	1.50	2.92	4.31	5.68	7.03	9.71	12.4	13.7	16.3	18.9	21.5	23.1	18.4	15.0	12.6	10.8	8.54	1.43	—	—	—	—
35	0.18	0.43	0.84	1.64	3.19	4.71	6.21	7.69	10.6	13.5	15.0	17.8	20.7	23.5	26.3	21.0	17.2	14.4	12.3	9.76	—	—	—	—	—
40	0.21	0.50	0.96	1.87	3.65	5.38	7.09	8.79	12.1	15.5	17.1	20.4	23.6	26.8	30.1	25.7	21.0	17.6	15.0	—	—	—	—	—	—
45	0.23	0.56	1.08	2.11	4.10	6.06	7.98	9.89	13.7	17.4	19.2	22.9	26.6	30.2	33.8	30.6	25.1	21.0	5.57	—	—	—	—	—	—

Manual (133 ft./min. max.) | **Drip** (332 ft./min. max.) | **Bath/Slinger** (1,659 ft./min. max.) | **Pump** (max. rated speed)

No. 41 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																							
	10	25	50	100	200	300	400	500	700	900	1000	1200	1400	1600	1800	2100	2400	2700	3000	3500	4000	5000	6000	7000	8000
11	0.03	0.07	0.15	0.28	0.55	0.81	1.07	1.33	1.84	2.34	2.25	1.71	1.36	1.11	0.93	0.74	0.61	0.51	0.43	0.34	0.28	0.20	0.15	0.12	0.10
12	0.03	0.08	0.16	0.31	0.60	0.89	1.17	1.45	2.00	2.55	2.57	1.95	1.55	1.27	1.06	0.84	0.69	0.58	0.49	0.39	0.32	0.23	0.17	0.14	0.11
13	0.04	0.09	0.17	0.34	0.65	0.96	1.27	1.57	2.17	2.76	2.89	2.20	1.75	1.43	1.20	0.95	0.78	0.65	0.56	0.44	0.36	0.26	0.20	0.16	—
14	0.04	0.10	0.19	0.36	0.70	1.04	1.37	1.69	2.34	2.97	3.23	2.46	1.95	1.60	1.34	1.06	0.87	0.73	0.62	0.49	0.40	0.29	0.22	0.17	—
15	0.04	0.10	0.20	0.39	0.75	1.11	1.46	1.81	2.50	3.19	3.53	2.73	2.17	1.77	1.49	1.18	0.96	0.81	0.69	0.55	0.45	0.32	0.24	0.19	—
16	0.05	0.11	0.21	0.41	0.80	1.18	1.56	1.93	2.67	3.40	3.76	3.01	2.39	1.95	1.64	1.30	1.06	0.89	0.76	0.60	0.49	0.35	0.27	—	—
17	0.05	0.12	0.23	0.44	0.85	1.26	1.66	2.05	2.84	3.61	4.00	3.29	2.61	2.14	1.79	1.42	1.16	0.98	0.83	0.66	0.54	0.39	0.29	—	—
18	0.05	0.12	0.24	0.46	0.90	1.33	1.76	2.18	3.00	3.82	4.23	3.59	2.85	2.33	1.95	1.55	1.27	1.06	0.91	0.72	0.59	0.42	0.32	—	—
19	0.05	0.13	0.25	0.49	0.95	1.41	1.85	2.30	3.17	4.04	4.47	3.89	3.09	2.53	2.12	1.68	1.38	1.15	0.98	0.78	0.64	0.46	0.10	—	—
20	0.06	0.14	0.27	0.52	1.00	1.48	1.95	2.42	3.34	4.25	4.70	4.20	3.33	2.73	2.29	1.81	1.49	1.24	1.06	0.84	0.69	0.49	—	—	—
21	0.06	0.14	0.28	0.54	1.05	1.55	2.05	2.54	3.51	4.46	4.94	4.52	3.59	2.94	2.46	1.95	1.60	1.34	1.14	0.91	0.74	0.53	—	—	—
22	0.06	0.15	0.29	0.57	1.10	1.63	2.15	2.66	3.67	4.67	5.17	4.85	3.85	3.15	2.64	2.09	1.71	1.44	1.23	0.97	0.80	0.57	—	—	—
23	0.07	0.16	0.30	0.59	1.15	1.70	2.24	2.78	3.84	4.89	5.41	5.18	4.11	3.37	2.82	2.24	1.83	1.54	1.31	1.04	0.85	0.61	—	—	—
24	0.07	0.16	0.32	0.62	1.20	1.78	2.34	2.90	4.01	5.10	5.64	5.52	4.38	3.59	3.01	2.39	1.95	1.64	1.40	1.11	0.91	0.65	—	—	—
25	0.07	0.17	0.33	0.64	1.25	1.85	2.44	3.02	4.17	5.31	5.88	5.87	4.66	3.81	3.20	2.54	2.08	1.74	1.49	1.18	0.96	—	—	—	—
26	0.07	0.18	0.34	0.67	1.30	1.92	2.54	3.14	4.34	5.52	6.11	6.23	4.94	4.05	3.39	2.69	2.20	1.85	1.58	1.25	1.02	—	—	—	—
28	0.08	0.19	0.37	0.72	1.40	2.07	2.73	3.38	4.67	5.95	6.58	6.96	5.52	4.52	3.79	3.01	2.46	2.06	1.76	1.40	1.14	—	—	—	—
30	0.08	0.20	0.40	0.77	1.50	2.22	2.93	3.63	5.01	6.37	7.05	7.72	6.13	5.01	4.20	3.33	2.73	2.29	1.95	1.55	1.27	—	—	—	—
32	0.09	0.22	0.42	0.82	1.60	2.37	3.12	3.87	5.34	6.80	7.52	8.50	6.75	5.52	4.63	3.67	3.01	2.52	2.15	1.71	1.40	—	—	—	—
35	0.10	0.24	0.46	0.90	1.76	2.59	3.41	4.23	5.84	7.44	8.23	9.73	7.72	6.32	5.29	4.20	3.44	2.88	2.46	1.95	—	—	—	—	—
40	0.11	0.27	0.53	1.03	2.01	2.96	3.90	4.83	6.68	8.50	9.40	11.2	9.43	7.72	6.47	5.13	4.20	3.52	3.01	—	—	—	—	—	—
45	0.13	0.31	0.60	1.16	2.26	3.33	4.39	5.44	7.51	9.56	10.6	12.6	11.3	9.21	7.72	6.13	5.01	4.20	3.59	—	—	—	—	—	—

Manual (133 ft./min. max.) | **Drip** (332 ft./min. max.) | **Bath/Slinger** (1,659 ft./min. max.) | **Pump** (max. rated speed)

Number of Strands	Multiple Strand Factor
2	1.7
3	2.5
4	3.3
5	3.9
6	4.6

- The blue dotted line indicates the speed at which roller-bushing impact becomes the horsepower limiting factor. See Boundary Lines on the Horsepower Rating Tables (page E-30).
- The green dotted line indicates the speed at which pin-bushing galling becomes the horsepower limiting factor.
- The red dotted line indicates the maximum recommended sprocket speed.

No. 50 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																							
	10	25	50	100	200	300	400	500	700	900	1000	1200	1400	1600	1800	2100	2400	2700	3000	3500	4000	4500	5000	5500	6000
11	0.11	0.27	0.52	1.00	1.95	2.88	3.80	4.70	6.50	8.27	9.15	10.2	8.13	6.65	5.58	4.42	3.62	3.04	2.59	2.06	1.68	1.41	1.20	1.04	0.92
12	0.12	0.29	0.56	1.09	2.13	3.14	4.14	5.13	7.09	9.02	9.98	11.7	9.26	7.58	6.35	5.04	4.13	3.46	2.95	2.34	1.92	1.61	1.37	1.19	1.04
13	0.13	0.31	0.61	1.19	2.31	3.40	4.49	5.56	7.68	9.77	10.8	12.9	10.4	8.5	7.16	5.69	4.65	3.90	3.33	2.64	2.16	1.81	1.55	1.34	1.18
14	0.14	0.34	0.66	1.28	2.48	3.67	4.83	5.99	8.27	10.5	11.6	13.9	11.7	9.6	8.01	6.35	5.20	4.36	3.72	2.95	2.42	2.03	1.73	1.50	0.29
15	0.15	0.36	0.70	1.37	2.66	3.93	5.18	6.41	8.86	11.3	12.5	14.9	12.9	10.6	8.88	7.05	5.77	4.83	4.13	3.27	2.68	2.25	1.92	1.66	—
16	0.16	0.39	0.75	1.46	2.84	4.19	5.52	6.84	9.45	12.0	13.3	15.9	14.3	11.7	9.78	7.76	6.35	5.32	4.55	3.61	2.95	2.47	2.11	—	—
17	0.17	0.41	0.80	1.55	3.02	4.45	5.87	7.27	10.0	12.8	14.1	16.8	15.6	12.8	10.7	8.50	6.96	5.83	4.98	3.95	3.23	2.71	2.31	—	—
18	0.18	0.43	0.84	1.64	3.19	4.71	6.21	7.70	10.6	13.5	15.0	17.8	17.0	13.9	11.7	9.26	7.58	6.35	5.42	4.30	3.52	2.95	0.06	—	—
19	0.19	0.46	0.89	1.73	3.37	4.98	6.56	8.12	11.2	14.3	15.8	18.8	18.5	15.1	12.7	10.0	8.22	6.89	5.88	4.67	3.82	3.20	—	—	—
20	0.20	0.48	0.94	1.82	3.55	5.24	6.90	8.55	11.8	15.0	16.6	19.8	19.9	16.3	13.7	10.8	8.88	7.44	6.35	5.04	4.13	3.46	—	—	—
21	0.21	0.51	0.98	1.92	3.73	5.50	7.25	8.98	12.4	15.8	17.5	20.8	21.4	17.6	14.7	11.7	9.55	8.01	6.84	5.42	4.44	—	—	—	—
22	0.22	0.53	1.03	2.01	3.90	5.76	7.59	9.41	13.0	16.5	18.3	21.8	23.0	18.8	15.8	12.5	10.2	8.59	7.33	5.82	4.76	—	—	—	—
23	0.23	0.55	1.08	2.10	4.08	6.02	7.94	9.83	13.6	17.3	19.1	22.8	24.6	20.1	16.9	13.4	11.0	9.18	7.84	6.22	5.09	—	—	—	—
24	0.24	0.58	1.13	2.19	4.26	6.28	8.28	10.3	14.2	18.0	20.0	23.8	26.2	21.4	18.0	14.3	11.7	9.78	8.35	6.63	1.38	—	—	—	—
25	0.25	0.60	1.17	2.28	4.44	6.55	8.63	10.7	14.8	18.8	20.8	24.8	27.9	22.8	19.1	15.2	12.4	10.4	8.88	7.05	—	—	—	—	—
26	0.26	0.63	1.22	2.37	4.61	6.81	8.97	11.1	15.4	19.5	21.6	25.8	29.5	24.2	20.3	16.1	13.2	11.0	9.42	7.47	—	—	—	—	—
28	0.28	0.67	1.31	2.55	4.97	7.33	9.66	12.0	16.5	21.1	23.3	27.7	32.2	27.0	22.6	18.0	14.7	12.3	10.5	4.76	—	—	—	—	—
30	0.30	0.72	1.41	2.74	5.32	7.86	10.4	12.8	17.7	22.6	25.0	29.7	34.5	30.0	25.1	19.9	16.3	13.7	11.7	—	—	—	—	—	—
32	0.32	0.77	1.50	2.92	5.68	8.38	11.0	13.7	18.9	24.1	26.6	31.7	36.8	33.0	27.7	22.0	18.0	15.1	12.9	—	—	—	—	—	—
35	0.35	0.84	1.64	3.19	6.21	9.16	12.1	15.0	20.7	26.3	29.1	34.7	40.2	37.8	31.6	25.1	20.6	17.2	0.98	—	—	—	—	—	—
40	0.40	0.96	1.88	3.65	7.10	10.5	13.8	17.1	23.6	30.1	33.3	39.6	46.0	46.1	38.7	30.7	25.1	0.99	—	—	—	—	—	—	—
45	0.45	1.08	2.11	4.10	7.98	11.8	15.5	19.2	26.6	33.8	37.4	44.6	51.7	55.1	46.1	36.6	8.70	—	—	—	—	—	—	—	—

Manual (117 ft./min. max.) | **Drip** (293 ft./min. max.) | **Bath/Slinger** (1,464 ft./min. max.) | **Pump** (max. rated speed)

No. 60 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																							
	10	25	50	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1400	1600	1800	2000	2500	3000	3500	4000	4500
11	0.19	0.46	0.89	1.72	2.54	3.35	4.95	6.52	8.08	9.63	11.2	12.7	14.2	15.6	13.5	11.9	9.41	7.70	6.45	5.51	3.94	3.00	2.38	1.95	1.63
12	0.21	0.50	0.97	1.88	2.78	3.66	5.40	7.12	8.82	10.5	12.2	13.8	15.5	17.2	15.4	13.5	10.7	8.77	7.35	6.28	4.49	3.42	2.71	2.22	1.86
13	0.22	0.54	1.05	2.04	3.01	3.96	5.85	7.71	9.55	11.4	13.2	15.0	16.8	18.6	17.4	15.2	12.1	9.89	8.29	7.08	5.06	3.85	3.06	2.50	2.10
14	0.24	0.58	1.13	2.19	3.24	4.27	6.30	8.30	10.3	12.3	14.2	16.2	18.1	20.0	19.4	17.0	13.5	11.1	9.26	7.91	5.66	4.31	3.42	2.80	2.34
15	0.26	0.62	1.21	2.35	3.47	4.57	6.75	8.90	11.0	13.1	15.2	17.3	19.4	21.4	21.5	18.9	15.0	12.3	10.3	8.77	6.28	4.77	3.79	3.10	2.60
16	0.27	0.66	1.29	2.51	3.70	4.88	7.20	9.49	11.8	14.0	16.2	18.5	20.7	22.9	23.7	20.8	16.5	13.5	11.3	9.66	6.91	5.26	4.17	3.42	1.79
17	0.29	0.70	1.37	2.66	3.93	5.18	7.65	10.1	12.5	14.9	17.3	19.6	22.0	24.3	25.9	22.8	18.1	14.8	12.4	10.6	7.57	5.76	4.57	3.74	—
18	0.31	0.75	1.45	2.82	4.16	5.49	8.10	10.7	13.2	15.8	18.3	20.8	23.3	25.7	28.2	24.8	19.7	16.1	13.5	11.5	8.25	6.28	4.98	4.08	—
19	0.33	0.79	1.53	2.98	4.40	5.79	8.55	11.3	14.0	16.6	19.3	21.9	24.5	27.2	29.8	26.9	21.4	17.5	14.6	12.5	8.95	6.81	5.40	0.22	—
20	0.34	0.83	1.61	3.13	4.63	6.10	9.00	11.9	14.7	17.5	20.3	23.1	25.8	28.6	31.3	29.1	23.1	18.9	15.8	13.5	9.66	7.35	5.83	—	—
21	0.36	0.87	1.69	3.29	4.86	6.40	9.45	12.5	15.4	18.4	21.3	24.2	27.1	30.0	32.9	31.3	24.8	20.3	17.0	14.5	10.4	7.91	6.28	—	—
22	0.38	0.91	1.77	3.45	5.09	6.71	9.90	13.0	16.2	19.3	22.3	25.4	28.4	31.4	34.5	33.5	26.6	21.8	18.2	15.6	11.1	8.48	5.71	—	—
23	0.40	0.95	1.85	3.61	5.32	7.01	10.4	13.6	16.9	20.1	23.3	26.5	29.7	32.9	36.0	35.8	28.4	23.3	19.5	16.7	11.9	9.07	—	—	—
24	0.41	0.99	1.93	3.76	5.55	7.32	10.8	14.2	17.6	21.0	24.4	27.7	31.0	34.3	37.6	38.2	30.3	24.8	20.8	17.8	12.7	9.66	—	—	—
25	0.43	1.04	2.01	3.92	5.78	7.62	11.3	14.8	18.4	21.9	25.4	28.8	32.3	35.7	39.2	40.6	32.2	26.4	22.1	18.9	13.5	10.3	—	—	—
26	0.45	1.08	2.09	4.08	6.01	7.93	11.7	15.4	19.1	22.8	26.4	30.0	33.6	37.2	40.7	43.1	34.2	28.0	23.4	20.0	14.3	10.9	—	—	—
28	0.48	1.16	2.26	4.39	6.48	8.54	12.6	16.6	20.6	24.5	28.4	32.3	36.2	40.0	43.9	47.7	38.2	31.3	26.2	22.4	16.0	—	—	—	—
30	0.52	1.24	2.42	4.70	6.94	9.15	13.5	17.8	22.0	26.3	30.5	34.6	38.8	42.9	47.0	51.1	42.4	34.7	29.1	24.8	17.8	—	—	—	—
32	0.55	1.33	2.58	5.02	7.40	9.76	14.4	19.0	23.5	28.0	32.5	36.9	41.3	45.7	50.1	54.5	46.7	38.2	32.0	27.3	19.6	—	—	—	—
35	0.60	1.45	2.82	5.49	8.10	10.7	15.8	20.8	25.7	30.6	35.5	40.4	45.2	50.0	54.8	59.6	53.4	43.7	36.6	31.3	1.40	—	—	—	—
40	0.69	1.66	3.22	6.27	9.25	12.2	18.0	23.7	29.4	35.0	40.6	46.2	51.7	57.2	62.7	68.1	65.2	53.4	44.7	38.2	—	—	—	—	—
45	0.77	1.86	3.63	7.05	10.4	13.7	20.3	26.7	33.1	39.4	45.7	51.9	58.1	64.3	70.5	76.6	77.8	63.7	53.4	12.5	—	—	—	—	—

Manual (106 ft./min. max.) | **Drip** (264 ft./min. max.) | **Bath/Slinger** (1,322 ft./min. max.) | **Pump** (max. rated speed)

- The blue dotted line indicates the speed at which roller-bushing impact becomes the horsepower limiting factor. See Boundary Lines on the Horsepower Rating Tables (page E-30).
- The green dotted line indicates the speed at which pin-bushing galling becomes the horsepower limiting factor.
- The red dotted line indicates the maximum recommended sprocket speed.

Number of Strands	Multiple Strand Factor
2	1.7
3	2.5
4	3.3
5	3.9
6	4.6

No. 80 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	10	25	50	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2700	3000	3400
11	0.44	1.06	2.07	4.03	5.94	7.83	11.6	15.2	18.9	22.5	26.1	27.4	23.0	19.6	17.0	14.9	11.8	9.69	8.12	6.93	6.01	5.27	4.42	3.77	3.13
12	0.48	1.16	2.26	4.39	6.48	8.54	12.6	16.6	20.6	24.5	28.4	31.2	26.2	22.3	19.4	17.0	13.5	11.0	9.25	7.90	6.85	6.01	5.04	4.30	3.56
13	0.52	1.26	2.45	4.76	7.02	9.26	13.7	18.0	22.3	26.6	30.8	35.0	29.5	25.2	21.8	19.2	15.2	12.5	10.4	8.91	7.72	6.78	5.68	4.85	4.02
14	0.56	1.35	2.63	5.12	7.56	9.97	14.7	19.4	24.0	28.6	33.2	37.7	33.0	28.2	24.4	21.4	17.0	13.9	11.7	9.96	8.63	7.57	6.35	5.42	4.49
15	0.60	1.45	2.82	5.49	8.10	10.7	15.8	20.8	25.7	30.7	35.5	40.4	36.6	31.2	27.1	23.8	18.9	15.4	12.9	11.0	9.57	8.40	7.04	6.01	4.98
16	0.64	1.55	3.01	5.86	8.64	11.4	16.8	22.2	27.5	32.7	37.9	43.1	40.3	34.4	29.8	26.2	20.8	17.0	14.2	12.2	10.5	9.25	7.76	6.62	0.94
17	0.68	1.64	3.20	6.22	9.18	12.1	17.9	23.5	29.2	34.7	40.3	45.8	44.1	37.7	32.7	28.7	22.7	18.6	15.6	13.3	11.5	10.1	8.49	7.25	—
18	0.72	1.74	3.39	6.59	9.72	12.8	18.9	24.9	30.9	36.8	42.7	48.5	48.1	41.1	35.6	31.2	24.8	20.3	17.0	14.5	12.6	11.0	9.25	7.90	—
19	0.76	1.84	3.57	6.95	10.3	13.5	20.0	26.3	32.6	38.8	45.0	51.2	52.1	44.5	38.6	33.9	26.9	22.0	18.4	15.7	13.6	12.0	10.0	0.39	—
20	0.80	1.93	3.76	7.32	10.8	14.2	21.0	27.7	34.3	40.9	47.4	53.9	56.3	48.1	41.7	36.6	29.0	23.8	19.9	17.0	14.7	12.9	10.8	—	—
21	0.84	2.03	3.95	7.69	11.3	15.0	22.1	29.1	36.0	42.9	49.8	56.6	60.6	51.7	44.8	39.4	31.2	25.6	21.4	18.3	15.9	13.9	11.7	—	—
22	0.88	2.13	4.14	8.05	11.9	15.7	23.1	30.5	37.7	45.0	52.1	59.3	65.0	55.5	48.1	42.2	33.5	27.4	23.0	19.6	17.0	14.9	—	—	—
23	0.92	2.22	4.33	8.42	12.4	16.4	24.2	31.9	39.5	47.0	54.5	62.0	69.4	59.3	51.4	45.1	35.8	29.3	24.6	21.0	18.2	15.9	—	—	—
24	0.96	2.32	4.52	8.78	13.0	17.1	25.2	33.2	41.2	49.1	56.9	64.7	72.4	63.2	54.8	48.1	38.2	31.2	26.2	22.3	19.4	17.0	—	—	—
25	1.00	2.42	4.70	9.15	13.5	17.8	26.3	34.6	42.9	51.1	59.2	67.4	75.4	67.2	58.2	51.1	40.6	33.2	27.8	23.8	20.6	8.22	—	—	—
26	1.04	2.51	4.89	9.52	14.0	18.5	27.3	36.0	44.6	53.1	61.6	70.0	78.4	71.3	61.8	54.2	43.0	35.2	29.5	25.2	21.8	—	—	—	
28	1.12	2.71	5.27	10.2	15.1	19.9	29.4	38.8	48.0	57.2	66.4	75.4	84.5	79.7	69.0	60.6	48.1	39.4	33.0	28.2	9.29	—	—	—	—
30	1.20	2.90	5.64	11.0	16.2	21.4	31.5	41.5	51.5	61.3	71.1	80.8	90.5	88.3	76.6	67.2	53.3	43.6	36.6	31.2	—	—	—	—	—
32	1.28	3.09	6.02	11.7	17.3	22.8	33.6	44.3	54.9	65.4	75.8	86.2	96.5	97.3	84.3	74.0	58.7	48.1	40.3	5.73	—	—	—	—	—
20	1.40	3.38	6.58	12.8	18.9	24.9	36.8	48.5	60.1	71.5	82.9	94.3	106	111	96.5	84.7	67.2	55.0	28.2	—	—	—	—	—	—
40	1.61	3.87	7.53	14.6	21.6	28.5	42.0	55.4	68.6	81.8	94.8	108	121	134	118	103	82.1	40.3	—	—	—	—	—	—	—
45	1.81	4.35	8.47	16.5	24.3	32.0	47.3	62.3	77.2	92.0	107	121	136	150	141	123	72.4	—	—	—	—	—	—	—	—

Manual (90 ft./min. max.) | **Drip** (225 ft./min. max.) | **Bath/Slinger** (1,126 ft./min. max.) | **Pump** (max. rated speed)

No. 100 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	10	25	50	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1600	1800	2000	2200	2400	2600	2700
11	0.85	2.04	3.96	7.71	11.4	15.0	22.1	29.2	36.1	43.1	40.0	32.8	27.5	23.4	20.3	17.8	15.8	14.2	11.6	9.71	8.29	7.19	6.31	5.59	5.28
12	0.92	2.22	4.32	8.41	12.4	16.4	24.2	31.8	39.4	47.0	45.6	37.3	31.3	26.7	23.2	20.3	18.0	16.1	13.2	11.1	9.45	8.19	7.19	6.37	6.02
13	1.00	2.41	4.68	9.11	13.4	17.7	26.2	34.5	42.7	50.9	51.4	42.1	35.3	30.1	26.1	22.9	20.3	18.2	14.9	12.5	10.6	9.23	8.10	7.19	6.79
14	1.08	2.59	5.04	9.81	14.5	19.1	28.2	37.1	46.0	54.8	57.5	47.0	39.4	33.7	29.2	25.6	22.7	20.3	16.6	13.9	11.9	10.3	9.05	8.03	7.59
15	1.15	2.78	5.41	10.5	15.5	20.5	30.2	39.8	49.3	58.7	63.7	52.2	43.7	37.3	32.4	28.4	25.2	22.5	18.4	15.5	13.2	11.4	10.0	8.91	8.42
16	1.23	2.96	5.77	11.2	16.6	21.8	32.2	42.4	52.6	62.6	70.2	57.5	48.2	41.1	35.7	31.3	27.7	24.8	20.3	17.0	14.5	12.6	11.1	9.81	4.97
17	1.31	3.15	6.13	11.9	17.6	23.2	34.2	45.1	55.9	66.6	76.9	63.0	52.8	45.0	39.0	34.3	30.4	27.2	22.3	18.7	15.9	13.8	12.1	1.79	—
18	1.38	3.33	6.49	12.6	18.6	24.5	36.2	47.7	59.2	70.5	81.7	68.6	57.5	49.1	42.5	37.3	33.1	29.6	24.2	20.3	17.4	15.0	13.2	—	—
19	1.46	3.52	6.85	13.3	19.7	25.9	38.2	50.4	62.4	74.4	86.2	74.4	62.3	53.2	46.1	40.5	35.9	32.1	26.3	22.0	18.8	16.3	0.61	—	—
20	1.54	3.70	7.21	14.0	20.7	27.3	40.3	53.1	65.7	78.3	90.8	80.3	67.3	57.5	49.8	43.7	38.8	34.7	28.4	23.8	20.3	17.6	—	—	—
21	1.61	3.89	7.57	14.7	21.7	28.6	42.3	55.7	69.0	82.2	95.3	86.4	72.4	61.8	53.6	47.0	41.7	37.3	30.6	25.6	21.9	8.23	—	—	—
22	1.69	4.08	7.93	15.4	22.8	30.0	44.3	58.4	72.3	86.1	99.9	92.7	77.7	66.3	57.5	50.4	44.7	40.0	32.8	27.5	23.4	—	—	—	—
23	1.77	4.26	8.29	16.1	23.8	31.4	46.3	61.0	75.6	90.0	104	99.1	83.0	70.9	61.4	53.9	47.8	42.8	35.0	29.4	25.1	—	—	—	—
24	1.84	4.45	8.65	16.8	24.8	32.7	48.3	63.7	78.9	94.0	109	106	88.5	75.6	65.5	57.5	51.0	45.6	37.3	31.3	5.51	—	—	—	—
25	1.92	4.63	9.01	17.5	25.9	34.1	50.3	66.3	82.2	97.9	113	112	94.1	80.3	69.6	61.1	54.2	48.5	39.7	33.3	—	—	—	—	—
26	2.00	4.82	9.37	18.2	26.9	35.5	52.3	69.0	85.4	102	118	119	99.8	85.2	73.8	64.8	57.5	51.4	42.1	35.3	—	—	—	—	
28	2.15	5.19	10.1	19.6	29.0	38.2	56.4	74.3	92.0	110	127	133	112	95.2	82.5	72.4	64.2	57.5	47.0	—	—	—	—	—	—
30	2.31	5.56	10.8	21.0	31.0	40.9	60.4	79.6	98.6	117	136	148	124	106	91.5	80.3	71.2	63.7	49.5	—	—	—	—	—	—
32	2.46	5.93	11.5	22.4	33.1	43.6	64.4	84.9	105	125	145	163	136	116	101	88.5	78.5	70.2	9.0	—	—	—	—	—	—
35	2.69	6.48	12.6	24.5	36.2	47.7	70.4	92.8	115	137	159	181	156	133	115	101	89.8	69.1	—	—	—	—	—	—	—
40	3.07	7.41	14.4	28.0	41.4	54.5	80.5	106	131	157	182	206	190	163	141	123	46.7	—	—	—	—	—	—	—	—
45	3.46	8.34	16.2	31.5	46.6	61.4	90.6	119	148	176	204	232	227	194	131	34.8	—	—	—	—	—	—	—	—	—

Manual (79 ft./min. max.) | **Drip** (199 ft./min. max.) | **Bath/Slinger** (993 ft./min. max.) | **Pump** (max. rated speed)

Number of Strands	Multiple Strand Factor
2	1.7
3	2.5
4	3.3
5	3.9
6	4.6

- The blue dotted line indicates the speed at which roller-bushing impact becomes the horsepower limiting factor. See Boundary Lines on the Horsepower Rating Tables (page E-30).
- The green dotted line indicates the speed at which pin-bushing galling becomes the horsepower limiting factor.
- The red dotted line indicates the maximum recommended sprocket speed.

No. 120 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	10	25	50	100	150	200	250	300	350	400	450	500	550	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700
11	1.43	3.44	6.69	13.0	19.2	25.3	31.4	37.4	43.3	49.3	55.2	61.0	66.5	58.4	46.3	37.9	31.8	27.1	23.5	20.6	18.3	16.4	14.8	13.4	12.2
12	1.56	3.75	7.30	14.2	21.0	27.6	34.2	40.8	47.3	53.8	60.2	66.6	73.0	66.5	52.8	43.2	36.2	30.9	26.8	23.5	20.9	18.7	16.8	15.3	13.9
13	1.69	4.07	7.91	15.4	22.7	29.9	37.1	44.2	51.2	58.2	65.2	72.1	79.1	75.0	59.5	48.7	40.8	34.9	30.2	26.5	23.5	21.0	19.0	17.2	15.7
14	1.82	4.38	8.52	16.6	24.5	32.2	39.9	47.6	55.2	62.7	70.2	77.7	85.1	83.8	66.5	54.4	45.6	39.0	33.8	29.6	26.3	23.5	21.2	19.2	17.6
15	1.95	4.69	9.13	17.8	26.2	34.5	42.8	51.0	59.1	67.2	75.2	83.2	91.2	92.9	73.8	60.4	50.6	43.2	37.4	32.9	29.1	26.1	23.5	21.3	19.5
16	2.08	5.00	9.74	18.9	28.0	36.8	45.6	54.4	63.0	71.7	80.2	88.8	97.3	102	81.3	66.5	55.7	47.6	41.2	36.2	32.1	28.7	25.9	23.5	21.5
17	2.21	5.32	10.3	20.1	29.7	39.1	48.5	57.8	67.0	76.1	85.3	94.3	103	112	89.0	72.8	61.0	52.1	45.2	39.6	35.2	31.5	28.4	25.8	23.5
18	2.34	5.63	11.0	21.3	31.4	41.4	51.3	61.2	70.9	80.6	90.3	99.9	109	119	97.0	79.4	66.5	56.8	49.2	43.2	38.3	34.3	30.9	28.1	25.6
19	2.47	5.94	11.6	22.5	33.2	43.8	54.2	64.6	74.9	85.1	95.3	105	116	126	105	86.1	72.1	61.6	53.4	46.8	41.5	37.2	33.5	30.4	27.8
20	2.60	6.26	12.2	23.7	34.9	46.1	57.1	68.0	78.8	89.6	100	111	122	132	114	92.9	77.9	66.5	57.6	50.6	44.9	40.1	36.2	32.9	30.0
21	2.73	6.57	12.8	24.9	36.7	48.4	59.9	71.4	82.7	94.1	105	117	128	139	122	100	83.8	71.6	62.0	54.4	48.3	43.2	39.0	35.4	32.3
22	2.86	6.88	13.4	26.0	38.4	50.7	62.8	74.8	86.7	98.5	110	122	134	145	131	107	89.9	76.7	66.5	58.4	51.8	46.3	41.8	37.9	34.6
23	2.99	7.19	14.0	27.2	40.2	53.0	65.6	78.2	90.6	103	115	128	140	152	140	115	96.1	82.0	71.1	62.4	55.3	49.5	44.6	40.5	19.6
24	3.11	7.51	14.6	28.4	41.9	55.3	68.5	81.6	94.6	108	120	133	146	159	149	122	102	87.4	75.8	66.5	59.0	52.8	47.6	43.2	—
25	3.24	7.82	15.2	29.6	43.7	57.6	71.3	85.0	98.5	112	125	139	152	165	159	130	109	92.9	80.6	70.7	62.7	56.1	50.6	18.5	—
26	3.37	8.13	15.8	30.8	45.4	59.9	74.2	88.4	102	116	130	144	158	172	168	138	115	98.6	85.4	75.0	66.5	59.5	53.7	—	—
28	3.63	8.76	17.0	33.1	48.9	64.5	79.9	95.2	110	125	140	155	170	185	188	154	129	110	95.5	83.8	74.3	66.5	—	—	—
30	3.89	9.38	18.3	35.5	52.4	69.1	85.6	102	118	134	150	166	182	198	209	171	143	122	106	92.9	82.4	13.9	—	—	—
32	4.15	10.0	19.5	37.9	55.9	73.7	91.3	109	126	143	160	178	195	212	230	188	158	135	117	102	45.9	—	—	—	—
35	4.54	10.9	21.3	41.4	61.1	80.6	99.8	119	138	157	176	194	213	231	263	215	180	154	133	63.5	—	—	—	—	—
40	5.19	12.5	24.3	47.3	69.9	92.1	114	136	158	179	201	222	243	264	307	263	220	177	43.2	—	—	—	—	—	—
45	5.84	14.1	27.4	53.27	78.61	103.6	128	153	177	202	226	250	274	297	345	314	214	50.1	—	—	—	—	—	—	—

Manual (72 ft./min. max.) | **Drip** (179 ft./min. max.) | **Bath/Slinger** (897 ft./min. max.) | **Pump** (max. rated speed)

No. 140 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	10	25	50	100	150	200	250	300	350	400	450	500	550	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700
11	2.21	5.32	10.4	20.1	29.7	39.2	48.6	57.8	67.1	76.2	85.4	86.8	75.2	66.0	52.4	42.9	35.9	30.7	26.6	23.3	20.7	18.5	16.7	15.2	13.8
12	2.41	5.81	11.3	22.0	32.4	42.8	53.0	63.1	73.2	83.2	93.1	98.9	85.7	75.2	59.7	48.9	41.0	35.0	30.3	26.6	23.6	21.1	19.0	17.3	15.8
13	2.61	6.29	12.2	23.8	35.1	46.3	57.4	68.4	79.3	90.1	101	112	96.7	84.8	67.3	55.1	46.2	39.4	34.2	30.0	26.6	23.8	21.5	19.5	17.8
14	2.81	6.78	13.2	25.6	37.8	49.9	61.8	73.6	85.4	97.0	109	120	108	94.8	75.2	61.6	51.6	44.1	38.2	33.5	29.7	26.6	24.0	21.8	19.9
15	3.01	7.26	14.1	27.5	40.5	53.4	66.2	78.9	91.5	104	116	129	120	105	83.4	68.3	57.2	48.9	42.4	37.2	33.0	29.5	26.6	24.1	22.0
16	3.21	7.74	15.1	29.3	43.2	57.0	70.6	84.1	97.5	111	124	137	132	116	91.9	75.2	63.1	53.8	46.7	41.0	36.3	32.5	29.3	26.6	24.3
17	3.41	8.23	16.0	31.1	46.0	60.6	75.0	89.4	104	118	132	146	145	127	101	82.4	69.1	59.0	51.1	44.9	39.8	35.6	32.1	29.1	26.6
18	3.61	8.71	16.9	33.0	48.7	64.1	79.4	94.6	110	125	140	155	157	138	110	89.8	75.2	64.2	55.7	48.9	43.3	38.8	35.0	31.7	29.0
19	3.82	9.20	17.9	34.8	51.4	67.7	83.9	99.9	116	132	147	163	171	150	119	97.4	81.6	69.7	60.4	53.0	47.0	42.1	37.9	34.4	10.5
20	4.02	9.68	18.8	36.6	54.1	71.3	88.3	105	122	139	155	172	184	162	128	105	88.1	75.2	65.2	57.2	50.8	45.4	41.0	35.9	—
21	4.22	10.2	19.8	38.5	56.8	74.8	92.7	110	128	146	163	180	198	174	138	113	94.8	80.9	70.2	61.6	54.6	48.9	44.1	—	—
22	4.42	10.6	20.7	40.3	59.5	78.4	97.1	116	134	152	171	189	207	187	148	121	102	86.8	75.2	66.0	58.6	52.4	31.1	—	—
23	4.62	11.1	21.7	42.1	62.2	81.9	102	121	140	159	178	197	216	200	158	130	109	92.8	80.4	70.6	62.6	56.0	—	—	—
24	4.82	11.6	22.6	44.0	64.9	85.5	106	126	146	166	186	206	226	213	169	138	116	98.9	85.7	75.2	66.7	38.1	—	—	—
25	5.02	12.1	23.5	45.8	67.6	89.1	110	131	152	173	194	215	235	226	180	147	123	105	91.1	80.0	70.9	—	—	—	—
26	5.22	12.6	24.5	47.6	70.3	92.6	115	137	159	180	202	223	245	240	190	156	131	112	96.7	84.8	59.4	—	—	—	
28	5.62	13.6	26.4	51.3	75.7	99.8	124	147	171	194	217	240	263	268	213	174	146	125	108	94.8	—	—	—	—	—
30	6.02	14.5	28.2	54.9	81.1	107	132	158	183	208	233	258	282	297	236	193	162	138	120	18.9	—	—	—	—	—
32	6.43	15.5	30.1	58.6	86.5	114	141	168	195	222	248	275	301	327	260	213	178	152	84.1	—	—	—	—	—	—
35	7.03	16.9	33.0	64.1	94.6	125	154	184	213	243	272	301	329	358	297	243	204	136	—	—	—	—	—	—	—
40	8.03	19.4	37.7	73.3	108	143	177	210	244	277	310	343	376	409	363	297	154	—	—	—	—	—	—	—	—
45	9.04	21.8	42.4	82.4	122	160	199	237	274	312	349	386	423	460	434	222	—	—	—	—	—	—	—	—	—

Manual (66 ft./min. max.) | **Drip** (165 ft./min. max.) | **Bath/Slinger** (823 ft./min. max.) | **Pump** (max. rated speed)

- The blue dotted line indicates the speed at which roller-bushing impact becomes the horsepower limiting factor. See Boundary Lines on the Horsepower Rating Tables (page E-30).
- The green dotted line indicates the speed at which pin-bushing galling becomes the horsepower limiting factor.
- The red dotted line indicates the maximum recommended sprocket speed.

Number of Strands	Multiple Strand Factor
2	1.7
3	2.5
4	3.3
5	3.9
6	4.6

No. 160 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	10	25	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	1000	1100	1200	1300	1400
11	3.20	7.72	15.0	29.2	43.1	56.9	70.4	83.9	97.3	111	113	96.6	83.7	73.5	65.2	58.3	52.6	47.7	43.6	40.0	34.1	29.6	26.0	23.0	20.6
12	3.50	8.43	16.4	31.9	47.1	62.0	76.8	91.5	106	121	129	110	95.4	83.7	74.2	66.4	59.9	54.4	49.6	45.6	38.9	33.7	29.6	26.3	23.5
13	3.79	9.13	17.8	34.5	51.0	67.2	83.2	99.2	115	131	145	124	108	94.4	83.7	74.9	67.5	61.3	56.0	51.4	43.9	38.0	33.4	29.6	26.5
14	4.08	9.83	19.1	37.2	54.9	72.4	89.6	107	124	141	158	139	120	105	93.6	83.7	75.5	68.5	62.6	57.4	49.0	42.5	37.3	33.1	29.6
15	4.37	10.5	20.5	39.9	58.8	77.5	96.1	114	133	151	169	154	133	117	104	92.8	83.7	76.0	69.4	63.7	54.4	47.1	41.4	36.7	32.8
16	4.66	11.2	21.9	42.5	62.7	82.7	102	122	142	161	180	169	147	129	114	102	92.2	83.7	76.4	70.2	59.9	51.9	45.6	40.4	36.2
17	4.95	11.9	23.2	45.2	66.7	87.9	109	130	150	171	191	186	161	141	125	112	101	91.7	83.7	76.8	65.6	56.9	49.9	44.3	39.6
18	5.24	12.6	24.6	47.8	70.6	93.0	115	137	159	181	203	202	175	154	136	122	110	99.9	91.2	83.7	71.5	62.0	54.4	48.2	43.2
19	5.54	13.3	26.0	50.5	74.5	98.2	122	145	168	191	214	219	190	167	148	132	119	108	98.9	90.8	77.5	67.2	59.0	52.3	46.8
20	5.83	14.0	27.3	53.1	78.4	103	128	153	177	201	225	237	205	180	160	143	129	117	107	98.1	83.7	72.6	63.7	56.5	46.9
21	6.12	14.7	28.7	55.8	82.4	109	134	160	186	211	236	255	221	194	172	154	139	126	115	105	90.1	78.1	68.5	60.8	—
22	6.41	15.4	30.0	58.5	86.3	114	141	168	195	221	248	273	237	208	184	165	149	135	123	113	96.6	83.7	73.5	55.5	—
23	6.70	16.1	31.4	61.1	90.2	119	147	175	203	231	259	287	253	222	197	176	159	144	132	121	103	89.5	78.5	1.3	—
24	6.99	16.9	32.8	63.8	94.1	124	154	183	212	241	270	299	270	237	210	188	169	154	140	129	110	95.4	83.7	—	—
25	7.28	17.6	34.1	66.4	98.0	129	160	191	221	251	281	311	287	252	223	200	180	164	149	137	117	101	32.9	—	—
26	7.57	18.3	35.5	69.1	102	134	166	198	230	261	293	324	304	267	237	212	191	173	158	145	124	108	—	—	—
28	8.16	19.7	38.2	74.4	110	145	179	214	248	282	315	349	340	298	265	237	214	194	177	162	139	37.1	—	—	—
30	8.74	21.1	41.0	79.7	118	155	192	229	265	302	338	374	377	331	293	263	237	215	196	180	127	—	—	—	—
32	9.32	22.5	43.7	85.0	125	165	205	244	283	322	360	399	415	365	323	289	261	237	216	198	22.9	—	—	—	—
35	10.2	24.6	47.8	93.0	137	181	224	267	310	352	394	436	475	417	370	331	298	271	237	113	—	—	—	—	—
40	11.7	28.1	54.6	106.3	157	207	256	305	354	402	450	498	546	509	452	404	314	161	—	—	—	—	—	—	—
45	13.1	31.6	61.5	119.6	176	233	288	343	398	452	507	561	614	608	463	290	89.1	—	—	—	—	—	—	—	—

Manual (61 ft./min. max.) | **Drip** (153 ft./min. max.) | **Bath/Slinger** (764 ft./min. max.) | **Pump** (max. rated speed)

No. 180 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	10	25	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	1000	1100	1200	1300	1400
11	4.43	10.7	20.7	40.4	59.6	78.5	97.3	116	134	148	124	106	92.0	80.7	71.6	64.1	57.8	52.4	47.9	43.9	37.5	32.5	28.5	25.3	22.7
12	4.83	11.6	22.6	44.0	65.0	85.6	106	126	147	167	142	121	105	92.0	81.6	73.0	65.8	59.7	54.6	50.1	42.8	37.1	32.5	28.8	25.8
13	5.23	12.6	24.5	47.7	70.4	92.8	115	137	159	180	160	136	118	104	92.0	82.3	74.2	67.4	61.5	56.5	48.2	41.8	36.7	32.5	29.1
14	5.63	13.6	26.4	51.4	75.8	99.9	124	147	171	194	178	152	132	116	103	92.0	82.9	75.3	68.7	63.1	53.9	46.7	41.0	36.3	32.5
15	6.03	14.5	28.3	55.0	81.2	107	133	158	183	208	198	169	146	129	114	102	92.0	83.5	76.2	70.0	59.7	51.8	45.5	40.3	36.1
16	6.44	15.5	30.2	58.7	86.6	114	141	169	195	222	218	186	161	142	126	112	101	92.0	84.0	77.1	65.8	57.1	50.1	44.4	39.7
17	6.84	16.5	32.1	62.4	92.1	121	150	179	208	236	239	204	177	155	138	123	111	101	92.0	84.4	72.1	62.5	54.8	48.6	43.5
18	7.24	17.5	33.9	66.0	97.5	128	159	190	220	250	260	222	193	169	150	134	121	110	100	92.0	78.5	68.1	59.7	53.0	—
19	7.64	18.4	35.8	69.7	103	136	168	200	232	264	282	241	209	183	163	145	131	119	109	99.8	85.2	73.8	64.8	47.2	—
20	8.05	19.4	37.7	73.4	108	143	177	211	244	278	305	260	226	198	176	157	142	129	117	108	92.0	79.7	70.0	—	—
21	8.45	20.4	39.6	77.0	114	150	186	221	256	292	326	280	243	213	189	169	152	138	126	116	99.0	85.8	62.0	—	—
22	8.85	21.3	41.5	80.7	119	157	195	232	269	305	342	300	260	228	203	181	163	148	135	124	106	92.0	—	—	—
23	9.25	22.3	43.4	84.4	125	164	203	242	281	319	358	321	278	244	216	194	175	159	145	133	113	98.3	—	—	—
24	9.65	23.3	45.3	88.1	130	171	212	253	293	333	373	342	296	260	231	206	186	169	154	142	121	40.6	—	—	—
25	10.1	24.2	47.2	91.7	135	178	221	263	305	347	389	364	315	277	245	220	198	180	164	151	129	—	—	—	—
26	10.5	25.2	49.0	95.4	141	186	230	274	318	361	404	386	334	293	260	233	210	191	174	160	123	—	—	—	—
28	11.3	27.1	52.8	103	152	200	248	295	342	389	435	431	374	328	291	260	235	213	194	178	—	—	—	—	—
30	12.1	29.1	56.6	110	162	214	265	316	366	417	466	478	414	364	322	289	260	236	216	129	—	—	—	—	—
32	12.9	31.0	60.4	117	173	228	283	337	391	444	497	527	456	401	355	318	287	260	157	—	—	—	—	—	—
35	14.1	33.9	66.0	128	190	250	309	369	427	486	544	602	522	458	406	364	319	143	—	—	—	—	—	—	—
40	16.1	38.8	75.4	147	217	285	354	421	489	555	622	688	638	560	464	255	12.8	—	—	—	—	—	—	—	—
45	18.1	43.6	84.9	165	244	321	398	474	550	625	700	774	708	481	212	—	—	—	—	—	—	—	—	—	—

Manual (57 ft./min. max.) | **Drip** (143 ft./min. max.) | **Bath/Slinger** (950 ft./min. max.) | **Pump** (max. rated speed)

Number of Strands	Multiple Strand Factor
2	1.7
3	2.5
4	3.3
5	3.9
6	4.6

- The blue dotted line indicates the speed at which roller-bushing impact becomes the horsepower limiting factor. See Boundary Lines on the Horsepower Rating Tables (page E-30).
- The green dotted line indicates the speed at which pin-bushing galling becomes the horsepower limiting factor.
- The red dotted line indicates the maximum recommended sprocket speed.

No. 200 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	2	5	10	15	20	30	40	50	70	100	150	200	250	300	350	400	450	500	550	600	650	700	800	900	1000
11	1.25	3.02	5.88	8.67	11.4	16.9	22.2	27.5	38.0	53.6	79.1	104	129	154	178	161	135	115	100	87.8	77.9	69.7	57.0	47.8	40.8
12	1.37	3.29	6.41	9.46	12.5	18.4	24.3	30.0	41.5	58.5	86.3	114	141	168	195	184	154	132	114	100	88.8	79.4	65.0	54.5	46.5
13	1.48	3.57	6.94	10.2	13.5	19.9	26.3	32.6	45.0	63.3	93.5	123	153	182	211	207	174	148	129	113	100	89.6	73.3	61.4	52.4
14	1.59	3.84	7.48	11.0	14.5	21.5	28.3	35.1	48.4	68.2	101	133	164	196	227	232	194	166	144	126	112	100	81.9	68.6	58.6
15	1.71	4.12	8.01	11.8	15.6	23.0	30.3	37.6	51.9	73.1	108	142	176	210	243	257	215	184	159	140	124	111	90.8	76.1	65.0
16	1.82	4.39	8.55	12.6	16.6	24.5	32.3	40.1	55.3	77.9	115	152	188	224	259	283	237	203	176	154	137	122	100	83.9	71.6
17	1.94	4.67	9.08	13.4	17.7	26.1	34.4	42.6	58.8	82.8	122	161	200	238	276	310	260	222	192	169	150	134	110	91.9	78.4
18	2.05	4.94	9.61	14.2	18.7	27.6	36.4	45.1	62.3	87.7	129	171	211	252	292	332	283	242	209	184	163	146	119	100	85.4
19	2.16	5.22	10.1	15.0	19.7	29.1	38.4	47.6	65.7	92.6	137	180	223	266	308	350	307	262	227	199	177	158	130	109	92.7
20	2.28	5.49	10.7	15.8	20.8	30.7	40.4	50.1	69.2	97.4	144	190	235	280	324	369	332	283	245	215	191	171	140	117	100
21	2.39	5.77	11.2	16.6	21.8	32.2	42.4	52.6	72.6	102	151	199	247	294	341	387	357	305	264	232	205	184	150	126	108
22	2.51	6.04	11.8	17.3	22.9	33.7	44.5	55.1	76.1	107	158	208	258	308	357	406	382	327	283	248	220	197	161	135	115
23	2.62	6.31	12.3	18.1	23.9	35.3	46.5	57.6	79.6	112	165	218	270	322	373	424	409	349	303	266	236	211	172	145	105
24	2.73	6.59	12.8	18.9	24.9	36.8	48.5	60.1	83.0	117	173	227	282	336	389	442	436	372	323	283	251	225	184	154	22.0
25	2.85	6.86	13.4	19.7	26.0	38.3	50.5	62.6	86.5	122	180	237	293	350	405	461	463	396	343	301	267	239	195	164	—
26	2.96	7.14	13.9	20.5	27.0	39.9	52.6	65.1	89.9	127	187	246	305	364	422	479	491	420	364	319	283	253	207	151	—
28	3.19	7.69	15.0	22.1	29.1	42.9	56.6	70.1	96.8	136	201	265	329	392	454	516	549	469	406	357	316	283	232	—	—
30	3.42	8.24	16.0	23.6	31.2	46.0	60.6	75.1	104	146	216	284	352	420	486	553	609	520	451	396	351	314	198	—	—
32	3.65	8.79	17.1	25.2	33.2	49.1	64.7	80.1	111	156	230	303	376	448	519	590	660	573	497	436	387	346	35.8	—	—
35	3.99	9.61	18.7	27.6	36.4	53.7	70.7	87.6	121	170	252	332	411	489	568	645	722	655	568	499	442	277	—	—	—
40	4.56	11.0	21.4	31.5	41.6	61.3	80.8	100	138	195	288	379	470	559	649	737	826	801	694	491	187	—	—	—	—
45	5.13	12.4	24.0	35.5	46.8	69.0	91.0	113	156	219	324	426	528	629	730	830	929	845	524	139	—	—	—	—	—

Manual (54 ft./min. max.) | **Drip** (135 ft./min. max.) | **Bath/Slinger** (865 ft./min. max.) | **Pump** (max. rated speed)

No. 240 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	2	5	10	15	20	25	30	40	50	60	80	100	125	150	175	200	250	300	350	400	450	500	600	700	800
11	2.02	4.86	9.46	14.0	18.4	22.8	27.2	35.8	44.4	52.8	69.7	86.3	107	127	148	168	208	248	228	187	156	134	102	80.6	66.0
12	2.20	5.31	10.3	15.2	20.1	24.9	29.6	39.1	48.4	57.7	76.0	94.1	117	139	161	183	227	270	260	213	178	152	116	91.9	75.2
13	2.39	5.75	11.2	16.5	21.8	27.0	32.1	42.3	52.4	62.5	82.3	102	126	151	175	198	246	293	293	240	201	172	131	104	84.8
14	2.57	6.19	12.0	17.8	23.4	29.0	34.6	45.6	56.5	67.3	88.7	110	136	162	188	214	265	315	328	268	225	192	146	116	94.8
15	2.75	6.63	12.9	19.0	25.1	31.1	37.0	48.8	60.5	72.1	95.0	118	146	174	201	229	284	338	363	297	249	213	162	128	105
16	2.94	7.08	13.8	20.3	26.8	33.2	39.5	52.1	64.5	76.9	101	126	156	185	215	244	303	360	400	328	274	234	178	141	116
17	3.12	7.52	14.6	21.6	28.4	35.2	42.0	55.3	68.6	81.7	108	133	165	197	228	259	321	383	438	359	301	257	195	155	127
18	3.30	7.96	15.5	22.9	30.1	37.3	44.5	58.6	72.6	86.5	114	141	175	208	242	275	340	405	470	391	328	280	213	169	138
19	3.49	8.40	16.3	24.1	31.8	39.4	46.9	61.9	76.6	91.3	120	149	185	220	255	290	359	428	496	424	355	303	231	183	150
20	3.67	8.84	17.2	25.4	33.5	41.5	49.4	65.1	80.7	96.1	127	157	194	232	269	305	378	450	522	458	384	328	249	198	162
21	3.85	9.29	18.1	26.7	35.1	43.5	51.9	68.4	84.7	101	133	165	204	243	282	321	397	473	548	492	413	352	268	213	174
22	4.04	9.73	18.9	27.9	36.8	45.6	54.3	71.6	88.7	106	139	173	214	255	295	336	416	496	575	528	443	378	287	228	187
23	4.22	10.2	19.8	29.2	38.5	47.7	56.8	74.9	92.8	111	146	180	224	266	309	351	435	518	601	564	473	404	307	244	200
24	4.40	10.6	20.6	30.5	40.2	49.8	59.3	78.1	96.8	115	152	188	233	278	322	366	454	541	627	602	504	431	328	260	189
25	4.59	11.1	21.5	31.7	41.8	51.8	61.7	81.4	101	120	158	196	243	289	336	382	473	563	653	640	536	458	348	276	74.0
26	4.77	11.5	22.4	33.0	43.5	53.9	64.2	84.6	105	125	165	204	253	301	349	397	492	586	679	678	569	485	369	293	—
28	5.14	12.4	24.1	35.5	46.9	58.0	69.2	91.1	113	135	177	220	272	324	376	427	529	631	731	758	635	543	413	284	—
30	5.50	13.3	25.8	38.1	50.2	62.2	74.1	97.7	121	144	190	235	292	347	403	458	567	676	784	841	705	602	458	55.5	—
32	5.87	14.2	27.5	40.6	53.6	66.3	79.0	104	129	154	203	251	311	371	430	488	605	721	836	926	776	663	504	—	—
35	6.42	15.5	30.1	44.4	58.6	72.6	86.4	114	141	168	222	275	340	405	470	534	662	788	914	1039	888	758	254	—	—
40	7.34	17.7	34.4	50.8	66.9	82.9	98.8	130	161	192	253	314	389	463	537	610	756	901	1045	1188	1085	707	—	—	—
45	8.26	19.9	38.7	57.1	75.3	93.3	111	146	181	216	285	353	437	521	604	687	851	1014	1175	1336	854	200	—	—	—

Manual (49 ft./min. max.) | **Drip** (122 ft./min. max.) | **Bath/Slinger** (775 ft./min. max.) | **Pump** (max. rated speed)

- The blue dotted line indicates the speed at which roller-bushing impact becomes the horsepower limiting factor. See Boundary Lines on the Horsepower Rating Tables (page E-30).
- The green dotted line indicates the speed at which pin-bushing galling becomes the horsepower limiting factor.
- The red dotted line indicates the maximum recommended sprocket speed.

Number of Strands	Multiple Strand Factor
2	1.7
3	2.5
4	3.3
5	3.9
6	4.6

No. 60H (Heavy) Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	10	25	50	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1400	1600	1800	2000	2500	3000	3500	4000	4500
11	0.22	0.53	1.02	1.99	2.93	3.87	5.71	7.52	9.32	11.1	12.9	14.6	16.4	15.6	13.5	11.9	9.41	7.70	6.45	5.51	3.94	3.00	2.38	1.95	1.63
12	0.24	0.57	1.12	2.17	3.20	4.22	6.23	8.21	10.2	12.1	14.0	16.0	17.9	17.8	15.4	13.5	10.7	8.77	7.35	6.28	4.49	3.42	2.71	2.22	1.86
13	0.26	0.62	1.21	2.35	3.47	4.57	6.75	8.89	11.0	13.1	15.2	17.3	19.4	20.0	17.4	15.2	12.1	9.89	8.29	7.08	5.06	3.85	3.06	2.50	2.10
14	0.28	0.67	1.30	2.53	3.73	4.92	7.27	9.58	11.9	14.1	16.4	18.6	20.9	22.4	19.4	17.0	13.5	11.1	9.26	7.91	5.66	4.31	3.42	2.80	2.34
15	0.30	0.72	1.39	2.71	4.00	5.27	7.78	10.3	12.7	15.1	17.6	20.0	22.3	24.7	21.5	18.9	15.0	12.3	10.3	8.77	6.28	4.77	3.79	3.10	2.60
16	0.32	0.76	1.49	2.89	4.27	5.63	8.30	10.9	13.6	16.2	18.7	21.3	23.8	26.4	23.7	20.8	16.5	13.5	11.3	9.66	6.91	5.26	4.17	3.42	—
17	0.34	0.81	1.58	3.07	4.54	5.98	8.82	11.6	14.4	17.2	19.9	22.6	25.3	28.0	25.9	22.8	18.1	14.8	12.4	10.6	7.57	5.76	4.57	3.74	—
18	0.36	0.86	1.67	3.25	4.80	6.33	9.34	12.3	15.3	18.2	21.1	24.0	26.8	29.7	28.3	24.8	19.7	16.1	13.5	11.5	8.25	6.28	4.98	1.07	—
19	0.38	0.91	1.77	3.43	5.07	6.68	9.86	13.0	16.1	19.2	22.2	25.3	28.3	31.3	30.7	26.9	21.4	17.5	14.6	12.5	8.95	6.81	5.40	—	—
20	0.40	0.96	1.86	3.62	5.34	7.03	10.4	13.7	16.9	20.2	23.4	26.6	29.8	33.0	33.1	29.1	23.1	18.9	15.8	13.5	9.66	7.35	5.83	—	—
21	0.42	1.00	1.95	3.80	5.60	7.38	10.9	14.4	17.8	21.2	24.6	27.9	31.3	34.6	35.6	31.3	24.8	20.3	17.0	14.5	10.4	7.91	4.89	—	—
22	0.44	1.05	2.04	3.98	5.87	7.74	11.4	15.0	18.6	22.2	25.8	29.3	32.8	36.3	38.2	33.5	26.6	21.8	18.2	15.6	11.1	8.48	—	—	—
23	0.46	1.10	2.14	4.16	6.14	8.09	11.9	15.7	19.5	23.2	26.9	30.6	34.3	37.9	40.8	35.8	28.4	23.3	19.5	16.7	11.9	9.07	—	—	—
24	0.48	1.15	2.23	4.34	6.40	8.44	12.5	16.4	20.3	24.2	28.1	31.9	35.8	39.6	43.4	38.2	30.3	24.8	20.8	17.8	12.7	9.66	—	—	—
25	0.50	1.19	2.32	4.52	6.67	8.79	13.0	17.1	21.2	25.2	29.3	33.3	37.2	41.2	45.2	40.6	32.2	26.4	22.1	18.9	13.5	10.27	—	—	—
26	0.52	1.24	2.42	4.70	6.94	9.14	13.5	17.8	22.0	26.2	30.4	34.6	38.7	42.9	47.0	43.1	34.2	28.0	23.4	20.0	14.3	4.20	—	—	—
28	0.55	1.34	2.60	5.06	7.47	9.85	14.5	19.2	23.7	28.3	32.8	37.3	41.7	46.2	50.6	48.1	38.2	31.3	26.2	22.4	16.0	—	—	—	—
30	0.59	1.43	2.79	5.42	8.00	10.5	15.6	20.5	25.4	30.3	35.1	39.9	44.7	49.5	54.2	53.4	42.4	34.7	29.1	24.8	17.8	—	—	—	—
32	0.63	1.53	2.97	5.78	8.54	11.3	16.6	21.9	27.1	32.3	37.5	42.6	47.7	52.8	57.8	58.8	46.7	38.2	32.0	27.3	11.5	—	—	—	—
20	0.69	1.67	3.25	6.33	9.34	12.3	18.2	23.9	29.7	35.3	41.0	46.6	52.1	57.7	63.2	67.3	53.4	43.7	36.6	31.3	—	—	—	—	—
40	0.79	1.91	3.72	7.23	10.7	14.1	20.8	27.4	33.9	40.4	46.8	53.2	59.6	65.9	72.3	78.6	65.2	53.4	44.7	29.7	—	—	—	—	—
45	0.89	2.15	4.18	8.13	12.0	15.8	23.4	30.8	38.1	45.4	52.7	59.9	67.0	74.2	81.3	88.4	77.8	63.7	37.1	—	—	—	—	—	—

Manual (106 ft./min. max.) | **Drip** (264 ft./min. max.) | **Bath/Slinger** (1,322 ft./min. max.) | **Pump** (max. rated speed)

No. 80H (Heavy) Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	10	25	50	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2700	3000	3400
11	0.49	1.19	2.31	4.50	6.64	8.75	12.9	17.0	21.1	25.1	29.1	27.4	23.0	19.6	17.0	14.9	11.8	9.69	8.12	6.93	6.01	5.27	4.42	3.77	3.13
12	0.54	1.30	2.52	4.91	7.24	9.54	14.1	18.6	23.0	27.4	31.8	31.2	26.2	22.3	19.4	17.0	13.5	11.0	9.25	7.90	6.85	6.01	5.04	4.30	3.56
13	0.58	1.40	2.73	5.32	7.84	10.3	15.3	20.1	24.9	29.7	34.4	35.2	29.5	25.2	21.8	19.2	15.2	12.5	10.4	8.91	7.72	6.78	5.68	4.85	4.02
14	0.63	1.51	2.94	5.72	8.45	11.1	16.4	21.7	26.8	32.0	37.1	39.4	33.0	28.2	24.4	21.4	17.0	13.9	11.7	9.96	8.63	7.57	6.35	5.42	4.49
15	0.67	1.62	3.15	6.13	9.05	11.9	17.6	23.2	28.8	34.3	39.7	43.6	36.6	31.2	27.1	23.8	18.9	15.4	12.9	11.0	9.57	8.40	7.04	6.01	3.90
16	0.72	1.73	3.36	6.54	9.65	12.7	18.8	24.8	30.7	36.5	42.4	48.1	40.3	34.4	29.8	26.2	20.8	17.0	14.2	12.2	10.5	9.25	7.76	6.62	—
17	0.76	1.84	3.57	6.95	10.3	13.5	20.0	26.3	32.6	38.8	45.0	51.2	44.1	37.7	32.7	28.7	22.7	18.6	15.6	13.3	11.5	10.1	8.49	7.25	—
18	0.81	1.94	3.78	7.36	10.9	14.3	21.1	27.8	34.5	41.1	47.7	54.2	48.1	41.1	35.6	31.2	24.8	20.3	17.0	14.5	12.6	11.0	9.25	1.91	—
19	0.85	2.05	3.99	7.77	11.5	15.1	22.3	29.4	36.4	43.4	50.3	57.2	52.1	44.5	38.6	33.9	26.9	22.0	18.4	15.7	13.6	12.0	10.0	—	—
20	0.90	2.16	4.20	8.18	12.1	15.9	23.5	30.9	38.3	45.7	53.0	60.2	56.3	48.1	41.7	36.6	29.0	23.8	19.9	17.0	14.7	12.9	10.8	—	—
21	0.94	2.27	4.41	8.59	12.7	16.7	24.6	32.5	40.3	48.0	55.6	63.2	60.6	51.7	44.8	39.4	31.2	25.6	21.4	18.3	15.9	13.9	—	—	—
22	0.99	2.38	4.62	8.99	13.3	17.5	25.8	34.0	42.2	50.2	58.2	66.2	65.0	55.5	48.1	42.2	33.5	27.4	23.0	19.6	17.0	14.9	—	—	—
23	1.03	2.48	4.83	9.40	13.9	18.3	27.0	35.6	44.1	52.5	60.9	69.2	69.5	59.3	51.4	45.1	35.8	29.3	24.6	21.0	18.2	15.9	—	—	—
24	1.08	2.59	5.04	9.81	14.5	19.1	28.2	37.1	46.0	54.8	63.5	72.2	74.0	63.2	54.8	48.1	38.2	31.2	26.2	22.3	19.4	5.49	—	—	—
25	1.12	2.70	5.25	10.2	15.1	19.9	29.3	38.7	47.9	57.1	66.2	75.2	78.7	67.2	58.2	51.1	40.6	33.2	27.8	23.8	20.6	—	—	—	—
26	1.17	2.81	5.46	10.6	15.7	20.7	30.5	40.2	49.8	59.4	68.8	78.3	83.5	71.3	61.8	54.2	43.0	35.2	29.5	25.2	16.8	—	—	—	—
28	1.26	3.03	5.88	11.4	16.9	22.3	32.9	43.3	53.7	63.9	74.1	84.3	93.3	79.7	69.0	60.6	48.1	39.4	33.0	28.2	—	—	—	—	—
30	1.34	3.24	6.31	12.3	18.1	23.9	35.2	46.4	57.5	68.5	79.4	90.3	101	88.3	76.6	67.2	53.3	43.6	36.6	12.3	—	—	—	—	—
32	1.43	3.46	6.73	13.1	19.3	25.5	37.6	49.5	61.3	73.1	84.7	96.3	108	97.3	84.3	74.0	58.7	48.1	39.5	—	—	—	—	—	—
35	1.57	3.78	7.36	14.3	21.1	27.8	41.1	54.2	67.1	79.9	92.7	105	118	111	96.5	84.7	67.2	55.0	5.66	—	—	—	—	—	—
40	1.79	4.32	8.41	16.4	24.1	31.8	47.0	61.9	76.7	91.3	106	120	135	136	118	103	82.1	14.5	—	—	—	—	—	—	—
45	2.02	4.86	9.46	18.4	27.2	35.8	52.8	69.6	86.3	103	119	135	152	162	141	123	43.4	—	—	—	—	—	—	—	—

Manual (90 ft./min. max.) | **Drip** (225 ft./min. max.) | **Bath/Slinger** (1,126 ft./min. max.) | **Pump** (max. rated speed)

Number of Strands	Multiple Strand Factor
2	1.7
3	2.5
4	3.3
5	3.9
6	4.6

- The blue dotted line indicates the speed at which roller-bushing impact becomes the horsepower limiting factor. See Boundary Lines on the Horsepower Rating Tables (page E-30).
- The green dotted line indicates the speed at which pin-bushing galling becomes the horsepower limiting factor.
- The red dotted line indicates the maximum recommended sprocket speed.

No. 100H (Heavy) Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																							
	10	25	50	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1600	1800	2000	2200	2400	2600	2700
11	0.93	2.23	4.34	8.44	12.5	16.4	24.2	31.9	39.6	47.1	40.0	32.8	27.5	23.4	20.3	17.8	15.8	14.2	11.6	9.71	8.29	7.19	6.31	5.59	5.28
12	1.01	2.43	4.73	9.21	13.6	17.9	26.4	34.9	43.2	51.4	45.6	37.3	31.3	26.7	23.2	20.3	18.0	16.1	13.2	11.1	9.45	8.19	7.19	6.37	6.02
13	1.09	2.64	5.13	9.98	14.7	19.4	28.6	37.8	46.8	55.7	51.4	42.1	35.3	30.1	26.1	22.9	20.3	18.2	14.9	12.5	10.6	9.23	8.10	7.19	6.79
14	1.18	2.84	5.52	10.7	15.9	20.9	30.8	40.7	50.4	60.0	57.5	47.0	39.4	33.7	29.2	25.6	22.7	20.3	16.6	13.9	11.9	10.3	9.05	8.03	7.59
15	1.26	3.04	5.92	11.5	17.0	22.4	33.1	43.6	54.0	64.3	63.7	52.2	43.7	37.3	32.4	28.4	25.2	22.5	18.4	15.5	13.2	11.4	10.0	8.91	8.42
16	1.35	3.24	6.31	12.3	18.1	23.9	35.3	46.5	57.6	68.6	70.2	57.5	48.2	41.1	35.7	31.3	27.7	24.8	20.3	17.0	14.5	12.6	11.1	5.58	—
17	1.43	3.45	6.71	13.0	19.3	25.4	37.5	49.4	61.2	72.9	76.9	63.0	52.8	45.0	39.0	34.3	30.4	27.2	22.3	18.7	15.9	13.8	12.1	—	—
18	1.51	3.65	7.10	13.8	20.4	26.9	39.7	52.3	64.8	77.2	83.8	68.6	57.5	49.1	42.5	37.3	33.1	29.6	24.2	20.3	17.4	15.0	2.98	—	—
19	1.60	3.85	7.50	14.6	21.5	28.4	41.9	55.2	68.4	81.4	90.9	74.4	62.3	53.2	46.1	40.5	35.9	32.1	26.3	22.0	18.8	16.3	—	—	—
20	1.68	4.06	7.89	15.3	22.7	29.9	44.1	58.1	72.0	85.7	98.1	80.3	67.3	57.5	49.8	43.7	38.8	34.7	28.4	23.8	20.3	7.82	—	—	—
21	1.77	4.26	8.28	16.1	23.8	31.4	46.3	61.0	75.6	90.0	104.4	86.4	72.4	61.8	53.6	47.0	41.7	37.3	30.6	25.6	21.9	—	—	—	—
22	1.85	4.46	8.68	16.9	24.9	32.8	48.5	63.9	79.2	94.3	109	92.7	77.7	66.3	57.5	50.4	44.7	40.0	32.8	27.5	21.7	—	—	—	—
23	1.94	4.66	9.07	17.7	26.1	34.3	50.7	66.8	82.8	98.6	114	99.1	83.0	70.9	61.4	53.9	47.8	42.8	35.0	29.4	3.01	—	—	—	—
24	2.02	4.87	9.47	18.4	27.2	35.8	52.9	69.7	86.4	103	119	106	88.5	75.6	65.5	57.5	51.0	45.6	37.3	31.3	—	—	—	—	—
25	2.10	5.07	9.86	19.2	28.3	37.3	55.1	72.6	90.0	107	124	112	94.1	80.3	69.6	61.1	54.2	48.5	39.7	29.7	—	—	—	—	—
26	2.19	5.27	10.3	20.0	29.4	38.8	57.3	75.5	93.6	111	129	119	99.8	85.2	73.8	64.8	57.5	51.4	42.1	11.7	—	—	—	—	—
28	2.36	5.68	11.0	21.5	31.7	41.8	61.7	81.3	101	120	139	133	112	95.2	82.5	72.4	64.2	57.5	47.0	—	—	—	—	—	—
30	2.52	6.08	11.8	23.0	34.0	44.8	66.1	87.1	108	129	149	148	124	106	91.5	80.3	71.2	63.7	19.3	—	—	—	—	—	—
32	2.69	6.49	12.6	24.6	36.2	47.8	70.5	92.9	115	137	159	163	136	116	101	88.5	78.5	70.2	—	—	—	—	—	—	—
35	2.95	7.10	13.8	26.9	39.6	52.3	77.1	102	126	150	174	186	156	133	115	101	89.8	33.9	—	—	—	—	—	—	—
40	3.37	8.11	15.8	30.7	45.3	59.7	88.1	116	144	171	199	226	190	163	141	82.5	6.39	—	—	—	—	—	—	—	—
45	3.79	9.13	17.8	34.5	51.0	67.2	99.2	131	162	193	224	254	227	166	85.7	—	—	—	—	—	—	—	—	—	—

Manual (79 ft./min. max.) | **Drip** (199 ft./min. max.) | **Bath/Slinger** (993 ft./min. max.) | **Pump** (max. rated speed)

No. 120H (Heavy) Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	10	25	50	100	150	200	250	300	350	400	450	500	550	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700
11	1.55	3.72	7.24	14.1	20.8	27.4	34.0	40.5	46.9	53.3	59.7	66.1	66.5	58.4	46.3	37.9	31.8	27.1	23.5	20.6	18.3	16.4	14.8	13.4	12.2
12	1.69	4.06	7.90	15.4	22.7	29.9	37.0	44.1	51.2	58.2	65.1	72.1	75.8	66.5	52.8	43.2	36.2	30.9	26.8	23.5	20.9	18.7	16.8	15.3	13.9
13	1.83	4.40	8.56	16.7	24.6	32.4	40.1	47.8	55.4	63.0	70.6	78.1	85.4	75.0	59.5	48.7	40.8	34.9	30.2	26.5	23.5	21.0	19.0	17.2	15.7
14	1.97	4.74	9.22	17.9	26.5	34.9	43.2	51.5	59.7	67.9	76.0	84.1	92.1	83.8	66.5	54.4	45.6	39.0	33.8	29.6	26.3	23.5	21.2	19.2	17.6
15	2.11	5.08	9.88	19.2	28.4	37.4	46.3	55.2	64.0	72.7	81.4	90.1	98.7	92.9	73.8	60.4	50.6	43.2	37.4	32.9	29.1	26.1	23.5	21.3	19.5
16	2.25	5.42	10.5	20.5	30.2	39.9	49.4	58.8	68.2	77.6	86.8	96.1	105	102	81.3	66.5	55.7	47.6	41.2	36.2	32.1	28.7	25.9	23.5	21.5
17	2.39	5.75	11.2	21.8	32.1	42.4	52.5	62.5	72.5	82.4	92.3	102	112	112	89.0	72.8	61.0	52.1	45.2	39.6	35.2	31.5	28.4	25.8	23.5
18	2.53	6.09	11.9	23.1	34.0	44.9	55.6	66.2	76.8	87.3	97.7	108	118	122	97.0	79.4	66.5	56.8	49.2	43.2	38.3	34.3	30.9	28.1	25.6
19	2.67	6.43	12.5	24.3	35.9	47.3	58.7	69.9	81.0	92.1	103	114	125	133	105	86.1	72.1	61.6	53.4	46.8	41.5	37.2	33.5	30.4	27.8
20	2.81	6.77	13.2	25.6	37.8	49.8	61.7	73.6	85.3	96.9	109	120	132	143	114	92.9	77.9	66.5	57.6	50.6	44.9	40.1	36.2	32.9	30.0
21	2.95	7.11	13.8	26.9	39.7	52.3	64.8	77.2	89.5	102	114	126	138	150	122	100	83.8	71.6	62.0	54.4	48.3	43.2	39.0	35.4	32.3
22	3.09	7.45	14.5	28.2	41.6	54.8	67.9	80.9	93.8	107	119	132	145	157	131	107	89.9	76.7	66.5	58.4	51.8	46.3	41.8	37.9	15.6
23	3.23	7.79	15.1	29.5	43.5	57.3	71.0	84.6	98.1	111	125	138	151	165	140	115	96.1	82.0	71.1	62.4	55.3	49.5	44.6	38.5	—
24	3.37	8.12	15.8	30.7	45.4	59.8	74.1	88.3	102	116	130	144	158	172	149	122	102	87.4	75.8	66.5	59.0	52.8	47.6	12.3	—
25	3.51	8.46	16.5	32.0	47.3	62.3	77.2	91.9	107	121	136	150	165	179	159	130	109	92.9	80.6	70.7	62.7	56.1	42.8	—	—
26	3.65	8.80	17.1	33.3	49.2	64.8	80.3	95.6	111	126	141	156	171	186	168	138	115	98.6	85.4	75.0	66.5	59.5	16.8	—	—
28	3.93	9.48	18.4	35.9	52.9	69.8	86.4	103	119	136	152	168	184	200	188	154	129	110	95.5	83.8	74.3	30.5	—	—	—
30	4.21	10.2	19.8	38.4	56.7	74.8	92.6	110	128	145	163	180	197	215	209	171	143	122	106	92.9	54.4	—	—	—	—
32	4.49	10.8	21.1	41.0	60.5	79.7	98.8	118	136	155	174	192	211	229	230	188	158	135	117	88.9	—	—	—	—	—
35	4.92	11.8	23.0	44.8	66.2	87.2	108	129	149	170	190	210	230	250	263	215	180	154	115	12.7	—	—	—	—	—
40	5.62	13.5	26.3	51.2	75.6	99.7	123	147	171	194	217	240	263	286	321	263	220	119	—	—	—	—	—	—	—
45	6.32	15.2	29.6	57.6	85.1	112	139	165	192	218	244	270	296	322	373	279	148	—	—	—	—	—	—	—	—

Manual (72 ft./min. max.) | **Drip** (179 ft./min. max.) | **Bath/Slinger** (897 ft./min. max.) | **Pump** (max. rated speed)

- The blue dotted line indicates the speed at which roller-bushing impact becomes the horsepower limiting factor. See Boundary Lines on the Horsepower Rating Tables (page E-30).
- The green dotted line indicates the speed at which pin-bushing galling becomes the horsepower limiting factor.
- The red dotted line indicates the maximum recommended sprocket speed.

Number of Strands	Multiple Strand Factor
2	1.7
3	2.5
4	3.3
5	3.9
6	4.6

No. 140H (Heavy) Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	10	25	50	100	150	200	250	300	350	400	450	500	550	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700
11	2.36	5.69	11.1	21.5	31.8	41.9	51.9	61.8	71.7	81.5	91.2	86.8	75.2	66.0	52.4	42.9	35.9	30.7	26.6	23.3	20.7	18.5	16.7	15.2	13.8
12	2.57	6.21	12.1	23.5	34.7	45.7	56.6	67.4	78.2	88.9	99.5	98.9	85.7	75.2	59.7	48.9	41.0	35.0	30.3	26.6	23.6	21.1	19.0	17.3	15.8
13	2.79	6.72	13.1	25.4	37.5	49.5	61.3	73.0	84.7	96.3	108	112	96.7	84.8	67.3	55.1	46.2	39.4	34.2	30.0	26.6	23.8	21.5	19.5	17.8
14	3.00	7.24	14.1	27.4	40.4	53.3	66.0	78.7	91.2	104	116	125	108	94.8	75.2	61.6	51.6	44.1	38.2	33.5	29.7	26.6	24.0	21.8	19.9
15	3.22	7.76	15.1	29.4	43.3	57.1	70.7	84.3	97.7	111	124	138	120	105	83.4	68.3	57.2	48.9	42.4	37.2	33.0	29.5	26.6	24.1	22.0
16	3.43	8.27	16.1	31.3	46.2	60.9	75.5	89.9	104.2	118	133	147	132	116	91.9	75.2	63.1	53.8	46.7	41.0	36.3	32.5	29.3	26.6	24.3
17	3.65	8.79	17.1	33.3	49.1	64.7	80.2	95.5	110.7	126	141	156	145	127	101	82.4	69.1	59.0	51.1	44.9	39.8	35.6	32.1	29.1	26.6
18	3.86	9.31	18.1	35.2	52.0	68.5	84.9	101	117.3	133	149	165	157	138	110	89.8	75.2	64.2	55.7	48.9	43.3	38.8	35.0	31.7	13.6
19	4.08	9.82	19.1	37.2	54.9	72.3	89.6	107	123.8	141	158	174	171	150	119	97.4	81.6	69.7	60.4	53.0	47.0	42.1	37.9	33.6	—
20	4.29	10.3	20.1	39.1	57.8	76.1	94.3	112	130.3	148	166	183	184	162	128	105	88.1	75.2	65.2	57.2	50.8	45.4	41.0	—	—
21	4.51	10.9	21.1	41.1	60.6	79.9	99.0	118	136.8	156	174	193	198	174	138	113	94.8	80.9	70.2	61.6	54.6	48.9	26.6	—	—
22	4.72	11.4	22.1	43.0	63.5	83.7	104	124	143.3	163	182	202	213	187	148	121	102	86.8	75.2	66.0	58.6	52.4	—	—	—
23	4.93	11.9	23.1	45.0	66.4	87.6	108	129	149.8	170	191	211	227	200	158	130	109	92.8	80.4	70.6	62.6	29.6	—	—	—
24	5.15	12.4	24.1	47.0	69.3	91.4	113	135	156.3	178	199	220	241	213	169	138	116	98.9	85.7	75.2	66.7	—	—	—	—
25	5.36	12.9	25.1	48.9	72.2	95.2	118	140	162.9	185	207	229	251	226	180	147	123	105	91.1	80.0	45.3	—	—	—	—
26	5.58	13.4	26.2	50.9	75.1	99.0	123	146	169.4	193	216	239	261	240	190	156	131	112	96.7	84.8	8.05	—	—	—	—
28	6.01	14.5	28.2	54.8	80.9	107	132	157	182.4	207	232	257	281	268	213	174	146	125	108	41.5	—	—	—	—	—
30	6.44	15.5	30.2	58.7	86.6	114	141	169	195.4	222	249	275	302	297	236	193	162	138	91.5	—	—	—	—	—	—
32	6.87	16.5	32.2	62.6	92.4	122	151	180	208.4	237	265	294	322	328	260	213	178	152	20.9	—	—	—	—	—	—
35	7.51	18.1	35.2	68.5	101	133	165	197	228.0	259	290	321	352	375	297	243	204	66.4	—	—	—	—	—	—	—
40	8.58	20.7	40.2	78.3	116	152	189	225	260.6	296	332	367	402	437	363	264	75.1	—	—	—	—	—	—	—	—
45	9.66	23.3	45.3	88.1	130	171	212	253	293.1	333	373	413	452	492	353	133	—	—	—	—	—	—	—	—	—

Manual (66 ft./min. max.) | **Drip** (165 ft./min. max.) | **Bath/Slinger** (823 ft./min. max.) | **Pump** (max. rated speed)

No. 160H (Heavy) Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	10	25	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	1000	1100	1200	1300	1400
11	3.40	8.19	15.9	31.0	45.7	60.3	74.7	89.0	103	117	113	96.6	83.7	73.5	65.2	58.3	52.6	47.7	43.6	40.0	34.1	29.6	26.0	23.0	20.6
12	3.71	8.93	17.4	33.8	49.9	65.8	81.5	97.1	113	128	129	110	95.4	83.7	74.2	66.4	59.9	54.4	49.6	45.6	38.9	33.7	29.6	26.3	23.5
13	4.02	9.68	18.8	36.6	54.0	71.2	88.3	105	122	139	145	124	108	94.4	83.7	74.9	67.5	61.3	56.0	51.4	43.9	38.0	33.4	29.6	26.5
14	4.32	10.4	20.3	39.4	58.2	76.7	95.0	113	131	149	162	139	120	105	93.6	83.7	75.5	68.5	62.6	57.4	49.0	42.5	37.3	33.1	29.6
15	4.63	11.2	21.7	42.3	62.4	82.2	102	121	141	160	179	154	133	117	104	92.8	83.7	76.0	69.4	63.7	54.4	47.1	41.4	36.7	32.8
16	4.94	11.9	23.2	45.1	66.5	87.7	109	129	150	171	191	169	147	129	114	102	92.2	83.7	76.4	70.2	59.9	51.9	45.6	40.4	36.2
17	5.25	12.7	24.6	47.9	70.7	93.2	115	137	159	181	203	186	161	141	125	112	101	91.7	83.7	76.8	65.6	56.9	49.9	44.3	39.6
18	5.56	13.4	26.1	50.7	74.8	98.6	122	146	169	192	215	202	175	154	136	122	110	99.9	91.2	83.7	71.5	62.0	54.4	48.2	43.2
19	5.87	14.1	27.5	53.5	79.0	104	129	154	178	203	227	219	190	167	148	132	119	108	98.9	90.8	77.5	67.2	59.0	52.3	43.9
20	6.18	14.9	29.0	56.3	83.1	110	136	162	188	213	239	237	205	180	160	143	129	117	107	98.1	83.7	72.6	63.7	56.5	—
21	6.49	15.6	30.4	59.2	87.3	115	143	170	197	224	251	255	221	194	172	154	139	126	115	105	90.1	78.1	68.5	47.6	—
22	6.80	16.4	31.9	62.0	91.5	121	149	178	206	235	263	273	237	208	184	165	149	135	123	113	96.6	83.7	73.5	—	—
23	7.10	17.1	33.3	64.8	95.6	126	156	186	216	245	275	292	253	222	197	176	159	144	132	121	103	89.5	68.4	—	—
24	7.41	17.9	34.8	67.6	99.8	132	163	194	225	256	286	311	270	237	210	188	169	154	140	129	110	95.4	22.0	—	—
25	7.72	18.6	36.2	70.4	104	137	170	202	234	267	298	330	287	252	223	200	180	164	149	137	117	101	—	—	—
26	8.03	19.4	37.7	73.2	108	142	177	210	244	277	310	343	304	267	237	212	191	173	158	145	124	67.3	—	—	—
28	8.65	20.8	40.5	78.9	116	153	190	226	263	298	334	370	340	298	265	237	214	194	177	162	135	—	—	—	—
30	9.27	22.3	43.4	84.5	125	164	204	243	281	320	358	396	377	331	293	263	237	215	196	180	49.3	—	—	—	—
32	9.88	23.8	46.3	90.1	133	175	217	259	300	341	382	423	415	365	323	289	261	237	216	158	—	—	—	—	—
35	10.8	26.1	50.7	98.6	146	192	238	283	328	373	418	462	475	417	370	331	298	258	147	22.7	—	—	—	—	—
40	12.4	29.8	57.9	113	166	219	272	324	375	426	477	528	579	509	452	345	211	57.8	—	—	—	—	—	—	—
45	13.9	33.5	65.2	127	187	247	306	364	422	480	537	594	622	496	347	173	—	—	—	—	—	—	—	—	—

Manual (61 ft./min. max.) | **Drip** (153 ft./min. max.) | **Bath/Slinger** (764 ft./min. max.) | **Pump** (max. rated speed)

Number of Strands	Multiple Strand Factor
2	1.7
3	2.5
4	3.3
5	3.9
6	4.6

- The blue dotted line indicates the speed at which roller-bushing impact becomes the horsepower limiting factor. See Boundary Lines on the Horsepower Rating Tables (page E-30).
- The green dotted line indicates the speed at which pin-bushing galling becomes the horsepower limiting factor.
- The red dotted line indicates the maximum recommended sprocket speed.

No. 180H (Heavy) Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	10	25	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	1000	1100	1200	1300	1400
11	4.66	11.2	21.9	42.5	62.8	82.7	102	122	142	148	124	106	92.0	80.7	71.6	64.1	57.8	52.4	47.9	43.9	37.5	32.5	28.5	25.3	22.7
12	5.09	12.3	23.8	46.4	68.5	90.2	112	133	154	169	142	121	105	92.0	81.6	73.0	65.8	59.7	54.6	50.1	42.8	37.1	32.5	28.8	25.8
13	5.51	13.3	25.8	50.3	74.2	97.8	121	144	167	190	160	136	118	104	92.0	82.3	74.2	67.4	61.5	56.5	48.2	41.8	36.7	32.5	29.1
14	5.93	14.3	27.8	54.1	79.9	105	130	155	180	205	178	152	132	116	103	92.0	82.9	75.3	68.7	63.1	53.9	46.7	41.0	36.3	32.5
15	6.36	15.3	29.8	58.0	85.6	113	140	166	193	219	198	169	146	129	114	102	92.0	83.5	76.2	70.0	59.7	51.8	45.5	40.3	36.1
16	6.78	16.3	31.8	61.9	91.3	120	149	178	206	234	218	186	161	142	126	112	101	92.0	84.0	77.1	65.8	57.1	50.1	44.4	39.7
17	7.21	17.4	33.8	65.7	97.0	128	158	189	219	249	239	204	177	155	138	123	111	101	92.0	84.4	72.1	62.5	54.8	48.6	—
18	7.63	18.4	35.8	69.6	103	135	168	200	232	263	260	222	193	169	150	134	121	110	100	92.0	78.5	68.1	59.7	47.7	—
19	8.05	19.4	37.8	73.5	108	143	177	211	245	278	282	241	209	183	163	145	131	119	109	99.8	85.2	73.8	64.8	—	—
20	8.48	20.4	39.7	77.3	114	150	186	222	257	293	305	260	226	198	176	157	142	129	117	108	92.0	79.7	55.5	—	—
21	8.90	21.5	41.7	81.2	120	158	196	233	270	307	328	280	243	213	189	169	152	138	126	116	99.0	85.8	—	—	—
22	9.33	22.5	43.7	85.1	126	165	205	244	283	322	352	300	260	228	203	181	163	148	135	124	106	87.5	—	—	—
23	9.75	23.5	45.7	88.9	131	173	214	255	296	336	376	321	278	244	216	194	175	159	145	133	113	29.5	—	—	—
24	10.2	24.5	47.7	92.8	137	180	224	266	309	351	393	342	296	260	231	206	186	169	154	142	121	—	—	—	—
25	10.6	25.5	49.7	96.6	143	188	233	277	322	366	410	364	315	277	245	220	198	180	164	151	96.4	—	—	—	—
26	11.0	26.6	51.7	101	148	196	242	289	335	380	426	386	334	293	260	233	210	191	174	160	37.8	—	—	—	—
28	11.9	28.6	55.6	108	160	211	261	311	360	410	459	431	374	328	291	260	235	213	194	147	—	—	—	—	—
30	12.7	30.6	59.6	116	171	226	280	333	386	439	491	478	414	364	322	289	260	236	165	31.3	—	—	—	—	—
32	13.6	32.7	63.6	124	183	241	298	355	412	468	524	527	456	401	355	318	287	200	52.1	—	—	—	—	—	—
35	14.8	35.8	69.6	135	200	263	326	388	450	512	573	602	522	458	406	359	205	28.7	—	—	—	—	—	—	—
40	17.0	40.9	79.5	155	228	301	373	444	515	585	655	725	638	514	334	124	—	—	—	—	—	—	—	—	—
45	19.1	46.0	89.4	174	257	338	419	499	579	658	737	750	561	334	65.1	—	—	—	—	—	—	—	—	—	—

Manual (57 ft./min. max.) | **Drip** (143 ft./min. max.) | **Bath/Slinger** (950 ft./min. max.) | **Pump** (max. rated speed)

No. 200H (Heavy) Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	2	5	10	15	20	30	40	50	70	100	150	200	250	300	350	400	450	500	550	600	650	700	800	900	1000
11	1.37	3.31	6.44	9.51	12.5	18.5	24.4	30.2	41.7	58.7	86.7	114	142	169	196	161	135	115	100	87.8	77.9	69.7	57.0	47.8	40.8
12	1.50	3.61	7.03	10.4	13.7	20.2	26.6	32.9	45.5	64.1	94.6	125	154	184	213	184	154	132	114	100	88.8	79.4	65.0	54.5	46.5
13	1.62	3.91	7.61	11.2	14.8	21.9	28.8	35.7	49.3	69.4	102	135	167	199	231	207	174	148	129	113	100	89.6	73.3	61.4	52.4
14	1.75	4.21	8.20	12.1	15.9	23.5	31.0	38.4	53.1	74.8	110	145	180	215	249	232	194	166	144	126	112	100	81.9	68.6	58.6
15	1.87	4.52	8.78	13.0	17.1	25.2	33.2	41.2	56.9	80.1	118	156	193	230	267	257	215	184	159	140	124	111	90.8	76.1	65.0
16	2.00	4.82	9.37	13.8	18.2	26.9	35.5	43.9	60.7	85.4	126	166	206	245	284	283	237	203	176	154	137	122	100	83.9	71.6
17	2.12	5.12	9.95	14.7	19.4	28.6	37.7	46.7	64.5	90.8	134	177	219	261	302	310	260	222	192	169	150	134	110	91.9	78.4
18	2.25	5.42	10.5	15.6	20.5	30.3	39.9	49.4	68.3	96.1	142	187	232	276	320	338	283	242	209	184	163	146	119	100	85.4
19	2.37	5.72	11.1	16.4	21.6	31.9	42.1	52.2	72.0	101	150	197	245	291	338	366	307	262	227	199	177	158	130	109	92.7
20	2.50	6.02	11.7	17.3	22.8	33.6	44.3	54.9	75.8	107	158	208	257	307	356	396	332	283	245	215	191	171	140	117	100
21	2.62	6.32	12.3	18.1	23.9	35.3	46.5	57.7	79.6	112	166	218	270	322	373	424	357	305	264	232	205	184	150	126	108
22	2.75	6.62	12.9	19.0	25.1	37.0	48.7	60.4	83.4	117	173	229	283	337	391	445	382	327	283	248	220	197	161	135	86.9
23	2.87	6.92	13.5	19.9	26.2	38.7	51.0	63.1	87.2	123	181	239	296	353	409	465	409	349	303	266	236	211	172	145	12.0
24	3.00	7.22	14.1	20.7	27.3	40.3	53.2	65.9	91.0	128	189	249	309	368	427	485	436	372	323	283	251	225	184	154	—
25	3.12	7.53	14.6	21.6	28.5	42.0	55.4	68.6	94.8	134	197	260	322	383	444	505	463	396	343	301	267	239	195	119	—
26	3.25	7.83	15.2	22.5	29.6	43.7	57.6	71.4	98.6	139	205	270	335	399	462	525	491	420	364	319	283	253	207	46.7	—
28	3.50	8.43	16.4	24.2	31.9	47.1	62.0	76.9	106	150	221	291	360	429	498	566	549	469	406	357	316	283	212	—	—
30	3.75	9.03	17.6	25.9	34.2	50.4	66.5	82.4	114	160	236	312	386	460	533	606	609	520	451	396	351	314	77.1	—	—
32	4.00	9.63	18.7	27.7	36.5	53.8	70.9	87.8	121	171	252	332	412	491	569	647	671	573	497	436	387	321	—	—	—
35	4.37	10.5	20.5	30.2	39.9	58.8	77.6	96.1	133	187	276	364	450	537	622	707	768	655	568	499	362	135.5	—	—	—
40	5.00	12.0	23.4	34.6	45.6	67.2	88.6	110	152	214	315	416	515	613	711	808	905	801	588	330	25.6	—	—	—	—
45	5.62	13.5	26.4	38.9	51.3	75.7	99.7	124	171	240	355	467	579	690	800	909	926	664	343	—	—	—	—	—	—

Manual (54 ft./min. max.) | **Drip** (135 ft./min. max.) | **Bath/Slinger** (865 ft./min. max.) | **Pump** (max. rated speed)

- The blue dotted line indicates the speed at which roller-bushing impact becomes the horsepower limiting factor. See Boundary Lines on the Horsepower Rating Tables (page E-30).
- The green dotted line indicates the speed at which pin-bushing galling becomes the horsepower limiting factor.
- The red dotted line indicates the maximum recommended sprocket speed.

Number of Strands	Multiple Strand Factor
2	1.7
3	2.5
4	3.3
5	3.9
6	4.6

No. 240H (Heavy) Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	2	5	10	15	20	25	30	40	50	60	80	100	125	150	175	200	250	300	350	400	450	500	600	700	800
11	2.33	5.62	10.9	16.1	21.3	26.3	31.4	41.3	51.2	61.0	80.4	99.7	123	147	171	194	240	286	228	187	156	134	102	80.6	66.0
12	2.54	6.13	11.9	17.6	23.2	28.7	34.2	45.1	55.9	66.6	87.7	109	135	160	186	211	262	312	260	213	178	152	116	91.9	75.2
13	2.75	6.64	12.9	19.1	25.1	31.1	37.1	48.9	60.5	72.1	95.1	118	146	174	202	229	284	338	293	240	201	172	131	104	84.8
14	2.97	7.15	13.9	20.5	27.1	33.5	39.9	52.6	65.2	77.7	102	127	157	187	217	247	306	364	328	268	225	192	146	116	94.8
15	3.18	7.66	14.9	22.0	29.0	35.9	42.8	56.4	69.9	83.2	110	136	168	201	233	264	327	390	363	297	249	213	162	128	105
16	3.39	8.17	15.9	23.5	30.9	38.3	45.6	60.1	74.5	88.8	117	145	180	214	248	282	349	416	400	328	274	234	178	141	116
17	3.60	8.68	16.9	24.9	32.8	40.7	48.5	63.9	79.2	94.3	124	154	191	227	264	300	371	442	438	359	301	257	195	155	127
18	3.81	9.19	17.9	26.4	34.8	43.1	51.3	67.7	83.8	99.9	132	163	202	241	279	317	393	468	477	391	328	280	213	169	138
19	4.03	9.70	18.9	27.9	36.7	45.5	54.2	71.4	88.5	105	139	172	213	254	295	335	415	494	518	424	355	303	231	183	150
20	4.24	10.2	19.9	29.3	38.6	47.9	57.0	75.2	93.1	111	146	181	224	267	310	352	437	520	559	458	384	328	249	198	162
21	4.45	10.7	20.9	30.8	40.6	50.3	59.9	78.9	97.8	117	154	190	236	281	326	370	458	546	602	492	413	352	268	213	174
22	4.66	11.2	21.9	32.3	42.5	52.7	62.7	82.7	102	122	161	199	247	294	341	388	480	572	645	528	443	378	287	228	187
23	4.87	11.7	22.8	33.7	44.4	55.1	65.6	86.5	107	128	168	208	258	308	357	405	502	598	690	564	473	404	307	244	154
24	5.08	12.3	23.8	35.2	46.4	57.5	68.4	90.2	112	133	175	217	269	321	372	423	524	624	724	602	504	431	328	260	49.4
25	5.30	12.8	24.8	36.7	48.3	59.8	71.3	94.0	116	139	183	226	281	334	388	441	546	650	754	640	536	458	348	276	—
26	5.51	13.3	25.8	38.1	50.2	62.2	74.1	97.7	121	144	190	236	292	348	403	458	568	676	784	678	569	485	369	293	—
28	5.93	14.3	27.8	41.0	54.1	67.0	79.9	105	130	155	205	254	314	374	434	493	611	728	844	758	635	543	413	122	—
30	6.36	15.3	29.8	44.0	58.0	71.8	85.6	113	140	166	219	272	337	401	465	529	655	780	905	841	705	602	458	—	—
32	6.78	16.3	31.8	46.9	61.8	76.6	91.3	120	149	178	234	290	359	428	496	564	699	832	965	926	776	663	355	—	—
35	7.42	17.9	34.8	51.3	67.6	83.8	99.8	132	163	194	256	317	393	468	543	617	764	910	1056	1060	888	758	51.0	—	—
40	8.47	20.4	39.7	58.6	77.3	95.8	114	150	186	222	292	362	449	535	620	705	873	1040	1206	1263	913	475	—	—	—
45	9.53	23.0	44.7	66.0	87.0	108	128	169	210	250	329	408	505	602	698	793	982	1170	1357	1117	593	—	—	—	—

Manual (49 ft./min. max.) | **Drip** (122 ft./min. max.) | **Bath/Slinger** (608 ft./min. max.) | **Pump** (max. rated speed)

Number of Strands	Multiple Strand Factor
2	1.7
3	2.5
4	3.3
5	3.9
6	4.6

- The blue dotted line indicates the speed at which roller-bushing impact becomes the horsepower limiting factor. See Boundary Lines on the Horsepower Rating Tables (page E-30).
- The green dotted line indicates the speed at which pin-bushing galling becomes the horsepower limiting factor.
- The red dotted line indicates the maximum recommended sprocket speed.

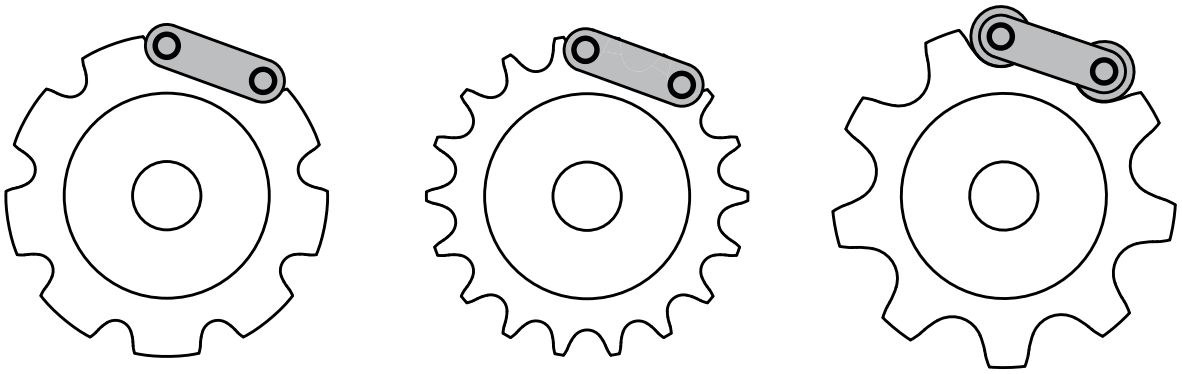
Double-Pitch Horsepower Ratings

For the conditions that apply to the ratings for double-pitch chain, see Overview on page E-32.

Maximum Double-Pitch Sprocket Speeds

The red dashed line showing the maximum recommended sprocket speed occurs before either roller-bushing impact or pin-bushing galling become the horsepower limiting factor. See Horsepower Limiting Factors and Dashed Lines on Tables, page E-32.

Sprockets for Double-Pitch Chain



Small-roller
Single-cut sprocket

Small-roller
Double-cut sprocket

Large-roller
Single-cut sprocket

Sprockets for small-roller double-pitch chain, may be single- or double-cut. On a single-cut sprocket a single pitch of chain straddles one tooth. On a double-cut sprocket a single pitch of chain straddles two teeth. The sprockets available for large-roller double-pitch chain are single-cut.

Number of Effective Teeth

On a single-cut sprocket, every tooth is an “effective” tooth and is used by the roller chain once in each revolution. Double-pitch chain can also run on double-cut sprockets, however, only every other tooth will be engaged. The following horsepower rating tables for double-pitch roller chain are based upon the number of effective teeth.

If using double-cut sprockets, divide the actual number of teeth on the sprocket by two to get the number of effective teeth. So, if a double-cut sprocket has 27 actual teeth, the number of effective teeth is 13.5. The rating tables only list whole tooth counts and don’t list every tooth count. Tooth counts not listed must be interpolated.

Double-cut sprockets with an odd number of teeth are called hunting tooth sprockets. This means that the effective teeth alternate with each revolution, distributing the wear evenly.

Double-cut sprockets with an even number of teeth cannot provide automatic hunting. Only half of the teeth ever engage the rollers. Manual shifting of the chain by one-tooth is necessary to provide even distribution of wear.

There are double-cut sprockets with 23 or fewer teeth that are specifically designed for double-pitch chain. **Above 23 teeth it is customary to run double-pitch chain on standard roller-chain sprockets.**

No. 2040 Double-Pitch Roller Chain

Effective Teeth	Small Sprocket RPM																			
	25	50	100	150	200	250	300	350	400	450	500	550	600	700	800	900	1,000	1,100	1,200	1,300
6	0.10	0.17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7	0.12	0.21	0.35	0.46	0.54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8	0.14	0.25	0.45	0.64	0.72	0.82	0.90	—	—	—	—	—	—	—	—	—	—	—	—	—
9	0.16	0.30	0.53	0.72	0.88	1.02	1.14	1.30	1.30	—	—	—	—	—	—	—	—	—	—	—
10	0.18	0.34	0.61	0.82	1.04	1.21	1.37	1.50	1.60	1.70	1.80	1.90	—	—	—	—	—	—	—	—
11	0.20	0.38	0.69	0.96	1.20	1.41	1.59	1.80	1.90	2.00	2.10	2.20	2.30	—	—	—	—	—	—	—
12	0.22	0.42	0.77	1.07	1.34	1.58	1.80	2.00	2.20	2.30	2.50	2.60	2.70	2.90	—	—	—	—	—	—
13	0.24	0.46	0.84	1.18	1.48	1.76	2.01	2.20	2.40	2.60	2.80	2.90	3.10	3.30	3.50	—	—	—	—	—
14	0.26	0.50	0.92	1.29	1.62	1.93	2.21	2.50	2.70	2.90	3.10	3.30	3.40	3.70	3.90	4.10	—	—	—	—
15	0.28	0.54	0.99	1.39	1.76	2.09	2.40	2.70	2.90	3.20	3.40	3.60	3.80	4.10	4.30	4.50	4.70	—	—	—
16	0.30	0.57	1.06	1.50	1.89	2.25	2.59	2.90	3.20	3.40	3.70	3.90	4.10	4.40	4.70	5.00	5.10	—	—	—
17	0.32	0.61	1.13	1.60	2.02	2.41	2.77	3.10	3.40	3.70	4.00	4.20	4.40	4.80	5.10	5.40	5.60	5.70	—	—
18	0.34	0.65	1.20	1.70	2.15	2.57	2.95	3.30	3.60	3.90	4.20	4.50	4.70	5.10	5.50	5.80	6.00	6.20	—	—
19	0.36	0.69	1.27	1.80	2.28	2.73	3.13	3.50	3.90	4.20	4.50	4.80	5.00	5.50	5.90	6.20	6.40	6.60	6.70	—
20	0.38	0.72	1.34	1.89	2.40	2.87	3.30	3.70	4.10	4.40	4.70	5.00	5.30	5.80	6.20	6.50	6.80	7.00	7.10	—
21	0.40	0.76	1.41	1.99	2.53	3.01	3.47	3.90	4.30	4.60	5.00	5.30	5.60	6.10	6.50	6.90	7.10	7.40	7.50	—
22	0.42	0.79	1.48	2.09	2.64	3.16	3.63	4.10	4.50	4.90	5.20	5.50	5.80	6.40	6.80	7.20	7.50	7.70	7.90	—
23	0.44	0.83	1.54	2.18	2.76	3.30	3.80	4.30	4.70	5.10	5.40	5.80	6.10	6.60	7.10	7.50	7.80	8.00	8.20	8.30
24	0.46	0.87	1.61	2.27	2.88	3.44	3.95	4.40	4.90	5.30	5.70	6.00	6.40	6.90	7.40	7.80	8.10	8.40	8.50	8.60
25	0.48	0.90	1.67	2.36	3.00	3.58	4.11	4.60	5.10	5.50	5.90	6.30	6.60	7.20	7.70	8.10	8.40	8.70	8.80	8.90
30	0.57	1.08	1.99	2.81	3.56	4.24	4.87	5.40	6.00	6.50	6.90	7.40	7.80	8.40	8.90	9.40	9.70	10.0	10.1	10.1
35	0.66	1.25	2.30	3.24	4.09	4.86	5.57	6.20	6.80	7.40	7.90	8.30	8.70	9.40	10.0	10.4	10.7	10.9	11.0	—
40	0.75	1.41	2.60	3.65	4.59	5.45	6.22	6.90	7.60	8.20	8.70	9.20	9.60	10.3	10.9	11.2	11.5	11.6	—	—
45	0.84	1.58	2.89	4.04	5.07	6.00	6.84	7.60	8.30	8.90	9.40	9.90	10.3	11.0	11.6	11.9	12.0	—	—	—
50	0.93	1.74	3.17	4.42	5.53	6.52	7.41	8.20	8.90	9.60	10.1	10.6	11.0	11.7	12.1	12.3	—	—	—	—
55	1.01	1.90	3.45	4.79	5.97	7.02	7.95	8.80	9.50	10.2	10.7	11.2	11.6	12.2	—	—	—	—	—	—
60	1.10	2.05	3.70	5.14	6.39	7.49	8.46	9.30	10.0	10.7	11.2	11.7	12.0	—	—	—	—	—	—	—

Manual (104 ft./min. max.) | **Drip** (259 ft./min. max.) | **Bath/Slinger** (1,294 ft./min. max.) | **Pump** (max. rated speed)

No. 2050 Double-Pitch Roller Chain

Effective Teeth	Small Sprocket RPM																			
	25	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950
6	0.18	0.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7	0.22	0.40	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8	0.26	0.48	0.82	1.08	1.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9	0.31	0.56	0.98	1.32	1.59	1.82	1.99	—	—	—	—	—	—	—	—	—	—	—	—	—
10	0.35	0.64	1.14	1.55	1.89	2.19	2.42	2.62	2.80	—	—	—	—	—	—	—	—	—	—	—
11	0.39	0.72	1.30	1.77	2.19	2.55	2.85	3.11	3.35	3.55	—	—	—	—	—	—	—	—	—	—
12	0.43	0.80	1.45	1.99	2.47	2.90	3.26	3.58	3.88	4.12	4.31	—	—	—	—	—	—	—	—	—
13	0.47	0.88	1.59	2.20	2.74	3.23	3.65	4.03	4.38	4.66	4.90	5.11	5.30	—	—	—	—	—	—	—
14	0.51	0.95	1.73	2.41	3.01	3.55	4.02	4.45	4.85	5.17	5.47	5.73	5.95	6.09	—	—	—	—	—	—
15	0.55	1.02	1.87	2.62	3.27	3.87	4.37	4.86	5.30	5.67	6.01	6.31	6.57	6.75	6.94	—	—	—	—	—
16	0.58	1.09	2.01	2.82	3.52	4.17	4.72	5.25	5.73	6.15	6.53	6.87	7.17	7.39	7.61	7.79	—	—	—	—
17	0.62	1.17	2.14	3.01	3.77	4.46	5.07	5.67	6.15	6.61	7.05	7.42	7.74	7.99	8.24	8.46	8.62	—	—	—
18	0.66	1.24	2.27	3.20	4.01	4.75	5.41	6.04	6.56	7.07	7.54	7.95	8.29	8.56	8.84	9.08	9.28	—	—	—
19	0.70	1.31	2.40	3.39	4.25	5.04	5.75	6.40	6.96	7.51	8.01	8.46	8.82	9.12	9.42	9.68	9.90	10.1	—	—
20	0.74	1.38	2.53	3.57	4.48	5.32	6.07	6.75	7.35	7.94	8.46	8.94	9.33	9.65	9.97	10.3	10.5	10.7	—	—
21	0.77	1.45	2.66	3.75	4.71	5.59	6.38	7.10	7.74	8.36	8.90	9.40	9.82	10.2	10.5	10.8	11.1	11.3	11.4	—
22	0.81	1.52	2.79	3.92	4.93	5.85	6.69	7.44	8.12	8.77	9.33	9.84	10.3	10.7	11.0	11.3	11.6	11.8	12.0	—
23	0.84	1.59	2.92	4.10	5.15	6.11	6.99	7.77	8.49	9.16	9.75	10.3	10.7	11.1	11.5	11.8	12.1	12.4	12.5	—
24	0.88	1.66	3.05	4.27	5.37	6.37	7.29	8.10	8.85	9.54	10.2	10.7	11.2	11.6	12.0	12.3	12.6	12.9	13.0	—
25	0.91	1.72	3.17	4.45	5.59	6.62	7.57	8.42	9.20	9.91	10.6	11.1	11.6	12.0	12.4	12.8	13.1	13.3	13.5	13.6
30	1.09	2.05	3.77	5.29	6.62	7.82	8.92	9.92	10.8	11.7	12.3	13.0	13.6	14.0	14.4	14.8	15.1	15.3	15.5	—
35	1.27	2.38	4.35	6.07	7.60	8.95	10.2	11.3	12.3	13.1	13.9	14.6	15.2	15.6	16.0	16.4	16.6	16.8	16.9	—
40	1.44	2.70	4.90	6.82	8.50	10.0	11.3	12.5	13.6	14.5	15.3	16.0	16.6	16.9	17.3	17.6	17.8	—	—	—
45	1.61	3.00	5.45	7.55	9.35	11.0	12.4	13.7	14.7	15.6	16.5	17.1	17.7	18.0	18.3	18.5	—	—	—	—
50	1.78	3.30	5.95	8.25	10.2	11.9	13.4	14.7	15.8	16.7	17.6	18.1	18.6	18.8	—	—	—	—	—	—
55	1.95	3.60	6.45	8.90	11.0	12.8	14.3	15.6	16.7	17.6	18.4	18.9	—	—	—	—	—	—	—	—
60	2.11	3.90	6.95	9.52	11.7	13.6	15.1	16.5	17.5	—	—	—	—	—	—	—	—	—	—	—

Manual (91 ft./min. max.) | **Drip** (228 ft./min. max.) | **Bath/Slinger** (1,142 ft./min. max.) | **Pump** (max. rated speed)

No. 2060 Double-Pitch Roller Chain

Effective Teeth	Small Sprocket RPM																			
	25	50	75	100	125	150	175	200	225	250	275	300	350	400	450	500	550	600	650	700
6	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7	0.37	0.66	0.88	1.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8	0.44	0.80	1.09	1.34	1.56	1.74	1.89	—	—	—	—	—	—	—	—	—	—	—	—	—
9	0.52	0.94	1.30	1.62	1.90	2.15	2.36	2.55	2.72	—	—	—	—	—	—	—	—	—	—	—
10	0.59	1.08	1.51	1.89	2.23	2.54	2.82	3.07	3.29	3.50	3.68	3.83	—	—	—	—	—	—	—	—
11	0.66	1.21	1.71	2.15	2.54	2.92	3.25	3.58	3.84	4.12	4.34	4.56	4.93	—	—	—	—	—	—	—
12	0.73	1.34	1.90	2.41	2.85	3.29	3.67	4.06	4.37	4.71	4.97	5.24	5.71	6.06	—	—	—	—	—	—
13	0.79	1.47	2.09	2.66	3.15	3.65	4.08	4.52	4.88	5.27	5.59	5.91	6.46	6.92	7.25	—	—	—	—	—
14	0.86	1.60	2.27	2.90	3.45	4.00	4.48	4.96	5.37	5.80	6.17	6.54	7.17	7.72	8.10	8.51	—	—	—	—
15	0.92	1.72	2.45	3.14	3.74	4.34	4.86	5.39	5.85	6.32	6.73	7.14	7.86	8.48	8.92	9.40	—	—	—	—
16	0.99	1.85	2.64	3.37	4.02	4.67	5.24	5.81	6.32	6.82	7.27	7.72	8.52	9.21	9.71	10.3	10.7	—	—	—
17	1.05	1.97	2.82	3.59	4.29	4.99	5.61	6.22	6.78	7.32	7.80	8.29	9.16	9.91	10.5	11.1	11.6	12.0	—	—
18	1.12	2.10	3.00	3.82	4.56	5.31	5.97	6.63	7.23	7.81	8.32	8.84	9.78	10.6	11.2	11.8	12.4	12.9	—	—
19	1.18	2.22	3.17	4.04	4.83	5.62	6.32	7.03	7.67	8.29	8.83	9.38	10.4	11.2	11.9	12.6	13.2	13.7	14.1	—
20	1.25	2.34	3.34	4.25	5.09	5.93	6.67	7.42	8.09	8.74	9.33	9.91	11.0	11.9	12.6	13.3	14.0	14.5	15.0	—
21	1.31	2.46	3.51	4.48	5.36	6.24	7.02	7.80	8.50	9.19	9.81	10.4	11.5	12.5	13.3	14.1	14.7	15.3	15.8	—
22	1.37	2.58	3.67	4.70	5.62	6.54	7.35	8.17	8.90	9.63	10.3	10.9	12.1	13.1	13.9	14.7	15.4	16.1	16.6	—
23	1.44	2.69	3.84	4.91	5.87	6.83	7.68	8.54	9.30	10.1	10.7	11.4	12.6	13.6	14.5	15.4	16.1	16.8	17.3	17.8
24	1.50	2.80	4.00	5.12	6.12	7.12	8.01	8.91	9.69	10.5	11.2	11.9	13.2	14.2	15.2	16.0	16.8	17.4	18.0	18.4
25	1.56	2.92	4.17	5.32	6.36	7.41	8.34	9.27	10.1	10.9	11.6	12.4	13.6	14.7	15.8	16.7	17.4	18.1	18.7	19.1
30	1.86	3.48	4.96	6.32	7.58	8.78	9.86	10.9	11.9	12.8	13.7	14.6	16.0	17.3	18.4	19.4	20.2	20.9	21.3	22.0
35	2.16	4.03	5.73	7.29	8.73	10.1	11.3	12.5	13.6	14.7	15.6	16.5	18.1	19.5	20.7	21.7	22.6	23.2	23.8	—
40	2.45	4.55	6.46	8.20	9.81	11.3	12.7	14.0	15.2	16.3	17.3	18.4	20.0	21.4	22.6	23.7	24.4	25.1	—	—
45	2.73	5.07	7.18	9.10	10.8	12.5	13.9	15.4	16.6	17.9	18.9	20.0	21.6	23.1	24.3	25.3	25.9	—	—	—
50	3.02	5.59	7.87	9.94	11.8	13.6	15.1	16.7	18.0	19.3	20.4	21.5	23.1	24.6	25.7	—	—	—	—	—
55	3.29	6.07	8.54	10.8	12.7	14.7	16.3	17.9	19.2	20.6	21.7	22.8	24.5	25.8	—	—	—	—	—	—
60	3.58	6.55	9.21	11.6	13.6	15.7	17.3	19.0	20.4	21.8	22.9	24.0	—	—	—	—	—	—	—	—

Manual (83 ft./min. max.) | **Drip** (206 ft./min. max.) | **Bath/Slinger** (1,031 ft./min. max.) | **Pump** (max. rated speed)

No. 2080 Double-Pitch Roller Chain

Effective Teeth	Small Sprocket RPM																			
	10	20	30	40	50	60	70	80	90	100	125	150	175	200	225	250	300	350	400	450
6	0.32	0.55	0.76	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7	0.38	0.70	0.98	1.22	1.44	1.63	1.80	—	—	—	—	—	—	—	—	—	—	—	—	—
8	0.46	0.84	1.78	1.50	1.78	2.04	2.28	2.50	2.70	2.88	—	—	—	—	—	—	—	—	—	—
9	0.52	0.98	1.39	1.76	2.11	2.43	2.74	3.02	3.29	3.53	4.08	4.54	—	—	—	—	—	—	—	—
10	0.59	1.11	1.58	2.02	2.43	2.82	3.18	3.53	3.85	4.16	4.85	5.45	5.98	—	—	—	—	—	—	—
11	0.66	1.24	1.77	2.27	2.76	3.20	3.60	4.02	4.38	4.77	5.60	6.33	6.98	7.56	8.07	—	—	—	—	—
12	0.72	1.37	1.96	2.52	3.08	3.56	4.02	4.50	4.92	5.36	6.33	7.19	7.95	8.66	9.27	9.82	—	—	—	—
13	0.79	1.49	2.15	2.77	3.38	3.91	4.44	4.97	5.45	5.93	7.02	8.02	8.89	9.72	10.4	11.1	—	—	—	—
14	0.85	1.62	2.33	3.01	3.67	4.26	4.85	5.42	5.96	6.49	7.69	8.82	9.80	10.7	11.5	12.3	13.6	—	—	—
15	0.91	1.74	2.52	3.25	3.96	4.60	5.25	5.86	6.45	7.03	8.34	9.60	10.7	11.7	12.6	13.5	14.9	—	—	—
16	0.98	1.87	2.70	3.48	4.24	4.94	5.64	6.29	6.93	7.56	8.98	10.4	11.5	12.7	13.6	14.6	16.2	17.7	—	—
17	1.04	1.99	2.88	3.71	4.52	5.28	6.02	6.72	7.40	8.09	9.61	11.1	12.4	13.6	14.6	15.7	17.5	19.0	—	—
18	1.11	2.11	3.05	3.94	4.80	5.61	6.40	7.14	7.87	8.60	10.2	11.8	13.2	14.5	15.6	16.8	18.7	20.4	21.8	—
19	1.17	2.23	3.23	4.17	5.08	5.94	6.77	7.56	8.33	9.10	10.8	12.5	14.0	15.4	16.6	17.8	19.9	21.7	23.2	—
20	1.23	2.35	3.40	4.40	5.35	6.26	7.13	7.98	8.78	9.60	11.4	13.2	14.8	16.2	17.5	18.8	21.0	22.9	24.5	—
21	1.29	2.47	3.57	4.62	5.62	6.58	7.49	8.39	9.23	10.1	12.0	13.9	15.5	17.1	18.4	19.8	22.1	24.1	25.8	—
22	1.36	2.58	3.74	4.84	5.89	6.89	7.84	8.79	9.67	10.6	12.6	14.5	16.3	17.9	19.3	20.7	23.2	25.3	27.0	—
23	1.42	2.70	3.90	5.06	6.16	7.20	8.19	9.18	10.1	11.1	13.2	15.2	17.0	18.7	20.2	21.7	24.2	26.4	28.2	—
24	1.48	2.82	4.05	5.27	6.43	7.51	8.54	9.56	10.5	11.5	13.8	15.8	17.7	19.5	21.0	22.6	25.2	27.5	29.4	31.0
25	1.54	2.93	4.20	5.48	6.70	7.81	8.89	9.94	11.0	12.0	14.3	16.5	18.5	20.3	21.9	23.4	26.2	28.6	30.5	32.2
30	1.84	3.50	5.02	6.54	7.96	9.29	10.6	11.7	13.0	14.2	17.0	19.5	21.8	23.9	25.7	27.5	30.7	33.6	35.5	37.3
35	2.14	4.07	5.82	7.56	9.19	10.7	12.2	13.5	14.9	16.4	19.5	22.3	24.9	27.2	29.2	31.2	34.7	37.6	39.7	—
40	2.43	4.61	6.60	8.55	10.4	12.1	13.8	15.2	16.8	18.4	21.8	24.9	27.7	30.3	32.4	34.5	38.1	41.0	43.1	—
45	2.72	5.15	7.37	9.52	11.5	13.4	15.3	16.8	18.6	20.3	24.0	27.3	30.4	33.1	35.3	37.5	41.1	43.8	—	—
50	3.01	5.68	8.13	10.5	12.7	14.7	16.7	18.4	20.4	22.1	26.1	29.7	32.8	35.7	37.9	40.2	43.7	—	—	—
55	3.29	6.20	8.88	11.4	13.8	16.0	18.1	20.0	22.0	23.9	28.1	31.8	35.1	38.0	40.3	42.5	—	—	—	—
60	3.57	6.72	9.60	12.3	14.9	17.2	19.4	21.5	23.6	25.6	30.0	33.9	37.2	40.1	—	—	—	—	—	—

Manual (70 ft./min. max.) | **Drip** (176 ft./min. max.) | **Bath/Slinger** (878 ft./min. max.) | **Pump** (max. rated speed)

No. 2100 Double-Pitch Roller Chain

Effective Teeth	Small Sprocket RPM																			
	10	20	30	40	50	60	70	80	100	120	140	160	180	200	220	240	260	280	300	325
6	0.60	1.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7	0.74	1.32	1.82	2.25	2.62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8	0.87	1.59	2.22	2.78	3.29	3.74	4.14	4.51	—	—	—	—	—	—	—	—	—	—	—	—
9	1.00	1.85	2.61	3.30	3.93	4.51	5.04	5.52	—	—	—	—	—	—	—	—	—	—	—	—
10	1.13	2.11	2.99	3.80	4.55	5.25	5.89	6.50	7.58	8.51	—	—	—	—	—	—	—	—	—	—
11	1.26	2.36	3.37	4.29	5.15	5.96	6.72	7.45	8.74	9.87	10.9	11.8	—	—	—	—	—	—	—	—
12	1.39	2.61	3.74	4.77	5.74	6.65	7.53	8.36	9.86	11.2	12.4	13.5	14.5	—	—	—	—	—	—	—
13	1.52	2.86	4.10	5.25	6.32	7.33	8.32	9.24	11.0	12.5	13.9	15.2	16.3	17.3	—	—	—	—	—	—
14	1.64	3.10	4.45	5.72	6.90	8.00	9.09	10.1	12.0	13.8	15.3	16.8	18.0	19.2	20.3	—	—	—	—	—
15	1.76	3.34	4.80	6.18	7.47	8.66	9.84	10.9	13.0	15.0	16.6	18.3	19.7	21.1	22.3	23.4	—	—	—	—
16	1.88	3.57	5.14	6.63	8.03	9.31	10.6	11.7	14.0	16.1	18.0	19.8	21.4	22.8	24.2	25.4	26.56	—	—	—
17	2.00	3.80	5.48	7.07	8.58	9.95	11.3	12.5	15.0	17.3	19.3	21.2	22.9	24.5	26.1	27.4	28.63	—	—	—
18	2.12	4.03	5.82	7.50	9.12	10.6	12.0	13.3	16.0	18.4	20.6	22.6	24.5	26.2	27.9	29.3	30.63	31.87	—	—
19	2.24	4.26	6.15	7.92	9.65	11.2	12.7	14.1	16.9	19.5	21.8	23.9	26.0	27.8	29.6	31.1	32.56	33.89	—	—
20	2.36	4.49	6.48	8.34	10.2	11.8	13.4	14.9	17.8	20.5	23.0	25.2	27.4	29.4	31.3	32.9	34.42	35.84	37.14	—
21	2.48	4.72	6.81	8.76	10.7	12.4	14.1	15.7	18.7	21.6	24.2	26.5	28.8	30.9	32.9	34.6	36.22	37.72	39.10	—
22	2.60	4.95	7.14	9.17	11.2	13.0	14.8	16.4	19.6	22.6	25.4	27.8	30.2	32.3	34.5	36.3	37.97	39.54	40.99	—
23	2.72	5.17	7.46	9.58	11.7	13.6	15.5	17.2	20.5	23.6	26.5	29.1	31.6	33.8	36.1	37.9	39.66	41.30	42.81	—
24	2.84	5.39	7.78	9.99	12.2	14.2	16.1	17.9	21.4	24.7	27.6	30.4	32.9	35.3	37.5	39.4	41.30	43.00	44.56	46.31
25	2.96	5.61	8.09	10.4	12.6	14.7	16.8	18.7	22.3	25.7	28.7	31.5	34.2	36.7	39.0	41.0	42.89	44.65	46.25	48.06
30	3.54	6.71	9.65	12.4	15.0	17.5	19.9	22.3	26.5	30.3	33.9	37.0	40.3	43.1	45.7	48.0	50.16	52.13	53.90	55.88
35	4.11	7.78	11.2	14.3	17.3	20.2	20.9	25.6	30.4	34.6	38.7	42.1	45.7	48.8	51.7	54.2	56.44	58.51	60.35	—
40	4.67	8.82	12.6	16.2	19.6	22.7	25.7	28.8	34.0	38.6	43.2	46.9	50.7	54.0	56.9	59.5	61.87	63.94	—	—
45	5.22	9.84	14.1	18.0	21.7	25.2	28.5	31.8	37.4	42.4	47.4	51.3	55.2	58.6	61.6	64.2	—	—	—	—
50	5.76	10.8	15.5	19.7	23.8	27.6	31.1	34.6	40.6	46.0	51.2	55.3	59.3	62.7	65.7	—	—	—	—	—
55	6.29	11.8	16.8	21.4	25.8	29.9	33.6	37.2	43.7	49.3	54.7	59.0	63.0	—	—	—	—	—	—	—
60	6.82	12.8	18.2	23.1	27.8	32.1	36.0	39.7	46.7	52.6	57.9	—	—	—	—	—	—	—	—	—

Manual (62 ft./min. max.) | **Drip** (155 ft./min. max.) | **Bath/Slinger** (775 ft./min. max.) | **Pump** (max. rated speed)

No. 2120 Double-Pitch Roller Chain

Effective Teeth	Small Sprocket RPM																			
	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	180	200	225	250
6	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7	1.24	2.20	3.00	3.67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
8	1.47	2.67	3.70	4.59	5.38	6.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—
9	1.70	3.12	4.37	5.48	6.48	7.39	8.22	8.96	—	—	—	—	—	—	—	—	—	—	—	—
10	1.93	3.56	5.02	6.34	7.55	8.66	9.68	10.6	11.5	12.3	—	—	—	—	—	—	—	—	—	—
11	2.15	3.99	5.66	7.18	8.59	9.89	11.1	12.2	13.3	14.3	15.2	16.0	—	—	—	—	—	—	—	—
12	2.37	4.42	6.29	7.98	9.60	11.1	12.5	13.8	15.0	16.1	17.2	18.2	19.2	20.0	—	—	—	—	—	—
13	2.59	4.84	6.91	8.77	10.6	12.2	13.8	15.3	16.7	18.0	19.2	20.4	21.5	22.5	23.5	24.4	—	—	—	—
14	2.80	5.25	7.52	9.54	11.5	13.4	15.1	16.8	18.3	19.8	21.1	22.5	23.7	24.9	30.0	27.0	29.0	—	—	—
15	3.01	5.66	8.12	10.3	12.5	14.5	16.4	18.2	19.9	21.5	23.0	24.5	25.8	27.2	28.4	29.6	31.8	—	—	—
16	3.22	6.06	8.71	11.1	13.4	15.6	17.6	19.6	21.4	23.2	24.8	26.4	27.9	29.4	30.7	32.1	34.5	36.6	—	—
17	3.43	6.46	9.29	11.8	14.3	16.7	18.9	20.9	22.9	24.8	26.6	28.3	30.0	31.5	33.0	34.4	37.1	39.4	—	—
18	3.64	6.86	9.86	12.6	15.2	17.7	20.1	22.3	24.4	26.4	28.3	30.2	32.0	33.6	35.2	36.8	39.6	42.2	45.0	—
19	3.85	7.25	10.4	13.3	16.1	18.8	21.2	23.6	25.9	28.0	30.0	32.0	33.9	35.7	37.4	39.0	42.0	44.8	47.9	—
20	4.05	7.64	11.0	14.0	17.0	19.8	22.4	24.9	27.3	29.5	31.7	33.8	35.8	37.7	39.5	41.2	44.4	47.3	50.6	—
21	4.25	8.03	11.5	14.7	17.9	20.8	23.6	26.2	28.7	31.1	33.3	35.5	37.6	39.6	41.5	43.3	46.7	49.8	53.3	—
22	4.45	8.41	12.1	15.5	18.7	21.8	24.7	27.4	30.1	32.6	35.0	37.3	39.4	41.5	43.5	45.4	49.0	52.2	55.8	—
23	4.65	8.79	12.6	16.2	19.6	22.8	25.8	28.7	31.4	34.0	36.5	38.9	41.2	43.4	45.5	47.5	51.1	54.5	58.3	61.6
24	4.85	9.17	13.2	16.9	20.4	23.7	26.9	29.9	32.7	35.5	38.1	40.6	42.9	45.2	47.4	49.4	53.3	56.8	60.8	64.2
25	5.05	9.54	13.7	17.6	21.2	24.7	28.0	31.1	34.1	36.9	39.6	42.2	44.6	47.0	49.2	51.4	55.4	59.0	63.1	66.6
30	6.00	11.4	16.3	20.9	25.2	29.3	33.2	36.8	40.3	43.6	46.8	49.8	52.7	55.4	58.0	60.4	65.0	69.1	73.7	77.6
35	6.96	13.2	18.8	24.1	29.1	33.7	38.1	42.2	46.2	49.9	53.4	56.8	60.0	63.0	65.8	68.5	73.5	78.0	82.8	—
40	7.91	14.9	21.3	27.2	32.7	37.9	42.8	47.3	51.7	55.7	59.6	63.2	66.7	69.9	73.0	75.9	81.1	85.7	—	—
45	8.85	16.7	23.7	30.1	36.3	41.9	47.2	52.2	56.8	61.2	65.3	69.2	72.9	76.3	79.5	82.5	87.8	92.5	—	—
50	9.78	18.3	26.0	32.9	39.7	45.8	51.4	56.8	61.7	66.4	70.7	74.8	78.6	82.1	85.4	88.4	—	—	—	—
55	10.7	20.0	28.3	35.7	42.9	49.5	55.5	61.1	66.3	71.2	75.7	79.9	83.8	87.4	—	—	—	—	—	—
60	11.6	21.6	30.5	38.5	46.1	53.0	59.2	65.3	70.7	75.7	80.4	84.7	—	—	—	—	—	—	—	—

Manual (56 ft./min. max.) | **Drip** (140 ft./min. max.) | **Bath/Slinger** (700 ft./min. max.) | **Pump** (max. rated speed)

No. 40 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																							
	10	25	50	100	200	300	400	500	700	900	1000	1200	1400	1600	1800	2100	2400	2700	3000	3500	4000	5000	6000	7000	8000
11	0.11	0.26	0.49	0.91	1.70	2.45	3.18	3.88	5.26	6.59	6.80	6.80	6.80	5.56	4.66	3.70	3.03	2.54	2.17	1.72	1.41	1.01	0.77	0.61	0.50
12	0.13	0.29	0.54	1.00	1.87	2.69	3.49	4.27	5.78	7.24	7.60	7.60	7.60	6.34	5.31	4.22	3.45	2.89	2.47	1.96	1.60	1.15	0.87	0.69	0.57
13	0.14	0.31	0.59	1.09	2.04	2.94	3.81	4.65	6.30	7.90	8.28	8.28	8.28	7.14	5.99	4.76	3.89	3.26	2.79	2.21	1.81	1.29	0.98	0.78	0.64
14	0.15	0.34	0.63	1.18	2.21	3.18	4.12	5.04	6.82	8.55	8.98	8.98	8.98	7.99	6.70	5.31	4.35	3.65	3.11	2.47	2.02	1.45	1.10	0.87	0.71
15	0.16	0.37	0.68	1.28	2.38	3.43	4.44	5.43	7.35	9.22	9.66	9.66	9.66	8.86	7.43	5.89	4.82	4.04	3.45	2.74	2.24	1.60	1.22	0.97	0.79
16	0.17	0.39	0.73	1.37	2.55	3.68	4.76	5.82	7.88	9.88	10.4	10.4	10.4	9.76	8.18	6.49	5.31	4.45	3.80	3.02	2.47	1.77	1.34	1.07	0.87
17	0.18	0.42	0.78	1.46	2.72	3.92	5.08	6.22	8.41	10.5	11.1	11.1	11.1	10.7	8.96	7.11	5.82	4.88	4.17	3.31	2.71	1.94	1.47	1.17	0.96
18	0.20	0.45	0.83	1.55	2.90	4.17	5.41	6.61	8.95	11.2	11.8	11.8	11.8	11.6	9.76	7.75	6.34	5.31	4.54	3.60	2.95	2.11	1.60	1.27	—
19	0.21	0.47	0.88	1.65	3.07	4.43	5.73	7.01	9.49	11.9	12.6	12.6	12.6	12.6	10.6	8.40	6.88	5.76	4.92	3.91	3.20	2.29	1.74	1.38	—
20	0.22	0.50	0.93	1.74	3.25	4.68	6.06	7.41	10.0	12.6	13.7	13.7	13.7	13.7	11.4	9.07	7.43	6.22	5.31	4.22	3.45	2.47	1.88	1.49	—
21	0.23	0.53	0.98	1.83	3.42	4.93	6.39	7.81	10.6	13.3	14.6	14.7	14.7	14.7	12.3	9.76	7.99	6.70	5.72	4.54	3.71	2.66	2.02	1.60	—
22	0.24	0.55	1.03	1.93	3.60	5.18	6.72	8.21	11.1	13.9	15.3	15.7	15.7	15.7	13.2	10.5	8.57	7.18	6.13	4.87	3.98	2.85	2.17	1.72	—
23	0.25	0.58	1.08	2.02	3.78	5.44	7.05	8.61	11.7	14.6	16.1	16.9	16.9	16.9	14.1	11.2	9.16	7.68	6.55	5.20	4.26	3.05	2.32	1.84	—
24	0.27	0.61	1.14	2.12	3.95	5.70	7.38	9.02	12.2	15.3	16.8	18.0	18.0	18.0	15.0	11.9	9.76	8.18	6.99	5.54	4.54	3.25	2.47	1.96	—
25	0.28	0.64	1.19	2.21	4.13	5.95	7.71	9.43	12.8	16.0	17.6	18.9	18.9	18.9	16.0	12.7	10.4	8.70	7.43	5.89	4.82	3.45	2.63	—	—
26	0.29	0.66	1.24	2.31	4.31	6.21	8.05	9.83	13.3	16.7	18.4	19.7	19.7	19.7	17.0	13.5	11.0	9.23	7.88	6.25	5.12	3.66	2.79	—	—
28	0.32	0.72	1.34	2.50	4.67	6.73	8.72	10.7	14.4	18.1	19.9	21.4	21.4	21.4	18.9	15.0	12.3	10.3	8.80	6.99	5.72	4.09	3.11	—	—
30	0.34	0.77	1.45	2.70	5.03	7.25	9.39	11.5	15.5	19.5	21.4	23.1	23.1	23.1	21.0	16.7	13.6	11.4	9.76	7.75	6.34	4.54	3.45	—	—
32	0.36	0.83	1.55	2.89	5.40	7.77	10.1	12.3	16.7	20.9	23.0	24.7	24.7	24.7	23.1	18.4	15.0	12.6	10.8	8.54	6.99	5.00	—	—	—
35	0.40	0.91	1.71	3.18	5.94	8.56	11.1	13.6	18.4	23.0	25.3	27.2	27.2	27.2	26.5	21.0	17.2	14.4	12.3	9.76	7.99	5.72	—	—	—
40	0.46	1.06	1.97	3.68	6.87	9.89	12.8	15.7	21.2	26.6	29.2	32.3	32.3	32.3	32.3	25.7	21.0	17.6	15.0	11.9	9.76	6.99	—	—	—

Manual (133 ft./min. max.) | **Drip** (332 ft./min. max.) | **Bath/Slinger** (1,659 ft./min. max.) | **Pump** (max. rated speed)

No. 50 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																							
	10	25	50	100	200	300	400	500	700	900	1000	1200	1400	1600	1800	2100	2400	2700	3000	3500	4000	4500	5000	5500	6000
11	0.23	0.53	0.99	1.84	3.44	4.95	6.42	7.84	10.6	13.3	10.6	10.2	8.13	6.65	5.58	4.42	3.62	3.04	2.59	2.06	1.68	1.41	1.20	1.04	0.92
12	0.25	0.58	1.08	2.02	3.78	5.44	7.05	8.62	11.7	11.7	11.7	11.7	9.26	7.58	6.35	5.04	4.13	3.46	2.95	2.34	1.92	1.61	1.37	1.19	1.04
13	0.28	0.63	1.18	2.21	4.12	5.93	7.68	9.39	12.7	13.2	13.2	13.2	10.4	8.55	7.16	5.69	4.65	3.90	3.33	2.64	2.16	1.81	1.55	1.34	—
14	0.30	0.69	1.28	2.39	4.46	6.43	8.32	10.2	13.8	14.7	14.7	14.7	11.7	9.55	8.01	6.35	5.20	4.36	3.72	2.95	2.42	2.03	1.73	1.50	—
15	0.32	0.74	1.38	2.58	4.81	6.92	8.97	11.0	14.8	16.4	16.4	16.4	12.9	10.6	8.88	7.05	5.77	4.83	4.13	3.27	2.68	2.25	1.92	1.66	—
16	0.35	0.79	1.48	2.76	5.15	7.42	9.62	11.8	15.9	18.0	18.0	18.0	14.3	11.7	9.78	7.76	6.35	5.32	4.55	3.61	2.95	2.47	2.11	1.83	—
17	0.37	0.85	1.58	2.95	5.50	7.92	10.3	12.6	17.0	19.7	19.7	19.7	15.6	12.8	10.7	8.50	6.96	5.83	4.98	3.95	3.23	2.71	2.31	2.01	—
18	0.39	0.90	1.68	3.14	5.85	8.43	10.9	13.3	18.1	21.2	21.2	21.2	17.0	13.9	11.7	9.26	7.58	6.35	5.42	4.30	3.52	2.95	2.52	—	—
19	0.42	0.95	1.78	3.32	6.20	8.94	11.6	14.2	19.2	22.5	22.5	22.5	18.5	15.1	12.7	10.0	8.22	6.89	5.88	4.67	3.82	3.20	2.73	—	—
20	0.44	1.01	1.88	3.51	6.56	9.45	12.2	15.0	20.2	23.7	23.7	23.7	19.9	16.3	13.7	10.8	8.88	7.44	6.35	5.04	4.13	3.46	2.95	—	—
21	0.47	1.06	1.99	3.70	6.91	9.96	12.9	15.8	21.3	25.1	25.1	25.1	21.4	17.6	14.7	11.7	9.55	8.01	6.84	5.42	4.44	3.72	3.18	—	—
22	0.49	1.12	2.09	3.90	7.27	10.5	13.6	16.6	22.4	26.3	26.3	26.3	23.0	18.8	15.8	12.5	10.2	8.59	7.33	5.82	4.76	3.99	3.41	—	—
23	0.51	1.17	2.19	4.09	7.63	11.0	14.2	17.4	23.5	27.6	27.6	27.6	24.6	20.1	16.9	13.4	11.0	9.18	7.84	6.22	5.09	4.27	—	—	—
24	0.54	1.23	2.29	4.28	7.98	11.5	14.9	18.2	24.7	29.0	29.0	29.0	26.2	21.4	18.0	14.3	11.7	9.78	8.35	6.63	5.42	4.55	—	—	—
25	0.56	1.28	2.40	4.47	8.34	12.0	15.6	19.0	25.8	30.2	30.2	30.2	27.9	22.8	19.1	15.2	12.4	10.4	8.88	7.05	5.77	4.83	—	—	—
26	0.59	1.34	2.50	4.67	8.71	12.5	16.2	19.9	26.9	31.5	31.5	31.5	29.5	24.2	20.3	16.1	13.2	11.0	9.42	7.47	6.12	5.13	—	—	—
28	0.64	1.45	2.71	5.05	9.43	13.6	17.6	21.5	29.1	34.2	34.2	34.2	33.0	27.0	22.6	18.0	14.7	12.3	10.5	8.35	6.84	5.73	—	—	—
30	0.69	1.56	2.92	5.44	10.2	14.6	19.0	23.2	31.4	36.9	36.9	36.9	36.6	30.0	25.1	19.9	16.3	13.7	11.7	9.26	7.58	—	—	—	—
32	0.73	1.68	3.13	5.84	10.9	15.7	20.3	24.9	33.6	40.3	40.3	40.3	40.3	33.0	27.7	22.0	18.0	15.1	12.9	10.2	8.35	—	—	—	—
35	0.81	1.85	3.45	6.43	12.0	17.3	22.4	27.4	37.1	46.1	46.1	46.1	46.1	37.8	31.6	25.1	20.6	17.2	14.7	11.7	9.55	—	—	—	—
40	0.94	2.13	3.98	7.43	13.9	20.0	25.9	31.6	42.8	53.7	56.4	56.4	56.4	46.1	38.7	30.7	25.1	21.0	18.0	14.3	—	—	—	—	—

Manual (117 ft./min. max.) | **Drip** 293 ft./min. max.) | **Bath/Slinger** (1,464 ft./min. max.) | **Pump** (max. rated speed)

Number of Strands	Multiple Strand Factor
2	1.7
3	2.5
4	3.3
5	3.9
6	4.6

- The blue dotted line indicates the speed at which roller-bushing impact becomes the horsepower limiting factor. See Boundary Lines on the Horsepower Rating Tables (page E-30).
- The green dotted line indicates the speed at which pin-bushing galling becomes the horsepower limiting factor.
- The red dotted line indicates the maximum recommended sprocket speed.

No. 60 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	10	25	50	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1400	1600	1800	2000	2500	3000	3500	4000	4500
11	0.42	0.96	1.79	3.33	4.80	6.22	8.96	11.6	14.2	16.7	17.0	17.0	17.0	15.6	13.5	11.9	9.41	7.70	6.45	5.51	3.94	3.00	2.38	1.95	1.63
12	0.46	1.05	1.96	3.66	5.28	6.83	9.84	12.8	15.6	18.4	18.6	18.6	18.6	17.8	15.4	13.5	10.7	8.77	7.35	6.28	4.49	3.42	2.71	2.22	1.86
13	0.50	1.15	2.14	3.99	5.75	7.45	10.7	13.9	17.0	20.0	20.4	20.4	20.4	20.0	17.4	15.2	12.1	9.89	8.29	7.08	5.06	3.85	3.06	2.50	—
14	0.54	1.24	2.32	4.33	6.23	8.07	11.6	15.1	18.4	21.7	22.4	22.4	22.4	22.4	19.4	17.0	13.5	11.1	9.26	7.91	5.66	4.31	3.42	2.80	—
15	0.59	1.34	2.50	4.66	6.71	8.70	12.5	16.2	19.8	23.4	24.8	24.8	24.8	24.8	21.5	18.9	15.0	12.3	10.3	8.77	6.28	4.77	3.79	3.10	—
16	0.63	1.43	2.68	5.00	7.20	9.32	13.4	17.4	21.3	25.1	27.3	27.3	27.3	27.3	23.7	20.8	16.5	13.5	11.3	9.66	6.91	5.26	4.17	3.42	—
17	0.67	1.53	2.86	5.34	7.68	9.96	14.3	18.6	22.7	26.8	29.9	29.9	29.9	29.9	25.9	22.8	18.1	14.8	12.4	10.6	7.57	5.76	4.57	3.74	—
18	0.71	1.63	3.04	5.67	8.17	10.6	15.3	19.8	24.2	28.5	31.8	31.8	31.8	31.8	28.3	24.8	19.7	16.1	13.5	11.5	8.25	6.28	4.98	4.08	—
19	0.76	1.73	3.22	6.02	8.67	11.2	16.2	20.9	25.6	30.2	33.6	33.6	33.6	33.6	30.7	26.9	21.4	17.5	14.6	12.5	8.95	6.81	5.40	4.42	—
20	0.80	1.83	3.41	6.36	9.16	11.9	17.1	22.1	27.1	31.9	35.7	35.7	35.7	35.7	33.1	29.1	23.1	18.9	15.8	13.5	9.66	7.35	5.83	—	—
21	0.84	1.92	3.59	6.70	9.65	12.5	18.0	23.3	28.5	33.6	37.5	37.5	37.5	37.5	35.6	31.3	24.8	20.3	17.0	14.5	10.4	7.91	6.28	—	—
22	0.89	2.02	3.78	7.05	10.2	13.2	18.9	24.5	30.0	35.4	39.5	39.5	39.5	39.5	38.2	33.5	26.6	21.8	18.2	15.6	11.1	8.48	6.73	—	—
23	0.93	2.12	3.96	7.39	10.7	13.8	19.9	25.7	31.5	37.1	41.4	41.4	41.4	41.4	40.8	35.8	28.4	23.3	19.5	16.7	11.9	9.07	7.19	—	—
24	0.97	2.22	4.15	7.74	11.2	14.4	20.8	27.0	33.0	38.8	43.6	43.6	43.6	43.6	43.6	38.2	30.3	24.8	20.8	17.8	12.7	9.66	7.67	—	—
25	1.02	2.32	4.34	8.09	11.7	15.1	21.7	28.2	34.4	40.6	46.2	46.2	46.2	46.2	46.2	40.6	32.2	26.4	22.1	18.9	13.5	10.3	8.15	—	—
26	1.06	2.42	4.52	8.44	12.2	15.8	22.7	29.4	35.9	42.3	48.6	49.1	49.1	49.1	49.1	43.1	34.2	28.0	23.4	20.0	14.3	10.9	8.65	—	—
28	1.15	2.63	4.90	9.15	13.2	17.1	24.6	31.8	38.9	45.9	52.7	54.8	54.8	54.8	54.8	48.1	38.2	31.3	26.2	22.4	16.0	12.2	—	—	—
30	1.24	2.83	5.28	9.85	14.2	18.4	26.5	34.3	41.9	49.4	56.8	60.2	60.2	60.2	60.2	53.4	42.4	34.7	29.1	24.8	17.8	13.5	—	—	—
32	1.33	3.03	5.66	10.6	15.2	19.7	28.4	36.8	45.0	53.0	60.9	64.5	64.5	64.5	64.5	58.8	46.7	38.2	32.0	27.3	19.6	14.9	—	—	—
35	1.47	3.34	6.24	11.6	16.8	21.7	31.3	40.5	49.5	58.4	67.1	71.0	71.0	71.0	71.0	67.3	53.4	43.7	36.6	31.3	22.4	17.0	—	—	—
40	1.69	3.86	7.20	13.4	19.4	25.1	36.1	46.8	57.2	67.4	77.5	82.2	82.2	82.2	82.2	82.2	65.2	53.4	44.7	38.2	27.3	—	—	—	—

Manual (106 ft./min. max.) | **Drip** 264 ft./min. max.) | **Bath/Slinger** (1,322 ft./min. max.) | **Pump** (max. rated speed)

No. 80 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	10	25	50	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2700	3000	3400
11	0.97	2.22	4.14	7.72	11.1	14.4	20.8	26.9	30.3	30.3	30.3	27.4	23.0	19.6	17.0	14.9	11.8	9.69	8.12	6.93	6.01	5.27	4.42	3.77	3.13
12	1.07	2.44	4.55	8.48	12.2	15.8	22.8	29.5	33.4	33.4	33.4	31.2	26.2	22.3	19.4	17.0	13.5	11.0	9.25	7.90	6.85	6.01	5.04	4.30	3.56
13	1.16	2.66	4.96	9.25	13.3	17.3	24.9	32.2	36.3	36.3	36.3	35.2	29.5	25.2	21.8	19.2	15.2	12.5	10.4	8.91	7.72	6.78	5.68	4.85	4.02
14	1.26	2.88	5.37	10.0	14.4	18.7	26.9	34.9	39.4	39.4	39.4	39.4	33.0	28.2	24.4	21.4	17.0	13.9	11.7	9.96	8.63	7.57	6.35	5.42	4.49
15	1.36	3.10	5.78	10.8	15.5	20.1	29.0	37.6	43.7	43.7	43.7	43.7	36.6	31.2	27.1	23.8	18.9	15.4	12.9	11.0	9.57	8.40	7.04	6.01	4.98
16	1.46	3.32	6.20	11.6	16.7	21.6	31.1	40.3	48.1	48.1	48.1	48.1	40.3	34.4	29.8	26.2	20.8	17.0	14.2	12.2	10.5	9.25	7.76	6.62	5.49
17	1.56	3.55	6.62	12.4	17.8	23.1	33.2	43.0	52.6	52.7	52.7	52.7	44.1	37.7	32.7	28.7	22.7	18.6	15.6	13.3	11.5	10.1	8.49	7.25	—
18	1.65	3.77	7.04	13.1	18.9	24.5	35.3	45.8	55.9	57.4	57.4	57.4	48.1	41.1	35.6	31.2	24.8	20.3	17.0	14.5	12.6	11.0	9.25	7.90	—
19	1.75	4.00	7.47	13.9	20.1	26.0	37.4	48.5	59.3	61.7	61.7	61.7	52.1	44.5	38.6	33.9	26.9	22.0	18.4	15.7	13.6	12.0	10.0	8.57	—
20	1.85	4.23	7.89	14.7	21.2	27.5	39.6	51.3	62.7	65.3	65.3	65.3	56.3	48.1	41.7	36.6	29.0	23.8	19.9	17.0	14.7	12.9	10.8	9.25	—
21	1.95	4.46	8.32	15.5	22.4	29.0	41.7	54.1	66.1	68.8	68.8	68.8	60.6	51.7	44.8	39.4	31.2	25.6	21.4	18.3	15.9	13.9	11.7	9.96	—
22	2.05	4.69	8.75	16.3	23.5	30.5	43.9	56.8	69.5	72.3	72.3	72.3	65.0	55.5	48.1	42.2	33.5	27.4	23.0	19.6	17.0	14.9	12.5	10.7	—
23	2.16	4.92	9.18	17.1	24.7	32.0	46.0	59.6	72.9	75.9	75.9	75.9	69.5	59.3	51.4	45.1	35.8	29.3	24.6	21.0	18.2	15.9	13.4	11.4	—
24	2.26	5.15	9.61	17.9	25.8	33.5	48.2	62.4	76.3	79.5	79.5	79.5	74.0	63.2	54.8	48.1	38.2	31.2	26.2	22.3	19.4	17.0	14.2	12.2	—
25	2.36	5.38	10.0	18.7	27.0	35.0	50.4	65.3	79.8	83.0	83.0	83.0	78.7	67.2	58.2	51.1	40.6	33.2	27.8	23.8	20.6	18.1	15.1	—	—
26	2.46	5.61	10.5	19.5	28.2	36.5	52.5	68.1	83.2	86.6	86.6	86.6	83.5	71.3	61.8	54.2	43.0	35.2	29.5	25.2	21.8	19.2	16.1	—	—
28	2.67	6.08	11.3	21.2	30.5	39.5	56.9	73.7	90.1	93.8	93.8	93.8	93.3	79.7	69.0	60.6	48.1	39.4	33.0	28.2	24.4	21.4	18.0	—	—
30	2.87	6.55	12.2	22.8	32.9	42.6	61.3	79.5	97.1	103	103	103	103	88.3	76.6	67.2	53.3	43.6	36.6	31.2	27.1	23.8	19.9	—	—
32	3.08	7.03	13.1	24.5	35.2	45.7	65.8	85.2	104	114	114	114	114	97.3	84.3	74.0	58.7	48.1	40.3	34.4	29.8	26.2	—	—	—
35	3.39	7.74	14.4	26.9	38.8	50.3	72.4	93.8	115	130	130	130	130	111	96.5	84.7	67.2	55.0	46.1	39.4	34.1	29.9	—	—	—
40	3.92	8.94	16.7	31.1	44.8	58.1	83.7	108	133	153	153	153	153	136	118	103	82.1	67.2	56.3	48.1	41.7	—	—	—	—

Manual (90 ft./min. max.) | **Drip** 225 ft./min. max.) | **Bath/Slinger** (1,126 ft./min. max.) | **Pump** (max. rated speed)

- The blue dotted line indicates the speed at which roller-bushing impact becomes the horsepower limiting factor. See Boundary Lines on the Horsepower Rating Tables (page E-30).
- The green dotted line indicates the speed at which pin-bushing galling becomes the horsepower limiting factor.
- The red dotted line indicates the maximum recommended sprocket speed.

Number of Strands	Multiple Strand Factor
2	1.7
3	2.5
4	3.3
5	3.9
6	4.6

No. 100 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	10	25	50	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1600	1800	2000	2200	2400	2600	2700
11	1.71	3.81	7.25	13.3	19.5	24.7	35.6	44.8	44.8	44.8	39.4	32.2	27.9	23.4	20.1	18.1	15.8	13.9	11.7	9.73	8.15	7.09	6.38	1.28	—
12	1.84	4.19	8.02	15.0	21.5	27.7	39.5	49.0	49.0	49.0	44.7	37.4	30.7	26.7	22.9	19.9	17.9	16.4	13.4	11.1	9.59	8.25	7.16	—	—
13	2.04	4.72	8.64	16.4	23.2	30.7	42.7	53.4	53.4	53.4	52.3	41.5	35.8	29.7	25.6	22.9	19.9	18.0	14.8	12.3	10.9	9.32	7.98	—	—
14	2.19	5.07	9.25	17.8	25.5	32.1	46.2	56.4	56.4	56.4	56.4	46.3	39.5	33.8	28.7	25.5	22.5	20.7	16.5	13.7	12.0	10.5	9.01	—	—
15	2.36	5.46	10.3	18.8	27.6	34.8	51.1	64.0	64.0	64.0	64.0	53.1	43.6	37.9	32.6	27.9	25.6	22.6	18.1	15.5	13.0	11.2	10.0	—	—
16	2.58	5.88	10.8	20.2	28.8	37.6	53.6	70.2	70.2	70.2	70.2	57.2	47.7	40.7	35.8	30.9	27.9	25.0	20.2	16.8	14.6	12.6	11.2	—	—
17	2.72	6.24	11.4	21.3	30.9	39.9	58.1	75.9	78.3	78.3	78.3	62.7	52.3	45.4	39.8	34.7	30.7	26.7	22.1	18.4	16.1	13.9	0.80	—	—
18	2.86	6.71	12.2	22.7	33.4	42.7	60.6	79.4	85.2	85.2	85.2	68.9	58.2	49.7	42.0	38.1	33.2	30.2	24.2	20.0	17.2	14.8	—	—	—
19	3.11	6.88	12.9	23.9	35.4	45.2	66.3	84.6	92.4	92.4	92.4	75.2	62.3	53.6	46.2	40.9	35.2	32.4	26.3	21.8	19.1	16.0	—	—	—
20	3.30	7.44	13.8	25.6	37.1	47.5	68.1	88.6	97.8	97.8	98.0	80.3	66.5	58.2	49.7	43.1	38.2	35.3	28.5	23.5	20.3	17.9	—	—	—
21	3.44	7.71	14.7	27.1	39.7	50.4	72.9	94.9	101	101	101	85.5	71.2	61.9	53.2	47.5	41.9	37.5	30.9	25.9	21.8	18.7	—	—	—
22	3.58	8.19	15.1	28.8	41.8	52.4	78.0	100	109	109	109	92.9	78.3	66.7	58.5	50.2	45.5	40.5	32.6	27.5	23.2	19.9	—	—	—
23	3.74	8.58	15.8	30.2	42.9	55.4	81.6	103	110	110	110	101	82.4	71.4	62.6	53.0	47.7	42.8	35.1	29.0	25.0	7.87	—	—	—
24	3.88	8.85	16.9	31.2	46.0	57.4	83.3	111	116	116	116	107	88.0	76.4	65.1	58.3	51.3	46.0	37.8	30.9	27.1	—	—	—	—
25	4.16	9.44	17.3	32.4	47.5	61.9	89.5	116	122	122	122	110	92.7	80.8	69.6	60.7	54.9	48.5	40.0	33.9	28.9	—	—	—	—
26	4.22	9.66	18.2	34.0	48.5	64.5	91.6	121	129	129	129	121	99.1	86.5	72.6	64.5	57.9	52.2	42.8	35.3	29.9	—	—	—	—
28	4.64	10.4	19.8	37.2	53.7	68.0	101	128	139	139	142	133	110	95.9	83.9	73.9	64.8	57.4	47.8	39.7	34.3	—	—	—	—
30	5.07	11.5	21.1	40.0	58.2	74.1	109	141	151	151	151	149	126	104	92.0	79.1	70.2	63.1	51.9	43.1	9.9	—	—	—	—
32	5.48	12.1	22.9	42.8	60.6	80.5	117	146	161	161	161	164	134	117	102	87.4	77.9	71.2	57.5	44.4	—	—	—	—	—
35	5.89	13.8	24.9	47.1	68.7	87.1	129	163	187	187	187	187	155	131	115	101	88.7	81.9	66.9	55.6	—	—	—	—	—
40	6.92	15.8	28.7	53.8	78.0	100.3	144	188	229	229	229	231	188	161	140	124	112	96.5	80.2	—	—	—	—	—	—
45	7.62	18.0	32.6	62.9	88.7	113.8	164	212	264	264	264	256	229	191	170	149	131	116	44.6	—	—	—	—	—	—

Manual (79 ft./min. max.) | **Drip** 199 ft./min. max.) | **Bath/Slinger** (993 ft./min. max.) | **Pump** (max. rated speed)

No. 120 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	10	25	50	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100
11	2.73	6.32	11.5	22.1	32.0	41.3	57.5	68.3	68.3	58.0	47.1	38.0	31.8	27.2	23.3	20.5	18.3	16.3	14.9	13.3	12.4	11.0	10.5	9.4	—
12	3.04	6.81	12.7	23.5	34.8	44.3	64.6	76.4	76.4	65.8	52.1	43.3	35.8	31.5	26.3	23.7	20.7	18.8	17.1	15.2	13.7	12.6	11.6	10.7	—
13	3.29	7.46	13.9	26.4	37.3	48.1	70.7	80.5	82.4	75.3	58.4	48.1	41.0	34.5	30.8	26.2	23.9	21.2	19.4	16.9	15.5	14.5	13.4	12.4	—
14	3.53	7.96	14.9	28.4	40.3	52.6	76.0	90.5	90.5	84.6	65.5	55.3	44.8	38.5	34.0	29.3	26.3	23.1	21.2	19.3	17.7	16.2	14.9	9.0	—
15	3.80	8.63	16.4	30.6	44.6	56.7	81.2	94.8	97.6	93.8	74.9	61.3	49.9	42.9	36.9	33.2	28.8	26.3	23.4	21.6	19.1	17.9	16.6	—	—
16	4.14	9.51	17.2	32.6	47.6	61.5	88.0	105	105	102	81.4	65.8	55.7	47.1	40.8	36.8	31.6	28.2	25.6	23.8	21.6	19.5	18.2	—	—
17	4.31	10.1	19.0	35.3	50.0	65.7	94.0	111	111	111	90.5	72.6	60.6	51.4	45.4	39.5	35.0	31.9	27.9	26.3	23.8	21.5	2—	—	—
18	4.58	10.5	19.8	36.6	53.0	69.0	100	124	124	124	96.9	80.2	67.5	57.8	49.1	43.2	37.9	34.9	30.3	27.9	25.6	23.6	11.5	—	—
19	4.97	11.3	20.6	39.0	56.5	72.3	104	134	134	134	107	85.9	72.1	61.7	54.1	47.0	42.4	37.0	33.8	30.1	27.8	25.4	—	—	—
20	5.22	11.9	22.4	41.2	60.9	78.0	113	143	143	143	116	92.3	76.7	66.0	58.3	50.4	44.7	39.5	36.6	32.3	29.8	27.5	—	—	—
21	5.60	12.7	23.3	43.5	61.8	81.8	118	150	154	154	123	101	83.7	72.2	62.4	53.5	48.8	43.6	38.8	35.1	32.1	29.1	—	—	—
22	5.68	13.3	24.4	45.7	65.3	86.3	122	162	165	165	129	108	89.8	75.5	66.2	58.5	51.5	46.7	42.6	38.2	34.0	16.9	—	—	—
23	6.05	14.0	26.1	49.1	69.0	88.8	131	170	178	178	142	114	94.6	83.7	72.2	62.8	54.4	49.0	45.4	41.0	37.4	—	—	—	—
24	6.38	14.2	27.2	50.2	73.0	92.5	135	179	188	190	146	120	100	87.0	74.9	67.1	58.8	53.4	47.0	43.5	38.8	—	—	—	—
25	6.64	15.4	28.0	52.1	75.5	100.3	143	187	199	199	162	132	109	94.7	79.1	71.7	62.5	55.5	49.6	45.4	42.0	—	—	—	—
26	6.95	15.8	29.5	55.8	78.1	102	146	195	205	205	170	140	115	99.3	84.6	75.7	65.5	59.1	54.7	47.9	26.7	—	—	—	—
28	7.53	17.4	32.4	59.5	85.3	110	161	212	224	224	185	157	128	109	94.8	82.5	74.2	65.5	59.0	54.3	—	—	—	—	—
30	7.99	18.6	33.9	64.4	93.3	120	174	228	235	234	207	172	141	123	104	91.4	83.2	73.4	66.4	41.8	—	—	—	—	—
32	8.77	19.7	36.3	70.0	98.7	127	181	241	252	252	231	187	158	136	116	102	90.3	82.0	72.1	—	—	—	—	—	—
35	9.66	21.7	40.5	76.4	107	141	206	264	287	287	264	214	180	156	133	116	104	92.8	47.4	—	—	—	—	—	—
40	11.0	24.9	46.5	87.1	127	161	235	307	327	327	321	263	223	187	162	141	126	58.9	—	—	—	—	—	—	—
45	12.5	28.5	53.0	99	143	185	265	341	385	385	389	316	265	223	191	173	81.4	—	—	—	—	—	—	—	—

Manual (72 ft./min. max.) | **Drip** 179 ft./min. max.) | **Bath/Slinger** (897 ft./min. max.) | **Pump** (max. rated speed)

Number of Strands	Multiple Strand Factor
2	1.7
3	2.5
4	3.3
5	3.9
6	4.6

- The blue dotted line indicates the speed at which roller-bushing impact becomes the horsepower limiting factor. See Boundary Lines on the Horsepower Rating Tables (page E-30).
- The green dotted line indicates the speed at which pin-bushing galling becomes the horsepower limiting factor.
- The red dotted line indicates the maximum recommended sprocket speed.

No. 140 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	10	25	50	100	150	200	250	300	350	400	450	500	550	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700
11	4.23	9.70	17.9	33.1	48.9	62.4	76.8	91.0	99.4	99.4	99.4	86.4	74.0	65.6	52.6	43.4	36.7	31.0	27.1	23.7	20.7	18.4	16.4	15.0	—
12	4.60	10.6	20.0	36.8	52.8	68.7	85.5	99.6	107	107	107	97.3	86.3	76.3	59.3	48.5	40.5	34.4	30.1	26.3	23.3	21.5	18.8	17.3	—
13	5.00	11.3	21.5	39.6	57.2	74.4	91.6	110	118	118	118	113	96.0	84.0	66.1	55.8	45.4	39.1	34.0	29.8	27.1	23.5	21.3	19.4	—
14	5.57	12.5	23.2	43.1	63.6	82.4	98.2	118	125	125	125	127	106	94.5	76.8	62.6	52.3	43.8	38.3	33.5	29.4	26.4	23.7	21.6	—
15	6.01	13.3	24.8	46.2	66.4	88.2	107	127	136	136	136	136	119	104	84.4	69.0	57.0	48.2	42.6	37.1	33.4	30.1	26.5	—	—
16	6.27	14.2	27.2	49.9	72.8	95.2	113	137	151	151	151	153	131	118	91.5	74.4	64.2	54.5	46.6	41.0	36.7	32.9	29.3	—	—
17	6.65	15.7	28.5	54.6	78.6	100	122	145	165	165	165	167	145	129	101	81.8	68.8	58.2	51.6	45.8	39.0	35.9	32.7	—	—
18	7.13	16.2	31.0	56.8	80.7	106	129	151	177	182	182	182	161	139	108	90.2	76.3	63.7	55.9	48.8	43.3	39.1	35.4	—	—
19	7.77	17.3	32.9	60.0	88.5	113	137	160	186	192	192	192	173	149	119	95.9	80.4	70.1	61.1	53.1	46.1	42.3	38.1	—	—
20	7.96	18.1	34.2	64.4	92.8	122	147	175	199	207	207	207	186	160	130	106	86.6	74.2	65.9	56.8	49.8	45.2	—	—	—
21	8.50	19.7	36.3	66.9	95.4	124	151	182	206	219	219	219	201	172	136	112	95.9	80.7	69.1	61.1	55.3	47.9	—	—	—
22	8.78	20.5	37.4	72.0	102	131	165	192	222	231	231	231	213	184	149	122	103	87.6	76.8	67.3	58.5	51.7	—	—	—
23	9.46	21.2	39.7	75.7	106	136	173	199	231	239	239	234	229	204	156	132	107	91.3	80.3	69.3	62.3	54.9	—	—	—
24	9.94	22.3	41.8	78.2	111	146	178	209	237	253	253	253	247	212	169	140	116	98.4	84.2	76.1	65.9	59.7	—	—	—
25	10.2	23.2	44.0	82.8	118	150	184	215	249	264	264	264	253	227	181	148	122	105	90.3	80.6	72.0	63.6	—	—	—
26	10.9	24.4	46.5	86.5	122	159	191	231	263	274	274	274	274	240	189	157	130	112	97.0	85.2	76.2	—	—	—	—
28	11.6	26.6	50.2	91.8	132	173	206	247	289	307	307	307	307	273	212	177	145	127	108	93.4	84.6	—	—	—	—
30	12.6	28.0	54.0	98.2	145	188	230	264	310	334	334	334	334	299	235	193	163	136	120	104	93.0	—	—	—	—
32	13.2	30.0	56.5	104	154	203	245	286	328	367	367	367	367	323	264	213	180	153	133	117	—	—	—	—	—
35	14.5	33.1	62.0	118	170	223	268	314	361	402	402	402	402	374	295	246	207	176	150	135	—	—	—	—	—
40	17.0	39.0	71.8	135	194	248	307	363	421	475	475	475	475	466	362	295	253	212	179	—	—	—	—	—	—
45	19.3	43.9	82.7	154	222	285	351	421	483	540	538	538	538	538	432	361	303	237	94.3	—	—	—	—	—	—

Manual (66 ft./min. max.) | **Drip** 165 ft./min. max.) | **Bath/Slinger** (823 ft./min. max.) | **Pump** (max. rated speed)

No. 160 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																								
	10	25	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	1000	1100	1200	1300	1400
11	6.34	14.6	27.5	51.3	73.9	94.8	113	130	130	130	111	96.1	84.6	72.4	66.1	58.7	53.3	48.1	43.6	40.3	34.9	29.6	25.5	22.6	—
12	7.01	16.2	29.5	55.2	80.0	105	129	145	145	145	129	111	95.4	84.8	75.7	66.9	58.9	55.0	50.0	46.1	38.3	33.3	29.1	26.1	—
13	7.57	17.3	32.5	60.4	86.8	112	135	155	155	155	146	124	108	95.0	84.5	74.4	67.9	61.8	55.7	51.8	44.2	37.3	33.9	29.7	—
14	8.12	19.0	35.0	66.5	93.6	124	153	173	173	173	165	140	120	105	91.9	82.8	74.8	69.0	63.6	58.5	49.0	42.1	36.8	33.0	—
15	9.05	20.0	38.3	71.5	102	131	161	188	188	188	181	155	133	115	103	93.7	83.2	77.0	70.7	64.3	53.6	46.7	40.7	—	—
16	9.39	21.9	40.4	75.5	110	145	173	195	195	195	195	168	150	128	115	102	92.4	84.2	77.1	71.1	60.9	50.9	46.1	—	—
17	10.2	23.0	43.2	81.6	118	148	183	213	213	213	213	189	161	143	126	110	101	91.3	85.5	78.4	64.7	57.9	49.6	—	—
18	10.9	25.1	45.9	87.1	124	160	197	227	235	235	235	200	178	156	136	123	111	101	92.8	84.7	71.9	62.2	54.1	—	—
19	11.7	26.4	49.5	92.0	131	172	208	245	259	259	259	221	186	169	147	132	117	109	99.0	92.1	78.8	67.9	58.1	—	—
20	11.9	27.8	51.9	98.3	141	178	221	264	281	281	281	238	207	177	159	144	129	119	109	96.2	82.7	73.5	63.0	—	—
21	12.8	29.1	53.9	100	148	193	228	274	297	297	297	254	219	192	173	156	137	128	117	104	89.7	78.3	68.4	—	—
22	13.6	30.2	58.3	108	157	201	248	285	306	306	306	276	235	212	186	167	147	134	125	113	95.5	84.7	—	—	—
23	14.2	31.8	59.5	110	161	209	259	302	328	328	328	288	251	220	196	178	157	144	132	122	105	88.4	—	—	—
24	14.7	33.9	63.8	117	169	219	270	315	338	338	338	311	274	232	214	185	167	155	141	130	109	94.8	—	—	—
25	15.8	35.3	66.9	121	174	227	279	326	351	351	351	337	290	251	222	197	178	163	151	138	119	103	—	—	—
26	16.1	37.5	70.1	130	188	241	295	342	375	375	375	353	304	265	233	214	195	171	157	145	123	109	—	—	—
28	17.8	39.2	73.4	140	203	263	313	366	406	406	406	386	344	301	261	239	216	195	178	162	141	118	—	—	—
30	18.7	43.7	80.7	153	214	281	340	404	435	435	435	435	375	330	296	264	232	213	197	178	157	—	—	—	—
32	20.0	46.3	87.6	157	228	293	365	431	489	489	489	489	410	372	327	287	258	235	214	200	170	—	—	—	—
35	21.8	50.9	93.3	174	251	334	405	474	540	554	554	554	469	413	363	336	301	273	249	231	177	—	—	—	—
40	25.6	58.5	110	206	299	376	459	546	624	652	652	652	590	505	457	399	359	336	306	260	—	—	—	—	—
45	28.7	67.8	123	230	336	430	518	629	703	750	750	750	682	602	548	486	419	349	266	191	—	—	—	—	—

Manual (79 ft./min. max.) | **Drip** 199 ft./min. max.) | **Bath/Slinger** (993 ft./min. max.) | **Pump** (max. rated speed)

- The blue dotted line indicates the speed at which roller-bushing impact becomes the horsepower limiting factor. See Boundary Lines on the Horsepower Rating Tables (page E-30).
- The green dotted line indicates the speed at which pin-bushing galling becomes the horsepower limiting factor.
- The red dotted line indicates the maximum recommended sprocket speed.

Number of Strands	Multiple Strand Factor
2	1.7
3	2.5
4	3.3
5	3.9
6	4.6

No. 180 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																							
	10	25	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150
11	8.03	18.5	35.3	66.1	94.6	120	149	152	152	148	122	106	91.8	79.8	72.9	64.6	57.2	52.2	47.5	43.2	41.3	37.6	34.4	32.7	—
12	9.09	20.7	39.1	71.1	103	134	162	169	169	169	141	119	107	93.7	83.2	72.3	66.2	59.9	54.4	49.2	46.1	42.9	39.4	36.8	—
13	9.83	22.1	41.3	77.2	113	148	179	192	192	189	163	138	116	106	92.0	82.4	74.6	66.3	61.8	57.2	51.6	47.5	44.5	—	—
14	10.7	24.5	44.8	83.4	123	155	190	211	211	211	179	151	133	115	104	91.9	81.6	74.8	68.4	64.3	59.1	53.8	49.2	—	—
15	11.5	26.3	49.7	90.6	130	170	209	234	234	234	200	168	148	129	114	104	93.1	84.5	75.5	70.4	64.1	59.1	55.6	—	—
16	12.4	27.7	51.5	96.1	140	184	219	259	259	259	220	189	161	140	128	114	102	93.6	83.5	76.2	70.0	65.2	61.6	—	—
17	13.4	29.7	56.0	105	148	193	238	275	275	275	236	204	179	154	140	122	111	99.8	93.6	83.6	79.4	71.3	—	—	—
18	14.1	31.4	58.7	111	160	209	258	288	288	288	261	221	192	169	152	133	122	108.0	101	92.1	86.2	80.1	—	—	—
19	15.1	33.4	63.3	116	168	224	272	310	310	310	281	244	208	180	160	148	131	119	109	99	91.0	83.7	—	—	—
20	15.9	36.0	68.0	124	178	228	282	328	328	328	303	258	223	197	174	155	141	131	115	107	100	90.7	—	—	—
21	16.7	38.3	71.5	132	188	242	296	346	346	346	322	282	247	212	191	169	150	137	125	116	107	97.8	—	—	—
22	17.6	38.9	72.6	141	197	257	314	361	361	361	357	297	256	226	201	184	161	147	137	125	114	—	—	—	—
23	18.1	42.3	77.3	143	205	265	330	377	377	377	370	320	282	248	217	192	175	161	144	132	124	—	—	—	—
24	19.5	43.6	80.4	154	216	286	346	394	394	394	394	343	294	264	231	205	187	171	152	139	131	—	—	—	—
25	19.9	44.8	84.8	157	232	292	358	432	432	432	432	363	317	281	248	222	196	183	163	148	142	—	—	—	—
26	21.0	47.1	87.7	163	237	304	384	442	446	446	446	379	337	291	258	234	213	189	171	159	—	—	—	—	—
28	22.5	51.1	96.2	182	263	337	416	477	509	509	509	427	378	332	286	260	232	215	195	176	—	—	—	—	—
30	24.3	54.7	103	193	281	364	443	525	554	554	554	480	414	364	321	293	263	232	216	196	—	—	—	—	—
32	26.2	58.9	113	207	295	383	473	556	595	595	595	529	462	395	349	313	284	256	240	—	—	—	—	—	—
35	28.4	65.1	123	224	330	430	519	605	661	661	661	599	514	449	402	360	323	290	217	—	—	—	—	—	—
40	33.3	76.1	140	260	372	498	606	670	670	670	670	627	583	523	472	394	323	239	—	—	—	—	—	—	—
45	38.2	86.0	163	303	434	559	689	732	732	732	667	636	576	519	445	358	271	—	—	—	—	—	—	—	—

Manual (57 ft./min. max.) | **Drip** 143 ft./min. max.) | **Bath/Slinger** (715 ft./min. max.) | **Pump** (max. rated speed)

No. 200 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																			
	10	15	20	30	40	50	70	100	150	200	250	300	350	400	450	500	550	600	650	700
11	10.9	15.3	19.9	28.6	37.3	46.0	62.7	85.3	121	161	180	180	180	163	135	117	102	86.4	78.4	—
12	11.8	17.1	21.9	32.1	41.8	50.1	69.4	93.9	133	173	197	197	197	182	157	134	113	98.3	—	—
13	12.7	18.9	23.7	34.6	44.3	55.1	73.5	101	147	192	216	216	216	208	174	150	131	112	—	—
14	14.0	19.7	25.5	37.0	48.3	59.9	79.4	113	158	206	231	231	231	229	193	164	143	126	—	—
15	15.0	21.6	27.8	40.5	53.1	64.0	87.5	119	170	224	258	258	258	258	216	183	158	141	—	—
16	16.2	22.8	29.9	42.9	55.1	69.0	91.6	126	180	244	282	282	282	282	236	201	177	152	—	—
17	17.2	25.3	31.7	45.5	59.4	72.4	97.8	138	197	253	314	314	314	314	256	225	190	168	—	—
18	18.3	26.2	34.6	49.2	64.4	78.5	103	144	212	275	335	334	334	334	288	245	212	182	—	—
19	19.4	28.3	36.9	51.3	68.4	82.7	112	156	218	284	352	369	369	369	307	258	225	201	—	—
20	20.6	30.1	38.8	55.7	71.2	85.6	119	163	235	306	377	397	397	397	327	278	247	—	—	—
21	21.6	30.5	40.6	58.7	75.0	91.7	125	169	243	327	390	410	410	410	354	310	265	—	—	—
22	23.0	33.1	42.6	61.4	79.0	97.8	133	180	256	337	408	433	433	433	383	322	287	—	—	—
23	23.5	35.0	44.9	65.3	84.8	102	138	191	272	352	429	449	449	449	408	345	299	—	—	—
24	25.5	36.5	46.2	65.9	88.6	105	144	201	285	377	455	478	478	478	444	377	317	—	—	—
25	26.2	37.5	48.0	69.0	91.8	110	149	206	298	391	471	494	494	494	467	404	341	—	—	—
26	26.9	38.6	51.6	71.8	94.4	117	157	214	310	411	484	513	513	513	486	419	364	—	—	—

Manual (54 ft./min. max.) | **Drip** 135 ft./min. max.) | **Bath/Slinger** (674 ft./min. max.) | **Pump** (max. rated speed)

Number of Strands	Multiple Strand Factor
2	1.7
3	2.5
4	3.3
5	3.9
6	4.6

- The blue dotted line indicates the speed at which roller-bushing impact becomes the horsepower limiting factor. See Boundary Lines on the Horsepower Rating Tables (page E-30).
- The green dotted line indicates the speed at which pin-bushing galling becomes the horsepower limiting factor.
- The red dotted line indicates the maximum recommended sprocket speed.

No. 240 Single-Strand Roller Chain

Number of Teeth	Small Sprocket RPM																			
	5	10	15	20	25	30	40	50	60	80	100	125	150	175	200	250	300	350	400	450
11	9.47	17.8	25.4	33.0	41.2	48.5	60.9	76.5	90.8	114	141	170	206	232	263	268	268	228	186	155
12	10.4	20.0	28.2	36.3	43.9	52.5	69.6	84.9	97.6	129	159	189	220	260	288	297	297	260	217	—
13	11.5	21.7	31.1	40.6	49.0	58.3	73.8	92.5	108	137	167	211	242	279	314	328	328	292	239	—
14	12.6	22.9	33.9	43.1	52.0	62.3	81.7	99.3	117	147	185	227	261	298	342	350	350	333	271	—
15	13.5	25.2	36.0	47.5	57.6	66.5	88.2	108	124	159	196	239	280	327	372	379	379	365	294	—
16	14.1	27.2	38.4	48.9	60.3	71.6	92.8	115	135	171	208	257	304	356	397	400	400	357	324	—
17	15.2	28.4	41.2	53.5	64.8	78.2	100	123	141	187	225	278	323	368	397	397	397	370	353	—
18	16.6	29.9	43.2	56.0	69.6	80.4	107	130	154	198	243	290	353	402	413	413	413	385	380	—
19	17.2	31.6	45.5	59.4	74.5	88.2	111	140	160	209	256	308	368	415	418	418	418	407	389	—
20	18.2	33.7	49.1	63.5	78.1	90.2	121	145	169	225	275	329	395	436	436	436	436	428	409	—
21	18.8	36.0	51.2	67.5	82.3	94.6	127	151	179	235	289	353	410	471	471	471	471	438	429	—
22	19.9	37.5	54.5	71.5	85.8	99.6	130	160	187	247	297	373	431	455	455	455	451	463	428	—
23	20.9	39.9	57.2	73.9	88.6	105	136	169	198	254	311	390	450	492	492	492	475	474	443	—
24	22.5	41.9	60.2	77.4	94.0	110	145	175	212	268	336	403	469	540	540	540	498	482	—	—
25	22.8	43.8	62.7	82.0	100	118	151	181	218	280	349	427	499	554	554	554	511	489	—	—
26	23.9	44.7	65.0	83.0	102	119	155	190	231	294	359	432	507	556	559	565	536	514	—	—
	Manual (49 ft./min. max.)					**Drip** 122 ft./min. max.)					**Bath/Slinger** (608 ft./min. max.)					**Pump** (max. rated speed)				

- The blue dotted line indicates the speed at which roller-bushing impact becomes the horsepower limiting factor. See Boundary Lines on the Horsepower Rating Tables (page E-30).
- The green dotted line indicates the speed at which pin-bushing galling becomes the horsepower limiting factor.
- The red dotted line indicates the maximum recommended sprocket speed.

Number of Strands	Multiple Strand Factor
2	1.7
3	2.5
4	3.3
5	3.9
6	4.6

ISO Roller Chain Numbers

In the ISO roller chain numbering system, the first two digits are the pitch size in 1/16ths of an inch, hence 08 = 8/16 or 1/2" pitch. Following these two digits, the third symbol is most often a letter, but may be a number. After the third symbol is a hyphen and number.

The third symbols are:

- "A" — American standard chains conforming to ANSI/ASME B29.1. See Table 13 (below).
- "B" — European standard chains conforming to ISO 606 or DIN 8187. These chains have generally have a larger pin diameter and roller diameters than ANSI/ASME chains, particularly in the larger sizes.
- "C" — Chains that use bushings rather than rollers
- "#" — In few cases the third symbol is a number such as "5" as in the case of ANSI size 41

The digit to the right of the hyphen indicates the number of strands in the chain:

- "1" — single-strand chain
- "2" — double-strand chain
- "3" — triple-strand chain

Only single-, double-, and triple-strand chains are specifically covered by ISO 606.

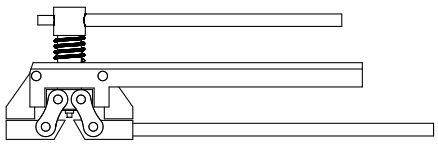
Table 13
ANSI to ISO Roller Chain Size Interchange

ANSI B29.1 Chain Number	ISO 606 Chain Number	Pitch (inches)	Pitch (mm)
25	04C-1	1/4	6.350
35	06C-1	3/8	9.525
41	085-1	1/2	12.700
40	08A-1	1/2	12.700
50	10A-1	5/8	15.875
60	12A-1	3/4	19.050
80	16A-1	1	25.400
100	20A-1	1-1/4	31.750
120	24A-1	1-1/2	38.100
140	28A-1	1-3/4	44.450
160	32A-1	2	50.800
180	36A-1	2-1/4	57.150
200	40A-1	2-1/2	63.500
240	48A-1	3	76.200

CHAIN BREAKERS

The purpose of a chain breaker is to disassemble pin links in order to split a strand of chain to create the appropriate length or remove it from a drive. Chain breakers will work on either single- or multiple-strand chain.

To disassemble a pin link, place the breaker jaw over one of the rollers connected by the pin link located where you wish to split the chain. Center the chain breaker push-out pin over one of the two pins of the pin link you wish to remove. Turn the top handle clockwise until the pin loosens. Then, drive it partially through the link plate. Follow the same procedure on the other pin of the same pin link. Return to the original pin and force it completely through the pin plate. Do the same with the second pin, freeing the link plate from both pins. Remove the disassembled pin link from the chain.



Chain Breakers

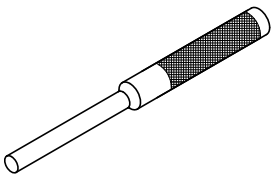
Chain Sizes	Model Number	Replaceable Points
25—60 60—100 120—160	CB25-60 CB60-100 CB120-160	CBRP-1 TIP CBRP-2 TIP CBRP-3 TIP

CHAIN-BREAKING PUNCHES

Drift punches are used to disassemble pin links.

For riveted chain: First, grind off the heads of the pins making sure the metal particles do not contaminate the rest of the chain. Next, use a drift punch to gradually drive the pins through the link plate, alternating from one pin to the other. Be careful that neither pin gets cocked in the link plate. Continue until the link plate is free.

For cottered chain: instead of grinding the pins, simply remove the cotter pin and follow the instructions for riveted chain.



Drift Punch

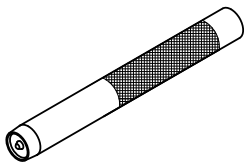
Chain-Breaking Punches

Chain Sizes	Drift Punch
40—60 80—120 140—240	DP40-60 DP80-120 DP140-240

RIVET-SETTING PUNCHES

Rivet-setting punches are used to form the heads of rivets completing the assembly of connecting links.

While supporting the plate-pin assembly, use the **rivet-setting punch** to hammer the headless pin ends, spreading each into a uniform shape to secure the link plate. Check to be sure the roller links articulate freely on the connecting-link pins.



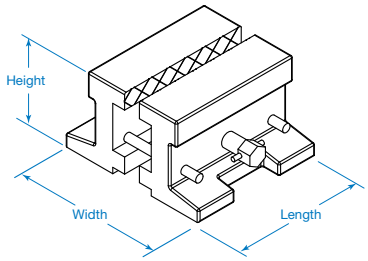
Rivet Setting Punch

Rivet-Setting Punches

Chain Size	Model Number
40 50 60 80	RP40 RP50 RP60 RP80

CHAIN VISES

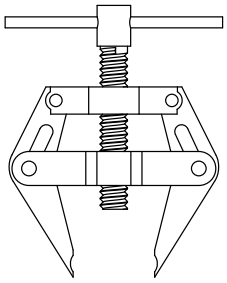
Chain vises are used with punches to assemble and disassemble roller chain.



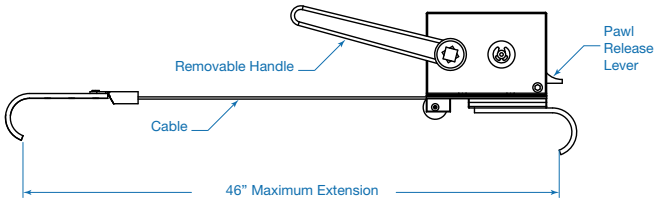
Chain Vises

FITS CHAIN SIZES			Model Number	DIMENSIONS		
Single-Strand	Double-Strand	Triple-Strand		Length	Height	Width
40—80	40-2	—	CV40-80	3.94”	2.56”	3.70”—4.53”
100—160	50-2—100-2	40-3—100-3	CV100-160	7.09”	4.53”	4.72”—5.94”
180-240	120-2—240-2	120-3—140-3	CV180-240	7.87”	6.69”	7.09”—8.66”

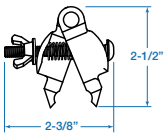
CHAIN PULLERS



Screw-Type



Cable-Operated



Pocket-Sized

Chain Pullers

Chain Sizes	Model Number
Screw-Type	
35—60	STCP35-60
40—80	STCP40-80
80—240	STCP80-240
Cable-Operated	
80 — 240	COCP80-240
Pocket-Sized	
35—60	PSCP35-60

Screw-Type

These chain pullers help make roller chain installation quick and easy. Simply hook the two jaws into each end of the chain, then turn the screw until the two ends of the chain are in position for installing a connecting link.

Cable-Operated

This handy tool is designed to work on size 80 through 240 roller chain. It will work for single- or multiple-strand, and 2080 through 2120 double-pitch chain. It also works on most conveyor and engineered chains with a width of 5/8” or more between the inside of the roller-link plates. This style of chain puller can either hold a previously installed chain in place on the sprockets while being repaired or draw together the ends of a replacement chain during installation.

To hold chain in place while replacing a damaged section—place the hooks on the rollers past the part of the chain to be removed. Take up the slack in the cable by turning the handle until the chain between the hooks is slack. This will allow the removal of the damaged section while the rest of the chain stays in position on the sprockets. After the replacement section is installed, release the cable by unlocking the ratchet’s pawl release lever and remove the tool.

To install a new or replacement chain—hook the two jaws into each end of the chain, then turn the handle, retracting the cable, until the two ends of the chain are in position to install a connecting link. When finished, release the cable by unlocking the pawl release lever and remove the tool.

Pocket-Sized

Compact, light, and easy to use, this handy tool holds the ends of the chain in position for installing a connecting link. Hook the two jaws to each end of the chain, then turn the spring-loaded thumb screw until the chain is in position.

WARNING

WARNING

Do not operate chain drives without guards. Replace guards after removal.

WARNING

High voltage and rotating parts can cause serious or fatal injury.

Overview

All Lynx products are carefully manufactured. However, improper selection, handling or maintenance may result in serious injury or death. Please refer to Lynx product catalogs and related instructions.

Handling Chain and Sprockets

When installing, removing, or servicing a chain drive:

- Lock out the power switch.
- Support the chain to prevent the uncontrolled movement of chain and parts.
- Use proper tools in good condition suitable for connecting and disconnecting chain.
- Don't insert or remove pins without knowing their correct direction.
- Always keep the working area clear in order to prevent secondary accidents.
- Never work alone.

Replacing Parts

When replacing worn chains or sprockets, do not attempt to rebuild chains by using parts of disassembled chains. Replace all parts with new ones.

Reprocessing Chain

Precision heat treating and consistent hardness are crucial to chain performance. Do not plate, weld, or anneal roller chain, as this will reduce or degrade the hardness.

Interfering Objects

Check for and remove objects interfering with the operation of the chain drive.

Washing

When washing chain, don't use any acid, alkali, gasoline, or high vaporized solvent. Dip the chain into kerosine and then lubricate it well.

Guards

All chain drives should be enclosed by guards. Always replace guards when removed for service.

Extreme Ambient Temperatures

Lynx roller chain is not approved for use in ambient temperatures higher than 500°F or lower than -40°F.

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