

# Section 1

## Drives, Inc. Precision Roller Chain Products



Made in U.S.A.

**SUPPLY SERVICES LTD**



CHAINS - SPROCKETS - PLASTICS - POWER TRANSMISSION

Phone 0800 102 112 - [www.supplyservices.co.nz](http://www.supplyservices.co.nz)

# Drives, Incorporated Engineering Information

## Horsepower Rating

The horsepower rating in Table IV on page 10 is based on the following conditions:

1. Chains are operated under ordinary conditions. The ambient temperature range must be between 15°F and 140°F. They should not be used in an atmosphere in which abrasive dust or corrosive gas is present or where the humidity is high.
2. Two transmission shafts are in a horizontal position, and the chains are properly installed.
3. Suggested lubrication system and oil are used.
4. Load does not change significantly during transmission. The "Service Factors" given in Table I should be taken into account when the chains are used under various operating conditions. The load conditions will affect the life of the chain.
5. In order to estimate the service life of a multiple strand chain, the "Multiple Strand Factor" given in Table II must be used. When the chain length is 100 pitches and the above conditions are met, a service life of approximately 15,000 hours can be expected.

### Procedures for Selecting Roller Chain

1. The following factors must be considered when selecting roller chain:

- a. Source of input power
- b. Drive machine type of driven equipment
- c. Horsepower to be transmitted
- d. RPM of driving and driven shafts
- e. Diameter of driving and driven shafts
- f. Center distance of the shafts

2. Use Table I to obtain the "Service Factor".

3. Multiply the horsepower value by the service factor to obtain the design horsepower value.

4. Use Table IV on page 10 and the horsepower ratings table to obtain the appropriate chain number of teeth for small sprockets. Refer to the number of revolutions of the high speed shaft (the driving shaft when the speed is reduced; the driven shaft when the speed is increased) and the design horsepower value. For smoother chain drive, a small pitch chain is suggested. If a single strand chain does not satisfy the transmission requirements, use a multiple strand chain. If there are space limitations, a multiple strand roller chain with a smaller pitch may be used.

5. After determining the number of teeth necessary for the small sprocket, be sure the sprocket diameter satisfies the space limitations.

6. The number of teeth for the large sprocket is determined by multiplying the number of teeth for the small sprocket by the speed ratio. More than 15 teeth on the small sprocket is suggested. The number of teeth for the large sprocket should be less than 120. By reducing the number of teeth for the small sprocket, the number of teeth for the large sprocket can be reduced.

### Basic Formula for Chain Drive

1. Chain speed: S

$$S = \frac{P_c \times N \times n}{12} \text{ (Ft./Min.)}$$

$P_c$  : Chain pitch (inch)

$N$  : Number of teeth of sprocket

$n$  : Revolution per minute (RPM)

2. Chain tension: P

$$P = \frac{33000 \times \text{HP}}{S} \text{ (Lbs.)}$$

S: Chain speed (Ft./Min.)

HP: Horsepower to be transmitted (HP)

3. Number of pitches of chain: L

$$*L = \frac{N_1 + N_2}{2} + 2C + \frac{\left(\frac{N_2 - N_1}{6.28}\right)^2}{C}$$

$N_1$  : Number of teeth (small sprocket)

$N_2$  : Number of teeth (large sprocket)

C : Center distance in pitches

\*Any fraction of L is counted as one pitch.

# Drives, Incorporated Engineering Information

Table I -  
Service Factors  
for Roller  
Chain Drives

Type of Driven Load	Load Classification	Type of Input Power		
		Internal Combustion Engine with Hydraulic Drive	Electric Drive Motor	Internal Combustion Engine with Mechanical Drive
Smooth Load	AGITATORS - Pure liquid			
	CONVEYORS - Uniformly loaded or fed (apron, assembly, belt, flight, oven, screw)	1.0	1.0	1.2
	FANS - Centrifugal and light, small diameter			
	MACHINES - All types with uniform non-reversing loads			
Moderate Shock	CLAY WORKING MACHINERY - Pug mills			
	CONVEYORS - Heavy duty and NOT uniformly loaded (apron, assembly, belt, flight, oven, screw)			
	FOOD INDUSTRY - Beet slicers, dough mixers, meat grinders	1.2	1.3	1.4
	GRINDERS MACHINE - All types with moderate shock and non-reversing loads			
	TEXTILE INDUSTRY - Calendars, dyeing machinery, mangles, nappers, soapers, spinners, tenter frames			
Heavy Shock	CLAY WORKING MACHINERY - Brick press, briquetting machinery			
	CONVEYORS - Reciprocating and shaker			
	HAMMER MILLS	1.4	1.5	1.7
	MACHINE TOOLS - Punch press, shears, plate planers			
	MILLS (Rotary type) - Ball, cement kilns, rod mills, tumbling mills			
	TEXTILE INDUSTRY - Carding machinery			

Table II - Multiple  
Strand Factor

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

## Drive Selection Procedure

### Selection Example (1)

Q1. A centrifugal compressor with 3HP is driven by an 1800rpm electric motor. How to select chain and sprockets.

A1. Seek the service factor, 1.3, from Table I

$$\text{Power to be transmitted} \times \text{Service factor} = \text{Design Horsepower}$$

$$3\text{HP} \times 1.3 = 3.9\text{HP}$$

2. Refer to Table IV. Horsepower Rating Table for 1800rpm 3.9HP and 35 chain with sprocket 16T to 20T is obtained.

3. Check horsepower ratings for chain 35, and as you see, the horsepower ratings of 35 17T with speed of 1800rpm is 3.93HP, which is satisfactory.

4. The following are selected:  
Chain No 35 Small sprocket 35 17T.

### Selection Example (2)

Q1. The number of revolutions for drive is 500rpm and the power to be transmitted is 10HP. The rpm is reduced to 125 (1/4). The center distance should be 11.00" with a space limitation of 19.00", and a uniform load. How to select chain and sprocket for this application.

A1. Design horsepower is computed as follows:

$$\text{Design horsepower: } 10\text{HP} \times 1.0 = 10\text{HP}$$

2. Select chain and the number of teeth for sprocket by referring to Table IV, Horsepower Rating Table.

60 18T has been selected.

3. Speed reduction ratio is  $0.25 = \frac{125\text{rpm}}{500\text{rpm}}$

Therefore, the number of teeth in the large sprocket is

$$72T = \frac{18T}{0.25}$$

4. The outside diameter of the 18T is 4.685" and the 72T is 17.60".

The space required for this arrangement is

$$\frac{4.685" + 17.60"}{2} + 11" = 22.14"$$

which can not be contained in the 19".

5. Multiple strand chain is selected. 50-2 16T to 20T is selected using Table II.

$$\frac{10\text{HP} \times 1.0}{1.7} = 5.88\text{HP}$$

(1.7 is multiple strand factor)

Refer to horsepower ratings. 50-2, 18T is obtained. It's outside diameter is 3.90". The large sprocket is

$$72T = \frac{18T}{0.25} \quad \text{outside diameter } 14.69"$$

However, this selection cannot be contained in the space.

6. Triple strand chain is selected in the same manner as above. 50 - 3, 13T and 52T are obtained. The outside diameter of sprockets is 2.87", and 10.67" respectively.

$$\frac{2.87" + 10.67"}{2} + 11" = 17.77" \text{ can be contained in the space required.}$$

The chain and sprockets selected are 50-3, 13T and 52T.



# Drives, Incorporated Engineering Information

## Slow Speed Calculation

When the chain speed (S) is less than 160 Ft./Min., select a roller chain size smaller than the chain chosen from the horsepower rating method mentioned above. (Consult Drives, Inc. for maximum allowable load when slow speed calculation is required.)

1. Tentatively select the chain and sprocket from Table IV and proceed by using a one size smaller chain and it's sprocket with the number of teeth close to the sprocket selected above. Be sure to confirm that the sprocket meets the application requirements such as bore diameter and space limitation, etc.
2. Calculate the chain speed from the number of teeth on the driving sprocket using Formula (1). Also check that the speed is less than 160 ft./min.
3. Calculate the chain tension for the above drive from Formula (2).
4. Select the service factor and the chain speed coefficient from Table I and III.
5. Verify that the chain has maximum allowable load which satisfies Formula (3). Please consult Drives, Inc. Engineering for working loads.

$$S = \frac{P_c \times N \times n}{12} \text{ (Ft./Min.)} \dots \dots \dots (1)$$

$$P = \frac{33000 \times \text{HP}}{S} \text{ (Lbs.)} \dots \dots \dots (2)$$

$$P \times \text{Service Factor} \times \text{Chain Speed Coefficient} \leq \text{Maximum Allowable Load} \dots \dots \dots (3)$$

S: chain speed (Ft./Min.)

$P_c$ : chain pitch (inch)

N: number of sprocket teeth

P: chain tension (Lbs.)

HP: horsepower to be transmitted (HP)

There are two different ways to do the next step: to increase the number of teeth, or to use the same procedure for HZ series of the same size (refer to HZ chains on page 27).

Table III - Chain Speed Coefficient

Chain Speed	Speed Coefficient
Less than 50 Ft./Min.	1.0
50 to 100 Ft./Min.	1.2
100 to 160 Ft./Min.	1.4

## Selection of High Temperatures

Drive chains are made of heat treated carbon steel. When exposed to high temperatures, the mechanical properties of the heat treated chain components are impaired.

1. The hardness and, therefore, the wear resistance of pins and bushings is reduced.
2. At temperatures above 390°F, the rollers and plates lose their hardness and strength.

Standard roller chains can be used up to 500°F with the following adjustments:

Temperature	Percentage of Catalog Capacity Rating
Up to 340°F	100%
390°F	75%
500°F	50%

# Horsepower Rating Table

## Selection of Chain and Small Sprocket

### Chain Pitch

The smallest applicable pitch is desirable for quiet operation and for high speed.

### Number of Sprocket Teeth

For a given chain pitch and shaft to transmit a given horsepower, the effect of increasing the number of teeth in the sprocket is to increase the chain linear speed and decrease the chain pull proportionally,

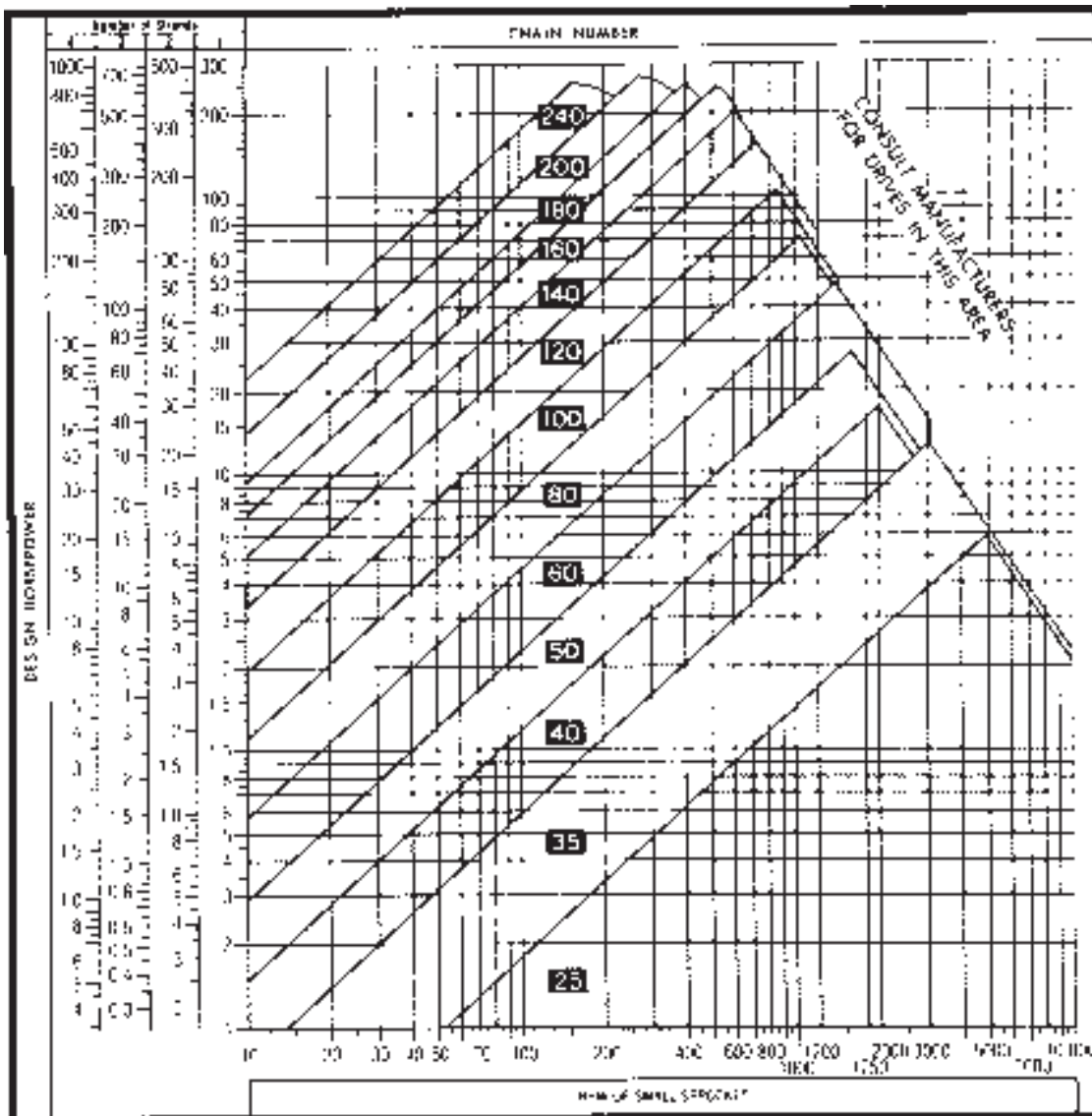
resulting in a decrease of the chordal action, which results in a quiet drive with less impact.

Usually, large sprockets should not exceed 120 teeth although many successful drives use sprockets with 150 teeth and more.

## Selection of Large Sprocket

After the small sprocket has been selected, the number of teeth in the large sprocket is determined by the specified ratio of the shaft speeds.

## Table IV - Roller Chain Pitch Selection



Note: The Maximum Horsepower Rating specified in each of the strand columns is not limiting for Chain Drives. Consult Drives, Incorporated on those applications which are above the horsepower range of the chart.



# Engineering Conversions

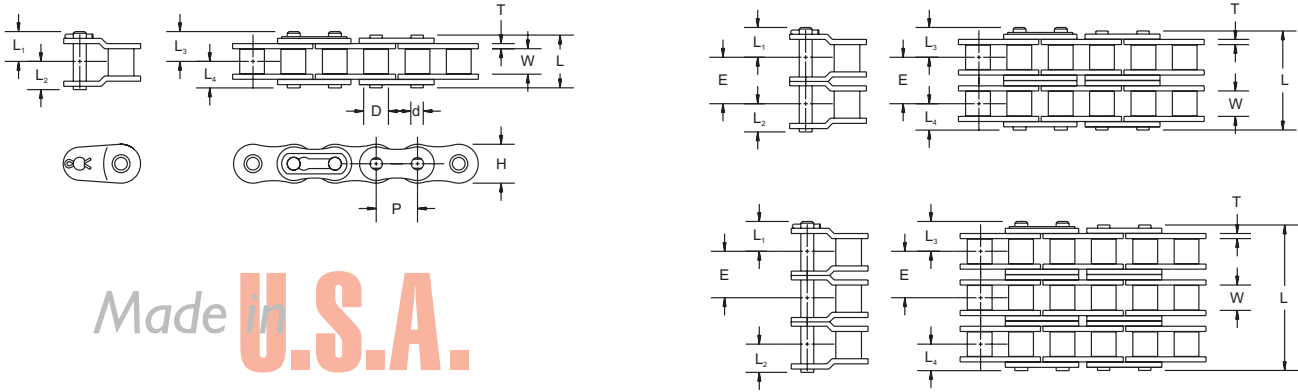
BUSHELS – BU x 1.2445 = Cubic feet (ft <sup>3</sup> )	FEET – ft x 0.3048 = Metres (m) x 30.480 = Centimetres (cm) x 12 = Inches (in) x 0.3333 = Yards (yd)	METRES – m x 3.281 = Feet (ft) x 39.37 = Inches (in) x 1.0936 = Yards (yd)
CENTIMETRES – cm x 0.3937 = inches (in)	FEET PER MINUTE – ft/min x 0.5080 = Centimetres per second (cm/s) x 0.01829 = Kilometres per hour (km/h) x 0.3048 = Metres per minute (m/min) x 0.016667 = Feet per second (ft/s) x 0.01136 = Miles per hour (mph)	METRES PER MINUTE – m/min x 1.6667 = Centimetres per second (cm/s) x 3.281 = Feet per minute (ft/min) x 0.05468 = Feet per second (ft/s) x 0.03728 = Miles per hour (mph)
CENTIMETRES PER SECOND – cm/s x 1.9685 = Feet per minute (ft/min) x 0.03291 = Feet per second (ft/s) x 0.03600 = Kilometres per hour (km/h) x 0.6000 = Metres per minute (m/min) x 0.02237 = Miles per hour (mph)	FOOT-POUNDS-FORCE – ft. lbf x 1.356 = Joules (J) x 1.285 x 10 <sup>-3</sup> = British thermal units (Btu) (see note) x 3.239 x 10 <sup>-4</sup> = Kilocalories (kcal) x 0.13825 = Kilogram-force-metres (kgf.m) x 5.050 x 10 <sup>-7</sup> = Horsepower-hours (hp.h) x 3.766 x 10 <sup>-7</sup> = Kilowatt-hours (kW.h)	MICROMETRES – formerly m/cron x 10 <sup>-6</sup> = Metres (m)
CUBIC CENTIMETRES – cm <sup>3</sup> x 3.5315 x 10 <sup>-5</sup> = Cubic feet (ft <sup>3</sup> ) x 6.1024 x 10 <sup>-2</sup> = Cubic inches (in <sup>3</sup> ) x 1.308 x 10 <sup>-6</sup> = Cubic yards (yd <sup>3</sup> ) x 2.642 x 10 <sup>-4</sup> = U.S. gallons (U.S. gal) x 1.000 x 10 <sup>-3</sup> = Litres (l)	GALLONS, U.S. – U.S. gal x 3.7854 = Cubic centimetres (cm <sup>3</sup> ) x 3.7854 = Litres (l) x 3.7854 x 10 <sup>-3</sup> = Cubic metres (m <sup>3</sup> ) x 231 = Cubic inches (in <sup>3</sup> ) x 0.13368 = Cubic feet (ft <sup>3</sup> ) x 4.951 x 10 <sup>-3</sup> = Cubic yards (yd <sup>3</sup> )	MILES – mi x 1.6093 x 10 <sup>3</sup> = Metres (m) x 1.6093 = Kilometres (km) x 5280 = Feet (ft) x 1760 = Yards (yd)
CUBIC FEET – ft <sup>3</sup> x 0.02832 = Cubic metres (m <sup>3</sup> ) x 2.832 x 10 <sup>4</sup> = Cubic centimetres (cm <sup>3</sup> ) x 1728 = Cubic inches (in <sup>3</sup> ) x 0.03704 = Cubic yards (yd <sup>3</sup> ) x 7.481 = U.S. gallons (U.S. gal) x 6.229 = Imperial gallons (imp gal) x 28.32 = Litres (l)	GRAMS – g x 15.432 = Grains (gr) x 0.035274 = Ounces (oz) av. x 0.032151 = Ounces (oz) troy x 2.2046 x 10 <sup>-3</sup> = Pounds (lb)	MILES PER HOUR – mph x 44.70 = Centimetres per second (cm/s) x 1.6093 = Kilometres per hour (km/h) x 26.82 = Metres per minute (m/min) x 88 = Feet per minute (ft/min) x 1.4667 = Feet per second (ft/s)
CUBIC INCHES – in <sup>3</sup> x 1.6387 x 10 <sup>-5</sup> = Cubic metres (m <sup>3</sup> ) x 16.387 = Cubic centimetres (cm <sup>3</sup> ) x 0.016387 = Litres (l) x 5.787 x 10 <sup>-4</sup> = Cubic feet (ft <sup>3</sup> ) x 2.143 x 10 <sup>-5</sup> = Cubic yards (yd <sup>3</sup> ) x 4.329 x 10 <sup>-3</sup> = U.S. gallons (U.S. gal) x 3.605 x 10 <sup>-3</sup> = Imperial gallons (imp gal)	GRAMS-FORCE – gf x 9.807 x 10 <sup>-3</sup> = Newtons (N)	MILES PER MINUTE – mi/min x 1.6093 = Kilometres per minute (km/min) x 2682 = Centimetres per second (cm/s) x 88 = Feet per second (ft/s) x 60 = Miles per hour (mph)
CUBIC METRES – m <sup>3</sup> x 1000 = Litres (l) x 35.315 = Cubic feet (ft <sup>3</sup> ) x 61.024 x 10 <sup>3</sup> = Cubic inches (in <sup>3</sup> ) x 1.3080 = Cubic yards (yd <sup>3</sup> ) x 264.2 = U.S. gallons (U.S. gal)	HORSEPOWER – hp x 745.7 = Watts (W) x 0.7457 = Kilowatts (kW) x 1.0139 = Horsepower (metric)	MINUTES, ANGULAR – (°) x 2.909 x 10 <sup>-4</sup> = Radians (rad)
CUBIC YARDS – yd <sup>3</sup> x 0.7646 = Cubic metres (m <sup>3</sup> ) x 764.6 = Litres (l) x 7.646 x 10 <sup>5</sup> = Cubic centimetres (cm <sup>3</sup> ) x 27 = Cubic feet (ft <sup>3</sup> ) x 46.656 = Cubic inches (in <sup>3</sup> ) x 201.97 = U.S. gallons (U.S. gal)	INCHES – in x 2.540 = Centimetres (cm) x 25.4 = Millimetres (mm)	NEWTONS – N x 0.10197 = Kilograms-force (kgf) x 0.2248 = Pounds-force (lbf)
DEGREES, ANGULAR (°) x 0.017453 = Radians (rad) x 60 = Minutes (′) x 3600 = Seconds (″) x 1.111 = Grade (gon)	KILOGRAMS – kg x 2.2046 = Pounds (lb) x 1.102 x 10 <sup>-3</sup> = Tons (ton) short	POUNDS-FORCE – lbf av. x 4.448 = Newton (N) x 0.4536 = Kilograms-force (kgf)
DEGREES PER SECOND, ANGULAR (°/s) x 0.017453 = Radians per second (rad/s) x 0.16667 = Revolutions per minute (r/min) x 2.7778 x 10 <sup>-3</sup> = Revolutions per second (r/s)	KILOGRAMS-FORCE – kgf x 9.807 = Newtons (N) x 2.205 = Pounds-force (lbf)	POUNDS – lb av. x 453.6 = Grams (g)
	KILOWATTS – kW x 1.3410 = Horsepower (hp)	RADIANS – rad x 57.30 = Degrees (°) angular
	LITRES – l x 1000 = Cubic centimetres (cm <sup>3</sup> ) x 0.035315 = Cubic feet (ft <sup>3</sup> ) x 61.024 = Cubic inches (in <sup>3</sup> ) x 1.308 x 10 <sup>-3</sup> = Cubic yards (yd <sup>3</sup> ) x 0.2642 = U.S. gallons (U.S. gal)	TONS-MASS – ton long x 1016 = Kilograms (kg) x 2240 = Pounds (lb) av. x 1.1200 = Tons (ton) short
		TONS – ton short x 907.2 = Kilograms (kg) x 0.9072 = Tonnes (t) x 2000 = Pounds (lb) av. x 0.8929 = Tons (ton) long



Made in U.S.A.

# Drives, Incorporated Precision Roller Chain Products

## ANSI Standard Chain Sizes Available



Made in U.S.A.

### Available in Carbon Steel

Cut-to-length chain available.

Drives, Inc.	Pitch	Width Between L.P.	Roller Dia.	Link Plate	Pin Dia.	Transverse Pitch	Pin					Average Weight	Riveted	Cottered	
Chain No.	P	W	D	H	T	d	E	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	Lb./Ft.		
35	0.375	0.189	0.200	0.355	0.049	0.141	--	0.461	0.264	0.252	0.264	0.240	0.210	STD	MTO
41	0.500	0.252	0.306	0.382	0.049	0.141	--	0.524	0.315	0.268	0.315	0.268	0.273	STD	MTO
40	0.500	0.313	0.313	0.472	0.060	0.156	--	0.630	0.404	0.317	0.377	0.315	0.420	STD	MTO
50	0.625	0.376	0.400	0.590	0.080	0.200	--	0.795	0.489	0.399	0.489	0.398	0.713	STD	MTO
60	0.750	0.500	0.469	0.705	0.094	0.234	--	0.996	0.600	0.498	0.648	0.498	1.067	STD	STD
80 *	1.000	0.627	0.625	0.943	0.125	0.313	--	1.283	0.768	0.638	0.857	0.642	1.868	STD	STD
100 *	1.250	0.755	0.750	1.180	0.156	0.375	--	1.595	0.908	0.785	0.912	0.785	2.801	STD	STD
120 *	1.500	1.000	0.875	1.425	0.187	0.437	--	1.955	1.119	1.071	1.119	0.989	4.135	STD	STD
140 *	1.750	1.000	1.000	1.663	0.220	0.500	--	2.136	1.253	1.150	1.253	1.068	5.136	STD	STD
160 *	2.000	1.250	1.126	1.899	0.252	0.563	--	2.538	1.454	1.370	1.454	1.269	6.603	STD	STD
180 *	2.250	1.400	1.406	2.132	0.281	0.687	--	2.780	1.561	1.390	1.561	1.390	9.100	STD	STD
200 *	2.500	1.490	1.562	2.312	0.312	0.781	--	3.088	1.889	1.544	1.889	1.544	10.900	STD	STD
240 *	3.000	1.864	1.875	2.812	0.375	0.937	--	3.708	2.212	1.854	2.212	1.854	16.400	STD	STD

\* Cottered connecting links.

Drives, Inc.	Pitch	Width Between L.P.	Roller Dia.	Link Plate	Pin Dia.	Transverse Pitch	Pin					Average Weight	
Chain No.	P	W	D	H	T	d	E	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	Lb./Ft.
A2040	1.000	0.312	0.312	0.472	0.060	0.156	--	0.638	--	--	0.382	0.319	0.270
A2050	1.250	0.376	0.400	0.590	0.080	0.200	--	0.795	--	--	0.489	0.398	0.450
A2060	1.500	0.500	0.469	0.705	0.094	0.234	--	0.996	--	--	0.648	0.498	0.630
C2050	1.250	0.376	0.400	0.591	0.079	0.200	--	0.795	--	--	0.477	0.409	0.580
C2060H	1.500	0.500	0.469	0.712	0.125	0.234	--	1.180	--	--	0.660	0.590	0.903
C2080H	2.000	0.625	0.625	0.950	0.156	0.312	--	1.490	--	--	0.845	0.745	1.204

NOTE:

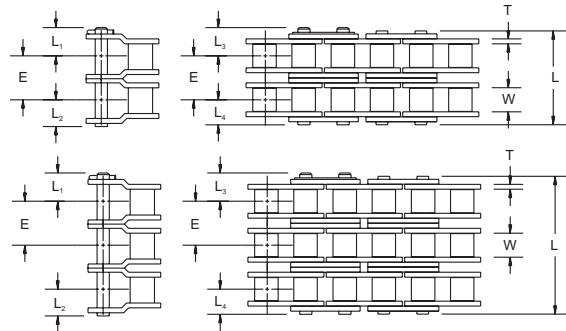
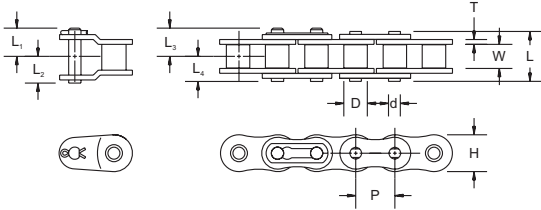
- See pages 26, 27, 38 & 39 for available U.S.A. made heavy series and extended pitch roller chain sizes.
- See pages 13-25 for multi-strand dimensions.

QUALITY



# Drives, Incorporated Precision Roller Chain Products

## 35 0.375" Pitch



Cut-to-length chain available.

Available in riveted style.

Drives, Inc.	Pitch	Width Between L.P.	Bushing Dia.	Link Plate		Pin Dia.	Transverse Pitch	Pin					Average Tensile Strength (Case Hardened)	Average Weight
				H	T			L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>		
35-1	0.375	0.189	0.200	0.355	0.049	0.141	-	0.461	0.264	0.252	0.264	0.240	2,100	0.210
35-2	0.375	0.189	0.200	0.355	0.049	0.141	0.398	0.863	0.264	0.252	0.264	0.240	4,200	0.410
35-3	0.375	0.189	0.200	0.355	0.049	0.141	0.398	1.261	0.264	0.252	0.264	0.240	6,300	0.620

Please consult Drives, Inc. Engineering for Maximum Allowable Loads and availability of additional multiple strand widths.

### Horsepower Table

No. of Teeth Small Sprocket	Revolutions Per Minute - Small Sprocket																									
	50	100	200	240	500	700	900	1200	1500	1800	2100	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	10000
11	0.11	0.22	0.42	0.50	1.02	1.41	1.80	2.37	2.93	3.49	4.05	3.86	2.94	2.33	1.91	1.60	1.37	1.18	1.04	0.92	0.82	0.74	0.67	0.62	0.57	0.48
12	0.12	0.24	0.46	0.55	1.11	1.54	1.96	2.58	3.20	3.81	4.42	4.40	3.35	2.66	2.17	1.82	1.56	1.35	1.18	1.05	0.94	0.85	0.77	0.70	0.64	0.55
13	0.13	0.26	0.50	0.60	1.21	1.67	2.12	2.80	3.47	4.13	4.79	4.96	3.77	3.00	2.45	2.05	1.75	1.52	1.33	1.18	1.06	0.95	0.87	0.79	0.73	0.62
14	0.14	0.28	0.54	0.64	1.30	1.80	2.29	3.01	3.73	4.45	5.15	5.55	4.22	3.35	2.74	2.30	1.96	1.70	1.49	1.32	1.18	1.07	0.97	0.88	0.81	0.10
15	0.15	0.30	0.58	0.69	1.39	1.92	2.45	3.23	4.00	4.76	5.52	6.15	4.68	3.71	3.04	2.55	2.17	1.88	1.65	1.47	1.31	1.18	1.07	0.98	0.90	0.00
16	0.16	0.32	0.62	0.73	1.49	2.05	2.61	3.44	4.26	5.08	5.89	6.77	5.15	4.09	3.35	2.81	2.40	2.08	1.82	1.62	1.45	1.30	1.18	1.08	0.44	0.00
17	0.17	0.34	0.65	0.78	1.58	2.18	2.77	3.66	4.53	5.40	6.26	7.40	5.64	4.48	3.67	3.07	2.62	2.27	2.00	1.77	1.58	1.43	1.30	1.02	0.00	
18	0.18	0.36	0.69	0.83	1.67	2.31	2.94	3.87	4.80	5.72	6.63	7.83	6.15	4.88	3.99	3.35	2.86	2.48	2.17	1.93	1.73	1.56	1.41	0.00		
19	0.19	0.38	0.73	0.87	1.76	2.44	3.10	4.09	5.06	6.03	7.00	8.27	6.67	5.29	4.33	3.63	3.10	2.69	2.36	2.09	1.87	1.69	0.05	0.00		
20	0.20	0.40	0.77	0.92	1.86	2.56	3.26	4.30	5.33	6.35	7.36	8.71	7.20	5.72	4.68	3.92	3.35	2.90	2.55	2.26	2.02	1.42	0.00			
21	0.21	0.42	0.81	0.96	1.95	2.69	3.43	4.52	5.60	6.67	7.73	9.14	7.75	6.15	5.03	4.22	3.60	3.12	2.74	2.43	2.17	0.00				
22	0.22	0.44	0.85	1.01	2.04	2.82	3.59	4.73	5.86	6.99	8.10	9.58	8.31	6.59	5.40	4.52	3.86	3.35	2.94	2.61	1.42	0.00				
23	0.23	0.46	0.89	1.06	2.14	2.95	3.75	4.95	6.13	7.30	8.47	10.01	8.88	7.05	5.77	4.83	4.13	3.58	3.14	2.79	0.00					
24	0.24	0.48	0.92	1.10	2.23	3.08	3.92	5.16	6.40	7.62	8.84	10.45	9.47	7.51	6.15	5.15	4.40	3.81	3.35	2.04	0.00					
25	0.25	0.50	0.96	1.15	2.32	3.21	4.08	5.38	6.66	7.94	9.20	10.88	10.07	7.99	6.54	5.48	4.68	4.05	3.56	0.12	0.00					
26	0.26	0.51	1.00	1.19	2.41	3.33	4.24	5.59	6.93	8.26	9.57	11.32	10.68	8.47	6.93	5.81	4.96	4.30	3.40	0.00						
28	0.29	0.55	1.08	1.28	2.60	3.59	4.57	6.02	7.46	8.89	10.31	12.19	11.93	9.47	7.75	6.49	5.55	4.81	0.00							
30	0.31	0.59	1.16	1.38	2.79	3.85	4.90	6.45	8.00	9.53	11.05	13.06	13.23	10.50	8.59	7.20	6.15	2.24	0.00							
32	0.33	0.63	1.23	1.47	2.97	4.10	5.22	6.88	8.53	10.16	11.78	13.93	14.58	11.57	9.47	7.93	5.76	0.00								
35	0.36	0.69	1.35	1.61	3.25	4.49	5.71	7.53	9.33	11.11	12.89	15.23	16.67	13.23	10.83	8.85	0.34	0.00								
40	0.41	0.79	1.54	1.84	3.71	5.13	6.53	8.61	10.66	12.70	14.73	17.41	20.37	16.17	11.04	0.34	0.00									
45	0.46	0.89	1.73	2.07	4.18	5.77	7.35	9.68	11.99	14.29	16.57	19.59	23.33	15.56	3.11	0.00										

Type I Manual or Drip Lubrication      Type II Bath or Disc Lubrication      Type III Oil Stream Lubrication

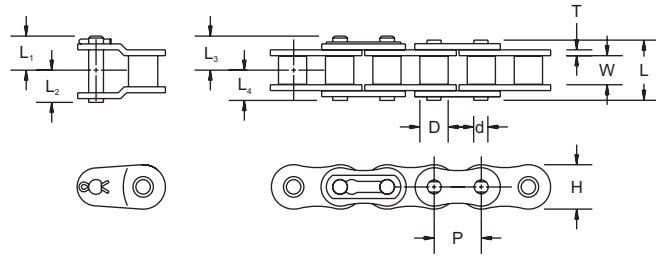
The limiting RPM for each lubrication type is shown in the chart's shaded areas directly above the Type I, II, or III reference. For optimum results, it is recommended that the Roller Chain manufacturer be given the opportunity to evaluate the conditions of operation of chains in the shaded (galling range) speed area. The Horsepower Ratings of Multiple Strand Chains are greater than those for Single Strand Chain: see Table II on page 8 for Multiple Strand Factors.

Made in U.S.A.

PERFORMANCE

# Drives, Incorporated Precision Roller Chain Products

## 4 | 0.500" Pitch



Cut-to-length chain available.

Available in riveted style.

Drives, Inc.	Pitch	Width Between L.P.	Roller Dia.	Link Plate	Pin Dia.	Transverse Pitch	Pin					Average Tensile Strength (Case Hardened)	Average Weight	
Chain No.	P	W	D	H	T	d	E	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	Lb.	Lb./Ft.
41-1	0.500	0.252	0.306	0.382	0.049	0.141	-	0.524	0.315	0.268	0.315	0.268	2,400	0.273

Please consult Drives, Inc. Engineering for Maximum Allowable Loads and availability of additional multiple strand widths.

### Horsepower Table

No. of Teeth Small Sprocket	Revolutions Per Minute - Small Sprocket																									
	10	25	50	100	180	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	0.50	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	0.54	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	0.59	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	0.00
14	0.04	0.10	0.19	0.36	0.63	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	0.00
15	0.04	0.10	0.20	0.39	0.68	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	0.00
16	0.05	0.11	0.21	0.41	0.73	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	0.00	0.00
17	0.05	0.12	0.23	0.44	0.77	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	0.00	0.00
18	0.05	0.12	0.24	0.46	0.82	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	0.00	0.00
19	0.05	0.13	0.25	0.49	0.86	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	0.09	0.00	0.00
20	0.06	0.14	0.27	0.52	0.91	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	0.00	0.00	0.00
21	0.06	0.14	0.28	0.54	0.95	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	0.00	0.00	0.00
22	0.06	0.15	0.29	0.57	1.00	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	0.00	0.00	0.00
23	0.07	0.16	0.30	0.59	1.04	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	0.00	0.00	0.00
24	0.07	0.16	0.32	0.62	1.09	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	0.00	0.00	0.00
25	0.07	0.17	0.33	0.64	1.13	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	0.00	0.00	0.00	0.00
26	0.07	0.18	0.34	0.67	1.18	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	0.00	0.00	0.00	0.00
28	0.08	0.19	0.37	0.72	1.27	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	0.00	0.00	0.00	0.00
30	0.08	0.20	0.40	0.77	1.36	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	0.00	0.00	0.00	0.00
32	0.09	0.22	0.42	0.82	1.45	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	0.00	0.00	0.00	0.00
35	0.10	0.24	0.46	0.90	1.59	1.76	2.59	3.41	4.23	5.84	7.44	8.23	9.80	7.72	6.32	5.29	4.20	3.44	2.88	2.46	1.95	0.00	0.00	0.00	0.00	0.00
40	0.11	0.27	0.53	1.03	1.81	2.01	2.96	3.90	4.83	6.68	8.50	9.40	11.20	9.43	7.72	6.47	5.13	4.20	3.52	3.01	0.00	0.00	0.00	0.00	0.00	0.00
45	0.13	0.31	0.60	1.16	2.04	2.26	3.33	4.39	5.44	7.51	9.56	10.58	12.60	11.25	9.21	7.72	6.13	5.01	4.20	3.59	0.00	0.00	0.00	0.00	0.00	0.00

Type I  
Manual or Drip Lubrication

Type II  
Bath or Disc Lubrication

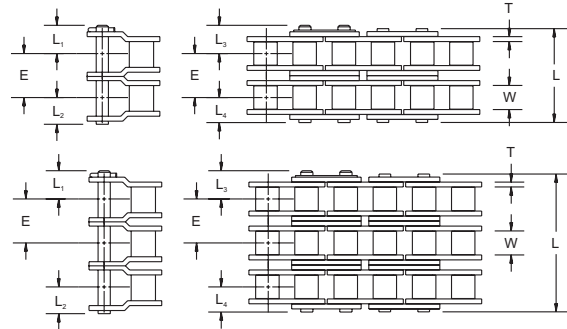
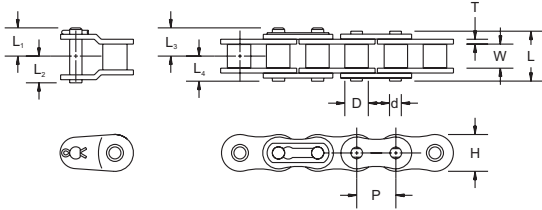
Type III  
Oil Stream Lubrication

The limiting RPM for each lubrication type is shown in the chart's shaded areas directly above the Type I, II, or III reference. For optimum results, it is recommended that the Roller Chain manufacturer be given the opportunity to evaluate the conditions of operation of chains in the shaded (galling range) speed area. The Horsepower Ratings of Multiple Strand Chains are greater than those for Single Strand Chain: see Table II on page 8 for Multiple Strand Factors.



# Drives, Incorporated Precision Roller Chain Products

## 40 0.500" Pitch



Cut-to-length chain available.

Available in riveted style.

Drives, Inc.	Pitch	Width Between L.P.	Roller Dia.	Link Plate		Pin Dia.	Transverse Pitch	Pin					Average Tensile Strength (Case Hardened)	Average Weight
Chain No.	P	W	D	H	T	d	E	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	Lb.	Lb./Ft.
40-1	0.500	0.313	0.313	0.472	0.060	0.156	--	0.630	0.404	0.317	0.377	0.315	3,700	0.420
40-2	0.500	0.313	0.313	0.472	0.060	0.156	0.567	1.195	0.404	0.317	0.377	0.315	7,400	0.810
40-3	0.500	0.313	0.313	0.472	0.060	0.156	0.567	1.773	0.404	0.317	0.377	0.315	11,100	1.210
40-4	0.500	0.313	0.313	0.472	0.060	0.156	0.567	2.331	0.404	0.317	0.377	0.315	14,800	1.610

Please consult Drives, Inc. Engineering for Maximum Allowable Loads and availability of additional multiple strand widths.

### Horsepower Table

No. of Teeth Small Sprocket	Revolutions Per Minute - Small Sprocket																										
	10	25	50	100	180	200	300	400	500	700	900	1000	1200	1400	1600	1800	2100	2400	2700	3000	3500	4000	5000	6000	7000	8000	8500
11	0.06	0.14	0.27	0.52	0.91	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	0.45
12	0.06	0.15	0.29	0.56	0.99	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	0.00
13	0.07	0.16	0.31	0.61	1.07	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	0.00	
14	0.07	0.17	0.34	0.66	1.15	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	0.00	
15	0.08	0.19	0.36	0.70	1.24	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	0.00	
16	0.08	0.20	0.39	0.75	1.32	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	0.00		
17	0.09	0.21	0.41	0.80	1.40	1.55	2.29	3.02	3.74	5.16	6.57	7.27	8.66	10.04	10.69	8.96	7.11	5.82	4.88	4.17	3.31	2.71	1.94	1.47	0.00		
18	0.09	0.22	0.43	0.84	1.48	1.64	2.42	3.19	3.96	5.46	6.95	7.69	9.17	10.63	11.65	9.76	7.75	6.34	5.31	4.54	3.60	2.95	2.11	1.60	0.00		
19	0.10	0.24	0.46	0.89	1.57	1.73	2.56	3.37	4.18	5.77	7.34	8.12	9.68	11.22	12.64	10.59	8.40	6.88	5.76	4.92	3.91	3.20	2.29	0.09	0.00		
20	0.10	0.25	0.48	0.94	1.65	1.82	2.69	3.55	4.39	6.07	7.73	8.55	10.18	11.81	13.42	11.44	9.07	7.43	6.22	5.31	4.22	3.45	2.47	0.00			
21	0.11	0.26	0.51	0.98	1.73	1.91	2.83	3.72	4.61	6.37	8.11	8.98	10.69	12.40	14.10	12.30	9.76	7.99	6.70	5.72	4.54	3.71	2.66	0.00			
22	0.11	0.27	0.53	1.03	1.81	2.01	2.96	3.90	4.83	6.68	8.50	9.40	11.20	12.99	14.77	13.19	10.47	8.57	7.18	6.13	4.87	3.98	2.85	0.00			
23	0.12	0.28	0.55	1.08	1.90	2.10	3.10	4.08	5.05	6.98	8.89	9.83	11.71	13.58	15.44	14.10	11.19	9.16	7.68	6.55	5.20	4.26	3.05	0.00			
24	0.12	0.30	0.58	1.12	1.98	2.19	3.23	4.26	5.27	7.28	9.27	10.26	12.22	14.17	16.11	15.03	11.93	9.76	8.18	6.99	5.54	4.54	0.87	0.00			
25	0.13	0.31	0.60	1.17	2.06	2.28	3.36	4.43	5.49	7.59	9.66	10.69	12.73	14.76	16.78	15.98	12.68	10.38	8.70	7.43	5.89	4.82	0.00				
26	0.13	0.32	0.63	1.22	2.14	2.37	3.50	4.61	5.71	7.89	10.04	11.11	13.24	15.35	17.45	16.95	13.45	11.01	9.23	7.88	6.25	5.12	0.00				
28	0.14	0.35	0.67	1.31	2.31	2.55	3.77	4.97	6.15	8.50	10.82	11.97	14.26	16.53	18.79	18.94	15.03	12.30	10.31	8.80	6.99	5.72	0.00				
30	0.15	0.37	0.72	1.41	2.47	2.74	4.04	5.32	6.59	9.11	11.59	12.82	15.28	17.71	20.14	21.01	16.67	13.65	11.44	9.76	7.75	6.34	0.00				
32	0.16	0.40	0.77	1.50	2.64	2.92	4.31	5.68	7.03	9.71	12.36	13.68	16.30	18.89	21.48	23.14	18.37	15.03	12.60	10.76	8.54	1.41					
35	0.18	0.43	0.84	1.64	2.88	3.19	4.71	6.21	7.69	10.62	13.52	14.96	17.82	20.67	23.49	26.30	21.01	17.20	14.41	12.30	9.76	0.00					
40	0.21	0.50	0.96	1.87	3.30	3.65	5.38	7.09	8.79	12.14	15.45	17.10	20.37	23.62	26.85	30.06	25.67	21.01	17.61	15.03	0.00						
45	0.23	0.56	1.08	2.11	3.71	4.10	6.06	7.98	9.89	13.66	17.39	19.24	22.92	26.57	30.20	33.82	30.63	25.07	21.01	5.53	0.00						

Type I  
Manual or Drip Lubrication

Type II  
Bath or Disc Lubrication

Type III  
Oil Stream Lubrication

The limiting RPM for each lubrication type is shown in the chart's shaded areas directly above the Type I, II, or III reference. For optimum results, it is recommended that the Roller Chain manufacturer be given the opportunity to evaluate the conditions of operation of chains in the shaded (galling range) speed area. The Horsepower Ratings of Multiple Strand Chains are greater than those for Single Strand Chain: see Table II on page 8 for Multiple Strand Factors.

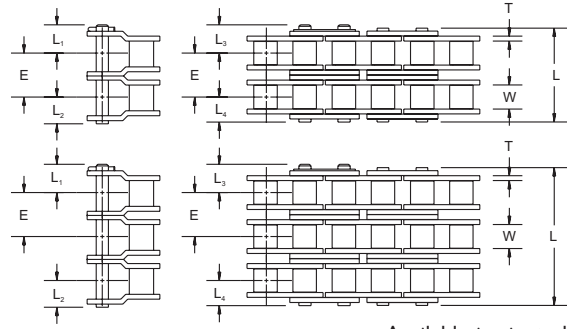
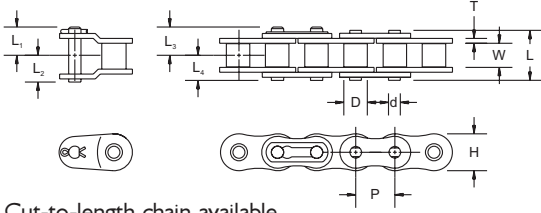
Made in U.S.A.

QUALITY

Made in U.S.A.

# Drives, Incorporated Precision Roller Chain Products

## 50 0.625" Pitch



Cut-to-length chain available.

Available in riveted style.

Drives, Inc.	Pitch	Width Between L.P.	Roller Dia.	Link Plate	Pin Dia.	Transverse Pitch	Pin					Average Tensile Strength (Case Hardened)	Average Weight	
Chain No.	P	W	D	H	T	d	E	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	Lb.	Lb./Ft.
50-1	0.625	0.376	0.400	0.590	0.080	0.200	-	0.795	0.489	0.399	0.489	0.398	6,100	0.713
50-2	0.625	0.376	0.400	0.590	0.080	0.200	0.713	1.511	0.489	0.399	0.489	0.398	12,200	1.406
50-3	0.625	0.376	0.400	0.590	0.080	0.200	0.713	2.230	0.489	0.399	0.489	0.398	18,300	2.099
50-4	0.625	0.376	0.400	0.590	0.080	0.200	0.713	2.943	0.489	0.399	0.489	0.398	24,400	2.790
50-5	0.625	0.376	0.400	0.590	0.080	0.200	0.713	3.656	0.489	0.399	0.489	0.398	30,500	3.830

Please consult Drives, Inc. Engineering for Maximum Allowable Loads and availability of additional multiple strand widths.

### Horsepower Table

No. of Teeth Small Sprocket	Revolutions Per Minute - Small Sprocket																								
	10	25	50	100	140	200	300	500	700	900	1200	1500	1800	2100	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	7500
11	0.11	0.27	0.52	1.00	1.39	1.95	2.88	4.70	6.50	8.27	10.24	7.33	5.58	4.42	3.41	2.59	2.06	1.68	1.41	1.20	1.04	0.92	0.81	0.73	0.00
12	0.12	0.29	0.56	1.09	1.51	2.13	3.14	5.13	7.09	9.02	11.67	8.35	6.35	5.04	3.88	2.95	2.34	1.92	1.61	1.37	1.19	1.04	0.93	0.00	
13	0.13	0.31	0.61	1.19	1.64	2.31	3.40	5.56	7.68	9.77	12.88	9.42	7.16	5.69	4.38	3.33	2.64	2.16	1.81	1.55	1.34	1.18	0.00		
14	0.14	0.34	0.66	1.28	1.76	2.48	3.67	5.99	8.27	10.53	13.87	10.52	8.01	6.35	4.89	3.72	2.95	2.42	2.03	1.73	1.50	0.28	0.00		
15	0.15	0.36	0.70	1.37	1.89	2.66	3.93	6.41	8.86	11.28	14.86	11.67	8.88	7.05	5.42	4.13	3.27	2.68	2.25	1.92	1.66	0.00			
16	0.16	0.39	0.75	1.46	2.02	2.84	4.19	6.84	9.45	12.03	15.85	12.86	9.78	7.76	5.98	4.55	3.61	2.95	2.47	2.11	0.00				
17	0.17	0.41	0.80	1.55	2.14	3.02	4.45	7.27	10.04	12.78	16.85	14.08	10.71	8.50	6.55	4.98	3.95	3.23	2.71	2.31	0.00				
18	0.18	0.43	0.84	1.64	2.27	3.19	4.71	7.70	10.63	13.53	17.84	15.34	11.67	9.26	7.13	5.42	4.30	3.52	2.95	0.05					
19	0.19	0.46	0.89	1.73	2.39	3.37	4.98	8.12	11.22	14.28	18.83	16.64	12.66	10.05	7.73	5.88	4.67	3.82	3.20	0.00					
20	0.20	0.48	0.94	1.82	2.52	3.55	5.24	8.55	11.81	15.04	19.82	17.97	13.67	10.85	8.35	6.35	5.04	4.13	3.46	0.00					
21	0.21	0.51	0.98	1.92	2.65	3.73	5.50	8.98	12.40	15.79	20.81	19.34	14.71	11.67	8.99	6.84	5.42	4.44	0.00						
22	0.22	0.53	1.03	2.01	2.77	3.90	5.76	9.41	12.99	16.54	21.80	20.73	15.77	12.52	9.64	7.33	5.82	4.76	0.00						
23	0.23	0.55	1.08	2.10	2.90	4.08	6.02	9.83	13.58	17.29	22.79	22.16	16.86	13.38	10.30	7.84	6.22	5.09	0.00						
24	0.24	0.58	1.13	2.19	3.02	4.26	6.28	10.26	14.18	18.04	23.78	23.62	17.97	14.26	10.98	8.35	6.63	1.36	0.00						
25	0.25	0.60	1.17	2.28	3.15	4.44	6.55	10.69	14.77	18.79	24.77	25.11	19.11	15.16	11.67	8.88	7.05	0.00							
26	0.26	0.63	1.22	2.37	3.28	4.61	6.81	11.12	15.36	19.55	25.76	26.64	20.26	16.08	12.38	9.42	7.47	0.00							
28	0.28	0.67	1.31	2.55	3.53	4.97	7.33	11.97	16.54	21.05	27.75	29.77	22.65	17.97	13.84	10.52	4.74	0.00							
30	0.30	0.72	1.41	2.74	3.78	5.32	7.86	12.83	17.72	22.55	29.73	33.01	25.11	19.93	15.34	11.67	0.00								
32	0.32	0.77	1.50	2.92	4.03	5.68	8.38	13.68	18.90	24.06	31.71	36.37	27.67	21.96	16.90	12.86	0.00								
35	0.35	0.84	1.64	3.19	4.41	6.21	9.16	14.97	20.67	26.31	34.68	41.60	31.65	25.11	19.34	0.94	0.00								
40	0.40	0.96	1.88	3.65	5.04	7.10	10.47	17.10	23.63	30.07	39.64	49.11	38.67	30.68	23.62	0.00									
45	0.45	1.08	2.11	4.10	5.67	7.98	11.78	19.24	26.58	33.83	44.59	55.24	46.14	36.61	8.64										

Type I  
Manual or Drip Lubrication

Type II  
Bath or Disc Lubrication

Type III  
Oil Stream Lubrication

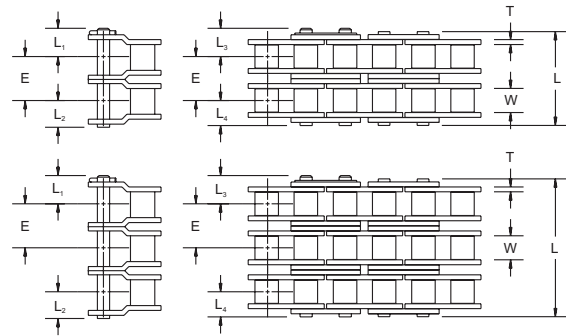
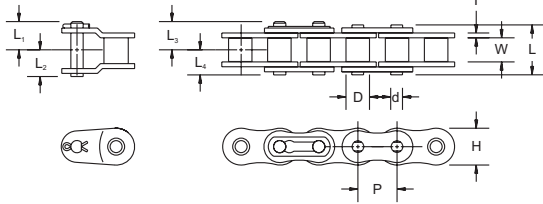
The limiting RPM for each lubrication type is shown in the chart's shaded areas directly above the Type I, II, or III reference. For optimum results, it is recommended that the Roller Chain manufacturer be given the opportunity to evaluate the conditions of operation of chains in the shaded (galling range) speed area. The Horsepower Ratings of Multiple Strand Chains are greater than those for Single Strand Chain: see Table II on page 8 for Multiple Strand Factors.



PERFORMANCE

# Drives, Incorporated Precision Roller Chain Products

## 60 0.750" Pitch



Cut-to-length chain available.

Drives, Inc.	Pitch	Width Between L.P.	Roller Dia.	Link Plate	Pin Dia.	Transverse Pitch	Pin					Average Tensile Strength (Case Hardened)	Average Weight	Riveted	Cottered	
Chain No.	P	W	D	H	T	d	E	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	Lb.	Lb./Ft.		
60-1	0.750	0.500	0.469	0.705	0.094	0.234	--	0.996	0.600	0.498	0.648	0.498	8,500	1.067	STD	MTO
60-2	0.750	0.500	0.469	0.705	0.094	0.234	0.898	1.896	0.600	0.498	0.648	0.498	17,000	2.068	STD	MTO
60-3	0.750	0.500	0.469	0.705	0.094	0.234	0.898	2.794	0.600	0.498	0.648	0.498	25,500	3.069	STD	MTO
60-4	0.750	0.500	0.469	0.705	0.094	0.234	0.898	3.690	0.600	0.498	0.648	0.498	34,000	4.070	MTO	MTO
60-5	0.750	0.500	0.469	0.705	0.094	0.234	0.898	4.588	0.600	0.498	0.648	0.498	42,500	5.071	MTO	MTO
60-6	0.750	0.500	0.469	0.705	0.094	0.234	0.898	5.486	0.600	0.498	0.648	0.498	51,000	6.072	MTO	MTO

Please consult Drives, Inc. Engineering for Maximum Allowable Loads and availability of additional multiple strand widths.

### Horsepower Table

No. of Teeth Small Sprocket	Revolutions Per Minute - Small Sprocket																								
	10	25	50	100	120	200	300	400	500	600	800	1000	1200	1400	1600	1800	2000	2500	3000	3500	4000	4500	5000	5500	6000
11	0.19	0.46	0.89	1.72	2.05	3.35	4.95	6.52	8.08	9.63	12.69	15.58	11.85	9.41	7.70	6.45	5.51	3.94	3.00	2.38	1.95	1.63	1.39	1.21	0.00
12	0.21	0.50	0.97	1.88	2.24	3.66	5.40	7.12	8.82	10.51	13.85	17.15	13.51	10.72	8.77	7.35	6.28	4.49	3.42	2.71	2.22	1.86	1.59	1.38	0.00
13	0.22	0.54	1.05	2.04	2.43	3.96	5.85	7.71	9.55	11.38	15.00	18.58	15.23	12.08	9.89	8.29	7.08	5.06	3.85	3.06	2.50	2.10	1.79	0.00	
14	0.24	0.58	1.13	2.19	2.61	4.27	6.30	8.30	10.29	12.26	16.15	20.01	17.02	13.51	11.05	9.26	7.91	5.66	4.31	3.42	2.80	2.34	0.41	0.00	
15	0.26	0.62	1.21	2.35	2.80	4.57	6.75	8.90	11.02	13.13	17.31	21.44	18.87	14.98	12.26	10.27	8.77	6.28	4.77	3.79	3.10	2.60	0.00		
16	0.27	0.66	1.29	2.51	2.99	4.88	7.20	9.49	11.76	14.01	18.46	22.87	20.79	16.50	13.51	11.32	9.66	6.91	5.26	4.17	3.42	1.78	0.00		
17	0.29	0.70	1.37	2.66	3.17	5.18	7.65	10.08	12.49	14.88	19.62	24.30	22.77	18.07	14.79	12.40	10.58	7.57	5.76	4.57	3.74	0.00			
18	0.31	0.75	1.45	2.82	3.36	5.49	8.10	10.68	13.23	15.76	20.77	25.73	24.81	19.69	16.11	13.51	11.53	8.25	6.28	4.98	4.08	0.00			
19	0.33	0.79	1.53	2.98	3.55	5.79	8.55	11.27	13.96	16.63	21.92	27.16	26.91	21.35	17.48	14.65	12.50	8.95	6.81	5.40	0.20	0.00			
20	0.34	0.83	1.61	3.13	3.73	6.10	9.00	11.86	14.70	17.51	23.08	28.59	29.06	23.06	18.87	15.82	13.51	9.66	7.35	5.83	0.00				
21	0.36	0.87	1.69	3.29	3.92	6.40	9.45	12.46	15.43	18.38	24.23	30.02	31.26	24.81	20.31	17.02	14.53	10.40	7.91	6.28	0.00				
22	0.38	0.91	1.77	3.45	4.11	6.71	9.90	13.05	16.17	19.26	25.39	31.45	33.52	26.60	21.77	18.25	15.58	11.15	8.48	0.00					
23	0.40	0.95	1.85	3.61	4.29	7.01	10.35	13.64	16.90	20.13	26.54	32.88	35.84	28.44	23.28	19.51	16.66	11.92	9.07	0.00					
24	0.41	0.99	1.93	3.76	4.48	7.32	10.80	14.24	17.64	21.01	27.69	34.31	38.20	30.31	24.81	20.79	17.75	12.70	9.66	0.00					
25	0.43	1.04	2.01	3.92	4.67	7.62	11.25	14.83	18.37	21.89	28.85	35.74	40.61	32.23	26.38	22.11	18.87	13.51	10.27	0.00					
26	0.45	1.08	2.09	4.08	4.85	7.93	11.70	15.42	19.11	22.76	30.00	37.17	43.07	34.18	27.98	23.44	20.02	14.32	10.90	0.00					
28	0.48	1.16	2.26	4.39	5.23	8.54	12.60	16.61	20.58	24.51	32.31	40.03	47.68	38.20	31.26	26.20	22.37	16.01	0.00						
30	0.52	1.24	2.42	4.70	5.60	9.15	13.50	17.79	22.05	26.26	34.62	42.89	51.09	42.36	34.67	29.06	24.81	17.75	0.00						
32	0.55	1.33	2.58	5.02	5.98	9.76	14.40	18.98	23.52	28.01	36.92	45.75	54.50	46.67	38.20	32.01	27.33	19.56	0.00						
35	0.60	1.45	2.82	5.49	6.54	10.67	15.75	20.76	25.72	30.64	40.39	50.03	59.60	53.38	43.69	36.62	31.26	1.35	0.00						
40	0.69	1.66	3.22	6.27	7.47	12.20	18.00	23.73	29.39	35.02	46.16	57.18	68.12	65.22	53.38	44.74	38.20	0.00							
45	0.77	1.86	3.63	7.05	8.40	13.72	20.25	26.69	33.07	39.39	51.92	64.33	76.63	77.83	63.70	53.38	12.45	0.00							

Type I Manual or Drip Lubrication      Type II Bath or Disc Lubrication      Type III Oil Stream Lubrication

The limiting RPM for each lubrication type is shown in the chart's shaded areas directly above the Type I, II, or III reference. For optimum results, it is recommended that the Roller Chain manufacturer be given the opportunity to evaluate the conditions of operation of chains in the shaded (galling range) speed area. The Horsepower Ratings of Multiple Strand Chains are greater than those for Single Strand Chain: see Table II on page 8 for Multiple Strand Factors.

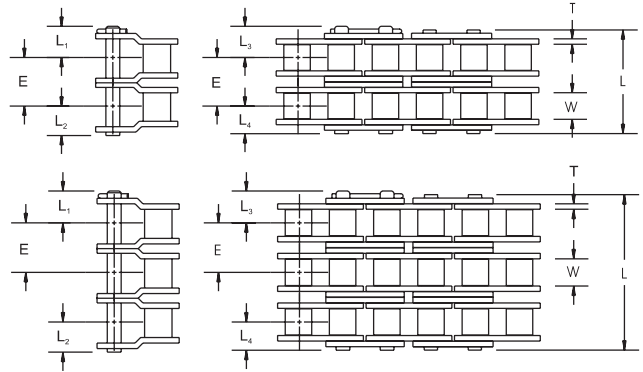
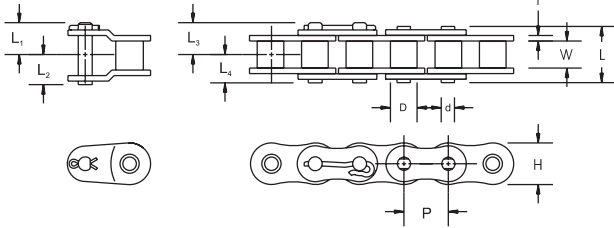
Made in U.S.A. SERVICE

Made in U.S.A.

# Drives, Incorporated Precision Roller Chain Products

# 80

## 1.000" Pitch



Cut-to-length chain available.

Chain No.	Pitch	Width Between L.P.	Roller Dia.	Link Plate	Pin Dia.	Transverse Pitch	Pin					Average Tensile Strength (Case Hardened)	Average Tensile Strength (Through Hardened)	Average Weight	Riveted	Cottered	
							L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>						
80-1	1.000	0.627	0.625	0.943	0.125	0.313	-	1.283	0.768	0.638	0.857	0.642	14,500	21,500	1.868	STD	STD
80-2	1.000	0.627	0.625	0.943	0.125	0.313	1.155	2.434	0.768	0.638	0.857	0.642	29,000	43,000	3.735	STD	STD
80-3	1.000	0.627	0.625	0.943	0.125	0.313	1.155	3.589	0.768	0.638	0.857	0.642	43,500	64,500	5.602	STD	STD
80-4	1.000	0.627	0.625	0.943	0.125	0.313	1.155	4.749	0.768	0.638	0.857	0.642	58,000	86,000	7.436	MTO	STD
80-5	1.000	0.627	0.625	0.943	0.125	0.313	1.155	5.904	0.768	0.638	0.857	0.642	72,500	107,500	9.031	MTO	STD
80-6	1.000	0.627	0.625	0.943	0.125	0.313	1.155	7.059	0.768	0.638	0.857	0.642	87,000	129,000	10.824	MTO	STD
80-8	1.000	0.627	0.625	0.943	0.125	0.313	1.155	9.369	0.768	0.638	0.857	0.642	116,000	172,000	14.432	MTO	STD

Please consult Drives, Inc. Engineering for Maximum Allowable Loads and availability of additional multiple strand widths.

## Horsepower Table

No. of Teeth Small Sprocket	Revolutions Per Minute - Small Sprocket																													
	10	25	50	75	88	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2700	3000	3300	3600	4000	4500
11	0.44	1.06	2.07	3.05	3.56	4.03	5.94	7.83	11.56	15.23	18.87	22.48	26.07	27.41	22.97	19.61	17.00	14.92	11.84	9.69	8.12	6.93	6.01	5.27	4.42	3.77	3.27	2.87	2.45	0.00
12	0.48	1.16	2.26	3.33	3.88	4.39	6.48	8.54	12.61	16.62	20.59	24.53	28.44	31.23	26.17	22.35	19.37	17.00	13.49	11.04	9.25	7.90	6.85	6.01	5.04	4.30	3.73	3.27	2.79	0.00
13	0.52	1.26	2.45	3.61	4.21	4.76	7.02	9.26	13.66	18.00	22.31	26.57	30.81	35.02	29.51	25.20	21.84	19.17	15.21	12.45	10.43	8.91	7.72	6.78	5.68	4.85	4.20	3.69	0.00	
14	0.56	1.35	2.63	3.89	4.53	5.12	7.56	9.97	14.71	19.39	24.02	28.62	33.18	37.72	32.98	28.16	24.41	21.42	17.00	13.91	11.66	9.96	8.63	7.57	6.35	5.42	4.70	4.12	0.00	
15	0.60	1.45	2.82	4.16	4.86	5.49	8.10	10.68	15.76	20.77	25.74	30.66	35.55	40.41	36.58	31.23	27.07	23.76	18.85	15.43	12.93	11.04	9.57	8.40	7.04	6.01	5.21	4.57	0.00	
16	0.64	1.55	3.01	4.44	5.18	5.86	8.64	11.39	16.81	22.16	27.45	32.70	37.92	43.11	40.30	34.41	29.82	26.17	20.77	17.00	14.25	12.16	10.54	9.25	7.76	6.62	5.74	0.00		
17	0.68	1.64	3.20	4.72	5.50	6.22	9.18	12.10	17.86	23.54	29.17	34.75	40.29	45.80	44.13	37.68	32.66	28.66	22.75	18.62	15.60	13.32	11.55	10.13	8.49	7.25	0.00			
18	0.72	1.74	3.39	5.00	5.83	6.59	9.72	12.81	18.91	24.93	30.88	36.79	42.66	48.49	48.08	41.05	35.59	31.23	24.78	20.29	17.00	14.51	12.58	11.04	9.25	7.90	0.00			
19	0.76	1.84	3.57	5.28	6.15	6.95	10.26	13.53	19.96	26.31	32.60	38.84	45.03	51.19	52.15	44.52	38.59	33.87	26.88	22.00	18.44	15.74	13.64	11.97	10.04	0.36	0.00			
20	0.80	1.93	3.76	5.55	6.47	7.32	10.80	14.24	21.01	27.70	34.32	40.88	47.40	53.88	56.32	48.08	41.68	36.58	29.03	23.76	19.91	17.00	14.74	12.93	10.84	0.00				
21	0.84	2.03	3.95	5.83	6.80	7.69	11.34	14.95	22.07	29.08	36.03	42.92	49.77	56.58	60.59	51.73	44.84	39.36	31.23	25.56	21.42	18.29	15.85	13.91	11.66	0.00				
22	0.88	2.13	4.14	6.11	7.12	8.05	11.88	15.66	23.12	30.47	37.75	44.97	52.14	59.27	64.97	55.47	48.08	42.20	33.49	27.41	22.97	19.61	17.00	14.92	0.00					
23	0.92	2.22	4.33	6.39	7.45	8.42	12.42	16.37	24.17	31.85	39.46	47.01	54.51	61.97	69.38	59.30	51.40	45.11	35.80	29.30	24.55	20.97	18.17	15.95	0.00					
24	0.96	2.32	4.52	6.66	7.77	8.78	12.96	17.09	25.22	33.24	41.18	49.06	56.88	64.66	72.40	63.21	54.79	48.08	38.16	31.23	26.17	22.35	19.37	17.00	0.00					
25	1.00	2.42	4.70	6.94	8.09	9.15	13.50	17.80	26.27	34.62	42.89	51.10	59.25	67.35	75.42	67.20	58.25	51.12	40.57	33.20	27.83	23.76	20.59	18.16	0.00					
26	1.04	2.51	4.89	7.22	8.42	9.52	14.04	18.51	27.32	36.01	44.61	53.14	61.62	70.05	78.43	71.27	61.78	54.22	43.02	35.22	29.51	25.20	21.84	0.00						
28	1.12	2.71	5.27	7.77	9.06	10.25	15.12	19.93	29.42	38.78	48.04	57.23	66.36	75.44	84.47	79.65	69.04	60.59	48.08	39.36	32.98	28.16	9.22	0.00						
30	1.20	2.90	5.64	8.33	9.71	10.98	16.20	21.36	31.52	41.55	51.47	61.32	71.10	80.82	90.50	88.33	76.57	67.20	53.33	43.65	36.58	31.23	0.00							
32	1.28	3.09	6.02	8.89	10.36	11.71	17.28	22.78	33.62	44.32	54.91	65.41	75.84	86.21	96.53	97.31	84.35	74.03	58.75	48.08	40.30	5.65	0.00							
35	1.40	3.38	6.58	9.72	11.33	12.81	18.90	24.92	36.78	48.47	60.05	71.54	82.95	94.29	105.58	111.31	96.49	84.68	67.20	55.00	28.15	0.00								
40	1.61	3.87	7.53	11.11	12.95	14.64	21.61	28.48	42.03	55.40	68.63	81.76	94.80	107.77	120.67	133.51	117.88	103.46	82.10	40.16	0.00									
45	1.81	4.35	8.47	12.49	14.57	16.47	24.31	32.04	47.28	62.32	77.21	91.98	106.65	121.24	135.75	150.20	140.66	123.45	72.28	0.00										

Type I  
Manual or Drip Lubrication

Type II  
Bath or Disc Lubrication

Type III  
Oil Stream Lubrication

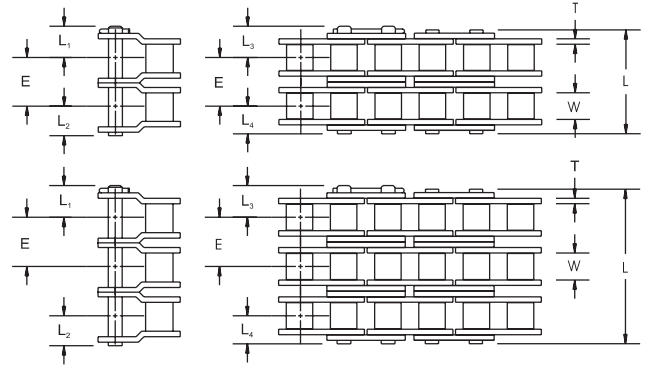
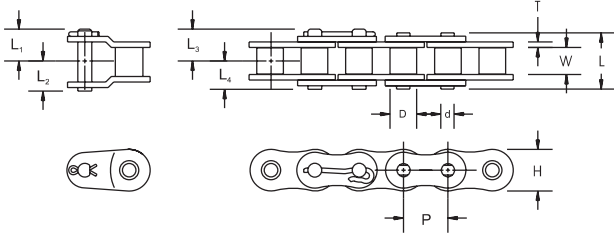
The limiting RPM for each lubrication type is shown in the chart's shaded areas directly above the Type I, II, or III reference. For optimum results, it is recommended that the Roller Chain manufacturer be given the opportunity to evaluate the conditions of operation of chains in the shaded (galling range) speed area. The Horsepower Ratings of Multiple Strand Chains are greater than those for Single Strand Chain: see Table II on page 8 for Multiple Strand Factors.



QUALITY

# Drives, Incorporated Precision Roller Chain Products

## 100 I.250" Pitch



Cut-to-length chain available.

Chain No.	Pitch P	Width Between L.P. W	Roller Dia. D	Link Plate H	Pin Dia. T	Transverse Pitch d	E	Pin					Average Tensile Strength (Case Hardened) Lb.	Average Tensile Strength (Through Hardened) Lb.	Average Weight Lb./Ft.	Riveted	Cottered
								L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>					
100-1	1.250	0.755	0.750	1.180	0.156	0.375	--	1.595	0.908	0.785	0.912	0.785	24,000	33,000	2.801	STD	STD
100-2	1.250	0.755	0.750	1.180	0.156	0.375	1.411	3.000	0.908	0.785	0.912	0.785	48,000	66,000	5.603	STD	STD
100-3	1.250	0.755	0.750	1.180	0.156	0.375	1.411	4.392	0.908	0.785	0.912	0.785	72,000	99,000	8.470	MTO	STD
100-4	1.250	0.755	0.750	1.180	0.156	0.375	1.411	5.803	0.908	0.785	0.912	0.785	96,000	132,000	11.110	MTO	STD
100-5	1.250	0.755	0.750	1.180	0.156	0.375	1.411	7.214	0.908	0.785	0.912	0.785	120,000	165,000	13.970	MTO	STD
100-6	1.250	0.755	0.750	1.180	0.156	0.375	1.411	8.625	0.908	0.785	0.912	0.785	144,000	198,000	16.720	MTO	STD
100-8	1.250	0.755	0.750	1.180	0.156	0.375	1.411	11.447	0.908	0.785	0.912	0.785	192,000	264,000	22.290	MTO	STD

Please consult Drives, Inc. Engineering for Maximum Allowable Loads and availability of additional multiple strand widths.

### Horsepower Table

No. of Teeth Small Sprocket	Revolutions Per Minute - Small Sprocket																																			
	5	10	25	50	71	75	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2700	3000	3300	3600							
11	0.43	0.85	2.04	3.96	5.55	5.85	7.71	11.38	15.00	22.14	29.18	36.15	43.06	40.03	32.77	27.46	23.45	20.32	17.84	14.15	11.58	9.71	8.29	7.19	6.31	5.28	4.51	3.91	0.00							
12	0.47	0.92	2.22	4.32	6.05	6.38	8.41	12.41	16.36	24.15	31.83	39.44	46.98	45.61	37.33	31.29	26.71	23.16	20.32	16.13	13.20	11.06	9.45	8.19	7.19	6.02	5.14	4.46	0.00							
13	0.51	1.00	2.41	4.68	6.56	6.91	9.11	13.45	17.73	26.16	34.48	42.72	50.89	51.43	42.10	35.28	30.12	26.11	22.92	18.18	14.88	12.47	10.65	9.23	8.10	6.79	5.80	0.00								
14	0.55	1.08	2.59	5.04	7.06	7.45	9.81	14.48	19.09	28.18	37.14	46.01	54.81	57.48	47.05	39.43	33.66	29.18	25.61	20.32	16.63	13.94	11.90	10.32	9.05	7.59	1.13	0.00								
15	0.59	1.15	2.78	5.41	7.57	7.98	10.51	15.52	20.45	30.19	39.79	49.30	58.72	63.75	52.18	43.73	37.33	32.36	28.40	22.54	18.45	15.46	13.20	11.44	10.04	8.42	0.00									
16	0.63	1.23	2.96	5.77	8.07	8.51	11.22	16.55	21.82	32.20	42.44	52.58	62.64	70.23	57.48	48.17	41.13	35.65	31.29	24.83	20.32	17.03	14.54	12.60	11.06	4.93	0.00									
17	0.67	1.31	3.15	6.13	8.58	9.04	11.92	17.59	23.18	34.21	45.10	55.87	66.55	76.91	62.95	52.76	45.05	39.04	34.27	27.19	22.26	18.65	15.93	13.80	12.12	0.00										
18	0.71	1.38	3.33	6.49	9.08	9.57	12.62	18.62	24.55	36.23	47.75	59.15	70.47	81.71	68.59	57.48	49.08	42.54	37.33	29.63	24.25	20.32	17.35	15.04	13.20	0.00										
19	0.75	1.46	3.52	6.85	9.59	10.10	13.32	19.66	25.91	38.24	50.40	62.44	74.38	86.25	74.38	62.34	53.22	46.13	40.49	32.13	26.30	22.04	18.82	16.31	0.56	0.00										
20	0.79	1.54	3.70	7.21	10.09	10.64	14.02	20.69	27.27	40.25	53.05	65.73	78.30	90.79	80.33	67.32	57.48	49.82	43.73	34.70	28.40	23.80	20.32	17.62	0.00											
21	0.83	1.61	3.89	7.57	10.60	11.17	14.72	21.73	28.64	42.26	55.71	69.01	82.21	95.33	86.43	72.43	61.85	53.61	47.05	37.33	30.56	25.61	21.87	8.17	0.00											
22	0.87	1.69	4.08	7.93	11.10	11.70	15.42	22.76	30.00	44.28	58.36	72.30	86.13	99.87	92.68	77.67	66.31	57.48	50.45	40.03	32.77	27.46	23.45	0.00												
23	0.91	1.77	4.26	8.29	11.60	12.23	16.12	23.79	31.36	46.29	61.01	75.59	90.04	104.41	99.07	83.02	70.89	61.44	53.93	42.79	35.03	29.35	25.06	0.00												
24	0.95	1.84	4.45	8.65	12.11	12.76	16.82	24.83	32.73	48.30	63.66	78.87	93.96	108.95	105.60	88.50	75.56	65.49	57.48	45.61	37.33	31.29	5.43	0.00												
25	0.99	1.92	4.63	9.01	12.61	13.30	17.52	25.86	34.09	50.31	66.32	82.16	97.87	113.48	112.27	94.09	80.33	69.63	61.11	48.49	39.69	33.26	0.00													
26	1.03	2.00	4.82	9.37	13.12	13.83	18.23	26.90	35.45	52.33	68.97	85.45	101.79	118.02	119.07	99.79	85.20	73.85	64.81	51.43	42.10	35.28	0.00													
28	1.11	2.15	5.19	10.09	14.13	14.89	19.63	28.97	38.18	56.35	74.27	92.02	109.62	127.10	133.07	111.52	95.22	82.53	72.43	57.48	47.05	0.00														
30	1.19	2.31	5.56	10.81	15.14	15.95	21.03	31.04	40.91	60.38	79.58	98.59	117.45	136.18	147.58	123.68	105.60	91.53	80.33	63.75	49.40	0.00														
32	1.26	2.46	5.93	11.53	16.15	17.02	22.43	33.11	43.64	64.40	84.88	105.16	125.28	145.26	162.58	136.25	116.33	100.84	88.50	70.23	8.82	0.00														
35	1.38	2.69	6.48	12.61	17.66	18.61	24.53	36.21	47.73	70.44	92.84	115.02	137.02	158.88	180.61	155.85	133.07	115.34	101.23	69.02	0.00															
40	1.58	3.07	7.41	14.41	20.18	21.27	28.04	41.38	54.54	80.50	106.11	131.45	156.60	181.58	206.41	190.42	162.58	140.92	122.68	0.00																
45	1.78	3.46	8.34	16.22	22.71	23.93	31.54	46.55	61.36	90.56	119.37	147.89	176.17	204.27	232.21	227.21	194.00	168.15	34.58	0.00																

Type I  
Manual or Drip Lubrication

Type II  
Bath or Disc Lubrication

Type III  
Oil Stream Lubrication

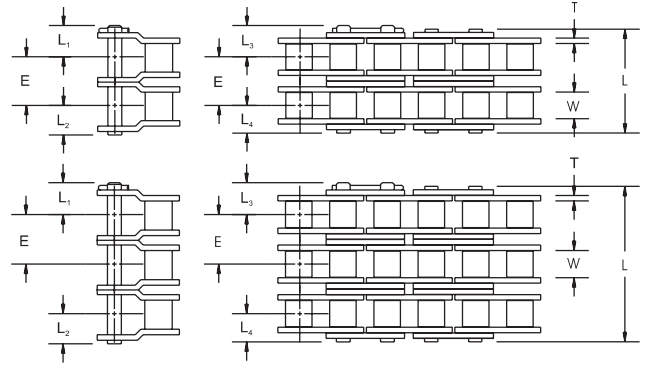
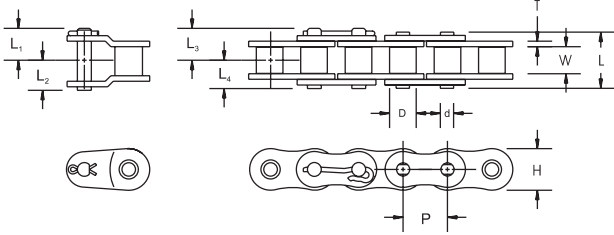
The limiting RPM for each lubrication type is shown in the chart's shaded areas directly above the Type I, II, or III reference. For optimum results, it is recommended that the Roller Chain manufacturer be given the opportunity to evaluate the conditions of operation of chains in the shaded (galling range) speed area. The Horsepower Ratings of Multiple Strand Chains are greater than those for Single Strand Chain: see Table II on page 8 for Multiple Strand Factors.

Made in U.S.A.

PERFORMANCE

# Drives, Incorporated Precision Roller Chain Products

## 120 1.500" Pitch



Cut-to-length chain available.

Drives, Inc.	Pitch	Width Between L.P.	Roller Dia.	Link Plate	Pin Dia.	Transverse Pitch	Pin					Average Tensile Strength (Case Hardened)	Average Tensile Strength (Through Hardened)	Average Weight	Riveted	Cottered	
Chain No.	P	W	D	H	T	d	E	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	Lb.	Lb.	Lb./Ft.		
120-1	1.500	1.000	0.875	1.425	0.187	0.437	-	1.955	1.119	1.071	1.119	0.989	34,000	45,100	4.135	STD	STD
120-2	1.500	1.000	0.875	1.425	0.187	0.437	1.789	3.767	1.119	1.071	1.119	0.989	68,000	90,200	8.270	STD	STD
120-3	1.500	1.000	0.875	1.425	0.187	0.437	1.789	5.556	1.119	1.071	1.119	0.989	102,000	135,300	12.100	MTO	STD
120-4	1.500	1.000	0.875	1.425	0.187	0.437	1.789	7.345	1.119	1.071	1.119	0.989	136,000	180,400	16.170	MTO	STD
120-5	1.500	1.000	0.875	1.425	0.187	0.437	1.789	9.134	1.119	1.071	1.119	0.989	170,000	225,500	20.240	MTO	STD
120-6	1.500	1.000	0.875	1.425	0.187	0.437	1.789	10.923	1.119	1.071	1.119	0.989	204,000	270,600	24.200	MTO	STD
120-8	1.500	1.000	0.875	1.425	0.187	0.437	1.789	14.501	1.119	1.071	1.119	0.989	272,000	360,800	32.270	MTO	STD

Please consult Drives, Inc. Engineering for Maximum Allowable Loads and availability of additional multiple strand widths.

### Horsepower Table

No. of Teeth Small Sprocket	Revolutions Per Minute - Small Sprocket																													
	5	10	25	50	60	75	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2700	3000			
11	0.73	1.43	3.44	6.69	7.97	9.88	13.02	19.22	25.33	37.38	49.27	61.04	58.37	46.32	37.91	31.77	27.13	23.51	20.64	16.38	13.40	11.23	9.59	8.31	7.30	6.11	0.00			
12	0.80	1.56	3.75	7.30	8.70	10.78	14.20	20.96	27.63	40.78	53.75	66.59	66.51	52.78	43.20	36.20	30.91	26.79	23.51	18.66	15.27	12.80	10.93	9.47	8.31	6.97	0.00			
13	0.87	1.69	4.07	7.91	9.42	11.67	15.39	22.71	29.93	44.18	58.23	72.14	74.99	59.51	48.71	40.82	34.85	30.21	26.51	21.04	17.22	14.43	12.32	10.68	9.37	0.00				
14	0.93	1.82	4.38	8.52	10.15	12.57	16.57	24.46	32.24	47.58	62.71	77.69	83.81	66.51	54.44	45.62	38.95	33.76	29.63	23.51	19.25	16.13	13.77	11.94	10.48	0.00				
15	1.00	1.95	4.69	9.13	10.87	13.47	17.76	26.20	34.54	50.98	67.19	83.24	92.95	73.76	60.37	50.59	43.20	37.44	32.86	26.08	21.34	17.89	15.27	13.24	0.00					
16	1.07	2.08	5.00	9.74	11.60	14.37	18.94	27.95	36.84	54.37	71.67	88.79	102.39	81.26	66.51	55.74	47.59	41.25	36.20	28.73	23.51	19.71	16.83	14.58	0.00					
17	1.13	2.21	5.32	10.34	12.32	15.27	20.12	29.70	39.14	57.77	76.15	94.34	112.14	88.99	72.84	61.04	52.12	45.18	39.65	31.46	25.75	21.58	18.43	0.00						
18	1.20	2.34	5.63	10.95	13.05	16.16	21.31	31.45	41.45	61.17	80.63	99.89	119.00	96.96	79.36	66.51	56.78	49.22	43.20	34.28	28.06	23.51	20.08	0.00						
19	1.27	2.47	5.94	11.56	13.77	17.06	22.49	33.19	43.75	64.57	85.11	105.44	125.61	105.15	86.06	72.13	61.58	53.38	46.85	37.18	30.43	25.50	0.80	0.00						
20	1.33	2.60	6.26	12.17	14.50	17.96	23.67	34.94	46.05	67.97	89.59	110.99	132.22	113.56	92.95	77.89	66.51	57.65	50.59	40.15	32.86	27.54	0.00							
21	1.40	2.73	6.57	12.78	15.22	18.86	24.86	36.69	48.36	71.37	94.07	116.54	138.83	122.18	100.00	83.81	71.56	62.02	54.44	43.20	35.36	27.46	0.00							
22	1.47	2.86	6.88	13.39	15.95	19.76	26.04	38.43	50.66	74.76	98.55	122.09	145.44	131.01	107.23	89.87	76.73	66.51	58.37	46.32	37.91	0.00								
23	1.53	2.99	7.19	14.00	16.67	20.65	27.22	40.18	52.96	78.16	103.02	127.64	152.05	140.04	114.62	96.06	82.02	71.09	62.39	49.51	40.53	0.00								
24	1.60	3.11	7.51	14.60	17.40	21.55	28.41	41.93	55.26	81.56	107.50	133.19	158.66	149.28	122.18	102.39	87.43	75.78	66.51	52.78	43.20	0.00								
25	1.67	3.24	7.82	15.21	18.12	22.45	29.59	43.67	57.57	84.96	111.98	138.74	165.27	158.70	129.90	108.86	92.95	80.56	70.71	56.11	46.32	0.00								
26	1.73	3.37	8.13	15.82	18.85	23.35	30.78	45.42	59.87	88.36	116.46	144.29	171.88	168.32	137.77	115.46	98.58	85.45	74.99	59.51	0.00									
28	1.87	3.63	8.76	17.04	20.30	25.15	33.14	48.92	64.47	95.15	125.42	155.38	185.11	188.11	153.97	129.03	110.17	95.49	83.81	66.51	0.00									
30	2.00	3.89	9.38	18.25	21.75	26.94	35.51	52.41	69.08	101.95	134.38	166.48	198.33	208.62	170.75	143.10	122.18	105.90	92.95	75.78	0.00									
32	2.14	4.15	10.01	19.47	23.20	28.74	37.88	55.90	73.68	108.75	143.34	177.58	211.55	229.83	188.11	157.65	134.60	116.67	102.39	0.00										
35	2.34	4.54	10.95	21.30	25.37	31.43	41.43	61.14	80.59	118.94	156.78	194.23	231.38	262.89	215.17	180.33	153.97	133.46	63.34	0.00										
40	2.67	5.19	12.51	24.34	28.99	35.92	47.35	69.88	92.11	135.94	179.17	221.98	264.44	306.61	262.89	220.32	176.66	42.93	0.00											
45	3.00	5.84	14.08	27.38	32.62	40.41	53.27	78.61	103.62	152.93	201.57	249.72	297.49	344.94	313.69	213.33	49.79	0.00												

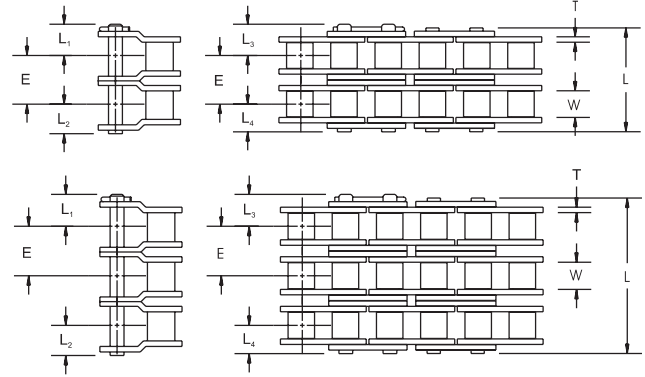
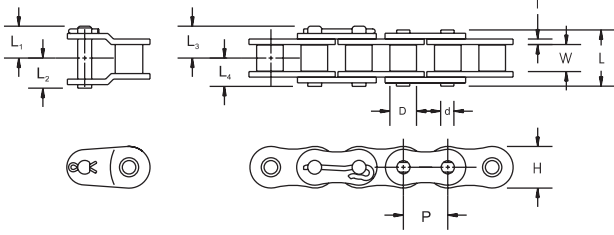
Type I Manual or Drip Lubrication      Type II Bath or Disc Lubrication      Type III Oil Stream Lubrication

The limiting RPM for each lubrication type is shown in the chart's shaded areas directly above the Type I, II, or III reference. For optimum results, it is recommended that the Roller Chain manufacturer be given the opportunity to evaluate the conditions of operation of chains in the shaded (galling range) speed area. The Horsepower Ratings of Multiple Strand Chains are greater than those for Single Strand Chain: see Table II on page 8 for Multiple Strand Factors.



# Drives, Incorporated Precision Roller Chain Products

## I 40 1.750" Pitch



Cut-to-length chain available.

Chain No.	Pitch	Width Between L.P.	Roller Dia.	Link Plate	Pin Dia.	Transverse Pitch	Pin					Average Tensile Strength (Case Hardened)	Average Tensile Strength (Through Hardened)	Average Weight	Riveted	Cottered	
							L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>						
140-1	1.750	1.000	1.000	1.663	0.220	0.500	-	2.136	1.253	1.150	1.253	1.068	46,000	57,450	5.136	STD	STD
140-2	1.750	1.000	1.000	1.663	0.220	0.500	1.924	4.062	1.253	1.150	1.253	1.068	92,000	114,900	10.270	STD	STD
140-3	1.750	1.000	1.000	1.663	0.220	0.500	1.924	5.984	1.253	1.150	1.253	1.068	138,000	172,350	15.290	MTO	STD
140-4	1.750	1.000	1.000	1.663	0.220	0.500	1.924	7.908	1.253	1.150	1.253	1.068	184,000	229,800	20.460	MTO	STD
140-5	1.750	1.000	1.000	1.663	0.220	0.500	1.924	9.832	1.253	1.150	1.253	1.068	230,000	287,250	25.520	MTO	STD
140-6	1.750	1.000	1.000	1.663	0.220	0.500	1.924	11.756	1.253	1.150	1.253	1.068	276,000	344,700	30.690	MTO	STD
140-8	1.750	1.000	1.000	1.663	0.220	0.500	1.924	15.604	1.253	1.150	1.253	1.068	368,000	459,600	40.920	MTO	STD

Please consult Drives, Inc. Engineering for Maximum Allowable Loads and availability of additional multiple strand widths.

### Horsepower Table

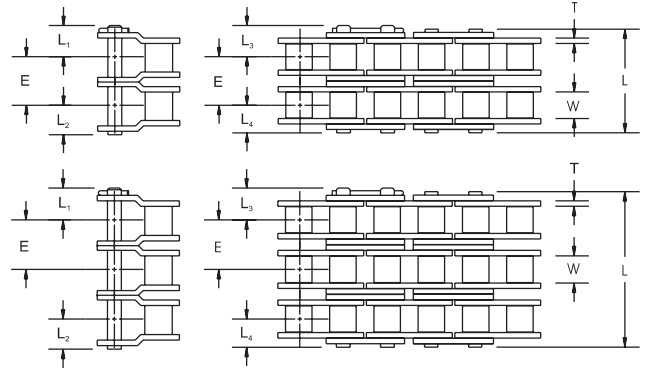
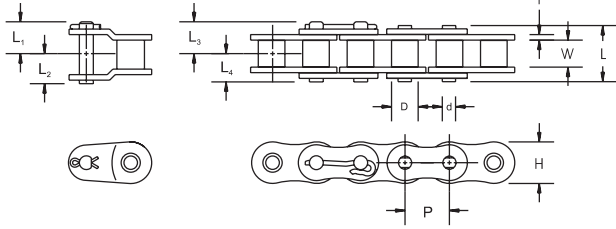
No. of Teeth Small Sprocket	Revolutions Per Minute - Small Sprocket																										
	5	10	25	50	53	75	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400	2700	
11	1.14	2.21	5.32	10.36	10.95	15.28	20.15	29.73	39.19	57.84	76.24	86.80	66.03	52.40	42.89	35.94	30.69	26.60	23.35	18.53	15.16	12.71	10.85	9.40	8.25	0.00	
12	1.24	2.41	5.81	11.30	11.95	16.67	21.98	32.44	42.75	63.10	83.17	98.90	75.24	59.70	48.87	40.95	34.97	30.31	26.60	21.11	17.28	14.48	12.36	10.72	0.72	0.00	
13	1.34	2.61	6.29	12.24	12.94	18.06	23.81	35.14	46.32	68.36	90.10	111.52	84.83	67.32	55.10	46.18	39.43	34.17	29.99	23.80	19.48	16.33	13.94	12.08	0.00	0.00	
14	1.45	2.81	6.78	13.18	13.94	19.45	25.64	37.84	49.88	73.61	97.03	120.21	94.81	75.24	61.58	51.61	44.06	38.19	33.52	26.60	21.77	18.25	15.58	0.00	0.00	0.00	
15	1.55	3.01	7.26	14.12	14.93	20.84	27.47	40.54	53.44	78.87	103.96	128.79	105.15	83.44	68.29	57.23	48.87	42.36	37.17	29.50	24.15	20.24	17.28	0.00	0.00	0.00	
16	1.65	3.21	7.74	15.06	15.93	22.23	29.30	43.25	57.00	84.13	110.89	137.38	115.83	91.92	75.24	63.05	53.83	46.66	40.95	32.50	26.60	22.29	0.00	0.00	0.00	0.00	
17	1.75	3.41	8.23	16.00	16.93	23.62	31.13	45.95	60.57	89.39	117.82	145.97	126.86	100.67	82.40	69.05	58.96	51.11	44.85	35.59	29.13	24.41	0.00	0.00	0.00	0.00	
18	1.86	3.61	8.71	16.95	17.92	25.01	32.97	48.65	64.13	94.65	124.75	154.55	138.22	109.68	89.77	75.24	64.24	55.68	48.87	38.78	31.74	0.00	0.00	0.00	0.00	0.00	
19	1.96	3.82	9.20	17.89	18.92	26.40	34.80	51.36	67.69	99.90	131.68	163.14	149.89	118.95	97.36	81.59	69.66	60.38	53.00	42.06	34.42	0.00	0.00	0.00	0.00	0.00	
20	2.06	4.02	9.68	18.83	19.91	27.79	36.63	54.06	71.25	105.16	138.61	171.73	161.88	128.46	105.15	88.12	75.24	65.21	57.23	45.42	35.82	0.00	0.00	0.00	0.00	0.00	
21	2.17	4.22	10.16	19.77	20.91	29.18	38.46	56.76	74.82	110.42	145.54	180.31	174.17	138.22	113.13	94.81	80.95	70.16	61.58	48.87	0.00	0.00	0.00	0.00	0.00	0.00	
22	2.27	4.42	10.65	20.71	21.90	30.57	40.29	59.47	78.38	115.68	152.47	188.90	186.76	148.21	121.30	101.66	86.80	75.24	66.03	52.40	0.00	0.00	0.00	0.00	0.00	0.00	
23	2.37	4.62	11.13	21.65	22.90	31.96	42.12	62.17	81.94	120.94	159.40	197.48	199.64	158.43	129.67	108.67	92.78	80.42	70.58	56.01	0.00	0.00	0.00	0.00	0.00	0.00	
24	2.48	4.82	11.62	22.60	23.90	33.35	43.95	64.87	85.51	126.20	166.33	206.07	212.80	168.87	138.22	115.83	98.90	85.72	75.24	57.90	0.00	0.00	0.00	0.00	0.00	0.00	
25	2.58	5.02	12.10	23.54	24.89	34.74	45.79	67.57	89.07	131.45	173.27	214.66	226.24	179.53	146.94	123.15	105.15	91.14	79.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
26	2.68	5.22	12.58	24.48	25.89	36.13	47.62	70.28	92.63	136.71	180.20	223.24	239.95	190.41	155.85	130.61	111.52	96.66	84.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
28	2.89	5.62	13.55	26.36	27.88	38.91	51.28	75.68	99.76	147.23	194.06	240.42	268.16	212.80	174.17	145.97	124.63	108.03	96.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
30	3.10	6.02	14.52	28.24	29.87	41.68	54.94	81.09	106.88	157.74	207.92	257.59	297.40	236.00	193.16	161.88	138.22	119.80	18.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
32	3.30	6.43	15.49	30.13	31.86	44.46	58.61	86.50	114.01	168.26	221.78	274.76	327.63	259.99	212.80	178.34	135.27	83.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
35	3.61	7.03	16.94	32.95	34.85	48.63	64.10	94.60	124.70	184.03	242.57	300.52	358.00	297.40	243.41	203.99	135.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
40	4.13	8.03	19.36	37.66	39.83	55.58	73.26	108.12	142.51	210.33	277.22	343.45	409.15	363.35	297.40	153.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
45	4.65	9.04	21.78	42.37	44.80	62.53	82.42	121.63	160.32	236.62	311.88	386.38	460.29	433.56	221.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Type I Manual or Drip Lubrication      Type II Bath or Disc Lubrication      Type III Oil Stream Lubrication

The limiting RPM for each lubrication type is shown in the chart's shaded areas directly above the Type I, II, or III reference. For optimum results, it is recommended that the Roller Chain manufacturer be given the opportunity to evaluate the conditions of operation of chains in the shaded (galling range) speed area. The Horsepower Ratings of Multiple Strand Chains are greater than those for Single Strand Chain: see Table II on page 8 for Multiple Strand Factors.

# Drives, Incorporated Precision Roller Chain Products

## 160 2.000" Pitch



Cut-to-length chain available.

Drives, Inc.	Pitch	Width Between L.P.	Roller Dia.	Link Plate	Pin Dia.	Transverse Pitch	Pin				Average Tensile Strength (Case Hardened)	Average Tensile Strength (Through Hardened)	Average Weight	Riveted	Cottered		
Chain No.	P	W	D	H	T	d	E	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	Lb.	Lb.	Lb./Ft.		
160-1	2.000	1.250	1.126	1.899	0.252	0.563	-	2.538	1.454	1.370	1.454	1.269	58,000	72,800	6.603	STD	STD
160-2	2.000	1.250	1.126	1.899	0.252	0.563	2.305	4.843	1.454	1.370	1.454	1.269	116,000	145,600	13.210	STD	STD
160-3	2.000	1.250	1.126	1.899	0.252	0.563	2.305	7.148	1.454	1.370	1.454	1.269	174,000	218,400	20.790	MTO	STD
160-4	2.000	1.250	1.126	1.899	0.252	0.563	2.305	9.453	1.454	1.370	1.454	1.269	232,000	291,200	27.830	MTO	STD
160-5	2.000	1.250	1.126	1.899	0.252	0.563	2.305	11.758	1.454	1.370	1.454	1.269	290,000	364,000	34.760	MTO	STD
160-6	2.000	1.250	1.126	1.899	0.252	0.563	2.305	14.063	1.454	1.370	1.454	1.269	348,000	436,800	41.690	MTO	STD

Please consult Drives, Inc. Engineering for Maximum Allowable Loads and availability of additional multiple strand widths.

### Horsepower Table

No. of Teeth Small Sprocket	Revolutions Per Minute - Small Sprocket																									
	2	5	10	25	47	50	75	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1400	1600	1800	2000	2200	2400
11	0.68	1.65	3.20	7.72	14.16	15.02	22.17	29.23	43.14	56.86	83.91	110.60	96.58	73.47	58.31	47.72	39.99	34.15	29.60	25.98	20.61	16.87	14.14	12.07	10.46	0.00
12	0.75	1.80	3.50	8.43	15.45	16.39	24.19	31.88	47.06	62.03	91.54	120.66	110.05	83.72	66.44	54.38	45.57	38.91	33.73	29.60	23.49	19.22	16.11	13.76	0.00	
13	0.81	1.95	3.79	9.13	16.73	17.76	26.21	34.54	50.98	67.19	99.17	130.71	124.09	94.40	74.91	61.31	51.38	43.87	38.03	33.37	26.48	21.68	18.17	0.00		
14	0.87	2.10	4.08	9.83	18.02	19.12	28.22	37.20	54.90	72.36	106.80	140.77	138.68	105.50	83.72	68.52	57.43	49.03	42.50	37.30	29.60	24.23	20.30	0.00		
15	0.93	2.25	4.37	10.53	19.31	20.49	30.24	39.86	58.82	77.53	114.43	150.82	153.80	117.00	92.85	75.99	63.69	54.38	47.13	41.37	32.83	26.87	0.00			
16	0.99	2.40	4.66	11.23	20.59	21.85	32.25	42.51	62.74	82.70	122.05	160.88	169.43	128.89	102.28	83.72	70.16	59.90	51.92	45.57	36.16	29.60	0.00			
17	1.06	2.55	4.95	11.94	21.88	23.22	34.27	45.17	66.66	87.87	129.68	170.93	185.56	141.16	112.02	91.69	76.84	65.61	56.87	49.91	39.61	24.21	0.00			
18	1.12	2.70	5.24	12.64	23.17	24.59	36.29	47.83	70.59	93.04	137.31	180.99	202.17	153.80	122.05	99.90	83.72	71.48	61.96	54.38	43.15	0.00				
19	1.18	2.85	5.54	13.34	24.45	25.95	38.30	50.48	74.51	98.21	144.94	191.04	219.25	166.79	132.36	108.33	90.79	77.52	67.19	58.97	46.80	0.00				
20	1.24	3.00	5.83	14.04	25.74	27.32	40.32	53.14	78.43	103.38	152.57	201.10	236.79	180.13	142.95	117.00	98.05	83.72	72.57	63.69	46.79	0.00				
21	1.30	3.15	6.12	14.74	27.03	28.68	42.33	55.80	82.35	108.54	160.20	211.15	254.77	193.81	153.80	125.88	105.50	90.07	78.08	68.52	0.00					
22	1.37	3.29	6.41	15.45	28.32	30.05	44.35	58.45	86.27	113.71	167.83	221.21	273.18	207.82	164.91	134.98	113.12	96.58	83.72	73.47	0.00					
23	1.43	3.44	6.70	16.15	29.60	31.42	46.36	61.11	90.19	118.88	175.45	231.26	286.51	222.15	176.29	144.29	120.92	103.24	89.49	78.54	0.00					
24	1.49	3.59	6.99	16.85	30.89	32.78	48.38	63.77	94.11	124.05	183.08	241.32	298.97	236.79	187.91	153.80	128.89	110.05	95.39	83.72	0.00					
25	1.55	3.74	7.28	17.55	32.18	34.15	50.40	66.43	98.04	129.22	190.71	251.37	311.42	251.74	199.77	163.51	137.03	117.00	101.41	32.66	0.00					
26	1.62	3.89	7.57	18.26	33.46	35.51	52.41	69.08	101.96	134.39	198.34	261.43	323.88	267.00	211.88	173.42	145.33	124.09	107.56	0.00						
28	1.74	4.19	8.16	19.66	36.04	38.24	56.44	74.40	109.80	144.73	213.60	281.54	348.79	298.39	236.79	193.81	162.42	138.68	36.88	0.00						
30	1.86	4.49	8.74	21.06	38.61	40.98	60.48	79.71	117.64	155.06	228.85	301.65	373.71	330.92	262.61	214.94	180.13	126.46	0.00							
32	1.99	4.79	9.32	22.47	41.19	43.71	64.51	85.03	125.49	165.40	244.11	321.76	398.62	364.56	289.30	236.79	198.44	22.58	0.00							
35	2.17	5.24	10.20	24.57	45.05	47.81	70.55	93.00	137.25	180.91	266.99	351.92	435.99	417.01	330.92	270.86	112.60	0.00								
40	2.49	5.99	11.65	28.09	51.48	54.63	80.63	106.28	156.86	206.75	305.14	402.19	498.28	509.49	404.31	160.63	0.00									
45	2.80	6.74	13.11	31.60	57.92	61.46	90.71	119.57	176.47	232.59	343.28	452.47	560.56	607.95	289.10	0.00										

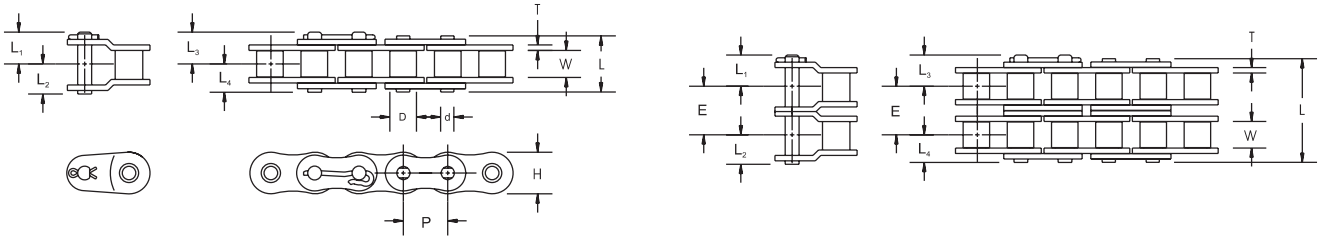
Type I Manual or Drip Lubrication      Type II Bath or Disc Lubrication      Type III Oil Stream Lubrication

The limiting RPM for each lubrication type is shown in the chart's shaded areas directly above the Type I, II, or III reference. For optimum results, it is recommended that the Roller Chain manufacturer be given the opportunity to evaluate the conditions of operation of chains in the shaded (galling range) speed area. The Horsepower Ratings of Multiple Strand Chains are greater than those for Single Strand Chain: see Table II on page 8 for Multiple Strand Factors.



# Drives, Incorporated Precision Roller Chain Products

## 180 2.250" Pitch



Cut-to-length chain available.

Chain No.	Pitch	Width Between L.P.	Roller Dia.	Link Plate	Pin Dia.	Transverse Pitch	Pin				Average Tensile Strength (Case Hardened)	Average Tensile Strength (Through Hardened)	Average Weight	Riveted	Cottered		
							L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>							
180-1	2.250	1.400	1.406	2.132	0.281	0.687	--	2.780	1.561	1.390	1.561	1.390	80,000	95,000	9.100	STD	STD
180-2	2.250	1.400	1.406	2.132	0.281	0.687	2.592	5.372	1.561	1.390	1.561	1.390	160,000	190,000	18.100	MTO	STD

Please consult Drives, Inc. Engineering for Maximum Allowable Loads and availability of additional multiple strand widths.

### Horsepower Table

No. of Teeth Small Sprocket	Speed, min. <sup>-1</sup> , Small Sprocket																							
	2	5	10	25	43	50	75	100	150	200	300	400	500	600	700	800	900	1000	1100	1200	1400	1600	1800	2000
11	0.94	2.27	4.43	10.66	17.95	20.75	30.62	40.36	59.56	78.51	115.87	148.32	106.13	80.73	64.07	52.44	43.95	37.52	32.52	28.54	22.65	18.54	15.54	0.00
12	1.03	2.48	4.83	11.63	19.58	22.63	33.40	44.03	64.98	85.64	126.40	166.61	120.92	91.99	73.00	59.75	50.07	42.75	37.06	32.52	25.81	21.12	17.70	0.00
13	1.12	2.69	5.23	12.60	21.21	24.52	36.19	47.70	70.39	92.78	136.93	180.49	136.35	103.72	82.31	67.37	56.46	48.21	41.79	36.67	29.10	23.82	0.00	
14	1.20	2.90	5.63	13.57	22.84	26.40	38.97	51.36	75.81	99.92	147.47	194.37	152.38	115.92	91.99	75.29	63.10	53.87	46.70	40.98	32.52	26.62	0.00	
15	1.29	3.10	6.03	14.54	24.48	28.29	41.75	55.03	81.22	107.06	158.00	208.26	169.00	128.56	102.02	83.50	69.98	59.75	51.79	45.45	36.07	0.00		
16	1.37	3.31	6.44	15.51	26.11	30.18	44.54	58.70	86.64	114.19	168.53	222.14	186.17	141.63	112.39	91.99	77.09	65.82	57.05	50.07	39.74	0.00		
17	1.46	3.52	6.84	16.48	27.74	32.06	47.32	62.37	92.05	121.33	179.07	236.02	203.90	155.11	123.09	100.75	84.43	72.09	62.49	54.84	43.52	0.00		
18	1.54	3.72	7.24	17.45	29.37	33.95	50.10	66.04	97.47	128.47	189.60	249.91	222.15	169.00	134.11	109.77	91.99	78.54	68.08	59.75	0.00			
19	1.63	3.93	7.64	18.42	31.00	35.83	52.89	69.71	102.88	135.60	200.13	263.79	240.92	183.27	145.44	119.04	99.76	85.18	73.83	64.80	0.00			
20	1.72	4.14	8.05	19.39	32.64	37.72	55.67	73.38	108.30	142.74	210.67	277.68	260.19	197.93	157.07	128.56	107.74	91.99	79.74	69.98	0.00			
21	1.80	4.34	8.45	20.36	34.27	39.61	58.45	77.05	113.71	149.88	221.20	291.56	279.94	212.96	169.00	138.32	115.92	98.97	85.79	75.29	0.00			
22	1.89	4.55	8.85	21.33	35.90	41.49	61.24	80.71	119.12	157.02	231.73	305.44	300.17	228.35	181.21	148.32	124.30	106.13	91.99	0.00				
23	1.97	4.76	9.25	22.30	37.53	43.38	64.02	84.38	124.54	164.15	242.27	319.33	320.87	244.10	193.70	158.54	132.87	113.45	98.33	0.00				
24	2.06	4.96	9.65	23.27	39.16	45.26	66.80	88.05	129.95	171.29	252.80	333.21	342.02	260.19	206.47	169.00	141.63	120.92	40.34	0.00				
25	2.15	5.17	10.06	24.24	40.79	47.15	69.59	91.72	135.37	178.43	263.33	347.10	363.62	276.62	219.51	179.67	150.57	128.56	0.00					
26	2.23	5.38	10.46	25.21	42.43	49.04	72.37	95.39	140.78	185.56	273.87	360.98	385.66	293.38	232.81	190.55	159.69	122.43	0.00					
28	2.40	5.79	11.26	27.15	45.69	52.81	77.94	102.73	151.61	199.84	294.93	388.75	431.00	327.87	260.19	212.96	178.47	0.00						
30	2.57	6.20	12.07	29.09	48.95	56.58	83.50	110.07	162.44	214.11	316.00	416.51	477.99	363.62	288.56	236.18	128.92	0.00						
32	2.75	6.62	12.87	31.02	52.22	60.35	89.07	117.40	173.27	228.39	337.07	444.28	526.58	400.58	317.89	260.19	0.00							
35	3.00	7.24	14.08	33.93	57.11	66.01	97.42	128.41	189.52	249.80	368.67	485.93	602.34	458.22	363.62	142.51	0.00							
40	3.43	8.27	16.09	38.78	65.27	75.44	111.34	146.75	216.59	285.48	421.34	555.35	688.02	559.83	254.20	0.00								
45	3.86	9.31	18.10	43.63	73.43	84.87	125.26	165.10	243.66	321.17	474.00	624.77	774.03	480.00	0.00									

Type I  
Manual or Drip  
Lubrication

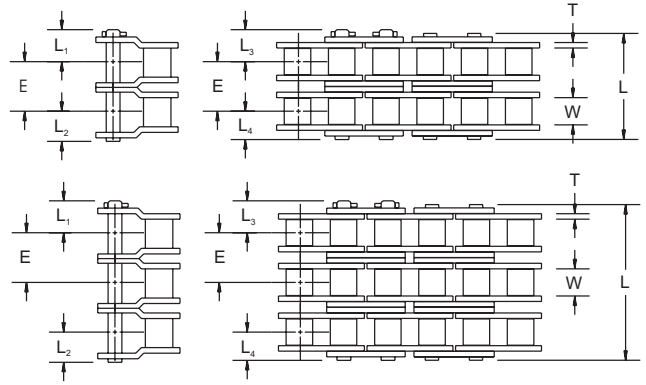
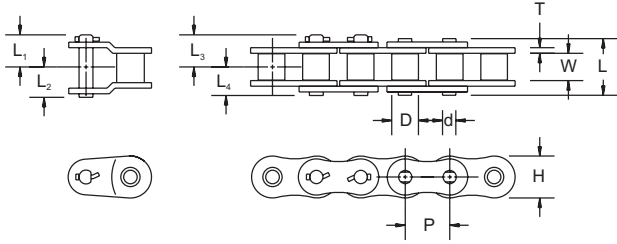
Type II  
Bath or Disc Lubrication

Type III  
Oil Lubrication

The limiting RPM for each lubrication type is shown in the chart's shaded areas directly above the Type I, II, or III reference. For optimum results, it is recommended that the Roller Chain manufacturer be given the opportunity to evaluate the conditions of operation of chains in the shaded (galling range) speed area. The Horsepower Ratings of Multiple Strand Chains are greater than those for Single Strand Chain: see Table II on page 8 for Multiple Strand Factors.

# Drives, Incorporated Precision Roller Chain Products

## 200 2.500" Pitch



Cut-to-length chain available.

Drives, Inc.	Pitch	Width Between L.P.	Roller Dia.	Link Plate	Pin Dia.	Transverse Pitch	Pin					Average Tensile Strength (Case Hardened)	Average Tensile Strength (Through Hardened)	Average Weight	Riveted	Cottered	
Chain No.	P	W	D	H	T	d	E	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	Lb.	Lb.	Lb./Ft.		
200-1	2.500	1.500	1.562	2.312	0.312	0.781	--	3.088	1.889	1.544	1.889	1.544	95,000	100,000	10.900	STD	STD
200-2	2.500	1.500	1.562	2.312	0.312	0.781	2.817	5.905	1.889	1.544	1.889	1.544	190,000	200,000	21.000	MTO	STD
200-3	2.500	1.500	1.562	2.312	0.312	0.781	2.817	8.722	1.889	1.544	1.889	1.544	285,000	300,000	31.500	MTO	STD

Please consult Drives, Inc. Engineering for Maximum Allowable Loads and availability of additional multiple strand widths.

### Horsepower Table

No. of Teeth Small Sprocket	Speed, min <sup>-1</sup> , Small Sprocket																							
	2	5	10	25	40	50	75	100	150	200	250	300	400	500	600	700	800	900	1000	1100	1200	1400	1600	1800
11	1.25	3.02	5.88	14.16	22.23	27.54	40.65	53.58	79.08	104.24	129.14	153.84	161.36	115.46	87.83	69.70	57.05	47.81	40.82	35.38	31.05	24.64	20.17	0.00
12	1.37	3.29	6.41	15.45	24.25	30.05	44.35	58.45	86.27	113.71	140.88	167.82	183.86	131.56	100.08	79.42	65.00	54.48	46.51	40.32	35.38	28.08	22.98	0.00
13	1.48	3.57	6.94	16.73	26.28	32.55	48.04	63.33	93.46	123.19	152.62	181.81	207.31	148.34	112.85	89.55	73.30	61.43	52.45	45.46	39.90	31.66	0.00	
14	1.59	3.84	7.48	18.02	28.30	35.06	51.74	68.20	100.65	132.66	164.36	195.79	231.69	165.78	126.11	100.08	81.91	68.65	58.61	50.80	44.59	35.38	0.00	
15	1.71	4.12	8.01	19.31	30.32	37.56	55.43	73.07	107.84	142.14	176.09	209.78	256.95	183.86	139.87	110.99	90.85	76.13	65.00	56.34	49.45	37.46	0.00	
16	1.82	4.39	8.55	20.60	32.34	40.06	59.13	77.94	115.03	151.61	187.83	223.76	283.07	202.55	154.08	122.27	100.08	83.87	71.61	62.07	54.48	0.00		
17	1.94	4.67	9.08	21.88	34.36	42.57	62.83	82.81	122.22	161.09	199.57	237.75	310.02	221.83	168.75	133.91	109.61	91.86	78.43	67.98	59.66	0.00		
18	2.05	4.94	9.61	23.17	36.38	45.07	66.52	87.68	129.41	170.57	211.31	251.73	331.81	241.69	183.86	145.90	119.42	100.08	85.45	74.07	65.00			
19	2.16	5.22	10.15	24.46	38.40	47.58	70.22	92.55	136.59	180.04	223.05	265.72	350.24	262.11	199.39	158.23	129.51	108.53	92.67	80.32	2.22			
20	2.28	5.49	10.68	25.74	40.42	50.08	73.91	97.42	143.78	189.52	234.79	279.70	368.67	283.07	215.34	170.88	139.87	117.21	100.08	86.75	0.00			
21	2.39	5.77	11.22	27.03	42.45	52.59	77.61	102.29	150.97	198.99	246.53	293.69	387.11	304.56	231.69	183.86	150.49	126.11	107.68	32.68	0.00			
22	2.51	6.04	11.75	28.32	44.47	55.09	81.30	107.17	158.16	208.47	258.27	307.68	405.54	326.57	248.43	197.15	161.36	135.23	115.46	0.00				
23	2.62	6.31	12.28	29.61	46.49	57.59	85.00	112.04	165.35	217.95	270.01	321.66	423.97	349.09	265.56	210.74	172.49	144.55	104.48	0.00				
24	2.73	6.59	12.82	30.89	48.51	60.10	88.70	116.91	172.54	227.42	281.75	335.65	442.41	372.10	283.07	224.63	183.86	154.08	21.71	0.00				
25	2.85	6.86	13.35	32.18	50.53	62.60	92.39	121.78	179.73	236.90	293.49	349.63	460.84	395.60	300.94	238.82	195.47	163.81	0.00					
26	2.96	7.14	13.89	33.47	52.55	65.11	96.09	126.65	186.92	246.37	305.23	363.62	479.27	419.57	319.18	253.29	207.31	151.14	0.00					

Type I  
Manual or Drip Lubrication

Type II  
Bath or Disc Lubrication

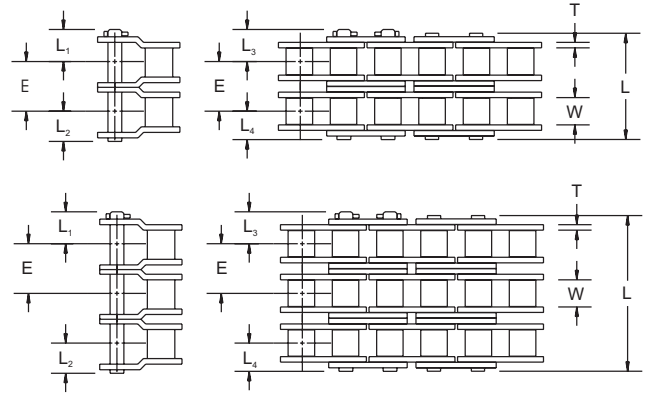
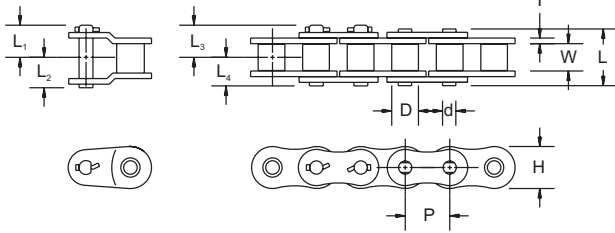
Type III  
Oil Stream Lubrication

The limiting RPM for each lubrication type is shown in the chart's shaded areas directly above the Type I, II, or III reference. For optimum results, it is recommended that the Roller Chain manufacturer be given the opportunity to evaluate the conditions of operation of chains in the shaded (galling range) speed area. The Horsepower Ratings of Multiple Strand Chains are greater than those for Single Strand Chain: see Table II on page 8 for Multiple Strand Factors.



# Drives, Incorporated Precision Roller Chain Products

## 240 3.000" Pitch



Cut-to-length chain available.

Chain No.	Pitch	Width Between L.P.	Roller Dia.	Link Plate	Pin Dia.	Transverse Pitch	Pin					Average Tensile Strength (Case Hardened)	Average Tensile Strength (Through Hardened)	Average Weight	Riveted	Cottered	
							L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>						
240-1	3.000	1.864	1.875	2.812	0.375	0.937	-	3.708	2.212	1.854	2.212	1.854	130,000	152,200	16.400	STD	STD
240-2	3.000	1.864	1.875	2.812	0.375	0.937	3.458	7.166	2.212	1.854	2.212	1.854	260,000	304,400	32.200	MTO	STD
240-3	3.000	1.864	1.875	2.812	0.375	0.937	3.458	10.624	2.212	1.854	2.212	1.854	390,000	456,600	49.400	MTO	STD
240-4	3.000	1.864	1.875	2.812	0.375	0.937	3.458	14.082	2.212	1.854	2.212	1.854	520,000	608,800	65.700	MTO	STD

Please consult Drives, Inc. Engineering for Maximum Allowable Loads and availability of additional multiple strand widths.

### Horsepower Table

No. of Teeth Small Sprocket	Speed, min. <sup>-1</sup> , Small Sprocket																							
	2	5	10	25	36	50	75	100	150	200	250	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500
11	2.02	4.86	9.46	22.81	32.36	44.36	65.47	86.30	127.37	167.88	207.99	247.77	186.70	133.59	101.63	80.65	66.01	55.32	47.23	40.94	35.93	31.87	28.51	0.00
12	2.20	5.31	10.32	24.88	35.31	48.40	71.43	94.15	138.95	183.14	226.89	270.30	212.73	152.22	115.80	91.89	75.21	63.03	53.82	46.65	40.94	36.31	2.11	0.00
13	2.39	5.75	11.18	26.95	38.25	52.43	77.38	101.99	150.53	198.41	245.80	292.82	239.87	171.64	130.57	103.61	84.81	71.07	60.68	52.60	46.16	38.13	0.00	0.00
14	2.57	6.19	12.04	29.02	41.19	56.46	83.33	109.84	162.11	213.67	264.71	315.34	268.07	191.82	145.92	115.80	94.78	79.43	67.82	58.78	51.59	0.00	0.00	0.00
15	2.75	6.63	12.90	31.10	44.13	60.50	89.28	117.68	173.68	228.93	283.62	337.87	297.30	212.73	161.83	128.42	105.11	88.09	75.21	65.19	0.00	0.00	0.00	0.00
16	2.94	7.08	13.76	33.17	47.08	64.53	95.24	125.53	185.26	244.19	302.53	360.39	327.52	234.35	178.28	141.47	115.80	97.04	82.86	71.82	0.00	0.00	0.00	0.00
17	3.12	7.52	14.62	35.24	50.02	68.56	101.19	133.37	196.84	259.45	321.43	382.92	358.70	256.66	195.25	154.94	126.82	106.28	90.74	0.00	0.00	0.00	0.00	0.00
18	3.30	7.96	15.48	37.32	52.96	72.59	107.14	141.22	208.42	274.71	340.34	405.44	390.81	279.64	212.73	168.81	138.17	115.80	98.87	0.00	0.00	0.00	0.00	0.00
19	3.49	8.40	16.34	39.39	55.90	76.63	113.09	149.06	220.00	289.98	359.25	427.97	423.82	303.26	230.70	183.08	149.84	125.58	3.20	0.00	0.00	0.00	0.00	0.00
20	3.67	8.84	17.20	41.46	58.84	80.66	119.04	156.91	231.58	305.24	378.16	450.49	457.72	327.52	249.15	197.72	161.83	135.62	0.00	0.00	0.00	0.00	0.00	0.00
21	3.85	9.29	18.07	43.54	61.79	84.69	125.00	164.76	243.16	320.50	397.07	473.02	492.48	352.39	268.07	212.73	174.12	109.86	0.00	0.00	0.00	0.00	0.00	0.00
22	4.04	9.73	18.93	45.61	64.73	88.73	130.95	172.60	254.74	335.76	415.97	495.54	528.07	377.85	287.44	228.10	186.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23	4.22	10.17	19.79	47.68	67.67	92.76	136.90	180.45	266.32	351.02	434.88	518.07	564.48	403.91	307.26	243.83	199.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24	4.40	10.61	20.65	49.76	70.61	96.79	142.85	188.29	277.89	366.29	453.79	540.59	601.69	430.53	327.52	259.91	188.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	4.59	11.06	21.51	51.83	73.55	100.83	148.81	196.14	289.47	381.55	472.70	563.12	639.68	457.72	348.20	276.32	73.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	4.77	11.50	22.37	53.90	76.50	104.86	154.76	203.98	301.05	396.81	491.61	585.64	678.45	485.46	369.30	293.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Type I  
Manual or Drip  
Lubrication

Type II  
Bath or Disc  
Lubrication

Type III  
Oil Stream  
Lubrication

The limiting RPM for each lubrication type is shown in the chart's shaded areas directly above the Type I, II, or III reference. For optimum results, it is recommended that the Roller Chain manufacturer be given the opportunity to evaluate the conditions of operation of chains in the shaded (galling range) speed area. The Horsepower Ratings of Multiple Strand Chains are greater than those for Single Strand Chain: see Table II on page 8 for Multiple Strand Factors.

# Drives, Incorporated Precision Roller Chain Products

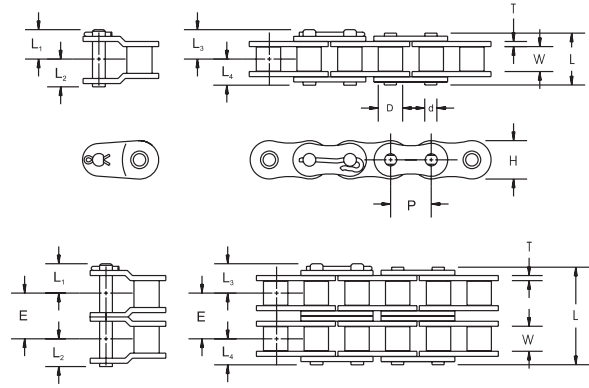
## H-Series Chain

### HR Riveted Series

### HZ Cottered Series

The H-series chains are offered in two styles. **HR riveted** style chains contain a carburized pin for high speed and abrasive applications. The **HZ cottered** style chains contain a through hardened pin for more moderate speed and high load/pulsating type applications. The HZ through hardened pin chains deliver a higher working load capacity and additional resistance to fatigue in heavy load applications.

All **H** and **HZ**-series chains are designed with a wide waist and a heavy side plate to improve stress distribution, increase fatigue strength, and reduce vibration. The **HR riveted** series chains (sizes 80HR-180HR) and **HZ cottered** series chains (sizes 60HZ-180HZ) contain ballized plates to ensure maximum bearing area for optimum press fits,



improving fatigue life and working loads. This special ballizing process is completed after heat treatment, which is key to achieving maximum loading capacity and fatigue strength.

Drives Inc USA H-series chains lead the industry as to features and performance in fatigue and wear life applications.

Cut-to-length chain available.

Drives, Inc.	Pitch	Width Between L.P.	Roller Dia.	Link Plate			Pin Dia.	Transverse Pitch	Pin					Average Tensile Strength (Case Hardened)	Average Tensile Strength (Through Hardened)	Average Weight	HR Riveted	HZ Cottered
				H	T	d			L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>					
Chain No.	P	W	D	H	T	d	E	L	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	Lb.	Lb.	Lb./Ft.			
60H-1	0.750	0.500	0.469	0.709	0.125	0.234	--	1.140	0.650	0.570	0.650	0.570	8,500	12,500	1.265	STD	MTO	
60H-2	0.750	0.500	0.469	0.709	0.125	0.234	1.028	2.160	0.650	0.570	0.650	0.570	17,000	25,000	2.637	STD	MTO	
60H-3	0.750	0.500	0.469	0.709	0.125	0.234	1.028	3.196	0.650	0.570	0.650	0.570	25,500	37,500	4.010	MTO	MTO	
60H-4	0.750	0.500	0.469	0.709	0.125	0.234	1.028	4.224	0.650	0.570	0.650	0.570	34,000	50,000	5.380	MTO	MTO	
80H-1	1.000	0.625	0.625	0.949	0.156	0.312	--	1.413	0.839	0.707	0.839	0.707	14,500	21,500	2.462	STD	STD	
80H-2	1.000	0.625	0.625	0.949	0.156	0.312	1.283	2.694	0.839	0.707	0.839	0.707	29,000	43,000	4.344	STD	STD	
80H-3	1.000	0.625	0.625	0.949	0.156	0.312	1.283	3.977	0.839	0.707	0.839	0.707	43,500	64,500	6.569	MTO	STD	
80H-4	1.000	0.625	0.625	0.949	0.156	0.312	1.283	5.260	0.839	0.707	0.839	0.707	58,000	86,000	8.970	MTO	STD	
100H-1	1.250	0.750	0.750	1.186	0.187	0.375	--	1.725	0.993	0.863	0.993	0.863	24,000	33,000	3.223	STD	STD	
100H-2	1.250	0.750	0.750	1.186	0.187	0.375	1.539	3.260	0.993	0.863	0.993	0.863	48,000	66,000	6.356	STD	STD	
100H-3	1.250	0.750	0.750	1.186	0.187	0.375	1.539	4.799	0.993	0.863	0.993	0.863	72,000	99,000	9.579	MTO	STD	
100H-4	1.250	0.750	0.750	1.186	0.187	0.375	1.539	6.338	0.993	0.863	0.993	0.863	96,000	132,000	12.634	MTO	STD	
120H-1	1.500	1.000	0.875	1.425	0.219	0.437	--	2.085	1.186	1.043	1.186	1.043	34,000	45,100	4.614	STD	STD	
120H-2	1.500	1.000	0.875	1.425	0.219	0.437	1.924	4.010	1.186	1.043	1.186	1.043	68,000	90,200	9.161	STD	STD	
120H-3	1.500	1.000	0.875	1.425	0.219	0.437	1.924	5.934	1.186	1.043	1.186	1.043	102,000	135,300	13.650	MTO	STD	
120H-4	1.500	1.000	0.875	1.425	0.219	0.437	1.924	2.858	1.186	1.043	1.186	1.043	136,000	180,400	18.065	MTO	STD	
140H-1	1.750	1.000	1.000	1.663	0.250	0.500	--	2.260	1.313	1.130	1.313	1.130	46,000	57,450	5.824	STD	STD	
140H-2	1.750	1.000	1.000	1.663	0.250	0.500	2.055	4.315	1.313	1.130	1.313	1.130	92,000	114,900	11.446	STD	STD	
140H-3	1.750	1.000	1.000	1.663	0.250	0.500	2.055	6.370	1.313	1.130	1.313	1.130	138,000	172,350	17.105	MTO	STD	
140H-4	1.750	1.000	1.000	1.663	0.250	0.500	2.055	8.425	1.313	1.130	1.313	1.130	184,000	229,800	22.764	MTO	STD	
160H-1	2.000	1.250	1.126	1.899	0.283	0.563	--	2.673	1.520	1.339	1.520	1.339	58,000	72,800	7.678	STD	STD	
160H-2	2.000	1.250	1.126	1.899	0.283	0.563	2.437	5.110	1.520	1.339	1.520	1.339	116,000	145,600	15.103	STD	STD	
160H-3	2.000	1.250	1.126	1.899	0.283	0.563	2.437	7.547	1.520	1.339	1.520	1.339	174,000	218,400	22.631	MTO	STD	
160H-4	2.000	1.250	1.126	1.899	0.283	0.563	2.437	9.984	1.520	1.339	1.520	1.339	232,000	291,200	30.123	MTO	STD	
180H-1	2.250	1.400	1.406	2.132	0.312	0.687	--	2.968	1.641	1.484	1.641	1.484	80,000	95,000	10.250	MTO	STD	
180H-2	2.250	1.400	1.406	2.132	0.312	0.687	2.716	5.684	1.641	1.484	1.641	1.484	160,000	190,000	20.500	MTO	STD	
180H-3	2.250	1.400	1.406	2.132	0.312	0.687	2.716	8.400	1.641	1.484	1.641	1.484	240,000	285,000	41.000	MTO	STD	

Consult Drives, Incorporated for review of applications requiring these products

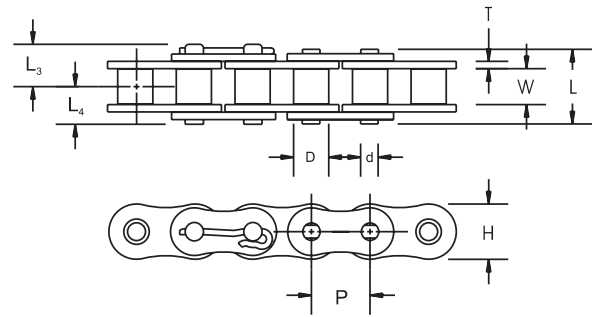
- Notes:
1. Offset links are available
  2. 60H slip fit spring clip connector standard. Cotter available upon request.
  3. 80H and above: slip fit hook style cotter connecting link standard. (Press-fit available upon request.)
  4. Please consult Drives, Inc. Engineering for Maximum Allowable Loads.

# Drives, Incorporated Precision Roller Chain Products

## HZ Riveted Series Chain

**Ballized link plate holes** - Provides maximum bearing area for optimum press fits, improving fatigue life and working loads.

**Through-Hardened Pins** - Provides a higher working load capacity and additional resistance to fatigue in high load/pulsating type applications.



HZ series chains have the same dimensions as ANSI standard heavy series chains.

Drives, Inc.	Pitch	Width Between L.P.	Roller Dia.	Link Plate	Pin Dia.	Pin	Average Tensile Strength (Through Hardened)	Average Weight	HR Riveted			
Chain No.	P	W	D	H	T	d	L	L <sub>3</sub>	L <sub>4</sub>	Lb.	Lb./Ft.	
60HZ-1R	0.750	0.500	0.469	0.709	0.125	0.234	1.140	0.650	0.570	12,500	1.265	STD
80HZ-1R	1.000	0.625	0.625	0.949	0.156	0.312	1.413	0.839	0.707	21,500	2.243	STD
100HZ-1R	1.250	0.750	0.750	1.186	0.187	0.375	1.725	0.993	0.863	33,000	3.277	STD
120HZ-1R	1.500	1.000	0.875	1.425	0.219	0.437	2.085	1.186	1.043	45,100	4.605	STD
140HZ-1R	1.750	1.000	1.000	1.663	0.250	0.500	2.260	1.313	1.130	57,450	5.801	STD
160HZ-1R	2.000	1.250	1.126	1.899	0.283	0.563	2.673	1.520	1.339	72,800	7.548	STD
180HZ-1R	2.250	1.400	1.406	2.132	0.312	0.687	2.968	1.641	1.484	95,000	10.250	STD

Consult Drives, Incorporated for review of applications requiring these products

Notes:

1. Riveted endless construction standard/recommended.
2. Single strand riveted: Connecting link cottered/press-fit type.
3. Multi-strand cottered: Connecting link cottered/slip-fit type.
4. Please consult Drives, Inc. Engineering for Maximum Allowable Loads.

**HZ riveted** series chains contain wide waist link plates to improve stress distribution, increase fatigue strength, and reduce vibration. HZ riveted chains contain ballized plates to ensure maximum bearing area for optimum press fits, improving fatigue life and working loads. This special ballizing process is completed after heat treatment which is key to achieving maximum loading capacity and fatigue strength. The HZ riveted series chains also contain a through hardened pin for higher working load capacity and additional resistance to fatigue in heavy load applications.

