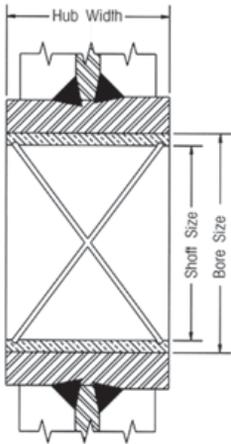


McKissick® Sheaves Bearings Application Information

(B) Bronze Bushing



Bronze Bushing

Slow line speed, moderate load and moderate use

- Maximum Bearing Pressure (BP): 4500 PSI
- Maximum Velocity at Bearing (BV): 1200 FPM
- Maximum Pressure Velocity Factor (PV): 55000

$$\text{Formula for BP} = \frac{\text{Line Pull} \times \text{Angle Factor (See Page 383)}}{\text{Shaft Size} \times \text{Hub Width (See example)}}$$



For underwater sheave applications, special bronze bushings are available. Consult the bearing manufacturer for applicable load.

Example:

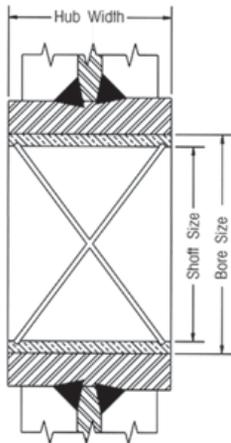
Using a 14 in. sheave (917191) with a 4600 lb line pull and an 80 degree angle between lines, determine maximum allowable line speed.

$$\text{BP} = \frac{\begin{matrix} \text{(Line Pull)} \\ 4600 \text{ lb} \end{matrix} \times \begin{matrix} \text{(Angle Factor)} \\ 1.53 \end{matrix}}{\begin{matrix} \text{(Shaft Size)} \\ 1.50 \end{matrix} \times \begin{matrix} \text{(Hub Width)} \\ 1.62 \end{matrix}} = 2896 \text{ PSI}$$

$$\text{BV} = \frac{\begin{matrix} \text{(PV Factor)} \\ 55000 \end{matrix}}{\begin{matrix} \text{(BP)} \\ 2896 \end{matrix}} = 19 \text{ FPM}$$

(R) Roller Bearings

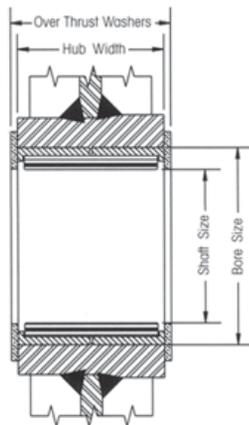
ROLLER BEARINGS
Bronze Bushings with "Figure 8" oil grooves are made from S.A.E. 660 bronze for cold finished shafts



Roller Bearings are designed to operate on shafts carburized to 60 Rockwell C and grounded to +/- .0005 of shaft size.

(W) Roller Bearing with Thrust Washers

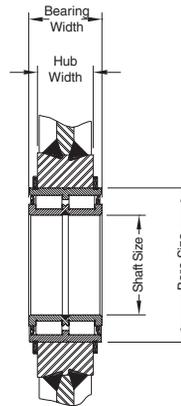
STANDARD STRAIGHT ROLLER BEARINGS
Heavier loads, higher speeds, more frequent use, radial loads only.



Roller Bearings without inner races are designed to operate on shafts carburized to 60 Rockwell C and grounded to +/- .0005 of shaft size.

(C) Full Complement Cylindrical Roller Bearing

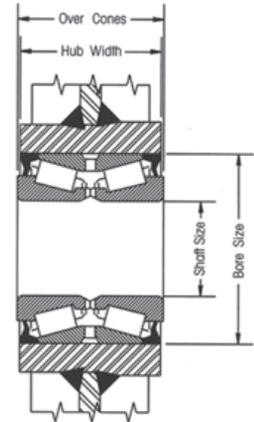
FULL COMPLIMENT, DOUBLE ROW, ROLLER BEARING
Heavy load, high speeds, continuous operation, axial and radial loads.



Cylindrical Roller Bearings with snap ring grooves are complete units with outer and inner rings, rib guided cylindrical rollers and sealing rings. They can support axial forces in both directions as well as radial forces. They have high dynamic and static load ratings.

(T) Tapered Roller Bearing

TAPERED ROLLER BEARINGS
Heavy loads, high speeds, continuous operation, axial and radial loads.



Tapered Bearings are designed to operate on shafts machined to +/- .0005 of shaft size. Applications should provide for tightening separator plates against bearing cones to adjust and insure proper function of bearings.