NORTHERN STRANDS

Stepped hub design proves better.

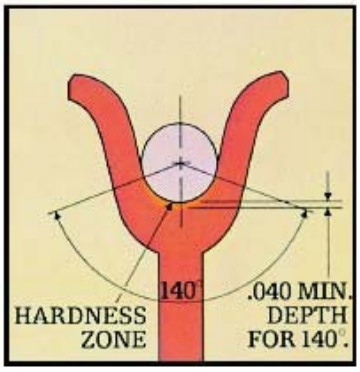
The McKissick hub is stepped to eliminate stress failure in the weld, common in traditional hub designs. The hub is pressed into place with complete metal-to-metal contact. This helps ensure an accurate alignment to the hubs axis so theres no wobble or lopping of the rotating sheave.The precision aligned hub/sheave wheel combination adds to the bearing life and keeps the sheave on the job longer.

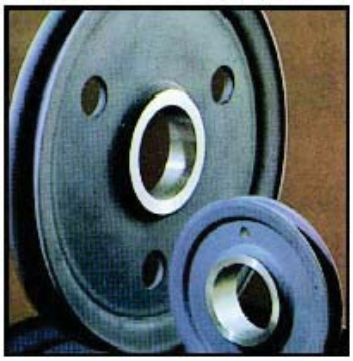
Full range of standard sheave sizes.

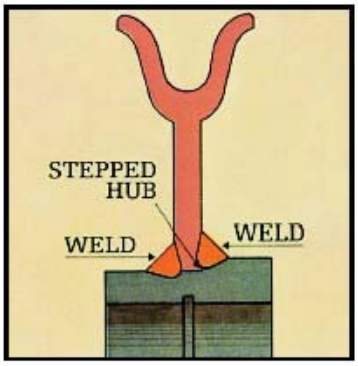
McKissick roll forged sheaves are available in a full range of sizes from 12 inches to 72 inches, and bearing styles and prices that best fit your application. Crosby also manufactures custom McKissick sheaves and can make minor modifications to standard sheaves as needed for special applications.

Flame hardened groove.

Crosbys hardening technique is a science. It provides a precise maximum hardness for wear-resistance across the wire rope contact area. The McKissick sheave groove is flame hardened to a minimum 35 Rockwell C for a 140, contact area with the wire rope. The solid steel plate provides the ideal surface for flame hardening and a closer tolerance fit to the wire rope to reduce fatigue and wear.







Closed die upset and roll forged not split.

Upsetting and roll forging forms the groove and flange walls in multiple steps, eliminating the need to split and weaken the groove. This exclusive forging process adds extra strength to the critical groove section. You can count on a McKissick sheave to give maximum life performance, because its forged to distribute the wire rope forces evenly over an accurately formed load surface. Plus, uniformity of the roll forged groove adds longer wire rope life.

Bearing selection to match your job requirement.

The McKissick Roll Forged sheave is available in the following configurations:

- Plain bore
- Bronze bushed
- Roller bearing
- Tapered roller bearing
- Lubrication thru hub
- Key ways
- Set screws

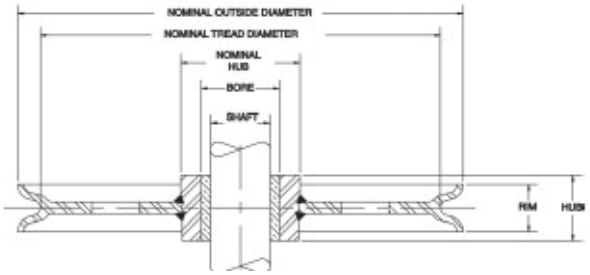
Solid steel no casting.

Every McKissick sheave starts as a single piece of solid carbon steel plate. Its flame - cut from closely checked stock, so theres no inherent web/rim flaw as you find in cast sheaves. Theres better balance and better distribution of forces with a McKissick roll forged sheave too. Casting can result in groove wall variations - either too thick or too thin - causing uneven stresses and early failure.

SHEAVES

McKissick® sheaves come in a variety of sizes to suit your specific applications. Check the tables for the size, bearing style and price that best fits your application. For applications that require unique specifications Crosby can make minor modifications to many of the sheaves listed at a reasonable charge. We can also custom design and manufacture sheaves to your exact requirements. Contact Crosby Sales to order McKissick sheaves and include the stock number and quantity. For special requirements or custom designed sheaves, furnish the following important information:

- Wireline Size
- Shaft Diameter
- Hub Diameter
- Bore Finished
- Nominal Outside Diameter
- Hub Width
- Rim Width
- Nominal Tread Diamter
- Other Special Requirements



ROLL FORGED SHEAVE FEATURES

- Unique upset roll forging process provides a thicker groove section for extra strength.
- Stepped Hubs are precisely centered and mechanically locked in place.
- Wireline grooves on sheave diameters of 14” and larger are flamed hardened for extra wear resistance.
- All sheaves have solid steel webs with holes for easy handling.
- Sheave weights can be made heavier or lighter than shown to fit your specific application.
- For more information ask for our special brochure describing the complete roll forging process.

McKISSICK ROLL FORGED SHEAVE CONFIGURATOR

The McKissick Roll Forged Sheave CONFIGURATOR system has been developed to simplify the selection and odering of McKissick Roll Forged sheaves. Although McKissick can custom manufacture any Roll-Forged sheave to your exact requirements, we have developed the system to allow quick and easy selection of the proper standard McKissick Roll Forged sheave required to meet your applications. Using standard sheaves will reduce the lead time in getting the sheave to you, thus saving you time and money

SHEAVE BEARING APPLICATION INFORMATION

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

Formula for BP = Line Pull x Angle Factor (See Page 335)
Shaft Size x Hub Width (See example).

PLAIN BORE -
Very slow line speed, very infrequent use, low load.
ROLLER BEARING -
Faster line speeds, more frequent use, greater load.

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

BP = 4600 lbs. x 1.53 1.50 x 1.62 = 2896 PSI
(Line Pull) (Angle Factor) (Hub Width)
(Shaft Size)

BV = 55000 2896 = 19 FPM
(PV Factor) (BP)