

SHEAVES

Roll-forged sheaves that provide an upset metal flow without creating a stress zone at the splitting point.



CROSBY VALUE ADDED

McKissick® Roll-Forged Heavy Duty Sheaves are made by upsetting and forming 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.

McKissick Domed Reinforced Extreme Duty Roll Forged Sheaves are welded in a circular pattern thus eliminating the higher stresses created by welding ribs or other forms of stiffeners.

McKissick Heavy Duty Sheaves are available with machined groove rings or machine forged rings utilized for the rim or hub.

McKissick Heavy Duty Closed-Die Forged Sheaves offer the performance of closed-die forging with the precision machining capabilities of CNC machinery.

McKissick Normal Duty Malleable Cast Sheaves provide economical solutions for normal service applications.

McKissick Sheaves come in a variety of sizes to suit your specific applications. Crosby offers many sheaves as standard and these are shown in the pages that follow. 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. McKissick roll forged sheaves can be furnished balanced or with lightening holes at a reasonable charge on request.

Crosby's 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 (upon special request the McKissick sheave groove can be flame hardened to a minimum 50 Rockwell C for a 150° 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.

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 hub's axis so there is 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.

McKISSICK® STANDARD BEARINGS



ORDERING INSTRUCTIONS

The following information should be specified when ordering blocks and sheaves:

Blocks

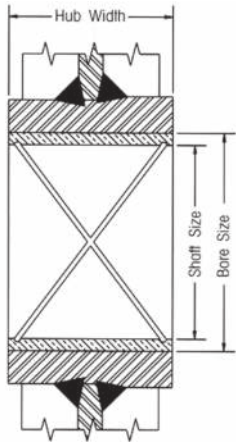
- Wire rope diameter
- Sheave OD
- Shaft or bore size
- Bearing type or plain bore
- Hub width
- Rim width
- Stock number (if known)
- Special machine features
- Special finishes

If hub or rim dimensions necessitate a dimension other than those shown in this catalog, please contact The Crosby Group for minimums and maximums. Tapered roller bearing sheaves show width over bearing cones, which cannot be altered.

Price and delivery for your special needs, if not shown, are available upon request.

McKissick® Sheaves Bearings Application Information

BRONZE BUSHING



- Slow line speed, moderate load and moderate use
- Maximum Bearing Pressure (BP): 31N/mm²
 - Maximum Velocity at Bearing (BV): 366m/min
 - Maximum Pressure Velocity Factor (PV): 114

$$\text{Formula for BP} = \frac{\text{Line Pull} \times \text{Angle Factor}}{\text{Shaft Size} \times \text{Hub Width}}$$

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

Example

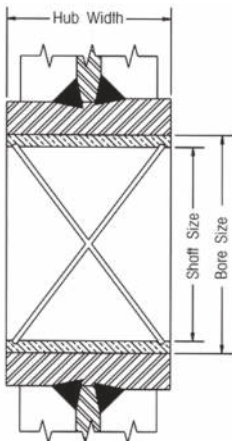
Using a 356mm sheave (917191) with a 20,000 N line pull and an 80 degree angle between lines, determine maximum allowable line speed:

$$\text{BP} = \frac{\text{Line Pull} \times \text{Angle Factor}}{\text{Shaft Size} \times \text{Hub Width}} = \frac{20,000\text{N} \times 1.53}{38 \times 41} = 2,896 \text{ PSI}$$

$$\text{BV} = \frac{\text{PV Factor}}{\text{BP}} = \frac{114}{19,64} = 5,8\text{m/min}$$

ROLLER BEARINGS

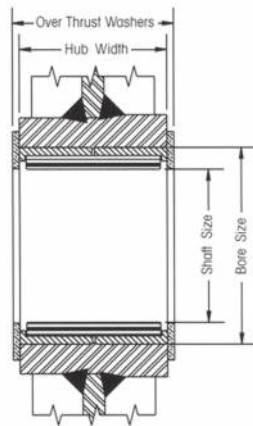
Bronze Bushings with Fig. 8 oil grooves are made from SAE 660 bronze for cold-finished shafts.



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

STANDARD STRAIGHT ROLLER BEARINGS

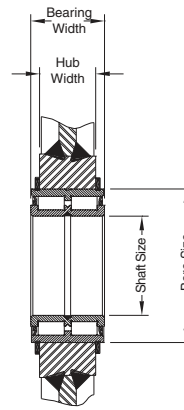
Heavier loads, higher speeds, more frequent use, radial loads only.



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

FULL COMPLEMENT, DOUBLE ROW, ROLLER BEARING

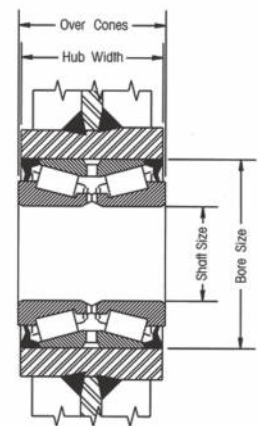
Heavy load, high speeds, continuous operation, axial, and radial loads.



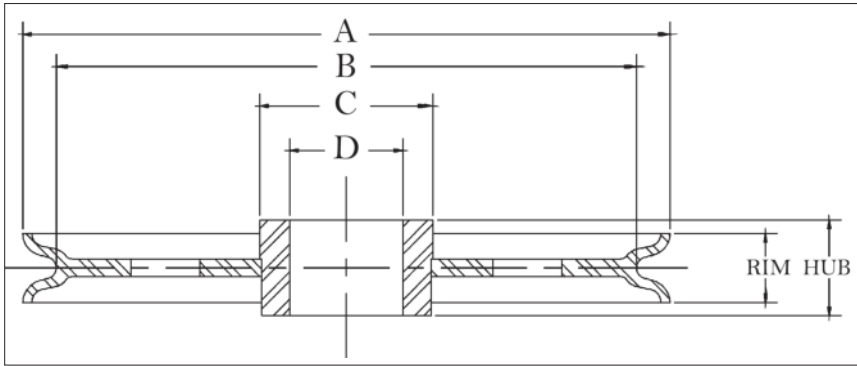
Cylindrical Roller Bearings with snap ring grooves are complete units with outer and inner rings, rib-guided cylindrical rollers, and sealing rings. They can support axial forces in both directions, as well as radial forces. They have high dynamic and static load ratings.

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.




APPLICATION AND WARNING INFORMATION
SECTION 17

McKissick® Plain Bore Sheaves

- Roll-Forged™ sheaves are available in sizes up to 1981mm diameter.
- McKissick® Plain Bore Sheaves can be equipped with bushings or bearings at an optional charge.
- 356mm diameter sheaves and larger are Roll-Forged with Flame hardened grooves to minimum Rockwell 35C, unless otherwise noted.

"A" Nominal Outside Diameter (mm)	Stock Number	Wire Rope Diameter (mm)	"D" Bore Size (mm)	Hub Width (mm)	Rim Width (mm)	"C" Nominal Hub Outside Diameter (mm)	"B" Nominal Tread Diameter (mm)	Material	Approx. Weight (kg)
76.0	51008	6	19.1	33.3	31.8	28.6	52.5	B.S.	0.45
76.0	11310	10	19.1	33.3	31.8	28.6	52.5	B.S.	0.45
102	51044	6	39.9	25.4	22.2	51.0	79.5	B.S.	0.91
102	1189	10	39.9	25.4	22.2	51.0	79.5	B.S.	0.91
124	2026409	16	44.4	31.8	28.6	57.0	103	F.S.	1.63
149	2023136	19	47.6	44.5	41.3	63.5	111	F.S.	2.72
152	51124	10	41.3	28.6	25.4	57.0	125	F.S.	1.81
152	13014	13	41.3	28.6	25.4	57.0	125	F.S.	1.81
178	51437	6	47.6	34.9	19.1	60.5	159	B.S.	2.81
178	3203	10	47.6	34.9	19.1	60.5	159	B.S.	2.81
203	61710	13	46.9	33.3	31.8	62.0	168	F.S.	3.63
203	2023144	13	47.7	44.5	41.3	65.0	160	F.S.	4.54
203	51598	16	47.6	38.1	34.9	62.0	168	F.S.	3.18
203	2023146	16	47.7	44.5	41.3	65.0	160	F.S.	4.54
203	5194	19	47.6	38.1	34.9	62.0	168	F.S.	3.18
203	2023152	19	47.7	44.5	41.3	65.0	160	F.S.	4.54
203	2023466	26	70.0	63.5	60.5	102	133	F.S.	6.8
216	61747	10	46.9	33.3	25.4	70.0	191	D.I.	4.99
251	51918	10	76.0	44.5	28.6	95.5	217	F.S.	6.35
251	2023154	13	47.6	44.5	41.3	65.0	211	F.S.	6.58
251	6040	13	76.0	44.5	28.6	95.5	217	B.S.	6.35
251	5675	16	34.9	38.1	34.9	82.5	216	F.S.	4.31
251	2023169	16	47.6	44.5	41.3	65.0	211	F.S.	6.58
251	2023173	19	47.6	44.5	41.3	65.0	211	F.S.	6.58
251	2023419	22	63.5	58.5	55.5	89.0	206	F.S.	6.8
254	2023784	28	102	63.5	60.5	146	187	F.S.	12.3
305	2023247	16	47.7	44.5	41.3	82.5	257	F.S.	8.15
305	2023234	19	47.7	44.5	41.3	82.5	248	F.S.	8.15
305	52285	19	76.0	44.5	41.3	114	248	R.F.	7.26
305	2026537	19	76.0	55.5	55.5	114	248	R.F.	10.9
305	62283	22	76.0	55.5	55.5	114	260	R.F.	10.9
305	2030845	26	63.5	58.5	55.5	102	238	R.F.	10.9
330	33653	10	63.5	38.1	28.6	89.0	295	R.F.	6.35
330	50704	13	63.5	38.1	28.6	89.0	295	R.F.	6.35
356	*52720	13	108	63.5	34.9	129	321	D.I.	6.8
356	2023249	16	47.7	44.5	41.3	82.5	308	R.F.	9.07
356	4013098	16	63.5	44.5	41.3	114	308	R.F.	14.1
356	4013187	16	60.5	44.5	41.3	114	308	R.F.	13.6
356	4013105	19	63.5	44.5	41.3	114	299	R.F.	14.1
356	4016503	19	82.5	58.5	55.5	140	299	R.F.	15.4
356	2023564	28	70.0	63.5	60.5	114	289	R.F.	12.7
406	4010046	19	108	70.0	63.5	146	340	R.F.	11.3
406	4010126	26	108	70.0	63.5	146	340	R.F.	19.1
457	4010493	22	89.0	58.7	55.5	140	379	R.F.	29
508	*4014024	8	108	70.0	34.9	146	479	R.F.	20.4
508	4010616	19	89.0	58.5	55.5	140	457	R.F.	29.9
508	4010885	19	108	70.0	54.0	165	457	R.F.	36.3
508	4013613	26	95.0	58.5	55.5	140	419	R.F.	34.5
508	4010625	22	89.0	58.5	55.5	140	430	R.F.	33.6

 Custom sheaves are available.

McKissick® Plain Bore Sheaves

"A" Nominal Outside Diameter (mm)	Stock Number	Wire Rope Diameter (mm)	"D" Bore Size (mm)	Hub Width (mm)	Rim Width (mm)	"C" Nominal Hub Outside Diameter (mm)	"B" Nominal Tread Diameter (mm)	Material	Approx. Weight (kg)
508	4010901	26	108	70.0	54.0	165	419	R.F.	36.3
610	4012749	14	165	85.5	79.5	203	559	R.F.	67
610	*4014408	16	120	70.0	38.1	165	553	R.F.	54
610	4011385	26	76.0	63.5	60.5	114	537	R.F.	56.7
610	4012785	26	155	73.0	66.5	203	537	R.F.	59
610	4011223	28	114	76.0	70.0	165	510	R.F.	59
610	2029333	28	165	85.5	79.5	203	510	R.F.	60
610	4011410	38	165	85.5	79.5	210	508	R.F.	84.3
762	2026302	22	165	85.5	79.5	203	686	R.F.	84.3
762	2029382	32	200	89.0	79.5	241	670	R.F.	102
914	4012160	28	165	85.5	79.5	210	819	R.F.	154
914	4012730	38	200	89.0	82.5	241	813	R.F.	137
1067	4015844	38	225	92.0	82.5	279	978	R.F.	209
1067	4015853	32	225	92.0	82.5	279	975	R.F.	209
1067	4015719	32	276	92.0	85.5	318	975	R.F.	201
1067	4015719	32	276	92.0	85.5	318	975	R.F.	201

*Without flame hardening.

 Custom sheaves are available.

VIDEO PODCAST SERIES

Our experts answer some of your most common safe rigging, lifting, and securement questions in our video podcast series, *Ask the Expert*.

Watch four episodes on sheaves:

- Bronze bushing vs roller bushing
- Understanding groove hardness
- How to know when it's time to replace sheaves
- How to extend the life of a sheave

Ask the Expert

VIDEO PODCAST

Be sure to subscribe to The Crosby Group's YouTube channel to catch every new video as soon as it's released.



SHEAVES

Fig. B-1: Bronze Bush
Lower Loads
Lower Speeds

Fig. B-2: Tapered roller bearing
Higher Speeds
Higher Loads

Fig. B-3: Straight roller bearing
Higher Speeds
Mod. Loads

Fig. B-4: Cylindrical roller bearing
Higher Speeds
Higher Loads

Ep. 27 Sheaves: bronze bushing vs roller bushing



SHEAVE INSPECTION
MINIMUM GROOVE RADII FOR WORN SHEAVES
(SEE CHART FROM WIRE ROPE USERS MANUAL - THIRD EDITION)

SHEAVE GAGE SHOWS THERE IS WEAR IN GROOVE, THERE IS "DAYLIGHT" BETWEEN GROOVE AND GAGE

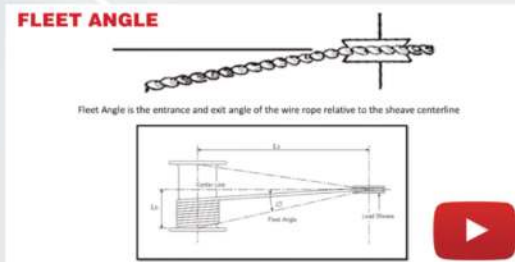
SHEAVE GAGE SHOWS GROOVE IS ACCEPTABLE, THERE IS NO DAYLIGHT

Ep. 32 How to know when it's time to replace sheaves



Min 35Rc for higher hardness in the bottom of the groove – extending the lifetime of the sheave and rope.

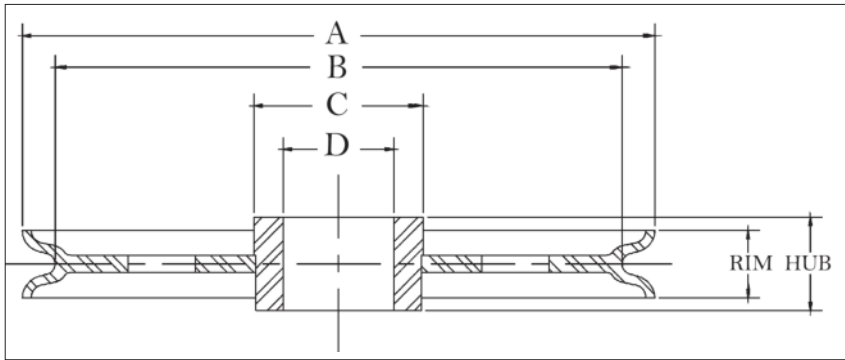
Ep. 30 Understanding sheave groove hardness



FLEET ANGLE

Fleet Angle is the entrance and exit angle of the wire rope relative to the sheave centerline

Ep. 34 How to extend the life of a sheave



APPLICATION AND WARNING INFORMATION
SECTION 17


McKissick® Common Bore Sheaves

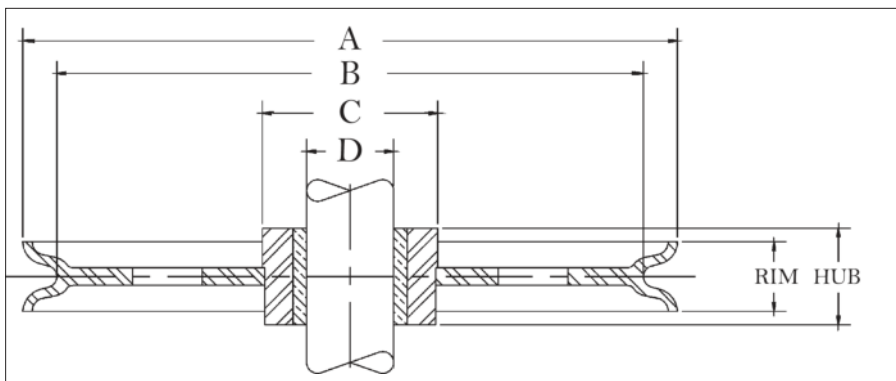
- Roll-Forged sheaves are available in sizes up to 1981mm diameter.
- Common Bore or Plain Bore are terms used when there is merely a hole bored in the center of the sheave.
- Common Bore Sheaves are machined for a running fit for the shaft size listed, and no bearing or bushing is installed.

"A" Nominal Outside Diameter (mm)	Stock Number	Wire Rope Diameter (mm)	"D" Shaft Size (mm)	Hub Width (mm)	Rim Width (mm)	"C" Nominal Hub Outside Diameter (mm)	"B" Nominal Tread Diameter (mm)	Material	Approx. Weight (kg)
76.0	905051	5	9.55	19.8	19.1	25.4	60.5	P.M.	.45
76.0	905079	5	12.7	19.8	19.1	25.4	60.5	P.M.	.45
76.0	905097	5	15.9	19.8	19.1	25.4	60.5	P.M.	.45
76.0	905024	6	9.55	12.7	12.7	25.4	66.5	P.M.	.34
76.0	905042	6	12.7	12.7	12.7	25.4	66.5	P.M.	.34
102	905122	8	12.7	19.1	15.9	34.9	89.0	P.M.	.45
102	905140	8	15.9	19.1	15.9	34.9	89.0	P.M.	.45
102	905168	10	12.7	20.6	19.1	38.1	82.5	P.M.	.57
102	905202	10	19.1	20.6	19.1	38.1	82.5	P.M.	.57
102	905220	13	12.7	27.0	25.4	41.3	81.0	P.M.	.68
102	905248	13	15.9	27.0	25.4	41.3	81.0	P.M.	.68
127	905293	5	19.1	23.8	22.2	57.0	108	P.M.	1.02
127	905300	10	19.1	23.8	22.2	57.0	108	P.M.	1.02
127	905328	13	15.9	27.0	25.4	57.0	102	P.M.	1.13
152	905426	10	12.7	20.6	19.1	47.6	127	D.I.	1.13
152	905480	10	12.7	27.0	25.4	47.6	127	D.I.	1.13
152	905462	10	15.9	20.6	19.1	47.6	127	P.M.	1.13
152	905523	10	19.1	27.0	25.4	47.6	127	P.M.	1.89
171	905701	10	19.1	30.2	28.6	51.0	149	D.I.	2.27
203	905747	13	19.1	28.6	25.4	60.5	175	D.I.	2.27
203	905783	13	25.4	28.6	25.4	60.5	175	D.I.	3.86
203	905809	16	19.1	34.9	31.8	51.0	165	D.I.	2.72
203	905845	16	25.4	34.9	31.8	51.0	165	D.I.	3.06
203	909324	16	25.4	34.9	31.8	63.5	168	D.I.	3.86
203	909342	16	28.6	34.9	31.8	63.5	168	D.I.	3.86
203	909360	16	31.8	34.9	31.8	63.5	168	D.I.	3.86
203	909388	16	38.1	34.9	31.8	63.5	168	D.I.	3.86
254	905943	13	25.4	28.6	25.4	73.0	222	D.I.	4.54
254	906005	16	25.4	34.9	31.8	76.0	216	D.I.	4.20
254	909761	16	38.1	34.9	31.8	76.0	216	D.I.	6.12
305	906041	13	25.4	28.6	25.4	102	270	D.I.	7.48
305	906087	13	31.8	28.6	25.4	102	270	D.I.	7.48
305	906247	22	38.1	51.0	44.5	95.5	254	D.I.	9.19
356	*906283	19	28.6	41.3	38.1	82.5	311	C.I.	12
356	*906309	19	31.8	41.3	38.1	82.5	311	C.I.	12
457	910820	26	51.0	51.0	47.6	102	378	R.F.	28.1

Material: B.S.=Bar Steel, C.I.=Cast Iron, F.S.=Forged Steel, D.I.=Ductile Iron, C.S.=Cast Steel, P.M.=Powdered Metal, R.F.=Roll-Forged.

*Without flame hardening groove.

 Custom sheaves are available.



APPLICATION AND WARNING INFORMATION
SECTION 17

McKissick® Bronze Bushed Sheaves

- Roll-Forged sheaves are available in sizes up to 1981mm diameter.
- McKissick® Bronze Bushed Sheaves are equipped with S.A.E. 660 Bronze Bushings for cold finished shafts with “Figure 8” oil groove, or self-lubricating Bronze as designated by an asterisk (*) next to the shaft size.
- For sizes not listed, McKissick® Finished Bore Sheaves can be equipped with bronze bushings at an optional charge.
- Bronze Bushed Sheaves are designed to operate on shafts machined to +.000/- .002 in of the indicated shaft size.

“A” Nominal Outside Diameter (mm)	Stock Number	Wire Rope Diameter (mm)	“D” Shaft Size (mm)	Hub Width (mm)	Rim Width (mm)	“C” Nominal Hub Outside Diameter (mm)	“B” Nominal Tread Diameter (mm)	Material	Approx. Weight (kg)
57.0	907004	6	9.55*	15.9	14.3	19.1	47.6	B.S.	.34
76.0	907077	5	12.7*	19.8	19.1	25.4	60.5	P.M.	.45
76.0	907095	5	15.9*	19.8	19.1	25.4	60.5	P.M.	.45
76.0	907022	6	9.55*	12.7	12.7	25.4	66.5	P.M.	.34
76.0	907040	6	12.7*	12.7	12.7	25.4	66.5	P.M.	.34
76.0	907086	10	12.7*	19.1	19.1	25.4	60.5	P.M.	.45
76.0	916110	10	12.7*	19.8	19.1	38.1	60.5	B.S.	.45
76.0	460156	10	12.7	33.3	30.0	28.6	52.5	B.S.	.45
76.0	907102	10	15.9*	19.1	19.1	25.4	60.5	P.M.	.45
76.0	2030895	10	19.1	25.4	22.2	44.5	57.0	P.M.	.68
102	460290	3	25.4	25.4	22.2	51.0	79.5	B.S.	.91
102	907111	5	12.7*	19.1	15.9	34.9	89.0	P.M.	.45
102	907139	5	15.9*	19.1	15.9	34.9	89.0	P.M.	.45
102	916147	6	12.7*	20.6	19.1	51.0	82.5	B.S.	.68
102	916165	6	19.1*	20.6	19.1	51.0	82.5	B.S.	.68
102	460307	6	25.4	25.4	22.2	51.0	79.5	B.S.	.91
102	907120	8	12.7*	19.1	15.9	34.9	89.0	P.M.	.45
102	907148	8	15.9*	19.1	15.9	34.9	89.0	P.M.	.45
102	907166	10	12.7*	20.6	19.1	38.1	82.5	P.M.	.57
102	916156	10	12.7*	20.6	19.1	51.0	82.5	B.S.	.68
102	907184	10	15.9*	20.6	19.1	38.1	82.5	P.M.	.64
102	907200	10	19.1*	20.6	19.1	38.1	82.5	P.M.	.57
102	460316	10	25.4	25.4	22.2	51.0	79.5	B.S.	.91
102	907228	13	12.7*	27.0	25.4	41.3	81.0	P.M.	.68
102	907246	13	15.9*	27.0	25.4	41.3	81.0	P.M.	.68
102	907264	13	19.1*	27.0	25.4	41.3	81.0	P.M.	.68
105	2023186	10	25.4	38.1	34.9	51.0	76.0	F.S.	1.59
105	2023188	16	25.4	38.1	34.9	51.0	76.0	F.S.	1.59
108	460441	13	15.9*	30.2	23.8	54.0	85.5	B.S.	1.09
124	460478	10	31.8	31.8	28.6	57.0	103	F.S.	1.63
124	460469	16	31.8	31.8	28.6	57.0	103	F.S.	1.63
127	907273	5	15.9*	23.8	22.2	57.0	108	P.M.	1.02
127	460511	8	19.1	25.4	22.2	38.1	102	F.S.	1.13
127	907282	10	15.9*	23.8	22.2	57.0	108	P.M.	1.02
127	907308	10	19.1*	23.8	22.2	57.0	108	P.M.	1.02
127	460520	10	19.1	25.4	22.2	38.1	102	F.S.	1.13
127	907344	13	19.1*	30.2	25.4	57.0	102	P.M.	1.13
133	460637	19	25.4	38.1	34.9	52.5	98.5	F.S.	1.81
149	2023129	16	38.1	44.5	41.3	63.5	111	F.S.	2.72
149	2023137	19	38.1	44.5	41.3	63.5	111	F.S.	2.72
152	907424	10	12.7*	20.6	19.1	47.6	127	P.M.	1.13
152	907488	10	12.7*	27.0	25.4	47.6	127	P.M.	1.13
152	907442	10	15.9*	20.6	19.1	47.6	127	P.M.	1.13
152	907503	10	15.9*	27.0	25.4	47.6	127	P.M.	1.13
152	907460	10	19.1*	20.6	19.1	47.6	127	P.M.	1.13
152	907521	10	19.1*	27.0	25.4	47.6	127	P.M.	1.13
152	2026483	10	19.1*	27.0	25.4	51.0	130	F.S.	1.81

Custom sheaves are available.

McKissick® Bronze Bushed Sheaves

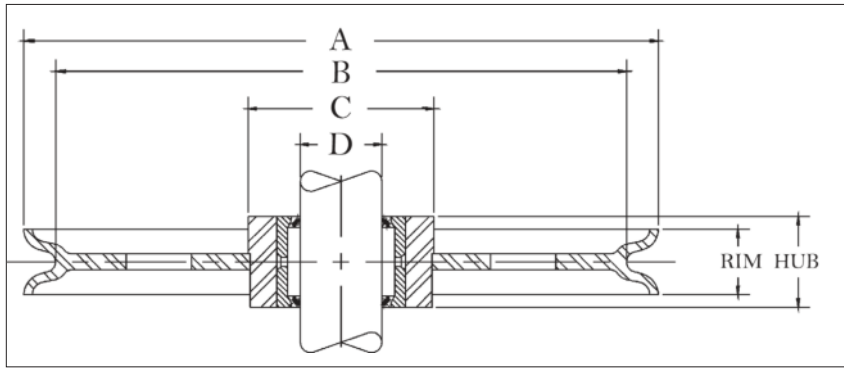
"A" Nominal Outside Diameter (mm)	Stock Number	Wire Rope Diameter (mm)	"D" Shaft Size (mm)	Hub Width (mm)	Rim Width (mm)	"C" Nominal Hub Outside Diameter (mm)	"B" Nominal Tread Diameter (mm)	Material	Approx. Weight (kg)
152	916245	10	22.2*	27.0	25.4	51.0	130	F.S.	1.81
152	2028641	10	25.4*	27.0	25.4	51.0	130	F.S.	1.81
152	460682	10	31.8	28.4	25.4	57.0	125	F.S.	1.68
152	907549	13	15.9*	30.2	28.6	47.6	124	P.M.	2.27
152	907567	13	19.1*	30.2	28.6	47.6	124	P.M.	2.14
152	913024	13	22.2*	27.0	25.4	47.6	124	P.M.	1.70
152	460879	13	25.4	38.1	31.8	79.5	121	B.S.	3.18
152	460673	13	31.8*	28.6	25.4	57.0	125	F.S.	1.81
152	2028048	13	25.4*	27.0	25.4	47.6	124	P.M.	4.31
152	2026938	16	19.1*	27.0	25.4	51.0	130	F.S.	3.18
152	913060	16	19.1*	33.3	31.8	47.6	121	P.M.	1.81
152	913088	16	22.2	33.3	31.8	47.6	121	P.M.	1.70
152	2026822	16	25.4*	27.0	25.4	51.0	130	F.S.	1.81
152	913104	16	25.4*	33.3	31.8	47.6	121	P.M.	1.70
152	2023264	16	51.0	58.5	55.5	79.5	108	F.S.	4.31
152	460897	19	25.4	38.1	31.8	79.5	121	B.S.	3.18
152	913168	19	25.4	39.7	38.1	76.0	117	P.M.	3.06
152	2023260	19	51.0	58.5	55.5	79.5	108	F.S.	4.31
152	2023262	22	51.0	58.5	55.5	79.5	108	F.S.	4.31
171	907692	6	19.1*	30.2	28.6	51.0	149	D.I.	2.27
171	907718	6	25.4*	30.2	28.6	51.0	149	D.I.	2.27
171	907709	10	19.1*	30.2	28.6	51.0	149	D.I.	2.27
171	907727	10	25.4*	30.2	28.6	51.0	149	D.I.	2.27
178	461020	6	38.1	34.9	19.1	60.5	159	B.S.	2.81
178	461039	10	38.1	34.9	19.1	60.5	159	B.S.	2.81
178	907629	13	19.1*	27.0	25.4	51.0	143	D.I.	1.93
191	460986	16	25.4	38.1	34.9	52.5	160	F.S.	3.40
191	460977	19	25.4	38.1	34.9	52.5	160	F.S.	3.40
194	461262	10	25.4	38.1	31.8	60.5	157	D.I.	3.18
194	461280	13	25.4	38.1	31.8	60.5	157	D.I.	3.18
194	461271	16	25.4	38.1	31.8	60.5	157	D.I.	3.18
203	907745	13	19.1*	28.6	25.4	60.5	175	D.I.	2.27
203	916487	13	19.1*	34.9	31.8	51.0	168	F.S.	3.18
203	907763	13	22.2*	28.6	25.4	60.5	175	D.I.	2.27
203	907781	13	25.4*	28.6	25.4	60.5	175	D.I.	2.27
203	916520	13	25.4*	34.9	31.8	51.0	168	F.S.	3.18
203	2026841	13	28.6*	34.9	31.8	51.0	168	F.S.	3.18
203	2026844	13	31.8*	34.9	31.8	51.0	168	F.S.	3.18
203	461235	13	38.1	38.1	34.9	62.0	168	F.S.	3.18
203	2023145	13	38.1	44.5	41.3	65.0	160	F.S.	4.54
203	907807	16	19.1*	34.9	31.8	51.0	165	D.I.	3.06
203	913300	16	22.2*	34.9	31.8	51.0	165	D.I.	3.06
203	913328	16	25.4*	34.9	31.8	63.5	168	D.I.	3.86
203	913364	16	31.8*	34.9	31.8	63.5	168	D.I.	3.86
203	913382	16	38.1*	34.9	31.8	63.5	168	D.I.	3.86
203	461244	16	38.1	38.1	34.9	62.0	168	F.S.	3.18
203	2023147	16	38.1	44.5	41.3	65.0	160	F.S.	4.54
203	461253	19	38.1	38.1	34.9	62.0	168	F.S.	3.18
203	2023153	19	38.1	44.5	41.3	65.0	160	F.S.	4.54
203	2028227	19	51.0	58.5	54.0	82.5	156	F.S.	5.67
203	461397	19	70.0	58.5	55.5	95.5	152	B.S.	4.76
203	2023386	22	51.0	58.5	54.0	82.5	156	F.S.	5.67
203	2023467	26	57.0	63.5	60.3	114	137	F.S.	8.16
203	2023463	28	57.0	63.5	60.3	114	137	F.S.	8.16
251	462831	10	63.5	44.5	28.6	95.0	217	F.S.	6.35
251	462154	13	25.4*	38.1	34.9	82.5	216	F.S.	4.31
251	2023166	13	38.1	44.5	41.3	65.0	211	F.S.	6.58
251	462840	13	63.5	44.5	28.6	95.5	217	F.S.	6.35
251	2023170	16	38.1	44.5	41.3	65.0	211	F.S.	6.58
251	2023174	19	38.1	44.5	41.3	65.0	211	F.S.	6.58
251	2023420	22	51.0	58.5	55.5	89.0	206	F.S.	6.80
251	2023428	25	51.0	58.5	55.5	89.0	206	F.S.	6.80
254	907923	13	22.2*	28.6	25.4	73.0	222	D.I.	4.54
254	907941	13	25.4*	28.6	25.4	73.0	222	D.I.	5.35
254	907969	16	19.1*	34.9	31.8	51.0	216	D.I.	4.20
254	908003	16	25.4*	34.9	31.8	51.0	216	D.I.	4.20
254	916726	16	25.4*	34.9	31.8	70.0	216	F.S.	6.35
254	2027291	16	31.8*	34.9	31.8	70.0	216	F.S.	6.35
254	913765	16	38.1*	34.9	31.8	76.0	216	D.I.	5.72
254	913863	19	38.1*	41.3	38.1	89.0	210	F.S.	7.26

McKissick® Bronze Bushed Sheaves

"A" Nominal Outside Diameter (mm)	Stock Number	Wire Rope Diameter (mm)	"D" Shaft Size (mm)	Hub Width (mm)	Rim Width (mm)	"C" Nominal Hub Outside Diameter (mm)	"B" Nominal Tread Diameter (mm)	Material	Approx. Weight (kg)
254	913845	19	31.8*	41.3	38.1	89.0	210	F.S.	7.26
254	916833	19	38.1*	41.3	38.1	82.5	197	F.S.	7.71
254	913807	19	25.4*	41.3	38.1	89.0	210	F.S.	7.26
254	2026861	28	57.0	63.5	60.5	114	187	F.S.	12.3
254	2023785	28	89.0	63.5	60.5	146	187	F.S.	12.7
302	462323	10	63.5	58.7	25.4	95.5	273	D.I.	5.08
305	908049	13	25.4*	28.6	25.4	102	270	D.I.	7.48
305	908085	13	31.8*	28.6	25.4	102	270	D.I.	7.48
305	917011	16	28.6*	41.3	38.1	82.5	257	F.S.	8.16
305	2023227	16	38.1	44.5	41.3	82.5	260	F.S.	9.98
305	462387	16	51.0*	58.5	55.5	114	257	R.F.	11.8
305	462564	16	63.5	44.5	41.3	114	271	R.F.	10.9
305	908129	19	25.4*	41.3	38.1	70.0	260	D.I.	8.28
305	914149	19	31.8	41.3	38.1	133	260	D.I.	11.6
305	914167	19	38.1	41.3	38.1	133	260	D.I.	11.6
305	2023235	19	38.1	44.5	41.3	82.5	238	F.S.	9.98
305	462449	19	51.0	58.5	55.5	114	248	R.F.	11.8
305	346593	19	57.0	58.5	55.5	114	248	R.F.	11.8
305	462573	19	63.5	44.5	41.3	114	238	R.F.	10.9
305	4104882	19	63.5	44.5	41.3	114	248	R.F.	11.3
305	4104917	19	63.5*	58.5	55.5	114	248	R.F.	11.3
305	462485	19	76.0*	76.0	47.6	140	238	R.F.	9.53
305	908245	22	38.1	51.0	44.5	95.5	254	D.I.	9.19
305	462458	22	51.0	58.5	55.5	114	260	R.F.	11.8
305	2023554	22	57.0	63.5	60.5	114	238	R.F.	12.7
305	4104891	22	63.5	44.5	41.3	114	260	R.F.	11.3
305	462467	25	51.0	58.5	55.5	102	254	R.F.	11.8
330	462779	10	51.0	38.1	28.6	89.0	295	R.F.	6.35
330	462788	13	51.0	38.1	28.6	89.0	295	R.F.	6.35
356	**463518	13	95.5*	63.5	34.9	114	321	R.F.	6.8
356	463625	16	38.1	44.5	41.3	89.0	308	R.F.	9.07
356	4103552	16	51.0*	44.5	41.3	129	308	R.F.	13.2
356	**908281	19	28.6*	41.3	36.3	114	311	C.I.	12
356	**908307	19	31.8*	41.3	38.1	82.5	311	C.I.	12
356	917173	19	31.8	41.3	38.1	82.5	305	R.F.	12.0
356	917191	19	38.1	41.3	38.1	102	298	R.F.	12.0
356	463634	19	38.1	44.5	41.3	82.5	289	R.F.	9.07
356	4103632	19	51.0*	44.5	41.3	82.5	298	R.F.	13.6
356	4104828	19	70.0*	58.5	55.5	114	298	R.F.	15.9
356	4103641	22	51.0	44.5	41.3	114	311	R.F.	14.1
356	463466	28	57.0	63.5	60.5	114	289	R.F.	12.7
406	4101395	13	89.0	70.0	63.5	146	362	R.F.	24.5
406	4100047	19	89.0	70.0	63.5	146	340	R.F.	21.3
406	4100109	19	95.5	70.0	63.5	146	340	R.F.	19.1
406	4103703	22	63.5*	58.5	55.5	114	329	R.F.	15.9
406	4105211	22	70.0*	58.5	55.5	114	329	R.F.	19.1
406	917360	25	38.1*	51.0	44.5	108	337	R.F.	15.4
406	4100127	25	95.5	70.0	63.5	146	337	R.F.	28.6
457	4105131	22	76.0*	58.5	55.5	140	379	R.F.	23.6
457	917486	26	51.0*	51.0	47.6	114	378	R.F.	25.0
457	4104052	26	70.0	58.5	55.5	140	378	R.F.	29.9
457	4105140	26	76.0	58.5	55.5	140	378	R.F.	23.6
508	4100341	19	76.0	58.5	55.5	140	457	R.F.	30.8
508	4105239	19	95.5	70.0	54.0	165	457	R.F.	30.8
508	4100350	22	76.0	58.5	55.5	140	435	R.F.	20.4
508	4100369	26	76.0	58.5	55.5	140	435	R.F.	36.4
508	4105257	26	95.5	70.0	54.0	165	419	R.F.	30.8
508	4105275	26	140	73.0	66.5	203	435	R.F.	30.8
610	4105355	22	146	85.5	79.5	203	533	R.F.	60.3
610	4105382	26	140	73.0	66.5	203	537	R.F.	59.0
610	4100868	28	102	76.0	70.0	165	510	R.F.	49.9
610	4105391	28	140	73.0	66.5	203	510	R.F.	60.8
610	4105373	28	146	85.5	79.5	203	510	R.F.	62.1
762	4105426	22	146	85.5	79.5	203	686	R.F.	92.1
762	4105435	26	146	85.5	79.5	203	686	R.F.	92.1
762	4105444	28	146	85.5	79.5	203	686	R.F.	92.1
762	4105462	28	178	89.0	79.5	241	670	R.F.	95.7
762	4105471	28	178	89.0	79.5	241	670	R.F.	95.7

** Without Flame Harden groove.

Material: B.S.=Bar Steel, C.I.=Cast Iron, F.S.=Forged Steel, D.I.=Ductile Iron, C.S.=Cast Steel, P.M.=Powdered Metal, R.F.=Roll-Forged.



APPLICATION AND WARNING INFORMATION
SECTION 17

McKissick® Roller Bearing Sheaves

- Roll-Forged sheaves are available in sizes up to 1981mm diameter.
- McKissick® Roller Bearing Sheaves are designed to operate on shafts carburized to 60 Rockwell C and grind to -.003/-.004 of the indicated shaft size. Some sizes are available with an optional inner race. Check with Crosby Sales for prices and correct shaft size.
- Application should provide for 79mm running clearance over the hub width.
- For sizes not listed, McKissick® Finished Bore Sheaves can be equipped with Roller Bearings at an optional charge.

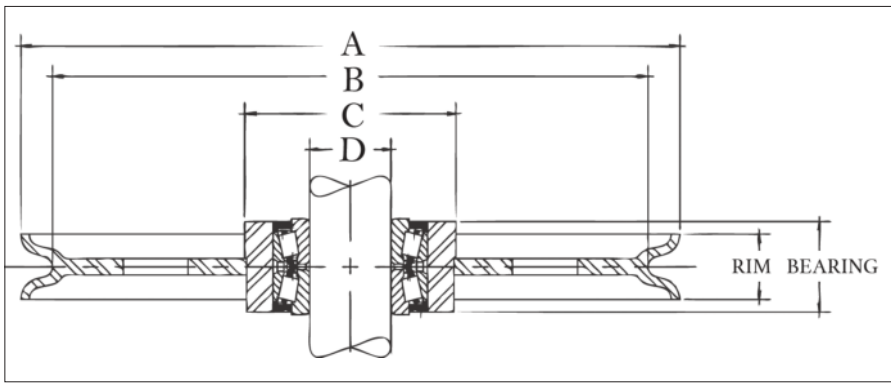
"A" Nominal Outside Diameter (mm)	Stock Number	Wire Rope Diameter (mm)	"D" Shaft Size (mm)	Hub Width (mm)	Rim Width (mm)	"C" Nominal Hub Outside Diameter (mm)	"B" Nominal Tread Diameter (mm)	Material	Approx. Weight (kg)
102	472508	3	25.3	25.4	22.2	51.0	79.5	B.S.	.91
102	472517	6	25.3	25.4	22.2	51.0	79.5	B.S.	.91
102	472535	10	25.3	25.4	22.2	51.0	79.5	B.S.	.91
102	2028063	13	25.3	38.1	34.9	51.0	76.0	F.S.	1.59
102	2025891	16	25.3	38.1	34.9	51.0	76.0	F.S.	1.59
124	472768	10	31.7	31.8	28.6	57.0	103	F.S.	1.63
124	472777	13	31.7	31.8	28.6	57.0	103	F.S.	1.63
124	472786	16	31.7	31.8	28.6	57.0	103	F.S.	1.63
133	2026427	16	25.3	38.1	34.9	52.5	98.5	F.S.	1.81
133	2026423	19	25.3	38.1	34.9	52.5	98.5	F.S.	1.81
149	2023141	16	38.0	44.5	41.3	63.5	111	F.S.	2.72
149	2023143	19	38.0	44.5	41.3	63.5	111	F.S.	2.72
152	472875	13	50.5	44.5	31.8	79.5	121	F.S.	3.18
191	2025892	19	25.3	38.1	34.9	52.5	160	F.S.	3.40
194	473311	10	25.3	38.1	31.8	50.5	157	D.I.	3.18
194	473320	13	25.3	38.1	31.8	60.5	157	D.I.	3.18
194	473339	16	25.3	38.1	31.8	60.5	157	D.I.	3.18
203	2023155	13	38.0	44.5	41.3	65.0	160	F.S.	4.54
203	2023159	16	38.0	44.5	41.3	65.0	160	F.S.	4.54
203	2023163	19	38.0	44.5	41.3	65.0	160	F.S.	4.54
203	2023404	19	50.5	58.5	54.0	82.5	156	F.S.	5.67
251	2026433	13	38.0	44.5	41.3	65.0	211	F.S.	6.58
251	2023179	16	38.0	44.5	41.3	65.0	211	F.S.	6.58
251	2023181	19	38.0	44.5	41.3	65.0	211	F.S.	6.58
251	2023436	19	50.5	58.5	55.6	89.0	206	F.S.	6.80
305	2023248	16	38.0	44.5	41.3	82.5	257	F.S.	8.16
305	474365	16	57.0	44.5	41.3	114	257	R.F.	7.26
305	2023236	19	38.0	44.5	41.3	82.5	248	F.S.	8.16
305	474374	19	57.0	44.5	41.3	114	248	R.F.	7.26
356	2026445	16	38.0	44.5	41.3	82.5	305	R.F.	9.07
356	4200563	16	50.5	44.5	41.3	114	308	R.F.	14.1
356	4200572	19	50.5	44.5	41.3	114	298	R.F.	14.1
356	474784	22	38.0	44.5	41.3	82.5	311	R.F.	9.07
406	4200705	22	63.5	58.5	55.5	114	329	R.F.	21.7
457	4201438	22	70.0	58.5	55.5	140	379	R.F.	19.4
457	4200867	25	70.0	58.5	55.5	140	378	R.F.	29.9

* Without flame harden groove

Material: B.S.=Bar Steel, C.I.=Cast Iron, F.S.=Forged Steel, D.I.=Ductile Iron, C.S.=Cast Steel, P.M.=Powdered Metal, R.F.=Roll-Forged.



Custom sheaves are available.




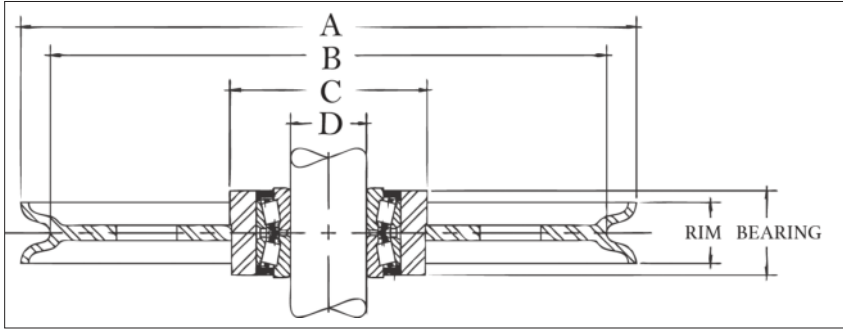
APPLICATION AND WARNING INFORMATION
SECTION 17

McKissick® Tapered Bearing Sheaves

- Roll-Forged sheaves are available in sizes up to 1981mm diameter.
- Tapered Bearing Sheaves are designed to operate on shafts machined to, and no bearing or bushing is installed.
- Applications should provide for tightening separator plates against bearing cones to adjust and insure proper function of bearing.

"A" Nominal Outside Diameter (mm)	Stock Number	Wire Rope Diameter (mm)	"D" Shaft Size (mm)	Bearing Width (mm)	Rim Width (mm)	"C" Nominal Hub Outside Diameter (mm)	"B" Nominal Tread Diameter (mm)	Material	Approx. Weight (kg)
124	480269	10	19.0	1.375	28.6	57.0	103	F.S.	1.63
178	480777	6	19.0	1.375	19.1	60.5	159	B.S.	4.08
203	481017	13	19.0	1.375	31.8	62.0	168	F.S.	3.18
216	481044	10	19.0	1.375	25.4	70.0	191	D.I.	3.40
305	481455	19	38.1	2.313	55.5	114	248	R.F.	10.9
305	481446	22	38.1	2.313	55.5	114	260	R.F.	10.9
406	4302793	13	51.0	2.938	63.5	146	362	R.F.	22.7
406	4300599	19	51.0	2.938	63.5	146	340	R.F.	24.9
406	4300018	22	38.1	2.313	55.5	114	329	R.F.	16.8
406	4300054	26	51.0	2.938	63.5	146	340	R.F.	19.1
457	4300081	19	51.0	2.938	55.5	165	406	R.F.	18.1
508	4300161	19	51.0	2.938	54.0	165	457	R.F.	39.5
508	4300189	26	51.0	2.938	54.0	165	419	R.F.	38.1
610	*4302720	16	70.0	2.938	38.1	165	552	R.F.	62
610	4300312	22	108	3.500	79.5	203	530	R.F.	57.0
610	4300321	26	108	3.500	79.5	194	537	R.F.	57.0
610	4300401	28	70.0	2.938	70.0	165	510	R.F.	36.0
610	4300330	28	108	3.500	79.5	203	510	R.F.	57.0
762	4300483	22	108	3.500	79.5	203	686	R.F.	64.0
762	4300492	26	108	3.500	79.5	194	686	R.F.	95.0
762	4300526	26	143	3.688	79.5	241	686	R.F.	86.0
762	4300508	28	108	3.500	79.5	203	686	R.F.	64.0
762	4300704	32	143	3.688	79.5	241	670	R.F.	64.0

 Custom sheaves are available.



APPLICATION AND WARNING INFORMATION
SECTION 17

McKissick® Plain Bore Oilfield Sheaves for Tapered Bearings

- Roll-Forged sheaves are available in sizes up to 1981mm diameter.
- Applications should provide for tightening separator plates against bearing cones to adjust and insure proper function of bearing.
- Each sheave in the table below has a machined bore sized to accept the respective bearing number shown.
- The sheaves are provided from the factory plain bore (the bearings are not included).

"A" Nominal Outside Diameter (mm)	Stock Number	Wire Rope Diameter (mm)	Bore Information			Bearing Width (mm)	Rim Width (mm)	"C" Nominal Hub Outside Diameter (mm)	"B" Tread Diameter (mm)	Material	Approx. Weight (kg)
			"D" Bore Diameter (mm)	Bearing Info. (Bearing not Included)							
				Shaft Diameter (mm)	Bearing Description						
508	2030311	14	120	70	NA-483-SW-472-D	2.750	70.0	165	448	R.F.	36.3
508	2029285	16	120	70	NA-483-SW-472-D	2.750	70.0	165	452	R.F.	34.0
610	2030941	14	165	108	NA56425-SW-56650D	3.375	79.4	203	549	R.F.	46.7
610	2030905	16	165	108	NA56425-SW-56650D	3.375	76.2	203	559	R.F.	53.1
610	2027885	14	165	108	NA56425-SW-56650D	3.375	79.4	203	549	R.F.	40.8
610	2027887	16	165	108	NA56425-SW-56650D	3.375	69.9	229	559	R.F.	36.3
610	2027880	22	165	108	NA56425-SW-56650D	3.375	79.4	216	532	R.F.	56.7
610	2023993	26	165	108	NA56425-SW-56650D	3.375	79.4	229	536	R.F.	49.9
762	2026299	26	165	108	NA56425-SW-56650D	3.375	79.4	260	673	R.F.	86.2
762	2026036	28	165	108	NA56425-SW-56650D	3.375	79.4	260	662	R.F.	104
762	2026230	26	200	143	NA48685-SW/48620	3.500	79.4	260	573	R.F.	116
762	2026003	28	200	143	NA48685-SW/48620	3.500	79.4	305	662	R.F.	116
762	2030906	26	225	165	NA46790-SW-46720	3.625	85.7	229	673	R.F.	83.9
762	2030907	28	225	165	NA46790-SW-46720	3.625	85.7	229	662	R.F.	120
762	2027941	26	165	108	NA56425-SW-56650D	3.375	79.4	260	673	R.F.	68.0
762	2027945	28	165	108	NA56425-SW-56650D	3.375	79.4	260	662	R.F.	90.7
762	2030274	26	200	143	NA48685-SW/48620	3.500	79.4	260	673	R.F.	73.0
762	2030260	28	200	143	NA48685-SW/48620	3.500	79.4	260	662	R.F.	98.9
917	2030942	26	200	143	NA48685-SW/48620	3.500	82.6	292	841	R.F.	159
917	2030908	28	200	143	NA48685-SW/48620	3.500	82.6	279	854	R.F.	159
917	2030943	26	225	165	NA46790-SW-46720	3.625	79.4	356	841	R.F.	160
917	2029390	28	225	165	NA46790-SW-46720	3.625	82.6	356	854	R.F.	136
917	2029392	32	225	165	NA46790-SW-46720	3.625	82.6	356	819	R.F.	136
917	2030944	26	276	203	LM241149NW/241110-D	3.625	79.4	260	841	R.F.	168
917	2030909	28	276	203	LM241149NW/241110-D	3.625	88.9	260	814	R.F.	162
917	2030945	32	276	203	LM241149NW/241110-D	3.625	85.7	305	819	R.F.	150
917	2030282	26	200	143	NA48685-SW/48620	3.500	82.6	292	841	R.F.	109
917	2030284	28	200	143	NA48685-SW/48620	3.500	82.6	356	829	R.F.	113
1067	2030946	28	225	165	NA46790-SW-46720	3.625	82.6	356	981	R.F.	209
1067	2030947	32	225	165	NA46790-SW-46720	3.625	82.6	406	972	R.F.	213
1067	2030948	28	276	203	LM241149NW/241110-D	3.625	82.6	406	981	R.F.	211
1067	2030949	22	276	203	LM241149NW/241110-D	3.625	82.6	356	972	R.F.	209
1067	2030950	28	327	235	NA8575SW-8520CD	4.500	88.9	356	981	R.F.	211
1067	2030951	32	327	235	NA8575SW-8520CD	4.500	85.7	356	972	R.F.	215
1118	2030952	28	276	203	LM241149NW/241110-D	3.625	85.7	356	1018	R.F.	279
1118	2030953	32	276	203	LM241149NW/241110-D	3.625	76.2	432	1022	R.F.	247
1219	2030954	28	276	203	LM241149NW/241110-D	3.625	82.6	356	1133	R.F.	263
1219	2030955	32	276	203	LM241149NW/241110-D	3.625	69.9	432	1124	R.F.	232
1219	2030956	32	348	251	LM249747NW/LM249710D	3.875	82.6	432	1124	R.F.	290
1270	2030938	28	276	203	LM241149NW/241110-D	3.625	85.7	406	1175	R.F.	347
1270	2030957	28	276	251	LM241149NW/241110-D	3.875	82.6	406	1175	R.F.	347
1270	2030958	35	348	251	LM249747NW/LM249710D	3.875	95.3	483	1159	R.F.	333
1397	2030959	28	327	235	NA8575SW-8520CD	4.500	88.9	432	1297	R.F.	404
1397	2030960	32	327	235	NA8575SW-8520CD	4.500	85.7	483	1302	R.F.	374
1397	2030961	32	348	251	LM249747NW/LM249710D	3.875	88.9	483	1302	R.F.	267
1524	2030879	32	348	251	LM249747NW/LM249710D	3.875	82.6	483	1429	R.F.	497
1524	2030880	35	352	267	LM251649NW/251610-D	4.125	92.1	483	1419	R.F.	533
1524	2030881	35	394	305	L357049NW/L357010D	4.125	95.3	483	1419	R.F.	533
1524	2030875	38	348	251	LM249747NW/LM249710D	3.875	88.9	483	1410	R.F.	533

**Crown Sheaves contain lightning holes.



Custom sheaves are available.