



## Sprockets for Roller Chain

|                                        |          |
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## FEATURES/BENEFITS

### Sprockets for Roller Chain

#### FEATURING TAPER-LOCK SPROCKETS . . . . .

##### Shaft Ready

For low-speed roller chain drives, DODGE TAPER-LOCK sprockets are the perfect solution for extra muscle.

##### Advantages

- Features Compact design
- Installs easily
- Fits shaft securely
- Comes in wide range of stock sizes
- Allows exact ratio/rating required for your operation
- Installation-ready, right from the box
- Meets ANSI standards
- B-reborable and A-plate sprockets available  
Contact Dodge at [www.dodge-pt.com](http://www.dodge-pt.com)

##### Hardened Teeth at No Extra Cost

- Through 25 teeth
- #40 through #160
- No price premium

##### Advantages

- Offers twice the wear life
- Saves downtime and replacement costs
- Equalizes wear between large and small sprocket
- Offers greater resistance against abrasive wear
- Extends chain life



DoubleStrand  
TAPER-LOCK Sprocket



Single  
TAPER-LOCK Sprocket



Double-Single  
TAPER-LOCK Sprocket

#### HARDENED TOOTH SPROCKETS LIKE THIS



With Hardened Tooth Sprockets

#### AVOID SPROCKET WEAR LIKE THIS



Without Hardened Tooth Sprockets

#### Other Sprocket Types From Dodge



B-Reborable  
Sprockets



A-Plate  
Sprockets

### Simple Mounting



##### Easy On

- Insert busing into sprocket.
- Match holes (not threads)
- Put screws into holes that are farthest apart.
- Slip unit onto shaft.
- Set drive alignment and tighten screws



##### Easy On

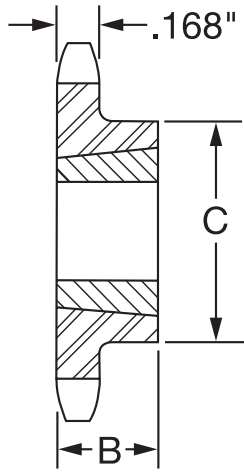
- Take both screws out entirely.
- Insert one screw into hole that is threaded in the bushing only.
- Use as jackscrew to disengage bushing.



# SPECIFICATION



## No. 35 for 3/8" Pitch Single Strand Chain



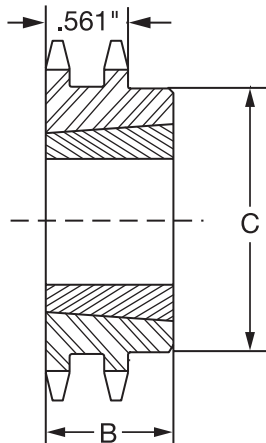
TYPE BTL

### TAPER-LOCK Sprockets

| No. of Teeth | Spkt. O.D. | Description   | Part No. | Wt. w/o Bush. | C Hub Dia. | Bore Range |       | B   |
|--------------|------------|---------------|----------|---------------|------------|------------|-------|-----|
|              |            |               |          |               |            | Min.       | Max.  |     |
| 18           | 2.352      | 35BTL18-1008  | 100350   | 0.5           | 1.88       | 1/2        | 1     | .88 |
| 19           | 2.472      | 35BTL19-1008  | 100351   | 0.6           | 1.81       |            |       |     |
| 20           | 2.593      | 35BTL20-1008  | 100352   | 0.7           | 1.94       |            |       |     |
| 21           | 2.713      | 35BTL21-1008  | 100353   | 0.8           | 2.06       |            |       |     |
| 22           | 2.833      | 35BTL22-1210  | 100354   | 0.9           | 2.38       | 1/2        | 1-1/4 | 1.0 |
| 23           | 2.954      | 35BTL23-1210  | 100343   | 1.0           | 2.88       |            |       |     |
| 24           | 3.074      | 35BTL24-1210  | 100355   | 1.0           | 2.88       |            |       |     |
| 25           | 3.194      | 35BTL25-1210  | 100344   | 1.3           | 2.88       |            |       |     |
| 26           | 3.314      | 35BTL26-1610  | 100356   | 1.3           | 2.88       | 1/2        | 1-5/8 | 1.0 |
| 28           | 3.553      | 35BTL28-1610  | 100345   | 1.3           | 2.88       |            |       |     |
| 30           | 3.793      | 35BTL30-1610  | 100357   | 1.4           | 3.13       |            |       |     |
| 32           | 4.032      | 35BTL32-1610  | 100358   | 1.5           | 3.25       |            |       |     |
| 35           | 4.392      | 35BTL35-1610  | 100359   | 1.6           | 3.25       |            |       |     |
| 36           | 4.511      | 35BTL36-1610  | 100346   | 1.6           | 3.25       |            |       |     |
| 40           | 4.990      | 35BTL40-1610  | 100360   | 2.1           | 3.25       |            |       |     |
| 42           | 5.229      | 35BTL42-1610  | 100347   | 2.2           | 3.25       |            |       |     |
| 45           | 5.588      | 35BTL45-1610  | 100361   | 2.3           | 3.25       |            |       |     |
| 48           | 5.946      | 35BTL48-1610  | 100362   | 2.5           | 3.25       |            |       |     |
| 54           | 6.663      | 35BTL54-1610  | 100363   | 2.8           | 3.25       |            |       |     |
| 60           | 7.380      | 35BTL60-1610  | 100364   | 3.2           | 3.25       |            |       |     |
| 70           | 8.575      | 35BTL70-1610  | 100365   | 3.3           | 3.25       |            |       |     |
| 72           | 8.814      | 35BTL72-1610  | 100348   | 4.1           | 3.25       |            |       |     |
| 80           | 9.770      | 35BTL80-1610  | 100366   | 4.2           | 3.25       |            |       |     |
| 84           | 10.247     | 35BTL84-1610  | 100349   | 5.1           | 3.25       | 1/2        | 1-5/8 | 1.0 |
| 96           | 11.680     | 35BTL96-1610  | 100367   | 6.2           | 3.25       |            |       |     |
| 112          | 13.590     | 35BTL112-1610 | 100368   | 8.0           | 3.25       |            |       |     |

◇ Hub grooved for chain clearance.

## No. 35-2 for 3/8" Pitch Double Strand Chain



TYPE BTL

### TAPER-LOCK-Double

| No. of Teeth | Spkt. O.D. | Description +  | Part No. | Wt. w/o Bush. | Bore Range |       | B    | C Hub Dia. |
|--------------|------------|----------------|----------|---------------|------------|-------|------|------------|
|              |            |                |          |               | Min.       | Max.  |      |            |
| 19           | 2.472      | D35BTL19H-1008 | 101150   | .6            | 1/2        | 1     | 0.88 | 1.810      |
| 20           | 2.593      | D35BTL20H-1008 | 101151   | .8            | 1/2        | 1     | 0.88 | 1.880      |
| 21           | 2.713      | D35BTL21H-1008 | 101152   | 1.4           | 1/2        | 1     | 0.88 | 1.810      |
| 22           | 2.833      | D35BTL22H-1008 | 101153   | 1.7           | 1/2        | 1     | 0.88 | 1.810      |
| 24           | 3.074      | D35BTL24H-1210 | 101154   | 1.8           | 1/2        | 1-1/4 | 1.00 | 2.470      |
| 26           | 3.314      | D35BTL26-1210  | 101155   | 2.0           | 1/2        | 1-1/4 | 1.00 | 2.625      |
| 30           | 3.793      | D35BTL30-1610  | 101156   | 1.8           | 1/2        | 1-5/8 | 1.00 | 3.125      |
| 32           | 4.032      | D35BTL32-1610  | 101157   | 2.0           | 1/2        | 1-5/8 | 1.00 | 3.250      |
| 35           | 4.392      | D35BTL35-1610  | 101158   | 2.3           | 1/2        | 1-5/8 | 1.00 | 3.250      |
| 40           | 4.990      | D35BTL40-1610  | 101159   | 2.9           | 1/2        | 1-5/8 | 1.00 | 3.250      |
| 45           | 5.588      | D35BTL45-1610  | 101160   | 3.2           | 1/2        | 1-5/8 | 1.00 | 3.250      |
| 48           | 5.946      | D35BTL48-1610  | 101161   | 3.5           | 1/2        | 1-5/8 | 1.00 | 3.625      |
| 54           | 6.663      | D35BTL54-1610  | 101162   | 3.9           | 1/2        | 1-5/8 | 1.00 | 3.625      |
| 70           | 8.575      | D35BTL70-1610  | 101164   | 6.3           | 1/2        | 1-5/8 | 1.00 | 3.625      |
| 80           | 9.770      | D35BTL80-1610  | 101165   | 7.9           | 1/2        | 1-5/8 | 1.00 | 3.625      |
| 96           | 11.680     | D35BTL96-1610  | 101166   | 9.9           | 1/2        | 1-5/8 | 1.00 | 3.625      |
| 112          | 13.590     | D35BTL112-1610 | 101167   | 10.9          | 1/2        | 1-5/8 | 1.00 | 3.625      |

+ "H" suffix indicates Hardened Teeth.

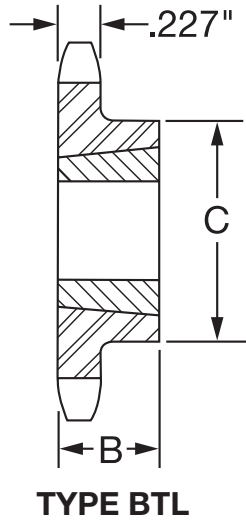
|                                  |                            |                                  |                                       |
|----------------------------------|----------------------------|----------------------------------|---------------------------------------|
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|----------------------------------|----------------------------|----------------------------------|---------------------------------------|



# SPECIFICATION

## No. 41 for 1/2" Pitch Single Strand Chain

### TAPER-LOCK Sprockets



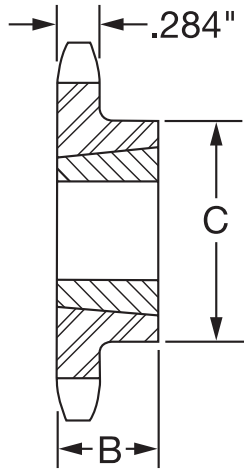
| No.<br>of<br>Teeth | Spkt.<br>O.D. | Description  | Part<br>No. | Wt.<br>w/o<br>Bush. | C<br>Hub<br>Dia. | Bore<br>Range |       | B    |       |      |       |      |       |      |
|--------------------|---------------|--------------|-------------|---------------------|------------------|---------------|-------|------|-------|------|-------|------|-------|------|
|                    |               |              |             |                     |                  | Min.          | Max.  |      |       |      |       |      |       |      |
| 14                 | 2.490         | 41BTL14-1008 | 100369      | .5                  | 1.870            | 1/2           | 1     | 0.88 |       |      |       |      |       |      |
| 15                 | 2.652         | 41BTL15-1008 | 100370      | .6                  | 1.87             |               |       |      |       |      |       |      |       |      |
| 16                 | 2.814         | 41BTL16-1008 | 100371      | .7                  | 2.00             |               |       |      |       |      |       |      |       |      |
| 17                 | 2.974         | 41BTL17-1210 | 100372      | .8                  | 2.380            | 1/2           | 1-1/4 | 1.00 |       |      |       |      |       |      |
| 18                 | 3.136         | 41BTL18-1210 | 100373      | 1.0                 | 2.380            |               |       |      |       |      |       |      |       |      |
| 19                 | 3.292         | 41BTL19-1210 | 100374      | 1.2                 | 2.50             |               |       |      |       |      |       |      |       |      |
| 20                 | 3.457         | 41BTL20-1610 | 100375      | 1.3                 | 2.880            | 1/2           | 1-5/8 | 1.00 |       |      |       |      |       |      |
| 21                 | 3.618         | 41BTL21-1610 | 100376      | 1.4                 | 3.000            |               |       |      |       |      |       |      |       |      |
| 22                 | 3.778         | 41BTL22-1610 | 100377      | 1.5                 | 3.00             |               |       |      |       |      |       |      |       |      |
| 23                 | 3.938         | 41BTL23-1610 | 100392      | 1.6                 | 3.00             |               |       |      |       |      |       |      |       |      |
| 24                 | 4.098         | 41BTL24-1610 | 100378      | 1.6                 | 3.00             |               |       |      |       |      |       |      |       |      |
| 25                 | 4.258         | 41BTL25-1610 | 100393      | 1.7                 | 3.00             |               |       |      |       |      |       |      |       |      |
| 26                 | 4.418         | 41BTL26-1610 | 100379      | 1.7                 | 3.00             | 1/2           |       |      | 1-5/8 | 1.00 |       |      |       |      |
| 28                 | 4.738         | 41BTL28-1610 | 100380      | 1.9                 | 3.00             |               |       |      |       |      |       |      |       |      |
| 30                 | 5.057         | 41BTL30-1610 | 100381      | 2.0                 | 3.00             |               |       |      |       |      |       |      |       |      |
| 32                 | 5.376         | 41BTL32-1610 | 100382      | 2.1                 | 3.00             |               |       |      |       |      |       |      |       |      |
| 35                 | 5.856         | 41BTL35-1610 | 100383      | 2.5                 | 3.00             |               |       |      |       |      |       |      |       |      |
| 36                 | 6.015         | 41BTL36-1610 | 100394      | 2.6                 | 3.00             |               |       |      |       |      |       |      |       |      |
| 40                 | 6.653         | 41BTL40-1610 | 100384      | 2.9                 | 3.00             |               |       |      |       |      | 1-5/8 | 1.00 |       |      |
| 45                 | 7.450         | 41BTL45-1610 | 100385      | 3.7                 | 3.00             |               |       |      |       |      |       |      |       |      |
| 48                 | 7.928         | 41BTL48-1610 | 100386      | 4.3                 | 3.00             |               |       |      |       |      |       |      |       |      |
| 54                 | 8.725         | 41BTL54-1610 | 100387      | 5.1                 | 3.00             |               |       |      |       |      |       |      |       |      |
| 60                 | 9.840         | 41BTL60-1610 | 100388      | 5.9                 | 3.00             |               |       |      |       |      |       |      |       |      |
| 70                 | 11.433        | 41BTL70-1610 | 100389      | 7.6                 | 3.00             |               |       |      |       |      |       |      |       |      |
| 72                 | 11.752        | 41BTL72-1610 | 100395      | 8.4                 | 3.00             |               |       |      |       |      |       |      | 1-5/8 | 1.00 |
| 80                 | 13.026        | 41BTL80-1610 | 100390      | 9.8                 | 3.00             |               |       |      |       |      |       |      |       |      |
| 96                 | 15.573        | 41BTL96-1610 | 100391      | 11.3                | 3.00             |               |       |      |       |      |       |      |       |      |

◇ Hub grooved for chain clearance.

# SPECIFICATION



## No. 40 for 1/2" Pitch Single Strand Chain



TYPE BTL

### TAPER-LOCK Sprockets

| No. Teeth | Spkt. O.D. | Description + | Part No. | Wt. w/o Bush. | C Hub Dia.      | Bore Range |         | B    |
|-----------|------------|---------------|----------|---------------|-----------------|------------|---------|------|
|           |            |               |          |               |                 | Min.       | Max.    |      |
| 14        | 2.490      | 40BTL14H-1008 | 100500   | 0.4           | 1.81 $\diamond$ | 1/2        | 1       | 0.88 |
| 15        | 2.652      | 40BTL15H-1008 | 100501   | 0.4           | 1.81            |            |         |      |
| 16        | 2.814      | 40BTL16H-1008 | 100502   | 0.5           | 1.94            |            |         |      |
| 17        | 2.974      | 40BTL17H-1210 | 100503   | 0.5           | 2.38 $\diamond$ | 1/2        | 1-1/4   | 1.00 |
| 18        | 3.136      | 40BTL18H-1210 | 100504   | 0.7           | 2.47 $\diamond$ |            |         |      |
| 19        | 3.292      | 40BTL19H-1210 | 100505   | 0.8           | 2.47            |            |         |      |
| 20        | 3.457      | 40BTL20H-1610 | 100506   | 0.8           | 2.78 $\diamond$ | 1/2        | 1-11/16 | 1.00 |
| 21        | 3.618      | 40BTL21H-1610 | 100507   | 0.8           | 2.78 $\diamond$ |            |         |      |
| 22        | 3.778      | 40BTL22H-1610 | 100508   | .8            | 2.78            |            |         |      |
| 23        | 3.938      | 40BTL23H-1610 | 100509   | 1.2           | 3.00            | 1/2        | 1-11/16 | 1.00 |
| 24        | 4.098      | 40BTL24H-1610 | 100510   | 1.5           | 3.25            |            |         |      |
| 25        | 4.258      | 40BTL25H-1610 | 100511   | 1.6           | 3.25            |            |         |      |
| 26        | 4.418      | 40BTL26-1610  | 100512   | 1.5           | 3.25            | 1/2        | 1-11/16 | 1.00 |
| 27        | 4.578      | 40BTL27-1610  | 104700   | 1.5           | 3.25            |            |         |      |
| 28        | 4.738      | 40BTL28-1610  | 100513   | 1.5           | 3.00            |            |         |      |
| 29        | 4.898      | 40BTL29-1610  | 104701   | 1.6           | 3.00            | 1/2        | 1-11/16 | 1.00 |
| 30        | 5.057      | 40BTL30-1610  | 100514   | 1.7           | 3.00            |            |         |      |
| 32        | 5.376      | 40BTL32-1610  | 100515   | 2.0           | 3.00            |            |         |      |
| 33        | 5.536      | 40BTL33-1610  | 104702   | 2.1           | 3.00            | 1/2        | 1-11/16 | 1.00 |
| 34        | 5.696      | 40BTL34-1610  | 104703   | 2.3           | 3.00            |            |         |      |
| 35        | 5.856      | 40BTL35-1610  | 100516   | 2.4           | 3.00            |            |         |      |
| 36        | 6.015      | 40BTL36-1610  | 100517   | 2.4           | 3.00            | 1/2        | 1-11/16 | 1.00 |
| 40        | 6.653      | 40BTL40-1610  | 100518   | 2.8           | 3.00            |            |         |      |
| 42        | 6.972      | 40BTL42-1610  | 100519   | 3.0           | 3.00            |            |         |      |
| 44        | 7.291      | 40BTL44-1610  | 104707   | 3.2           | 3.00            | 1/2        | 1-11/16 | 1.00 |
| 45        | 7.450      | 40BTL45-1610  | 100520   | 3.8           | 3.00            |            |         |      |
| 48        | 7.928      | 40BTL48-1610  | 100521   | 3.9           | 3.00            |            |         |      |
| 50        | 8.248      | 40BTL50-1610  | 104709   | 4.5           | 3.00            | 1/2        | 1-11/16 | 1.00 |
| 54        | 8.725      | 40BTL54-1610  | 100522   | 5.0           | 3.00            |            |         |      |
| 60        | 9.840      | 40BTL60-1610  | 100523   | 6.1           | 3.00            |            |         |      |
| 70        | 11.433     | 40BTL70-2012  | 100524   | 8.6           | 3.56            | 1/2        | 2       | 1.25 |
| 72        | 11.752     | 40BTL72-2012  | 100525   | 8.7           | 3.56            |            |         |      |
| 80        | 13.026     | 40BTL80-2012  | 100526   | 10.9          | 3.56            |            |         |      |
| 84        | 13.663     | 40BTL84-2012  | 100527   | 11.8          | 3.56            | 1/2        | 2-1/2   | 1.75 |
| 96        | 15.573     | 40BTL96-2012  | 100528   | 13.7          | 3.56            |            |         |      |
| 112       | 18.121     | 40BTL112-2517 | 100529   | 21.3          | 4.25            |            |         |      |

$\diamond$  Hub grooved for chain clearance.

+ "H" suffix indicates Hardened Teeth.

V-Drives

FHP Drives

Drive Component Accessories

DYNA-SYNC

HT200/HTD Synchronous Drives

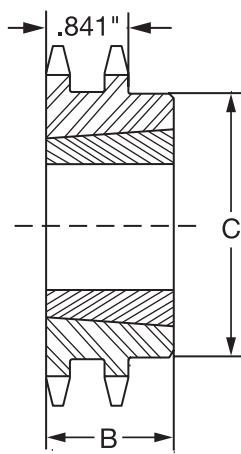
HT500 Synchronous Drives

Roller Chain Sprockets

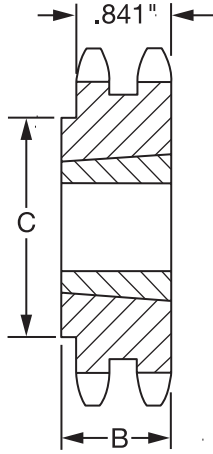


## SPECIFICATION

### No. 40-2 for 1/2" Pitch Double Strand Chain



TYPE BTL 1



TYPE BTL 2

#### TAPER-LOCK Sprockets

| No. of Teeth | Spkt. O.D. | Description +   | Part No.      | Wt. w/o Bush. | C Hub Dia. | Bore Range |         | B    |
|--------------|------------|-----------------|---------------|---------------|------------|------------|---------|------|
|              |            |                 |               |               |            | Min.       | Max.    |      |
| 15           | 2.652      | D40BTL15H-1008• | <b>101001</b> | 0.5           | 1.81       |            |         |      |
| 16           | 2.814      | D40BTL16H-1008  | <b>101002</b> | 0.7           | 1.27       | 1/2        | 1       | 0.88 |
| 17           | 2.974      | D40BTL17H-1008  | <b>101003</b> | 0.8           | 1.27       |            |         |      |
| 18           | 3.136      | D40BTL18H-1210  | <b>101004</b> | 0.7           | 2.29       | 1/2        | 1-1/4   | 1.00 |
| 19           | 3.292      | D40BTL19H-1210  | <b>101005</b> | 0.9           | 2.47       |            |         |      |
| 20           | 3.457      | D40BTL20H-1610  | <b>101006</b> | 1.1           | 3.25       |            |         |      |
| 21           | 3.618      | D40BTL21H-1610  | <b>101007</b> | 1.1           | 2.69       | 1/2        | 1-11/16 | 1.00 |
| 23           | 3.938      | D40BTL23H-1610• | <b>101008</b> | 1.4           | 3.00       |            |         |      |
| 24           | 4.098      | D40BTL24H-1610• | <b>104822</b> | 1.6           | 3.25       |            |         |      |
| 25           | 4.258      | D40BTL25H-2012  | <b>101009</b> | 1.8           | 3.42       |            |         |      |
| 26           | 4.418      | D40BTL26-2012•  | <b>104823</b> | 2.3           | 3.56       | 1/2        | 2-1/8   | 1.25 |
| 30           | 5.057      | D40BTL30-2012•  | <b>101010</b> | 3.6           | 3.56       |            |         |      |
| 36           | 6.015      | D40BTL36-2012•  | <b>101011</b> | 5.9           | 3.56       |            |         |      |
| 42           | 6.972      | D40CTL42-2517   | <b>101012</b> | 7.4           |            |            |         |      |
| 45           | 7.450      | D40BTL45-2517•  | <b>104828</b> | 8.5           |            |            |         |      |
| 48           | 7.928      | D40BTL48-2517•  | <b>101013</b> | 9.4           |            |            |         |      |
| 52           | 8.566      | D40BTL52-2517   | <b>101014</b> | 11.5          |            |            |         |      |
| 60           | 9.840      | D40BTL60-2517•  | <b>101015</b> | 15.5          |            | 1/2        | 2-11/16 | 1.75 |
| 68           | 11.115     | D40BTL68-2517•  | <b>101016</b> | 20.5          |            |            |         |      |
| 76           | 12.389     | D40BTL76-2517•  | <b>101017</b> | 26.5          |            |            |         |      |
| 84           | 13.663     | D40BTL84-2517•  | <b>101018</b> | 32.0          |            |            |         |      |
| 95           | 15.414     | D40BTL95-2517•  | <b>101019</b> | 36.0          |            |            |         |      |
| 102          | 16.528     | D40BTL102-2517• | <b>101020</b> | 44.0          |            |            |         |      |

+ "H" suffix indicates Hardened Teeth.

• BTL2

# SPECIFICATION



## No. 50 for 5/8" Pitch Single Strand Chain

V-Drives

FHP Drives

Drive Component Accessories

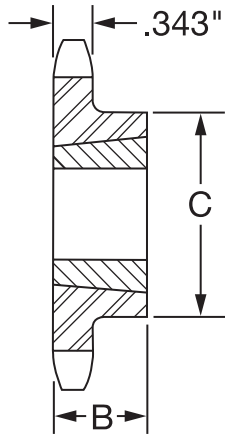
DYNA-SYNC

HT200/HTD Synchronous Drives

HT500 Synchronous Drives

Roller Chain Sprockets

### TAPER-LOCK Sprockets



TYPE BTL

| No.<br>of<br>Teeth | Spkt.<br>O.D. | Description   | Part<br>No.   | Wt.<br>w/o<br>Bush. | C<br>Hub<br>Dia. | Bore<br>Range |         | B    |
|--------------------|---------------|---------------|---------------|---------------------|------------------|---------------|---------|------|
|                    |               |               |               |                     |                  | Min.          | Max.    |      |
| 12                 | 2.708         | 50BTL12H-1008 | <b>100530</b> | 0.5                 | 1.81 $\diamond$  | 1/2           | 1       | 0.88 |
| 13                 | 2.991         | 50BTL13H-1008 | <b>100531</b> | 0.5                 | 1.81             |               |         |      |
| 14                 | 3.113         | 50BTL14H-1008 | <b>100532</b> | 0.6                 | 1.81             |               |         |      |
| 15                 | 3.315         | 50BTL15H-1210 | <b>100533</b> | 0.6                 | 2.47 $\diamond$  | 1/2           | 1-1/4   | 1.00 |
| 16                 | 3.517         | 50BTL16H-1610 | <b>100534</b> | 0.8                 | 2.78 $\diamond$  | 1/2           | 1-11/16 | 1.00 |
| 17                 | 3.713         | 50BTL17H-1610 | <b>100535</b> | 1.1                 | 2.78 $\diamond$  |               |         |      |
| 18                 | 3.919         | 50BTL18H-1610 | <b>100536</b> | 1.2                 | 2.84             |               |         |      |
| 19                 | 4.121         | 50BTL19H-1610 | <b>100537</b> | 1.3                 | 3.03             |               |         |      |
| 20                 | 4.321         | 50BTL20H-1610 | <b>100538</b> | 1.4                 | 3.25             |               |         |      |
| 21                 | 4.522         | 50BTL21H-1610 | <b>100539</b> | 1.5                 | 3.25             |               |         |      |
| 22                 | 4.722         | 50BTL22H-1610 | <b>100540</b> | 1.6                 | 3.25             |               |         |      |
| 23                 | 4.923         | 50BTL23H-2012 | <b>100541</b> | 2.2                 | 3.56             | 1/2           | 2-1/8   | 1.25 |
| 24                 | 5.123         | 50BTL24H-2012 | <b>100542</b> | 2.4                 |                  |               |         |      |
| 25                 | 5.323         | 50BTL25H-2012 | <b>100543</b> | 2.4                 |                  |               |         |      |
| 26                 | 5.523         | 50BTL26-2012  | <b>100544</b> | 2.5                 | 4.00             | 1/2           | 2-3/8   | 1.25 |
| 27                 | 5.723         | 50BTL27-2012  | <b>100675</b> | 2.8                 | 4.00             | 1/2           | 2-1/8   | 1.25 |
| 28                 | 5.922         | 50BTL28-2012  | <b>100545</b> | 3.0                 |                  |               |         |      |
| 30                 | 6.321         | 50BTL30-2012  | <b>100546</b> | 3.2                 | 3.56             |               |         |      |
| 32                 | 6.721         | 50BTL32-2012  | <b>100547</b> | 3.5                 | 3.56             | 1/2           | 2-1/8   | 1.25 |
| 35                 | 7.319         | 50BTL35-2012  | <b>100548</b> | 4.2                 |                  |               |         |      |
| 36                 | 7.519         | 50BTL36-2012  | <b>100549</b> | 4.7                 | 3.56             | 1/2           | 2-1/8   | 1.25 |
| 40                 | 8.316         | 50BTL40-2012  | <b>100550</b> | 5.5                 |                  |               |         |      |
| 42                 | 8.715         | 50BTL42-2012  | <b>100551</b> | 6.0                 | 3.56             | 1/2           | 2-1/8   | 1.25 |
| 45                 | 9.313         | 50BTL45-2012  | <b>100552</b> | 6.5                 |                  |               |         |      |
| 48                 | 9.911         | 50BTL48-2012  | <b>100553</b> | 7.4                 |                  |               |         |      |
| 54                 | 11.106        | 50BTL54-2012  | <b>100554</b> | 8.7                 | 3.56             | 1/2           | 2-1/8   | 1.25 |
| 60                 | 12.301        | 50BTL60-2012  | <b>100555</b> | 10.5                |                  |               |         |      |
| 70                 | 14.292        | 50BTL70-2517  | <b>100556</b> | 15.5                | 4.25             | 1/2           | 2-11/16 | 1.75 |
| 72                 | 14.690        | 50BTL72-2517  | <b>100557</b> | 16.5                |                  |               |         |      |
| 80                 | 16.283        | 50BTL80-2517  | <b>100558</b> | 19.0                |                  |               |         |      |
| 84                 | 17.079        | 50BTL84-2517  | <b>100559</b> | 23.1                |                  |               |         |      |
| 96                 | 19.467        | 50BTL96-2517  | <b>100560</b> | 32.5                | 4.25             | 1/2           | 2-11/16 | 1.75 |
| 112                | 22.651        | 50BTL112-2517 | <b>100561</b> | 42.2                |                  |               |         |      |

$\diamond$  Hub grooved for chain clearance.

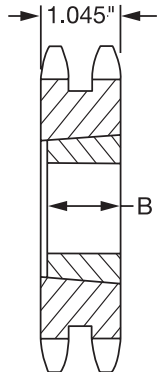
### TAPER-LOCK SPROCKETS—LARGE BORE SERIES

| No. of Teeth | Spkt. O.D. | Description   | Part No.      | Wt. | C Hub Dia. | Bore Range |         | B    |
|--------------|------------|---------------|---------------|-----|------------|------------|---------|------|
|              |            |               |               |     |            | Min.       | Max.    |      |
| 35           | 7.319      | 50BTL35L-2517 | <b>100454</b> | 4.7 | 4.25       | 1/2        | 2-11/16 | 1.75 |
| 45           | 9.313      | 50BTL45L-2517 | <b>100699</b> | 7.0 | 4.25       | 1/2        | 2-11/16 | 1.75 |

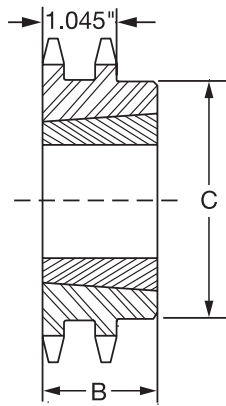


## SPECIFICATION

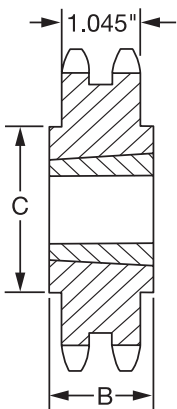
### No. 50-2 for 5/8" Pitch Double Strand Chain



TYPE ATL



TYPE BTL



TYPE CTL

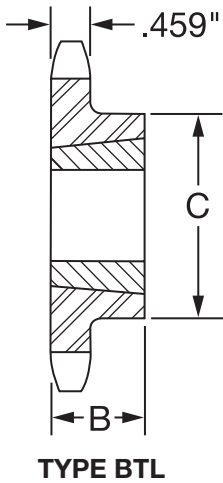
| No. of Teeth | Spkt. O.D. | Description +  | Part No. | Wt. w/o Bush. | Hub Dia. C | Bore Range |         | B    |
|--------------|------------|----------------|----------|---------------|------------|------------|---------|------|
|              |            |                |          |               |            | Min.       | Max.    |      |
| 14           | 3.113      | D50ATL14H-1008 | 101031   | 0.9           | ....       | 1/2        | 1.0     | 0.88 |
| 15           | 3.315      | D50ATL15H-1210 | 101032   | 1.0           | ....       | 1/2        | 1-1/4   | 1.0  |
| 16           | 3.517      | D50ATL16H-1210 | 101033   | 1.1           | ....       | 1/2        | 1-1/4   | 1.0  |
| 17           | 3.718      | D50ATL17H-1610 | 101034   | 1.1           | ....       | 1/2        | 1-11/16 | 1.0  |
| 18           | 3.919      | D50ATL18H-1610 | 101035   | 1.4           | ....       | 1/2        | 1-11/16 | 1.0  |
| 19           | 4.121      | D50ATL19H-1610 | 101036   | 1.7           | ....       | 1/2        | 1-11/16 | 1.0  |
| 20           | 4.321      | D50BTL20H-2012 | 101037   | 1.9           | 3.56       | 1/2        | 1-11/16 | 1.25 |
| 21           | 4.522      | D50BTL21H-2012 | 101038   | 2.0           |            |            |         |      |
| 22           | 4.722      | D50BTL22H-2012 | 104834   | 2.5           |            |            |         |      |
| 24           | 5.123      | D50BTL24H-2012 | 104836   | 3.5           |            |            |         |      |
| 25           | 5.323      | D50BTL25H-2012 | 101039   | 4.0           | 4.25       | 1/2        | 2-11/16 | 1.75 |
| 26           | 5.523      | D50BTL26-2012  | 104837   | 4.7           |            |            |         |      |
| 28           | 5.922      | D50BTL28-2012  | 104838   | 6.3           |            |            |         |      |
| 30           | 6.321      | D50BTL30-2517  | 101040   | 7.8           |            |            |         |      |
| 32           | 6.721      | D50BTL32-2517  | 104839   | 8.4           |            |            |         |      |
| 35           | 7.319      | D50BTL35-2517  | 104840   | 9.2           |            |            |         |      |
| 36           | 7.519      | D50CTL36-2517  | 101041   | 10.0          |            |            |         |      |
| 42           | 8.715      | D50CTL42-2517  | 101042   | 14.2          |            |            |         |      |
| 48           | 9.911      | D50CTL48-2517  | 101043   | 18.7          | 4.25       | 1/2        | 2-11/16 | 1.75 |
| 52           | 10.708     | D50CTL52-2517  | 101044   | 22.5          |            |            |         |      |
| 60           | 12.301     | D50CTL60-2517  | 101045   | 36.5          |            |            |         |      |
| 68           | 13.894     | D50CTL68-2517  | 101046   | 39.5          |            |            |         |      |
| 76           | 15.486     | D50CTL76-2517  | 101047   | 49.5          |            |            |         |      |
| 84           | 17.079     | D50CTL84-2517  | 101048   | 52.0          |            |            |         |      |
| 95           | 19.268     | D50CTL95-2517  | 101049   | 70.0          |            |            |         |      |
| 102          | 20.661     | D50CTL102-2517 | 101050   | 75.0          |            |            |         |      |

+ "H" suffix indicates Hardened Teeth.

# SPECIFICATION



## No. 60 for 3/4" Pitch Single Strand Chain



| No. of Teeth | Spkt. O.D. | Description + | Part No.        | Spkt. Wt. w/o Bush. | C Spkt. Hub Dia. | Bore Range |         | B Lgth. Thru Bore |
|--------------|------------|---------------|-----------------|---------------------|------------------|------------|---------|-------------------|
|              |            |               |                 |                     |                  | Min.       | Max.    |                   |
| 11           | 3.005      | 60BTL11H-1008 | <b>100562</b>   | 0.6                 | 1.81             | 1/2        | 1       | 0.88              |
| 12           | 3.249      | 60BTL12H-1008 | <b>100563</b>   | 0.7                 | 1.94             |            |         |                   |
| 13           | 3.493      | 60BTL13H-1210 | <b>100564</b> ◇ | 1.1                 | 2.47             | 1/2        | 1-1/4   | 1.00              |
| 14           | 3.736      | 60BTL14H-1210 | <b>100565</b>   | 1.2                 | 2.59             |            |         |                   |
| 15           | 3.978      | 60BTL15H-1610 | <b>100566</b> ◇ | 1.4                 | 2.78             | 1/2        | 1-11/16 | 1.00              |
| 16           | 4.220      | 60BTL16H-1610 | <b>100567</b>   | 1.9                 | 3.00             |            |         |                   |
| 17           | 4.462      | 60BTL17H-1610 | <b>100568</b>   | 2.0                 | 3.25             |            |         |                   |
| 18           | 4.703      | 60BTL18H-1610 | <b>100569</b>   | 2.2                 | 3.50             |            |         |                   |
| 19           | 4.945      | 60BTL19H-1610 | <b>100570</b>   | 2.4                 | 3.50             |            |         |                   |
| 20           | 5.186      | 60BTL20H-2012 | <b>100571</b>   | 2.5                 | 3.625            | 1/2        | 2-1/8   | 1.25              |
| 21           | 5.426      | 60BTL21H-2012 | <b>100572</b>   | 2.9                 |                  |            |         |                   |
| 22           | 5.666      | 60BTL22H-2012 | <b>100573</b>   | 3.0                 |                  |            |         |                   |
| 23           | 5.907      | 60BTL23H-2012 | <b>100574</b>   | 3.2                 |                  |            |         |                   |
| 24           | 6.147      | 60BTL24H-2012 | <b>100575</b>   | 3.2                 |                  |            |         |                   |
| 25           | 6.387      | 60BTL25H-2012 | <b>100576</b>   | 3.8                 |                  |            |         |                   |
| 26           | 6.627      | 60BTL26-2012  | <b>100577</b>   | 4.1                 |                  |            |         |                   |
| 27           | 6.867      | 60BTL27H-2012 | <b>100676</b>   | 4.2                 |                  |            |         |                   |
| 28           | 7.106      | 60BTL28-2012  | <b>100578</b>   | 4.2                 | 4.25             | 1/2        | 2-11/16 | 1.75              |
| 30           | 7.586      | 60BTL30-2012  | <b>100579</b>   | 5.5                 |                  |            |         |                   |
| 32           | 8.065      | 60BTL32H-2012 | <b>100580</b>   | 6.0                 |                  |            |         |                   |
| 35           | 8.783      | 60BTL35-2012  | <b>100581</b>   | 7.0                 |                  |            |         |                   |
| 36           | 9.023      | 60BTL36H-2012 | <b>100582</b>   | 7.0                 |                  |            |         |                   |
| 40           | 9.980      | 60BTL40H-2012 | <b>100583</b>   | 8.7                 | 4.25             | 1/2        | 2-11/16 | 1.75              |
| 42           | 10.458     | 60BTL42-2012  | <b>100584</b>   | 9.7                 |                  |            |         |                   |
| 45           | 11.176     | 60BTL45-2012  | <b>100585</b>   | 10.7                |                  |            |         |                   |
| 48           | 11.893     | 60BTL48-2012  | <b>100586</b>   | 13.5                |                  |            |         |                   |
| 54           | 13.327     | 60BTL54-2517  | <b>100587</b>   | 17.8                |                  |            |         |                   |
| 60           | 14.761     | 60BTL60-2517  | <b>100588</b>   | 20.7                | 4.25             | 1/2        | 2-11/16 | 1.75              |
| 70           | 17.150     | 60BTL70-2517  | <b>100589</b>   | 30.0                |                  |            |         |                   |
| 72           | 17.628     | 60BTL72-2517  | <b>100590</b>   | 31.6                |                  |            |         |                   |
| 80           | 19.539     | 60BTL80-2517  | <b>100591</b>   | 34.7                |                  |            |         |                   |
| 84           | 20.495     | 60BTL84-2517  | <b>100592</b>   | 44.7                |                  |            |         |                   |

◇ Hub grooved for chain clearance.

+ "H" suffix indicates Hardened Teeth.

### TAPER-LOCK SPROCKETS-Large Bore Series

| No. of Teeth | Spkt. O.D. | Description L | Part No.      | Wt. | Hub Dia. C | Bore Range |         | B Dim. |
|--------------|------------|---------------|---------------|-----|------------|------------|---------|--------|
|              |            |               |               |     |            | Min.       | Max.    |        |
| 28           | 7.106      | 60BTL28L-2517 | <b>100459</b> | 4.8 | 4.25       | 1/2        | 2-11/16 | 1.75   |
| 35           | 8.783      | 60BTL35L-2517 | <b>100461</b> | 7.5 | 4.25       | 1/2        | 2-11/16 | 1.75   |
| 40           | 9.980      | 60BTL40L-2517 | <b>100463</b> | 9.2 | 4.25       | 1/2        | 2-11/16 | 1.75   |

+ "H" suffix indicates Hardened Teeth.

V-Drives

FHP Drives

Drive Component Accessories

DYNA-SYNC

HT200/HTD Synchronous Drives

HT500 Synchronous Drives

Roller Chain Sprockets



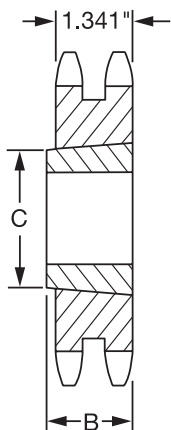
## No. 60-2 for 3/4" Pitch Double Strand Chain

### TAPER-LOCK - Double Strand

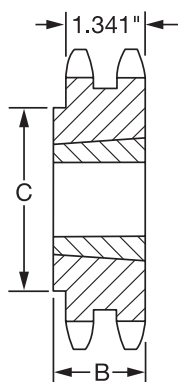
| No. of Teeth | Spkt. O.D. | Description +   | Part No.      | Wt. w/o Bush. | C Hub Dia. | Bore Range |         | B    |
|--------------|------------|-----------------|---------------|---------------|------------|------------|---------|------|
|              |            |                 |               |               |            | Min.       | Max.    |      |
| 13           | 3.493      | D60BTL13H-1215• | <b>101061</b> | 1.40          | 2.46       | 1/2        | 1-1/4   | 1.50 |
| 14           | 3.736      | D60BTL14H-1215• | <b>101062</b> | 1.70          | 2.49       |            | 1-1/4   |      |
| 14T          | 3.736      | D60BTL14H-1615• | <b>101086</b> | 1.70          | 2.74       |            | 1-11/16 |      |
| 15           | 3.978      | D60BTL15H-1615• | <b>101063</b> | 1.80          | 2.47       | 1/2        | 1-11/16 | 1.50 |
| 16           | 4.220      | D60BTL16H-1615• | <b>101064</b> | 2.40          | 2.97       |            | 1-11/16 |      |
| 17           | 4.462      | D60BTL17H-1615  | <b>101065</b> | 2.60          | 3.25       |            | 1-11/16 |      |
| 18           | 4.703      | D60ATL18H-2012  | <b>101066</b> | 2.80          | ...        | 1/2        | 2-1/8   | 1.25 |
| 19           | 4.945      | D60ATL19H-2012  | <b>101067</b> | 3.10          | ...        |            | 2-1/8   |      |
| 20           | 5.186      | D60BTL20H-2517• | <b>101068</b> | 3.30          | 3.95       |            | 2-11/16 | 1.75 |
| 21           | 5.426      | D60BTL21H-2517• | <b>101069</b> | 4.30          | 4.06       | 1/2        | 2-11/16 |      |
| 24           | 6.147      | D60BTL24H-2517  | <b>104850</b> | 7.20          | 4.25       |            | 2-11/16 |      |
| 25           | 6.387      | D60BTL25H-2517  | <b>101070</b> | 8.00          | 4.25       | 1/2        | 2-11/16 | 1.75 |
| 30           | 7.586      | D60BTL30-2517   | <b>101071</b> | 13.40         | 6.34       |            | 2-11/16 |      |
| 36           | 9.023      | D60BTL36-2517   | <b>101072</b> | 18.00         | 4.25       | 1/2        | 2-11/16 |      |
| 42           | 10.458     | D60BTL42-2517   | <b>101073</b> | 26.00         |            |            | 2-11/16 |      |
| 45           | 11.176     | D60BTL45-2517   | <b>101074</b> | 30.00         |            |            | 2-11/16 |      |
| 52           | 12.849     | D60CTL52-2517   | <b>101075</b> | 41.00         | 5.25       | 7/8        | 3-1/4   | 2.00 |
| 60           | 14.761     | D60BTL60-2517   | <b>101076</b> | 33.00         |            |            | 3-1/4   |      |
| 68           | 16.673     | D60CTL68-2517   | <b>101077</b> | 37.00         |            |            | 3-1/4   |      |
| 76           | 18.584     | D60BTL76-3020   | <b>101078</b> | 42.00         | 5.25       | 7/8        | 3-1/4   | 2.00 |

+ "H" suffix indicates Hardened Teeth.

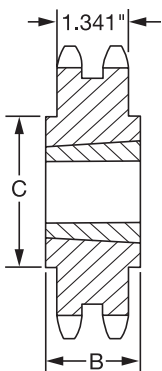
• BTL1



TYPE ATL



TYPE BTL1

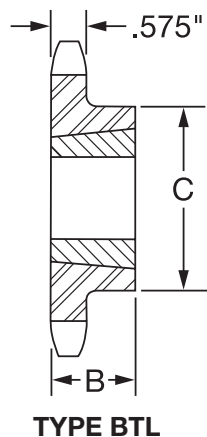


TYPE CTL

# SPECIFICATION



## No. 80 for 1" Pitch Single Strand Chain



### TAPER-LOCK

| No. of Teeth | Spkt. O.D. | Description + | Part No.      | Spkt. Wt. w/o Bush. | C Hub Dia. | Bore Range |         | B    |
|--------------|------------|---------------|---------------|---------------------|------------|------------|---------|------|
|              |            |               |               |                     |            | Min.       | Max.    |      |
| 10           | 3.678      | 80BTL10H-1215 | <b>100593</b> | 1.2                 | 2.38◇      | 1/2        | 1-1/4   | 1.50 |
| 11           | 4.006      | 80BTL11H-1215 | <b>100594</b> | 1.5                 | 2.38◇      |            |         |      |
| 12           | 4.332      | 80BTL12H-1615 | <b>100595</b> | 1.5                 | 2.94◇      | 1/2        | 1-11/16 | 1.50 |
| 13           | 4.657      | 80BTL13H-1615 | <b>100596</b> | 2.5                 | 2.94       |            |         |      |
| 14           | 4.981      | 80BTL14H-1615 | <b>100597</b> | 2.9                 | 3.25       |            |         |      |
| 15           | 5.304      | 80BTL15H-1615 | <b>100598</b> | 3.0                 | 3.25       |            |         |      |
| 16           | 5.627      | 80BTL16H-2012 | <b>100599</b> | 3.0                 | 3.56       | 1/2        | 2-1/8   | 1.25 |
| 17           | 5.949      | 80BTL17H-2012 | <b>100600</b> | 3.5                 |            |            |         |      |
| 18           | 6.271      | 80BTL18H-2012 | <b>100601</b> | 4.0                 |            |            |         |      |
| 19           | 6.593      | 80BTL19H-2012 | <b>100602</b> | 4.5                 |            |            |         |      |
| 20           | 6.914      | 80BTL20H-2517 | <b>100603</b> | 5.5                 | 4.25       | 1/2        | 2-11/16 | 1.75 |
| 21           | 7.235      | 80BTL21H-2517 | <b>100604</b> | 6.1                 |            |            |         |      |
| 22           | 7.555      | 80BTL22H-2517 | <b>100605</b> | 6.7                 |            |            |         |      |
| 23           | 7.876      | 80BTL23H-2517 | <b>100606</b> | 7.2                 |            |            |         |      |
| 24           | 8.196      | 80BTL24H-2517 | <b>100607</b> | 7.5                 |            |            |         |      |
| 25           | 8.516      | 80BTL25H-2517 | <b>100608</b> | 8.5                 |            |            |         |      |
| 26           | 8.836      | 80BTL26H-2517 | <b>100609</b> | 8.5                 |            |            |         |      |
| 27           | 9.156      | 80BTL27-2517  | <b>100678</b> | 9.8                 |            |            |         |      |
| 28           | 9.475      | 80BTL28-2517  | <b>100679</b> | 10.7                |            |            |         |      |
| 30           | 10.114     | 80BTL30-2517  | <b>100610</b> | 12.3                |            |            |         |      |
| 32           | 10.753     | 80BTL32-2517  | <b>100611</b> | 13.4                |            |            |         |      |
| 35           | 11.711     | 80BTL35-2517  | <b>100612</b> | 15.6                |            |            |         |      |
| 36           | 12.030     | 80BTL36-2517  | <b>100613</b> | 16.3                | 5.25       | 7/8        | 3-1/4   | 2.00 |
| 40           | 13.306     | 80BTL40-2517  | <b>100614</b> | 20.5                |            |            |         |      |
| 42           | 13.944     | 80BTL42-2517  | <b>104746</b> | 25.1                |            |            |         |      |
| 45           | 14.901     | 80BTL45-2517  | <b>100615</b> | 29.3                |            |            |         |      |
| 48           | 15.857     | 80BTL48-2517  | <b>100616</b> | 34.6                |            |            |         |      |
| 54           | 17.769     | 80BTL54-2517  | <b>100617</b> | 39.0                |            |            |         |      |
| 60           | 19.681     | 80BTL60-2517  | <b>100618</b> | 51.3                |            |            |         |      |
| 70           | 22.867     | 80BTL70-3020  | <b>100619</b> | 65.8                |            |            |         |      |
| 80           | 26.052     | 80BTL80-3020  | <b>100620</b> | 77.3                |            |            |         |      |

◇ Hub grooved for chain clearance.

+ "H" suffix indicates Hardened Teeth.

V-Drives

FHP Drives

Drive Component Accessories

DYNA-SYNC

HT200/HTD Synchronous Drives

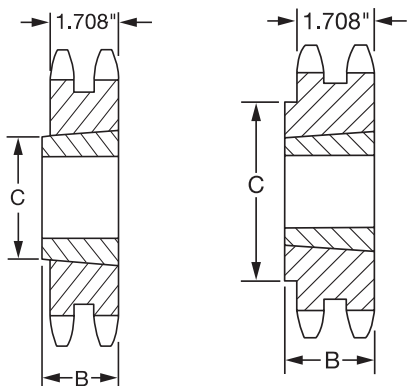
HT500 Synchronous Drives

Roller Chain Sprockets



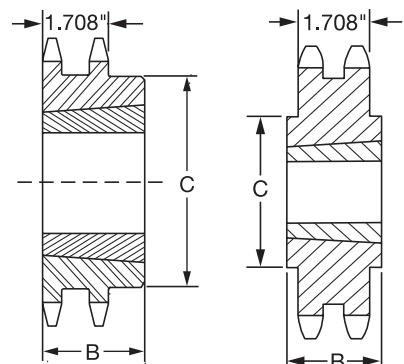
## SPECIFICATION

### No. 80-2 for 1" Pitch Double Strand Chain



TYPE ATL

TYPE BTL 1



TYPE BTL 2

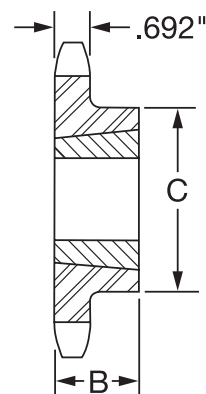
TYPE CTL

#### TAPER-LOCK - Double Strand

| No. of Teeth | Spkt. O.D. | Description +  | Part No. | Spkt. Wt. w/o Bush. | C Hub Dia. | Bore Range |         | B    |
|--------------|------------|----------------|----------|---------------------|------------|------------|---------|------|
|              |            |                |          |                     |            | Min.       | Max.    |      |
| 13           | 4.657      | D80ATL13H-1615 | 101090   | 3.3                 | ....       | 1/2        | 1-11/16 | 1.50 |
| 14           | 4.981      | D80ATL14H-2012 | 101091   | 3.5                 | ....       | 1/2        | 2-1/8   | 1.25 |
| 15           | 5.304      | D80ATL15H-2012 | 101092   | 4.4                 | ....       |            |         |      |
| 16           | 5.627      | D80ATL16H-2517 | 101093   | 4.6                 | ....       |            |         |      |
| 17           | 5.949      | D80ATL17H-2517 | 101094   | 5.5                 | ....       | 1/2        | 2-11/16 | 1.75 |
| 18           | 6.271      | D80ATL18H-2517 | 101095   | 6.6                 | ....       |            |         |      |
| 19           | 6.593      | D80BTL19H-3020 | 101096   | 7.1                 | ....       |            |         |      |
| 20           | 6.914      | D80BTL20H-3020 | 101097   | 8.2                 | 5.25       |            |         |      |
| 21           | 7.235      | D80BTL21H-3020 | 101098   | 10.4                | 5.46       |            |         |      |
| 23           | 7.876      | D80BTL23H-3020 | 104863   | 12.0                |            |            |         |      |
| 25           | 8.516      | D80BTL25H-3020 | 101099   | 16.7                |            |            |         |      |
| 30           | 10.114     | D80BTL30-3020  | 101100   | 23.0                |            |            |         |      |
| 36           | 12.030     | D80BTL36-3020  | 101101   | 40                  |            |            |         |      |
| 42           | 13.944     | D80BTL42-3020  | 101102   | 56                  |            |            |         |      |
| 60           | 19.681     | D80CTL60-3020  | 101105   | 62                  | 5.25       | 7/8        | 3-1/4   | 2.00 |
| 68           | 22.230     | D80CTL68-3020  | 101106   | 75                  |            |            |         |      |
| 76           | 24.778     | D80CTL76-3020  | 101107   | 83                  |            |            |         |      |
| 95           | 30.828     | D80CTL95-3020  | 101108   | 100                 |            |            |         |      |

### No. 100 for 1-1/4" Pitch Single Strand Chain

#### TAPER-LOCK



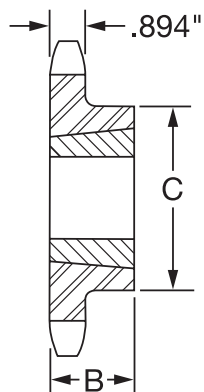
TYPE BTL 1

| No. of Teeth | Spkt. O.D. | Description +  | Part No. | Wt. w/o Bush. | C. Hub Dia. | Bore Range |         | B    |
|--------------|------------|----------------|----------|---------------|-------------|------------|---------|------|
|              |            |                |          |               |             | Min.       | Max.    |      |
| 11           | 5.008      | 100BTL11H-1615 | 100621   | 2.7           | 3.00        |            |         |      |
| 12           | 5.415      | 100BTL12H-1615 | 100622   | 3.1           | 3.25        | 1/2        | 1-11/16 | 1.50 |
| 13           | 5.821      | 100BTL13H-2012 | 100623   | 3.0           |             |            |         |      |
| 14           | 6.226      | 100BTL14H-2012 | 100624   | 4.0           | 3.56        | 1/2        | 2-1/8   | 1.25 |
| 15           | 6.630      | 100BTL15H-2517 | 100625   | 5.5           |             |            |         |      |
| 16           | 7.034      | 100BTL16H-2517 | 100626   | 6.0           |             |            |         |      |
| 17           | 7.436      | 100BTL17H-2517 | 100627   | 7.0           | 4.25        | 1/2        | 2-11/16 | 1.75 |
| 18           | 7.839      | 100BTL18H-2517 | 100628   | 7.5           |             |            |         |      |
| 19           | 8.241      | 100BTL19H-2517 | 100629   | 9.7           |             |            |         |      |
| 20           | 8.643      | 100BTL20H-2517 | 100630   | 9.8           | 4.25        | 1/2        | 2-11/16 | 1.75 |
| 22           | 9.444      | 100BTL22H-2517 | 100632   | 11.4          |             |            |         |      |
| 24           | 10.245     | 100BTL24H-2517 | 100633   | 14.3          |             |            |         |      |
| 25           | 10.645     | 100BTL25H-2517 | 104754   | 17.0          |             |            |         |      |
| 26           | 11.045     | 100BTL26-2517  | 100634   | 16.0          |             |            |         |      |
| 28           | 11.844     | 100BTL28-3020  | 100685   | 20.2          |             |            |         |      |
| 30           | 12.643     | 100BTL30-3020  | 100635   | 21.5          |             |            |         |      |
| 32           | 13.441     | 100BTL32-3020  | 100636   | 25.0          |             |            |         |      |
| 35           | 14.639     | 100BTL35-3020  | 100637   | 30.2          |             |            |         |      |
| 36           | 15.038     | 100BTL36-3020  | 100638   | 31.4          |             |            |         |      |
| 40           | 16.633     | 100BTL40-3020  | 100639   | 36.6          |             |            |         |      |
| 45           | 18.626     | 100BTL45-3020  | 100640   | 47            |             |            |         |      |
| 48           | 19.821     | 100BTL48-3020  | 100641   | 60            |             |            |         |      |
| 54           | 22.211     | 100BTL54-3020  | 100642   | 77            |             |            |         |      |
| 60           | 24.601     | 100BTL60-3020  | 100643   | 94            | 5.25        | 7/8        | 3-1/4   | 2.00 |

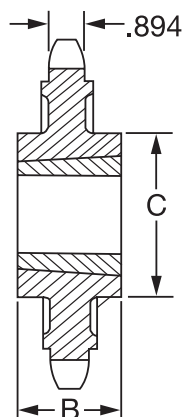
# SPECIFICATION



## No. 120 for 1-1/2" Pitch Single Strand Chain



TYPE BTL



TYPE CTL

### TAPER-LOCK

| No. of Teeth | Spkt. O.D. | Description +  | Part No.      | Spkt. Wt. w/o Bush. | C Hub Dia. | Bore Range |         | B    |
|--------------|------------|----------------|---------------|---------------------|------------|------------|---------|------|
|              |            |                |               |                     |            | Min.       | Max.    |      |
| 12           | 6.498      | 120BTL12H-2012 | <b>100396</b> | 8.0                 | 3.56       | 1/2        | 2-1/8   | 1.25 |
| 13           | 6.989      | 120BTL13H-2517 | <b>100644</b> | 6.4                 | 4.25       | 1/2        | 2-11/16 | 1.75 |
| 14           | 7.472      | 120BTL14H-2517 | <b>100645</b> | 7.8                 |            |            |         |      |
| 15           | 7.956      | 120BTL15H-2517 | <b>100646</b> | 9.6                 |            |            |         |      |
| 16           | 8.441      | 120BTL16H-3020 | <b>100647</b> | 10.2                |            |            |         |      |
| 17           | 8.924      | 120BTL17H-3020 | <b>100648</b> | 11.6                | 5.25       | 7/8        | 3-1/4   | 2.00 |
| 18           | 9.407      | 120BTL18H-3020 | <b>100649</b> | 13.2                |            |            |         |      |
| 19           | 9.890      | 120BTL19H-3020 | <b>100650</b> | 11.2                |            |            |         |      |
| 20           | 10.371     | 120BTL20H-3020 | <b>100397</b> | 16.0                |            |            |         |      |
| 21           | 10.853     | 120BTL21H-3020 | <b>100651</b> | 18.0                |            |            |         |      |
| 24           | 12.294     | 120BTL24H-3020 | <b>100398</b> | 24.0                | 5.88       | 15/16      | 3-1/4   | 3.00 |
| 26           | 13.254     | 120BTL26-3020  | <b>100652</b> | 30.0                |            |            |         |      |
| 30           | 15.171     | 120BTL30-3020  | <b>100399</b> | 39.7                |            |            |         |      |
| 35           | 17.567     | 120BTL35-3020  | <b>100232</b> | 46.0                |            |            |         |      |
| 45           | 22.352     | 120CTL45-3030  | <b>104765</b> | 110                 |            |            |         |      |
| 60           | 29.522     | 120CTL60-3535  | <b>100236</b> | 120                 | 6.50       | 1-3/16     | 3-15/16 | 3.50 |
| 70           | 34.301     | 120CTL70-3535  | <b>100238</b> | 144                 |            |            |         |      |
| 80           | 39.078     | 120CTL80-3535  | <b>100240</b> | 164                 |            |            |         |      |

+ "H" suffix indicates Hardened Teeth.

V-Drives

FHP Drives

Drive Component Accessories

DYNA-SYNC

HT200/HTD Synchronous Drives

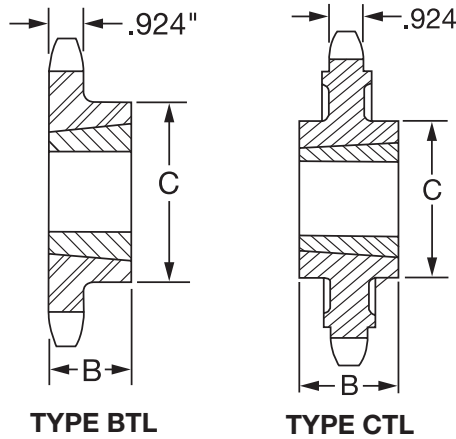
HT500 Synchronous Drives

Roller Chain Sprockets



## SPECIFICATION

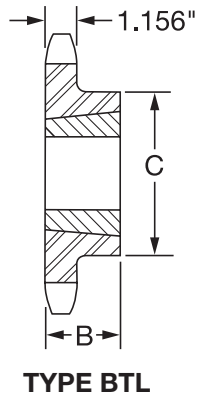
### No. 140 for 1-3/4" Pitch Single Strand Chain



#### TAPER-LOCK

| No. of Teeth | Spkt. O.D. | Description +  | Part No.      | Wt. w/o Bush. | C Hub Dia. | Bore Range |         | B    |
|--------------|------------|----------------|---------------|---------------|------------|------------|---------|------|
|              |            |                |               |               |            | Min.       | Max.    |      |
| 12           | 7.581      | 140BTL12H-2517 | <b>100653</b> | 7.6           | 4.25       | 1/2        | 2-11/16 | 1.75 |
| 13           | 8.150      | 140BTL13H-3020 | <b>100654</b> | 9.6           | 5.25       | 7/8        | 3       | 2.00 |
| 14           | 8.717      | 140BTL14H-3020 | <b>100655</b> | 11.3          |            |            |         |      |
| 15           | 9.282      | 140BTL15H-3020 | <b>100656</b> | 12.7          |            |            |         |      |
| 16           | 9.847      | 140BTL16H-3020 | <b>100657</b> | 14.6          |            |            |         |      |
| 17           | 10.411     | 140BTL17H-3020 | <b>100658</b> | 17.5          |            |            |         |      |
| 18           | 10.974     | 140BTL18H-3020 | <b>100659</b> | 19.3          |            |            |         |      |
| 19           | 11.538     | 140BTL19H-3020 | <b>100660</b> | 21.2          | 6.50       | 1-3/16     | 3-1/2   | 3.50 |
| 21           | 12.661     | 140BTL21H-3020 | <b>100661</b> | 28.0          |            |            |         |      |
| 26           | 15.463     | 140BTL26-3020  | <b>100662</b> | 45.0          |            |            |         |      |
| 35           | 20.494     | 140CTL35-3535  | <b>100264</b> | 80.3          |            |            |         |      |
| 45           | 26.077     | 140CTL45-4040  | <b>100266</b> | 120.0         | 7.75       | 1-7/16     | 4       | 4.00 |
| 60           | 34.442     | 140CTL60-4040  | <b>100268</b> | 200.0         |            |            |         |      |

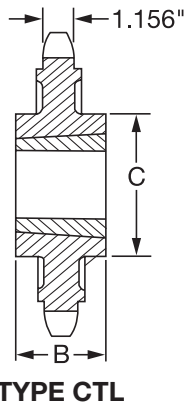
### No. 160 for 2" Pitch Single Strand Chain



#### TAPER-LOCK

| No. of Teeth | Spkt. O.D. | Description +  | Part No.      | Wt. w/o Bush. | C Hub Dia. | Bore Range |         | B    |
|--------------|------------|----------------|---------------|---------------|------------|------------|---------|------|
|              |            |                |               |               |            | Min.       | Max.    |      |
| 11           | 8.012      | 160BTL11H-2517 | <b>100663</b> | 7.7           | 4.25       | 1/2        | 2-11/16 | 1.75 |
| 12           | 8.664      | 160BTL12H-3020 | <b>100664</b> | 11.5          | 5.25       | 7/8        | 3-1/4   | 3.00 |
| 13           | 9.314      | 160BTL13H-3020 | <b>100665</b> | 14.2          |            |            |         |      |
| 14           | 9.962      | 160BTL14H-3020 | <b>100666</b> | 17.1          |            |            |         |      |
| 15           | 10.608     | 160BTL15H-3535 | <b>100667</b> | 27.4          | 6.50       | 1-3/16     | 3-15/16 | 3.50 |
| 17           | 11.898     | 160BTL17H-3535 | <b>100669</b> | 33.9          |            |            |         |      |
| 18           | 12.542     | 160BTL18H-3535 | <b>100670</b> | 38.4          |            |            |         |      |
| 19           | 13.186     | 160BTL19H-3535 | <b>100671</b> | 41.7          |            |            |         |      |
| 21           | 14.470     | 160BTL21H-3535 | <b>100672</b> | 50            |            |            |         |      |
| 26           | 17.672     | 160BTL26-3535  | <b>100673</b> | 88            |            |            |         |      |
| 35           | 23.422     | 160CTL35-4040  | <b>100294</b> | 106           | 7.75       | 1-7/16     | 4-7/16  | 4.00 |
| 60           | 39.362     | 160CTL60-4545  | <b>100298</b> | 253           | 8.75       | 1-15/16    | 4-15/16 | 4.50 |

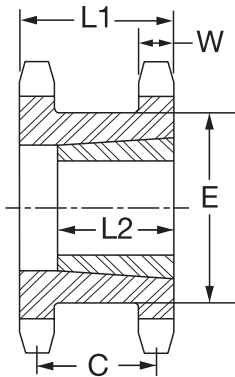
+ "H" suffix indicates Hardened Teeth.



# SPECIFICATION



## Double Single Sprockets



TYPE ATL  
TAPER-LOCK

| No. 40   |            | C=1.13<br>W=.284 | TAPER-LOCK* |          |          |           |        |               |
|----------|------------|------------------|-------------|----------|----------|-----------|--------|---------------|
| No Teeth | Spkt. O.D. | E Dim.           | Spkt. No.   | Part No. | Bushing: |           | L Dim. | Wt. w/o Bush. |
|          |            |                  |             |          | No.      | Max. Bore |        |               |
| 18       | 3.136      | 2.31             | ....        | ....     | ...      | ...       | ...    | ...           |
| 19       | 3.300      | 2.50             | DS40ATL19H  | 101450   | 1215     | 1-1/4     | 1.41   | 1.1           |
| 20       | 3.460      | 2.63             | DS40ATL20H  | 101451   | 1215     | 1-1/4     | 1.41   | 1.3           |
| 21       | 3.620      | 2.78             | DS40ATL21H  | 101452   | 1615     | 1-11/16   | 1.41   | 1.3           |
| 22       | 3.780      | 2.94             | ....        | ....     | ...      | ...       | ...    | ...           |
| 23       | 3.940      | 3.09             | DS40ATL23H  | 101453   | 1615     | 1-11/16   | 1.41   | 1.5           |
| 24       | 4.100      | 3.27             | DS40ATL24H  | 101454   | 1615     | 1-11/16   | 1.41   | 1.7           |

| No. 50   |            | C=1.31<br>W=.343 | TAPER-LOCK* |          |          |           |        |               |
|----------|------------|------------------|-------------|----------|----------|-----------|--------|---------------|
| No Teeth | Spkt. O.D. | E Dim.           | Spkt. No.   | Part No. | Bushing: |           | L Dim. | Wt. w/o Bush. |
|          |            |                  |             |          | No.      | Max. Bore |        |               |
| 17       | 3.200      | 2.69             | DS50ATL17H  | 101455   | 1615     | 1-11/16   | 1.64   | 1.8           |
| 18       | 3.920      | 2.89             | DS50ATL18H  | 101456   | 1615     | 1-11/16   | 1.64   | 2.2           |
| 19       | 4.120      | 3.08             | DS50ATL19H  | 101457   | 1615     | 1-11/16   | 1.64   | 2.7           |
| 20       | 4.320      | 3.28             | ....        | ....     | ...      | ...       | ...    | ...           |
| 21       | 4.520      | 3.48             | DS50ATL21H  | 101458   | 2012     | 2-1/8     | 1.64   | 3.3           |
| 22       | 4.720      | 3.69             | ....        | ....     | ...      | ...       | ...    | ...           |
| 23       | 4.920      | 3.89             | DS50ATL23H  | 101459   | 2012     | 2-1/8     | 1.64   | 3.7           |
| 24       | 5.120      | 4.08             | DS50ATL24H  | 101460   | 2012     | 2-1/8     | 1.64   | 4.1           |

| No. 60   |            | C=1.48<br>W=.459 | TAPER-LOCK* |          |          |           |        |               |
|----------|------------|------------------|-------------|----------|----------|-----------|--------|---------------|
| No Teeth | Spkt. O.D. | E Dim.           | Spkt. No.   | Part No. | Bushing: |           | L Dim. | Wt. w/o Bush. |
|          |            |                  |             |          | No.      | Max. Bore |        |               |
| 17       | 4.460      | 3.22             | DS60ATL17H  | 101461   | 1615     | 1-11/16   | 1.94   | 4.5           |
| 18       | 4.700      | 3.47             | DS60ATL18H  | 101462   | 2012     | 2-1/8     | 1.94   | 5.0           |
| 19       | 4.950      | 3.70             | DS60ATL19H  | 101463   | 2012     | 2-1/8     | 1.94   | 5.8           |
| 20       | 5.190      | 3.95             | DS60ATL20H  | 101464   | 2517     | 2-11/16   | 1.94   | 5.6           |
| 21       | 5.430      | 4.19             | DS60ATL21H  | 101465   | 2517     | 2-11/16   | 1.94   | 6.4           |
| 22       | 5.910      | 4.67             | DS60ATL23H  | 101466   | 2517     | 2-11/16   | 1.94   | 7.3           |
| 23       | 6.150      | 4.91             | DS60ATL24H  | 101467   | 2517     | 2-11/16   | 1.94   | 8.2           |

| No. 80   |            | C=1.63<br>W=.575 | TAPER-LOCK* |          |          |           |        |               |
|----------|------------|------------------|-------------|----------|----------|-----------|--------|---------------|
| No Teeth | Spkt. O.D. | E Dim.           | Spkt. No.   | Part No. | Bushing: |           | L Dim. | Wt. w/o Bush. |
|          |            |                  |             |          | No.      | Max. Bore |        |               |
| 17       | 5.950      | 4.31             | DS80ATL17H  | 101468   | 2517     | 2-11/16   | 2.19   | 7.6           |
| 18       | 6.270      | 4.75             | DS80ATL18H  | 101469   | 2517     | 2-11/16   | 2.19   | 8.7           |
| 19       | 6.590      | 4.95             | DS80ATL19H  | 101470   | 3020     | 3-1/4     | 2.19   | 9.7           |
| 20       | 6.910      | 5.28             | DS80ATL20H  | 101471   | 3020     | 3-1/4     | 2.19   | 10            |
| 21       | 7.240      | 5.59             | DS80ATL21H  | 101472   | 3020     | 3-1/4     | 2.19   | 12            |
| 22       | 7.560      | ...              | ....        | ....     | ...      | ...       | ...    | ...           |
| 23       | 7.880      | 6.23             | DS80ATL23H  | 101473   | 3020     | 3-1/4     | 2.19   | 14.5          |

| No. 100  |            | C=2<br>W=.692 | TAPER-LOCK* |          |          |           |        |               |
|----------|------------|---------------|-------------|----------|----------|-----------|--------|---------------|
| No Teeth | Spkt. O.D. | E Dim.        | Spkt. No.   | Part No. | Bushing: |           | L Dim. | Wt. w/o Bush. |
|          |            |               |             |          | No.      | Max. Bore |        |               |
| 16       | 7.030      | 5.00          | DS100ATL16H | 101474   | 2517     | 2-11/16   | 2.69   | 13            |
| 17       | 7.440      | 5.41          | DS100ATL17H | 101475   | 3020     | 3-1/4     | 2.69   | 14            |
| 18       | 7.840      | 5.80          | DS100ATL18H | 101476   | 3020     | 3-1/4     | 2.69   | 16            |
| 19       | 8.240      | 6.20          | DS100ATL19H | 101477   | 3020     | 3-1/4     | 2.69   | 20            |
| 20       | 8.640      | 6.61          | ....        | ....     | ...      | ...       | ...    | ...           |
| 21       | 9.040      | 7.00          | DS100ATL21H | 101478   | 3020     | 3-1/4     | 2.69   | 27.5          |

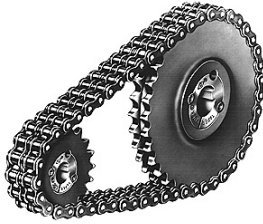
\* TAPER-LOCK double single sprockets have hardened teeth.

|                                  |                            |                                  |                                       |
|----------------------------------|----------------------------|----------------------------------|---------------------------------------|
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## SELECTION

### Roller Chain Drive Selection



#### EASY SELECTION METHOD

**1. Determine Class of Service:** Refer to tabulation below, or select from the following:

**Class A:** Fairly uniform running load. Start-up and peak loads occur infrequently.

**Class B:** Variable running load. Higher starting and peak loads, occurring more frequently.

**Class C:** Heavy starting loads. Peak loads and overloads occurring frequently.

**2. Select Service Factor:**

| Class of Service | Type of Input Power                             |                     |                                                  |
|------------------|-------------------------------------------------|---------------------|--------------------------------------------------|
|                  | Internal Combustion Engine with Hydraulic Drive | Electric or Turbine | Internal Combustion Engine with Mechanical Drive |
| A                | 1.0                                             | 1.0                 | 1.2                                              |
| B                | 1.2                                             | 1.3                 | 1.4                                              |
| C                | 1.4                                             | 1.5                 | 1.7                                              |

**3. Calculate Design Horsepower:** Motor HP x Service Factor, or normal running HP x Service Factor.

**4. Determine Chain Size and Smaller (Usually the Driver) sprocket number of teeth:** Refer to "Recommended Small Sprocket" table on page PT13-18 and PT13-19. Start at column that is at or above the calculated design HP. Trace down to the row that includes the RPM of the faster (Usually the Driver) shaft. The chain pitch and sprocket No. of Teeth are listed at this intersection.

**5. Calculate Drive Ratio:** Faster shaft Rpm divided by Slower shaft RPM.

**6. Determine Size of Large Sprocket:** Multiply smaller sprocket No. of teeth by ratio. Select Closest stock available sprocket.

**7. Calculate Chain Length "L":**

$$L = 2c + 1.57 (D + d) + \frac{(D-d)^2}{4c}$$

Where: D = Pitch dia. large sprocket, (see page PT13-31)

d = Pitch dia. small sprocket, (see page PT13-31)

c = Proposed center distance

(Accuracy is within .15% chain length)

Divide chain length (inches) by chain pitch to determine number of pitches in the chain. Good practice is to use an even number of pitches, including connecting link.

| Class of Service for Driven Machine                                   |       |                                                               |       |
|-----------------------------------------------------------------------|-------|---------------------------------------------------------------|-------|
| Driven Machine                                                        | Class | Driven Machine                                                | Class |
| Agitators, liquid or semi-liquid stock, paddle or propeller . . . . . | A     | Line Shafts:                                                  |       |
| Bakery Machinery . . . . .                                            | B     | Light or normal service . . . . .                             | A     |
| Beaters . . . . .                                                     | B     | Unevenly loaded . . . . .                                     | B     |
| Blowers, Centrifugal . . . . .                                        | A     | Machines, Non-Reversing:                                      |       |
| Boat Paddle Wheels or Propellers . . . . .                            | C     | Even load . . . . .                                           | A     |
| Centrifuges . . . . .                                                 | C     | Pulsating load . . . . .                                      |       |
| Clay Working Machinery:                                               |       | Impact load . . . . .                                         | C     |
| Extruders, Granulators, Mixers, Pug Mills, Rolls . . . . .            | B     | Mills:                                                        |       |
| Briquette Machine, Presses . . . . .                                  | C     | Ball, Pebble, Rod, Tube . . . . .                             | B     |
| Compressors:                                                          |       | Blooming, Hammer, Hardinge, Rolling . . . . .                 | C     |
| Centrifugal, Rotary . . . . .                                         | B     | Paper Machinery:                                              |       |
| Reciprocating . . . . .                                               | C     | Agitators, Calenders, Dryers, Jordan Engines, Paper . . . . . |       |
| Conveyors:                                                            |       | Machines, Pulp Grinders . . . . .                             | B     |
| Uniformly or loaded . . . . .                                         | A     | Beaters, Chippers, Nash Pumps, Washers, Winder . . . . .      |       |
| Irregularly fed or loaded . . . . .                                   | B     | Drums, Yankee Dryers . . . . .                                | C     |
| Reciprocating . . . . .                                               | C     | Presses . . . . .                                             | C     |
| Cookers, Cereal . . . . .                                             | A     | Printing Machinery . . . . .                                  | B     |
| Cranes . . . . .                                                      | B     | Pumps:                                                        |       |
| Crushers . . . . .                                                    | C     | Centrifugal, Gear, Rotary . . . . .                           | A     |
| Elevators:                                                            |       | Dredge . . . . .                                              | C     |
| Uniformly fed or loaded . . . . .                                     | A     | Reciprocating, 1 or 2 cylinder . . . . .                      | C     |
| Irregularly fed or loaded . . . . .                                   | B     | Reciprocating, 3 or more cylinder . . . . .                   | B     |
| Fans:                                                                 |       | Rubber Plant Machinery:                                       |       |
| Centrifugal . . . . .                                                 | A     | Banbury Mills, Calenders, Mixers . . . . .                    | C     |
| Mine, Positive Blowers, Propeller . . . . .                           | C     | Screens:                                                      |       |
| Feeders, Reciprocating . . . . .                                      | C     | Air Washing, Water . . . . .                                  | A     |
| Flour, Feed or Cereal Mill Machinery . . . . .                        | B     | Rotary (Stone or Gravel), Vibrating . . . . .                 | B     |
| Generators . . . . .                                                  | A     | Textile Machinery:                                            |       |
| Hogs for Refuse . . . . .                                             | C     | Batcher, Calender, Dry Can, Dyeing Machinery . . . . .        |       |
| Kettles, Brew . . . . .                                               | A     | Loom, Mangel, Napper, Soaper, Spinner, Tenter . . . . .       |       |
| Kilns and Dryers, rotary . . . . .                                    | B     | Frame . . . . .                                               | B     |
| Laundry Machinery . . . . .                                           | B     | Card Machine . . . . .                                        | C     |
|                                                                       |       | Woodworking Machinery . . . . .                               | B     |



## SELECTION EXAMPLE

A chain drive is required for a tumbling barrel for metal stampings. The barrel is to run at 24 RPM from a speed reducer output of 77 RPM. Center distance is 50". Input power is from a 5 HP electric motor. Starting loads are heavy, peak loads and overloads are frequent.

**1. Service Factor:** Class of service is not listed in table, so refer to Class Description. Class C is appropriate. Service Factor Table shows 1.5 Class C driven by an electric motor.

**2. Design HP:** Motor HP x S.F.  $5 \times 1.5 = 7.5$  Design HP.

**3. Chain and Small Sprocket Size:** Refer to the 7-1/2 HP column of the Easy Selection Table. Trace down to the row that includes 77 RPM, "71-80 RPM". No. 100 chain and sprocket with 15 teeth is shown: select 100BTL15.

**4. Drive Ratio:**  $77/24 = 3.21:1$ .

**5. Large Sprocket:**  $15 \times 3.21 = 48.15$ . Select a 48 tooth driven sprocket, 100BTL48, which is a stock size.

**6. Chain Length:**

$$L = 2(50) + 1.57(19.113 + 6.013) + \frac{(19.113 - 6.012)^2}{4 \times 50}$$

$L = 140.31$ " (No.100 Chain has 1-1/4 or 1.25" Pitch)

Length in pitches =  $140.31/1.25 = 112.48$  pitches.

Choose 112 or 114 Pitches of chain, including Conn Link.

7. Verify that sprockets will fit shaft sizes.

## DESIGN NOTES

**Small Sprocket Size:** The higher RPM and the fewer the number of teeth on the small sprocket, the greater the wear.

This leads to some general guidelines:

- Use at least 17 teeth sprocket for 100+ RPM.
- Avoid high ratios that require very small sprockets

**Lubrication:** Chain drives must be lubricated and kept clean. The most effective method to accomplish this is to use an oil-tight chain guard with an oil sump. Manual lubrication is effective on slower speed drives, but exposure to dirt and contamination will be a problem for the drive.

**Design Refinement:** The "Easy Selection Method" is a good starting point for further design refinement, if desired. Refer to the Chain HP Rating Tables on the following pages for more precise ratings. Also refer to "Slow Speed Drives" which follows this section.

## SLOW SPEED DRIVES

Where linear speed of the chain is under 100 fpm and loading is uniform, roller chain drives may be selected on the basis of chain pull rather than horsepower rating. This often results in significant savings.

When chain length is more than 50 pitches, the maximum applied load may be as great as 1/7 of the ultimate tensile strength of the chain for speeds below 50 fpm to 100 fpm.

Unusual load variations of peak loads require other methods of determining the maximum applied load.

Chain pull may be calculated by the following formula:

$$\text{Chain Pull (lbs.)} = \frac{\text{Design HP} \times 126,000}{\text{rpm} \times \text{Pitch diam.}}$$

Table below offers a simplified method of determining allowable chain pull for slow speed drives. The table also shows revolutions per minute for a given pitch diameter at 50 and 100 feet per minute. Average tensile strength for all popular roller chains is given on page PT13-32.

## Information for Slow Speed Drives

| Allowable Chain Pull for STD. Chain |                  |              | RPM for a Given Pitch Diam. at Various Speeds |              |               |
|-------------------------------------|------------------|--------------|-----------------------------------------------|--------------|---------------|
| Chain No.                           | Max. Chain Pull  |              | P.D. in inches                                | @ 50 fpm RPM | @ 100 fpm RPM |
|                                     | @ 50 fpm or less | @ 50-100 fpm |                                               |              |               |
| 40                                  | 528              | 462          | 2                                             | 95.0         | 191.0         |
| 50                                  | 871              | 762          | 3                                             | 63.6         | 127.2         |
| 60                                  | 1214             | 1062         | 4                                             | 47.7         | 95.5          |
| 80                                  | 2071             | 1812         | 5                                             | 38.2         | 76.4          |
| 100                                 | 3428             | 3000         | 6                                             | 31.8         | 63.7          |
| 120                                 | 4857             | 4250         | 7                                             | 27.3         | 54.6          |
| 140                                 | 6571             | 5750         | 8                                             | 23.9         | 47.8          |
| 160                                 | 8285             | 7250         | 9                                             | 21.2         | 42.4          |
| 180                                 | 11,428           | 10,000       | 10                                            | 19.1         | 38.2          |
| 200                                 | 13,571           | 11,875       | 11                                            | 17.3         | 34.7          |
| 240                                 | 18,571           | 16,250       | 12                                            | 15.9         | 31.8          |

Note: Smaller sprockets can be used on slow speed drives as the effects of chordal action are not pronounced. However, small sprockets of fewer than 9 teeth should be avoided.

## MULTIPLE STRAND CHAIN DRIVES

Single Strand drives offer cost and availability advantages, and are more easily assembled. Multiple strand drives can be used to solve design problems of greater HP capacity or space constraints. For multiple strand drives, divide the calculated Design HP by the factors below, and select from the ratings for single strand drives:

| Multiple Strand Factors |     |
|-------------------------|-----|
| Single:                 | 1.0 |
| Double                  | 1.9 |
| Triple:                 | 2.8 |



# SELECTION

## Easy Selection Table

### RECOMMENDED SMALL SPROCKET

| RPM of small Sprocket | Chain Size and No. of Teeth for Design HP |       |        |        |        |        |        |        |        |        |        |        |
|-----------------------|-------------------------------------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                       | 1/4                                       | 1/3   | 1/2    | 3/4    | 1      | 1 -1/2 | 2      | 3      | 4      | 5      | 6      | 7 -1/2 |
| 951-1000              | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 35 17  | 35 17  | 35 23  | 40 17  | 40 17  | 40 20  | 40 24  |
| 901-950               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 35 17  | 35 17  | 35 24  | 40 17  | 40 18  | 40 21  | 40 25  |
| 851-900               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 35 17  | 35 17  | 35 24  | 40 17  | 40 18  | 40 22  | 50 17  |
| 801-850               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 35 17  | 35 18  | 40 17  | 40 17  | 40 19  | 40 23  | 50 17  |
| 751-800               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 35 17  | 35 19  | 40 17  | 40 17  | 40 20  | 40 24  | 50 17  |
| 701-750               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 35 17  | 35 20  | 40 17  | 40 18  | 40 22  | 40 25  | 50 17  |
| 651-700               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 35 17  | 35 22  | 40 17  | 40 19  | 40 23  | 50 17  | 50 18  |
| 601-650               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 35 18  | 35 23  | 40 17  | 40 20  | 40 24  | 50 17  | 50 19  |
| 551-600               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 35 19  | 40 17  | 40 17  | 40 21  | 50 17  | 50 17  | 50 21  |
| 501-550               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 35 21  | 40 17  | 40 17  | 40 23  | 50 17  | 50 18  | 50 22  |
| 471-500               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 35 22  | 40 17  | 40 17  | 40 24  | 50 17  | 50 19  | 50 24  |
| 441-470               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 35 23  | 40 17  | 40 17  | 50 17  | 50 17  | 50 20  | 50 25  |
| 411-440               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 40 17  | 40 17  | 40 21  | 50 17  | 50 18  | 50 22  | 60 17  |
| 381-410               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 40 17  | 40 17  | 40 22  | 50 17  | 50 19  | 50 23  | 60 17  |
| 351-380               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 40 17  | 40 17  | 40 24  | 50 17  | 50 21  | 50 24  | 60 18  |
| 321-350               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 40 17  | 40 18  | 50 17  | 50 18  | 50 22  | 60 17  | 60 20  |
| 301-320               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 40 17  | 40 19  | 50 17  | 50 19  | 50 23  | 60 17  | 60 21  |
| 281-300               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 40 17  | 40 19  | 50 17  | 50 20  | 50 25  | 60 18  | 60 22  |
| 261-280               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 40 17  | 40 19  | 50 17  | 50 22  | 60 17  | 60 19  | 60 23  |
| 241-260               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 40 17  | 40 19  | 50 18  | 50 23  | 60 17  | 60 20  | 80 17  |
| 221-240               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 40 19  | 40 24  | 50 19  | 50 25  | 60 19  | 60 22  | 80 17  |
| 201-220               | 35 17                                     | 35 17 | 35 17  | 35 17  | 35 17  | 40 20  | 50 17  | 50 21  | 60 17  | 60 20  | 60 24  | 80 17  |
| 181-200               | 35 17                                     | 35 17 | 35 18  | 35 17  | 35 17  | 40 22  | 50 17  | 50 23  | 60 18  | 60 22  | 60 26  | 80 17  |
| 161-180               | 35 17                                     | 35 17 | 35 20  | 40 18  | 35 17  | 40 24  | 50 17  | 50 25  | 60 20  | 60 24  | 80 17  | 80 17  |
| 151-160               | 35 17                                     | 35 17 | 35 21  | 40 18  | 35 17  | 50 17  | 50 18  | 60 17  | 60 21  | 60 25  | 80 17  | 80 17  |
| 141-150               | 35 15                                     | 35 15 | 35 22  | 40 18  | 40 15  | 50 17  | 50 19  | 60 17  | 60 22  | 80 17  | 80 17  | 80 18  |
| 131-140               | 35 15                                     | 35 15 | 35 23  | 40 18  | 40 15  | 50 17  | 50 20  | 60 18  | 60 23  | 80 17  | 80 17  | 80 19  |
| 121-130               | 35 15                                     | 35 15 | 40 13  | 40 18  | 40 15  | 50 17  | 50 22  | 60 19  | 60 25  | 80 17  | 80 17  | 80 20  |
| 111-120               | 35 15                                     | 35 15 | 40 13  | 40 18  | 40 15  | 50 18  | 50 22  | 60 20  | 80 15  | 80 17  | 80 18  | 80 22  |
| 101-110               | 35 15                                     | 35 15 | 40 15  | 40 18  | 50 15  | 50 19  | 60 15  | 80 15  | 80 15  | 80 16  | 80 19  | 100 15 |
| 91-100                | 35 15                                     | 35 15 | 40 15  | 40 15  | 40 17  | 50 15  | 50 18  | 60 17  | 80 15  | 80 18  | 100 15 | 100 15 |
| 81-90                 | 35 15                                     | 35 15 | 40 15  | 40 15  | 50 15  | 50 15  | 50 18  | 60 18  | 80 15  | 80 15  | 80 16  | 100 15 |
| 71-80                 | 35 15                                     | 35 17 | 40 15  | 40 16  | 50 15  | 50 18  | 60 14  | 80 15  | 80 15  | 80 16  | 100 15 | 100 15 |
| 61-70                 | 35 15                                     | 35 19 | 40 15  | 40 19  | 50 15  | 60 15  | 60 16  | 80 15  | 80 15  | 80 18  | 100 15 | 100 15 |
| 51-60                 | 35 17                                     | 40 13 | 40 15  | 50 13  | 50 15  | 60 15  | 60 19  | 80 15  | 80 17  | 100 15 | 100 15 | 100 16 |
| 46-50                 | 40 13                                     | 40 13 | 40 16  | 50 13  | 50 16  | 60 14  | 80 13  | 80 13  | 100 13 | 100 13 | 100 14 | 100 17 |
| 41-45                 | 40 13                                     | 40 13 | 40 18  | 50 16  | 60 13  | 60 16  | 80 13  | 80 14  | 100 13 | 100 13 | 100 16 | 120 13 |
| 35-40                 | 40 13                                     | 40 14 | 50 13  | 50 16  | 60 13  | 60 19  | 80 13  | 80 17  | 100 13 | 100 14 | 100 18 | 120 14 |
| 30-35                 | 40 13                                     | 40 16 | 50 13  | 50 18  | 60 15  | 80 13  | 80 13  | 80 19  | 100 13 | 100 16 | 120 13 | 120 14 |
| 23-29                 | 40 14                                     | 50 13 | 50 16  | 60 14  | 60 19  | 80 13  | 80 17  | 100 13 | 100 16 | 120 14 | 120 15 | 120 18 |
| 17-22                 | 50 13                                     | 50 14 | 60 13  | 60 19  | 80 13  | 80 17  | 100 13 | 100 17 | 120 13 | 120 16 | 140 13 | 140 16 |
| 12-16                 | 50 15                                     | 60 13 | 60 18  | 80 13  | 80 16  | 100 13 | 100 16 | 120 14 | 120 18 | 140 15 | 140 17 | 160 15 |
| 8-11                  | 60 14                                     | 60 18 | 80 13  | 80 18  | 100 13 | 100 17 | 120 14 | 140 13 | 140 17 | 160 15 | 160 18 | 180 18 |
| 5-7                   | 80 13                                     | 80 13 | 100 13 | 100 13 | 100 18 | 120 17 | 140 14 | 180 15 | 180 14 | 200 13 | 200 15 | 240 13 |

#### Notes:

1. Apply Service Factor to obtain Design Horsepower. Select small sprocket based upon Design Horsepower and RPM on this chart.
2. Sprocket selections are recommended minimum. Larger sizes may be selected if required to obtain desired ratio, etc.
3. To use this chart for double or triple strand chain, divide the design horsepower by the following factors:  
Double strand: 1.9, Triple strand: 2.9

|                                  |                               |                                  |                                       |
|----------------------------------|-------------------------------|----------------------------------|---------------------------------------|
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|----------------------------------|-------------------------------|----------------------------------|---------------------------------------|



## Easy Selection Table

### RECOMMENDED SMALL SPROCKET

| RPM<br>of small<br>Sprocket | Chain Size and No. of Teeth for Design HP |        |        |        |        |        |        |        |        |        |        |        |        |        |
|-----------------------------|-------------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                             | 9                                         | 10     | 12     | 15     | 20     | 25     | 30     | 40     | 50     | 60     | 70     | 80     | 90     | 100    |
| 951-1000                    | 50 17                                     | 50 17  | 50 20  | 60 17  | 60 20  | 60 24  | 80 17  | 80 18  |        |        |        |        |        |        |
| 901-950                     | 50 17                                     | 50 18  | 50 21  | 60 17  | 60 21  | 80 17  | 80 17  | 80 18  |        |        |        |        |        |        |
| 851-900                     | 50 17                                     | 50 19  | 50 22  | 60 17  | 60 22  | 80 17  | 80 17  | 80 19  |        |        |        |        |        |        |
| 801-850                     | 50 18                                     | 50 20  | 50 23  | 60 17  | 60 23  | 80 17  | 80 17  | 80 20  |        |        |        |        |        |        |
| 751-800                     | 50 19                                     | 50 21  | 60 16  | 60 18  | 60 24  | 80 17  | 80 17  | 80 21  |        |        |        |        |        |        |
| 701-750                     | 50 20                                     | 50 22  | 60 17  | 60 19  | 60 25  | 80 17  | 80 17  | 80 22  | 100 17 |        |        |        |        |        |
| 651-700                     | 50 21                                     | 50 24  | 60 17  | 60 21  | 80 17  | 80 17  | 80 18  | 80 23  | 100 17 |        |        |        |        |        |
| 601-650                     | 50 23                                     | 60 16  | 60 18  | 60 22  | 80 17  | 80 17  | 80 19  | 100 17 | 100 17 |        |        |        |        |        |
| 551-600                     | 50 24                                     | 60 17  | 60 19  | 60 24  | 80 17  | 80 18  | 80 21  | 100 17 | 100 18 |        |        |        |        |        |
| 501-550                     | 60 17                                     | 60 18  | 60 21  | 80 17  | 80 17  | 80 19  | 80 22  | 100 17 | 100 20 |        |        |        |        |        |
| 471-500                     | 60 17                                     | 60 19  | 60 22  | 80 17  | 80 17  | 80 20  | 80 23  | 100 17 | 100 21 | 100 24 | 120 17 |        |        |        |
| 441-470                     | 60 18                                     | 60 20  | 60 23  | 80 17  | 80 17  | 80 21  | 100 17 | 100 18 | 100 22 | 120 17 | 120 18 |        |        |        |
| 411-440                     | 60 19                                     | 60 21  | 80 16  | 80 17  | 80 18  | 80 22  | 100 17 | 100 19 | 120 17 | 120 17 | 120 21 |        |        |        |
| 381-410                     | 60 20                                     | 60 22  | 80 17  | 80 17  | 80 19  | 80 24  | 100 17 | 100 20 | 120 17 | 120 18 | 120 21 |        |        |        |
| 351-380                     | 60 22                                     | 60 24  | 80 17  | 80 17  | 80 21  | 100 17 | 100 17 | 100 21 | 120 18 | 120 19 | 140 17 |        |        |        |
| 321-350                     | 60 23                                     | 80 17  | 80 17  | 80 17  | 80 22  | 100 17 | 100 18 | 100 24 | 120 19 | 120 21 | 140 17 | 140 18 | 140 21 |        |
| 301-320                     | 80 17                                     | 80 17  | 80 17  | 80 18  | 80 23  | 100 17 | 100 19 | 100 24 | 120 21 | 140 17 | 140 17 | 140 19 | 140 21 |        |
| 281-300                     | 80 17                                     | 80 17  | 80 17  | 80 19  | 100 17 | 100 17 | 100 20 | 120 17 | 120 21 | 140 17 | 140 18 | 140 21 | 160 17 |        |
| 261-280                     | 80 17                                     | 80 17  | 80 17  | 80 20  | 100 17 | 100 18 | 100 21 | 120 17 | 120 21 | 140 17 | 140 19 | 160 17 | 160 17 |        |
| 241-260                     | 80 17                                     | 80 17  | 80 18  | 80 22  | 100 17 | 100 19 | 100 22 | 120 18 | 140 17 | 140 17 | 140 21 | 160 18 | 160 18 | 160 20 |
| 221-240                     | 80 17                                     | 80 17  | 80 19  | 80 23  | 100 17 | 100 20 | 100 24 | 120 21 | 140 17 | 140 19 | 160 17 | 160 18 | 160 20 | 160 22 |
| 201-220                     | 80 17                                     | 80 17  | 80 20  | 100 17 | 100 18 | 100 22 | 120 17 | 120 21 | 140 17 | 160 17 | 160 17 | 160 19 | 180 17 | 160 23 |
| 181-200                     | 80 17                                     | 80 19  | 80 22  | 100 17 | 100 20 | 100 24 | 120 18 | 140 17 | 140 19 | 160 18 | 160 18 | 160 20 | 180 18 | 180 18 |
| 161-180                     | 80 19                                     | 80 21  | 80 25  | 100 17 | 100 22 | 120 17 | 120 21 | 140 17 | 140 21 | 160 19 | 160 21 | 180 17 | 180 19 | 180 21 |
| 151-160                     | 80 20                                     | 80 22  | 100 17 | 100 18 | 100 24 | 120 17 | 120 21 | 140 18 | 160 19 | 160 19 | 160 21 | 180 18 | 180 20 | 200 17 |
| 141-150                     | 80 21                                     | 100 15 | 100 17 | 100 19 | 100 24 | 120 18 | 140 16 | 140 19 | 160 19 | 160 21 | 180 17 | 180 19 | 200 16 | 200 17 |
| 131-140                     | 80 22                                     | 100 15 | 100 17 | 100 20 | 120 17 | 120 21 | 140 17 | 140 21 | 160 19 | 160 21 | 180 18 | 180 19 | 200 18 | 200 19 |
| 121-130                     | 80 24                                     | 100 16 | 100 17 | 100 21 | 120 18 | 120 21 | 140 17 | 140 21 | 160 19 | 180 17 | 180 19 | 200 17 | 200 19 | 200 21 |
| 111-120                     | 100 15                                    | 100 17 | 100 18 | 100 24 | 120 19 | 120 21 | 140 18 | 160 17 | 160 21 | 180 18 | 180 21 | 200 18 | 200 20 | 200 23 |
| 101-110                     | 100 15                                    | 100 17 | 120 15 | 120 15 | 140 15 | 140 16 | 140 19 | 160 17 | 180 16 | 180 19 | 200 17 | 200 19 | 200 21 | 240 18 |
| 91-100                      | 100 17                                    | 100 20 | 120 15 | 120 18 | 140 16 | 140 19 | 160 16 | 160 19 | 180 19 | 200 16 | 200 18 | 200 21 | 240 15 | 240 18 |
| 81-90                       | 100 18                                    | 100 15 | 120 16 | 120 18 | 140 17 | 140 19 | 160 17 | 160 21 | 200 15 | 200 18 | 200 21 | 200 23 | 240 18 | 240 18 |
| 71-80                       | 100 15                                    | 120 15 | 120 18 | 120 18 | 140 18 | 160 15 | 160 18 | 180 17 | 200 17 | 200 19 | 240 15 | 240 16 | 240 19 | 240 20 |
| 61-70                       | 100 16                                    | 120 18 | 120 19 | 140 15 | 160 15 | 160 19 | 180 15 | 200 15 | 200 19 | 240 15 | 240 17 | 240 19 | 240 21 | 240 23 |
| 51-60                       | 100 19                                    | 120 15 | 120 15 | 140 18 | 160 16 | 180 15 | 180 18 | 200 18 | 240 15 | 240 17 | 240 19 | 240 22 | 240 25 | 240 26 |
| 46-50                       | 120 13                                    | 120 14 | 120 16 | 140 13 | 160 13 | 180 16 | 200 15 | 200 19 | 240 15 | 240 18 | 240 20 | 240 24 | ....   | ....   |
| 41-45                       | 120 14                                    | 120 15 | 120 18 | 140 15 | 160 14 | 180 14 | 200 16 | 200 21 | 240 17 | 240 20 | 240 23 | 240 26 | ....   | ....   |
| 35-40                       | 120 16                                    | 120 18 | 140 14 | 140 17 | 160 16 | 180 13 | 180 15 | 240 15 | 240 19 | 240 23 | 240 26 | ....   | ....   | ....   |
| 30-35                       | 120 19                                    | 140 13 | 140 16 | 160 14 | 160 18 | 180 15 | 180 18 | 240 13 | 240 21 | 240 25 | ....   | ....   | ....   | ....   |
| 23-29                       | 140 14                                    | 140 15 | 160 13 | 160 18 | 180 16 | 200 15 | 200 17 | 240 14 | 240 18 | 240 27 | ....   | ....   | ....   | ....   |
| 17-22                       | 160 13                                    | 160 15 | 180 13 | 180 16 | 200 16 | 240 13 | 240 13 | 240 15 | 240 24 | ....   | ....   | ....   | ....   | ....   |
| 12-16                       | 160 18                                    | 180 13 | 180 16 | 200 15 | 240 13 | 240 15 | 240 21 | 240 27 | ....   | ....   | ....   | ....   | ....   | ....   |
| 8-11                        | 200 13                                    | 200 15 | 200 18 | 240 14 | 240 18 | 240 23 | ....   | ....   | ....   | ....   | ....   | ....   | ....   | ....   |
| 5-7                         | 240 13                                    | 240 15 | 240 17 | 240 22 | 240 29 | ....   | ....   | ....   | ....   | ....   | ....   | ....   | ....   | ....   |

4. Sprocket selections above the bold line are based upon ANSI horsepower ratings. Selections below the bold line are based upon the chain pull formula for slow speed drives.

5. To achieve design life keep chain free of dirt and contaminants, and apply appropriate lubrication.



# SELECTION

## Basic Horsepower Ratings

### 35 3/8" Pitch Single Strand Roller Chain

### HORSEPOWER RATINGS

| No.<br>Teeth | Small Sprocket RPM |      |      |        |      |      |      |      |      |      |      |      |      |        |      |      |      |      |      |      |
|--------------|--------------------|------|------|--------|------|------|------|------|------|------|------|------|------|--------|------|------|------|------|------|------|
|              | 50                 | 75   | 100  | 150    | 200  | 250  | 300  | 400  | 500  | 600  | 700  | 800  | 900  | 1000   | 1200 | 1500 | 1800 | 2100 | 2500 | 3000 |
| 9            | 0.08               | 0.12 | 0.15 | 0.21   | 0.27 | 0.33 | 0.39 | 0.50 | 0.62 | 0.73 | 0.84 | 0.95 | 1.06 | 1.21   | 1.37 | 1.68 | 1.98 | 2.27 | 2.65 | 2.17 |
| 10           | 0.09               | 0.13 | 0.16 | 0.23   | 0.30 | 0.37 | 0.44 | 0.57 | 0.70 | 0.82 | 0.95 | 0.98 | 1.02 | 1.28   | 1.54 | 1.88 | 2.21 | 2.54 | 2.97 | 2.55 |
| 11           | 0.10               | 0.14 | 0.18 | 0.26   | 0.34 | 0.41 | 0.49 | 0.63 | 0.77 | 0.91 | 1.05 | 1.18 | 1.31 | 1.51   | 1.70 | 2.08 | 2.45 | 2.82 | 3.30 | 2.94 |
| 12           | 0.11               | 0.16 | 0.20 | 0.28   | 0.37 | 0.46 | 0.54 | 0.70 | 0.85 | 1.00 | 1.15 | 1.30 | 1.44 | 1.66   | 1.87 | 2.29 | 2.70 | 3.10 | 3.62 | 3.35 |
| 13           | 0.01               | 0.12 | 0.22 | 0.31   | 0.41 | 0.50 | 0.59 | 0.76 | 0.93 | 1.10 | 1.26 | 1.42 | 1.57 | 1.81   | 2.04 | 2.49 | 2.94 | 3.38 | 3.95 | 3.77 |
| 14           | 0.13               | 0.19 | 0.24 | 0.34   | 0.44 | 0.53 | 0.63 | 0.82 | 1.01 | 1.19 | 1.36 | 1.54 | 1.71 | 1.96   | 2.21 | 2.70 | 3.18 | 3.66 | 4.28 | 4.22 |
| 15           | 0.14               | 0.20 | 0.25 | 0.36   | 0.47 | 0.57 | 0.68 | 0.88 | 1.08 | 1.28 | 1.47 | 1.66 | 1.84 | 2.11   | 2.38 | 2.91 | 3.43 | 3.94 | 4.61 | 4.68 |
| 16           | 0.15               | 0.21 | 0.27 | 0.39   | 0.50 | 0.62 | 0.73 | 0.95 | 1.16 | 1.37 | 1.57 | 1.77 | 1.97 | 2.26   | 2.55 | 3.12 | 3.68 | 4.22 | 4.94 | 5.15 |
| 17           | 0.16               | 0.23 | 0.29 | 0.41   | 0.54 | 0.66 | 0.78 | 1.01 | 1.24 | 1.46 | 1.68 | 1.89 | 2.10 | 2.42   | 2.73 | 3.33 | 3.93 | 4.51 | 5.28 | 5.64 |
| 18           | 0.17               | 0.24 | 0.31 | 0.44   | 0.57 | 0.70 | 0.83 | 1.08 | 1.32 | 1.55 | 1.78 | 2.01 | 2.24 | 2.57   | 2.90 | 3.45 | 4.18 | 4.80 | 5.61 | 6.15 |
| 19           | 0.18               | 0.26 | 0.33 | 0.47   | 0.61 | 0.74 | 0.88 | 1.14 | 1.40 | 1.65 | 1.89 | 2.13 | 2.37 | 2.70   | 3.02 | 3.76 | 4.43 | 5.09 | 5.95 | 6.67 |
| 20           | 0.19               | 0.27 | 0.35 | 0.50   | 0.64 | 0.78 | 0.93 | 1.21 | 1.48 | 1.74 | 2.00 | 2.26 | 2.51 | 2.88   | 3.25 | 3.97 | 4.68 | 5.38 | 6.29 | 7.20 |
| 21           | 0.20               | 0.29 | 0.37 | 0.52   | 0.68 | 0.83 | 0.98 | 1.27 | 1.56 | 1.84 | 2.11 | 2.38 | 2.64 | 3.03   | 3.42 | 4.19 | 4.93 | 5.67 | 6.63 | 7.75 |
| 22           | 0.21               | 0.30 | 0.38 | 0.54   | 0.71 | 0.87 | 1.03 | 1.34 | 1.64 | 1.93 | 2.22 | 2.50 | 2.78 | 3.19   | 3.60 | 4.40 | 5.19 | 5.96 | 6.97 | 8.21 |
| 23           | 0.22               | 0.31 | 0.40 | 0.57   | 0.74 | 0.91 | 1.08 | 1.40 | 1.72 | 2.03 | 2.33 | 2.63 | 2.92 | 3.35   | 3.78 | 4.62 | 5.44 | 6.25 | 7.31 | 8.62 |
| 24           | 0.23               | 0.33 | 0.42 | 0.60   | 0.78 | 0.96 | 1.14 | 1.47 | 1.80 | 2.12 | 2.44 | 2.75 | 3.05 | 3.51   | 3.96 | 4.84 | 5.70 | 6.55 | 7.66 | 9.02 |
| 25           | 0.24               | 0.34 | 0.44 | 0.63   | 0.82 | 1.00 | 1.19 | 1.54 | 1.88 | 2.21 | 2.55 | 2.87 | 3.19 | 3.66   | 4.13 | 5.05 | 5.95 | 6.84 | 8.00 | 9.43 |
| 26           | 0.25               | 0.36 | 0.46 | 0.66   | 0.85 | 1.05 | 1.24 | 1.60 | 1.96 | 2.31 | 2.66 | 3.00 | 3.33 | 3.82   | 4.31 | 5.27 | 6.21 | 7.13 | 8.35 | 9.84 |
| 28           | 0.27               | 0.39 | 0.50 | 0.71   | 0.92 | 1.13 | 1.34 | 1.73 | 2.12 | 2.50 | 2.88 | 3.25 | 3.61 | 4.14   | 4.67 | 5.71 | 6.73 | 7.73 | 9.05 | 10.7 |
| 30           | 0.29               | 0.42 | 0.54 | 0.77   | 1.00 | 1.22 | 1.45 | 1.87 | 2.29 | 2.70 | 3.10 | 3.50 | 3.89 | 4.46   | 5.03 | 6.15 | 7.25 | 8.33 | 9.74 | 11.5 |
| 32           | 0.31               | 0.45 | 0.58 | 0.83   | 1.07 | 1.31 | 1.56 | 2.01 | 2.45 | 2.88 | 3.32 | 3.75 | 4.17 | 4.79   | 5.40 | 6.60 | 7.77 | 8.93 | 10.0 | 12.3 |
| 35           | 0.33               | 0.49 | 0.64 | 0.91   | 1.18 | 1.44 | 1.71 | 2.21 | 2.70 | 3.18 | 3.66 | 4.08 | 4.50 | 5.23   | 5.96 | 7.27 | 8.56 | 9.84 | 11.5 | 13.6 |
| 40           | 0.39               | 0.56 | 0.73 | 1.04   | 1.35 | 1.66 | 1.97 | 2.55 | 3.12 | 3.68 | 4.23 | 4.77 | 5.30 | 6.09   | 6.87 | 8.40 | 9.89 | 11.4 | 13.3 | 15.7 |
| 45           | 0.45               | 0.64 | 0.83 | 1.18   | 1.54 | 1.89 | 2.24 | 2.90 | 3.55 | 4.18 | 4.80 | 5.41 | 6.02 | 6.91   | 7.80 | 9.53 | 11.2 | 12.9 | 15.1 | 17.8 |
| TYPE A       |                    |      |      | TYPE B |      |      |      |      |      |      |      |      |      | TYPE C |      |      |      |      |      |      |

### 41 1/2" Pitch Single Strand Roller Chain

### HORSEPOWER RATINGS

| No.<br>Teeth | Small Sprocket RPM |      |      |        |      |      |      |      |      |      |      |      |      |        |      |      |      |      |
|--------------|--------------------|------|------|--------|------|------|------|------|------|------|------|------|------|--------|------|------|------|------|
|              | 10                 | 25   | 50   | 75     | 100  | 150  | 200  | 250  | 300  | 350  | 400  | 450  | 500  | 600    | 700  | 800  | 900  | 1000 |
| 9            | 0.02               | 0.05 | 0.10 | 0.14   | 0.19 | 0.28 | 0.36 | 0.44 | 0.51 | 0.59 | 0.66 | 0.74 | 0.81 | 0.96   | 1.10 | 1.24 | 1.38 | 1.52 |
| 10           | 0.03               | 0.06 | 0.11 | 0.16   | 0.21 | 0.31 | 0.40 | 0.49 | 0.57 | 0.66 | 0.74 | 0.83 | 0.91 | 1.07   | 1.23 | 1.39 | 1.54 | 1.70 |
| 11           | 0.03               | 0.07 | 0.13 | 0.19   | 0.24 | 0.34 | 0.44 | 0.54 | 0.64 | 0.73 | 0.82 | 0.92 | 1.01 | 1.19   | 1.37 | 1.54 | 1.71 | 1.88 |
| 12           | 0.03               | 0.07 | 0.14 | 0.20   | 0.26 | 0.38 | 0.49 | 0.60 | 0.70 | 0.81 | 0.91 | 1.01 | 1.11 | 1.31   | 1.50 | 1.69 | 1.88 | 2.07 |
| 13           | 0.03               | 0.08 | 0.15 | 0.22   | 0.28 | 0.40 | 0.53 | 0.64 | 0.76 | 0.88 | 0.99 | 1.10 | 1.21 | 1.42   | 1.63 | 1.84 | 2.05 | 2.25 |
| 14           | 0.03               | 0.09 | 0.16 | 0.24   | 0.31 | 0.44 | 0.57 | 0.70 | 0.83 | 0.95 | 1.07 | 1.19 | 1.31 | 1.54   | 1.77 | 2.00 | 2.22 | 2.44 |
| 15           | 0.04               | 0.09 | 0.18 | 0.26   | 0.33 | 0.48 | 0.62 | 0.76 | 0.89 | 1.02 | 1.15 | 1.28 | 1.41 | 1.66   | 1.91 | 2.15 | 2.39 | 2.63 |
| 16           | 0.04               | 0.10 | 0.19 | 0.28   | 0.36 | 0.51 | 0.66 | 0.81 | 0.95 | 1.10 | 1.24 | 1.38 | 1.51 | 1.78   | 2.05 | 2.31 | 2.57 | 2.82 |
| 17           | 0.05               | 0.11 | 0.20 | 0.29   | 0.38 | 0.55 | 0.71 | 0.87 | 1.02 | 1.17 | 1.32 | 1.47 | 1.61 | 1.89   | 2.18 | 2.46 | 2.74 | 3.01 |
| 18           | 0.05               | 0.12 | 0.22 | 0.31   | 0.40 | 0.58 | 0.75 | 0.92 | 1.08 | 1.24 | 1.40 | 1.56 | 1.72 | 2.02   | 2.32 | 2.62 | 2.91 | 3.20 |
| 19           | 0.05               | 0.12 | 0.23 | 0.33   | 0.43 | 0.62 | 0.80 | 0.98 | 1.15 | 1.32 | 1.49 | 1.65 | 1.82 | 2.14   | 2.46 | 2.78 | 3.09 | 3.40 |
| 20           | 0.06               | 0.13 | 0.24 | 0.35   | 0.45 | 0.65 | 0.84 | 1.03 | 1.21 | 1.39 | 1.57 | 1.75 | 1.92 | 2.26   | 2.60 | 2.93 | 3.26 | 3.59 |
| 21           | 0.06               | 0.14 | 0.26 | 0.37   | 0.48 | 0.69 | 0.89 | 1.09 | 1.28 | 1.47 | 1.66 | 1.85 | 2.03 | 2.39   | 2.74 | 3.09 | 3.44 | 3.78 |
| 22           | 0.06               | 0.14 | 0.27 | 0.39   | 0.50 | 0.72 | 0.93 | 1.14 | 1.35 | 1.55 | 1.74 | 1.94 | 2.13 | 2.51   | 2.89 | 3.26 | 3.62 | 3.98 |
| 23           | 0.06               | 0.15 | 0.28 | 0.41   | 0.53 | 0.76 | 0.98 | 1.20 | 1.41 | 1.62 | 1.83 | 2.04 | 2.24 | 2.64   | 3.03 | 3.42 | 3.80 | 4.17 |
| 24           | 0.07               | 0.16 | 0.29 | 0.42   | 0.55 | 0.79 | 1.03 | 1.26 | 1.48 | 1.70 | 1.92 | 2.13 | 2.34 | 2.76   | 3.17 | 3.57 | 3.97 | 4.37 |
| 25           | 0.07               | 0.17 | 0.31 | 0.44   | 0.57 | 0.82 | 1.07 | 1.31 | 1.55 | 1.77 | 2.00 | 2.23 | 2.45 | 2.88   | 3.31 | 3.73 | 4.15 | 4.57 |
| 26           | 0.07               | 0.17 | 0.32 | 0.46   | 0.60 | 0.86 | 1.12 | 1.37 | 1.61 | 1.85 | 2.09 | 2.32 | 2.55 | 3.01   | 3.46 | 3.90 | 4.33 | 4.76 |
| 28           | 0.08               | 0.19 | 0.35 | 0.50   | 0.65 | 0.93 | 1.21 | 1.48 | 1.75 | 2.01 | 2.26 | 2.52 | 2.77 | 3.26   | 3.74 | 4.22 | 4.69 | 5.16 |
| 30           | 0.08               | 0.20 | 0.38 | 0.54   | 0.70 | 1.00 | 1.31 | 1.60 | 1.88 | 2.16 | 2.44 | 2.71 | 2.98 | 3.51   | 4.03 | 4.55 | 5.06 | 5.56 |
| 32           | 0.09               | 0.22 | 0.40 | 0.58   | 0.75 | 1.08 | 1.40 | 1.71 | 2.02 | 2.32 | 2.61 | 2.91 | 3.20 | 3.77   | 4.33 | 4.88 | 5.42 | 5.96 |
| 35           | 0.10               | 0.24 | 0.44 | 0.64   | 0.83 | 1.19 | 1.54 | 1.88 | 2.22 | 2.55 | 2.88 | 3.20 | 3.52 | 4.14   | 4.76 | 5.37 | 5.97 | 6.57 |
| 40           | 0.12               | 0.27 | 0.51 | 0.74   | 0.96 | 1.37 | 1.78 | 2.18 | 2.57 | 2.95 | 3.33 | 3.70 | 4.07 | 4.79   | 5.50 | 6.20 | 6.90 | 7.59 |
| 45           | 0.14               | 0.31 | 0.58 | 0.83   | 1.08 | 1.55 | 2.02 | 2.47 | 2.92 | 3.35 | 3.78 | 4.20 | 4.62 | 5.44   | 6.25 | 7.05 | 7.84 | 8.62 |
| TYPE A       |                    |      |      | TYPE B |      |      |      |      |      |      |      |      |      | TYPE C |      |      |      |      |

#### Lubrication Note

TYPE A: Manual or Drip  
TYPE B: Bath or Disc  
TYPE C: Oil Stream

#### Multiple Strand Chain HP Factors:

|               |     |
|---------------|-----|
| Single Strand | 1.0 |
| Double Strand | 1.9 |
| Triple Strand | 2.8 |

|                                  |                               |                                  |                                       |
|----------------------------------|-------------------------------|----------------------------------|---------------------------------------|
| FEATURES/BENEFITS<br>PAGE PT14-2 | SPECIFICATIONS<br>PAGE PT14-3 | RELATED PRODUCTS<br>PAGE PT14-28 | ENGINEERING/TECHNICAL<br>PAGE PT14-30 |
|----------------------------------|-------------------------------|----------------------------------|---------------------------------------|



## Basic Horsepower Ratings

40

1/2" Pitch Single Strand Roller Chain

## HORSEPOWER RATINGS

| No.<br>Teeth | Small Sprocket RPM |      |      |      |      |      |        |      |      |      |      |      |      |        |      |      |      |      |      |      |      |      |
|--------------|--------------------|------|------|------|------|------|--------|------|------|------|------|------|------|--------|------|------|------|------|------|------|------|------|
|              | 10                 | 25   | 50   | 75   | 100  | 150  | 200    | 250  | 300  | 350  | 400  | 450  | 500  | 600    | 700  | 800  | 900  | 1000 | 1200 | 1400 | 1600 | 1800 |
| 9            | 0.04               | 0.10 | 0.19 | 0.27 | 0.35 | 0.50 | 0.65   | 0.79 | 0.93 | 1.07 | 1.21 | 1.35 | 1.48 | 1.74   | 2.00 | 2.26 | 2.51 | 2.75 | 3.25 | 3.73 | 4.12 | 3.45 |
| 10           | 0.05               | 0.11 | 0.21 | 0.30 | 0.38 | 0.56 | 0.73   | 0.89 | 1.04 | 1.20 | 1.35 | 1.50 | 1.65 | 1.95   | 2.24 | 2.53 | 2.81 | 3.09 | 3.64 | 4.18 | 4.71 | 4.04 |
| 11           | 0.05               | 0.12 | 0.23 | 0.33 | 0.43 | 0.62 | 0.80   | 0.98 | 1.16 | 1.33 | 1.50 | 1.67 | 1.83 | 2.16   | 2.48 | 2.80 | 3.11 | 3.42 | 4.03 | 4.63 | 5.22 | 4.66 |
| 12           | 0.06               | 0.14 | 0.25 | 0.36 | 0.47 | 0.68 | 0.88   | 1.08 | 1.27 | 1.46 | 1.65 | 1.83 | 2.01 | 2.37   | 2.73 | 3.08 | 3.42 | 3.76 | 4.43 | 5.09 | 5.74 | 5.31 |
| 13           | 0.06               | 0.15 | 0.28 | 0.40 | 0.52 | 0.74 | 0.96   | 1.17 | 1.39 | 1.60 | 1.80 | 2.00 | 2.20 | 2.59   | 2.97 | 3.35 | 3.73 | 4.10 | 4.83 | 5.55 | 6.26 | 5.99 |
| 14           | 0.07               | 0.16 | 0.30 | 0.43 | 0.56 | 0.80 | 1.04   | 1.27 | 1.50 | 1.73 | 1.95 | 2.16 | 2.38 | 2.80   | 3.22 | 3.63 | 4.04 | 4.44 | 5.23 | 6.01 | 6.78 | 6.70 |
| 15           | 0.07               | 0.17 | 0.32 | 0.46 | 0.60 | 0.86 | 1.12   | 1.37 | 1.62 | 1.86 | 2.10 | 2.33 | 2.56 | 3.02   | 3.47 | 3.91 | 4.35 | 4.78 | 5.64 | 6.47 | 7.30 | 7.43 |
| 16           | 0.08               | 0.19 | 0.35 | 0.50 | 0.65 | 0.93 | 1.20   | 1.47 | 1.74 | 2.00 | 2.25 | 2.50 | 2.75 | 3.24   | 3.72 | 4.19 | 4.66 | 5.13 | 6.04 | 6.94 | 7.83 | 8.18 |
| 17           | 0.09               | 0.20 | 0.37 | 0.53 | 0.69 | 0.99 | 1.29   | 1.57 | 1.85 | 2.13 | 2.40 | 2.67 | 2.93 | 3.45   | 3.97 | 4.48 | 4.98 | 5.48 | 6.45 | 7.41 | 8.36 | 8.96 |
| 18           | 0.09               | 0.21 | 0.39 | 0.56 | 0.73 | 1.05 | 1.37   | 1.66 | 1.95 | 2.25 | 2.55 | 2.84 | 3.12 | 3.67   | 4.22 | 4.76 | 5.30 | 5.82 | 6.86 | 7.88 | 8.89 | 9.76 |
| 19           | 0.10               | 0.22 | 0.42 | 0.60 | 0.78 | 1.12 | 1.45   | 1.77 | 2.09 | 2.40 | 2.71 | 3.01 | 3.31 | 3.90   | 4.48 | 5.05 | 5.62 | 6.17 | 7.27 | 8.4  | 9.4  | 10.5 |
| 20           | 0.11               | 0.24 | 0.44 | 0.63 | 0.82 | 1.17 | 1.53   | 1.87 | 2.21 | 2.54 | 2.86 | 3.18 | 3.50 | 4.12   | 4.73 | 5.34 | 5.94 | 6.53 | 7.69 | 8.8  | 10.0 | 11.1 |
| 21           | 0.11               | 0.25 | 0.46 | 0.67 | 0.87 | 1.25 | 1.62   | 1.98 | 2.33 | 2.68 | 3.02 | 3.36 | 3.69 | 4.34   | 4.99 | 5.63 | 6.26 | 6.88 | 8.11 | 9.3  | 10.5 | 11.7 |
| 22           | 0.12               | 0.26 | 0.49 | 0.70 | 0.91 | 1.31 | 1.70   | 2.08 | 2.45 | 2.81 | 3.17 | 3.53 | 3.88 | 4.57   | 5.25 | 5.92 | 6.58 | 7.23 | 8.52 | 9.8  | 11.0 | 12.3 |
| 23           | 0.13               | 0.27 | 0.51 | 0.74 | 0.96 | 1.37 | 1.78   | 2.18 | 2.57 | 2.95 | 3.33 | 3.70 | 4.07 | 4.79   | 5.51 | 6.21 | 6.90 | 7.59 | 8.94 | 10.3 | 11.6 | 12.9 |
| 24           | 0.13               | 0.29 | 0.54 | 0.77 | 1.00 | 1.43 | 1.87   | 2.28 | 2.69 | 3.09 | 3.48 | 3.87 | 4.26 | 5.01   | 5.8  | 6.5  | 7.2  | 8.0  | 9.4  | 10.8 | 12.1 | 13.5 |
| 25           | 0.14               | 0.30 | 0.56 | 0.80 | 1.05 | 1.50 | 1.95   | 2.38 | 2.81 | 3.22 | 3.64 | 4.05 | 4.45 | 5.24   | 6.0  | 6.8  | 7.6  | 8.3  | 9.8  | 11.2 | 12.7 | 14.1 |
| 26           | 0.15               | 0.31 | 0.58 | 0.84 | 1.09 | 1.57 | 2.04   | 2.49 | 2.93 | 3.37 | 3.80 | 4.22 | 4.64 | 5.46   | 6.3  | 7.1  | 7.9  | 8.7  | 10.2 | 11.7 | 13.2 | 14.7 |
| 28           | 0.16               | 0.34 | 0.63 | 0.91 | 1.18 | 1.69 | 2.20   | 2.69 | 3.18 | 3.64 | 4.11 | 4.57 | 5.03 | 5.92   | 6.8  | 7.7  | 8.5  | 9.4  | 11.1 | 12.7 | 14.3 | 15.9 |
| 30           | 0.16               | 0.37 | 0.68 | 0.98 | 1.27 | 1.83 | 2.38   | 2.90 | 3.42 | 3.93 | 4.43 | 4.93 | 5.42 | 6.38   | 7.3  | 8.3  | 9.2  | 10.1 | 11.9 | 13.7 | 15.4 | 17.2 |
| 32           | 0.17               | 0.39 | 0.73 | 1.05 | 1.36 | 1.96 | 2.55   | 3.11 | 3.67 | 4.21 | 4.75 | 5.28 | 5.81 | 6.84   | 7.9  | 8.9  | 9.9  | 10.8 | 12.8 | 14.7 | 16.5 | 18.4 |
| 35           | 0.19               | 0.43 | 0.81 | 1.16 | 1.50 | 2.16 | 2.81   | 3.43 | 4.04 | 4.64 | 5.24 | 5.82 | 6.40 | 7.53   | 8.7  | 9.8  | 10.9 | 11.9 | 14.1 | 16.2 | 18.2 | 20.3 |
| 40           | 0.22               | 0.50 | 0.93 | 1.34 | 1.74 | 2.49 | 3.24   | 3.95 | 4.67 | 5.36 | 6.05 | 6.72 | 7.39 | 8.70   | 10.0 | 11.3 | 12.5 | 13.8 | 16.3 | 18.7 | 21.1 | 23.4 |
| 45           | 0.25               | 0.57 | 1.06 | 1.52 | 1.97 | 2.83 | 3.68   | 4.49 | 5.30 | 6.09 | 6.87 | 7.64 | 8.40 | 9.90   | 11.4 | 12.8 | 14.2 | 15.7 | 18.5 | 21.2 | 23.9 | 26.6 |
| TYPE A       |                    |      |      |      |      |      | TYPE B |      |      |      |      |      |      | TYPE C |      |      |      |      |      |      |      |      |

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5/8" Pitch Single Strand Roller Chain

## HORSEPOWER RATINGS

| No.<br>Teeth | Small Sprocket RPM |      |      |      |      |      |        |      |      |      |      |      |      |        |      |      |      |      |      |      |      |      |
|--------------|--------------------|------|------|------|------|------|--------|------|------|------|------|------|------|--------|------|------|------|------|------|------|------|------|
|              | 10                 | 25   | 50   | 75   | 100  | 150  | 200    | 250  | 300  | 350  | 400  | 450  | 500  | 600    | 700  | 800  | 900  | 1000 | 1200 | 1400 | 1600 | 1800 |
| 9            | 0.09               | 0.19 | 0.36 | 0.52 | 0.67 | 0.97 | 1.26   | 1.53 | 1.81 | 2.08 | 2.35 | 2.61 | 2.87 | 3.38   | 3.89 | 4.39 | 4.88 | 5.36 | 6.32 | 6.02 | 4.92 | 4.13 |
| 10           | 0.10               | 0.22 | 0.41 | 0.58 | 0.76 | 1.09 | 1.41   | 1.72 | 2.03 | 2.33 | 2.63 | 2.93 | 3.22 | 3.79   | 4.36 | 4.91 | 5.46 | 6.01 | 7.08 | 7.05 | 5.77 | 4.83 |
| 11           | 0.11               | 0.24 | 0.45 | 0.65 | 0.84 | 1.20 | 1.56   | 1.91 | 2.25 | 2.59 | 2.92 | 3.25 | 3.57 | 4.20   | 4.83 | 5.45 | 6.06 | 6.66 | 7.85 | 8.13 | 6.65 | 5.58 |
| 12           | 0.12               | 0.26 | 0.49 | 0.71 | 0.92 | 1.32 | 1.72   | 2.10 | 2.47 | 2.84 | 3.21 | 3.57 | 3.92 | 4.62   | 5.31 | 5.98 | 6.65 | 7.31 | 8.62 | 9.26 | 7.58 | 6.35 |
| 13           | 0.13               | 0.29 | 0.54 | 0.77 | 1.00 | 1.44 | 1.87   | 2.29 | 2.70 | 3.10 | 3.50 | 3.89 | 4.27 | 5.03   | 5.78 | 6.52 | 7.25 | 8.0  | 9.4  | 10.4 | 8.6  | 7.2  |
| 14           | 0.14               | 0.31 | 0.58 | 0.84 | 1.09 | 1.56 | 2.03   | 2.48 | 2.92 | 3.36 | 3.79 | 4.21 | 4.63 | 5.45   | 6.27 | 7.07 | 7.86 | 8.6  | 10.2 | 11.7 | 9.6  | 8.0  |
| 15           | 0.15               | 0.34 | 0.63 | 0.90 | 1.17 | 1.68 | 2.19   | 2.67 | 3.15 | 3.62 | 4.08 | 4.54 | 4.99 | 5.87   | 6.75 | 7.61 | 8.47 | 9.3  | 11.0 | 12.6 | 10.6 | 8.9  |
| 16           | 0.16               | 0.36 | 0.67 | 0.97 | 1.26 | 1.80 | 2.34   | 2.86 | 3.38 | 3.88 | 4.37 | 4.86 | 5.35 | 6.30   | 7.24 | 8.16 | 9.08 | 10.0 | 11.8 | 13.5 | 11.7 | 9.8  |
| 17           | 0.17               | 0.39 | 0.72 | 1.03 | 1.34 | 1.92 | 2.50   | 3.06 | 3.61 | 4.14 | 4.67 | 5.19 | 5.71 | 6.72   | 7.73 | 8.71 | 9.69 | 10.7 | 12.6 | 14.4 | 12.8 | 10.7 |
| 18           | 0.18               | 0.41 | 0.76 | 1.10 | 1.43 | 2.05 | 2.66   | 3.25 | 3.83 | 4.40 | 4.97 | 5.52 | 6.07 | 7.15   | 8.22 | 9.3  | 10.3 | 11.3 | 13.4 | 15.3 | 13.9 | 11.7 |
| 19           | 0.19               | 0.43 | 0.81 | 1.16 | 1.51 | 2.15 | 2.82   | 3.45 | 4.07 | 4.67 | 5.27 | 5.86 | 6.44 | 7.58   | 8.72 | 9.8  | 10.9 | 12.0 | 14.2 | 16.3 | 15.1 | 12.7 |
| 20           | 0.20               | 0.46 | 0.86 | 1.23 | 1.60 | 2.29 | 2.98   | 3.64 | 4.30 | 4.94 | 5.57 | 6.19 | 6.80 | 8.01   | 9.21 | 10.4 | 11.5 | 12.7 | 15.0 | 17.2 | 16.3 | 13.7 |
| 21           | 0.21               | 0.48 | 0.90 | 1.30 | 1.69 | 2.42 | 3.14   | 3.84 | 4.53 | 5.20 | 5.87 | 6.52 | 7.17 | 8.44   | 9.71 | 11.0 | 12.2 | 13.4 | 15.8 | 18.1 | 17.6 | 14.7 |
| 22           | 0.22               | 0.51 | 0.95 | 1.36 | 1.77 | 2.54 | 3.31   | 4.03 | 4.76 | 5.47 | 6.17 | 6.86 | 7.54 | 8.9    | 10.2 | 11.5 | 12.8 | 14.1 | 16.6 | 19.1 | 18.8 | 15.8 |
| 23           | 0.23               | 0.53 | 1.00 | 1.43 | 1.86 | 2.67 | 3.47   | 4.24 | 5.00 | 5.74 | 6.47 | 7.19 | 7.91 | 9.3    | 10.7 | 12.0 | 13.4 | 14.8 | 17.4 | 20.0 | 20.1 | 16.9 |
| 24           | 0.25               | 0.56 | 1.04 | 1.50 | 1.95 | 2.79 | 3.63   | 4.43 | 5.23 | 6.01 | 6.78 | 7.54 | 8.29 | 9.7    | 11.2 | 12.7 | 14.1 | 15.5 | 18.2 | 20.9 | 21.4 | 18.0 |
| 25           | 0.26               | 0.58 | 1.09 | 1.56 | 2.03 | 2.92 | 3.80   | 4.64 | 5.47 | 6.28 | 7.08 | 7.87 | 8.66 | 10.2   | 11.7 | 13.2 | 14.7 | 16.2 | 19.0 | 21.9 | 22.8 | 19.1 |
| 26           | 0.27               | 0.61 | 1.14 | 1.63 | 2.12 | 3.04 | 3.96   | 4.83 | 5.70 | 6.55 | 7.39 | 8.21 | 9.03 | 10.6   | 12.2 | 13.8 | 15.3 | 16.9 | 19.9 | 22.8 | 24.2 | 20.3 |
| 28           | 0.29               | 0.66 | 1.23 | 1.77 | 2.30 | 3.30 | 4.29   | 5.24 | 6.18 | 7.10 | 8.01 | 8.90 | 9.79 | 11.5   | 13.2 | 14.9 | 16.6 | 18.3 | 21.5 | 24.7 | 27.0 | 22.6 |
| 30           | 0.31               | 0.71 | 1.33 | 1.90 | 2.48 | 3.55 | 4.62   | 5.64 | 6.66 | 7.65 | 8.6  | 9.6  | 10.5 | 12.4   | 14.3 | 16.1 | 17.9 | 19.7 | 23.2 | 26.6 | 30.0 | 25.1 |
| 32           | 0.33               | 0.76 | 1.42 | 2.04 | 2.66 | 3.81 | 4.96   | 6.05 | 7.14 | 8.20 | 9.3  | 10.3 | 11.3 | 13.3   | 15.3 | 17.3 | 19.2 | 21.1 | 24.9 | 28.6 | 32.2 | 27.7 |
| 35           | 0.37               | 0.84 | 1.57 | 2.25 | 2.93 | 4.20 | 5.46   | 6.66 | 7.86 | 9.03 | 10.2 | 11.4 | 12.5 | 14.7   | 16.9 | 19.0 | 21.1 | 23.2 | 27.4 | 31.5 | 35.5 | 31.6 |
| 40           | 0.43               | 0.97 | 1.81 | 2.60 | 3.38 | 4.85 | 6.31   | 7.70 | 9.1  | 10.4 | 11.8 | 13.1 | 14.4 | 17.0   | 19.5 | 22.0 | 24.4 | 26.8 | 31.6 | 36.3 | 41.0 | 38.7 |
| 45           | 0.48               | 1.10 | 2.06 | 2.95 | 3.84 | 5.50 | 7.16   | 8.73 | 10.3 | 11.9 | 13.4 | 14.9 | 16.3 | 19.2   | 22.1 | 24.9 | 27.7 | 30.5 | 35.9 | 41.3 | 46.5 | 46.1 |
| TYPE A       |                    |      |      |      |      |      | TYPE B |      |      |      |      |      |      | TYPE C |      |      |      |      |      |      |      |      |

## Lubrication Note

TYPE A: Manual or Drip  
 TYPE B: Bath or Disc  
 TYPE C: Oil Stream

## Multiple Strand Chain HP Factors:

|               |     |
|---------------|-----|
| Single Strand | 1.0 |
| Double Strand | 1.9 |
| Triple Strand | 2.8 |

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# SELECTION

## Basic Horsepower Ratings

**60 3/4" Pitch Single Strand Roller Chain**

### HORSEPOWER RATINGS

| No.<br>Teeth | Small Sprocket RPM |      |      |        |      |      |      |      |      |      |      |      |      |      |      |        |      |      |      |      |      |      |  |
|--------------|--------------------|------|------|--------|------|------|------|------|------|------|------|------|------|------|------|--------|------|------|------|------|------|------|--|
|              | 10                 | 25   | 50   | 75     | 100  | 125  | 150  | 175  | 200  | 250  | 300  | 350  | 400  | 500  | 600  | 700    | 800  | 900  | 1000 | 1200 | 1400 | 1600 |  |
| 9            | 0.15               | 0.33 | 0.62 | 0.89   | 1.16 | 1.42 | 1.67 | 1.91 | 2.16 | 2.64 | 3.12 | 3.58 | 4.04 | 4.94 | 5.82 | 6.68   | 7.54 | 8.38 | 9.21 | 8.77 | 6.96 | 5.70 |  |
| 10           | 0.16               | 0.37 | 0.70 | 1.00   | 1.30 | 1.59 | 1.87 | 2.15 | 2.43 | 2.96 | 3.49 | 4.01 | 4.53 | 5.53 | 6.52 | 7.49   | 8.44 | 9.39 | 10.3 | 10.3 | 8.15 | 6.67 |  |
| 11           | 0.18               | 0.41 | 0.77 | 1.11   | 1.44 | 1.76 | 2.07 | 2.38 | 2.69 | 3.28 | 3.87 | 4.44 | 5.02 | 6.13 | 7.23 | 8.30   | 9.36 | 10.4 | 11.4 | 11.9 | 9.4  | 7.70 |  |
| 12           | 0.20               | 0.45 | 0.85 | 1.22   | 1.58 | 1.93 | 2.28 | 2.62 | 2.95 | 3.60 | 4.25 | 4.88 | 5.51 | 6.74 | 7.94 | 9.12   | 10.3 | 11.4 | 12.6 | 13.5 | 10.7 | 8.77 |  |
| 13           | 0.22               | 0.50 | 0.92 | 1.33   | 1.73 | 2.11 | 2.49 | 2.86 | 3.22 | 3.93 | 4.64 | 5.33 | 6.01 | 7.34 | 8.65 | 9.94   | 11.2 | 12.5 | 13.7 | 15.2 | 12.1 | 9.89 |  |
| 14           | 0.24               | 0.54 | 1.00 | 1.44   | 1.87 | 2.28 | 2.69 | 3.09 | 3.49 | 4.26 | 5.02 | 5.77 | 6.51 | 7.96 | 9.37 | 10.8   | 12.1 | 13.5 | 14.8 | 17.0 | 13.5 | 11.1 |  |
| 15           | 0.25               | 0.58 | 1.08 | 1.55   | 2.01 | 2.46 | 2.90 | 3.33 | 3.76 | 4.59 | 5.41 | 6.21 | 7.01 | 8.57 | 10.1 | 11.6   | 13.1 | 14.5 | 16.0 | 18.8 | 15.0 | 12.3 |  |
| 16           | 0.27               | 0.62 | 1.16 | 1.66   | 2.16 | 2.64 | 3.11 | 3.57 | 4.03 | 4.92 | 5.80 | 6.66 | 7.52 | 9.19 | 10.8 | 12.4   | 14.0 | 15.6 | 17.1 | 20.2 | 16.5 | 13.5 |  |
| 17           | 0.29               | 0.66 | 1.24 | 1.78   | 2.31 | 2.82 | 3.32 | 3.81 | 4.30 | 5.25 | 6.20 | 7.12 | 8.03 | 9.81 | 11.6 | 13.3   | 15.0 | 16.7 | 18.3 | 21.6 | 18.1 | 14.8 |  |
| 18           | 0.31               | 0.70 | 1.31 | 1.88   | 2.45 | 2.99 | 3.53 | 4.05 | 4.58 | 5.59 | 6.59 | 7.57 | 8.54 | 10.4 | 12.3 | 14.1   | 15.9 | 17.7 | 19.5 | 22.9 | 19.7 | 16.1 |  |
| 19           | 0.33               | 0.75 | 1.39 | 2.00   | 2.60 | 3.17 | 3.74 | 4.30 | 4.85 | 5.92 | 6.99 | 8.02 | 9.05 | 11.1 | 13.0 | 15.0   | 16.9 | 18.8 | 20.6 | 24.3 | 21.4 | 17.5 |  |
| 20           | 0.35               | 0.79 | 1.47 | 2.11   | 2.75 | 3.36 | 3.96 | 4.55 | 5.13 | 6.26 | 7.38 | 8.48 | 9.57 | 11.7 | 13.8 | 15.8   | 17.9 | 19.8 | 21.8 | 25.7 | 23.1 | 18.9 |  |
| 21           | 0.36               | 0.83 | 1.55 | 2.23   | 2.90 | 3.54 | 4.17 | 4.79 | 5.40 | 6.59 | 7.78 | 8.94 | 10.1 | 12.3 | 14.5 | 16.7   | 18.8 | 20.9 | 23.0 | 27.1 | 24.8 | 20.3 |  |
| 22           | 0.38               | 0.87 | 1.63 | 2.34   | 3.05 | 3.72 | 4.39 | 5.04 | 5.68 | 6.94 | 8.19 | 9.40 | 10.6 | 13.0 | 15.3 | 17.5   | 19.8 | 22.0 | 24.2 | 28.5 | 26.6 | 21.8 |  |
| 23           | 0.40               | 0.92 | 1.71 | 2.45   | 3.19 | 3.90 | 4.60 | 5.28 | 5.96 | 7.28 | 8.59 | 9.85 | 11.1 | 13.6 | 16.0 | 18.4   | 20.8 | 23.1 | 25.4 | 29.9 | 28.4 | 23.3 |  |
| 24           | 0.42               | 0.96 | 1.79 | 2.57   | 3.35 | 4.09 | 4.82 | 5.53 | 6.24 | 7.62 | 8.99 | 10.3 | 11.6 | 14.2 | 16.8 | 19.3   | 21.7 | 24.2 | 26.6 | 31.3 | 30.3 | 24.8 |  |
| 25           | 0.44               | 1.00 | 1.87 | 2.68   | 3.50 | 4.27 | 5.04 | 5.78 | 6.52 | 7.96 | 9.40 | 10.8 | 12.2 | 14.9 | 17.5 | 20.1   | 22.7 | 25.3 | 27.8 | 32.7 | 32.2 | 26.4 |  |
| 26           | 0.46               | 1.05 | 1.95 | 2.80   | 3.65 | 4.45 | 5.25 | 6.03 | 6.81 | 8.31 | 9.80 | 11.3 | 12.7 | 15.5 | 18.3 | 21.0   | 23.7 | 26.4 | 29.0 | 34.1 | 34.2 | 28.0 |  |
| 28           | 0.50               | 1.13 | 2.12 | 3.04   | 3.95 | 4.82 | 5.69 | 6.53 | 7.37 | 8.99 | 10.6 | 12.2 | 13.8 | 16.8 | 19.8 | 22.8   | 25.7 | 28.5 | 31.4 | 37.0 | 38.2 | 31.3 |  |
| 30           | 0.54               | 1.22 | 2.28 | 3.27   | 4.26 | 5.20 | 6.13 | 7.04 | 7.94 | 9.67 | 11.4 | 13.1 | 14.8 | 18.1 | 21.4 | 24.5   | 27.7 | 30.8 | 33.8 | 39.8 | 42.4 | 34.7 |  |
| 32           | 0.57               | 1.31 | 2.45 | 3.51   | 4.56 | 5.57 | 6.57 | 7.55 | 8.52 | 10.4 | 12.3 | 14.1 | 15.9 | 19.4 | 22.9 | 26.3   | 29.7 | 33.0 | 36.3 | 42.7 | 46.7 | 38.2 |  |
| 35           | 0.63               | 1.44 | 2.69 | 3.86   | 5.03 | 6.14 | 7.24 | 8.31 | 9.38 | 11.4 | 13.5 | 15.5 | 17.5 | 21.4 | 25.2 | 29.0   | 32.7 | 36.3 | 39.9 | 47.1 | 53.4 | 43.7 |  |
| 40           | 0.73               | 1.67 | 3.11 | 4.46   | 5.81 | 7.09 | 8.37 | 9.59 | 10.8 | 13.2 | 15.6 | 17.9 | 20.2 | 24.7 | 29.1 | 33.5   | 37.7 | 42.0 | 46.1 | 54.4 | 62.5 | 53.4 |  |
| 45           | 0.83               | 1.89 | 3.53 | 5.07   | 6.60 | 8.05 | 9.50 | 10.9 | 12.3 | 15.0 | 17.7 | 20.4 | 23.0 | 28.1 | 33.1 | 38.0   | 42.9 | 47.7 | 52.4 | 61.7 | 70.9 | 63.7 |  |
| TYPE A       |                    |      |      | TYPE B |      |      |      |      |      |      |      |      |      |      |      | TYPE C |      |      |      |      |      |      |  |

**80 1" Pitch Single Strand Roller Chain**

### HORSEPOWER RATINGS

| No.<br>Teeth | Small Sprocket RPM |      |        |      |      |      |      |      |      |      |      |      |        |      |      |      |      |      |      |      |      |      |  |
|--------------|--------------------|------|--------|------|------|------|------|------|------|------|------|------|--------|------|------|------|------|------|------|------|------|------|--|
|              | 10                 | 25   | 50     | 75   | 100  | 125  | 150  | 175  | 200  | 250  | 300  | 350  | 400    | 500  | 600  | 700  | 800  | 900  | 1000 | 1200 | 1400 | 1600 |  |
| 9            | 0.34               | 0.78 | 1.45   | 2.08 | 2.71 | 3.31 | 3.90 | 4.48 | 5.05 | 6.17 | 7.28 | 8.36 | 9.43   | 11.5 | 13.6 | 15.6 | 17.6 | 17.0 | 14.5 | 11.0 | 8.76 | 7.17 |  |
| 10           | 0.38               | 0.87 | 1.63   | 2.33 | 3.03 | 3.70 | 4.37 | 5.02 | 5.66 | 6.91 | 8.16 | 9.38 | 10.6   | 12.9 | 15.2 | 17.5 | 19.7 | 19.9 | 17.0 | 12.9 | 10.3 | 8.40 |  |
| 11           | 0.42               | 0.97 | 1.80   | 2.58 | 3.36 | 4.10 | 4.84 | 5.56 | 6.28 | 7.66 | 9.04 | 10.4 | 11.7   | 14.3 | 16.9 | 19.4 | 21.9 | 23.0 | 19.6 | 14.9 | 11.8 | 9.69 |  |
| 12           | 0.47               | 1.06 | 1.98   | 2.84 | 3.69 | 4.51 | 5.32 | 6.11 | 6.89 | 8.41 | 9.93 | 11.4 | 12.9   | 15.7 | 18.5 | 21.3 | 24.0 | 26.2 | 22.3 | 17.0 | 13.5 | 11.0 |  |
| 13           | 0.51               | 1.16 | 2.16   | 3.10 | 4.03 | 4.91 | 5.80 | 6.66 | 7.52 | 9.16 | 10.8 | 12.4 | 14.0   | 17.1 | 20.2 | 23.2 | 26.2 | 29.1 | 25.2 | 19.2 | 15.2 | 12.5 |  |
| 14           | 0.55               | 1.25 | 2.34   | 3.35 | 4.36 | 5.33 | 6.29 | 7.22 | 8.14 | 9.92 | 11.7 | 13.4 | 15.2   | 18.6 | 21.9 | 25.1 | 28.4 | 31.5 | 28.2 | 21.4 | 17.0 | 13.9 |  |
| 15           | 0.59               | 1.35 | 2.52   | 3.61 | 4.70 | 5.74 | 6.77 | 7.77 | 8.77 | 10.7 | 12.6 | 14.5 | 16.4   | 20.0 | 23.6 | 27.1 | 30.6 | 34.0 | 31.2 | 23.8 | 18.9 | 15.4 |  |
| 16           | 0.63               | 1.45 | 2.70   | 3.87 | 5.04 | 6.15 | 7.26 | 8.34 | 9.41 | 11.5 | 13.5 | 15.6 | 17.6   | 21.5 | 25.3 | 29.0 | 32.8 | 36.4 | 34.4 | 26.2 | 20.8 | 17.0 |  |
| 17           | 0.68               | 1.55 | 2.88   | 4.13 | 5.38 | 6.57 | 7.75 | 8.88 | 10.0 | 12.3 | 14.5 | 16.6 | 18.7   | 22.9 | 27.0 | 31.0 | 35.0 | 38.9 | 37.7 | 28.7 | 22.7 | 18.6 |  |
| 18           | 0.72               | 1.64 | 3.07   | 4.40 | 5.72 | 6.99 | 8.25 | 9.48 | 10.7 | 13.1 | 15.4 | 17.6 | 19.9   | 24.4 | 28.7 | 33.0 | 37.2 | 41.4 | 41.1 | 31.2 | 24.8 | 20.3 |  |
| 19           | 0.76               | 1.74 | 3.25   | 4.66 | 6.07 | 7.41 | 8.74 | 10.0 | 11.3 | 13.8 | 16.3 | 18.7 | 21.1   | 25.8 | 30.4 | 35.0 | 39.4 | 43.8 | 44.5 | 33.9 | 26.9 | 22.0 |  |
| 20           | 0.81               | 1.84 | 3.44   | 4.93 | 6.41 | 7.83 | 9.24 | 10.6 | 12.0 | 14.6 | 17.2 | 19.7 | 22.3   | 27.3 | 32.2 | 37.0 | 41.7 | 46.3 | 48.1 | 36.6 | 29.0 | 23.8 |  |
| 21           | 0.85               | 1.94 | 3.62   | 5.19 | 6.76 | 8.25 | 9.74 | 11.2 | 12.6 | 15.4 | 18.2 | 20.9 | 23.5   | 28.8 | 33.9 | 39.0 | 43.9 | 48.9 | 51.7 | 39.4 | 31.2 | 25.6 |  |
| 22           | 0.90               | 2.04 | 3.81   | 5.46 | 7.11 | 8.66 | 10.2 | 11.8 | 13.3 | 16.2 | 19.1 | 22.0 | 24.8   | 30.3 | 35.7 | 41.0 | 46.2 | 51.4 | 55.5 | 42.2 | 33.5 | 27.4 |  |
| 23           | 0.94               | 2.14 | 4.00   | 5.73 | 7.46 | 9.08 | 10.7 | 12.3 | 13.9 | 17.0 | 20.1 | 23.1 | 26.0   | 31.8 | 37.4 | 43.0 | 48.5 | 53.9 | 59.3 | 45.1 | 35.8 | 29.3 |  |
| 24           | 0.98               | 2.24 | 4.19   | 6.00 | 7.81 | 9.56 | 11.3 | 13.0 | 14.6 | 17.8 | 21.0 | 24.1 | 27.2   | 33.2 | 39.2 | 45.0 | 50.8 | 56.4 | 62.0 | 48.1 | 38.2 | 31.2 |  |
| 25           | 1.03               | 2.34 | 4.37   | 6.27 | 8.16 | 9.98 | 11.8 | 13.5 | 15.2 | 18.6 | 21.9 | 25.2 | 28.4   | 34.7 | 40.9 | 47.0 | 53.0 | 59.0 | 64.8 | 51.1 | 40.6 | 33.2 |  |
| 26           | 1.07               | 2.45 | 4.56   | 6.54 | 8.52 | 10.4 | 12.3 | 14.1 | 15.9 | 19.4 | 22.9 | 26.3 | 29.7   | 36.2 | 42.7 | 49.1 | 55.3 | 61.5 | 67.6 | 54.2 | 43.0 | 35.2 |  |
| 28           | 1.16               | 2.65 | 4.94   | 7.09 | 9.23 | 11.3 | 13.3 | 15.3 | 17.2 | 21.0 | 24.8 | 28.5 | 32.1   | 39.3 | 46.3 | 53.2 | 59.9 | 66.7 | 73.7 | 60.6 | 48.1 | 39.4 |  |
| 30           | 1.25               | 2.85 | 5.33   | 7.64 | 9.94 | 12.1 | 14.3 | 16.4 | 18.5 | 22.6 | 26.7 | 30.7 | 34.6   | 42.3 | 49.9 | 57.3 | 64.6 | 71.8 | 78.9 | 67.2 | 53.3 | 43.6 |  |
| 32           | 1.34               | 3.06 | 5.71   | 8.21 | 10.7 | 13.0 | 15.3 | 17.6 | 19.9 | 24.3 | 28.6 | 32.9 | 37.1   | 45.4 | 53.5 | 61.4 | 69.2 | 77.0 | 84.6 | 74.0 | 58.7 | 48.1 |  |
| 35           | 1.48               | 3.37 | 6.29   | 9.00 | 11.7 | 14.3 | 16.9 | 19.4 | 21.9 | 26.8 | 31.6 | 36.3 | 40.9   | 50.0 | 58.9 | 67.6 | 76.3 | 84.8 | 93.3 | 84.7 | 67.2 | 55.0 |  |
| 40           | 1.71               | 3.89 | 7.27   | 10.4 | 13.6 | 16.5 | 19.5 | 22.4 | 25.3 | 30.9 | 36.4 | 41.8 | 47.2   | 57.7 | 68.0 | 78.1 | 88.1 | 99.0 | 108  | 103  | 82.1 | 67.2 |  |
| 45           | 1.94               | 4.42 | 8.25   | 11.8 | 15.4 | 18.8 | 22.2 | 25.5 | 28.7 | 35.1 | 41.4 | 47.5 | 53.6   | 65.6 | 77.2 | 88.7 | 100  | 111  | 122  | 123  | 98.0 | 80.2 |  |
| TYPE A       |                    |      | TYPE B |      |      |      |      |      |      |      |      |      | TYPE C |      |      |      |      |      |      |      |      |      |  |

#### Lubrication Note

TYPE A: Manual or Drip  
TYPE B: Bath or Disc  
TYPE C: Oil Stream

#### Multiple Strand Chain HP Factors:

|               |     |
|---------------|-----|
| Single Strand | 1.0 |
| Double Strand | 1.9 |
| Triple Strand | 2.8 |

|                                  |                               |                                  |                                       |
|----------------------------------|-------------------------------|----------------------------------|---------------------------------------|
| FEATURES/BENEFITS<br>PAGE PT14-2 | SPECIFICATIONS<br>PAGE PT14-3 | RELATED PRODUCTS<br>PAGE PT14-28 | ENGINEERING/TECHNICAL<br>PAGE PT14-30 |
|----------------------------------|-------------------------------|----------------------------------|---------------------------------------|



## Basic Horsepower Ratings

100

1-1/4" Pitch Single Strand Roller Chain

## HORSEPOWER RATINGS

| No.<br>Teeth | Small Sprocket RPM |      |      |       |        |       |      |       |      |        |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------|--------------------|------|------|-------|--------|-------|------|-------|------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|              | 10                 | 25   | 50   | 75    | 100    | 125   | 150  | 175   | 200  | 250    | 300  | 350  | 400  | 450  | 500  | 600  | 700  | 800  | 900  | 1000 | 1100 | 1200 |      |      |
| 9            | 0.65               | 1.49 | 2.78 | 3.985 | 5.19   | 6.33  | 7.47 | 8.575 | 9.68 | 11.8   | 13.9 | 16.0 | 18.1 | 20.1 | 22.1 | 26.0 | 29.6 | 34.2 | 40.3 | 47.4 | 55.5 | 64.6 | 74.7 | 85.8 |
| 10           | 0.73               | 1.67 | 3.11 | 4.46  | 5.81   | 7.09  | 8.37 | 9.585 | 10.8 | 13.2   | 15.6 | 17.9 | 20.2 | 22.5 | 24.7 | 29.2 | 33.5 | 38.4 | 43.8 | 49.7 | 56.1 | 63.0 | 70.1 | 78.2 |
| 11           | 0.81               | 1.85 | 3.45 | 4.945 | 6.44   | 7.86  | 9.28 | 10.6  | 12.0 | 14.6   | 17.3 | 19.8 | 22.4 | 24.9 | 27.4 | 32.3 | 37.1 | 42.1 | 47.1 | 52.1 | 57.1 | 63.1 | 69.1 | 75.1 |
| 12           | 0.89               | 2.03 | 3.79 | 5.435 | 7.08   | 8.64  | 10.2 | 11.7  | 13.2 | 16.1   | 19.0 | 21.8 | 24.6 | 27.4 | 30.1 | 35.5 | 40.8 | 46.1 | 51.1 | 56.1 | 61.1 | 66.1 | 71.1 | 76.1 |
| 13           | 0.97               | 2.22 | 4.13 | 5.925 | 7.72   | 9.41  | 11.1 | 12.8  | 14.4 | 17.5   | 20.7 | 23.8 | 26.9 | 29.8 | 32.8 | 38.7 | 44.5 | 50.1 | 55.1 | 60.1 | 65.1 | 70.1 | 75.1 | 80.1 |
| 14           | 1.05               | 2.40 | 4.48 | 6.42  | 8.36   | 10.18 | 12.0 | 13.8  | 15.6 | 19.0   | 22.5 | 25.8 | 29.1 | 32.3 | 35.6 | 41.9 | 48.2 | 54.0 | 59.1 | 64.1 | 69.1 | 74.1 | 79.1 | 84.1 |
| 15           | 1.13               | 2.59 | 4.83 | 6.92  | 9.01   | 11.0  | 13.0 | 14.9  | 16.8 | 20.5   | 24.2 | 27.8 | 31.4 | 34.8 | 38.3 | 45.2 | 51.9 | 57.5 | 62.1 | 66.1 | 70.1 | 74.1 | 78.1 | 82.1 |
| 16           | 1.22               | 2.77 | 5.17 | 7.415 | 9.66   | 11.8  | 13.9 | 15.9  | 18.0 | 22.0   | 26.0 | 29.8 | 33.6 | 37.3 | 41.1 | 48.4 | 55.6 | 61.1 | 65.1 | 68.1 | 71.1 | 74.1 | 77.1 | 80.1 |
| 17           | 1.30               | 2.96 | 5.52 | 7.91  | 10.3   | 12.6  | 14.8 | 17.0  | 19.2 | 23.5   | 27.7 | 31.8 | 35.9 | 39.9 | 43.9 | 51.7 | 59.4 | 63.0 | 65.1 | 66.1 | 67.1 | 68.1 | 69.1 | 70.1 |
| 18           | 1.38               | 3.15 | 5.88 | 8.44  | 11.0   | 13.4  | 15.8 | 18.1  | 20.5 | 25.0   | 29.5 | 33.8 | 38.2 | 42.5 | 46.7 | 55.0 | 63.2 | 66.6 | 67.1 | 67.1 | 67.1 | 67.1 | 67.1 | 67.1 |
| 19           | 1.46               | 3.34 | 6.23 | 8.915 | 11.6   | 14.2  | 16.7 | 19.2  | 21.7 | 26.5   | 31.2 | 35.8 | 40.5 | 45.0 | 49.5 | 58.3 | 67.0 | 70.4 | 70.4 | 70.4 | 70.4 | 70.4 | 70.4 | 70.4 |
| 20           | 1.55               | 3.53 | 6.58 | 9.44  | 12.3   | 15.0  | 17.7 | 20.3  | 22.9 | 28.0   | 33.0 | 37.9 | 42.8 | 47.5 | 52.3 | 61.6 | 70.8 | 73.8 | 73.8 | 73.8 | 73.8 | 73.8 | 73.8 | 73.8 |
| 21           | 1.63               | 3.72 | 6.94 | 9.97  | 13.0   | 15.9  | 18.7 | 21.5  | 24.2 | 29.5   | 34.8 | 39.9 | 45.1 | 50.1 | 55.1 | 65.0 | 74.6 | 77.6 | 77.6 | 77.6 | 77.6 | 77.6 | 77.6 | 77.6 |
| 22           | 1.71               | 3.91 | 7.30 | 10.45 | 13.6   | 16.6  | 19.6 | 22.5  | 25.4 | 31.0   | 36.6 | 42.0 | 47.4 | 52.7 | 58.0 | 68.3 | 78.5 | 81.5 | 81.5 | 81.5 | 81.5 | 81.5 | 81.5 | 81.5 |
| 23           | 1.80               | 4.10 | 7.66 | 11.0  | 14.3   | 17.5  | 20.6 | 23.7  | 26.7 | 32.6   | 38.4 | 44.1 | 49.8 | 55.3 | 60.8 | 71.7 | 82.3 | 85.3 | 85.3 | 85.3 | 85.3 | 85.3 | 85.3 | 85.3 |
| 24           | 1.88               | 4.30 | 8.02 | 11.5  | 15.0   | 18.3  | 21.5 | 24.7  | 27.9 | 34.0   | 40.2 | 46.2 | 52.1 | 57.9 | 63.7 | 75.0 | 86.2 | 89.2 | 89.2 | 89.2 | 89.2 | 89.2 | 89.2 | 89.2 |
| 25           | 1.97               | 4.49 | 8.38 | 12.0  | 15.6   | 19.0  | 22.5 | 25.9  | 29.2 | 35.6   | 42.0 | 48.2 | 54.4 | 60.5 | 66.6 | 78.4 | 90.1 | 93.1 | 93.1 | 93.1 | 93.1 | 93.1 | 93.1 | 93.1 |
| 26           | 2.05               | 4.68 | 8.74 | 12.5  | 16.3   | 19.9  | 23.5 | 27.0  | 30.4 | 37.1   | 43.8 | 50.3 | 56.8 | 63.1 | 69.4 | 81.8 | 94.0 | 97.0 | 97.0 | 97.0 | 97.0 | 97.0 | 97.0 | 97.0 |
| 28           | 2.22               | 5.07 | 9.47 | 13.6  | 17.7   | 21.6  | 25.5 | 29.3  | 33.0 | 40.3   | 47.5 | 54.5 | 61.5 | 68.3 | 75.2 | 88.6 | 102  | 105  | 105  | 105  | 105  | 105  | 105  | 105  |
| 30           | 2.40               | 5.47 | 10.2 | 14.6  | 19.0   | 23.2  | 27.4 | 31.5  | 35.5 | 43.3   | 51.2 | 58.8 | 66.3 | 73.7 | 81.0 | 95.5 | 110  | 113  | 113  | 113  | 113  | 113  | 113  | 113  |
| 32           | 2.57               | 5.86 | 10.9 | 15.6  | 20.4   | 24.9  | 29.4 | 33.8  | 38.1 | 46.5   | 54.9 | 63.0 | 71.1 | 79.0 | 86.9 | 102  | 118  | 121  | 121  | 121  | 121  | 121  | 121  | 121  |
| 35           | 2.83               | 6.46 | 12.0 | 17.3  | 22.5   | 27.5  | 32.4 | 37.2  | 42.0 | 51.2   | 60.4 | 69.4 | 78.3 | 87.0 | 95.7 | 113  | 130  | 133  | 133  | 133  | 133  | 133  | 133  | 133  |
| 40           | 3.27               | 7.46 | 13.9 | 20.0  | 26.0   | 31.7  | 37.4 | 43.0  | 48.5 | 59.2   | 69.8 | 80.1 | 90.4 | 101  | 111  | 130  | 150  | 153  | 153  | 153  | 153  | 153  | 153  | 153  |
| 45           | 3.71               | 8.47 | 15.8 | 22.6  | 29.5   | 36.0  | 42.5 | 48.8  | 55.0 | 67.2   | 79.3 | 91.2 | 103  | 114  | 126  | 148  | 170  | 173  | 173  | 173  | 173  | 173  | 173  | 173  |
| TYPE A       |                    |      |      |       | TYPE B |       |      |       |      | TYPE C |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

120

1-1/2" Pitch Single Strand Roller Chain

## HORSEPOWER RATINGS

| No.<br>Teeth | Small Sprocket RPM |        |      |      |      |      |      |      |      |      |        |       |      |       |      |      |      |      |      |      |      |      |
|--------------|--------------------|--------|------|------|------|------|------|------|------|------|--------|-------|------|-------|------|------|------|------|------|------|------|------|
|              | 10                 | 25     | 50   | 75   | 100  | 125  | 150  | 175  | 200  | 250  | 300    | 350   | 400  | 450   | 500  | 600  | 700  | 800  | 900  | 1000 | 1100 | 1200 |
| 9            | 1.10               | 2.52   | 4.69 | 6.73 | 8.76 | 10.7 | 12.6 | 14.4 | 16.3 | 19.9 | 23.5   | 27.0  | 30.5 | 33.9  | 37.3 | 43.2 | 34.3 | 28.1 | 23.5 | 20.1 | 17.4 | 15.3 |
| 10           | 1.24               | 2.82   | 5.26 | 7.54 | 9.81 | 12.0 | 14.1 | 16.2 | 18.3 | 22.3 | 26.4   | 30.3  | 34.2 | 38.0  | 41.8 | 49.2 | 40.1 | 32.9 | 27.5 | 23.5 | 20.4 | 17.9 |
| 11           | 1.37               | 3.12   | 5.83 | 8.36 | 10.9 | 13.3 | 15.7 | 18.0 | 20.3 | 24.8 | 29.2   | 33.6  | 37.9 | 42.1  | 46.3 | 54.6 | 46.3 | 37.9 | 31.8 | 27.1 | 23.5 | 20.6 |
| 12           | 1.50               | 3.43   | 6.40 | 9.15 | 11.9 | 14.6 | 17.2 | 19.7 | 22.3 | 27.2 | 32.1   | 36.8  | 41.6 | 46.3  | 50.9 | 59.9 | 52.8 | 43.2 | 36.2 | 30.9 | 26.8 | 23.5 |
| 13           | 1.64               | 3.74   | 6.98 | 10.0 | 13.0 | 15.9 | 18.8 | 21.5 | 24.3 | 29.6 | 35.0   | 40.2  | 45.4 | 50.5  | 55.5 | 65.3 | 59.5 | 48.7 | 40.8 | 34.9 | 30.2 | 26.5 |
| 14           | 1.78               | 4.05   | 7.56 | 10.8 | 14.1 | 17.2 | 20.3 | 23.3 | 26.3 | 32.1 | 37.9   | 43.5  | 49.1 | 54.6  | 60.1 | 70.8 | 66.5 | 54.4 | 45.6 | 39.0 | 33.8 | 29.6 |
| 15           | 1.91               | 4.37   | 8.15 | 11.7 | 15.2 | 18.5 | 21.9 | 25.1 | 28.4 | 34.7 | 40.9   | 47.0  | 53.0 | 58.8  | 64.7 | 76.3 | 73.8 | 60.4 | 50.6 | 43.2 | 37.4 | 32.9 |
| 16           | 2.05               | 4.68   | 8.74 | 12.5 | 16.3 | 19.9 | 23.5 | 27.0 | 30.4 | 37.1 | 43.8   | 50.3  | 56.8 | 63.1  | 69.4 | 81.8 | 81.3 | 66.5 | 55.7 | 47.6 | 41.2 | 36.2 |
| 17           | 2.19               | 5.00   | 9.33 | 13.4 | 17.4 | 21.3 | 25.1 | 28.8 | 32.5 | 39.7 | 46.8   | 53.7  | 60.6 | 67.3  | 74.1 | 87.3 | 89.0 | 72.8 | 61.0 | 52.1 | 45.2 | 39.6 |
| 18           | 2.33               | 5.32   | 9.92 | 14.2 | 18.5 | 22.6 | 26.7 | 30.6 | 34.6 | 42.2 | 49.8   | 57.2  | 64.5 | 71.7  | 78.8 | 92.9 | 97.0 | 79.4 | 66.5 | 56.8 | 49.2 | 43.2 |
| 19           | 2.47               | 5.64   | 10.5 | 15.1 | 19.6 | 24.0 | 28.3 | 32.4 | 36.6 | 44.7 | 52.8   | 60.6  | 68.4 | 76.0  | 83.6 | 98.5 | 105  | 86.1 | 72.1 | 61.6 | 53.4 | 46.8 |
| 20           | 2.61               | 5.96   | 11.1 | 15.9 | 20.7 | 25.3 | 29.9 | 34.3 | 38.7 | 47.3 | 55.8   | 64.0  | 72.2 | 80.3  | 88.3 | 104  | 114  | 92.9 | 77.9 | 66.5 | 57.6 | 50.6 |
| 21           | 2.75               | 6.28   | 11.7 | 16.8 | 21.9 | 26.7 | 31.5 | 36.2 | 40.8 | 49.8 | 58.8   | 67.5  | 76.2 | 84.6  | 93.1 | 110  | 122  | 100  | 83.8 | 71.6 | 62.0 | 54.4 |
| 22           | 2.90               | 6.60   | 12.3 | 17.6 | 23.0 | 28.0 | 33.1 | 38.0 | 42.9 | 52.3 | 61.8   | 70.9  | 80.1 | 89.0  | 97.9 | 115  | 131  | 107  | 89.9 | 76.7 | 66.5 | 58.4 |
| 23           | 3.04               | 6.93   | 12.9 | 18.5 | 24.1 | 29.5 | 34.8 | 39.9 | 45.0 | 55.0 | 64.9   | 74.4  | 84.0 | 93.5  | 103  | 121  | 139  | 115  | 96.1 | 82.0 | 71.1 | 62.4 |
| 24           | 3.18               | 7.25   | 13.5 | 19.4 | 25.3 | 30.9 | 36.4 | 41.8 | 47.1 | 57.5 | 67.9   | 77.9  | 88.0 | 98.0  | 108  | 127  | 146  | 122  | 102  | 87.4 | 75.8 | 66.5 |
| 25           | 3.32               | 7.58   | 14.1 | 20.3 | 26.4 | 32.2 | 38.0 | 43.7 | 49.3 | 60.2 | 71.0   | 81.4  | 91.9 | 102   | 112  | 132  | 152  | 130  | 109  | 92.9 | 80.6 | 70.7 |
| 26           | 3.47               | 7.91   | 14.8 | 21.1 | 27.5 | 33.6 | 39.7 | 45.6 | 51.4 | 62.7 | 74.0   | 84.9  | 95.9 | 106   | 117  | 138  | 159  | 138  | 115  | 98.6 | 85.4 | 75.0 |
| 28           | 3.76               | 8.57   | 16.0 | 22.9 | 29.8 | 36.4 | 43.0 | 49.3 | 55.7 | 67.9 | 80.2   | 92.1  | 104  | 115.5 | 127  | 150  | 172  | 154  | 129  | 110  | 95.5 | 83.8 |
| 30           | 4.05               | 9.23   | 17.2 | 24.6 | 32.1 | 39.2 | 46.3 | 53.2 | 60.0 | 73.2 | 86.4   | 99.2  | 112  | 124.5 | 137  | 161  | 185  | 171  | 143  | 122  | 106  | 92.9 |
| 32           | 4.34               | 9.90   | 18.5 | 26.5 | 34.5 | 42.0 | 49.6 | 57.0 | 64.3 | 78.4 | 92.6   | 106.3 | 120  | 133.5 | 147  | 173  | 199  | 188  | 158  | 135  | 117  | 102  |
| 35           | 4.78               | 10.9   | 20.3 | 29.1 | 38.0 | 46.3 | 54.7 | 62.8 | 70.9 | 86.4 | 102    | 117   | 132  | 147   | 162  | 190  | 219  | 215  | 180  | 154  | 133  | 117  |
| 40           | 5.52               | 12.6   | 23.5 | 33.7 | 43.9 | 53.6 | 63.2 | 72.5 | 81.8 | 99.9 | 118    | 135.5 | 153  | 170   | 187  | 220  | 253  | 263  | 220  | 188  | 163  | 143  |
| 45           | 6.27               | 14.3   | 26.7 | 38.3 | 49.8 | 60.8 | 71.7 | 82.3 | 92.9 | 113  | 134    | 153.5 | 173  | 192.5 | 212  | 250  | 287  | 314  | 263  | 224  | 195  | 171  |
| TYPE A       |                    | TYPE B |      |      |      |      |      |      |      |      | TYPE C |       |      |       |      |      |      |      |      |      |      |      |



# SELECTION

## Basic Horsepower Ratings

### 140 1-3/4" Pitch Single Strand Roller Chain

### HORSEPOWER RATINGS

| No.<br>Teeth | Small Sprocket RPM |      |      |      |        |      |      |       |      |        |      |      |      |      |      |      |      |      |      |      |
|--------------|--------------------|------|------|------|--------|------|------|-------|------|--------|------|------|------|------|------|------|------|------|------|------|
|              | 10                 | 25   | 50   | 75   | 100    | 125  | 150  | 175   | 200  | 225    | 250  | 275  | 300  | 325  | 350  | 400  | 450  | 500  | 550  | 600  |
| 9            | 1.71               | 3.89 | 7.26 | 10.4 | 13.6   | 16.5 | 19.5 | 22.4  | 25.3 | 28.1   | 30.9 | 33.7 | 36.4 | 39.1 | 41.8 | 47.2 | 52.5 | 57.7 | 55.7 | 48.9 |
| 10           | 1.91               | 4.36 | 8.14 | 11.7 | 15.2   | 18.5 | 21.9 | 25.1  | 28.3 | 31.4   | 34.6 | 37.7 | 40.8 | 43.8 | 46.9 | 52.9 | 58.8 | 64.6 | 65.2 | 57.2 |
| 11           | 2.12               | 4.83 | 9.02 | 12.9 | 16.8   | 20.5 | 24.2 | 27.8  | 31.4 | 34.9   | 38.4 | 41.8 | 45.2 | 48.6 | 52.0 | 58.6 | 65.2 | 71.6 | 75.2 | 66.0 |
| 12           | 2.33               | 5.31 | 9.91 | 14.2 | 18.5   | 22.5 | 26.6 | 30.5  | 34.5 | 38.3   | 42.2 | 46.0 | 49.7 | 53.4 | 57.1 | 64.4 | 71.6 | 78.7 | 85.7 | 75.2 |
| 13           | 2.54               | 5.79 | 10.8 | 15.5 | 20.2   | 24.6 | 29.0 | 33.3  | 37.6 | 41.8   | 46.0 | 50.1 | 54.2 | 58.2 | 62.2 | 70.2 | 78.0 | 85.8 | 93.5 | 84.8 |
| 14           | 2.75               | 6.27 | 11.7 | 16.8 | 21.8   | 26.6 | 31.5 | 36.2  | 40.8 | 45.3   | 49.8 | 54.3 | 58.7 | 63.1 | 67.4 | 76.0 | 84.5 | 93.0 | 101  | 94.8 |
| 15           | 2.96               | 6.76 | 12.6 | 18.0 | 23.5   | 28.7 | 33.9 | 38.9  | 43.9 | 48.8   | 53.7 | 58.5 | 63.2 | 67.9 | 72.7 | 81.9 | 91.1 | 100  | 109  | 105  |
| 16           | 3.18               | 7.24 | 13.5 | 19.4 | 25.2   | 30.8 | 36.3 | 41.7  | 47.1 | 52.3   | 57.5 | 62.7 | 67.8 | 72.9 | 77.9 | 87.8 | 97.7 | 107  | 117  | 116  |
| 17           | 3.39               | 7.73 | 14.4 | 20.6 | 26.9   | 32.8 | 38.8 | 44.5  | 50.3 | 55.8   | 61.4 | 66.9 | 72.4 | 77.8 | 83.2 | 93.8 | 104  | 115  | 125  | 127  |
| 18           | 3.61               | 8.23 | 15.4 | 22.0 | 28.6   | 35.0 | 41.3 | 47.4  | 53.5 | 59.4   | 65.3 | 71.2 | 77.0 | 82.8 | 88.5 | 99.8 | 111  | 122  | 133  | 138  |
| 19           | 3.82               | 8.72 | 16.3 | 23.3 | 30.4   | 37.0 | 43.7 | 50.2  | 56.7 | 63.0   | 69.3 | 75.4 | 81.6 | 87.7 | 93.8 | 106  | 118  | 129  | 141  | 150  |
| 20           | 4.04               | 9.22 | 17.2 | 24.6 | 32.1   | 39.2 | 46.2 | 53.1  | 59.9 | 66.6   | 73.2 | 79.8 | 86.3 | 92.7 | 99.1 | 112  | 124  | 137  | 149  | 161  |
| 21           | 4.26               | 9.72 | 18.1 | 26.0 | 33.8   | 41.3 | 48.7 | 55.9  | 63.1 | 70.1   | 77.2 | 84.1 | 91.0 | 97.5 | 104  | 118  | 131  | 144  | 157  | 170  |
| 22           | 4.48               | 10.2 | 19.1 | 27.3 | 35.6   | 43.4 | 51.3 | 58.8  | 66.4 | 73.8   | 81.2 | 88.4 | 95.6 | 103  | 110  | 124  | 138  | 151  | 165  | 178  |
| 23           | 4.70               | 10.7 | 20.0 | 28.6 | 37.3   | 45.5 | 53.8 | 61.8  | 69.7 | 77.4   | 85.2 | 92.6 | 100  | 107  | 115  | 130  | 145  | 159  | 173  | 187  |
| 24           | 4.92               | 11.2 | 20.9 | 30.0 | 39.1   | 47.7 | 56.3 | 64.6  | 72.9 | 81.1   | 89.2 | 97.1 | 105  | 113  | 121  | 136  | 151  | 166  | 181  | 196  |
| 25           | 5.14               | 11.7 | 21.9 | 31.3 | 40.8   | 49.8 | 58.8 | 67.5  | 76.2 | 84.7   | 93.2 | 102  | 110  | 118  | 126  | 142  | 158  | 174  | 189  | 205  |
| 26           | 5.37               | 12.2 | 22.8 | 32.7 | 42.6   | 52.0 | 61.4 | 70.4  | 79.5 | 88.3   | 97.2 | 106  | 115  | 124  | 132  | 148  | 165  | 181  | 198  | 214  |
| 28           | 5.81               | 13.3 | 24.7 | 35.5 | 46.2   | 56.3 | 66.5 | 76.3  | 86.2 | 95.6   | 105  | 114  | 124  | 134  | 143  | 161  | 179  | 197  | 214  | 232  |
| 30           | 6.26               | 14.3 | 26.7 | 38.2 | 49.7   | 60.7 | 71.6 | 82.2  | 92.8 | 102.9  | 113  | 124  | 134  | 144  | 154  | 173  | 193  | 212  | 231  | 249  |
| 32           | 6.71               | 15.3 | 28.6 | 41.0 | 53.3   | 65.1 | 76.8 | 88.2  | 99.5 | 111    | 122  | 132  | 143  | 154  | 165  | 186  | 206  | 227  | 247  | 267  |
| 35           | 7.40               | 16.9 | 31.5 | 45.1 | 58.7   | 71.7 | 84.6 | 97.3  | 110  | 122    | 134  | 146  | 158  | 169  | 181  | 205  | 227  | 250  | 272  | 295  |
| 40           | 8.54               | 19.5 | 36.4 | 52.2 | 67.9   | 82.8 | 97.7 | 112   | 127  | 141    | 155  | 168  | 182  | 196  | 210  | 236  | 263  | 289  | 315  | 340  |
| 45           | 9.70               | 22.1 | 41.3 | 59.2 | 77.1   | 94.1 | 111  | 127.5 | 144  | 160    | 176  | 192  | 207  | 222  | 238  | 268  | 298  | 328  | 357  | 387  |
| TYPE A       |                    |      |      |      | TYPE B |      |      |       |      | TYPE C |      |      |      |      |      |      |      |      |      |      |

### 160 2" Pitch Single Strand Roller Chain

### HORSEPOWER RATINGS

| No.<br>Teeth | Small Sprocket RPM |      |      |      |        |      |      |      |      |        |      |      |      |      |      |      |      |      |      |      |
|--------------|--------------------|------|------|------|--------|------|------|------|------|--------|------|------|------|------|------|------|------|------|------|------|
|              | 10                 | 25   | 50   | 75   | 100    | 125  | 150  | 175  | 200  | 225    | 250  | 275  | 300  | 325  | 350  | 375  | 400  | 450  | 500  | 550  |
| 9            | 2.48               | 5.65 | 10.5 | 15.1 | 19.7   | 24.0 | 28.3 | 32.5 | 36.7 | 40.8   | 44.8 | 48.8 | 52.8 | 56.8 | 60.7 | 64.6 | 68.5 | 76.1 | 71.5 | 62.0 |
| 10           | 2.77               | 6.33 | 11.8 | 16.9 | 22.0   | 26.9 | 31.7 | 36.4 | 41.1 | 45.7   | 50.3 | 54.8 | 59.2 | 63.6 | 68.0 | 72.3 | 76.7 | 85.3 | 83.7 | 72.6 |
| 11           | 3.07               | 7.01 | 13.1 | 18.8 | 24.4   | 29.8 | 35.2 | 40.4 | 45.6 | 50.7   | 55.7 | 60.7 | 65.6 | 70.5 | 75.4 | 80.2 | 85.0 | 94.5 | 96.6 | 83.7 |
| 12           | 3.38               | 7.70 | 14.4 | 20.6 | 26.8   | 32.7 | 38.6 | 44.3 | 50.1 | 55.7   | 61.2 | 66.7 | 72.1 | 77.4 | 82.8 | 88.1 | 93.4 | 104  | 110  | 95.4 |
| 13           | 3.68               | 8.40 | 15.7 | 22.5 | 29.2   | 35.7 | 42.1 | 48.3 | 54.6 | 60.6   | 66.7 | 72.6 | 78.6 | 84.4 | 90.3 | 96.2 | 102  | 113  | 124  | 108  |
| 14           | 3.99               | 9.10 | 17.0 | 24.4 | 31.7   | 38.7 | 45.6 | 52.3 | 59.1 | 65.7   | 72.3 | 78.8 | 85.2 | 91.5 | 97.8 | 104  | 110  | 123  | 135  | 120  |
| 15           | 4.30               | 9.80 | 18.3 | 26.2 | 34.1   | 41.7 | 49.2 | 56.5 | 63.7 | 70.8   | 77.9 | 84.8 | 91.7 | 98.3 | 105  | 112  | 119  | 132  | 145  | 133  |
| 16           | 4.61               | 10.5 | 19.6 | 28.1 | 36.6   | 44.7 | 52.7 | 60.5 | 68.3 | 75.9   | 83.5 | 90.9 | 98.4 | 106  | 113  | 120  | 127  | 142  | 156  | 147  |
| 17           | 4.92               | 11.2 | 20.9 | 30.0 | 39.1   | 47.7 | 56.3 | 64.6 | 72.9 | 81.0   | 89.1 | 97.1 | 105  | 113  | 121  | 128  | 136  | 151  | 166  | 161  |
| 18           | 5.23               | 11.9 | 22.3 | 31.9 | 41.6   | 50.8 | 59.9 | 68.8 | 77.6 | 86.2   | 94.8 | 103  | 112  | 120  | 128  | 136  | 145  | 161  | 177  | 175  |
| 19           | 5.55               | 12.7 | 23.6 | 33.8 | 44.1   | 53.8 | 63.5 | 72.8 | 82.2 | 91.6   | 101  | 109  | 118  | 127  | 136  | 145  | 153  | 171  | 188  | 190  |
| 20           | 5.86               | 13.4 | 25.0 | 35.8 | 46.6   | 56.8 | 67.1 | 77.0 | 86.9 | 96.4   | 106  | 115  | 125  | 135  | 144  | 153  | 162  | 180  | 198  | 205  |
| 21           | 6.18               | 14.1 | 26.3 | 37.7 | 49.1   | 59.9 | 70.7 | 81.1 | 91.6 | 102    | 112  | 122  | 132  | 142  | 152  | 162  | 171  | 190  | 209  | 221  |
| 22           | 6.50               | 14.8 | 27.7 | 39.7 | 51.6   | 63.0 | 74.4 | 85.4 | 96.3 | 107    | 118  | 128  | 139  | 149  | 159  | 169  | 180  | 200  | 220  | 237  |
| 23           | 6.82               | 15.6 | 29.0 | 41.6 | 54.2   | 66.1 | 78.0 | 89.5 | 101  | 112    | 124  | 135  | 146  | 156  | 167  | 178  | 189  | 210  | 231  | 251  |
| 24           | 7.14               | 16.3 | 30.4 | 43.5 | 56.7   | 69.2 | 81.7 | 93.8 | 106  | 117    | 129  | 141  | 152  | 163  | 175  | 186  | 197  | 220  | 241  | 263  |
| 25           | 7.46               | 17.0 | 31.1 | 45.2 | 59.3   | 72.3 | 85.4 | 98.2 | 111  | 123    | 135  | 147  | 159  | 171  | 183  | 195  | 206  | 229  | 252  | 275  |
| 26           | 7.78               | 17.8 | 31.8 | 46.8 | 61.8   | 75.4 | 89.1 | 102  | 115  | 128    | 141  | 153  | 166  | 179  | 191  | 203  | 215  | 239  | 263  | 287  |
| 28           | 8.43               | 19.2 | 35.9 | 51.5 | 67.0   | 81.8 | 96.5 | 111  | 125  | 139    | 153  | 166  | 180  | 193  | 207  | 220  | 233  | 259  | 285  | 311  |
| 30           | 9.08               | 20.7 | 38.7 | 55.4 | 72.2   | 88.1 | 104  | 119  | 135  | 150    | 165  | 179  | 194  | 209  | 223  | 237  | 251  | 279  | 307  | 336  |
| 32           | 9.74               | 22.2 | 41.5 | 59.5 | 77.4   | 94.2 | 111  | 128  | 144  | 160    | 176  | 192  | 208  | 223  | 239  | 254  | 269  | 300  | 329  | 359  |
| 35           | 10.7               | 24.5 | 45.7 | 65.4 | 85.2   | 104  | 123  | 141  | 159  | 176    | 194  | 212  | 229  | 246  | 263  | 280  | 297  | 330  | 363  | 395  |
| 40           | 12.4               | 28.3 | 52.8 | 75.7 | 98.5   | 120  | 142  | 163  | 184  | 205    | 225  | 245  | 265  | 284  | 304  | 324  | 343  | 381  | 419  | 457  |
| 45           | 14.1               | 32.1 | 59.9 | 85.9 | 112    | 136  | 161  | 185  | 209  | 232    | 255  | 278  | 301  | 323  | 345  | 367  | 389  | 433  | 476  | 519  |
| TYPE A       |                    |      |      |      | TYPE B |      |      |      |      | TYPE C |      |      |      |      |      |      |      |      |      |      |

#### Lubrication Note

TYPE A: Manual or Drip  
TYPE B: Bath or Disc  
TYPE C: Oil Stream

#### Multiple Strand Chain HP Factors:

|               |     |
|---------------|-----|
| Single Strand | 1.0 |
| Double Strand | 1.9 |
| Triple Strand | 2.8 |

|                                  |                               |                                  |                                       |
|----------------------------------|-------------------------------|----------------------------------|---------------------------------------|
| FEATURES/BENEFITS<br>PAGE PT14-2 | SPECIFICATIONS<br>PAGE PT14-3 | RELATED PRODUCTS<br>PAGE PT14-28 | ENGINEERING/TECHNICAL<br>PAGE PT14-30 |
|----------------------------------|-------------------------------|----------------------------------|---------------------------------------|



## Basic Horsepower Ratings

180

2-1/4" Pitch Single Strand Roller Chain

HORSEPOWER RATINGS

| No.<br>Teeth | Small Sprocket RPM |        |      |      |      |      |      |      |        |      |      |      |      |      |      |      |     |     |     |
|--------------|--------------------|--------|------|------|------|------|------|------|--------|------|------|------|------|------|------|------|-----|-----|-----|
|              | 10                 | 20     | 30   | 40   | 50   | 75   | 100  | 125  | 150    | 175  | 200  | 225  | 250  | 275  | 300  | 325  | 350 | 375 | 400 |
| 11           | 4.24               | 7.87   | 11.4 | 14.7 | 18.1 | 25.9 | 33.7 | 41.2 | 48.6   | 55.7 | 62.9 | 69.9 | 76.9 | 83.8 | 90.6 | 97.3 | 104 | 110 | 117 |
| 12           | 4.66               | 8.62   | 12.4 | 16.1 | 19.8 | 28.4 | 37.0 | 45.2 | 53.4   | 61.3 | 69.1 | 76.8 | 84.5 | 92.1 | 99.6 | 107  | 114 | 121 | 129 |
| 13           | 5.08               | 9.43   | 13.6 | 17.6 | 21.6 | 31.0 | 40.4 | 49.3 | 58.2   | 66.8 | 75.4 | 83.8 | 92.1 | 101  | 109  | 117  | 125 | 133 | 141 |
| 14           | 5.51               | 10.2   | 14.8 | 19.1 | 23.4 | 33.5 | 43.7 | 53.3 | 63.0   | 72.3 | 81.6 | 90.7 | 99.8 | 109  | 118  | 126  | 135 | 143 | 152 |
| 15           | 5.93               | 11.0   | 15.9 | 20.6 | 25.3 | 36.2 | 47.1 | 57.5 | 67.9   | 77.9 | 88.0 | 98.0 | 108  | 117  | 127  | 136  | 146 | 155 | 164 |
| 16           | 6.36               | 11.8   | 17.0 | 22.1 | 27.1 | 38.8 | 50.5 | 61.7 | 72.8   | 83.6 | 94.3 | 105  | 115  | 125  | 136  | 146  | 156 | 166 | 176 |
| 17           | 6.79               | 12.6   | 18.2 | 23.5 | 28.9 | 41.5 | 54.0 | 65.8 | 77.7   | 89.3 | 101  | 112  | 123  | 134  | 145  | 156  | 167 | 178 | 188 |
| 18           | 7.22               | 13.4   | 19.4 | 25.1 | 30.8 | 44.1 | 57.4 | 70.1 | 82.7   | 94.8 | 107  | 119  | 131  | 142  | 154  | 165  | 177 | 189 | 200 |
| 19           | 7.66               | 14.2   | 20.5 | 26.6 | 32.6 | 46.7 | 60.8 | 74.2 | 87.6   | 101  | 114  | 126  | 139  | 152  | 164  | 176  | 188 | 200 | 212 |
| 20           | 8.10               | 15.0   | 21.7 | 28.1 | 34.5 | 49.4 | 64.3 | 78.4 | 92.6   | 106  | 120  | 134  | 147  | 160  | 173  | 186  | 199 | 212 | 224 |
| 21           | 8.53               | 15.8   | 22.9 | 29.6 | 36.3 | 52.1 | 67.8 | 82.7 | 97.6   | 112  | 126  | 141  | 155  | 168  | 182  | 195  | 209 | 222 | 236 |
| 22           | 8.97               | 16.7   | 24.0 | 31.1 | 38.2 | 54.8 | 71.3 | 87.2 | 103    | 118  | 133  | 148  | 163  | 178  | 192  | 206  | 220 | 234 | 248 |
| 23           | 9.41               | 17.5   | 25.2 | 32.7 | 40.1 | 57.5 | 74.8 | 91.4 | 108    | 124  | 140  | 155  | 171  | 186  | 201  | 216  | 231 | 246 | 260 |
| 24           | 9.86               | 18.3   | 26.4 | 34.2 | 42.0 | 60.2 | 78.3 | 95.7 | 113    | 129  | 146  | 162  | 179  | 195  | 210  | 226  | 242 | 258 | 273 |
| 25           | 10.3               | 19.1   | 27.6 | 35.7 | 43.9 | 62.9 | 81.8 | 99.9 | 118    | 135  | 153  | 170  | 187  | 203  | 220  | 236  | 253 | 269 | 285 |
| 26           | 10.7               | 19.9   | 28.7 | 37.2 | 45.7 | 65.6 | 85.4 | 104  | 123    | 141  | 159  | 177  | 195  | 212  | 229  | 246  | 264 | 281 | 297 |
| 28           | 11.6               | 21.6   | 31.2 | 40.4 | 49.6 | 71.1 | 92.5 | 113  | 133    | 153  | 173  | 192  | 211  | 230  | 249  | 267  | 286 | 304 | 322 |
| 30           | 12.5               | 23.2   | 33.6 | 43.5 | 53.4 | 76.5 | 99.6 | 122  | 144    | 165  | 186  | 206  | 227  | 247  | 268  | 288  | 308 | 327 | 347 |
| 32           | 13.4               | 24.9   | 36.0 | 46.6 | 57.2 | 82.1 | 107  | 131  | 154    | 176  | 199  | 222  | 244  | 265  | 287  | 308  | 330 | 351 | 372 |
| 35           | 14.8               | 27.5   | 39.7 | 51.4 | 63.1 | 90.6 | 118  | 144  | 170    | 195  | 220  | 244  | 268  | 292  | 316  | 339  | 363 | 386 | 410 |
| TYPE A       |                    | TYPE B |      |      |      |      |      |      | TYPE C |      |      |      |      |      |      |      |     |     |     |

200

2-1/2" Pitch Single Strand Roller Chain

HORSEPOWER RATINGS

| No.<br>Teeth | Small Sprocket RPM |      |        |      |      |      |      |      |      |      |      |      |        |      |      |      |     |     |     |
|--------------|--------------------|------|--------|------|------|------|------|------|------|------|------|------|--------|------|------|------|-----|-----|-----|
|              | 10                 | 15   | 20     | 30   | 40   | 50   | 60   | 70   | 80   | 90   | 100  | 125  | 150    | 175  | 200  | 225  | 250 | 275 | 300 |
| 11           | 5.64               | 8.12 | 10.5   | 15.1 | 19.6 | 24.0 | 28.3 | 32.5 | 36.6 | 40.7 | 44.8 | 54.7 | 64.5   | 74.0 | 83.5 | 92.8 | 102 | 111 | 120 |
| 12           | 6.19               | 8.92 | 11.6   | 16.6 | 21.6 | 26.4 | 31.0 | 35.7 | 40.2 | 44.7 | 49.2 | 60.0 | 70.8   | 81.3 | 91.8 | 102  | 112 | 122 | 132 |
| 13           | 6.75               | 9.72 | 12.6   | 18.1 | 23.5 | 28.7 | 33.8 | 38.9 | 43.8 | 48.7 | 53.6 | 65.4 | 77.2   | 88.6 | 100  | 111  | 122 | 133 | 144 |
| 14           | 7.31               | 10.5 | 13.6   | 19.7 | 25.5 | 31.1 | 36.6 | 42.1 | 47.4 | 52.8 | 58.1 | 70.9 | 83.7   | 95.8 | 108  | 120  | 132 | 144 | 156 |
| 15           | 7.88               | 11.3 | 14.7   | 21.2 | 27.4 | 33.5 | 39.5 | 45.4 | 51.1 | 56.9 | 62.6 | 76.3 | 90.1   | 104  | 117  | 130  | 143 | 155 | 168 |
| 16           | 8.45               | 12.2 | 15.8   | 22.7 | 29.4 | 36.0 | 42.3 | 48.7 | 54.8 | 61.0 | 67.1 | 81.8 | 96.6   | 111  | 125  | 139  | 153 | 166 | 180 |
| 17           | 9.02               | 13.0 | 16.8   | 24.2 | 31.4 | 38.4 | 45.2 | 52.0 | 58.5 | 65.1 | 71.6 | 87.3 | 103    | 119  | 134  | 148  | 163 | 178 | 193 |
| 18           | 9.59               | 13.8 | 17.9   | 25.8 | 33.4 | 40.8 | 48.0 | 55.3 | 62.3 | 69.2 | 76.2 | 93.1 | 110    | 126  | 142  | 158  | 174 | 189 | 205 |
| 19           | 10.2               | 14.6 | 19.0   | 27.3 | 35.4 | 43.3 | 50.9 | 58.6 | 66.0 | 73.4 | 80.8 | 98.4 | 116    | 134  | 151  | 168  | 184 | 200 | 217 |
| 20           | 10.7               | 15.5 | 20.1   | 28.9 | 37.4 | 45.8 | 53.8 | 61.9 | 69.7 | 77.6 | 85.4 | 104  | 123    | 141  | 159  | 177  | 195 | 212 | 229 |
| 21           | 11.3               | 16.3 | 21.1   | 30.5 | 39.5 | 48.2 | 56.8 | 65.3 | 73.5 | 81.8 | 90.0 | 110  | 130    | 149  | 168  | 186  | 205 | 223 | 242 |
| 22           | 11.9               | 17.2 | 22.2   | 32.0 | 41.5 | 50.7 | 59.7 | 68.7 | 77.3 | 86.0 | 94.6 | 115  | 136    | 156  | 177  | 196  | 216 | 235 | 254 |
| 23           | 12.5               | 18.0 | 23.3   | 33.6 | 43.5 | 53.2 | 62.6 | 72.0 | 81.1 | 90.2 | 99.3 | 121  | 143    | 164  | 185  | 205  | 226 | 246 | 267 |
| 24           | 13.1               | 18.9 | 24.4   | 35.2 | 45.6 | 55.7 | 65.6 | 75.4 | 84.9 | 94.5 | 104  | 127  | 150    | 172  | 194  | 216  | 237 | 258 | 279 |
| 25           | 13.7               | 19.7 | 25.5   | 36.8 | 47.6 | 58.2 | 68.5 | 78.8 | 88.9 | 98.9 | 109  | 132  | 156    | 179  | 203  | 226  | 248 | 270 | 292 |
| 26           | 14.3               | 20.6 | 26.6   | 38.4 | 49.7 | 60.7 | 71.4 | 82.2 | 92.5 | 103  | 113  | 138  | 163    | 188  | 212  | 236  | 259 | 282 | 305 |
| TYPE A       |                    |      | TYPE B |      |      |      |      |      |      |      |      |      | TYPE C |      |      |      |     |     |     |

240

3" Pitch Single Strand Roller Chain

HORSEPOWER RATINGS

| HORSEPOWER RATINGS                 |      |      |      |        |      |      |      |      |      |      |      |      |      |        |     |     |     |     |     |
|------------------------------------|------|------|------|--------|------|------|------|------|------|------|------|------|------|--------|-----|-----|-----|-----|-----|
| 5-Pitch Single Strand Roller Chain |      |      |      |        |      |      |      |      |      |      |      |      |      |        |     |     |     |     |     |
| No. Teeth                          | 5    | 10   | 15   | 20     | 25   | 30   | 40   | 50   | 60   | 70   | 80   | 90   | 100  | 125    | 150 | 175 | 200 | 250 | 300 |
| 11                                 | 4.86 | 9.08 | 13.1 | 16.9   | 20.7 | 24.4 | 31.6 | 38.6 | 45.5 | 52.3 | 59.0 | 65.6 | 72.1 | 88.1   | 104 | 119 | 135 | 164 | 194 |
| 12                                 | 5.34 | 9.97 | 14.4 | 18.6   | 22.7 | 26.8 | 34.7 | 42.4 | 50.0 | 57.4 | 64.8 | 72.0 | 79.2 | 96.8   | 114 | 131 | 148 | 181 | 213 |
| 13                                 | 5.83 | 10.9 | 15.7 | 20.3   | 24.8 | 29.2 | 37.9 | 46.3 | 54.5 | 62.5 | 70.6 | 78.5 | 86.4 | 106    | 124 | 143 | 161 | 197 | 232 |
| 14                                 | 6.31 | 11.8 | 17.0 | 22.0   | 26.9 | 31.7 | 41.0 | 50.1 | 59.1 | 67.8 | 76.5 | 85.1 | 93.6 | 114    | 135 | 155 | 175 | 213 | 251 |
| 15                                 | 6.80 | 12.7 | 18.3 | 23.7   | 28.9 | 34.1 | 44.2 | 54.0 | 63.6 | 73.0 | 82.4 | 91.7 | 101  | 123    | 145 | 167 | 188 | 230 | 271 |
| 16                                 | 7.29 | 13.6 | 19.6 | 25.4   | 31.0 | 36.6 | 47.4 | 57.9 | 68.2 | 78.3 | 88.4 | 98.2 | 108  | 132    | 156 | 179 | 202 | 247 | 290 |
| 17                                 | 7.78 | 14.5 | 20.9 | 27.1   | 33.1 | 39.0 | 50.6 | 61.8 | 72.9 | 83.7 | 94.4 | 105  | 115  | 141    | 166 | 191 | 215 | 263 | 310 |
| 18                                 | 8.28 | 15.4 | 22.3 | 28.8   | 35.2 | 41.5 | 53.8 | 65.8 | 77.5 | 88.8 | 100  | 112  | 123  | 150    | 177 | 203 | 229 | 280 | 330 |
| 19                                 | 8.78 | 16.4 | 23.6 | 30.6   | 37.4 | 44.0 | 57.0 | 69.7 | 82.2 | 94.1 | 106  | 118  | 130  | 159    | 187 | 215 | 243 | 297 | 350 |
| 20                                 | 9.28 | 17.3 | 24.9 | 32.3   | 39.5 | 46.5 | 60.3 | 73.7 | 86.8 | 99.4 | 112  | 125  | 138  | 168    | 198 | 228 | 257 | 314 | 370 |
| 21                                 | 9.78 | 18.2 | 26.3 | 34.1   | 41.6 | 49.0 | 63.5 | 77.7 | 91.5 | 105  | 119  | 132  | 145  | 177    | 209 | 240 | 270 | 331 | 390 |
| 22                                 | 10.3 | 19.2 | 27.6 | 35.8   | 43.8 | 51.6 | 66.8 | 81.7 | 96.2 | 111  | 125  | 138  | 152  | 186    | 220 | 252 | 284 | 348 | 410 |
| 23                                 | 10.8 | 20.1 | 29.0 | 37.6   | 45.9 | 54.1 | 70.1 | 85.7 | 101  | 116  | 131  | 145  | 160  | 195    | 230 | 265 | 298 | 365 | 430 |
| 24                                 | 11.3 | 21.1 | 30.4 | 39.3   | 48.1 | 56.7 | 73.4 | 89.7 | 106  | 121  | 137  | 152  | 167  | 205    | 241 | 277 | 312 | 382 | 450 |
| 25                                 | 11.8 | 22.0 | 31.7 | 41.1   | 50.3 | 59.2 | 76.7 | 93.8 | 110  | 126  | 143  | 159  | 175  | 214    | 252 | 290 | 327 | 399 | 470 |
| 26                                 | 12.3 | 23.0 | 33.1 | 42.9   | 52.4 | 61.8 | 80.0 | 97.8 | 115  | 132  | 149  | 166  | 183  | 223    | 263 | 302 | 341 | 416 | 491 |
| TYPE A                             |      |      |      | TYPE B |      |      |      |      |      |      |      |      |      | TYPE C |     |     |     |     |     |

## Lubrication Note

TYPE A: Manual or Drip  
 TYPE B: Bath or Disc  
 TYPE C: Oil Stream

## Multiple Strand Chain HP Factors:

|               |     |
|---------------|-----|
| Single Strand | 1.0 |
| Double Strand | 1.9 |
| Triple Strand | 2.8 |

Shaded Area: Operation is in the galling range - consult factory

|                                  |                               |                                  |                                       |
|----------------------------------|-------------------------------|----------------------------------|---------------------------------------|
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|----------------------------------|-------------------------------|----------------------------------|---------------------------------------|



# SELECTION

## Basic Horsepower Ratings

### 2040 — HP Ratings for 2040 Double Pitch Drive Chain

| No. of Effective Teeth, Small Spkt. | HP Ratings @ Various RPM, Small Sprocket |      |      |      |         |      |      |     |     |     |     |     |     |          |     |     |      |      |      |      |
|-------------------------------------|------------------------------------------|------|------|------|---------|------|------|-----|-----|-----|-----|-----|-----|----------|-----|-----|------|------|------|------|
|                                     | 25                                       | 50   | 100  | 150  | 200     | 250  | 300  | 350 | 400 | 450 | 500 | 550 | 600 | 700      | 800 | 900 | 1000 | 1100 | 1200 | 1300 |
| 6                                   | .10                                      | .17  | ...  | ...  | ...     | ...  | ...  | ... | ... | ... | ... | ... | ... | ...      | ... | ... | ...  | ...  | ...  | ...  |
| 7                                   | .12                                      | .21  | .35  | .46  | .54     | ...  | ...  | ... | ... | ... | ... | ... | ... | ...      | ... | ... | ...  | ...  | ...  | ...  |
| 8                                   | .14                                      | .25  | .64  | .72  | .82     | .90  | ...  | ... | ... | ... | ... | ... | ... | ...      | ... | ... | ...  | ...  | ...  | ...  |
| 9                                   | .16                                      | .30  | .53  | .72  | .88     | 1.02 | 1.14 | 1.3 | 1.3 | ... | ... | ... | ... | ...      | ... | ... | ...  | ...  | ...  | ...  |
| 10                                  | .18                                      | .34  | .61  | .82  | 1.04    | 1.21 | 1.37 | 1.5 | 1.6 | 1.7 | 1.8 | 1.9 | ... | ...      | ... | ... | ...  | ...  | ...  | ...  |
| 11                                  | .20                                      | .38  | .69  | .96  | 1.20    | 1.41 | 1.59 | 1.8 | 1.9 | 2.0 | 2.1 | 2.2 | 2.3 | ...      | ... | ... | ...  | ...  | ...  | ...  |
| 12                                  | .22                                      | .42  | .77  | 1.07 | 1.34    | 1.58 | 1.80 | 2.0 | 2.2 | 2.3 | 2.5 | 2.6 | 2.7 | 2.9      | ... | ... | ...  | ...  | ...  | ...  |
| 13                                  | .24                                      | .46  | .84  | 1.18 | 1.48    | 1.76 | 2.01 | 2.2 | 2.4 | 2.6 | 2.8 | 2.9 | 3.1 | 3.3      | 3.5 | ... | ...  | ...  | ...  | ...  |
| 14                                  | .26                                      | .50  | .92  | 1.29 | 1.62    | 1.93 | 2.21 | 2.5 | 2.7 | 2.9 | 3.1 | 3.3 | 3.4 | 3.7      | 3.9 | 4.1 | ...  | ...  | ...  | ...  |
| 15                                  | .28                                      | .54  | .99  | 1.39 | 1.76    | 2.09 | 2.40 | 2.7 | 2.9 | 3.2 | 3.4 | 3.6 | 3.8 | 4.1      | 4.3 | 4.5 | 4.7  | ...  | ...  | ...  |
| 16                                  | .30                                      | .57  | 1.06 | 1.50 | 1.89    | 2.25 | 2.59 | 2.9 | 3.2 | 3.4 | 3.7 | 3.9 | 4.1 | 4.4      | 4.7 | 5.0 | 5.1  | ...  | ...  | ...  |
| 17                                  | .32                                      | .61  | 1.13 | 1.60 | 2.02    | 2.41 | 2.77 | 3.1 | 3.4 | 3.7 | 4.0 | 4.2 | 4.4 | 4.8      | 5.1 | 5.4 | 5.6  | 5.7  | ...  | ...  |
| 18                                  | .34                                      | .65  | 1.20 | 1.70 | 2.15    | 2.57 | 2.95 | 3.3 | 3.6 | 3.9 | 4.2 | 4.5 | 4.7 | 5.1      | 5.5 | 5.8 | 6.0  | 6.2  | ...  | ...  |
| 19                                  | .36                                      | .69  | 1.27 | 1.80 | 2.28    | 2.73 | 3.13 | 3.5 | 3.9 | 4.2 | 4.5 | 4.8 | 5.0 | 5.5      | 5.9 | 6.2 | 6.4  | 6.6  | 6.7  | ...  |
| 20                                  | .38                                      | .72  | 1.34 | 1.89 | 2.40    | 2.87 | 3.30 | 3.7 | 4.1 | 4.4 | 4.7 | 5.0 | 5.3 | 5.8      | 6.2 | 6.5 | 6.8  | 7.0  | 7.1  | ...  |
| 21                                  | .40                                      | .76  | 1.41 | 1.99 | 2.53    | 3.01 | 3.47 | 3.9 | 4.3 | 4.6 | 5.0 | 5.3 | 5.6 | 6.1      | 6.5 | 6.9 | 7.1  | 7.4  | 7.5  | ...  |
| 22                                  | .42                                      | .79  | 1.48 | 2.09 | 2.64    | 3.16 | 3.63 | 4.1 | 4.5 | 4.9 | 5.2 | 5.5 | 5.8 | 6.4      | 6.8 | 7.2 | 7.5  | 7.7  | 7.9  | ...  |
| 23                                  | .44                                      | .83  | 1.54 | 2.18 | 2.76    | 3.30 | 3.80 | 4.3 | 4.7 | 5.1 | 5.4 | 5.8 | 6.1 | 6.6      | 7.1 | 7.5 | 7.8  | 8.0  | 8.2  | 8.3  |
| 24                                  | .46                                      | .87  | 1.61 | 2.27 | 2.88    | 3.44 | 3.95 | 4.4 | 4.9 | 5.3 | 5.7 | 6.0 | 6.4 | 6.9      | 7.4 | 7.8 | 8.1  | 8.4  | 8.5  | 8.6  |
| 25                                  | .48                                      | .90  | 1.67 | 2.36 | 3.00    | 3.58 | 4.11 | 4.6 | 5.1 | 5.5 | 5.9 | 6.3 | 6.6 | 7.2      | 7.7 | 8.1 | 8.4  | 8.7  | 8.8  | 8.9  |
| 30                                  | .57                                      | 1.08 | 1.99 | 2.81 | 3.56    | 4.24 | 4.87 | 5.4 | 6.0 | 6.5 | 6.9 | 7.4 | 7.8 | 8.4      | 8.9 | 9.4 | 9.7  | 10.0 | 10.1 | 10.1 |
| TYPE I                              |                                          |      |      |      | TYPE II |      |      |     |     |     |     |     |     | TYPE III |     |     |      |      |      |      |

### 2050 — HP Ratings for 2050 Double Pitch Drive Chain

| No. of Effective Teeth, Small Spkt. | HP Ratings @ Various RPM, Small Sprocket |      |      |      |         |      |      |      |       |       |       |       |       |          |       |       |       |       |       |       |
|-------------------------------------|------------------------------------------|------|------|------|---------|------|------|------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|
|                                     | 25                                       | 50   | 100  | 150  | 200     | 250  | 300  | 350  | 400   | 450   | 500   | 550   | 600   | 650      | 700   | 750   | 800   | 850   | 900   | 950   |
| 6                                   | .18                                      | .31  | ...  | ...  | ...     | ...  | ...  | ...  | ...   | ...   | ...   | ...   | ...   | ...      | ...   | ...   | ...   | ...   | ...   | ...   |
| 7                                   | .22                                      | .40  | .65  | ...  | ...     | ...  | ...  | ...  | ...   | ...   | ...   | ...   | ...   | ...      | ...   | ...   | ...   | ...   | ...   | ...   |
| 8                                   | .26                                      | .48  | .82  | 1.08 | 1.28    | ...  | ...  | ...  | ...   | ...   | ...   | ...   | ...   | ...      | ...   | ...   | ...   | ...   | ...   | ...   |
| 9                                   | .31                                      | .56  | .98  | 1.32 | 1.59    | 1.82 | 1.99 | ...  | ...   | ...   | ...   | ...   | ...   | ...      | ...   | ...   | ...   | ...   | ...   | ...   |
| 10                                  | .35                                      | .64  | 1.14 | 1.55 | 1.89    | 2.19 | 2.42 | 2.62 | 2.80  | ...   | ...   | ...   | ...   | ...      | ...   | ...   | ...   | ...   | ...   | ...   |
| 11                                  | .39                                      | .72  | 1.30 | 1.77 | 2.19    | 2.55 | 2.85 | 3.11 | 3.35  | 3.55  | ...   | ...   | ...   | ...      | ...   | ...   | ...   | ...   | ...   | ...   |
| 12                                  | .43                                      | .80  | 1.45 | 1.99 | 2.47    | 2.90 | 3.26 | 3.58 | 3.88  | 4.12  | 4.31  | ...   | ...   | ...      | ...   | ...   | ...   | ...   | ...   | ...   |
| 13                                  | .47                                      | .88  | 1.59 | 2.20 | 2.74    | 3.23 | 3.65 | 4.03 | 4.38  | 4.66  | 4.90  | 5.11  | 5.30  | ...      | ...   | ...   | ...   | ...   | ...   | ...   |
| 14                                  | .51                                      | .95  | 1.73 | 2.41 | 3.01    | 3.55 | 4.02 | 4.45 | 4.85  | 5.17  | 5.47  | 5.73  | 5.95  | 6.09     | ...   | ...   | ...   | ...   | ...   | ...   |
| 15                                  | .55                                      | 1.02 | 1.87 | 2.62 | 3.27    | 3.87 | 4.37 | 4.86 | 5.30  | 5.67  | 6.01  | 6.31  | 6.57  | 6.75     | 6.94  | ...   | ...   | ...   | ...   | ...   |
| 16                                  | .58                                      | 1.09 | 2.01 | 2.82 | 3.52    | 4.17 | 4.72 | 5.25 | 5.73  | 6.15  | 6.53  | 6.87  | 7.17  | 7.39     | 7.61  | 7.79  | ...   | ...   | ...   | ...   |
| 17                                  | .62                                      | 1.17 | 2.14 | 3.01 | 3.77    | 4.46 | 5.07 | 5.67 | 6.15  | 6.61  | 7.05  | 7.42  | 7.74  | 7.99     | 8.24  | 8.46  | 8.62  | ...   | ...   | ...   |
| 18                                  | .66                                      | 1.24 | 2.27 | 3.20 | 4.01    | 4.75 | 5.41 | 6.04 | 6.56  | 7.07  | 7.54  | 7.95  | 8.29  | 8.56     | 8.84  | 9.08  | 9.28  | ...   | ...   | ...   |
| 19                                  | .70                                      | 1.31 | 2.40 | 3.39 | 4.25    | 5.04 | 5.75 | 6.40 | 6.96  | 7.51  | 8.01  | 8.46  | 8.82  | 9.12     | 9.42  | 9.68  | 9.90  | 10.08 | ...   | ...   |
| 20                                  | .74                                      | 1.38 | 2.53 | 3.57 | 4.48    | 5.32 | 6.07 | 6.75 | 7.35  | 7.94  | 8.46  | 8.94  | 9.33  | 9.65     | 9.97  | 10.25 | 10.49 | 10.69 | ...   | ...   |
| 21                                  | .77                                      | 1.45 | 2.66 | 3.75 | 4.71    | 5.59 | 6.38 | 7.10 | 7.74  | 8.36  | 8.90  | 9.40  | 9.82  | 10.16    | 10.50 | 10.80 | 11.06 | 11.28 | 11.44 | ...   |
| 22                                  | .81                                      | 1.52 | 2.79 | 3.92 | 4.93    | 5.85 | 6.69 | 7.44 | 8.12  | 8.77  | 9.33  | 9.84  | 10.29 | 10.65    | 11.01 | 11.32 | 11.59 | 11.83 | 12.00 | ...   |
| 23                                  | .84                                      | 1.59 | 2.92 | 4.10 | 5.15    | 6.11 | 6.99 | 7.77 | 8.49  | 9.16  | 9.75  | 10.27 | 10.74 | 11.12    | 11.50 | 11.82 | 12.10 | 12.35 | 12.53 | ...   |
| 24                                  | .88                                      | 1.66 | 3.05 | 4.27 | 5.37    | 6.37 | 7.29 | 8.10 | 8.85  | 9.54  | 10.16 | 10.70 | 11.18 | 11.57    | 11.97 | 12.30 | 12.59 | 12.85 | 13.03 | ...   |
| 25                                  | .91                                      | 1.72 | 3.17 | 4.45 | 5.59    | 6.62 | 7.57 | 8.42 | 9.20  | 9.91  | 10.56 | 11.12 | 11.61 | 12.01    | 12.42 | 12.75 | 13.05 | 13.33 | 13.50 | 13.57 |
| 30                                  | 1.09                                     | 2.05 | 3.77 | 5.29 | 6.62    | 7.82 | 8.92 | 9.92 | 10.80 | 11.65 | 12.32 | 12.99 | 13.55 | 13.96    | 14.39 | 14.76 | 15.06 | 15.30 | 15.48 | ...   |
| TYPE I                              |                                          |      |      |      | TYPE II |      |      |      |       |       |       |       |       | TYPE III |       |       |       |       |       |       |

|                                  |                               |                                  |                                       |
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## Basic Horsepower Ratings

### 2060 — HP Ratings for 2060 Double Pitch Drive Chain

| No. of Effective Teeth, Small Spkt. | HP Ratings @ Various RPM, Small Sprocket |      |      |      |      |      |         |       |       |       |       |       |       |          |       |       |       |       |       |       |
|-------------------------------------|------------------------------------------|------|------|------|------|------|---------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|
|                                     | 25                                       | 50   | 75   | 100  | 125  | 150  | 175     | 200   | 225   | 250   | 275   | 300   | 350   | 400      | 450   | 500   | 550   | 600   | 650   | 700   |
| 6                                   | .30                                      | ...  | ...  | ...  | ...  | ...  | ...     | ...   | ...   | ...   | ...   | ...   | ...   | ...      | ...   | ...   | ...   | ...   | ...   | ...   |
| 7                                   | .37                                      | .66  | .88  | 1.06 | ...  | ...  | ...     | ...   | ...   | ...   | ...   | ...   | ...   | ...      | ...   | ...   | ...   | ...   | ...   | ...   |
| 8                                   | .44                                      | .80  | 1.09 | 1.34 | 1.56 | 1.74 | 1.89    | ...   | ...   | ...   | ...   | ...   | ...   | ...      | ...   | ...   | ...   | ...   | ...   | ...   |
| 9                                   | .52                                      | .94  | 1.30 | 1.62 | 1.90 | 2.15 | 2.36    | 2.55  | 2.72  | ...   | ...   | ...   | ...   | ...      | ...   | ...   | ...   | ...   | ...   | ...   |
| 10                                  | .59                                      | 1.08 | 1.51 | 1.89 | 2.23 | 2.54 | 2.82    | 3.07  | 3.29  | 3.50  | 3.68  | 3.83  | ...   | ...      | ...   | ...   | ...   | ...   | ...   | ...   |
| 11                                  | .66                                      | 1.21 | 1.71 | 2.15 | 2.54 | 2.92 | 3.25    | 3.58  | 3.84  | 4.12  | 4.34  | 4.56  | 4.93  | ...      | ...   | ...   | ...   | ...   | ...   | ...   |
| 12                                  | .73                                      | 1.34 | 1.90 | 2.41 | 2.85 | 3.29 | 3.67    | 4.06  | 4.37  | 4.71  | 4.97  | 5.24  | 5.71  | 6.06     | ...   | ...   | ...   | ...   | ...   | ...   |
| 13                                  | .79                                      | 1.47 | 2.09 | 2.66 | 3.15 | 3.65 | 4.08    | 4.52  | 4.88  | 5.27  | 5.59  | 5.91  | 6.46  | 6.92     | 7.25  | ...   | ...   | ...   | ...   | ...   |
| 14                                  | .86                                      | 1.60 | 2.27 | 2.90 | 3.45 | 4.00 | 4.48    | 4.96  | 5.37  | 5.80  | 6.17  | 6.54  | 7.17  | 7.72     | 8.10  | 8.51  | ...   | ...   | ...   | ...   |
| 15                                  | .92                                      | 1.72 | 2.45 | 3.14 | 3.74 | 4.34 | 4.86    | 5.39  | 5.85  | 6.32  | 6.73  | 7.14  | 7.86  | 8.48     | 8.92  | 9.40  | ...   | ...   | ...   | ...   |
| 16                                  | .99                                      | 1.85 | 2.64 | 3.37 | 4.02 | 4.67 | 5.24    | 5.81  | 6.32  | 6.82  | 7.27  | 7.72  | 8.52  | 9.21     | 9.71  | 10.25 | 10.70 | ...   | ...   | ...   |
| 17                                  | 1.05                                     | 1.97 | 2.82 | 3.59 | 4.29 | 4.99 | 5.61    | 6.22  | 6.78  | 7.32  | 7.80  | 8.29  | 9.16  | 9.91     | 10.47 | 11.06 | 11.59 | 11.99 | ...   | ...   |
| 18                                  | 1.12                                     | 2.10 | 3.00 | 3.82 | 4.56 | 5.31 | 5.97    | 6.63  | 7.23  | 7.81  | 8.32  | 8.84  | 9.78  | 10.58    | 11.21 | 11.84 | 12.42 | 12.88 | ...   | ...   |
| 19                                  | 1.18                                     | 2.22 | 3.17 | 4.04 | 4.83 | 5.62 | 6.32    | 7.03  | 7.67  | 8.29  | 8.83  | 9.38  | 10.38 | 11.23    | 11.93 | 12.60 | 13.22 | 13.73 | 14.14 | ...   |
| 20                                  | 1.25                                     | 2.34 | 3.34 | 4.25 | 5.09 | 5.93 | 6.67    | 7.42  | 8.09  | 8.74  | 9.33  | 9.91  | 10.95 | 11.86    | 12.62 | 13.34 | 13.99 | 14.54 | 14.99 | ...   |
| 21                                  | 1.31                                     | 2.46 | 3.51 | 4.48 | 5.36 | 6.24 | 7.02    | 7.80  | 8.50  | 9.19  | 9.81  | 10.43 | 11.53 | 12.47    | 13.28 | 14.05 | 14.73 | 15.31 | 15.80 | ...   |
| 22                                  | 1.37                                     | 2.58 | 3.67 | 4.70 | 5.62 | 6.54 | 7.35    | 8.17  | 8.90  | 9.63  | 10.28 | 10.93 | 12.08 | 13.06    | 13.92 | 14.73 | 15.44 | 16.05 | 16.57 | ...   |
| 23                                  | 1.44                                     | 2.69 | 3.84 | 4.91 | 5.87 | 6.83 | 7.68    | 8.54  | 9.30  | 10.06 | 10.74 | 11.42 | 12.62 | 13.63    | 14.54 | 15.39 | 16.12 | 16.76 | 17.30 | 17.78 |
| 24                                  | 1.50                                     | 2.80 | 4.00 | 5.12 | 6.12 | 7.12 | 8.01    | 8.91  | 9.69  | 10.48 | 11.19 | 11.90 | 13.15 | 14.18    | 15.15 | 16.03 | 16.77 | 17.44 | 18.00 | 18.40 |
| 25                                  | 1.56                                     | 2.92 | 4.17 | 5.32 | 6.36 | 7.41 | 8.34    | 9.27  | 10.08 | 10.89 | 11.62 | 12.37 | 13.58 | 14.72    | 15.75 | 16.65 | 17.40 | 18.09 | 18.67 | 19.09 |
| 30                                  | 1.86                                     | 3.48 | 4.96 | 6.32 | 7.58 | 8.78 | 9.86    | 10.94 | 11.85 | 12.76 | 13.71 | 14.55 | 15.98 | 17.28    | 18.40 | 19.40 | 20.22 | 20.92 | 21.32 | 22.00 |
| TYPE I                              |                                          |      |      |      |      |      | TYPE II |       |       |       |       |       |       | TYPE III |       |       |       |       |       |       |

### 2080 — HP Ratings for 2080 Double Pitch Drive Chain

| No. of Effective Teeth, Small Spkt. | HP Ratings @ Various RPM, Small Sprocket |      |      |      |      |      |         |       |       |       |       |       |       |          |       |       |       |       |       |       |
|-------------------------------------|------------------------------------------|------|------|------|------|------|---------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|
|                                     | 10                                       | 20   | 30   | 40   | 50   | 60   | 70      | 80    | 90    | 100   | 125   | 150   | 175   | 200      | 225   | 250   | 300   | 350   | 400   | 450   |
| 6                                   | .32                                      | .55  | .76  | ...  | ...  | ...  | ...     | ...   | ...   | ...   | ...   | ...   | ...   | ...      | ...   | ...   | ...   | ...   | ...   | ...   |
| 7                                   | .38                                      | .70  | .98  | 1.22 | 1.44 | 1.63 | 1.80    | ...   | ...   | ...   | ...   | ...   | ...   | ...      | ...   | ...   | ...   | ...   | ...   | ...   |
| 8                                   | .46                                      | .84  | 1.18 | 1.50 | 1.78 | 2.04 | 2.28    | 2.50  | 2.70  | 2.88  | ...   | ...   | ...   | ...      | ...   | ...   | ...   | ...   | ...   | ...   |
| 9                                   | .52                                      | .98  | 1.39 | 1.76 | 2.11 | 2.43 | 2.74    | 3.02  | 3.29  | 3.53  | 4.08  | 4.54  | ...   | ...      | ...   | ...   | ...   | ...   | ...   | ...   |
| 10                                  | .59                                      | 1.11 | 1.58 | 2.02 | 2.43 | 2.82 | 3.18    | 3.53  | 3.85  | 4.16  | 4.85  | 5.45  | 5.98  | ...      | ...   | ...   | ...   | ...   | ...   | ...   |
| 11                                  | .66                                      | 1.24 | 1.77 | 2.27 | 2.76 | 3.20 | 3.60    | 4.02  | 4.38  | 4.77  | 5.60  | 6.33  | 6.98  | 7.56     | 8.07  | ...   | ...   | ...   | ...   | ...   |
| 12                                  | .72                                      | 1.37 | 1.96 | 2.52 | 3.08 | 3.56 | 4.02    | 4.50  | 4.92  | 5.36  | 6.33  | 7.19  | 7.95  | 8.66     | 9.27  | 9.82  | ...   | ...   | ...   | ...   |
| 13                                  | .79                                      | 1.49 | 2.15 | 2.77 | 3.38 | 3.81 | 4.44    | 4.97  | 5.45  | 5.93  | 7.02  | 8.02  | 8.89  | 9.72     | 10.42 | 11.08 | ...   | ...   | ...   | ...   |
| 14                                  | .85                                      | 1.62 | 2.33 | 3.01 | 3.67 | 4.26 | 4.85    | 5.42  | 5.96  | 6.49  | 7.69  | 8.82  | 9.80  | 10.74    | 11.53 | 12.29 | 13.60 | ...   | ...   | ...   |
| 15                                  | .91                                      | 1.74 | 2.52 | 3.25 | 3.96 | 4.60 | 5.25    | 5.86  | 6.45  | 7.03  | 8.34  | 9.60  | 10.68 | 11.73    | 12.60 | 13.46 | 14.94 | ...   | ...   | ...   |
| 16                                  | .98                                      | 1.87 | 2.70 | 3.48 | 4.24 | 4.94 | 5.64    | 6.29  | 6.93  | 7.56  | 8.98  | 10.36 | 11.53 | 12.69    | 13.63 | 14.59 | 16.24 | 17.65 | ...   | ...   |
| 17                                  | 1.04                                     | 1.99 | 2.88 | 3.71 | 4.52 | 5.28 | 6.02    | 6.72  | 7.40  | 8.09  | 9.61  | 11.10 | 12.36 | 13.62    | 14.63 | 15.69 | 17.50 | 19.04 | ...   | ...   |
| 18                                  | 1.11                                     | 2.11 | 3.05 | 3.94 | 4.80 | 5.61 | 6.40    | 7.14  | 7.87  | 8.60  | 10.23 | 11.82 | 13.18 | 14.52    | 15.60 | 16.76 | 18.72 | 20.38 | 21.77 | ...   |
| 19                                  | 1.17                                     | 2.23 | 3.23 | 4.17 | 5.08 | 5.94 | 6.77    | 7.56  | 8.33  | 9.10  | 10.84 | 12.52 | 13.98 | 15.39    | 16.55 | 17.80 | 19.90 | 21.67 | 23.18 | ...   |
| 20                                  | 1.23                                     | 2.35 | 3.40 | 4.40 | 5.35 | 6.26 | 7.13    | 7.98  | 8.78  | 9.60  | 11.44 | 13.20 | 14.76 | 16.24    | 17.48 | 18.81 | 21.04 | 22.91 | 24.52 | ...   |
| 21                                  | 1.29                                     | 2.47 | 3.57 | 4.62 | 5.62 | 6.58 | 7.49    | 8.39  | 9.23  | 10.09 | 12.03 | 13.87 | 15.52 | 17.07    | 18.39 | 19.79 | 22.14 | 24.11 | 25.80 | ...   |
| 22                                  | 1.36                                     | 2.58 | 3.74 | 4.84 | 5.89 | 6.89 | 7.84    | 8.79  | 9.67  | 10.57 | 12.62 | 14.53 | 16.27 | 17.89    | 19.28 | 20.74 | 23.20 | 25.27 | 27.03 | ...   |
| 23                                  | 1.42                                     | 2.70 | 3.90 | 5.06 | 6.16 | 7.20 | 8.19    | 9.18  | 10.10 | 11.05 | 13.20 | 15.18 | 17.01 | 18.70    | 20.15 | 21.66 | 24.23 | 26.40 | 28.22 | ...   |
| 24                                  | 1.48                                     | 2.82 | 4.05 | 5.27 | 6.43 | 7.51 | 8.54    | 9.56  | 10.53 | 11.52 | 13.77 | 15.82 | 17.74 | 19.50    | 21.01 | 22.55 | 25.23 | 27.50 | 29.38 | 30.98 |
| 25                                  | 1.54                                     | 2.93 | 4.20 | 5.48 | 6.70 | 7.81 | 8.89    | 9.94  | 10.95 | 11.98 | 14.33 | 16.45 | 18.46 | 20.29    | 21.86 | 23.42 | 26.20 | 28.57 | 30.52 | 32.16 |
| 30                                  | 1.84                                     | 3.50 | 5.02 | 6.54 | 7.96 | 9.29 | 10.59   | 11.74 | 12.97 | 14.23 | 16.98 | 19.46 | 21.79 | 23.91    | 25.73 | 27.52 | 30.70 | 33.56 | 35.52 | 37.26 |
| TYPE I                              |                                          |      |      |      |      |      | TYPE II |       |       |       |       |       |       | TYPE III |       |       |       |       |       |       |

#### Explanation of Lubrication:

**TYPE I:** Steady Drip (4-10 drops/minute) shallow bath or manual w/oil applied by brush or spout can to link plate edges when in lower span of chain.

**TYPE II:** Rapid Drip (20 drops/minute, min.) or continuous w/ shallow bath, disc or slinger.

**TYPE III:** Continuous w/disc, slinger or circulating pump.

**Additional Information—ANSI Roller Chain Standard B29.3, Section A1.3.**

|                                  |                               |                                  |                                       |
|----------------------------------|-------------------------------|----------------------------------|---------------------------------------|
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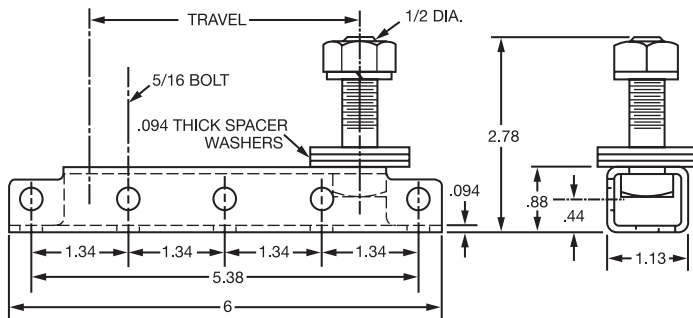
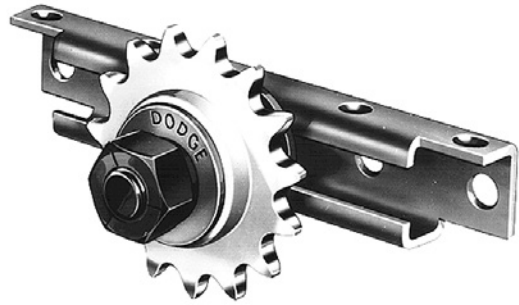


## RELATED PRODUCTS

### Tensioner Frame, Idler Sprockets

Proper chain tension is necessary for normal life expectancy. It's also a prime consideration for the efficient, quiet operation of the drive.

The tensioner frame shown below provides an economical means of locating an idler sprocket on a 1/2" diameter machine bolt or a 5/8" diameter spacer. Frame can be mounted in several positions on surfaces either parallel or perpendicular to the chain, suitable for either conventional or cantilever mounting.



#### Chain Tensioner Frame, P/N 102050

This formed steel frame has mounting holes in the bottom and one side so it can be mounted in several positions on surfaces parallel or perpendicular to the chain. Included is a 5/8" O.D. sleeve and a 1/2" diameter machine bolt to use with 1/2" and 5/8" bore idler sprockets.

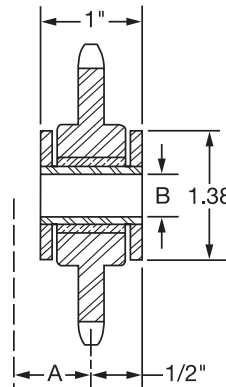
Spacer washers may be used to obtain the chain clearance required. Idler sprocket table below shows minimum space required for chain clearance.

Part Number **102050**

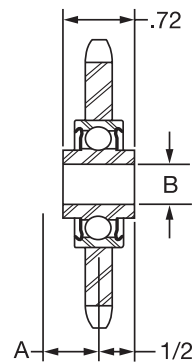
Weight .73 lbs

#### Idler Sprockets

Although these idler sprockets are designed to be used with the frames shown above, they can be mounted on standard machine bolts as shown in table below. Idler sprockets will operate at the same speeds permitted for driver sprockets of the same number of teeth. They are machined all over with teeth hardened to assure smooth-running drives. They are available with either bronze sleeve or ball bearings in the sprocket bore. The sleeve bearing runs on a hardened and ground steel journal. The ball bearings are double-sealed and prelubricated.



**SLEEVE BEARING TYPE**



**BALL BEARING TYPE**

| For Chain: |       | Description + | Part No. | No. of Spkt. Teeth | Spkt. O.D. | Brg. Type | Wt.  | A * | B † | Ref. Old No. |
|------------|-------|---------------|----------|--------------------|------------|-----------|------|-----|-----|--------------|
| No.        | Pitch |               |          |                    |            |           |      |     |     |              |
| 35         | 3/8"  | 31E20         | 102052   | 20                 | 2.593      | Brz.      | .53  | .59 | 1/2 | CT320        |
|            |       | 35BB20H       | 102060   |                    |            | Ball      | .30  | .44 | 5/8 | 320H         |
| 41-40      | 1/2"  | 41E15         | 102053   | 15                 | 2.652      | Brz.      | .58  | .59 | 1/2 | CT415        |
| 40         |       | 40BB17H       | 102061   | 17                 | 2.974      | Ball      | .50  | .44 | 5/8 | 417H         |
|            |       | 40BB18H       | 102070   | 18                 | 3.14       | Ball      | .53  | .44 | 5/8 | ...          |
| 50         | 5/8"  | 51E15         | 102054   | 15                 | 3.315      | Brz       | .83  | .72 | 1/2 | CT515        |
|            |       | 50BB15H       | 102062   |                    |            | Ball      | .60  | .56 | 5/8 | 515H         |
|            |       |               | 50BB17H  | 102073             | 17         | .372      | Ball | .78 | .56 | 5/8          |
| 60, 60H    | 3/4"  | 61E14         | 102055   | 14                 | 3.736      | Brz.      | 1.09 | .81 | 1/2 | CT614        |
|            |       | 60BB13H       | 102063   | 13                 | 3.493      | Ball      | .90  | .66 | 5/8 | 613H         |
|            |       | 60BB15H       | Δ        | 15                 | 3.98       | Ball      | 1.06 | .66 | 5/8 | ...          |
| 80, 80H    | 1"    | 80BB12H       | 102064   | 12                 | 4.332      | Ball      | 1.5  | .69 | 5/8 | 812H         |

\* Minimum space required for chain clearance.

† Size of standard machine bolt on which sprocket can be mounted.

Δ Non-Stock. Allow 2-4 weeks delivery.

+ "H" suffix indicates hardened teeth

|                                  |                               |                           |                                       |
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## RELATED PRODUCTS

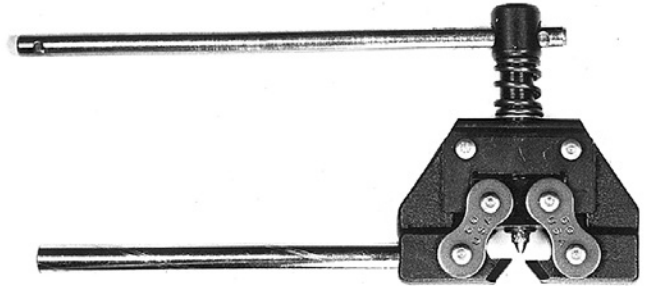
### Chain Tools



**Chain Assembly Tools**

This unique tool was designed to make sizes 35 thru 240 chain installation easy. By hooking the two jaws into each end of the chain and turning the screw (handle) until the two ends almost meet, the connecting link can be inserted and fastened in place. The photo shows the Model 35 tool. The Model 80 uses a T-handle instead of a knob.

| For Chain Nos. | Jaw Spread of Tool | Part No. | Wt. (Lbs.) |
|----------------|--------------------|----------|------------|
| 35 thru 60     | 2"                 | 098190   | .4         |
| 80 thru 240    | 5"                 | 098191   | 2.2        |



**Chain Pin Extractors  
(Chain Breaker)**

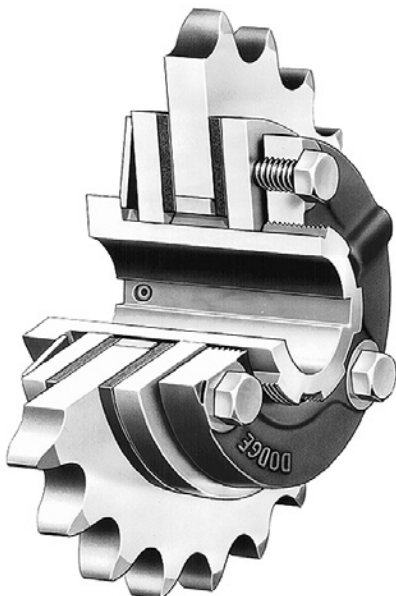
This fast working tool is practical for removing chain pins when roller chain needs to be disconnected or when various lengths of chain need to be made up.

Three sizes of pin extractors are available to use on riveted and cottered chain, sizes 25 thru 160. This tool, if properly used, will not damage chain, and pins can be reused.

| For Chain Nos. | Part No. | Ref. Model No. | Wt. (Lbs.) | Replacement Parts |          |
|----------------|----------|----------------|------------|-------------------|----------|
|                |          |                |            | Screw & Tip       | Tip Only |
| 25 thru 50     | 098175   | 101-1          | 1.0        | 391301*           | 098180   |
| 60 thru 80     | 098176   | 101-2          | 1.9        | 391304            | 098181   |
| 100 thru 160   | 098177   | 101-3          | 8.5        | 391308            | 098182   |

\* Includes handle

**TORQUE-TAMER torque overload clutch offers thrifty overload protection that's a cinch to adjust.**



See TORQUE TAMER Section for complete specifications and ordering information.

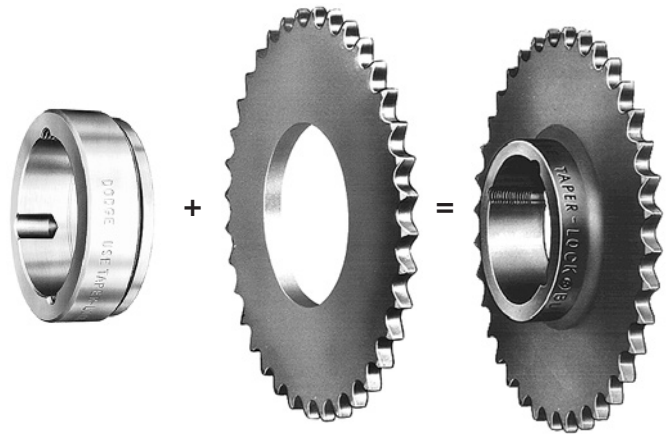
|                                  |                               |                           |                                       |
|----------------------------------|-------------------------------|---------------------------|---------------------------------------|
| FEATURES/BENEFITS<br>PAGE PT14-2 | SPECIFICATIONS<br>PAGE PT14-3 | SELECTION<br>PAGE PT14-16 | ENGINEERING/TECHNICAL<br>PAGE PT14-30 |
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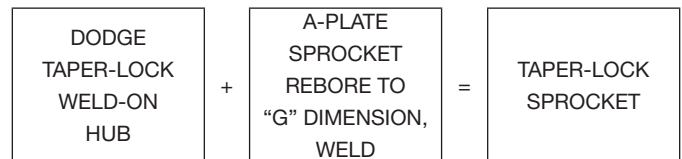
## ENGINEERING/TECHNICAL

### Custom TAPER-LOCK Sprockets

Non-stock or special TAPER-LOCK sprockets may be fabricated from stock TAPER-LOCK hubs and A-Plate sprockets rebored to fit the hubs. This provides the capability for fabricating sprockets with larger bore capacity, or number of teeth that are stocked as A-Plate but not TAPER-LOCK. This operation can be done on location, or supplied by DODGE, price on application. DODGE TAPER-LOCK hubs are available in three types: S, K and W/WA. All are of quality steel bar stock or forgings, easily welded, and ready to accept TAPER-LOCK Bushings. For more detailed information and dimensions, refer to Bushings/Hubs section of this catalog.



| Chain Pitch | No. Teeth | TAPER-LOCK Hub | A-Plate Sprocket | Fabricated Sprocket |
|-------------|-----------|----------------|------------------|---------------------|
| 50          | 50        | S30-6          | 50A50            | 50BTL50             |
| 60          | 34        | S20-6          | 60A34            | 60BTL34             |
| 60          | 96        | S35            | 60A96            | 60BTL96             |
| 100         | 42        | 835            | 100A42           | 100BTL42            |
| 140         | 80        | WA60           | 140A80           | 140CTL80            |
| 240         | 54        | WA70           | 240A54           | 240CTL54            |



| Hub No. $\diamond$ | Part No. | For Use With Bush. + | Bushings Bore Range | A-Plate Rebore Dia. | Minimum Number Teeth for Chain Pitch No. |       |    |    |    |     |     |     |     |     |     |     |
|--------------------|----------|----------------------|---------------------|---------------------|------------------------------------------|-------|----|----|----|-----|-----|-----|-----|-----|-----|-----|
|                    |          |                      |                     |                     | 35                                       | 40/41 | 50 | 60 | 80 | 100 | 120 | 140 | 160 | 180 | 200 | 240 |
| S16-4              | 097023   | 1610                 | 1/2 - 11/16         | 2.875 $\Delta$      | 31                                       | 24    | —  | —  | —  | —   | —   | —   | —   | —   | —   | —   |
| S16-6              | 097024   | 1610                 | 1/2 - 11/16         | 2.875 $\Delta$      | —                                        | —     | 21 | 19 | —  | —   | —   | —   | —   | —   | —   | —   |
| S20-6              | 097025   | 2012                 | 1/2 - 2-1/8         | 3.4375 $\Delta$     | 36                                       | 28    | 24 | 21 | —  | —   | —   | —   | —   | —   | —   | —   |
| S20-8              | 097015   | 2012                 | 1/2 - 2-1/8         | 3.4375 $\Delta$     | —                                        | —     | —  | —  | 17 | —   | —   | —   | —   | —   | —   | —   |
| S25-6              | 097016   | 2517                 | 1/2 - 2-11/16       | 4.125 $\Delta$      | 42                                       | 33    | 27 | 24 | —  | —   | —   | —   | —   | —   | —   | —   |
| S25-8              | 097017   | 2517                 | 1/2 - 2-11/16       | 4.125 $\Delta$      | —                                        | —     | —  | —  | 19 | —   | —   | —   | —   | —   | —   | —   |
| S25-10             | 097018   | 2517                 | 1/2 - 2-11/16       | 4.125 $\Delta$      | —                                        | —     | —  | —  | —  | 16  | —   | —   | —   | —   | —   | —   |
| S25-16             | 097019   | 2517                 | 1/2 - 2-11/16       | 4.125 $\Delta$      | —                                        | —     | —  | —  | —  | —   | 15  | 13  | 12  | —   | —   | —   |
| S30-10             | 097020   | 3020                 | 7/8 - 3-1/4         | 5.125 $\Delta$      | 49                                       | 39    | 32 | 28 | 22 | 19  | —   | —   | —   | —   | —   | —   |
| S30-16             | 097021   | 3020                 | 7/8 - 3-1/4         | 5.125 $\Delta$      | —                                        | —     | —  | —  | —  | —   | —   | 17  | 15  | 14  | —   | —   |
| S35                | 097022   | 3535                 | 1-3/16 - 3-15/16    | 6.375 $\Delta$      | —                                        | 44    | 38 | 33 | 26 | 22  | 20  | 17  | 16  | —   | —   | —   |
| WA40               | 228089   | 4040                 | 1-7/16 - 4-7/16     | 7.250 $\Delta$      | —                                        | —     | 45 | 38 | 30 | 25  | 22  | 20  | 18  | 17  | 15  | —   |
| WA45               | 228090   | 4545                 | 1-15/16 - 4-15/16   | 8.000+              | —                                        | —     | 50 | 43 | 33 | 28  | 24  | 21  | 20  | 18  | 17  | 15  |
| WA50               | 228091   | 5050                 | 2-7/16 - 5          | 8.750+              | —                                        | —     | 52 | 46 | 35 | 29  | 26  | 23  | 21  | 19  | 18  | 15  |
| WA60               | 228092   | 6050                 | 3-7/16 - 6          | 12.250+             | —                                        | —     | —  | —  | 47 | 39  | 34  | 29  | 26  | 24  | 22  | 19  |
| WA70               | 228093   | 7060                 | 3-15/16 - 7         | 13.500+             | —                                        | —     | —  | —  | 51 | 42  | 36  | 32  | 28  | 26  | 24  | 21  |
| WA80               | 228094   | 8065                 | 4-7/16 - 8          | 14.250+             | —                                        | —     | —  | —  | —  | 44  | 38  | 33  | 30  | 27  | 25  | 21  |
| WA100              | 228095   | 10085                | 7 - 10              | 18.750+             | —                                        | —     | —  | —  | —  | —   | 47  | 41  | 36  | 33  | 30  | 26  |

$\diamond$  Refer to D1-12 & 13 for hub dimensions

REBORE TOLERANCES

$\Delta$  +.004 + .001

+ +.010 + .004

|                                  |                               |                           |                                  |
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## Sprocket Pitch Diameters

| No.<br>Teeth | Chain Number |        |        |        |        |        |        |        |        |        |        |        |        |         |
|--------------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
|              | 25           | 35     | 41     | 40     | 50     | 60     | 80     | 100    | 120    | 140    | 160    | 180    | 200    | 240     |
| 9            | .731         | 1.097  | 1.462  | 1.462  | 1.828  | 2.193  | 2.924  | 3.655  | 4.356  | 5.117  | 5.848  | 6.579  | 7.310  | 8.771   |
| 10           | .809         | 1.214  | 1.618  | 1.618  | 2.023  | 2.427  | 3.236  | 4.045  | 4.854  | 5.663  | 6.472  | 7.281  | 8.090  | 9.708   |
| 11           | .887         | 1.331  | 1.775  | 1.775  | 2.219  | 2.663  | 3.550  | 4.438  | 5.325  | 6.213  | 7.100  | 7.986  | 8.875  | 10.649  |
| 12           | .996         | 1.449  | 1.932  | 1.932  | 2.415  | 2.898  | 3.864  | 4.830  | 5.796  | 6.762  | 7.728  | 8.693  | 9.660  | 11.591  |
| 13           | 1.045        | 1.567  | 2.089  | 2.089  | 2.612  | 3.134  | 4.179  | 5.224  | 6.269  | 7.313  | 8.358  | 9.402  | 10.447 | 12.536  |
| 14           | 1.124        | 1.685  | 2.247  | 2.247  | 2.809  | 3.371  | 4.494  | 5.618  | 6.741  | 7.865  | 8.988  | 10.112 | 11.235 | 13.482  |
| 15           | 1.203        | 1.804  | 2.405  | 2.405  | 3.006  | 3.608  | 4.810  | 6.013  | 7.215  | 8.418  | 9.620  | 10.822 | 12.025 | 14.429  |
| 16           | 1.282        | 1.922  | 2.563  | 2.563  | 3.204  | 3.845  | 5.126  | 6.408  | 7.698  | 8.971  | 10.252 | 11.533 | 12.815 | 15.377  |
| 17           | 1.361        | 2.041  | 2.721  | 2.721  | 3.401  | 4.082  | 5.442  | 6.803  | 8.163  | 9.524  | 10.844 | 12.245 | 13.605 | 16.327  |
| 18           | 1.440        | 2.160  | 2.879  | 2.879  | 3.599  | 4.319  | 5.759  | 7.199  | 8.639  | 10.078 | 11.518 | 12.957 | 14.397 | 17.276  |
| 19           | 1.519        | 2.279  | 3.038  | 3.038  | 3.798  | 4.557  | 6.076  | 7.595  | 9.114  | 10.633 | 12.152 | 13.670 | 15.190 | 18.227  |
| 20           | 1.598        | 2.397  | 3.196  | 3.196  | 3.995  | 4.794  | 6.392  | 7.990  | 9.588  | 11.186 | 12.784 | 14.383 | 15.980 | 19.177  |
| 21           | 1.678        | 2.516  | 3.355  | 3.355  | 4.194  | 5.033  | 6.710  | 8.388  | 10.065 | 11.743 | 13.420 | 15.096 | 16.775 | 20.129  |
| 22           | 1.757        | 2.635  | 3.513  | 3.513  | 4.392  | 5.270  | 7.027  | 8.784  | 10.541 | 12.297 | 14.054 | 15.810 | 17.567 | 21.080  |
| 23           | 1.836        | 2.754  | 3.673  | 3.672  | 4.590  | 5.508  | 7.344  | 9.180  | 11.016 | 12.852 | 14.688 | 16.524 | 18.360 | 22.032  |
| 24           | 1.915        | 2.873  | 3.831  | 3.831  | 4.788  | 5.746  | 7.661  | 9.576  | 11.492 | 13.407 | 15.322 | 17.238 | 19.153 | 22.984  |
| 25           | 1.995        | 2.992  | 3.989  | 3.989  | 4.987  | 5.984  | 7.979  | 9.974  | 11.969 | 13.963 | 15.958 | 17.952 | 19.947 | 23.936  |
| 26           | 2.074        | 3.111  | 4.148  | 4.148  | 5.185  | 6.222  | 8.296  | 10.370 | 12.444 | 14.518 | 16.592 | 18.666 | 20.740 | 24.889  |
| 27           | ....         | 3.230  | 4.307  | 4.307  | 5.384  | 6.461  | 8.614  | 10.768 | 12.921 | 15.075 | 17.228 | 19.381 | 21.535 | 25.841  |
| 28           | 2.233        | 3.349  | 4.465  | 4.465  | 5.582  | 6.698  | 8.931  | 11.164 | 13.397 | 15.629 | 17.862 | 20.096 | 22.327 | 26.794  |
| 29           | ....         | 3.468  | 4.625  | 4.625  | 5.781  | 6.937  | 9.249  | 11.561 | 13.874 | 16.186 | 18.498 | 20.810 | 23.123 | 27.747  |
| 30           | 2.392        | 3.588  | 4.783  | 4.783  | 5.979  | 7.175  | 9.567  | 11.959 | 14.351 | 16.742 | 19.134 | 21.525 | 23.917 | 28.700  |
| 31           | ....         | 3.707  | 4.942  | 4.942  | 6.178  | 7.413  | 9.884  | 12.355 | 14.826 | 17.297 | 19.768 | 22.240 | 24.710 | 29.654  |
| 32           | 2.551        | 3.826  | 5.101  | 5.101  | 6.376  | 7.652  | 10.202 | 12.753 | 15.303 | 17.854 | 20.404 | 22.955 | 25.505 | 30.607  |
| 33           | ....         | 3.945  | 5.260  | 5.260  | 6.575  | 7.890  | 10.520 | 13.150 | 15.780 | 18.410 | 21.040 | 23.670 | 26.300 | 31.560  |
| 34           | ....         | 4.064  | 5.419  | 5.419  | 6.774  | 8.129  | 10.838 | 13.548 | 16.257 | 18.967 | 21.676 | 24.385 | 27.095 | 32.514  |
| 35           | ....         | 4.184  | 5.578  | 5.578  | 6.973  | 8.367  | 11.156 | 13.945 | 16.734 | 19.523 | 22.312 | 25.101 | 27.890 | 33.467  |
| 36           | 2.869        | 4.303  | 5.737  | 5.737  | 7.171  | 8.606  | 11.474 | 14.343 | 17.211 | 20.080 | 22.948 | 25.815 | 28.685 | 34.421  |
| 37           | ....         | 4.422  | 5.896  | 5.896  | 7.370  | 8.841  | 11.792 | 14.740 | 17.688 | 20.636 | 23.584 | 26.531 | 29.480 | 35.375  |
| 38           | ....         | 4.541  | 6.055  | 6.055  | 7.569  | 9.083  | 12.110 | 15.138 | 18.165 | 21.193 | 24.220 | 27.246 | 30.275 | 36.329  |
| 39           | ...          | 4.661  | 6.214  | 6.214  | 7.768  | 9.321  | 12.428 | 15.535 | 18.642 | 21.749 | 24.856 | 27.962 | 31.070 | 37.283  |
| 40           | 3.187        | 4.780  | 6.373  | 6.373  | 7.966  | 9.560  | 12.745 | 15.933 | 19.119 | 22.306 | 25.492 | 28.677 | 31.865 | 38.237  |
| 41           | ....         | 4.599  | 6.532  | 6.532  | 8.165  | 9.798  | 13.064 | 16.330 | 19.596 | 22.862 | 26.128 | 29.393 | 32.660 | 39.191  |
| 42           | ....         | 5.018  | 6.691  | 6.691  | 8.364  | 10.037 | 13.382 | 16.728 | 20.073 | 23.419 | 26.764 | 30.108 | 33.455 | 40.145  |
| 43           | ....         | 5.138  | 6.850  | 6.850  | 8.563  | 10.275 | 13.700 | 17.125 | 20.550 | 23.975 | 27.400 | 30.824 | 34.250 | 41.099  |
| 44           | ....         | 5.257  | 7.009  | 7.009  | 8.761  | 10.514 | 14.018 | 17.523 | 21.027 | 24.532 | 28.036 | 31.539 | 35.045 | 42.053  |
| 45           | 3.584        | 5.376  | 7.168  | 7.168  | 8.960  | 10.752 | 14.336 | 17.920 | 21.504 | 25.088 | 28.672 | 32.255 | 35.840 | 43.007  |
| 46           | ....         | 5.495  | 7.327  | 7.327  | 9.159  | 10.991 | 14.654 | 18.318 | 21.981 | 25.645 | 29.308 | 32.971 | 36.635 | 43.961  |
| 47           | ....         | 5.615  | 7.486  | 7.486  | 9.358  | 11.229 | 14.972 | 18.715 | 22.458 | 26.201 | 29.944 | 33.686 | 37.430 | 44.915  |
| 48           | 3.823        | 5.734  | 7.645  | 7.645  | 9.556  | 11.468 | 15.290 | 19.113 | 22.935 | 26.758 | 30.580 | 34.402 | 38.225 | 45.869  |
| 49           | ....         | 5.853  | 7.804  | 7.804  | 9.755  | 11.706 | 15.608 | 19.510 | 23.412 | 27.314 | 31.216 | 35.118 | 39.020 | 46.824  |
| 50           | ....         | 5.972  | 7.963  | 7.963  | 9.954  | 11.945 | 15.926 | 19.908 | 23.889 | 27.871 | 31.852 | 35.834 | 39.815 | 47.778  |
| 51           | ....         | 6.092  | 8.122  | 8.122  | 10.153 | 12.183 | 16.244 | 20.305 | 24.366 | 28.427 | 32.488 | 36.549 | 40.610 | 48.732  |
| 52           | ....         | 6.211  | 8.281  | 8.281  | 10.351 | 12.422 | 16.562 | 20.703 | 24.843 | 28.984 | 33.124 | 37.265 | 41.405 | 49.687  |
| 53           | ....         | 6.330  | 8.440  | 8.440  | 10.550 | 12.660 | 16.850 | 21.100 | 25.320 | 29.540 | 33.760 | 37.981 | 42.200 | 50.641  |
| 54           | 4.300        | 6.449  | 8.599  | 8.599  | 10.749 | 12.599 | 17.198 | 21.498 | 25.797 | 30.097 | 34.396 | 38.696 | 42.995 | 51.595  |
| 55           | ....         | 6.569  | 8.758  | 8.758  | 10.948 | 13.137 | 17.516 | 21.895 | 26.274 | 30.653 | 35.032 | 39.412 | 43.790 | 52.550  |
| 56           | ....         | 6.688  | 8.917  | 8.917  | 11.147 | 13.376 | 17.835 | 22.294 | 26.753 | 31.211 | 35.670 | 40.128 | 44.587 | 53.504  |
| 57           | ....         | 6.807  | 9.077  | 9.077  | 11.346 | 13.615 | 18.153 | 22.691 | 27.230 | 31.765 | 36.306 | 40.844 | 45.383 | 54.458  |
| 58           | ....         | 6.927  | 9.235  | 9.235  | 11.544 | 13.853 | 18.789 | 23.089 | 27.707 | 32.324 | 36.942 | 41.560 | 46.177 | 55.413  |
| 59           | ....         | 7.046  | 9.395  | 9.395  | 11.743 | 14.092 | 18.789 | 23.486 | 28.184 | 32.881 | 37.578 | 42.276 | 46.973 | 56.368  |
| 60           | 4.777        | 7.165  | 9.554  | 9.554  | 11.942 | 14.330 | 19.107 | 23.584 | 28.661 | 33.437 | 38.214 | 42.991 | 47.768 | 57.322  |
| 68           | ....         | 8.120  | 10.826 | 10.826 | 13.533 | 16.240 | 21.653 | 27.066 | 32.480 | 37.893 | 43.306 | 48.719 | 54.132 | 64.958  |
| 72           | 5.732        | 5.597  | 11.463 | 11.463 | 14.329 | 17.195 | 22.926 | 28.658 | 34.359 | 40.121 | 45.852 | 51.583 | 57.315 | 68.777  |
| 76           | ....         | 9.074  | 12.099 | 12.099 | 15.124 | 18.149 | 24.198 | 30.248 | 36.297 | 42.347 | 48.396 | 54.446 | 60.495 | 72.595  |
| 80           | ....         | 9.552  | 12.736 | 12.736 | 15.919 | 19.103 | 25.471 | 31.839 | 38.207 | 44.574 | 50.942 | 57.310 | 63.678 | 76.414  |
| 84           | ....         | 10.029 | 13.372 | 13.372 | 16.715 | 20.058 | 26.744 | 33.430 | 40.116 | 46.802 | 53.488 | 60.175 | 66.860 | 80.233  |
| 95           | ....         | 11.342 | 15.122 | 15.122 | 18.903 | 22.684 | 30.245 | 37.806 | 45.368 | 52.929 | 60.490 | 68.051 | 75.612 | 90.735  |
| 96           | ....         | 11.461 | 15.282 | 15.252 | 19.102 | 22.922 | 30.563 | 38.204 | 45.845 | 53.485 | 61.126 | 68.767 | 76.408 | 91.690  |
| 102          | ....         | 12.177 | 16.236 | 16.236 | 20.296 | 24.355 | 32.473 | 40.591 | 48.710 | 56.828 | 64.946 | 73.064 | 81.182 | 97.418  |
| 112          | ....         | 13.371 | 17.827 | 17.527 | 22.284 | 26.741 | 35.655 | 44.569 | 53.483 | 62.396 | 71.310 | 80.225 | 89.137 | 106.966 |

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## ENGINEERING/TECHNICAL

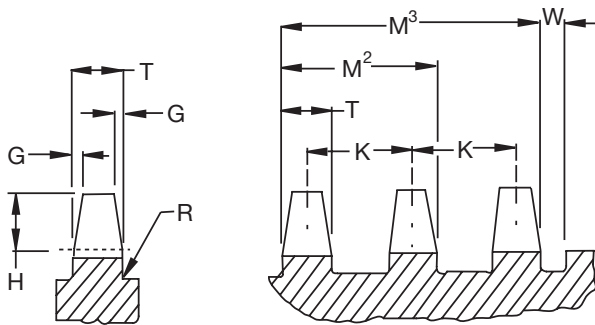
### Sprocket Dimensions, Chain Data

| Ref. For Single & Multiple Chain |       |             |              | G    | H    | K     | M <sup>2</sup> | M <sup>3</sup> | R Max. | Nominal Tooth Thickness (T) |                            | Tolerance on "T"        |                                      |                  |
|----------------------------------|-------|-------------|--------------|------|------|-------|----------------|----------------|--------|-----------------------------|----------------------------|-------------------------|--------------------------------------|------------------|
| Chain No.                        | Pitch | Roller Dia. | Roller Width |      |      |       |                |                |        | Using Single Strand Chain   | Using 2 and 3 Strand Chain | For Machined Sprocket * | For Sprocket Which Is Not Machined † | W Side Clearance |
| 35                               | 3/8   | .200        | 3/16         | 3/64 | 3/16 | .399  | .561           | .960           | .015   | .168                        | .162                       | +0.000-.008             | +0.000-.027                          | 3/16             |
| 41                               | 1/2   | .306        | 1/4          | 1/16 | 1/4  | ....  | ....           | ....           | .020   | .227                        | ....                       | +0.000-.009             | +0.000-.032                          | 7/32             |
| 40                               | 1/2   | .312        | 5/16         | 1/16 | 1/4  | .566  | .841           | 1.407          | .020   | .284                        | .275                       | +0.000-.009             | +0.000-.035                          | 1/4              |
| 50                               | 5/8   | .400        | 3/8          | 5/64 | 5/16 | .713  | 1.045          | 1.758          | .025   | .343                        | .332                       | +0.000-.010             | +0.000-.036                          | 9/32             |
| 60                               | 3/4   | .469        | 1/2          | 3/32 | 3/8  | .897  | 1.341          | 2.238          | .030   | .459                        | .444                       | +0.000-.011             | +0.000-.036                          | 11/32            |
| 80                               | 1     | .625        | 5/8          | 1/8  | 1/2  | 1.153 | 1.710          | 2.863          | .040   | .575                        | .557                       | +0.000-.012             | +0.000-.040                          | 7/16             |
| 100                              | 1-1/4 | .750        | 3/4          | 5/32 | 5/8  | 1.408 | 2.077          | 3.485          | .050   | .692                        | .669                       | +0.000-.014             | +0.000-.046                          | 17/32            |
| 120                              | 1-1/2 | .875        | 1            | 3/16 | 3/4  | 1.789 | 2.683          | 4.472          | .060   | .924                        | .894                       | +0.000-.016             | +0.000-.057                          | 21/32            |
| 140                              | 1-3/4 | 1.000       | 1            | 7/32 | 7/8  | 1.924 | 2.818          | 4.742          | .070   | .924                        | .894                       | +0.000-.016             | +0.000-.057                          | 3/4              |
| 160                              | 2     | 1.125       | 1-1/4        | 1/4  | 1    | 2.305 | 3.424          | 5.729          | .080   | 1.156                       | 1.119                      | +0.000-.019             | +0.000-.062                          | 7/8              |

\* Represents Type B or C hub type sprocket.

† Represents an "A" plate sprocket or a welded sprocket using an "A" plate.

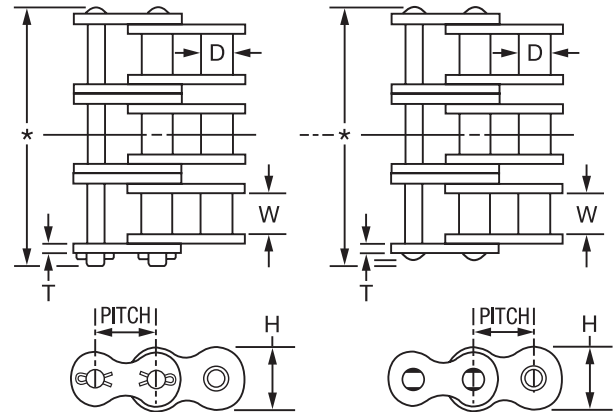
#### Sprockets



Single Stand

2 and 3 Strand

#### Roller Chain



COTTERED TYPE

RIVETED TYPE

#### ANSI Standard Roller Chain Dimensions

| ANSI No. | Roller W | Roller D | Inside Link Plate Height | Cottered Chain Width* | Riveted Chain Width* | Average Tensile Strength |
|----------|----------|----------|--------------------------|-----------------------|----------------------|--------------------------|
| 25-2     | 1/8      | .130     | .237                     | .37                   | .34                  | 875                      |
| 25-2     | 1/8      | .130     | .237                     | .63                   | .59                  | 1750                     |
| 25-3     | 1/8      | .130     | .237                     | .88                   | .84                  | 2626                     |
| 35       | 3/16     | .200     | .356                     | .56                   | .50                  | 2100                     |
| 35-2     | 3/16     | .200     | .356                     | .96                   | .90                  | 4200                     |
| 35-3     | 3/16     | .200     | .356                     | 1.36                  | 1.31                 | 6300                     |
| 41       | 1/4      | .306     | .383                     | .65                   | .57                  | 2000                     |
| 40       | 5/16     | .312     | .475                     | .72                   | .67                  | 3700                     |
| 40-2     | 5/16     | .312     | .475                     | 1.29                  | 1.24                 | 7400                     |
| 40-3     | 5/16     | .312     | .475                     | 1.85                  | 1.80                 | 11100                    |
| 50       | 3/8      | .400     | .594                     | .89                   | .83                  | 6600                     |
| 50-2     | 3/8      | .400     | .594                     | 1.60                  | 1.55                 | 13200                    |
| 50-3     | 3/8      | .400     | .594                     | 2.31                  | 2.26                 | 19800                    |
| 60       | 1/2      | .469     | .712                     | 1.11                  | 1.04                 | 8500                     |
| 60-2     | 1/2      | .469     | .712                     | 2.01                  | 1.94                 | 17000                    |
| 60-3     | 1/2      | .469     | .712                     | 2.91                  | 2.84                 | 25500                    |
| 80       | 5/8      | .625     | .950                     | 1.44                  | 1.32                 | 14500                    |
| 80-2     | 5/8      | .625     | .950                     | 2.59                  | 2.47                 | 29000                    |
| 80-3     | 5/8      | .625     | .950                     | 3.74                  | 3.62                 | 43500                    |

\* Dimensions are across pins.

| ANSI No. | Roller W | Roller D | Inside Link Plate Height | Cottered Chain Width* | Riveted Chain Width* | Average Tensile Strength |
|----------|----------|----------|--------------------------|-----------------------|----------------------|--------------------------|
| 100      | 3/4      | .750     | 1.187                    | 1.73                  | 1.61                 | 24000                    |
| 100-2    | 3/4      | .750     | 1.187                    | 3.14                  | 3.02                 | 48000                    |
| 100-3    | 3/4      | .750     | 1.187                    | 4.56                  | 4.43                 | 72000                    |
| 120      | 1        | .875     | 1.425                    | 2.14                  | 2.00                 | 34000                    |
| 120-2    | 1        | .875     | 1.425                    | 3.93                  | 3.79                 | 68000                    |
| 120-3    | 1        | .875     | 1.425                    | 5.72                  | 5.58                 | 102000                   |
| 140      | 1        | 1.000    | 1.662                    | 2.31                  | 2.14                 | 46000                    |
| 140-2    | 1        | 1.000    | 1.662                    | 4.24                  | 4.07                 | 92000                    |
| 140-3    | 1        | 1.000    | 1.662                    | 6.16                  | 6.00                 | 138000                   |
| 160      | 1-1/4    | 1.125    | 1.900                    | 2.73                  | 2.54                 | 58000                    |
| 160-2    | 1-1/4    | 1.125    | 1.900                    | 5.04                  | 4.85                 | 116000                   |
| 160-3    | 1-1/4    | 1.125    | 1.900                    | 7.35                  | 7.16                 | 174000                   |
| 180      | 1-13/32  | 1.406    | 2.137                    | 3.15                  | 2.88                 | 76000                    |
| 180-2    | 1-13/32  | 1.406    | 2.137                    | 5.75                  | 5.48                 | 152000                   |
| 180-3    | 1-13/32  | 1.406    | 2.137                    | 8.34                  | 8.07                 | 228000                   |
| 200      | 1-1/2    | 1.562    | 2.375                    | 3.44                  | 3.12                 | 95000                    |
| 200-2    | 1-1/2    | 1.562    | 2.375                    | 6.26                  | 5.94                 | 190000                   |
| 200-3    | 1-1/2    | 1.562    | 2.375                    | 9.08                  | 8.76                 | 285000                   |
| 240      | 1-7/8    | 1.875    | 2.812                    | 4.06                  | 3.72                 | 130000                   |
| 240-2    | 1-7/8    | 1.875    | 2.812                    | 7.52                  | 7.18                 | 260000                   |

|                                  |                               |                           |                                  |
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## Installation, Maintenance

### Installation of Roller Chain Drives

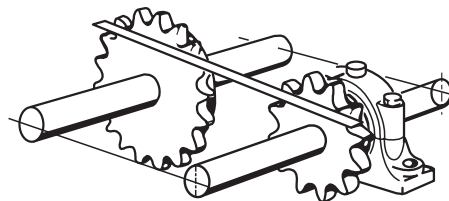
**Shaft Alignment** – Shafts must be parallel. The use of a spirit level is recommended to make sure shafts are horizontal; then, if the distance between the shafts are equal on both sides of the drive, the shafts are parallel. Shafts, bearings and supporting structure should be suitable to maintain this alignment.

**Sprocket Location** – Locate each sprocket as close as possible to a bearing.

**Sprocket Alignment** – Sprockets must be aligned accurately. This can best be accomplished by checking with a straight edge along the finished sides of the sprockets as shown in the drawing.

**Chain Tension** – Chains should be installed fairly tight with only a small amount of slack. In the case of vertical drives the chain should be kept snug. New chains will loosen up slightly as the joints seat themselves, causing initial elongation which is many times greater than the elongation during the balance of the chain life. After the first several weeks of operation it is advisable to adjust the centers, particularly on long center drives. After this initial elongation, with proper care and lubrication, roller chains will give long service without undue elongation or wear.

**Center Distance** – It is desirable to provide some means of adjusting the center distance between sprockets.



This is particularly true with drives of long center distance. When the centers are fixed it is advisable to use an idler sprocket to provide the proper chain tension originally, and also to compensate for natural chain wear.

**Hardened Teeth** – The advantages gained by hardening the teeth of the small sprocket easily offset the hardening cost. Longer life, increased strength, equalized wear between small and large sprockets—all result in lower overall cost to the chain drive user. Hardened steel sprockets are recommended for use under the following conditions: 1. Slow speed, heavily loaded drives where chains and sprockets are selected on the basis of chain tensile strengths; 2. Moderate speed drives where sprockets have 17 teeth or less; 3. High speed drives where sprockets have 25 teeth or less; 4. When speed ratios exceed 4 to 1; 5. When drives are operating exposed to dirty or dusty surroundings.

### Lubrication of Roller Chain Drives

Lubrication of roller chains is essential for effectively minimizing metal-to-metal bearing contact of pin-bushing joints of the chain. Oil should be applied to outside plate and inside plate edges, since access to pin-bushing areas is possible only through clearances between the outside plates and the inside plates. Oil applied on the center line of rollers cannot reach pin-bushing joints.

Chain drives should be protected against dirt and moisture and the oil supply kept free of contamination. Periodic oil change is desirable. A good grade of non-detergent petroleum base oil is recommended. Heavy oils and greases are generally too stiff to enter and fill the chain joints. The following table indicates the proper lubricant viscosity for various surrounding temperatures. For higher temperatures—consult factory.

| Temperature<br>Degrees F. | Recommended<br>Lubricant |
|---------------------------|--------------------------|
| 20 to 40                  | SAE 20                   |
| 40 to 100                 | SAE 30                   |
| 100 to 120                | SAE 40                   |
| 120 to 140                | SAE 50                   |

The method of lubrication, which is governed by the speed of the chain and the amount of power transmitted, is indicated in the HP Rating Tables. Note that these are minimum lubrication requirements and the use of a better type (for example, Type 4 instead of Type 3) is acceptable and may be beneficial. The four basic types of lubrication indicated are described below.

**Type A—Manual Lubrication** – Oil is applied periodically with a brush or spout can, preferably once every 8 hours of operation. Volume and frequency should be sufficient to prevent discoloration of lubricant in the chain joints.

**Type A – Drip Lubrication** – Oil drops are directed between the link plate edges from a drip lubricator. Volume and frequency should be sufficient to prevent discoloration of lubricant in the chain joints. Precaution must be taken against misdirection of the drops by windage,

**Type B – Bath or Disc Lubrication** – With bath lubrication the lower strand of chain runs through a sump of oil in the drive housing. The oil level should reach the pitch line of the chain at its lowest point while operating. With disc lubrication, the chain operates above the oil level. The disc picks up oil from the sump and deposits it onto the chain, usually by means of a trough. The diameter of the disc should be such as to produce rim speeds between 600 fpm minimum and 8000 fpm maximum.

**Type C – Oil Stream Lubrication** – The lubricant is usually supplied by a circulating pump capable of supplying each chain drive with a continuous stream of oil. The oil should be applied inside the chain loop evenly across the chain width, and directed at the lower strand.

|                                  |                               |                           |                                  |
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NOTES

V-Drives

FHP Drives

Drive Component  
Accessories

DYNA-SYNC

HT200/HTD  
Synchronous Drives

HT500  
Synchronous Drives

Roller Chain Sprockets