

Heavy-Duty Roller Chain



USARollerChain.com

Heavy Duty Roller Chain



Heavy Roller Chain - Heavy Duty Chain

Heavy Series Roller Chains are manufactured to ANSI B29.1 Standards but feature thicker side plates. Having thicker side plates not only drastically increases the strength and fatigue resistance of a roller chain but also reduces stretching and wear over time. Heavy-duty roller chains are optimal for agricultural applications, skid steers, heavy equipment, and any application you want to increase the chain's horsepower capabilities without going up a size.

USA Roller Chain and Sprockets have the widest selection of heavy chains; standardly, we stock simplex, duplex, triplex, double pitch, and even cottered heavy roller chains. However, if you don't see what you need, custom heavy-duty roller chains can be manufactured upon request.

HEAVY ROLLER CHAIN APPLICATIONS

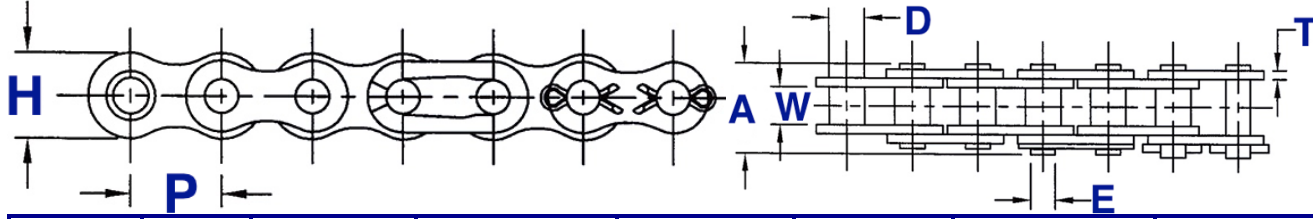
Heavy-duty series roller chains are engineered and designed with thicker side plates, allowing for a higher degree of energy transmission. These chains are ideal in scenarios where significant loads will often be persistent, including shock loads. Utilizing heavy series roller chains within demanding applications improves the working life of the chain and the capabilities of the machinery or equipment.

Common Applications for Heavy Duty Roller Chain Include:

- Agricultural applications, such as implement planters, drives, bailers, and gatherers.
- Plant machinery, such as drives, conveyors, and hoist mechanisms
- Heavy Equipment such as skid steers, loaders, and cranes
- Mixers, pump drives, and offset weight suspenders
- Cotton gins and grain applications
- Drive and conveying applications.

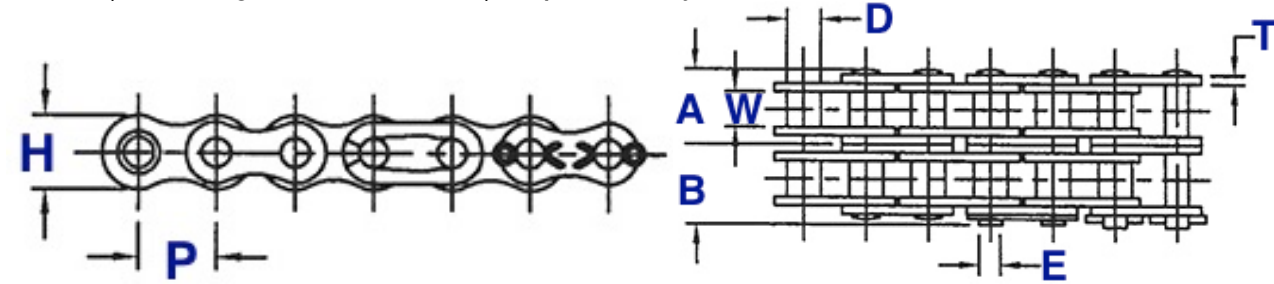
Heavy-Duty Roller Chain Dimensions

Simplex Chains:



| Chain Size | Pitch (P) | Roller Width (W) | Roller Diameter (D) | Overall Width (A) | Plate Height (H) | Plate Thickness (T) | Pin Diameter (E) | Weight (Per Ft) |
|------------------------------|-----------|------------------|---------------------|-------------------|------------------|---------------------|------------------|-----------------|
| <u>#25H</u> | 0.250" | 0.125" | 0.130" | 0.306" | 0.228" | 0.039" | 0.091" | 0.12 LBS |
| <u>#35H</u> | 0.375" | 0.188" | 0.200" | 0.456" | 0.356" | 0.060" | 0.141" | 0.36 LBS |
| <u>#40H</u> | 0.500" | 0.312" | 0.312" | 0.642" | 0.475" | 0.079" | 0.156" | 0.59 LBS |
| <u>#50H</u> | 0.625" | 0.375" | 0.400" | 0.794" | 0.594" | 0.093" | 0.200" | 0.75 LBS |
| <u>#60H</u> | 0.750" | 0.500" | 0.469" | 0.994" | 0.712" | 0.125" | 0.234" | 1.20 LBS |
| <u>#80H</u> | 1.000" | 0.625" | 0.625" | 1.290" | 0.950" | 0.157" | 0.312" | 1.96 LBS |
| <u>#100H</u> | 1.250" | 0.750" | 0.750" | 1.578" | 1.188" | 0.189" | 0.375" | 2.80 LBS |
| <u>#120H</u> | 1.500" | 1.000" | 0.875" | 1.966" | 1.425" | 0.219" | 0.437" | 4.00 LBS |
| <u>#140H</u> | 1.750" | 1.000" | 1.000" | 2.132" | 1.663" | 0.250" | 0.500" | 5.40 LBS |
| <u>#160H</u> | 2.000" | 1.250" | 1.125" | 2.564" | 1.901" | 0.281" | 0.563" | 7.09 LBS |
| <u>#180H</u> | 2.250" | 1.406" | 1.406" | 2.808" | 2.130" | 0.312" | 0.687" | 11.08 LBS |
| <u>#200H</u> | 2.500" | 1.500" | 1.562" | 3.160" | 2.376" | 0.375" | 0.782" | 13.54 LBS |
| <u>#240H</u> | 3.000" | 1.875" | 1.875" | 3.772" | 2.850" | 0.500" | 0.937" | 19.96 LBS |

Note: All of our heavy-duty series roller chains, regardless of quality level series, are supplied with solid rollers (excluding #25H and #35H). Duplex Heavy Roller Chains



| Chain Size | Pitch (P) | Roller Width (W) | Roller Diameter (D) | (A) | (B) | Plate Height (H) | Plate Thickness (T) | Pin Diameter (E) | Weight (Per Ft) |
|-------------------------------|-----------|------------------|---------------------|--------|--------|------------------|---------------------|------------------|-----------------|
| <u>60-2H</u> | 0.750" | 0.500" | 0.469" | 1.090" | 1.140" | 0.712" | 0.125" | 0.234" | 2.31 LBS |
| <u>80-2H</u> | 1.000" | 0.625" | 0.625" | 1.360" | 1.420" | 0.950" | 0.157" | 0.312" | 3.97 LBS |
| <u>100-2H</u> | 1.250" | 0.750" | 0.750" | 1.630" | 1.736" | 1.188" | 0.187" | 0.375" | 6.07 LBS |
| <u>120-2H</u> | 1.500" | 1.000" | 0.875" | 2.014" | 2.171" | 1.425" | 0.219" | 0.437" | 8.67 LBS |
| <u>140-2H</u> | 1.750" | 1.000" | 1.000" | 2.163" | 2.343" | 1.663" | 0.250" | 0.500" | 11.01 LBS |
| <u>160-2H</u> | 2.000" | 1.250" | 1.125" | 2.555" | 2.736" | 1.901" | 0.281" | 0.563" | 14.64 LBS |
| <u>200-2H</u> | 2.500" | 1.501" | 1.562" | 3.230" | 3.437" | 2.376" | 0.375" | 0.782" | 24.51 LBS |

Heavy Roller Chain Versus Standard

When comparing heavy-duty roller chains to standard roller chains, the primary difference is the thickness of the side plates. The addition of material gives the chain more capabilities in terms of transmitting power and withstanding shock loads. It is important to note that when changing from a standard chain to a heavy-duty chain, the heavy chain will have a higher overall width value due to the side plate thickness. Simplex heavy chains can operate on standard sprockets; however, when going with duplex or triplex heavy chains, special sprockets will be required with additional clearance between the plates to accommodate the thicker side plates. See the table below for side plate thickness comparisons.

| Size | 35 | 40 | 50 | 60 | 80 | 100 | 120 | 140 | 160 | 180 | 200 | 240 |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Heavy | 0.060" | 0.080" | 0.093" | 0.125" | 0.156" | 0.187" | 0.219" | 0.250" | 0.281" | 0.312" | 0.375" | 0.500" |
| Standard | 0.050" | 0.058" | 0.079" | 0.093" | 0.125" | 0.157" | 0.189" | 0.219" | 0.255" | 0.283" | 0.312" | 0.375" |
| Difference | 0.010" | 0.022" | 0.014" | 0.022" | 0.031" | 0.030" | 0.030" | 0.031" | 0.026" | 0.029" | 0.063" | 0.125" |