The KIC Group Product Catalog

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Every effort has been made to make sure that the information contained in this catalog is correct and up to date. For special application situations, please contact KIC customer service at:

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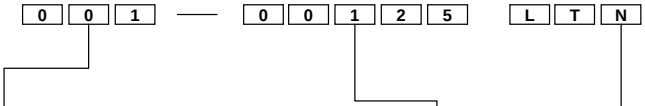
For the most recent product information and catalog updates, please visit our website:

www.kic-group.com

KIC Hub & Drum Assembly Part Numbering System

Notes: This catalog is divided into sections by axle spindle type. Each hub is listed by the hub casting (which determines bolt circle, bearing spacing etc.) Option codes are listed below. For options or configurations not listed here, please contact KIC Engineering or your local KIC distributor.

KIC Hub & Drum Assembly Nomenclature



Bearing Combination			
Number	**SAE Config.**	**Outer Bearing**	**Inner Bearing**
001	N	HM212011	HM218210
002	FF/FG	3720	HM212011
003	FC/FD	3525	39520
004	P	HM518410	HM518410
005	FL	552A	6420
006	K30/A26	742	752
007	A45	6535	772
008	C-22/ROR	Y33213	HM218210
009	L-Series	39520	47620
010	R-Series	572	592A
011	FC	25820	JM207010
PRT	Part only - No Assemblies		
SVC	Hub Machined with Cups Only		
HUB	Hub Machined with Cups & Studs (No Drum)		
CST	Casting Only		

Hub Series
00125

SUFFIX	Description	Application
B	Balanced Assembly (assemblies only)	Disc/Spk
D	Disposable Shipping Nut	Disc
F	Fill Port with SAE Plug	Disc/Spk
G	Bearing Cones Included	Disc/Spk
H	Rim Clamps, Nuts & Spacer Band	Spoke
K	Rim Clamps & Nuts Only	Spoke
L	Studs for Aluminum Wheels	Disc
N	Fasteners Installed (in Lieu of Shipping Nuts)	Disc
R	Recessed Shipping Nut	Disc
T	ABS Tone Ring	Disc/Spk
X	Extra-Long Studs	Disc
Z	Stemco® Platinum Performance System™ Bearing Cups	Disc/Spk

Example: 001-00125LTN

"N Spindle Configuration, 00125 Series Hub Casting with 4.79" M22 Studs, Tone Ring, 10 ea. 22mm Flange Nuts Installed, Assembled with Drum"

Example: 004-56807H

"P Spindle Configuration, 56807 Series Spoke Wheel Casting with Rim Clamps, Nuts & Spacer Band, Assembled with Drum

Interchange and competitors' design information is based on the best information available at the time of publication and is to be used as a guide only. Although every care has been taken in order to ensure the accuracy of these interchanges, KIC does not assume any liability for errors, changes, omissions or for harm resulting therefrom. It is recommended that all parts be thoroughly checked for proper form, fit and function prior to installation and usage to determine interchangeability.

Stemco, Platinum Performance System, are trademarks of STEMCO LP

Icon Legend



Assembly is available with **Stud Piloted** (Ball Seat) mounting



Assembly is available with **Hub Piloted** (Unimount) mounting



Cast Spoke Wheel Assembly



ABS Ready (Machined for ABS tone ring)



Assembly available with **Balanced** drum (20 in.oz. std.)



Hub & Rotor Assembly

Hub Dynamic Capacities

NOTE:

Hub dynamic capacity is based on the weight-bearing capacity of the wheel bearings. Non-standard wheel offsets or special applications may affect the weight-bearing capacity of a hub.

Please consult with KIC customer service and wheel supplier when using non-standard wheel offsets or with off-highway applications to determine total weight-bearing capacity of a hub.

Prefix	SAE Designation/ Axle End Type	Inner Cup Inner Cone	Outer Bearing Cup Outer Bearing Cone	Hub Dynamic Capacity
001	N	HM218210 HM218248	HM212011 HM212049	12,500 lbs
002	FF/FG	HM212011 HM212049	3720 3782	7,300 lbs
004	P	HM518410 HM518445	HM518410 HM518445	12,500 lbs
005	FL	6420 6461A	552A 555S	10,000 lbs
006	K30	742 740	752 759	15,000 lbs
007	W (A45)	772 787	6535 6580	22,500 lbs
008	C-22/ROR	Y33213 X33213	HM218210 HM218248	12,500 lbs
011	FC	JM207010 JM207049A	25820 25877	4,000 lbs

Ductile & Gray Iron Properties

KIC Hubs and cast-spoke wheels meet or exceed the following specifications

ASTM A-536 (Grade 65-45-12)- Standard Specification for Ductile Iron Castings
ASTM E-8- Methods of Tension Testing of Metallic Materials
SAE J434 (Grade 64-45-12) - Automotive Ductile (Nodular) Iron Castings

KIC standard brake drums meet or exceed the following specifications:

ASTM A-159 (Grade G3500b) - Standard Specification for Automotive Gray Cast Iron
SAE J431 (G11H20b) - Automotive Gray Iron Castings

KIC 6xxxx brake drums meet or exceed the following specifications:

ASTM A-159 (Grade G3000b) - Standard Specification for Automotive Gray Cast Iron
SAE J431 (G11H18b) - Automotive Gray Iron Castings

KIC material property testing is governed by:

ASTM A-48 - Standard Tensile Specifications for Gray Iron Castings
ASTM E-8 - Standard Test Methods for Tension Testing
ASTM E-10 - Hardness Testing Procedure
ASTM A-247- Microstructure Evaluation Procedure

Trailer - Disc Wheel

Assembly PN	Assembly Description Hub Casting Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
001-00077	Stud Pilot, BSF RH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	16
001-00078	Stud Pilot, BSF LH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	16
001-00085	JIS, 285mm B.C., M20 X 1.5 RH 16.5 x 7 Ductile Iron 8 stud hub w/ 285mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	17
001-00086	JIS, 285mm B.C., M20 X 1.5 LH 16.5 x 7 Ductile Iron 8 stud hub w/ 285mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	17
001-00103	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	16
001-00103L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	16
001-00104	Hub Pilot, M22 x 3.70 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	16
001-00125	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-00125L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-00126	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-00127	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-00133	Hub Pilot, M22 x 3.94 Stud, 12.25 x 7.5 Drum Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	22
001-00133L	Hub Pilot, M22 x 4.79 Stud, 12.25 x 7.5 Drum Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	22
001-00135	Hub Pilot, M22 x 3.94 Stud, 16.5 x 8-5/8 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-00135L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 8-5/8 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-00136	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7 Drum Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	23
001-00136L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7 Drum Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	23
001-00225	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7 XHD Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-00225L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7 XHD Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20

Trailer - Disc Wheel

Assembly PN	Assembly Description Hub Casting Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
001-00226	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7 XHD Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-00227	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7 XHD Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-01000	Hub Pilot, M22 x 3.94 Stud, 16.5 x 5 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-01000L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 5 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-01001	Hub Pilot, M22 x 3.94 Stud, 16.5 x 8-5/8 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-01001L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 8-5/8 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-10061	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Inboard Drum - Shoulder Stud	N	HM218210 HM218248	HM212011 HM212049	18
001-10062	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Inboard Drum - Shoulder Stud	N	HM218210 HM218248	HM212011 HM212049	18
001-10511	Stud Pilot, 3/4-16 RH 12.25 x 7.5 Drum Ductile Iron 10 stud hub w/ 8.75 Dia. Bolt Circle. Uses Inboard Drum - Shoulder Stud	N	HM218210 HM218248	HM212011 HM212049	19
001-10512	Stud Pilot, 3/4-16 LH 12.25 x 7.5 Drum Ductile Iron 10 stud hub w/ 8.75 Dia. Bolt Circle. Uses Inboard Drum - Shoulder Stud	N	HM218210 HM218248	HM212011 HM212049	19
004-00130	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	34
004-00130L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	34
004-00131	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	34
004-00132	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	34
004-00143	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-00143L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-00145	Hub Pilot, M22 x 3.94 Stud, 12.25 x 7.5 Drum Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	36
004-00146	Hub Pilot, M22 x 3.94 Stud, 16.5 x 8-5/8 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-00147	Hub Pilot, M22 x 3.94 Stud, 16.5 x 8-5/8 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	34

Trailer - Disc Wheel

Assembly PN	Assembly Description Hub Casting Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
004-00148	Hub Pilot, M22 x 3.94 Stud, 16.5 x 8-5/8 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-00148L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 8-5/8 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-00150	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-00151	Stud Pilot, 3/4-16LH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-40077	Stud Pilot, BSF RH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	33
004-40078	Stud Pilot, BSF LH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	33
004-40103	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	32
004-40103L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	32
006-02133	Hub Pilot, M22 x 3.94 Stud, 16.5 x 8-5/8 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	742 740	752 759	39
006-02133L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 8-5/8 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	742 740	752 759	39
006-02134	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	742 740	752 759	40
006-02134L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	742 740	752 759	40
006-02135	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	742 740	752 759	39
006-02135L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	742 740	752 759	39
006-02136	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	742 740	752 759	40
006-02137	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	742 740	752 759	40

Trailer - Cast Spoke Wheel

Assembly PN	Assembly Description Hub Casting Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
001-70003	3-Spoke x 15 Wheel, 12.25 x 7.5 Drum Ductile Iron 3-spoke 15	N	HM218210 HM218248	HM212011 HM212049	25
001-75207	5-Spoke x 20 16.5 x 7 Brake Drum Ductile Iron 5-spoke 20	N	HM218210 HM218248	HM212011 HM212049	26
001-76207	6-Spoke x 20 16.5 x 7 Brake Drum Ductile Iron 6-spoke 20	N	HM218210 HM218248	HM212011 HM212049	27
001-76227	6-Spoke x 22 16.5 x 7 Brake Drum Ductile Iron 6-spoke 22	N	HM218210 HM218248	HM212011 HM212049	28
004-56807	6-spoke x 20 - 16.5 x 7 Drum Ductile Iron 6-spoke 20	P	HM518410 HM518445	HM518410 HM518445	37
006-90716	6-Spoke x 20, K30, 16.5 x 7 Drum Ductile Iron 6-spoke 20	K30	742 740	752 759	42
006-90718	6-Spoke x 20, K30, 18 x 7 Drum Ductile Iron 6-spoke 20	K30	742 740	752 759	42
006-94016	6-Spoke x 24, K30, 16.5 x 7 Drum Ductile Iron 6-spoke 24	K30	742 740	752 759	43
006-94018	6-Spoke x 24, K30, 18 x 7 Drum Ductile Iron 6-spoke 24	K30	742 740	752 759	43
007-94518	6-Spoke x 24, A45 18 x 7 Drum Ductile Iron 6-spoke 24	W (A45)	772 787	6535 6580	44
007-94520	6-Spoke x 24, A45 20x 8 Drum Ductile Iron 6-spoke 24	W (A45)	772 787	6535 6580	44

Truck/Trailer - Steer Axle

Assembly PN	Assembly Description Hub Casting Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
001-02540L	Hub Pilot, M22 x 3.94 Stud, 16.5 x 6 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	24
001-02540X	Hub Pilot, M22 x 4.25 Stud, 16.5 x 6 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	24
001-02541	Stud Pilot, 3/4-16 RH Stud, 16.5 x 6 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	24
001-02542	Stud Pilot, 3/4-16 LH Stud, 16.5 x 6 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	24
001-02545	Hub Pilot, M22 x 3.70 Stud, 16.5 x 5 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	24
001-02545L	Hub Pilot, M22 x 3.94 Stud, 16.5 x 5 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	24
001-02547	Hub Pilot, M22 x 3.70 Stud, 16.5 x 7 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	24
001-02547L	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	24

Truck/Trailer - Steer Axle

Assembly PN	Assembly Description Hub Casting Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
002-00137	Hub Pilot, M22 x 3.70 Stud, 15 x 4 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	29
002-00137L	Hub Pilot, M22 x 3.94 Stud, 15 x 4 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	29
002-00138	Stud Pilot, 3/4-16 RH Stud, 15 x 4 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	29
002-00139	Stud Pilot, 3/4-16 LH Stud, 15 x 4 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	29
002-00140	BSN RH, 11.25 B.C. 15 x 4 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	30
002-00141	BSN LH, 11.25 B.C. 15 x 4 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	30
002-00142	Hub Pilot, M22 x 3.70 Stud, 16.5 x 5 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	29
002-00142L	Hub Pilot, M22 x 3.94 Stud, 16.5 x 5 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	29
002-00200	Hub Pilot, M22 x 3.70 Stud, 15 x 4 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	31
002-00200L	Hub Pilot, M22 x 3.97 Stud, 15 x 4 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	31
005-01005L	Hub Pilot, M22 x 4.25 Stud, 16.5 x 6 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FL	552A 555S	6420 6461A	38
011-04000L	Hub Pilot M18 x 3.15 Stud, 12.80 x 4 Drum Bal Ductile Iron 6 stud hub w/ 8.07 Dia Bolt Circle. Uses Outboard Drum - Clipped Head Stud	I80 (FC)	JM207010 JM207049A	25820 25877	45
011-04100	Hub Pilot M22 x 2.87 Studs, 15 Rotor Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Rotor - Serrated stud	I80 (FC)	JM207010 JM207049A	25820 25877	46

Hub Series Index by SAE Designation

Prefix	Hub Series Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
001	1002 Series Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	16
001	1004 Series Ductile Iron 8 stud hub w/ 285mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	17
001	1006 Series Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Inboard Drum - Shoulder Stud	N	HM218210 HM218248	HM212011 HM212049	18
001	1051 Series Ductile Iron 10 stud hub w/ 8.75 Dia. Bolt Circle. Uses Inboard Drum - Shoulder Stud	N	HM218210 HM218248	HM212011 HM212049	19

Hub Series listed by SAE Designation

Prefix	Hub Series Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
001	125 Series Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001	2027 Series Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	22
001	2028 Series Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	23
001	2540 Series Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	24
001	7000 Series Ductile Iron 3-spoke 15	N	HM218210 HM218248	HM212011 HM212049	25
001	75207 Series Ductile Iron 5-spoke 20	N	HM218210 HM218248	HM212011 HM212049	26
001	76207 Series Ductile Iron 6-spoke 20	N	HM218210 HM218248	HM212011 HM212049	27
001	76227 Series Ductile Iron 6-spoke 22	N	HM218210 HM218248	HM212011 HM212049	28
002	137 Series Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	29
002	1521 Series Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	30
002	200 Series Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	31
004	40103 Series Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	32
004	40104 Series Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	33
004	40130 Series Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	34
004	40143 Series Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004	40145 Series Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	36
004	56807 Series Ductile Iron 6-spoke 20	P	HM518410 HM518445	HM518410 HM518445	37
005	1005 Series Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FL	552A 555S	6420 6461A	38
006	2133 Series Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	742 740	752 759	39
006	2133 Series Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	742 740	752 759	39
006	2134 Series Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	742 740	752 759	40

Hub Series Index by SAE Designation

Prefix	Hub Series Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
006	907 Series Ductile Iron 6-spoke 20	K30	742 740	752 759	42
006	940 Series Ductile Iron 6-spoke 24	K30	742 740	752 759	43
007	945 Series Ductile Iron 6-spoke 24	W (A45)	772 787	6535 6580	44
011	4000 Series Ductile Iron 6 stud hub w/ 8.07 Dia Bolt Circle. Uses Outboard Drum - Clipped Head Stud	I80 (FC)	JM207010 JM207049A	25820 25877	45
011	4100 Series Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Rotor - Serrated stud	I80 (FC)	JM207010 JM207049A	25820 25877	46

Assembly Part Number Index

Assembly PN	Assembly Description Hub Casting Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
001-00077	Stud Pilot, BSF RH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	16
001-00078	Stud Pilot, BSF LH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	16
001-00085	JIS, 285mm B.C., M20 X 1.5 RH 16.5 x 7 Ductile Iron 8 stud hub w/ 285mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	17
001-00086	JIS, 285mm B.C., M20 X 1.5 LH 16.5 x 7 Ductile Iron 8 stud hub w/ 285mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	17
001-00103	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	16
001-00103L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	16
001-00104	Hub Pilot, M22 x 3.70 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	16
001-00125	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-00125L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-00126	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-00127	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-00133	Hub Pilot, M22 x 3.94 Stud, 12.25 x 7.5 Drum Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	22
001-00133L	Hub Pilot, M22 x 4.79 Stud, 12.25 x 7.5 Drum Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	22

Assembly PN	Assembly Description Hub Casting Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
001-00135	Hub Pilot, M22 x 3.94 Stud, 16.5 x 8-5/8 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-00135L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 8-5/8 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-00136	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7 Drum Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	23
001-00136L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7 Drum Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	23
001-00225	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7 XHD Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-00225L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7 XHD Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-00226	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7 XHD Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-00227	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7 XHD Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-01000	Hub Pilot, M22 x 3.94 Stud, 16.5 x 5 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-01000L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 5 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-01001	Hub Pilot, M22 x 3.94 Stud, 16.5 x 8-5/8 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-01001L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 8-5/8 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	20
001-02540L	Hub Pilot, M22 x 3.94 Stud, 16.5 x 6 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	24
001-02540X	Hub Pilot, M22 x 4.25 Stud, 16.5 x 6 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	24
001-02541	Stud Pilot, 3/4-16 RH Stud, 16.5 x 6 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	24
001-02542	Stud Pilot, 3/4-16 LH Stud, 16.5 x 6 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	24
001-02545	Hub Pilot, M22 x 3.70 Stud, 16.5 x 5 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	24
001-02545L	Hub Pilot, M22 x 3.94 Stud, 16.5 x 5 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	24
001-02547	Hub Pilot, M22 x 3.70 Stud, 16.5 x 7 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	24
001-02547L	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	24

Assembly Part Number Index

Assembly PN	Assembly Description Hub Casting Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
001-10061	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Inboard Drum - Shoulder Stud	N	HM218210 HM218248	HM212011 HM212049	18
001-10062	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Inboard Drum - Shoulder Stud	N	HM218210 HM218248	HM212011 HM212049	18
001-10511	Stud Pilot, 3/4-16 RH 12.25 x 7.5 Drum Ductile Iron 10 stud hub w/ 8.75 Dia. Bolt Circle. Uses Inboard Drum - Shoulder Stud	N	HM218210 HM218248	HM212011 HM212049	19
001-10512	Stud Pilot, 3/4-16 LH 12.25 x 7.5 Drum Ductile Iron 10 stud hub w/ 8.75 Dia. Bolt Circle. Uses Inboard Drum - Shoulder Stud	N	HM218210 HM218248	HM212011 HM212049	19
001-70003	3-Spoke x 15 Wheel, 12.25 x 7.5 Drum Ductile Iron 3-spoke 15	N	HM218210 HM218248	HM212011 HM212049	25
001-75207	5-Spoke x 20 16.5 x 7 Brake Drum Ductile Iron 5-spoke 20	N	HM218210 HM218248	HM212011 HM212049	26
001-76207	6-Spoke x 20 16.5 x 7 Brake Drum Ductile Iron 6-spoke 20	N	HM218210 HM218248	HM212011 HM212049	27
001-76227	6-Spoke x 22 16.5 x 7 Brake Drum Ductile Iron 6-spoke 22	N	HM218210 HM218248	HM212011 HM212049	28
002-00137	Hub Pilot, M22 x 3.70 Stud, 15 x 4 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	29
002-00137L	Hub Pilot, M22 x 3.94 Stud, 15 x 4 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	29
002-00138	Stud Pilot, 3/4-16 RH Stud, 15 x 4 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	29
002-00139	Stud Pilot, 3/4-16 LH Stud, 15 x 4 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	29
002-00140	BSN RH, 11.25 B.C. 15 x 4 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	30
002-00141	BSN LH, 11.25 B.C. 15 x 4 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	30
002-00142	Hub Pilot, M22 x 3.70 Stud, 16.5 x 5 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	29
002-00142L	Hub Pilot, M22 x 3.94 Stud, 16.5 x 5 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	29
002-00200	Hub Pilot, M22 x 3.70 Stud, 15 x 4 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	31
002-00200L	Hub Pilot, M22 x 3.97 Stud, 15 x 4 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	31
004-00130	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	34
004-00130L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	34
004-00131	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	34

Assembly PN	Assembly Description Hub Casting Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
004-00132	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	34
004-00143	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-00143L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-00145	Hub Pilot, M22 x 3.94 Stud, 12.25 x 7.5 Drum Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	36
004-00146	Hub Pilot, M22 x 3.94 Stud, 16.5 x 8-5/8 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-00147	Hub Pilot, M22 x 3.94 Stud, 16.5 x 8-5/8 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	34
004-00148	Hub Pilot, M22 x 3.94 Stud, 16.5 x 8-5/8 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-00148L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 8-5/8 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-00150	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-00151	Stud Pilot, 3/4-16LH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-40077	Stud Pilot, BSF RH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	33
004-40078	Stud Pilot, BSF LH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	33
004-40103	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	32
004-40103L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	32
004-56807	6-spoke x 20 - 16.5 x 7 Drum Ductile Iron 6-spoke 20	P	HM518410 HM518445	HM518410 HM518445	37
005-01005L	Hub Pilot, M22 x 4.25 Stud, 16.5 x 6 Drum Bal Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FL	552A 555S	6420 6461A	38
006-02133	Hub Pilot, M22 x 3.94 Stud, 16.5 x 8-5/8 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	742 740	752 759	39
006-02133L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 8-5/8 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	742 740	752 759	39
006-02134	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	742 740	752 759	40
006-02134L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	742 740	752 759	40

Assembly Part Number Index

Assembly PN	Assembly Description Hub Casting Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
006-02135	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	742 740	752 759	39
006-02135L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	742 740	752 759	39
006-02136	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	742 740	752 759	40
006-02137	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7 Drum Ductile Iron 10 stud hub w/ 11.25 Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	742 740	752 759	40
006-90716	6-Spoke x 20, K30, 16.5 x 7 Drum Ductile Iron 6-spoke 20	K30	742 740	752 759	42
006-90718	6-Spoke x 20, K30, 18 x 7 Drum Ductile Iron 6-spoke 20	K30	742 740	752 759	42
006-94016	6-Spoke x 24, K30, 16.5 x 7 Drum Ductile Iron 6-spoke 24	K30	742 740	752 759	43
006-94018	6-Spoke x 24, K30, 18 x 7 Drum Ductile Iron 6-spoke 24	K30	742 740	752 759	43
007-94518	6-Spoke x 24, A45 18 x 7 Drum Ductile Iron 6-spoke 24	W (A45)	772 787	6535 6580	44
007-94520	6-Spoke x 24, A45 20x 8 Drum Ductile Iron 6-spoke 24	W (A45)	772 787	6535 6580	44
011-04000L	Hub Pilot M18 x 3.15 Stud, 12.80 x 4 Drum Bal Ductile Iron 6 stud hub w/ 8.07 Dia Bolt Circle. Uses Outboard Drum - Clipped Head Stud	I80 (FC)	JM207010 JM207049A	25820 25877	45
011-04100	Hub Pilot M22 x 2.87 Studs, 15 Rotor Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Rotor - Serrated stud	I80 (FC)	JM207010 JM207049A	25820 25877	46

Assembly Part Number Index by Gunite Hub PN

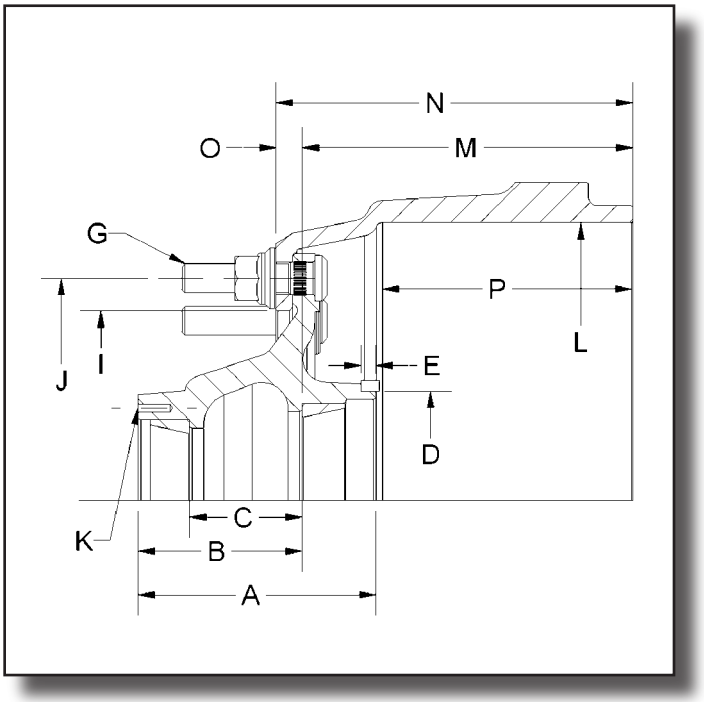
Gunite PN	KIC PN	Description	SAE Designation	Catalog Page
5712-4	001-00125	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7” Drum	N	20
5711-4	001-00125L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7” Drum	N	20
5714RH3	001-00126	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7” Drum	N	20
5714LH3	001-00127	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7” Drum	N	20
5716-3	001-00136	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7” Drum	N	23
5715-3	001-00136L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7” Drum	N	23
HF850K	001-02540L	Hub Pilot, M22 x 3.94 Stud, 16.5 x 6” Drum Bal	N	24
HF850K	001-02545L	Hub Pilot, M22 x 3.94 Stud, 16.5 x 5” Drum Bal	N	24
5721-2	004-00130	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7” Drum	P	34
5719RH2	004-00131	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7” Drum	P	34
5719LH2	004-00132	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7” Drum	P	34
5720-2	004-00143L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7” Drum	P	35
5728	004-56807	6-spoke x 20” - 16.5 x 7” Drum	P	37
HF805K	005-01005L	Hub Pilot, M22 x 4.25 Stud, 16.5 x 6” Drum Bal	FL	38

Assembly Part Number Index by Webb Hub PN

Webb PN	KIC PN	Description	SAE Designation	Catalog Page
10069BETL	001-10062	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7” Drum	N	18
10069BETR	001-10061	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7” Drum	N	18
10519CLML	001-10512	Stud Pilot, 3/4-16 LH 12.25” x 7.5” Drum	N	19
10519CLMR	001-10511	Stud Pilot, 3/4-16 RH 12.25” x 7.5” Drum	N	19
20231UQ3	001-00125	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7” Drum	N	20
20231UQ5	001-00125L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7” Drum	N	20
20231UQML	001-00127	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7” Drum	N	20
20231UQMR	001-00126	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7” Drum	N	20
20241GRML	001-00086	JIS, 285mm B.C., M20 X 1.5 LH 16.5 x 7”	N	17
20241GTMR	001-00085	JIS, 285mm B.C., M20 X 1.5 RH 16.5 x 7”	N	17
20271CW3	001-00133	Hub Pilot, M22 x 3.94 Stud, 12.25 x 7.5” Drum	N	22
20271CW5	001-00133L	Hub Pilot, M22 x 4.79 Stud, 12.25 x 7.5” Drum	N	22
20281UF3	001-00136	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7” Drum	N	23
20281UF5	001-00136L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7” Drum	N	23
20331FJ3	001-00103	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7” Drum	N	16
20331FJ5	001-00103L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7” Drum	N	16
20331FJML	001-00078	Stud Pilot, BSF LH Stud, 16.5 x 7” Drum	N	16
20331FJMR	001-00077	Stud Pilot, BSF RH Stud, 16.5 x 7” Drum	N	16
22501XQ	011-04100	Hub Pilot M22 x 2.87 Studs, 15” Rotor	I80 (FC)	46
23231UQ3	004-00130	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7” Drum	P	34
23231UQ5	004-00130L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7” Drum	P	34
23231UQML	004-00132	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7” Drum	P	34
23231UQMR	004-00131	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7” Drum	P	34
23431JA5	004-00148L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 8-5/8” Drum	P	35
23431UQ3	004-00143	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7” Drum	P	35
23431UQ5	004-00143L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7” Drum	P	35
24011UH4	006-02134	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7” Drum	K30	40
24311FJ3	006-02135	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7” Drum	K30	39
24331FK3	006-02133	Hub Pilot, M22 x 3.94 Stud, 16.5 x 8-5/8” Drum	K30	39
25201RX1	002-00137	Hub Pilot, M22 x 3.70 Stud, 15 x 4” Drum Bal	FF/FG	29
25301KV3	005-01005L	Hub Pilot, M22 x 4.25 Stud, 16.5 x 6” Drum Bal	FL	38
25401KN3	001-02545L	Hub Pilot, M22 x 3.94 Stud, 16.5 x 5” Drum Bal	N	24
25401KV3	001-02540L	Hub Pilot, M22 x 3.94 Stud, 16.5 x 6” Drum Bal	N	24
25401RK3	001-02547L	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7” Drum Bal	N	24
5680ZHDH	004-56807	6-spoke x 20” - 16.5 x 7” Drum	P	37
70159CKH	001-70003	3-Spoke x 15” Wheel, 12.25 x 7.5” Drum	N	25
75209GCH	001-75207	5-Spoke x 20” 16.5 x 7” Brake Drum	N	26
76209GCH	001-76207	6-Spoke x 20” 16.5 x 7” Brake Drum	N	27
76229GCH	001-76227	6-Spoke x 22” 16.5 x 7” Brake Drum	N	28

Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

SAE Spindle Designation:	**N**
Inner Bearing Cup:	HM218210
Inner Bearing Cone:	HM218248
Outer Bearing Cup:	HM212011
Outer Bearing Cone:	HM212049



Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	7.06
B: Inner Cup to Mtg. Face	4.87
C: Distance between cups	3.34
D: Tone Ring Bore Dia	6.50
E: Tone Ring Bore Depth	0.44
J: Bolt Circle	335mm (13.19")
K: Hubcap Hole Pattern/Thread	6 Holes 5/16"-18 UNC, 5.50 Bolt Circle

Assembly Options

Assembly PN / Description	Drum Part Number L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	G Stud PN Thread	Stand Out	M Cup to drum O Cup Face to Mtg. Face	Assy Weight
001-00077	54250-01				PRT-00021		9.81	177
Stud Pilot, BSF RH Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	7/8-11 BSF LH	2.32	0.78	
001-00078	54250-01				PRT-00022		9.81	177
Stud Pilot, BSF LH Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	7/8-11 BSF RH	2.32	0.78	
001-00103	54250-01				PRT-00117		9.81	177
Hub Pilot, M22 x 3.94 Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	M22 x 1.5	2.79	0.78	
001-00103L	54250-01				PRT-00118		9.81	179
Hub Pilot, M22 x 4.79 Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	M22 x 1.5	3.64	0.78	
001-00104	54250-01				PRT-00121		9.81	177
Hub Pilot, M22 x 3.70 Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	M22 x 1.5	2.55	0.78	

Option "T" - ABS Rings

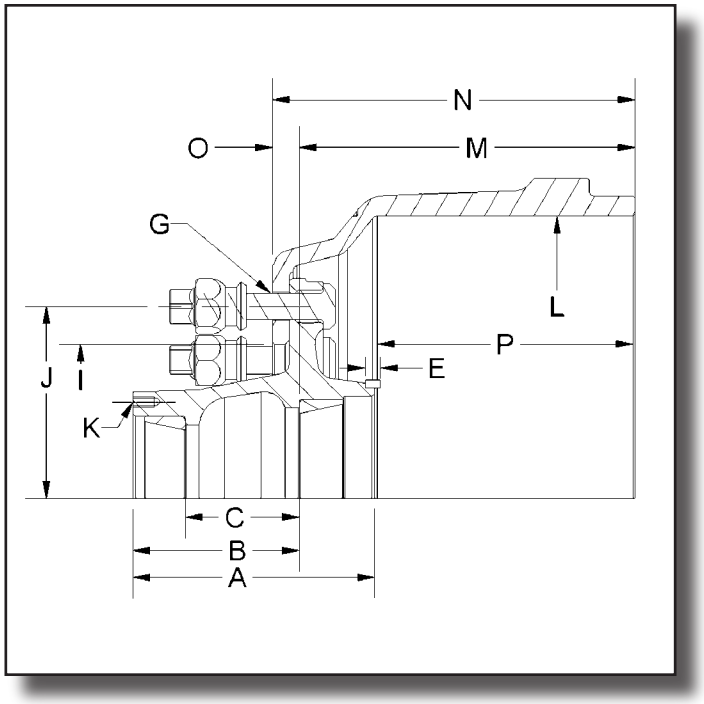
Description	Part Number	Pitch Diameter
100-Tooth Tone Ring	PRT-03237	6.77

NOTE

Refer to “Component Parts” section for fastener information.

Ductile Iron 8 stud hub w/ 285mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

SAE Spindle Designation:	**N**
Inner Bearing Cup:	HM218210
Inner Bearing Cone:	HM218248
Outer Bearing Cup:	HM212011
Outer Bearing Cone:	HM212049



Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	7.07
B: Inner Cup to Mtg. Face	4.87
C: Distance between cups	3.34
D: Tone Ring Bore Dia	6.50
E: Tone Ring Bore Depth	0.43
J: Bolt Circle	285mm (11.22")
K: Hubcap Hole Pattern/Thread	6 Holes 5/16"-18 UNC, 5.50 Bolt Circle

Assembly Options

Assembly PN / Description	Drum Part Number				G Stud PN		M Cup to drum	Assy Weight
	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
001-00085	54247-01				PRT-00026		9.82	160
JIS, 285mm B.C., M20 X 1.5 RH 16.5 x 7"	16.50	7.82	9.00	10.61	M20 x 1.5 RH	2.28	0.79	
001-00086	54247-01				PRT-00025		9.82	160
JIS, 285mm B.C., M20 X 1.5 LH 16.5 x 7"	16.50	7.82	9.00	10.61	M20 x 1.5 LH	2.28	0.79	

Option "T" - ABS Rings

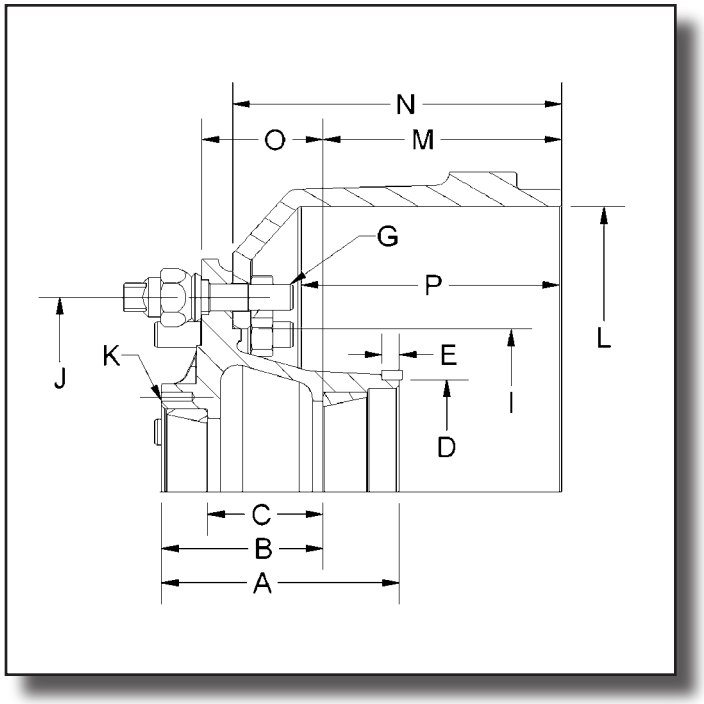
Description	Part Number	Pitch Diameter
100-Tooth Tone Ring	PRT-03237	6.77

NOTE

Refer to “Component Parts” section for fastener information.

Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Inboard Drum - Shoulder Stud

SAE Spindle Designation:	**N**
Inner Bearing Cup:	HM218210
Inner Bearing Cone:	HM218248
Outer Bearing Cup:	HM212011
Outer Bearing Cone:	HM212049



Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	6.85
B: Inner Cup to Mtg. Face	4.65
C: Distance between cups	3.34
D: Tone Ring Bore Dia	6.50
E: Tone Ring Bore Depth	0.50
J: Bolt Circle	11.25
K: Hubcap Hole Pattern/Thread	6 Holes 5/16"-18 UNC, 5.50 Bolt Circle

Assembly Options

Assembly PN	Drum Part Number				G Stud PN		M Cup to drum	Assy Weight
Description	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
001-10061	52020-01				PRT-00874		6.89	152
Stud Pilot, 3/4-16 RH Stud, 16.5 x 7" Drum	16.50	7.63	9.44	9.50	3/4-16 RH	1.35	3.50	
001-10062	52020-01				PRT-00875		6.89	152
Stud Pilot, 3/4-16 LH Stud, 16.5 x 7" Drum	16.50	7.63	9.44	9.50	3/4-16 LH	1.35	3.50	

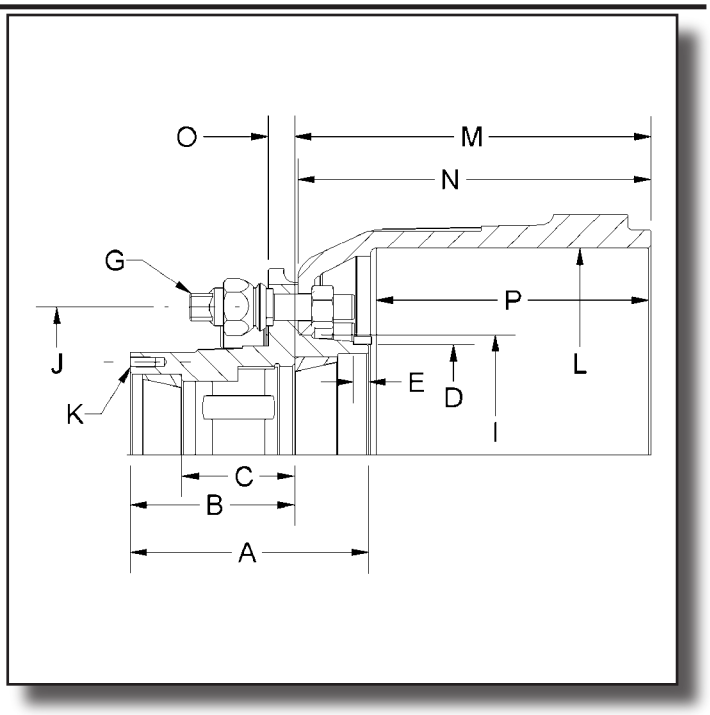
Option "T" - ABS Rings

Description	Part Number	Pitch Diameter
100-Tooth Tone Ring	PRT-03237	6.77

NOTE
Uses PRT-00152 Locknut
Refer to “Component Parts” section for fastener information.

Ductile Iron 10 stud hub w/ 8.75" Dia. Bolt Circle. Uses Inboard Drum - Shoulder Stud

SAE Spindle Designation:	**N**
Inner Bearing Cup:	HM218210
Inner Bearing Cone:	HM218248
Outer Bearing Cup:	HM212011
Outer Bearing Cone:	HM212049



Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	7.06
B: Inner Cup to Mtg. Face	4.87
C: Distance between cups	3.34
D: Tone Ring Bore Dia	6.50
E: Tone Ring Bore Depth	0.44
J: Bolt Circle	8.75
K: Hubcap Hole Pattern/Thread	6 Holes 5/16"-18 UNC, 5.50 Bolt Circle

Assembly Options

Assembly PN / Description	Drum Part Number				G Stud PN		M Cup to drum	Assy Weight
	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
001-10511	53039-01				PRT-00874		10.56	118
Stud Pilot, 3/4-16 RH 12.25" x 7.5" Drum	12.25	8.31	7.13	10.47	3/4-16 RH	1.40	0.78	
001-10512	53039-01				PRT-00875		10.56	118
Stud Pilot, 3/4-16 LH 12.25" x 7.5" Drum	12.25	8.31	7.13	10.47	3/4-16 LH	1.40	0.78	

Option "T" - ABS Rings

Description	Part Number	Pitch Diameter
80-Tooth Tone Ring	PRT-00981	6.77

Note: Uses PRT-00152 Locknut

NOTE

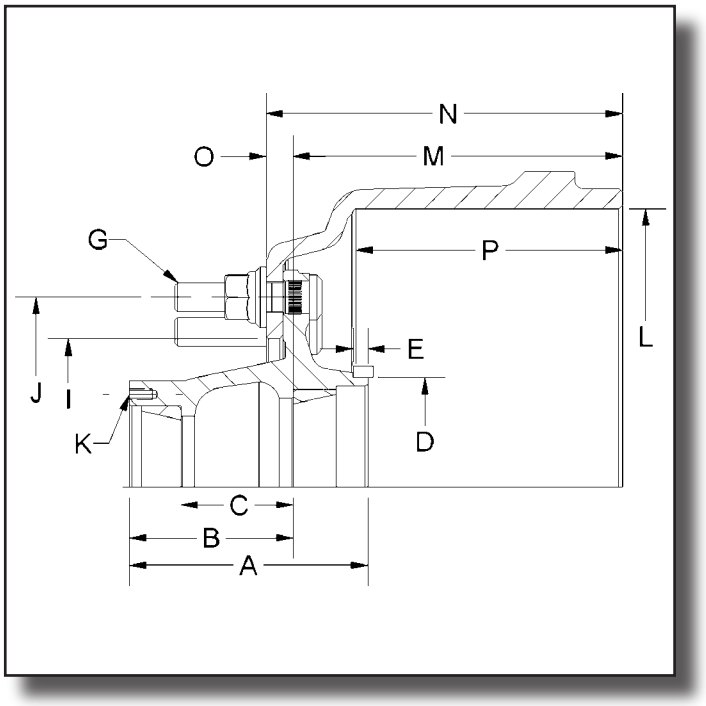
Refer to “Component Parts” section for fastener information.

Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

SAE Spindle Designation:	**N**
Inner Bearing Cup:	HM218210
Inner Bearing Cone:	HM218248
Outer Bearing Cup:	HM212011
Outer Bearing Cone:	HM212049

Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	7.09
B: Inner Cup to Mtg. Face	4.87
C: Distance between cups	3.34
D: Tone Ring Bore Dia	6.50
E: Tone Ring Bore Depth	0.44
J: Bolt Circle	11.25
K: Hubcap Hole Pattern/Thread	6 Holes 5/16"-18 UNC, 5.50 Bolt Circle



Assembly Options

Assembly PN / Description	Drum Part Number				G Stud PN		M Cup to drum	Assy Weight
	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
001-00125	60001-018				PRT-00117		9.81	162
Hub Pilot, M22 x 3.94 Stud, 16.5 x 7" Drum	16.50	7.56	8.78	10.62	M22 x 1.5	2.71	0.81	
001-00125L	60001-018				PRT-00118		9.81	164
Hub Pilot, M22 x 4.79 Stud, 16.5 x 7" Drum	16.50	7.56	8.78	10.62	M22 x 1.5	3.56	0.81	
001-00126	60001-018				PRT-00120		9.81	160
Stud Pilot, 3/4-16 RH Stud, 16.5 x 7" Drum	16.50	7.56	8.78	10.62	3/4-16 RH	1.34	0.81	
001-00127	60001-018				PRT-00119		9.81	160
Stud Pilot, 3/4-16 LH Stud, 16.5 x 7" Drum	16.50	7.56	8.78	10.62	3/4-16 LH	1.34	0.81	
001-00135 (See Note)	54727-01				PRT-00117		11.59	185
Hub Pilot, M22 x 3.94 Stud, 16.5 x 8-5/8" Drum	16.50	9.63	8.78	12.39	M22 x 1.5	2.65	0.80	
001-00135L (See Note)	54727-01				PRT-00118		11.59	187
Hub Pilot, M22 x 4.79 Stud, 16.5 x 8-5/8" Drum	16.50	9.63	8.78	12.39	M22 x 1.5	3.50	0.80	
001-00225	54261-018				PRT-00117		9.79	176
Hub Pilot, M22 x 3.94 Stud, 16.5 x 7" XHD Drum	16.50	7.60	8.78	10.59	M22 x 1.5	2.65	0.80	
001-00225L	54261-018				PRT-00118		9.79	178
Hub Pilot, M22 x 4.79 Stud, 16.5 x 7" XHD Drum	16.50	7.60	8.78	10.59	M22 x 1.5	3.50	0.80	
001-00226	54261-018				PRT-00120		9.79	176
Stud Pilot, 3/4-16 RH Stud, 16.5 x 7" XHD Drum	16.50	7.60	8.78	10.59	3/4-16 RH	1.59	0.80	
001-00227	54261-018				PRT-00119		9.79	176
Stud Pilot, 3/4-16 LH Stud, 16.5 x 7" XHD Drum	16.50	7.60	8.78	10.59	3/4-16 LH	1.59	0.80	
001-01000	54257-018				PRT-00117		7.79	150
Hub Pilot, M22 x 3.94 Stud, 16.5 x 5" Drum Bal	16.50	5.50	8.78	8.56	M22 x 1.5	2.69	0.77	
001-01000L	54257-018				PRT-00118		7.79	152
Hub Pilot, M22 x 4.79 Stud, 16.5 x 5" Drum Bal	16.50	5.50	8.78	8.56	M22 x 1.5	3.54	0.77	

Assembly Options

Assembly PN	Drum Part Number				G Stud PN		M Cup to drum	Assy Weight
Description	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
001-01001 (See Note)	54229-01				PRT-00117		10.51	166
Hub Pilot, M22 x 3.94 Stud, 16.5 x 8-5/8" Drum	16.50	9.00	8.78	11.39	M22 x 1.5	2.65	0.90	
001-01001L (See Note)	54229-01				PRT-00118		10.51	168
Hub Pilot, M22 x 4.79 Stud, 16.5 x 8-5/8" Drum	16.50	9.00	8.78	11.39	M22 x 1.5	3.50	0.90	

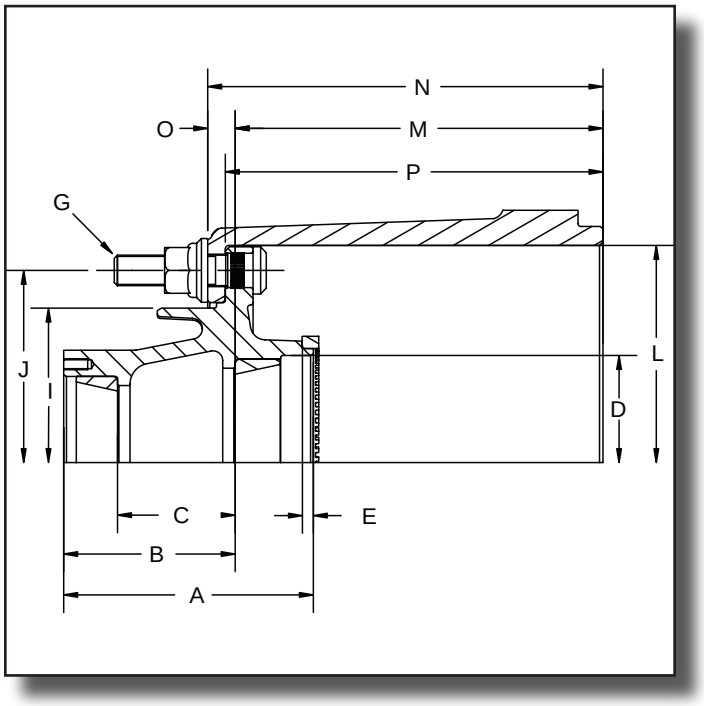
Option "T" - ABS Rings

Description	Part Number	Pitch Diameter
100-Tooth Tone Ring	PRT-03237	6.77

NOTE
001-00135 suitable for offset brake shoes
001-01001 suitable for centerline brake shoes.
Refer to “Component Parts” section for fastener information.

Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

SAE Spindle Designation:	**N**
Inner Bearing Cup:	HM218210
Inner Bearing Cone:	HM218248
Outer Bearing Cup:	HM212011
Outer Bearing Cone:	HM212049



Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	7.09
B: Inner Cup to Mtg. Face	4.87
C: Distance between cups	3.34
D: Tone Ring Bore Dia	6.50
E: Tone Ring Bore Depth	0.44
J: Bolt Circle	275mm (10.83")
K: Hubcap Hole Pattern/Thread	6 Holes 5/16"-18 UNC, 5.50 Bolt Circle

Assembly Options

Assembly PN / Description	Drum Part Number				G Stud PN		M Cup to drum	Assy Weight
	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
001-00133	54244-01				PRT-00117		10.44	127
Hub Pilot, M22 x 3.94 Stud, 12.25 x 7.5" Drum	12.25	9.84	9.00	11.22	M22 x 1.5	2.65	0.80	
001-00133L	54244-01				PRT-00118		10.44	129
Hub Pilot, M22 x 4.79 Stud, 12.25 x 7.5" Drum	12.25	9.84	9.00	11.22	M22 x 1.5	3.50	0.80	

Option "T" - ABS Rings

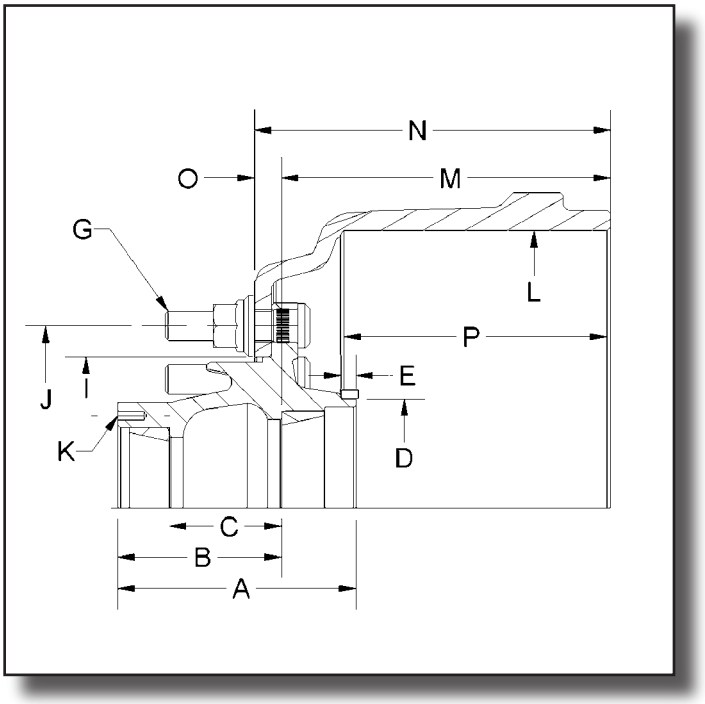
Description	Part Number	Pitch Diameter
80-Tooth Tone Ring	PRT-00981	6.77

NOTE

Refer to “Component Parts” section for fastener information.

Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

SAE Spindle Designation:	**N**
Inner Bearing Cup:	HM218210
Inner Bearing Cone:	HM218248
Outer Bearing Cup:	HM212011
Outer Bearing Cone:	HM212049



Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	7.09
B: Inner Cup to Mtg. Face	4.87
C: Distance between cups	3.34
D: Tone Ring Bore Dia	6.50
E: Tone Ring Bore Depth	0.44
J: Bolt Circle	275mm (10.83")
K: Hubcap Hole Pattern/Thread	6 Holes 5/16"-18 UNC, 5.50 Bolt Circle

Assembly Options

Assembly PN / Description	Drum Part Number: L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	G Stud PN: Thread	Stand Out	M Cup to drum: O Cup Face to Mtg. Face	Assy Weight
001-00136	53033-30				PRT-00117		9.79	158
Hub Pilot, M22 x 3.94 Stud, 16.5 x 7" Drum	16.50	7.63	9.00	10.63	M22 x 1.5	2.65	0.80	
001-00136L	53033-30				PRT-00118		9.79	159
Hub Pilot, M22 x 4.79 Stud, 16.5 x 7" Drum	16.50	7.63	9.00	10.63	M22 x 1.5	3.50	0.80	

Option "T" - ABS Rings

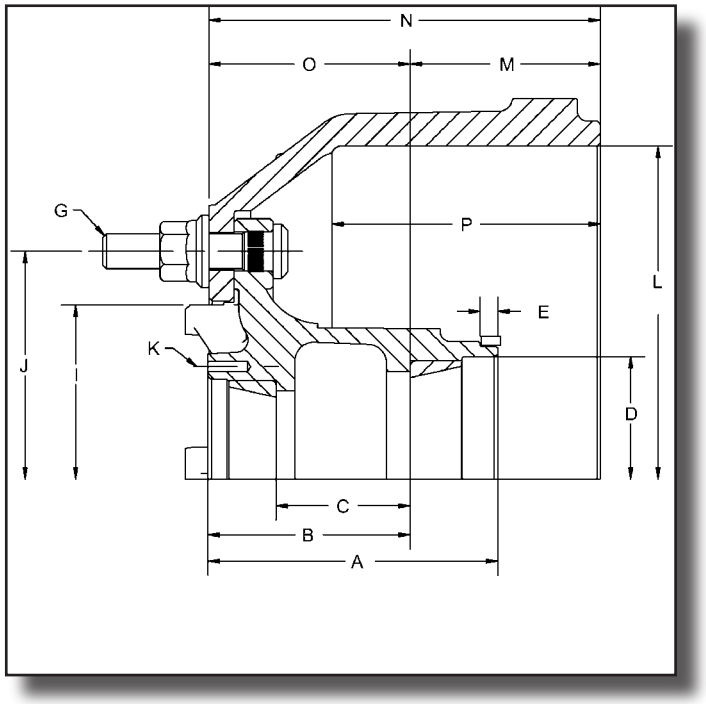
Description	Part Number	Pitch Diameter
100-Tooth Tone Ring	PRT-03237	6.77

NOTE

Refer to “Component Parts” section for fastener information.

Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

SAE Spindle Designation:	**N**
Inner Bearing Cup:	HM218210
Inner Bearing Cone:	HM218248
Outer Bearing Cup:	HM212011
Outer Bearing Cone:	HM212049



Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	7.22
B: Inner Cup to Mtg. Face	5.04
C: Distance between cups	3.34
D: Tone Ring Bore Dia	6.50
E: Tone Ring Bore Depth	1.14
J: Bolt Circle	11.25
K: Hubcap Hole Pattern/Thread	6 Holes 5/16"-18 UNC, 5.50 Bolt Circle

Assembly Options

Assembly PN / Description	Drum Part Number				G Stud PN		M Cup to drum	Assy Weight
	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
001-02540L	54242-018				PRT-00117		4.74	183
Hub Pilot, M22 x 3.94 Stud, 16.5 x 6" Drum Bal	16.50	6.47	8.78	9.76	M22 x 1.5	2.36	5.02	
001-02540X	54242-018				PRT-00122		4.74	183
Hub Pilot, M22 x 4.25 Stud, 16.5 x 6" Drum Bal	16.50	6.47	8.78	9.76	M22 x 1.5	2.65	5.02	
001-02541	54242-018				PRT-01294		4.74	180
Stud Pilot, 3/4-16 RH Stud, 16.5 x 6" Drum Bal	16.50	6.47	8.78	9.76	3/4-16 RH	1.52	5.02	
001-02542	54242-018				PRT-01295		4.74	180
Stud Pilot, 3/4-16 LH Stud, 16.5 x 6" Drum Bal	16.50	6.47	8.78	9.76	3/4-16 LH	1.52	5.02	
001-02545	54238-018				PRT-00121		4.25	158
Hub Pilot, M22 x 3.70 Stud, 16.5 x 5" Drum Bal	16.50	5.29	8.78	9.14	M22 x 1.5	2.12	4.88	
001-02545L	54238-018				PRT-00117		4.25	159
Hub Pilot, M22 x 3.94 Stud, 16.5 x 5" Drum Bal	16.50	5.29	8.78	9.14	M22 x 1.5	2.36	4.88	
001-02547	60001-018				PRT-00121		5.70	167
Hub Pilot, M22 x 3.70 Stud, 16.5 x 7" Drum Bal	16.50	7.56	8.78	10.62	M22 x 1.5	2.23	4.92	
001-02547L	60001-018				PRT-00117		5.70	169
Hub Pilot, M22 x 3.94 Stud, 16.5 x 7" Drum Bal	16.50	7.56	8.78	10.62	M22 x 1.5	2.47	4.92	

Option "T" - ABS Rings

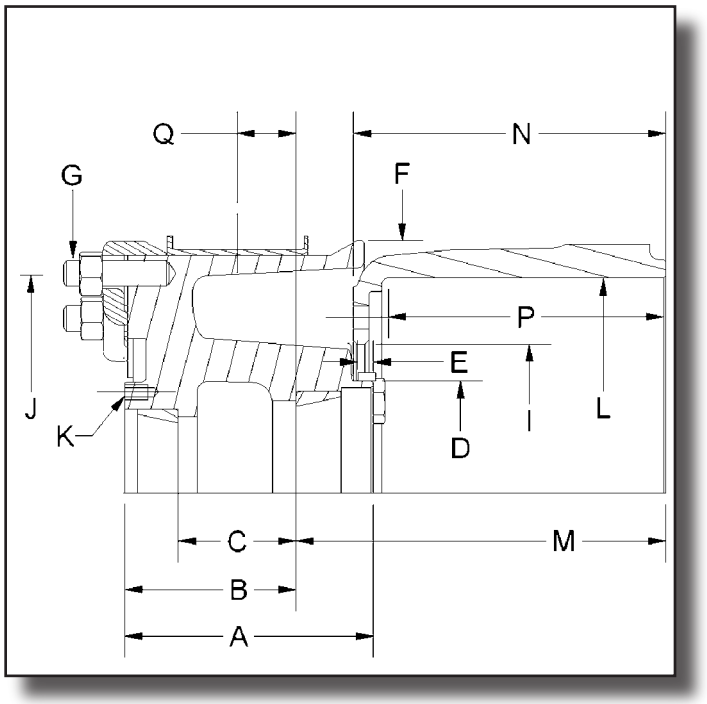
Description	Part Number	Pitch Diameter
100-Tooth Tone Ring	PRT-03237	6.77

NOTE

Refer to “Component Parts” section for fastener information.

Ductile Iron 3-spoke 15"

SAE Spindle Designation:	**N**
Inner Bearing Cup:	HM218210
Inner Bearing Cone:	HM218248
Outer Bearing Cup:	HM212011
Outer Bearing Cone:	HM212049



Spoke Wheel Specifications

Item	Dimensions (in)
A: Overall Length	6.97
B: Inner Cup to Mtg. Face	4.87
C: Distance between cups	3.34
D: Tone Ring Bore Dia	6.38
E: Tone Ring Bore Depth	0.45
J: Bolt Circle	12.50
F: Outside Dia	14.37
Q: Cup to C/L Wheel track	1.67
K: Hubcap Hole Pattern	6 Holes 5/16"-18 UNC, 5.50 Bolt Circle

Assembly Options

Assembly PN	Drum Part Number				G Rim Stud PN		M Cup to drum	Assy Weight
Description	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
001-70003	52743-11				PRT-00114		10.71	163
3-Spoke x 15" Wheel, 12.25 x 7.5" Drum	12.25	7.89	8.50	8.88	¾"-10	2.15	N/A	

Option "T" - ABS Rings

Description	Part Number	Pitch Diameter
80-Tooth Tone Ring	PRT-00981	6.77

Spoke Wheel Fasteners & Parts

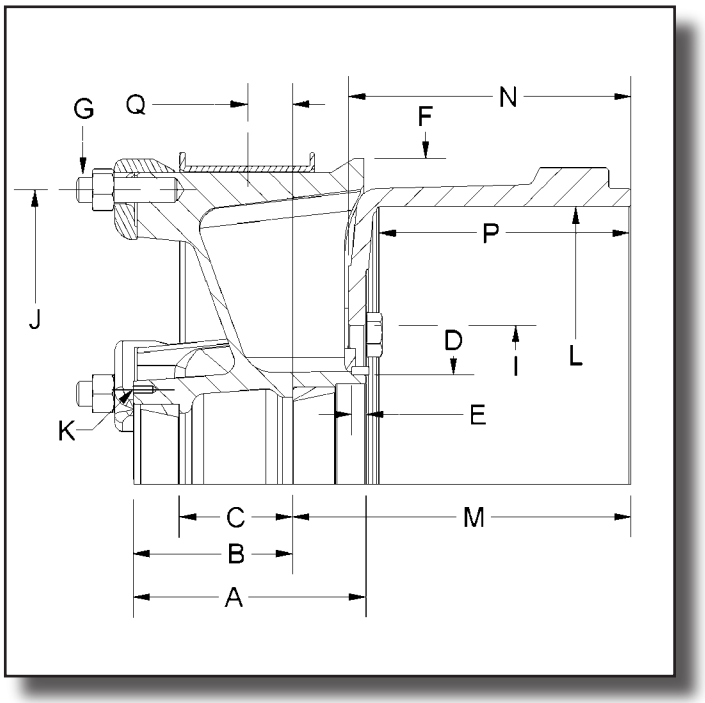
Description	Part Number	Qty.
Drum Bolt PN	PRT-00143	6
Locknut PN	PRT-00144	6
Rim Clamp PN	PRT-00123	6
Rim Stud PN	PRT-00114	6
Rim Nut PN	PRT-00075	6
Spacer PN	PRT-04015	

NOTE

Refer to “Component Parts” section for fastener information.

Ductile Iron 5-spoke 20"

SAE Spindle Designation:	**N**
Inner Bearing Cup:	HM218210
Inner Bearing Cone:	HM218248
Outer Bearing Cup:	HM212011
Outer Bearing Cone:	HM212049



Spoke Wheel Specifications

Item	Dimensions (in)
A: Overall Length	6.93
B: Inner Cup to Mtg. Face	4.74
C: Distance between cups	3.34
D: Tone Ring Bore Dia	6.50
E: Tone Ring Bore Depth	0.44
J: Bolt Circle	17.5
F: Outside Dia	19.37
Q: Cup to C/L Wheel track	1.36
K: Hubcap Hole Pattern	6 Holes 5/16"-18 UNC, 5.50 Bolt Circle

Assembly Options

Assembly PN	Drum Part Number				G Rim Stud PN		M Cup to drum	Assy Weight
Description	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
001-75207	52230-10				PRT-00114		10.07	186
5-Spoke x 20" 16.5 x 7" Brake Drum	16.50	7.50	9.44	8.39	¾"-10	2.16	N/A	

Option "T" - ABS Rings

Description	Part Number	Pitch Diameter
100-Tooth Tone Ring	PRT-03237	6.77

Spoke Wheel Fasteners & Parts

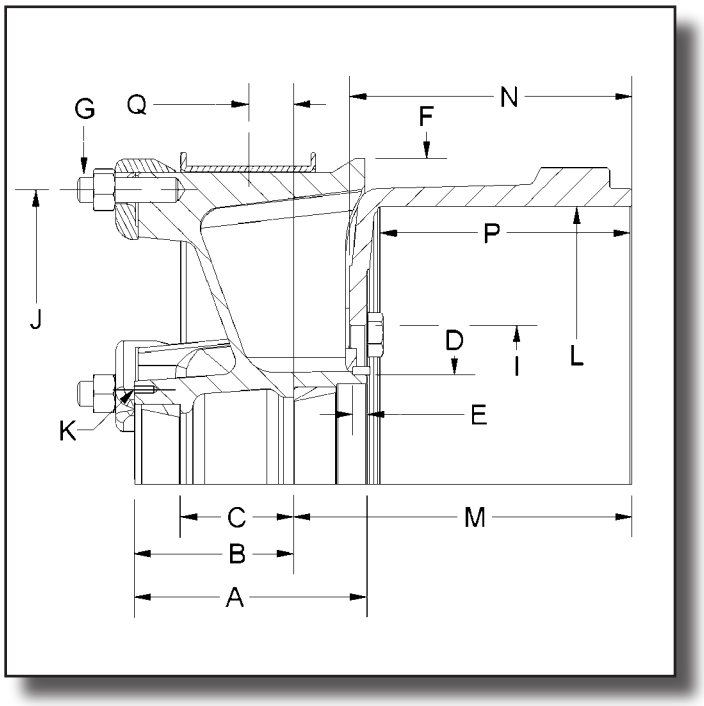
Description	Part Number	Qty.
Drum Bolt PN	PRT-00151	5
Locknut PN	PRT-00152	5
Rim Clamp PN	PRT-00123	5
Rim Stud PN	PRT-00114	5
Rim Nut PN	PRT-00075	5
Spacer PN	PRT-04020	

NOTE

Refer to “Component Parts” section for fastener information.

Ductile Iron 6-spoke 20"

SAE Spindle Designation:	**N**
Inner Bearing Cup:	HM218210
Inner Bearing Cone:	HM218248
Outer Bearing Cup:	HM212011
Outer Bearing Cone:	HM212049



Spoke Wheel Specifications

Item	Dimensions (in)
A: Overall Length	6.93
B: Inner Cup to Mtg. Face	4.74
C: Distance between cups	3.34
D: Tone Ring Bore Dia	6.50
E: Tone Ring Bore Depth	0.44
J: Bolt Circle	17.50
F: Outside Dia	19.37
Q: Cup to C/L Wheel track	1.36
K: Hubcap Hole Pattern	6 Holes 5/16"-18 UNC, 5.50 Bolt Circle

Assembly Options

Assembly PN	Drum Part Number				G Rim Stud PN		M Cup to drum	Assy Weight
Description	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
001-76207	52230-10				PRT-00114		10.07	199
6-Spoke x 20" 16.5 x 7" Brake Drum	16.50	7.50	9.44	8.39	¾"-10	2.16	N/A	

Option "T" - ABS Rings

Description	Part Number	Pitch Diameter
100-Tooth Tone Ring	PRT-03237	6.77

Spoke Wheel Fasteners & Parts

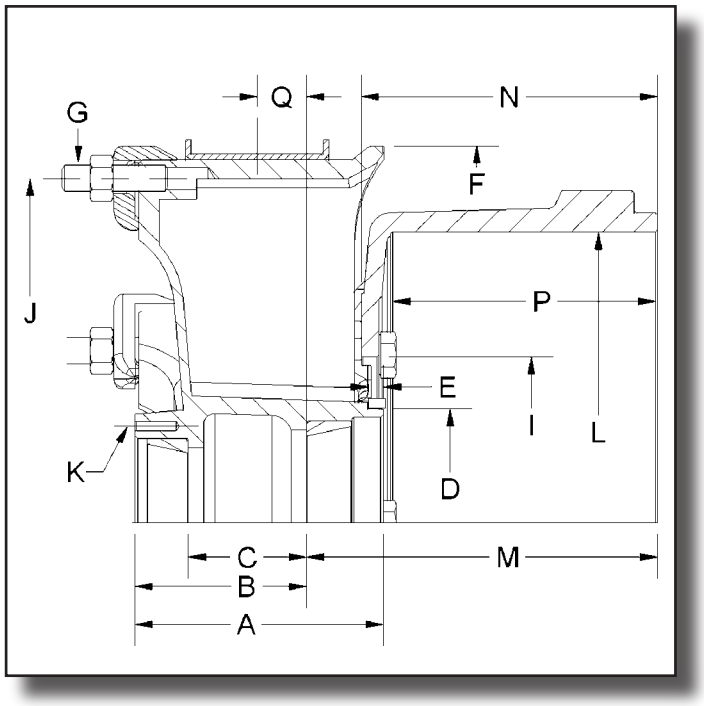
Description	Part Number	Qty.
Drum Bolt PN	PRT-00151	6
Locknut PN	PRT-00152	6
Rim Clamp PN	PRT-00123	6
Rim Stud PN	PRT-00114	6
Rim Nut PN	PRT-00075	6
Spacer PN	PRT-04020	

NOTE

Refer to “Component Parts” section for fastener information.

Ductile Iron 6-spoke 22"

SAE Spindle Designation:	**N**
Inner Bearing Cup:	HM218210
Inner Bearing Cone:	HM218248
Outer Bearing Cup:	HM212011
Outer Bearing Cone:	HM212049



Spoke Wheel Specifications

Item	Dimensions (in)
A: Overall Length	7.05
B: Inner Cup to Mtg. Face	4.8
C: Distance between cups	3.34
D: Tone Ring Bore Dia	6.50
E: Tone Ring Bore Depth	0.44
J: Bolt Circle	19.52
F: Outside Dia	21.38
Q: Cup to C/L Wheel track	1.36
K: Hubcap Hole Pattern	6 Holes 5/16"-18 UNC, 5.50 Bolt Circle

Assembly Options

Assembly PN	Drum Part Number				G Rim Stud PN		M Cup to drum	Assy Weight
Description	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
001-76227	52230-10				PRT-00114		9.95	192
6-Spoke x 22" 16.5 x 7" Brake Drum	16.50	7.50	9.44	8.39	¾"-10	2.16	N/A	

Option "T" - ABS Rings

Description	Part Number	Pitch Diameter
100-Tooth Tone Ring	PRT-03237	6.77

Spoke Wheel Fasteners & Parts

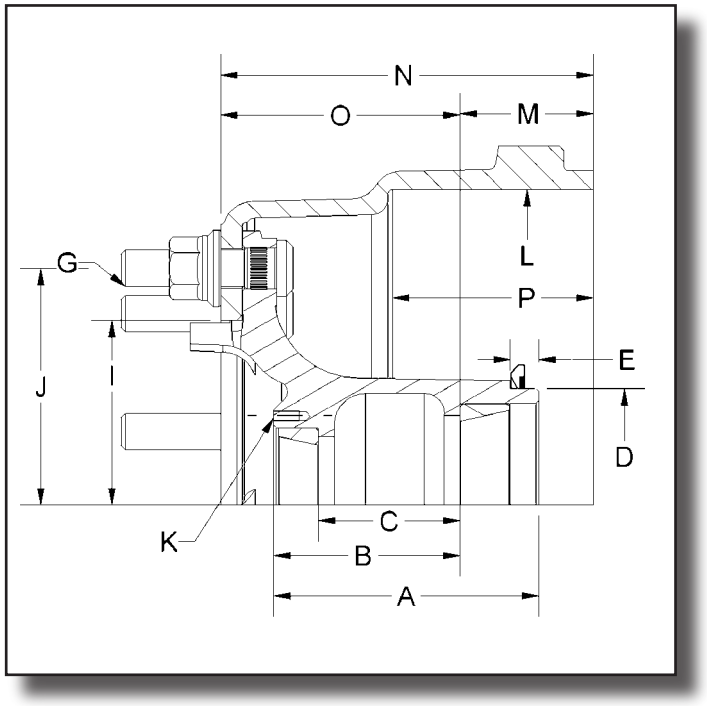
Description	Part Number	Qty.
Drum Bolt PN	PRT-00143	6
Locknut PN	PRT-00144	6
Rim Clamp PN	PRT-00123	6
Rim Stud PN	PRT-00114	6
Rim Nut PN	PRT-00075	6
Spacer PN	PRT-04022	

NOTE

Refer to “Component Parts” section for fastener information.

Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

SAE Spindle Designation:	**FF/FG**
Inner Bearing Cup:	HM212011
Inner Bearing Cone:	HM212049
Outer Bearing Cup:	3720
Outer Bearing Cone:	3782



Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	6.30
B: Inner Cup to Mtg. Face	4.43
C: Distance between cups	3.37
D: Tone Ring Bore Dia	5.52
E: Tone Ring Bore Depth	0.67
J: Bolt Circle	11.25
K: Hubcap Hole Pattern/Thread	6 holes 5/16"-18 UNC. 4.50 Bolt Circle

Assembly Options

Assembly PN / Description	Drum Part Number				G Stud PN		M Cup to drum	Assy Weight
	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
002-00137	54224-018				PRT-00121		3.17	115
Hub Pilot, M22 x 3.70 Stud, 15 x 4" Drum Bal	15.00	4.77	8.78	8.86	M22 x 1.5	2.36	5.69	
002-00137L	54224-018				PRT-00117		3.17	118
Hub Pilot, M22 x 3.94 Stud, 15 x 4" Drum Bal	15.00	4.77	8.78	8.86	M22 x 1.5	2.61	5.69	
002-00138	54224-018				PRT-01294		3.17	113
Stud Pilot, 3/4-16 RH Stud, 15 x 4" Drum Bal	15.00	4.77	8.78	8.86	3/4-16 RH	1.78	5.69	
002-00139	54224-018				PRT-01295		3.17	113
Stud Pilot, 3/4-16 LH Stud, 15 x 4" Drum Bal	15.00	4.77	8.78	8.86	3/4-16 LH	1.78	5.69	
002-00142	54238-018				PRT-00121		3.45	154
Hub Pilot, M22 x 3.70 Stud, 16.5 x 5" Drum Bal	16.50	5.29	8.78	9.14	M22 x 1.5	2.36	5.69	
002-00142L	54238-018				PRT-00117		3.45	157
Hub Pilot, M22 x 3.94 Stud, 16.5 x 5" Drum Bal	16.50	5.29	8.78	9.14	M22 x 1.5	2.61	5.69	
002-00144	54282-018				PRT-00121		3.17	122
Hub Pilot, M22 x 3.70 Stud, 15 x 4" Drum Bal	15.00	6.26	8.78	9.47	M22 x 1.5	2.36	5.69	
002-00144L	54282-018				PRT-00117		3.17	123
Hub Pilot, M22 x 3.94 Stud, 15 x 4" Drum Bal	15.00	6.26	8.78	9.47	M22 x 1.5	2.36	5.69	

Option "T" - ABS Rings

Description	Part Number	Pitch Diameter
100-Tooth Tone Ring	PRT-00925	6.46

NOTE

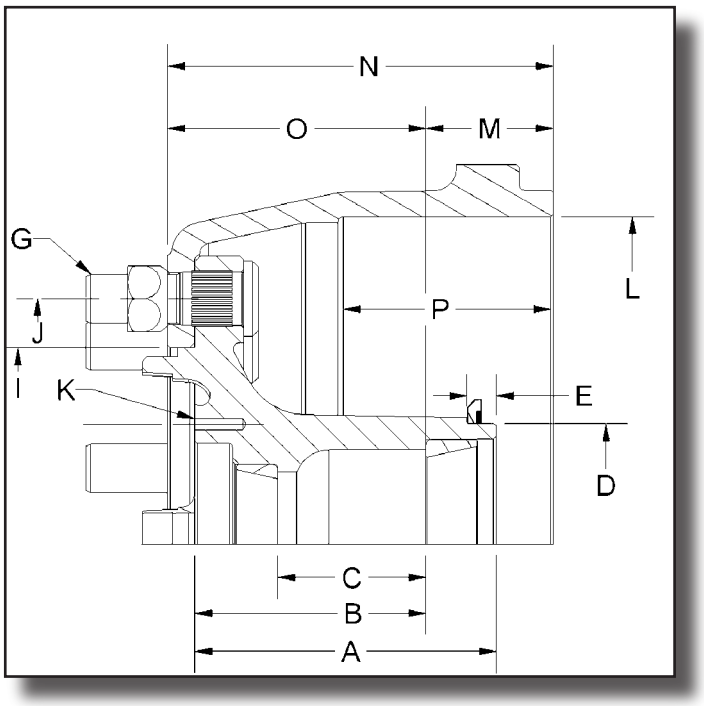
Refer to “Component Parts” section for fastener information.

Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

SAE Spindle Designation:	**FF/FG**
Inner Bearing Cup:	HM212011
Inner Bearing Cone:	HM212049
Outer Bearing Cup:	3720
Outer Bearing Cone:	3782

Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	6.91
B: Inner Cup to Mtg. Face	5.30
C: Distance between cups	3.40
D: Tone Ring Bore Dia	5.52
E: Tone Ring Bore Depth	0.67
J: Bolt Circle	11.25
K: Hubcap Hole Pattern/Thread	6 holes 5/16"-18 UNC, 5.50 Bolt Circle



Assembly Options

Assembly PN / Description	Drum Part Number				G Stud PN		M Cup to drum	Assy Weight
	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
002-00140	54241-018				PRT-00628		2.92	145
BSN RH, 11.25" B.C. 15" x 4" Drum Bal	15.00	4.84	9.00	8.84	1-1/8-16 RH	1.82	5.92	
002-00141	54241-018				PRT-00627		2.92	145
BSN LH, 11.25" B.C. 15" x 4" Drum Bal	15.00	4.84	9.00	8.84	1-1/8-16 LH	1.82	5.92	

Option "T" - ABS Rings

Description	Part Number	Pitch Diameter
100-Tooth Tone Ring	PRT-00925	6.46

NOTE

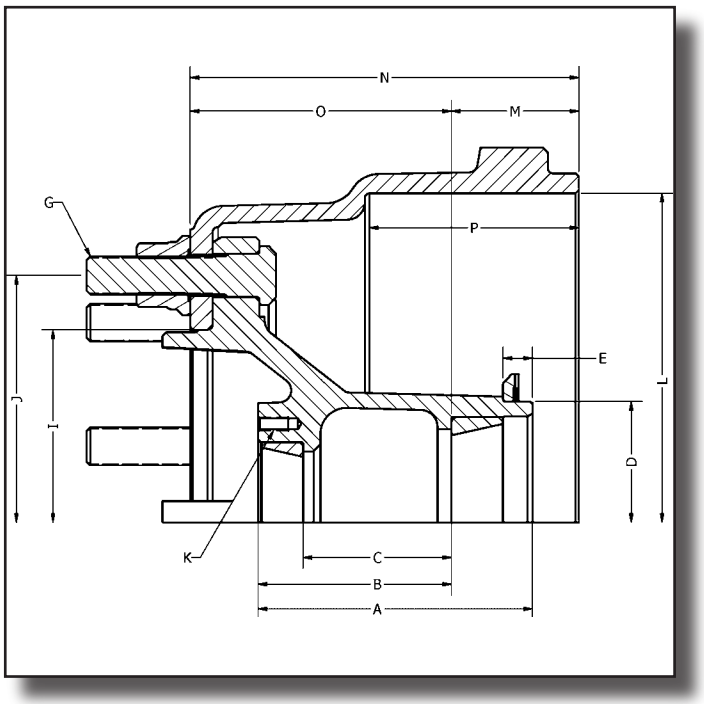
Refer to “Component Parts” section for fastener information.

Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

SAE Spindle Designation:	**FF/FG**
Inner Bearing Cup:	HM212011
Inner Bearing Cone:	HM212049
Outer Bearing Cup:	3720
Outer Bearing Cone:	3782

Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	6.25
B: Inner Cup to Mtg. Face	5.95
C: Distance between cups	3.37
D: Tone Ring Bore Dia	5.52
E: Tone Ring Bore Depth	0.67
J: Bolt Circle	11.25
K: Hubcap Hole Pattern/Thread	6 holes 5/16"-18 UNC. 4.50 Bolt Circle



Assembly Options

Assembly PN	Drum Part Number				G Stud PN		M Cup to drum	Assy Weight
Description	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
002-00200	54224-018				PRT-00117		2.91	111
Hub Pilot, M22 x 3.70 Stud, 15 x 4" Drum Bal	15.00	4.77	8.78	8.86	M22 x 1.5	2.37	5.95	
002-00200L	54224-018				PRT-00122		2.91	111
Hub Pilot, M22 x 3.97 Stud, 15 x 4" Drum Bal	15.00	4.77	8.78	8.86	M22 x 1.5	2.68	5.95	

Option "T" - ABS Rings

Description	Part Number	Pitch Diameter
100-Tooth Tone Ring	PRT-00925	6.46

NOTE

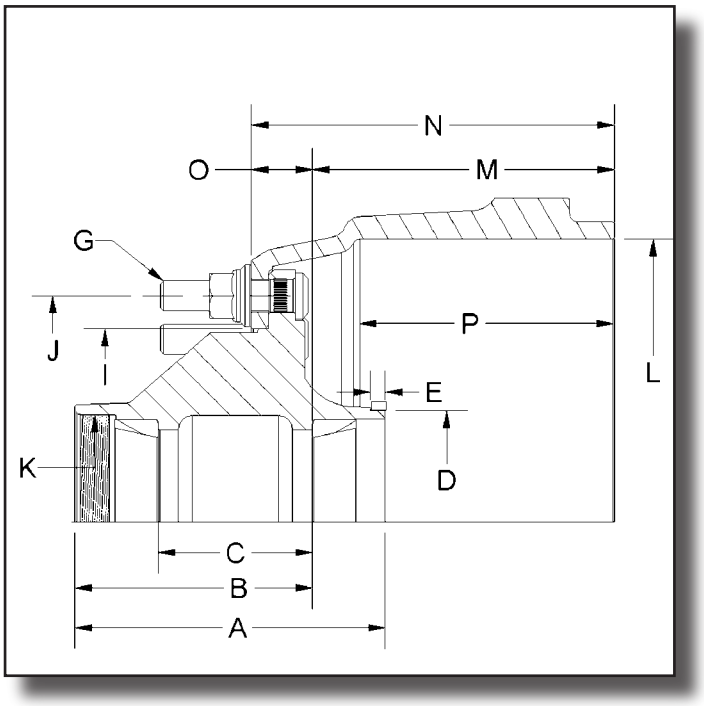
Refer to “Component Parts” section for fastener information.

Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

SAE Spindle Designation:	**P**
Inner Bearing Cup:	HM518410
Inner Bearing Cone:	HM518445
Outer Bearing Cup:	HM518410
Outer Bearing Cone:	HM518445

Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	9.06
B: Inner Cup to Mtg. Face	6.94
C: Distance between cups	4.50
D: Tone Ring Bore Dia	6.50
E: Tone Ring Bore Depth	0.44
J: Bolt Circle	335mm (13.19")
K: Hubcap Hole Pattern/Thread	6.25 X 8 TPI Threaded



Assembly Options

Assembly PN / Description	Drum Part Number				G Stud PN		M Cup to drum	Assy Weight
	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
004-40103	54250-01				PRT-00117		8.80	191
Hub Pilot, M22 x 3.94 Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	M22 x 1.5	2.65	1.79	
004-40103L	54250-01				PRT-00118		8.80	193
Hub Pilot, M22 x 4.79 Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	M22 x 1.5	3.48	1.79	

Option "T" - ABS Rings

Description	Part Number	Pitch Diameter
100-Tooth Tone Ring	PRT-03237	6.77

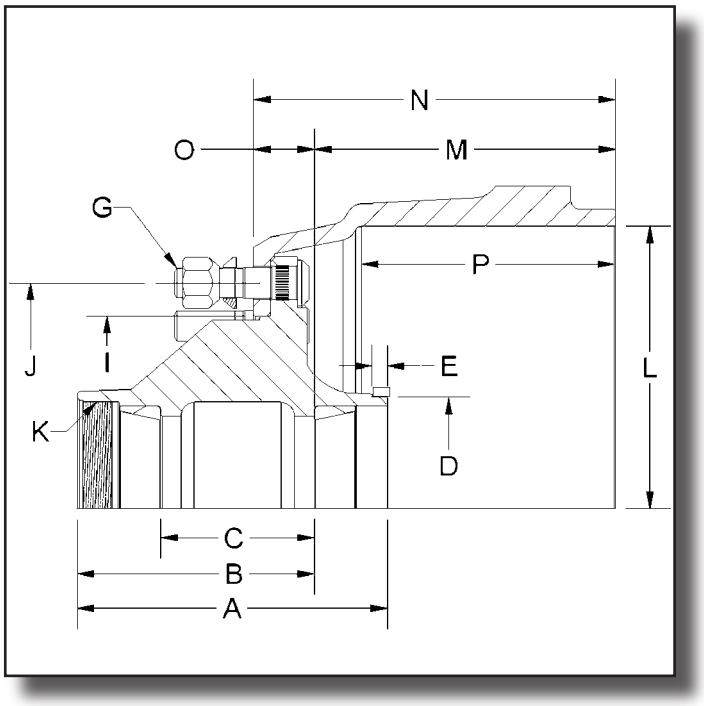
NOTE
004-00103 has been superseded by 004-40103
Refer to “Component Parts” section for fastener information.

Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

SAE Spindle Designation:	**P**
Inner Bearing Cup:	HM518410
Inner Bearing Cone:	HM518445
Outer Bearing Cup:	HM518410
Outer Bearing Cone:	HM518445

Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	9.06
B: Inner Cup to Mtg. Face	6.94
C: Distance between cups	4.50
D: Tone Ring Bore Dia	6.50
E: Tone Ring Bore Depth	0.44
J: Bolt Circle	335mm (13.19")
K: Hubcap Hole Pattern/Thread	6.25 X 8 TPI Threaded



Assembly Options

Assembly PN / Description	Drum Part Number: L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	G Stud PN: Thread	Stand Out	M Cup to drum: O Cup Face to Mtg. Face	Assy Weight
004-40077	54250-01				PRT-00022		8.80	193
Stud Pilot, BSF RH Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	7/8-11 BSF RH	2.32	1.79	
004-40078	54250-01				PRT-00021		8.80	193
Stud Pilot, BSF LH Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	7/8-11 BSF LH	2.32	1.79	

NOTE

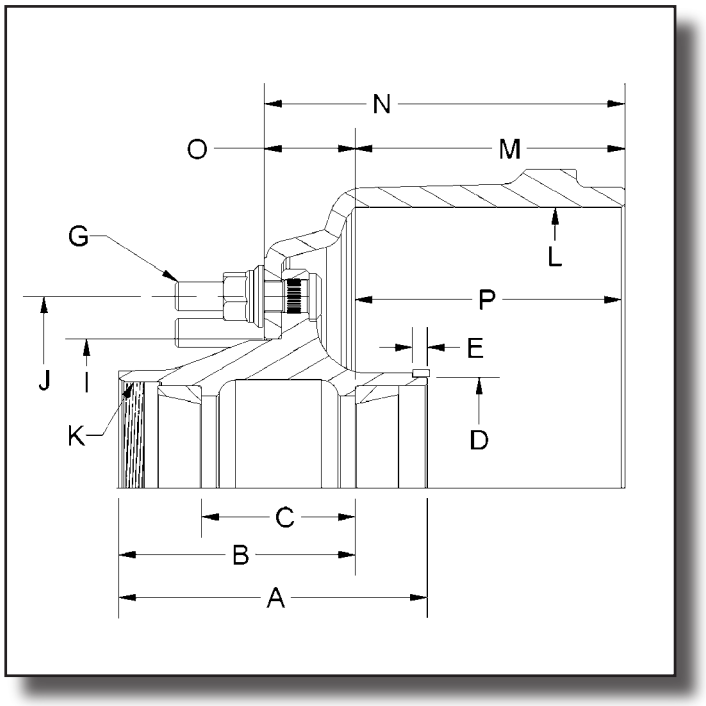
Refer to “Component Parts” section for fastener information.

Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard drum - Serrated stud

SAE Spindle Designation:	**P**
Inner Bearing Cup:	HM518410
Inner Bearing Cone:	HM518445
Outer Bearing Cup:	HM518410
Outer Bearing Cone:	HM518445

Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	9.06
B: Inner Cup to Mtg. Face	6.94
C: Distance between cups	4.50
D: Tone Ring Bore Dia	6.50
E: Tone Ring Bore Depth	0.44
J: Bolt Circle	11.25
K: Hubcap Hole Pattern/Thread	6.25 X 8 TPI Threaded



Assembly Options

Assembly PN / Description	Drum Part Number	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	G Stud PN Thread	G Stud PN Stand Out	M Cup to drum / O Cup Face to Mtg. Face	Assy Weight
004-00130	60001-018					PRT-00117		8.80	172
Hub Pilot, M22 x 3.94 Stud, 16.5 x 7" Drum		16.50	7.56	8.78	10.62	M22 x 1.5	2.63	1.82	
004-00130L	60001-018					PRT-00118		8.80	174
Hub Pilot, M22 x 4.79 Stud, 16.5 x 7" Drum		16.50	7.56	8.78	10.62	M22 x 1.5	3.50	1.82	
004-00131	60001-018					PRT-00120		8.80	169
Stud Pilot, 3/4-16 RH Stud, 16.5 x 7" Drum		16.50	7.56	8.78	10.62	3/4-16 RH	1.57	1.82	
004-00132	60001-018					PRT-00119		8.80	169
Stud Pilot, 3/4-16 LH Stud, 16.5 x 7" Drum		16.50	7.56	8.78	10.62	3/4-16 LH	1.57	1.82	
004-00147	54727-01					PRT-00117		8.80	192
Hub Pilot, M22 x 3.94 Stud, 16.5 x 8-5/8" Drum		16.50	9.63	8.78	12.39	M22 x 1.5	2.63	1.79	

Option "T" - ABS Rings

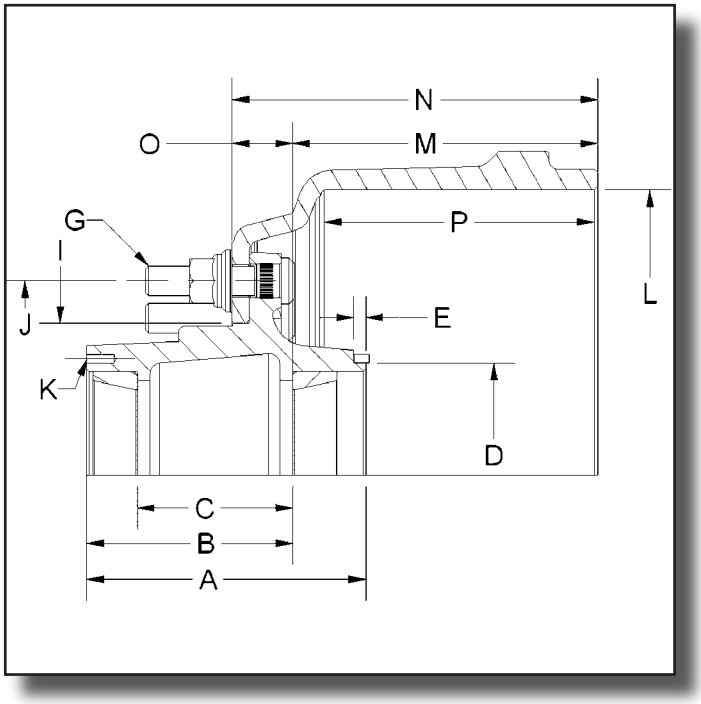
Description	Part Number	Pitch Diameter
100-Tooth Tone Ring	PRT-03237	6.77

NOTE

Refer to “Component Parts” section for fastener information.

Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard drum - Serrated stud

SAE Spindle Designation:	**P**
Inner Bearing Cup:	HM518410
Inner Bearing Cone:	HM518445
Outer Bearing Cup:	HM518410
Outer Bearing Cone:	HM518445



Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	8.07
B: Inner Cup to Mtg. Face	5.96
C: Distance between cups	4.50
D: Tone Ring Bore Dia	6.50
E: Tone Ring Bore Depth	0.35
J: Bolt Circle	11.25
K: Hubcap Hole Pattern/Thread	6 Holes 5/16"-18 UNC, 6.75 Bolt Circle

Assembly Options

Assembly PN / Description	Drum Part Number				G Stud PN		M Cup to drum	Assy Weight
	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
004-00143	60001-018				PRT-00117		8.81	165
Hub Pilot, M22 x 3.94 Stud, 16.5 x 7" Drum	16.50	7.56	8.78	10.62	M22 x 1.5	2.49	1.81	
004-00143L	60001-018				PRT-00118		8.81	167
Hub Pilot, M22 x 4.79 Stud, 16.5 x 7" Drum	16.50	7.56	8.78	10.62	M22 x 1.5	3.34	1.81	
004-00146	54727-01				PRT-00117		10.63	189
Hub Pilot, M22 x 3.94 Stud, 16.5 x 8-5/8" Drum	16.50	9.63	8.78	12.39	M22 x 1.5	2.51	1.76	
004-00148	54229-01				PRT-00117		9.63	174
Hub Pilot, M22 x 3.94 Stud, 16.5 x 8-5/8" Drum	16.50	9.00	8.78	11.39	M22 x 1.5	2.51	1.76	
004-00148L	54229-01				PRT-00118		9.63	174
Hub Pilot, M22 x 4.79 Stud, 16.5 x 8-5/8" Drum	16.50	9.00	8.78	11.39	M22 x 1.5	3.36	1.76	
004-00150	53033-01				PRT-00120		8.83	167
Stud Pilot, 3/4-16 RH Stud, 16.5 x 7" Drum	16.50	8.00	8.78	10.59	3/4-16 RH	2.51	1.76	
004-00151	53033-01				PRT-00119		8.83	167
Stud Pilot, 3/4-16LH Stud, 16.5 x 7" Drum	16.50	8.00	8.78	10.59	3/4-16 LH	2.51	1.76	

Option "T" - ABS Rings

Description	Part Number	Pitch Diameter
100-Tooth Tone Ring	PRT-03237	6.77

NOTE

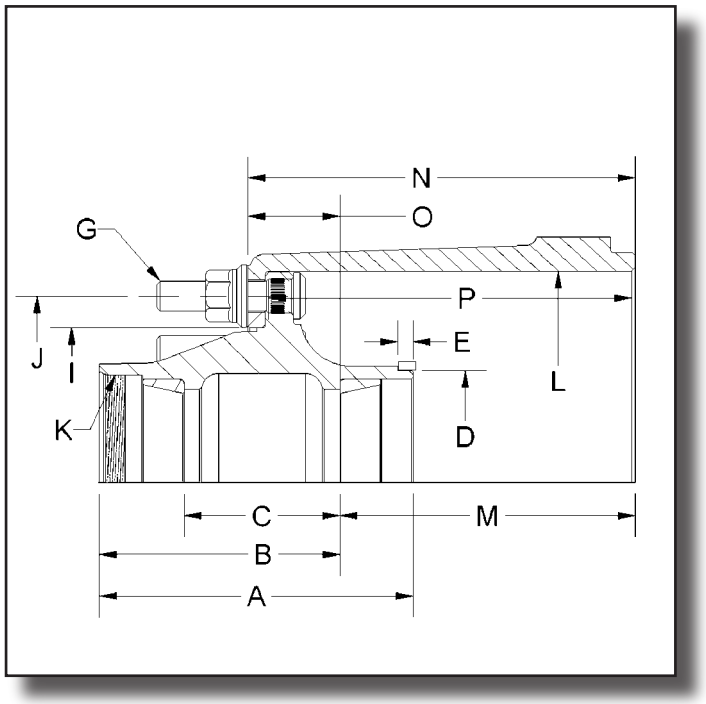
Refer to “Component Parts” section for fastener information.

Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard drum - Serrated stud

SAE Spindle Designation:	**P**
Inner Bearing Cup:	HM518410
Inner Bearing Cone:	HM518445
Outer Bearing Cup:	HM518410
Outer Bearing Cone:	HM518445

Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	9.06
B: Inner Cup to Mtg. Face	6.94
C: Distance between cups	4.50
D: Tone Ring Bore Dia	6.50
E: Tone Ring Bore Depth	0.44
J: Bolt Circle	275mm (10.83")
K: Hubcap Hole Pattern/Thread	6.25 X 8 TPI Threaded



Assembly Options

Assembly PN	Drum Part Number				G Stud PN		M Cup to drum	Assy Weight
Description	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
004-00145	54244-01				PRT-00117		8.54	141
Hub Pilot, M22 x 3.94 Stud, 12.25 x 7.5" Drum	12.25	9.84	9.00	11.22	M22 x 1.5	2.65	2.66	

Option "T" - ABS Rings

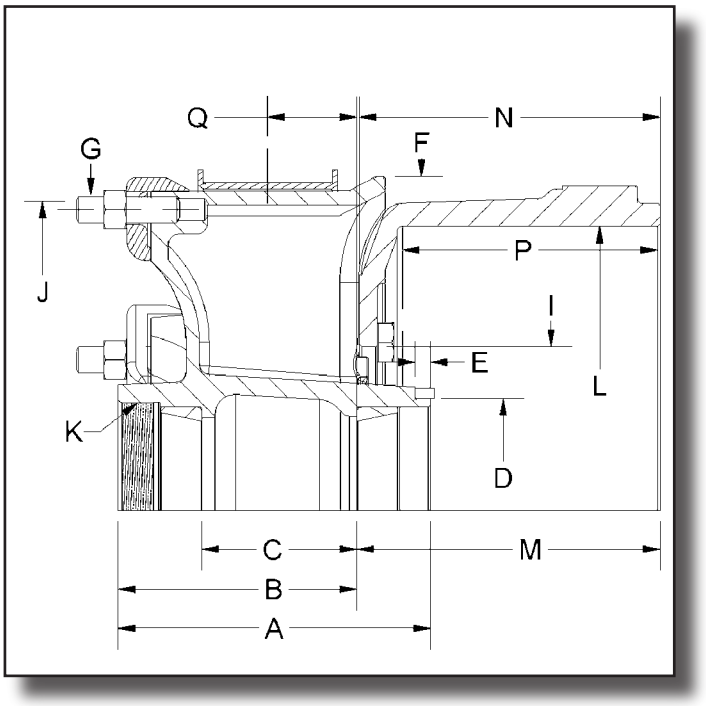
Description	Part Number	Pitch Diameter
80-Tooth Tone Ring	PRT-00981	6.77

NOTE

Refer to “Component Parts” section for fastener information.

Ductile Iron 6-spoke 20"

SAE Spindle Designation:	**P**
Inner Bearing Cup:	HM518410
Inner Bearing Cone:	HM518445
Outer Bearing Cup:	HM518410
Outer Bearing Cone:	HM518445



Spoke Wheel Specifications

Item	Dimensions (in)
A: Overall Length	9.06
B: Inner Cup to Mtg. Face	6.93
C: Distance between cups	4.50
D: Tone Ring Bore Dia	6.50
E: Tone Ring Bore Depth	0.44
J: Bolt Circle	17.96
F: Outside Dia	19.37
Q: Cup to C/L Wheel track	2.59
K: Hubcap Hole Pattern	6.25 X 8 TPI Threaded

Assembly Options

Assembly PN	Drum Part Number				G Rim Stud PN		M Cup to drum	Assy Weight
Description	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
004-56807	54249-01				PRT-00114		8.80	215
6-spoke x 20" - 16.5 x 7" Drum	16.50	7.49	9.50	8.74	¾"-10	2.16	N/A	

Option "T" - ABS Rings

Description	Part Number	Pitch Diameter
100-Tooth Tone Ring	PRT-03237	6.77

Spoke Wheel Fasteners & Parts

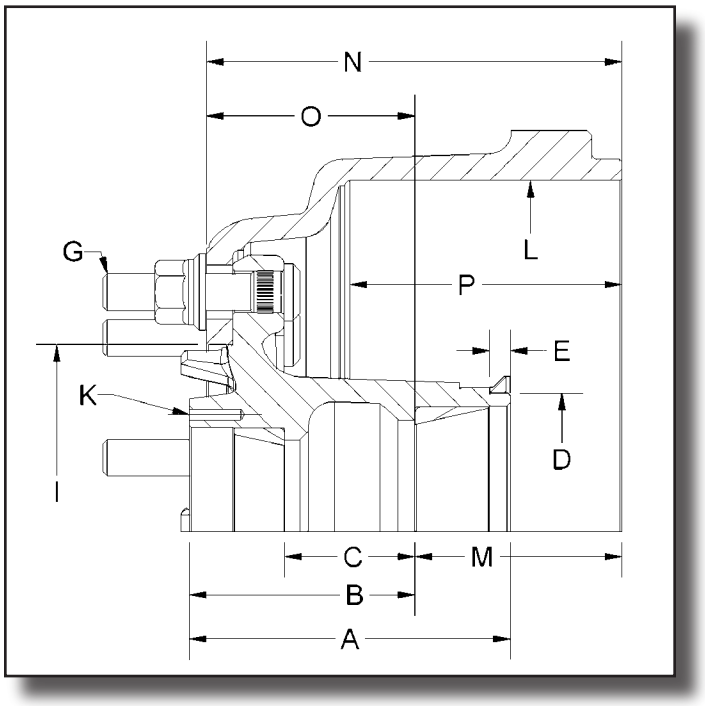
Description	Part Number	Qty.
Drum Bolt PN	PRT-00143	6
Locknut PN	PRT-00144	6
Rim Clamp PN	PRT-00123	6
Rim Stud PN	PRT-00114	6
Rim Nut PN	PRT-00075	6
Spacer PN	PRT-04020	

NOTE

Refer to “Component Parts” section for fastener information.

Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

SAE Spindle Designation:	**FL**
Inner Bearing Cup:	552A
Inner Bearing Cone:	555S
Outer Bearing Cup:	6420
Outer Bearing Cone:	6461A



Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	7.56
B: Inner Cup to Mtg. Face	5.32
C: Distance between cups	3.07
D: Tone Ring Bore Dia	6.50
E: Tone Ring Bore Depth	0.49
J: Bolt Circle	11.25
K: Hubcap Hole Pattern/Thread	6 Holes 5/16"-18 UNC, 5.50 Bolt Circle

Assembly Options

Assembly PN	Drum Part Number				G Stud PN		M Cup to drum	Assy Weight
Description	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
005-01005L	54248-018				PRT-00122		4.86	170
Hub Pilot, M22 x 4.25 Stud, 16.5 x 6" Drum Bal	16.50	6.41	8.78	9.76	M22 x 1.5	2.40	4.90	

Option "T" - ABS Rings

Description	Part Number	Pitch Diameter
100-Tooth Tone Ring	PRT-00935	6.92

NOTE

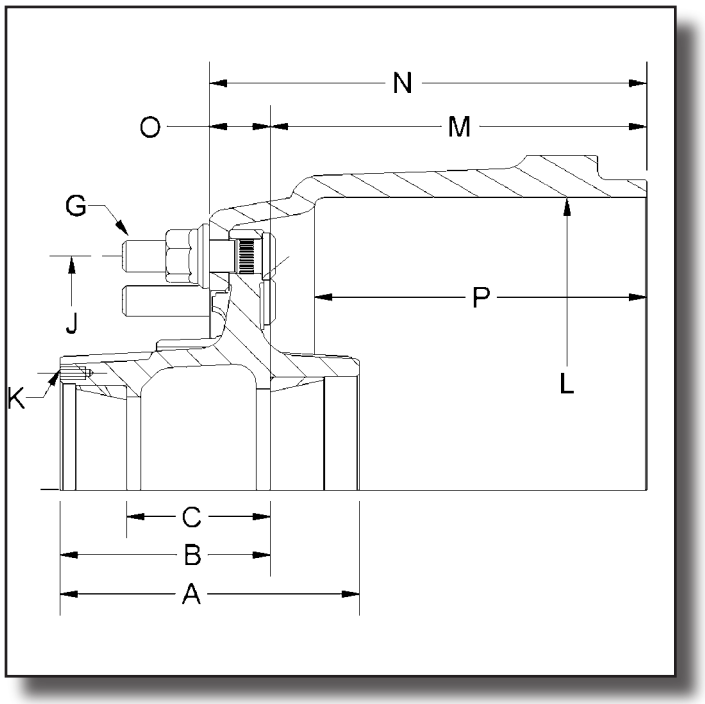
Refer to “Component Parts” section for fastener information.

Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

SAE Spindle Designation:	**K30**
Inner Bearing Cup:	742
Inner Bearing Cone:	740
Outer Bearing Cup:	752
Outer Bearing Cone:	759

Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	8.46
B: Inner Cup to Mtg. Face	5.94
C: Distance between cups	4.06
D: Tone Ring Bore Dia	N/A
E: Tone Ring Bore Depth	N/A
J: Bolt Circle	13.19
K: Hubcap Hole Pattern/Thread	6 Holes 5/16"-18 UNC., 6.75 Bolt Circle



Assembly Options

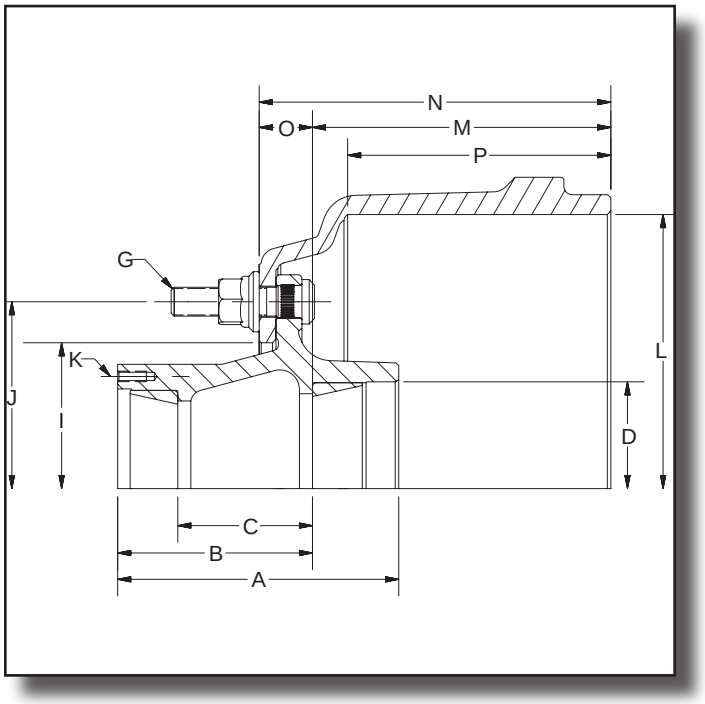
Assembly PN / Description	Drum Part Number: L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	G Stud PN: Thread	Stand Out	M Cup to drum: O Cup Face to Mtg. Face	Assy Weight
006-02133	54251-01				PRT-00117		10.64	187
Hub Pilot, M22 x 3.94 Stud, 16.5 x 8-5/8" Drum	16.50	9.15	11.25	12.37	M22 x 1.5	2.40	1.73	
006-02133L	54251-01				PRT-00118		10.64	189
Hub Pilot, M22 x 4.79 Stud, 16.5 x 8-5/8" Drum	16.50	9.15	11.25	12.37	M22 x 1.5	3.26	1.18	
006-02135	54250-01				PRT-00117		8.91	186
Hub Pilot, M22 x 3.94 Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	M22 x 1.5	2.41	1.68	
006-02135L	54250-01				PRT-00118		8.91	188
Hub Pilot, M22 x 4.79 Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	M22 x 1.5	3.26	1.68	

NOTE

Refer to “Component Parts” section for fastener information.

Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

SAE Spindle Designation:	**K30**
Inner Bearing Cup:	742
Inner Bearing Cone:	740
Outer Bearing Cup:	752
Outer Bearing Cone:	759



Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	8.47
B: Inner Cup to Mtg. Face	5.95
C: Distance between cups	4.06
D: Tone Ring Bore Dia	N/A
E: Tone Ring Bore Depth	N/A
J: Bolt Circle	11.25
K: Hubcap Hole Pattern/Thread	6 Holes 5/16"-18 UNC., 6.75 Bolt Circle

Assembly Options

Assembly PN / Description	Drum Part Number				G Stud PN		M Cup to drum	Assy Weight
	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
006-02134	54261-01				PRT-00118		8.99	148
Hub Pilot, M22 x 3.94 Stud, 16.5 x 7" Drum	16.50	7.60	8.78	10.59	M22 x 1.5	2.65	1.60	
006-02134L	54261-01				PRT-00118		8.99	150
Hub Pilot, M22 x 4.79" Stud, 16.5 x 7" Drum	16.50	7.60	8.78	10.59	M22 x 1.5	3.50	1.60	
006-02136	54261-01				PRT-00120		8.99	148
Stud Pilot, 3/4-16 RH Stud, 16.5 x 7" Drum	16.50	7.60	8.78	10.59	3/4-16 RH		1.60	
006-02137	54261-01				PRT-00119		8.99	148
Stud Pilot, 3/4-16 LH Stud, 16.5 x 7" Drum	16.50	7.60	8.78	10.59	3/4-16 LH		1.60	

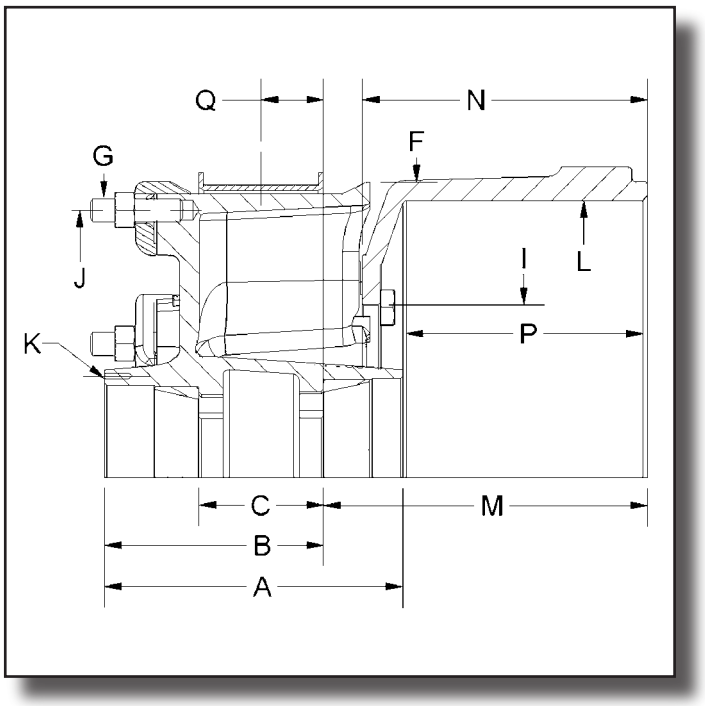
NOTE

Refer to “Component Parts” section for fastener information.

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Ductile Iron 6-spoke 20"

SAE Spindle Designation:	**P**
Inner Bearing Cup:	HM518410
Inner Bearing Cone:	HM518445
Outer Bearing Cup:	HM518410
Outer Bearing Cone:	HM518445



Spoke Wheel Specifications

Item	Dimensions (in)
A: Overall Length	9.06
B: Inner Cup to Mtg. Face	6.93
C: Distance between cups	4.50
D: Tone Ring Bore Dia	6.50
E: Tone Ring Bore Depth	0.44
J: Bolt Circle	17.96
F: Outside Dia	19.37
Q: Cup to C/L Wheel track	2.59
K: Hubcap Hole Pattern	6.25 X 8 TPI Threaded

Assembly Options

Assembly PN	Drum Part Number				G Rim Stud PN		M Cup to drum	Assy Weight
Description	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
004-56807	54249-01				PRT-00114		8.80	215
6-spoke x 20" - 16.5 x 7" Drum	16.50	7.49	9.50	8.74	¾"-10	2.16	N/A	

Option "T" - ABS Rings

Description	Part Number	Pitch Diameter
100-Tooth Tone Ring	PRT-03237	6.77

Spoke Wheel Fasteners & Parts

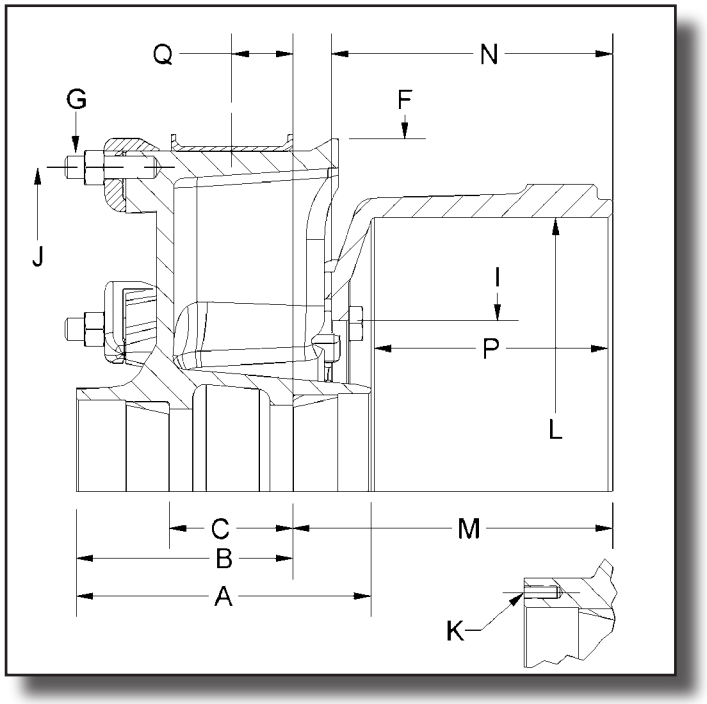
Description	Part Number	Qty.
Drum Bolt PN	PRT-00143	6
Locknut PN	PRT-00144	6
Rim Clamp PN	PRT-00123	6
Rim Stud PN	PRT-00114	6
Rim Nut PN	PRT-00075	6
Spacer PN	PRT-04020	

NOTE

Refer to “Component Parts” section for fastener information.

Ductile Iron 6-spoke 24"

SAE Spindle Designation:	**K30**
Inner Bearing Cup:	742
Inner Bearing Cone:	740
Outer Bearing Cup:	752
Outer Bearing Cone:	759



Spoke Wheel Specifications

Item	Dimensions (in)
A: Overall Length	9.70
B: Inner Cup to Mtg. Face	7.13
C: Distance between cups	4.06
D: Tone Ring Bore Dia	N/A
E: Tone Ring Bore Depth	N/A
J: Bolt Circle	21.32
F: Outside Dia	23.19
Q: Cup to C/L Wheel track	2.00
K: Hubcap Hole Pattern	7 Holes 0.38 Dia, 6.88 Bolt Circle

Assembly Options

Assembly PN	Drum Part Number				G Rim Stud PN		M Cup to drum	Assy Weight
Description	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
006-94016	54254-01				PRT-00114		10.27	234
6-Spoke x 24", K30, 16.5 x 7" Drum	16.50	7.50	11.25	9.00	¾"-10	2.00	N/A	
006-94018	54255-01				PRT-00114		10.54	262
6-Spoke x 24", K30, 18 x 7" Drum	18.00	7.94	11.22	9.27	¾"-10	2.00	N/A	

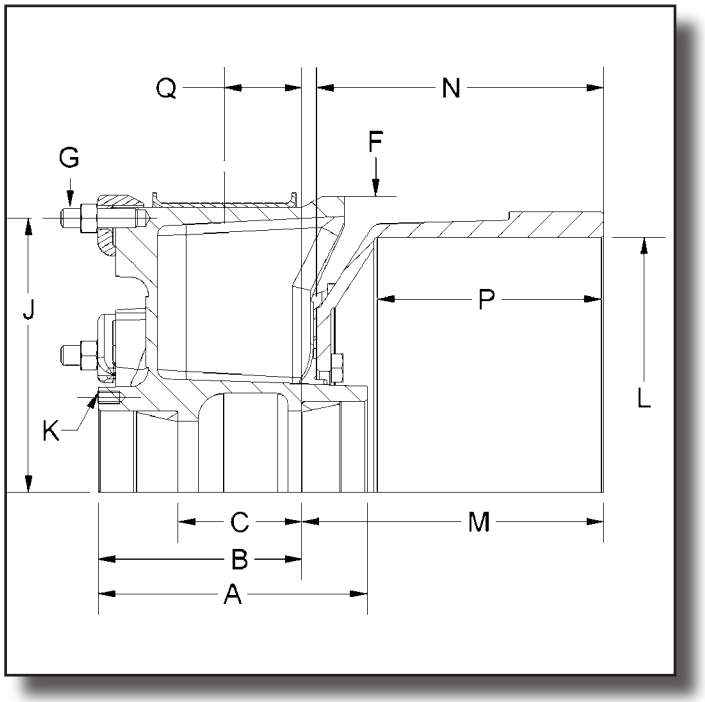
Spoke Wheel Fasteners & Parts

Description	Part Number	Qty.
Drum Bolt PN	PRT-05088	6
Locknut PN	PRT-00903	6
Rim Clamp PN	PRT-00123	6
Rim Stud PN	PRT-00114	6
Rim Nut PN	PRT-00075	6
Spacer PN	Not Available	

NOTE
Use 0945-00902 Lock Washer between drum & drum bolt.
Refer to “Component Parts” section for fastener information.

Ductile Iron 6-spoke 24"

SAE Spindle Designation:	**W (A45)**
Inner Bearing Cup:	772
Inner Bearing Cone:	787
Outer Bearing Cup:	6535
Outer Bearing Cone:	6580



Spoke Wheel Specifications

Item	Dimensions (in)
A: Overall Length	10.53
B: Inner Cup to Mtg. Face	7.97
C: Distance between cups	4.84
D: Tone Ring Bore Dia	N/A
E: Tone Ring Bore Depth	N/A
J: Bolt Circle	21.50
F: Outside Dia	23.23
Q: Cup to C/L Wheel track	3.03
K: Hubcap Hole Pattern	4 Holes 0.38 Dia, 7.50 Bolt Circle

Assembly Options

Assembly PN	Drum Part Number				G Rim Stud PN		M Cup to drum	Assy Weight
Description	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
007-94518	0555-18006B				PRT-00114		9.34	324
6-Spoke x 24", A45 18 x 7" Drum					¾"-10	2.13	N/A	
007-94520	0555-2035B				PRT-00114		11.84	376
6-Spoke x 24", A45 20x 8" Drum					¾"-10	2.13	N/A	

Spoke Wheel Fasteners & Parts

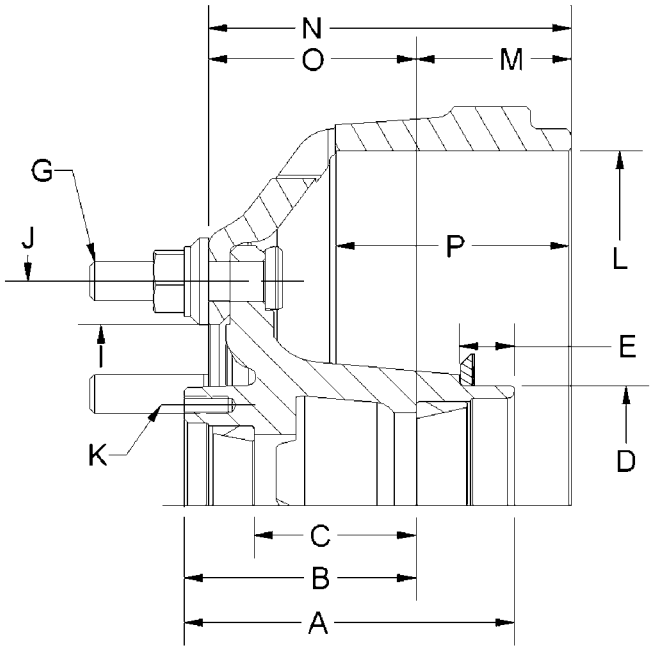
Description	Part Number	Qty.
Drum Bolt PN	PRT-05253	6
Locknut PN	PRT-05354	6
Rim Clamp PN	PRT-00904	6
Rim Stud PN	PRT-00114	6
Rim Nut PN	PRT-05260	6
Spacer PN	Not Available	

NOTE

Refer to “Component Parts” section for fastener information.

Ductile Iron 6 stud hub w/ 8.07" Dia Bolt Circle. Uses Outboard Drum - Clipped Head Stud

SAE Spindle Designation:	**FC**
Inner Bearing Cup:	JM207010
Inner Bearing Cone:	JM207049A
Outer Bearing Cup:	25820
Outer Bearing Cone:	25877



Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	5.94
B: Inner Cup to Mtg. Face	4.17
C: Distance between cups	2.91
D: Tone Ring Bore Dia	4.32
E: Tone Ring Bore Depth	0.98
J: Bolt Circle	205.05 mm (8.07")
K: Hubcap Hole Pattern/Thread	4 Holes 5/16"-18 UNC, 3.63 Bolt Circle

Assembly Options

Assembly PN	Drum Part Number				G Stud PN		M Cup to drum	Assy Weight
Description	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
011-04000L	54256-018				PRT-01296		2.82	71
Hub Pilot M18 x 3.15 Stud, 12.80 x 4" Drum Bal	12.80	4.25	6.52	6.52	M18 x 1.5	2.13	3.72	

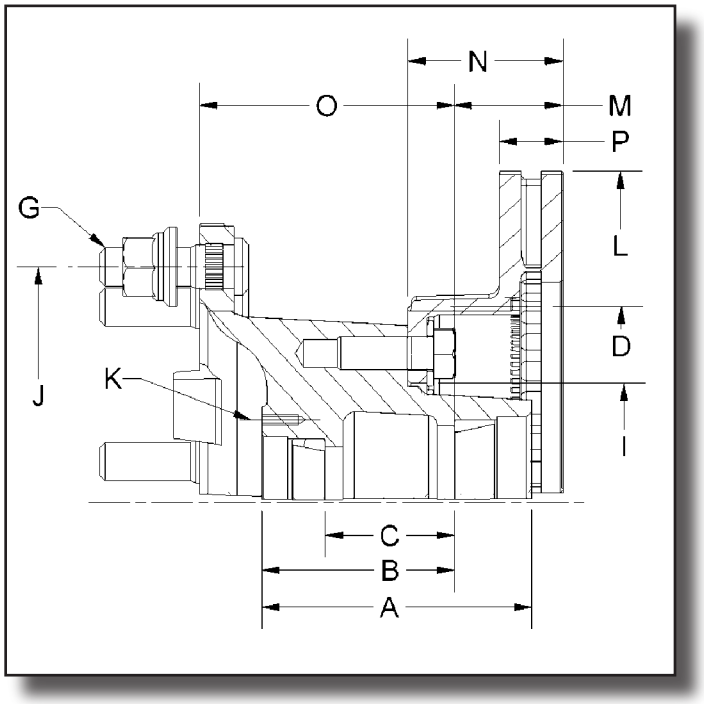
Option "T" - ABS Rings

Description	Part Number	Pitch Diameter
100-Tooth Tone Ring	PRT-00982	6.25

NOTE
KIC Recommends 300-400 ft. lbs torque range on the M18 studs for the 011-04000
Refer to “Component Parts” section for fastener information.

Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Rotor - Serrated stud

SAE Spindle Designation:	**I80 (FC)**
Inner Bearing Cup:	JM207010
Inner Bearing Cone:	JM207049A
Outer Bearing Cup:	25820
Outer Bearing Cone:	25877



Hub Specifications

Item	Dimensions (in)
A: Hub Overall Length	6.10
B: Inner Cup to Mtg. Face	4.35
C: Distance between cups	2.91
D: Tone Ring Bore Dia	8.98
E: Tone Ring Bore Depth	
J: Bolt Circle	275mm (10.827")
K: Hubcap Hole Pattern/Thread	4 Holes 5/16"-18 UNC, 3.63 Bolt Circle

Assembly Options

Assembly PN	Drum Part Number				G Stud PN		M Cup to drum	Assy Weight
Description	L Brake Face Dia	P Brake Width	I Hub Pilot	N Overall Depth	Thread	Stand Out	O Cup Face to Mtg. Face	
011-04100	70003-01				PRT-00983		2.46	84
Hub Pilot M22 x 2.87 Studs, 15" Rotor	15.00	1.44	5.40	3.50	M22 x 1.5	2.25	5.77	

NOTE
Uses 001-00256 bolt & 001-00903 washer to fasten rotor to hub.
Refer to “Component Parts” section for fastener information.

X X X X X — XX X

5XXXX	Standard Drum Casting (Grade 3500b)
6XXXX	Special Metallurgy (Grade 3000b)*
7XXXX	Rotor PN

5	Counterbored for recessed fastener
6	Counterbored for recessed fastener + Balanced
7	Cast Teeth on Bottom of Drum For Antiskid
8	Machine Balanced to 20 oz. in.
9	Same as 017 except Machine Balanced

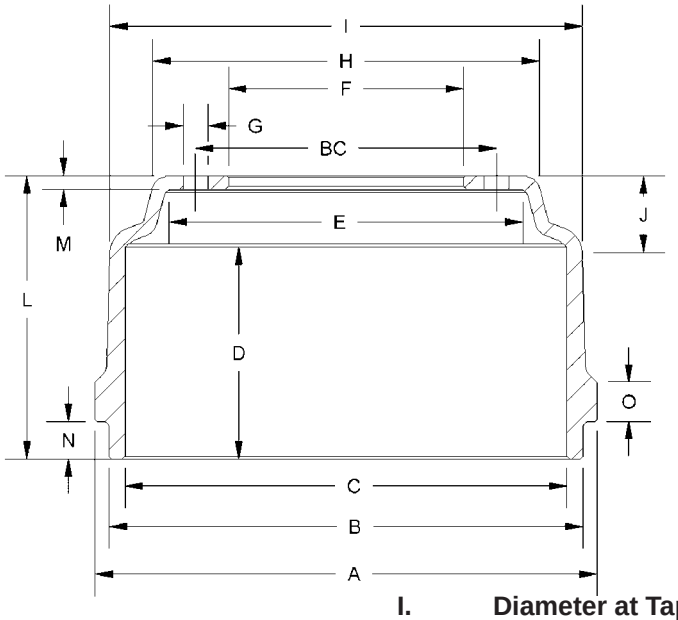
01	Completely Machined and drilled drum with single drilling operation
04	Identical to 01 except 0.040” undersized
10	Standard drum with either double drilling or variation of 01 drum
11	Same as 10 with double drilling operation
12	Standard drum with either double drilling or variation of 01 drum
13	Same as 12 except with double drilling operation
14	Same as 10 except 0.040” undersized

EXAMPLE:

53033-01: 53033 Casting, completely machined and drilled with single drilling operation
53033-018: Same as 53033-01 except machine balanced to 20 oz. in.

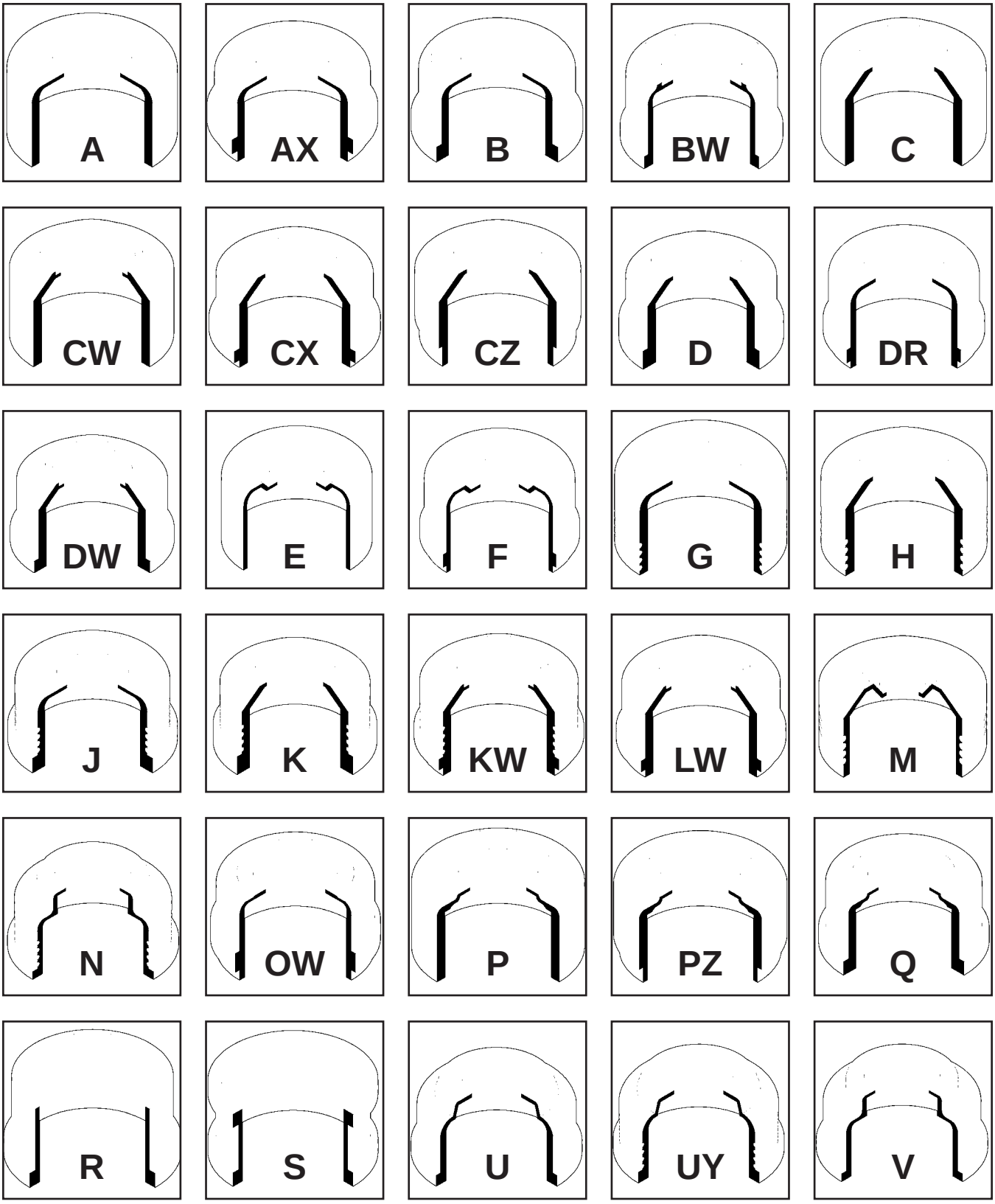
*See Page 3

Brake Drum Nomenclature



A. Overall Diameter
B. Dust Shield Recess Diameter
C. Brake Face Diameter
D. Brake Face Width
E. Inside Finished Diameter
F. Hub Pilot Diameter
G. Bolt Hole Diameter, Number
H. Diameter to Beginning of Taper
I. Diameter at Taper
J. Distance of Face to Taper
BC. Bolt Circle Diameter
L. Overall Height
M. Flange Thickness
N. Depth of Dust Shield Recess
O. Squealer Band Thickness

Brake Drum Types



The combination of a suffix with any of the above types indicates the same type with:

V = Vertical Ribs D = Dust Shield Recess F = Fins

Brake Drum Dimensional Data (By PN)

Drum PN	Type	Weight	Brake Face Dia	Overall Depth	Brake Face Width	Hub Pilot	Bolt Hole Circle	Bolt Holes		Special Info
								No.	Dia.	
444-01612	CX	85	16.50	8.00	5.75	6.25	8.75	6	0.81	
444-13037	U	50	13.00	6.44	3.06	4.59	6.50	8	0.56	2 mtg holes .44 - Obsolete
444-13038	U	50	13.00	6.44	3.06	4.59	6.50	8	0.63	2 mtg holes .44 - Obsolete
444-13911	C	30	14.13	5.94	3.30	6.75	8.00	5	0.91	Obsolete
444-14025	AX	110	15.00	9.09	8.59	11.06	13.19	10	1.04	Obsolete
444-15441	VD	68	16.00	7.06	4.38	6.28	8.75	6	1.03	3 mtg holes .53 Obsolete
444-15735	V	59	16.00	8.66	3.00	7.13	8.75	6	0.81	Obsolete
444-15789	AX	119	16.00	8.66	3.00	7.13	8.75	6	0.81	
444-15790	AX	120	15.50	10.69	8.38	11.06	13.18	10	1.03	Obsolete use 54284-01
51283-10	D	98	14.50	8.31	5.63	9.44	11.25	10	1.31	
51283-14	D	98	14.46	8.31	5.50	9.44	11.25	10	1.31	6
51283-148	D	98	14.46	8.31	5.63	9.44	11.25	10	1.31	1[5 holes],5,6,12.75” Pilot
51421-01	P	66	17.25	7.50	4.68	9.88	11.25	10	0.813	
51952-11	D	108	16.50	8.13	7.30	11.00	12.75	5 & 6	0.64	
51961-10	CX	105	16.50	8.44	7.50	11.00	12.50	5 & 6	0.66	
52020-01	CX	99	16.50	9.50	7.63	9.44	11.25	10	0.83	
52034-11	CX	88	16.50	8.75	7.50	11.25	12.75	5 & 6	0.77 & 0.64	Obsolete
52120-12	CX	101	16.50	8.44	7.44	11.25	12.75	5 & 6	0.78	
52120-128	CX	101	16.50	8.44	7.44	11.25	12.75	5 & 6	0.78	
52153-01	CX	54	12.25	7.63	6.38	7.50	8.75	6	0.81	Obsolete
52219-01	L	119	16.50	11.25	9.06	9.44	11.25	10	0.81	
52230-10	CX	105	16.50	8.39	7.50	9.44	11.00	5 & 6	0.78 & 0.66	
52327-10	DR	108	16.50	8.75	7.50	9.50	11.25	10	0.81	
52327-11	DR	108	16.50	8.75	7.50	9.50	11.25	5	0.81	
52336-108	K	169	14.50	12.81	10.56	9.44	11.25	10	1.31	1[5 holes],3,5,7,12.75” Pilot
52336-148	K	169	14.50	12.81	10.56	9.44	11.25	10	1.31	1[5 holes],3,5,6,7,12.75” Pilot
52472-11	K	79	14.50	8.00	5.31	9.44	11.25	10	1.31	1[5 holes],3,5,7,12.75” Pilot
52472-128	K	79	14.50	8.00	5.31	9.44	11.25	10	1.31	1[5 holes],3,5,7,12.75” Pilot
52472-31	K	79	14.50	8.00	5.31	9.44	11.25	10	1.31	1[5 holes],3,5,7,12.75” Pilot
52480-108	K	125	14.50	11.50	8.44	9.44	11.25	10	1.28	1[5 holes],3,5,13” Pilot
52480-148	K	125	14.50	11.50	8.44	9.44	11.25	10	1.28	1[5 holes],3,5,6,13” Pilot
52511-01	CX	79	12.25	9.04	8.00	7.00	8.25	6	0.66	
52544-10	K	112	14.50	8.32	6.03	9.44	11.25	10	1.31	
52544-108	K	112	14.50	8.32	6.03	9.44	11.25	10	1.31	1[5 holes],3,5,12.75” Pilot
52544-14	K	112	14.46	8.32	6.03	9.44	11.25	10	1.31	6
52544-148	K	112	14.50	8.32	6.03	9.44	11.25	10	1.31	1[5 holes],3,5,6,12.75” Pilot
52544-308	K	112	14.50	8.32	6.03	9.44	11.25	10	1.31	1[5 holes],3,5,12.75” Pilot
52544-328	K	112	14.50	8.32	6.03	9.44	11.25	10	1.31	1[5 holes],3,5,9,12.75” Pilot
52607-20	V	77	16.50	7.38	5.81	9.44	11.25	10	0.78	7 [9 holes] Obsolete
52647-11	OW	94	16.50	8.25	7.38	11.25	12.75	5 & 6	0.66	
52647-12	OW	94	16.50	8.25	7.38	11.25	12.75	5	0.75	
52705-30	CX	114	16.50	10.61	7.81	9.00	11.25	10	0.81	
52705-308	CX	114	16.50	10.61	7.82	9.00	11.25	10	0.81	
52705-32	CX	114	16.50	10.60	7.82	9.00	11.25	8	0.81	1 [3 holes]
52743-11	CX	66	12.25	8.88	7.89	8.50	10.00	3 & 6	0.69	
52757-128	K	103	14.50	8.00	5.31	9.44	11.25	10	1.31	1[5 holes],3,7,12.75” Pilot
52757-308	D	112	14.50	8.00	5.31	9.44	11.25	10	1.31	1[5 holes],12.75” Pilot
52824-108	K	116	14.50	8.69	6.44	9.44	11.25	10	1.31	1[5 holes],3,5,12.75” Pilot
52824-138	K	113	14.50	8.69	6.44	9.44	11.25	10	1.31	1[5holes],3,5,7,12.75”Pilot
52824-148	K	117	14.46	8.69	6.44	9.44	11.25	10	1.31	1[5holes],3,5,6,12.75”Pilot
52877-11	CX	121	16.50	10.75	7.52	9.44	11.25	10	0.81	1 [3 holes]
52878-01	CX	105	16.50	10.44	7.51	8.53	11.25	10	0.81	Cast-in Grease Slinger
52890-13	CX	103	16.50	8.75	7.63	10.50	12.75	5 & 6	0.78	
52906-117	DV	112	15.00	8.69	6.56	9.44	11.25	10	1.31	
52906-119	DV	112	15.00	8.69	6.56	9.44	11.25	10	1.31	1[5holes],4,5,10,12.75”Pilot
52906-147	DV	112	15.00	8.69	6.56	9.44	11.25	10	1.31	6
52906-149	DV	112	15.00	8.69	6.56	9.44	11.25	10	1.31	1[5holes],4,5,6,10,12.75”Pilot
52908-117	DV	187	15.00	12.44	10.25	9.44	11.25	10	1.31	
52908-119	DV	187	15.00	12.44	10.25	9.44	11.25	10	1.31	1[5holes],4,5,10,12.75”Pilot

1- Outboard Mount, 2-Outside Hub Fit, 3-Circular Ribs, 4-Vertical Ribs, 5-Vents, 6 Undersized Brake Face, 7-Drilled for Noise Dampener, 8-Drilled for Electric Brakes, 9-Drilled for 121 Exciter, 10-Notched for 121 Exciter **- Obsolete pn’s available until current stock depleted**

Brake Drum Dimensional Data (By PN)

Drum PN	Type	Weight	Brake Face Dia	Overall Depth	Brake Face Width	Hub Pilot	Bolt Hole Circle	Bolt Holes		Special Info
								No.	Dia.	
52908-147	DV	187	15.00	12.44	10.25	9.44	11.25	10	1.31	6
52908-149	DV	187	15.00	12.44	10.25	9.44	11.25	10	1.31	1[5holes],4,5,6,10,12.75”Pilot
52918-01	CX	167	16.50	13.38	10.56	8.53	11.25	10	0.80	
52918-018	CX	167	16.50	13.38	10.56	8.53	11.25	10	0.80	5, Cast-in Grease Slinger
52918-048	CX	167	16.50	13.38	10.56	8.53	11.25	10	0.80	6
52919-017	CX	110	16.50	9.81	6.50	9.00	11.25	10	1.31	
52919-019	CX	110	16.50	9.81	6.50	9.00	11.25	10	1.31	
52919-149	CX	110	16.50	9.81	6.56	9.00	11.25	10	1.31	6
52965-117	D	205	15.13	12.38	10.48	9.44	11.25	10	1.31	
52965-119	D	205	15.13	12.38	10.48	9.44	11.25	10	1.31	
52965-147	D	205	15.13	12.38	10.38	9.44	11.25	10	1.31	
52965-149	D	205	15.13	12.38	10.48	9.44	11.25	10	1.31	1[5holes],5,6,10,12.75”Pilot
52966-108	D	134	15.13	8.66	6.69	9.44	11.25	10	1.31	1[5holes],5,10,12.75”Pilot
52966-149	D	134	15.13	8.66	6.69	9.44	11.25	10	1.31	1[5holes],5,6,10,12.75”Pilot
52975-118	L	83	16.14	8.38	6.63	11.73	13.19	10	0.91	1[2holes],14.53”Pilot
52975-148	L	83	16.14	8.38	6.63	11.73	13.19	10	0.91	1[2holes],6,14.53”Pilot
52976-118	L	110	16.14	11.81	9.19	11.73	13.19	15	0.91	1[2holes],14.53”Pilot
52976-14	L	110	16.14	11.81	9.17	11.73	13.19	15	0.91	6
52976-148	L	110	16.14	11.81	9.19	11.73	13.19	15	0.91	1[2holes],6,14.53”Pilot
52981-018	CX	88	15.00	8.76	4.44	9.00	11.25	10	1.28	
53026-01	CX	114	16.50	10.63	7.81	8.53	11.25	10	0.81	
53033-01	U	114	16.50	10.59	8.00	8.78	11.25	10	1.00	
53033-018	U	114	16.50	10.59	8.00	8.78	11.25	10	1.00	
53033-30	U	114	16.50	10.63	7.63	9.00	10.84	8	1.00	
53039-01	CX	74	12.25	10.47	8.31	7.13	8.75	10	0.81	
53039-11	CX	74	12.25	10.47	8.25	7.13	8.75	6	0.81	
53039-31	CX	74	12.25	10.16	8.25	7.13	8.75	10	0.81	
53075-018	U	79	15.00	8.87	4.89	8.78	11.25	10	0.94	1
54167-01	O	105	16.50	9.50	8.25	9.44	13.19	10	1.06	
54201-108	H	84	15.00	8.86	4.78	8.78	11.25	10	1.28	
54202-01	K	110	16.50	10.30	7.36	8.78	11.25	10	1.00	
54203-01	AX	132	18.00	8.24	7.48	11.00	12.75	6	0.66	
54204-01	I	110	16.50	8.92	7.50	9.38	11.25	10	0.81	
54205-01	I	137	16.14	11.26	9.27	12.91	11.25	10	1.28	9.41 Hub Bore
54206-018	L	115	16.14	9.22	6.63	13.00	11.25	10	1.28	9.47 Hub Bore
54207-018	G	69	15.00	5.84	4.43	9.25	11.25	5 & 6	0.78	
54208-01	K	118	16.50	8.13	7.34	8.53	11.25	10	0.81	
54209-018	K	112	16.50	10.31	7.44	9.00	11.25	10	0.87	
54210-018	B	105	16.50	7.44	6.32	11.25	12.75	6	0.78	
54211-01	L	72	15.00	7.84	4.41	8.66	11.25	10	1.28	
54212-01	L	117	16.50	9.69	7.26	8.78	11.25	10	1.28	
54213-01	Q	114	16.50	11.18	7.40	8.78	11.25	10	1.00	
54214-018	L	87	15.00	9.22	5.50	8.78	11.25	10	1.28	
54215-01	AX	79	12.25	9.07	7.96	8.50	10.00	6	0.66	
54216-01	Q	90	16.50	8.10	5.47	8.78	11.25	10	1.28	
54217-018	AX	87	16.50	6.41	5.23	10.00	12.75	5 & 6	0.78	
54218-01	CX	99	16.50	8.78	7.41	11.25	12.75	5 & 6	0.78	
54220-018	QD	177	16.50	11.56	9.51	11.12	13.18	10	1.05	1
54224-018	KFD	70	15.00	8.86	4.77	8.78	11.25	10	1.00	
54225-018	L	125	16.50	9.75	6.28	9.00	11.25	10	1.31	
54226-018	QFD	131	16.50	9.88	6.75	9.00	11.25	10	1.25	
54227-01	KFD	106	15.00	10.47	7.52	8.53	11.25	10	0.81	
54228-01	UF	103	15.00	12.20	9.90	8.78	11.25	10	1.00	
54229-01	QFD	117	16.50	11.39	9.00	8.78	11.25	10	1.00	
54230-01	CX	145	18.00	8.87	7.56	11.25	12.75	6 & 6	0.78 & 0.65	
54231-01	U	181	16.50	11.56	9.44	11.25	13.19	10	1.06	
54231-018	U	181	16.50	11.56	9.44	11.25	13.19	10	1.06	
54232-018	U	147	16.50	11.28	9.16	11.25	13.19	10	1.06	
54233-018	K	116	16.50	9.52	6.32	8.78	11.25	10	1.28	
54234-018	K	117	16.50	10.82	7.48	8.78	11.25	10	1.00	

1- Outboard Mount, 2-Outside Hub Fit, 3-Circular Ribs, 4-Vertical Ribs, 5-Vents, 6 Undersized Brake Face, 7-Drilled for Noise Dampener, 8-Drilled for Electric Brakes, 9-Drilled for 121 Exciter, 10-Notched for 121 Exciter **- Obsolete pn’s available until current stock depleted**

Brake Drum Dimensional Data (By PN)

Drum PN	Type	Weight	Brake Face Dia	Overall Depth	Brake Face Width	Hub Pilot	Bolt Hole Circle	Bolt Holes		Special Info
								No.	Dia.	
54235-018	L	139	16.50	11.44	8.44	8.53	11.25	10	0.81	
54236-018	K	134	16.50	11.46	8.87	8.78	11.25	10	0.94	
54237-018	D	140	16.50	11.44	8.44	8.78	11.25	10	0.81	
54238-018	U	101	16.50	9.14	5.29	8.78	11.25	10	1.25	
54240-01	U	107	16.50	9.65	6.77	11.25	13.19	10	0.94	
54241-018	CX	83	15.00	8.84	4.84	9.00	11.25	10	1.28	
54242-018	CX	126	16.50	9.76	6.47	8.78	11.25	10	1.00	
54243-018	U	88	15.00	9.04	4.50	9.00	11.25	10	1.25	
54244-01	AX	89	12.25	11.22	9.84	9.00	10.83	8	1.00	
54247-01	U	118	16.50	10.61	7.82	9.00	11.22	8	0.84	
54248-018	U	124	16.50	9.76	6.41	8.78	11.25	10	1.31	
54249-01	OW	105	16.50	8.74	7.49	9.50	11.25	5 & 6	0.82 & 0.65	
54250-01	UD	117	16.50	10.59	7.44	11.25	13.19	10	1.00	
54251-01	UD	116	16.50	12.37	9.15	11.25	13.19	10	0.94	
54253-018	AX	145	16.14	10.85	9.03	11.10	13.19	10	0.91	
54256-018	CX	46	12.80	6.52	4.25	6.52	8.07	6	0.73	1,5
54257-018	U	99	16.50	8.56	5.50	8.78	11.25	10	1.00	
54258-018	U	103	16.50	9.44	6.57	11.25	13.19	10	1.00	
54259-018	CX	85	15.00	9.22	5.47	9.00	11.25	10	1.28	
54261-01	U	125	16.50	10.59	7.60	8.78	11.25	10	1.00	
54261-018	U	125	16.50	10.59	7.60	8.78	11.25	10	1.00	
54264-01	F	91	16.50	8.19	7.19	14.25	12.75	5 & 6	0.78 & 0.66	11.25 Hub Bore
54266-018	OW	127	16.50	9.75	6.50	8.53	11.25	10	1.28	
54267-018	V	128	16.50	10.37	7.46	8.78	11.25	10	0.94	
54268-018	V	103	16.50	9.65	6.62	11.25	13.19	10	1.00	
54270-018	B	118	15.00	11.77	9.29	8.78	11.25	10	1.00	
54271-01	V	107	15.00	10.59	7.75	8.78	11.25	10	0.94	
54272-018	OW	78	15.00	8.98	4.78	8.75	11.25	10	0.81	
54275-018	OW	101	16.50	9.22	5.52	9.00	11.25	10	1.28	
54276-018	G	81	15.00	9.04	4.54	8.78	11.25	10	1.00	
54280-018	K	177	14.50	12.81	10.51	9.44	11.25	10	1.31	12.75 Pilot Dia.
54281-018	K	110	14.50	8.69	6.46	9.44	11.25	10	1.31	12.75 Pilot Dia.
54286-018	CX	136	16.14	11.81	9.12	14.41	13.19	10	0.93	11.73 Hub Bore
54287-01	CX	136	14.50	11.79	8.50	9.44	11.25	10	1.31	5, 12.75 Pilot Dia.
54288-018	CX	124	16.50	9.53	6.63	8.78	11.25	10	1.28	9
54292-018	U	123	16.50	9.88	6.67	8.78	11.25	10	1.00	
54293-018	CX	79	15.00	9.04	4.58	8.78	11.25	10	1.28	
54294-018	U	136	16.50	12.39	9.70	9	10.83	8	1.00	
54295-018	U	79	15.00	9.85	6.64	8.78	11.25	10	1.00	1
54727-01	U	132	16.50	12.39	9.63	8.78	11.25	10	1.00	
54901-01	CX	59	14.57	6.93	5.67	9.45	11.25	10	0.81	OEM# 43207-Z5015
54905-01	CX	33	12.60	5.26	3.34	6.49	8.19	5	0.76	OEM# MC838283
54906-01	CX	55	12.60	7.51	4.58	6.77	8.75	6	0.89	OEM# 8-94382085-2
54907-01	CX	50	12.60	7.00	3.72	6.77	8.75	6	0.88	OEM# 8-94380055-3
555-01811	L	141	18.00	9.75	7.88	9.44	13.19	10	1.06	
555-18006B	QD	138	18.00	8.75	7.50	9.50	11.25	6	0.75	Banded
555-2003B	D	211	20.00	10.25	8.75	9.44	13.19	10	1.06	Banded
555-20056	A	205	20.00	12.63	8.63	9.44	13.19	10	1.06	
555-20057B	A	238	20.00	12.63	8.56	11.00	13.19	10	1.06	Banded
555-2005B	A	242	20.00	12.50	8.50	10.63	13.19	10	1.06	Banded
555-2009B	D	198	20.00	10.25	8.52	10.63	13.19	6	0.81	Banded
555-2021B	D	209	20.00	9.25	7.41	13.25	15.00	12	0.78	13.50” Pilot, Banded
555-2023	D	240	20.00	10.94	8.61	13.25	15.00	12	0.78	13.50” Pilot
555-2027	P	218	20.00	10.94	8.61	11.00	12.50	12	0.66	11.25” Pilot
555-2035B	QD	190	20.00	11.00	9.00	9.51	11.25	6	0.66	Banded, Obsolete
60001-018	U	108	16.50	10.62	7.56	8.78	11.25	10	1.00	

1- Outboard Mount, 2-Outside Hub Fit, 3-Circular Ribs, 4-Vertical Ribs, 5-Vents, 6 Undersized Brake Face, 7-Drilled for Noise Dampener, 8-Drilled for Electric Brakes, 9-Drilled for 121 Exciter, 10-Notched for 121 Exciter **- Obsolete pn’s available until current stock depleted**

Brake Drum Dimensional Data (By Brake Shoe Size)

Brake Shoe Size	Drum PN	Brake Face Dia	Brake Face Width	Overall Depth	Hub Pilot	Bolt Hole Circle	Bolt Holes		Type	Weight	Special Info
							No.	Dia.			
12.25 x 7.5	52511-01	12.25	8.00	9.04	7.00	8.25	6	0.66	CX	79	
	52743-11	12.25	7.89	8.88	8.50	10.00	3 & 6	0.69	CX	66	
12.25 x 8	53039-11	12.25	8.25	10.47	7.13	8.75	6	0.81	CX	74	
	53039-31	12.25	8.25	10.16	7.13	8.75	10	0.81	CX	74	
	53039-01	12.25	8.31	10.47	7.13	8.75	10	0.81	CX	74	
	54244-01	12.25	9.84	11.22	9.00	10.83	8	1.00	AX	89	
12.6 x 3.93 (300mm x 100mm)	54907-01	12.60	3.72	7.00	6.77	8.75	6	0.88	CX	50	OEM# 8-94380055-3
	54905-01	12.60	3.34	5.26	6.49	8.19	5	0.76	CX	33	OEM# MC838283
	54906-01	12.60	4.58	7.51	6.77	8.75	6	0.89	CX	55	OEM# 8-94382085-2
	54256-018	12.80	4.25	6.52	6.52	8.07	6	0.73	CX	46	1,5
13 x 3	444-13038	13.00	3.06	6.44	4.59	6.50	8	0.63	U	50	2 mtg holes .44 - Obsolete
	444-13037	13.00	3.06	6.44	4.59	6.50	8	0.56	U	50	2 mtg holes .44 - Obsolete
14.125 x 3	444-13911	14.13	3.30	5.94	6.75	8.00	5	0.91	C	30	Obsolete
14.5 x 10	52336-148	14.50	10.56	12.81	9.44	11.25	10	1.31	K	169	1[5 holes],3,5,6,7,12.75" Pilot
	54280-018	14.50	10.51	12.81	9.44	11.25	10	1.31	K	177	12.75 Pilot Dia.
	52336-108	14.50	10.56	12.81	9.44	11.25	10	1.31	K	169	1[5 holes],3,5,7,12.75" Pilot
14.5 x 5	52472-11	14.50	5.31	8.00	9.44	11.25	10	1.31	K	79	1[5 holes],3,5,7,12.75" Pilot
	52472-128	14.50	5.31	8.00	9.44	11.25	10	1.31	K	79	1[5 holes],3,5,7,12.75" Pilot
	52472-31	14.50	5.31	8.00	9.44	11.25	10	1.31	K	79	1[5 holes],3,5,7,12.75" Pilot
14.5 x 5	52544-14	14.46	6.03	8.32	9.44	11.25	10	1.31	K	112	6
	52544-108	14.50	6.03	8.32	9.44	11.25	10	1.31	K	112	1[5 holes],3,5,12.75" Pilot
	52544-328	14.50	6.03	8.32	9.44	11.25	10	1.31	K	112	1[5 holes],3,5,9,12.75" Pilot
	52757-308	14.50	5.31	8.00	9.44	11.25	10	1.31	D	112	1[5 holes],12.75" Pilot
	52757-128	14.50	5.31	8.00	9.44	11.25	10	1.31	K	103	1[5 holes],3,7,12.75" Pilot
	52544-148	14.50	6.03	8.32	9.44	11.25	10	1.31	K	112	1[5 holes],3,5,6,12.75" Pilot
	52544-308	14.50	6.03	8.32	9.44	11.25	10	1.31	K	112	1[5 holes],3,5,12.75" Pilot
	52544-10	14.50	6.03	8.32	9.44	11.25	10	1.31	K	112	
	51283-148	14.46	5.63	8.31	9.44	11.25	10	1.31	D	98	1[5 holes],5,6,12.75" Pilot
	51283-14	14.46	5.50	8.31	9.44	11.25	10	1.31	D	98	6
	51283-10	14.50	5.63	8.31	9.44	11.25	10	1.31	D	98	
14.5 x 6	52824-148	14.46	6.44	8.69	9.44	11.25	10	1.31	K	117	1[5holes],3,5,6,12.75"Pilot
	52824-138	14.50	6.44	8.69	9.44	11.25	10	1.31	K	113	1[5holes],3,5,7,12.75"Pilot
	52824-108	14.50	6.44	8.69	9.44	11.25	10	1.31	K	116	1[5 holes],3,5,12.75" Pilot
	54281-018	14.50	6.46	8.69	9.44	11.25	10	1.31	K	110	12.75 Pilot Dia.
14.5 x 8	54287-01	14.50	8.50	11.79	9.44	11.25	10	1.31	CX	136	5, 12.75 Pilot Dia.
	52480-108	14.50	8.44	11.50	9.44	11.25	10	1.28	K	125	1[5 holes],3,5,13" Pilot
	52480-148	14.50	8.44	11.50	9.44	11.25	10	1.28	K	125	1[5 holes],3,5,6,13" Pilot
14.57 x 3 (370mm x 100mm)	54901-01	14.57	5.67	6.93	9.45	11.25	10	0.81	CX	59	OEM# 43207-Z5015
15 x 10	52908-117	15.00	10.25	12.44	9.44	11.25	10	1.31	DV	187	
	52908-119	15.00	10.25	12.44	9.44	11.25	10	1.31	DV	187	1[5holes],4,5,10,12.75"Pilot
	52908-147	15.00	10.25	12.44	9.44	11.25	10	1.31	DV	187	6
	52908-149	15.00	10.25	12.44	9.44	11.25	10	1.31	DV	187	1[5holes],4,5,6,10,12.75"Pilot
15 x 4	53075-018	15.00	4.89	8.87	8.78	11.25	10	0.94	U	79	1
	54224-018	15.00	4.77	8.86	8.78	11.25	10	1.00	KFD	70	
	54243-018	15.00	4.50	9.04	9.00	11.25	10	1.25	U	88	
	54211-01	15.00	4.41	7.84	8.66	11.25	10	1.28	L	72	
	54272-018	15.00	4.78	8.98	8.75	11.25	10	0.81	OW	78	
	54276-018	15.00	4.54	9.04	8.78	11.25	10	1.00	G	81	
	52981-018	15.00	4.44	8.76	9.00	11.25	10	1.28	CX	88	
	54201-108	15.00	4.78	8.86	8.78	11.25	10	1.28	H	84	
	54241-018	15.00	4.84	8.84	9.00	11.25	10	1.28	CX	83	
	54293-018	15.00	4.58	9.04	8.78	11.25	10	1.28	CX	79	
	54207-018	15.00	4.43	5.84	9.25	11.25	5 & 6	0.78	G	69	
15 x 5	54214-018	15.00	5.50	9.22	8.78	11.25	10	1.28	L	87	
	54259-018	15.00	5.47	9.22	9.00	11.25	10	1.28	CX	85	

1- Outboard Mount, 2-Outside Hub Fit, 3-Circular Ribs, 4-Vertical Ribs, 5-Vents, 6 Undersized Brake Face, 7-Drilled for Noise Dampener, 8-Drilled for Electric Brakes, 9-Drilled for 121 Exciter, 10-Notched for 121 Exciter **- Obsolete pn's available until current stock depleted**

Brake Drum Dimensional Data (By Brake Shoe Size)

Brake Shoe Size	Drum PN	Brake Face Dia	Brake Face Width	Overall Depth	Hub Pilot	Bolt Hole Circle	Bolt Holes		Type	Weight	Special Info
							No.	Dia.			
15 x 6	52906-117	15.00	6.56	8.69	9.44	11.25	10	1.31	DV	112	
	52906-119	15.00	6.56	8.69	9.44	11.25	10	1.31	DV	112	1[5holes],4,5,10,12.75"Pilot
	52906-147	15.00	6.56	8.69	9.44	11.25	10	1.31	DV	112	6
	52906-149	15.00	6.56	8.69	9.44	11.25	10	1.31	DV	112	1[5holes],4,5,6,10,12.7 5"Pilot
	54295-018	15.00	6.64	9.85	8.78	11.25	10	1.00	U	79	1
15 x 7	54271-01	15.00	7.75	10.59	8.78	11.25	10	0.94	V	107	
	54227-01	15.00	7.52	10.47	8.53	11.25	10	0.81	KFD	106	
15 x 8	444-14025	15.00	8.59	9.09	11.06	13.19	10	1.04	AX	110	Obsolete
15 x 8.62	54228-01	15.00	9.90	12.20	8.78	11.25	10	1.00	UF	103	
	54270-018	15.00	9.29	11.77	8.78	11.25	10	1.00	B	118	
15.125 x 10	52965-147	15.13	10.38	12.38	9.44	11.25	10	1.31	D	205	
	52965-149	15.13	10.48	12.38	9.44	11.25	10	1.31	D	205	1[5holes],5,6,10,12.75"Pilot
	52965-119	15.13	10.48	12.38	9.44	11.25	10	1.31	D	205	
	52965-117	15.13	10.48	12.38	9.44	11.25	10	1.31	D	205	
15.125 x 6	52966-149	15.13	6.69	8.66	9.44	11.25	10	1.31	D	134	1[5holes],5,6,10,12.75"Pilot
	52966-108	15.13	6.69	8.66	9.44	11.25	10	1.31	D	134	1[5holes],5,10,12.75"Pilot
15.5 x 8	444-15790	15.50	8.38	10.69	11.06	13.18	10	1.03	AX	120	Obsolete use 54284-01
16 x 2.5	444-15735	16.00	3.00	8.66	7.13	8.75	6	0.81	V	59	Obsolete
	444-15789	16.00	3.00	8.66	7.13	8.75	6	0.81	AX	119	
16 x 4	444-15441	16.00	4.38	7.06	6.28	8.75	6	1.03	VD	68	3 mtg holes .53 Obsolete
16.14 x 6	52975-118	16.14	6.63	8.38	11.73	13.19	10	0.91	L	83	1[2holes],14.53"Pilot
	52975-148	16.14	6.63	8.38	11.73	13.19	10	0.91	L	83	1[2holes],6,14.53"Pilot
	54206-018	16.14	6.63	9.22	13.00	11.25	10	1.28	L	115	9.47 Hub Bore
16.14 x 8.62	54253-018	16.14	9.03	10.85	11.10	13.19	10	0.91	AX	145	
	52976-118	16.14	9.19	11.81	11.73	13.19	15	0.91	L	110	1[2holes],14.53"Pilot
	52976-148	16.14	9.19	11.81	11.73	13.19	15	0.91	L	110	1[2holes],6,14.53"Pilot
	52976-14	16.14	9.17	11.81	11.73	13.19	15	0.91	L	110	6
	54286-018	16.14	9.12	11.81	14.41	13.19	10	0.93	CX	136	11.73 Hub Bore
	54205-01	16.14	9.27	11.26	12.91	11.25	10	1.28	I	137	9.41 Hub Bore
16.25 x 3.5	444-01521	16.25	3.72	5.53	7.50	9.00	5	0.53	CX	66	
16.5 x 10	52918-018	16.50	10.56	13.38	8.53	11.25	10	0.80	CX	167	5, Cast-in Grease Slinger
	52918-048	16.50	10.56	13.38	8.53	11.25	10	0.80	CX	167	6
	52918-01	16.50	10.56	13.38	8.53	11.25	10	0.80	CX	167	
16.5 x 5	52607-20	16.50	5.81	7.38	9.44	11.25	10	0.78	V	77	7 [9 holes] Obsolete
	54216-01	16.50	5.47	8.10	8.78	11.25	10	1.28	Q	90	
	54275-018	16.50	5.52	9.22	9.00	11.25	10	1.28	OW	101	
	54257-018	16.50	5.50	8.56	8.78	11.25	10	1.00	U	99	
	54238-018	16.50	5.29	9.14	8.78	11.25	10	1.25	U	101	
	444-01612	16.50	5.75	8.00	6.25	8.75	6	0.81	CX	85	
16.5 x 6	52919-149	16.50	6.56	9.81	9.00	11.25	10	1.31	CX	110	6
	54266-018	16.50	6.50	9.75	8.53	11.25	10	1.28	OW	127	
	54233-018	16.50	6.32	9.52	8.78	11.25	10	1.28	K	116	
	54288-018	16.50	6.63	9.53	8.78	11.25	10	1.28	CX	124	9
	54226-018	16.50	6.75	9.88	9.00	11.25	10	1.25	QFD	131	
	54225-018	16.50	6.28	9.75	9.00	11.25	10	1.31	L	125	
	54268-018	16.50	6.62	9.65	11.25	13.19	10	1.00	V	103	
	54248-018	16.50	6.41	9.76	8.78	11.25	10	1.31	U	124	
	54258-018	16.50	6.57	9.44	11.25	13.19	10	1.00	U	103	
	54292-018	16.50	6.67	9.88	8.78	11.25	10	1.00	U	123	
	54210-018	16.50	6.32	7.44	11.25	12.75	6	0.78	B	105	
	54242-018	16.50	6.47	9.76	8.78	11.25	10	1.00	CX	126	
	52919-017	16.50	6.50	9.81	9.00	11.25	10	1.31	CX	110	
	52919-019	16.50	6.50	9.81	9.00	11.25	10	1.31	CX	110	
16.5 x 7	53026-01	16.50	7.81	10.63	8.53	11.25	10	0.81	CX	114	
	54249-01	16.50	7.49	8.74	9.50	11.25	5 & 6	0.82 & 0.65	OW	105	
	54250-01	16.50	7.44	10.59	11.25	13.19	10	1.00	UD	117	
	54247-01	16.50	7.82	10.61	9.00	11.22	8	0.84	U	118	
	51952-11	16.50	7.30	8.13	11.00	12.75	5 & 6	0.64	D	108	
	53033-01	16.50	8.00	10.59	8.78	11.25	10	1.00	U	114	
	54261-018	16.50	7.60	10.59	8.78	11.25	10	1.00	U	125	

1- Outboard Mount, 2-Outside Hub Fit, 3-Circular Ribs, 4-Vertical Ribs, 5-Vents, 6 Undersized Brake Face, 7-Drilled for Noise Dampener, 8-Drilled for Electric Brakes, 9-Drilled for 121 Exciter, 10-Notched for 121 Exciter **- Obsolete pn's available until current stock depleted**

Brake Drum Dimensional Data (By Brake Shoe Size)

Brake Shoe Size	Drum PN	Brake Face Dia	Brake Face Width	Overall Depth	Hub Pilot	Bolt Hole Circle	Bolt Holes		Type	Weight	Special Info
							No.	Dia.			
16.5 x 7	52705-30	16.50	7.81	10.61	9.00	11.25	10	0.81	CX	114	
	52327-11	16.50	7.50	8.75	9.50	11.25	5	0.81	DR	108	
	52327-10	16.50	7.50	8.75	9.50	11.25	10	0.81	DR	108	
	52230-10	16.50	7.50	8.39	9.44	11.00	5 & 6	0.78 & 0.66	CX	105	
	51961-10	16.50	7.50	8.44	11.00	12.50	5 & 6	0.66	CX	105	
	54264-01	16.50	7.19	8.19	14.25	12.75	5 & 6	0.78 & 0.66	F	91	11.25 Hub Bore
	52120-128	16.50	7.44	8.44	11.25	12.75	5 & 6	0.78	CX	101	
	52120-12	16.50	7.44	8.44	11.25	12.75	5 & 6	0.78	CX	101	
	52034-11	16.50	7.50	8.75	11.25	12.75	5 & 6	0.77 & 0.64	CX	88	Obsolete
	53033-018	16.50	8.00	10.59	8.78	11.25	10	1.00	U	114	
	52877-11	16.50	7.52	10.75	9.44	11.25	10	0.81	CX	121	1 [3 holes]
	54209-018	16.50	7.44	10.31	9.00	11.25	10	0.87	K	112	
	54208-01	16.50	7.34	8.13	8.53	11.25	10	0.81	K	118	
	54204-01	16.50	7.50	8.92	9.38	11.25	10	0.81	I	110	
	54212-01	16.50	7.26	9.69	8.78	11.25	10	1.28	L	117	
	54213-01	16.50	7.40	11.18	8.78	11.25	10	1.00	Q	114	
	60001-018	16.50	7.56	10.62	8.78	11.25	10	1.00	U	108	See FAQ for details
	54218-01	16.50	7.41	8.78	11.25	12.75	5 & 6	0.78	CX	99	
	52647-11	16.50	7.38	8.25	11.25	12.75	5 & 6	0.66	OW	94	
	52878-01	16.50	7.51	10.44	8.53	11.25	10	0.81	CX	105	Cast-in Grease Slinger
	53033-30	16.50	7.63	10.63	9.00	10.84	8	1.00	U	114	
	54261-01	16.50	7.60	10.59	8.78	11.25	10	1.00	U	125	
	54202-01	16.50	7.36	10.30	8.78	11.25	10	1.00	K	110	
	52020-01	16.50	7.63	9.50	9.44	11.25	10	0.83	CX	99	
	54234-018	16.50	7.48	10.82	8.78	11.25	10	1.00	K	117	
	52705-32	16.50	7.82	10.60	9.00	11.25	8	0.81	CX	114	1 [3 holes]
	52705-308	16.50	7.82	10.61	9.00	11.25	10	0.81	CX	114	
	52647-12	16.50	7.38	8.25	11.25	12.75	5	0.75	OW	94	
	54267-018	16.50	7.46	10.37	8.78	11.25	10	0.94	V	128	
	52890-13	16.50	7.63	8.75	10.50	12.75	5 & 6	0.78	CX	103	
16.5 x 8	54167-01	16.50	8.25	9.50	9.44	13.19	10	1.06	O	105	
	54237-018	16.50	8.44	11.44	8.78	11.25	10	0.81	D	140	
	54235-018	16.50	8.44	11.44	8.53	11.25	10	0.81	L	139	
16.5 x 8.62	54220-018	16.50	9.51	11.56	11.12	13.18	10	1.05	QD	177	1
	54236-018	16.50	8.87	11.46	8.78	11.25	10	0.94	K	134	
	54294-018	16.50	9.70	12.39	9	10.83	8	1.00	U	136	
	52219-01	16.50	9.06	11.25	9.44	11.25	10	0.81	L	119	
	54229-01	16.50	9.00	11.39	8.78	11.25	10	1.00	QFD	117	
	54727-01	16.50	9.63	12.39	8.78	11.25	10	1.00	U	132	
	54231-018	16.50	9.44	11.56	11.25	13.19	10	1.06	U	181	
	54232-018	16.50	9.16	11.28	11.25	13.19	10	1.06	U	147	
	54251-01	16.50	9.15	12.37	11.25	13.19	10	0.94	UD	116	
	54231-01	16.50	9.44	11.56	11.25	13.19	10	1.06	U	181	
17.25 x 5	51421-01	17.25	4.68	7.50	9.88	11.25	10	0.813	P	66	
18 x 7	54230-01	18.00	7.56	8.87	11.25	12.75	6 & 6	0.78 & 0.65	CX	145	
	54203-01	18.00	7.48	8.24	11.00	12.75	6	0.66	AX	132	
	555-18006B	18.00	7.50	8.75	9.50	11.25	6	0.75	QD	138	Banded
	555-01811	18.00	7.88	9.75	9.44	13.19	10	1.06	L	141	
20 x 7	555-2021B	20.00	7.41	9.25	13.25	15.00	12	0.78	D	209	13.50" Pilot, Banded
20 x 8	555-2035B	20.00	9.00	11.00	9.51	11.25	6	0.66	QD	190	Banded, Obsolete
	555-2003B	20.00	8.75	10.25	9.44	13.19	10	1.06	D	211	Banded
	555-20056	20.00	8.63	12.63	9.44	13.19	10	1.06	A	205	
	555-20057B	20.00	8.56	12.63	11.00	13.19	10	1.06	A	238	Banded
	555-2005B	20.00	8.50	12.50	10.63	13.19	10	1.06	A	242	Banded
	555-2009B	20.00	8.52	10.25	10.63	13.19	6	0.81	D	198	Banded
	555-2027	20.00	8.61	10.94	11.00	12.50	12	0.66	P	218	11.25" Pilot
	555-2023	20.00	8.61	10.94	13.25	15.00	12	0.78	D	240	13.50" Pilot

1- Outboard Mount, 2-Outside Hub Fit, 3-Circular Ribs, 4-Vertical Ribs, 5-Vents, 6 Undersized Brake Face, 7-Drilled for Noise Dampener, 8-Drilled for Electric Brakes, 9-Drilled for 121 Exciter, 10-Notched for 121 Exciter **- Obsolete pn's available until current stock depleted**

Transit Drum Design Information

The following section is intended to be a guide to KIC transit drum part numbers. Critical design features such as vents, ribs & timing slots are listed and compared to other manufacturer's drums. Interchange and competitors' design information is based on the best information available at the time of publication and is to be used as a guide only. Although every care has been taken in order to ensure the accuracy of these interchanges, KIC does not assume any liability for errors, changes, omissions or for harm resulting therefrom. It is recommended that all parts be thoroughly checked for proper form, fit and function prior to installation and usage to determine interchangeability.

Competitive Design Comparison by Part Number

KIC PN	Brake Shoe Size	Vents (No.)	No. & Type or Ribs	Weight	Timing Slots	WEBB	Webb Wheel Vents	Webb Wheel Ribs	Webb Weight
51283-10	14.5 x 5	Yes (10)	None	98	None	64003F	Yes (5)	(36) Vertical	100
51283-14	14.5 x 5	Yes (10)	None	98	None	64003U	Yes (5)	(36) Vertical	100
51283-148	14.5 x 5	Yes (10)	None	98	None	64003D	Yes (5)	(36) Vertical	100
52336-108	14.5 x 10	Yes (5)	(6) Circumferential	169	None	64115B	Yes (5)	(7) Circumferential	181
52336-148	14.5 x 10	Yes (5)	(6) Circumferential	169	None	64115D	Yes (5)	(7) Circumferential	181
52472-11	14.5 x 5	Yes (5)	(36) Vertical	79	None	64004F	Yes (5)	(36) Vertical	87
52472-128	14.5 x 5	Yes (5)	(36) Vertical	79	None	64004B	Yes (5)	(36) Vertical	87
52472-31	14.5 x 5	Yes (5)	(36) Vertical	79	None	64004F	Yes (5)	(36) Vertical	87
52480-108	14.5 x 8	Yes (5)	(5) Circumferential	125	None	64009B	Yes (5)	(36) Vertical	145
52480-148	14.5 x 8	Yes (5)	(5) Circumferential	125	None	64009D	Yes (5)	(36) Vertical	145
52544-10	14.5 x 5	Yes (6)	(4) Circumferential	112	None	64113F	Yes (5)	(3) Circumferential	102
52544-108	14.5 x 5	Yes (6)	(4) Circumferential	112	None	64113B	Yes (5)	(3) Circumferential	102
52544-14	14.5 x 5	Yes (6)	(4) Circumferential	112	None	64113U	Yes (5)	(3) Circumferential	102
52544-148	14.5 x 5	Yes (6)	(4) Circumferential	112	None	64113D	Yes (5)	(3) Circumferential	102
52544-308	14.5 x 5	Yes (6)	(4) Circumferential	112	None	64112B	Yes (5)	(3) Circumferential	110
52544-328	14.5 x 5	Yes	Circumferential	112	None	64112D	Yes	Circumferential	110
52544-328	14.5 x 5	Yes	Circumferential	112	None	64112F	Yes	Circumferential	110
52757-128	14.5 x 5	None	(4) Circumferential	103	None	65004A	No	(36) Vertical	91
52757-308	14.5 x 5	None	(4) Circumferential	112	None	65004B	Yes (5)	(36) Vertical	87
52824-108	14.5 x 6	Yes (6)	(4) Circumferential	116	None	64017B	Yes (5)	(4) Circumferential	112
52824-108	14.5 x 6	Yes (6)	(4) Circumferential	116	None	64117B	Yes (5)	(4) Circumferential	112
52824-138	14.5 x 6	Yes (6)	(4) Circumferential	113	None	64119B	Yes (5)	(4) Circumferential	114
52824-148	14.5 x 6	Yes (6)	(4) Circumferential	117	None	64117D	Yes (5)	(4) Circumferential	112
52906-117	15 x 6	Yes (10)	(20) Vertical	112	None	64036F	Yes (5)	(30) Vertical	133
52906-119	15 x 6	Yes (10)	(20) Vertical	112	None	64036B	Yes (5)	(30) Vertical	133
52906-147	15 x 6	Yes (10)	(20) Vertical	112	None	64036U	Yes (5)	(30) Vertical	133
52906-149	15 x 6	Yes (10)	(20) Vertical	112	None	64036D	Yes (5)	(30) Vertical	133
52908-117	15 x 10	Yes (10)	(20) Vertical	187	Yes (60)	64038F	Yes	Vertical	177
52908-119	15 x 10	Yes (10)	(20) Vertical	187	Yes (60)	64038B	Yes	Vertical	177
52908-147	15 x 10	Yes (10)	(20) Vertical	187	Yes (60)	64038U	Yes (5)	(30) Vertical	133
52908-149	15 x 10	Yes (10)	(20) Vertical	187	Yes (60)	64038D	Yes (5)	(30) Vertical	133
52919-017	16.5 x 6	None	None	110	Yes (60)	64004F	No	None	122
52919-017	16.5 x 6	None	None	110	Yes (60)	65169B	No	None	122
52965-117	15.125 x 10	Yes (5)	None	205	Yes (60)	64048F	Yes (5)	None	189
52965-119	15.125 x 10	Yes (5)	None	205	Yes (60)	64048B	Yes (5)	None	189
52965-147	15.125 x 10	Yes (5)	None	205	Yes (60)	64048U	Yes (5)	None	189
52965-149	15.125 x 10	Yes (5)	None	205	Yes (60)	64048D	Yes (5)	None	189
52966-108	15.125 x 6	Yes(5)	None	134	None	64046B	Yes (5)	None	132
52966-149	15.125 x 6	Yes(5)	None	134	None	64046D	Yes (5)	None	132
52975-118	16.14 x 6	None	(10) Cast Slots	83	Yes (60)	64040B	No	None	98
52975-148	16.14 x 6	None	(10) Cast Slots	83	Yes (60)	64040D	No	None	98
52976-118	16.14 x 8.62	None	(10) Cast Slots	110	Yes (60)	64039B	No	None	135
52976-14	16.14 x 8.62	None	(10) Cast Slots	110	None	64039U	No	None	135
52976-14	16.14 x 8.62	None	(10) Cast Slots	110	None	64089U	No	None	135
52976-148	16.14 x 8.62	None	(10) Cast Slots	110	None	64039D	No	None	135
54202-01	16.5 x 7	None	None	110	None	66873F	No	None	115
54205-01	16.14 x 8.62	None	None	137	None	64059F	No	None	137
54206-018	16.14 x 6	None	None	115	None	64062B	No	None	115
54211-01	15 x 4	None	None	72	None	64481F	No	None	72
54213-01	16.5 x 7	None	None	114	None	66353F	No	None	114
54229-01	16.5 x 8.62	None	None	117	None	66854F	No	None	127

Competitive Design Comparison by Part Number

KIC PN	Brake Shoe Size	Vents (No.)	No. & Type or Ribs	Weight	Timing Slots	WEBB	Webb Wheel Vents	Webb Wheel Ribs	Webb Weight
54231-01	16.5 x 8.62	Yes (5)	None	181	None	64051F	Yes (5)	None	181
54231-018	16.5 x 8.62	Yes (5)	None	181	None	64051B	Yes (5)	None	181
54232-018	16.5 x 8.62	Yes (5)	None	147	None	64053B	Yes (5)	None	147
54235-018	16.5 x 8	Yes (5)	None	139	Yes (60)	64047B	Yes (5)	None	139
54258-018	16.5 x 6	None	No	103	None	66364B	No	No	103
54276-018	15 x 4	None	None	81	None	65555B	None	None	81
54280-018	14.5 x 10	None	Circumferential	177	None	64115B	No	Circumferential	169
54281-018	14.5 x 6	None	Circumferential	110	None	64117B	No	Circumferential	128
54286-018	16.14 x 8.62	None	None	136	None	64089B	No	None	136
54287-01	14.5 x 8	Yes	None	136	None	64073F	Yes (5)	None	136
54292-018	16.5 x 6	None	None	123	None	65170B	No	None	123

Design Information by Brake Shoe Size

Brake Shoe Size	KIC PN	Vents (No.)	No. & Type or Ribs	Weight	Timing Slots	WEBB	Webb Wheel Vents	Webb Wheel Ribs	Webb Weight
14.5 x 10	52336-108	Yes (5)	(6) Circumferential	169	None	64115B	Yes (5)	(7) Circumferential	181
	52336-148	Yes (5)	(6) Circumferential	169	None	64115D	Yes (5)	(7) Circumferential	181
	54280-018	None	Circumferential	177	None	64115B	No	Circumferential	169
14.5 x 5	51283-10	Yes (10)	None	98	None	64003F	Yes (5)	(36) Vertical	100
	51283-14	Yes (10)	None	98	None	64003U	Yes (5)	(36) Vertical	100
	51283-148	Yes (10)	None	98	None	64003D	Yes (5)	(36) Vertical	100
	52472-11	Yes (5)	(36) Vertical	79	None	64004F	Yes (5)	(36) Vertical	87
	52472-128	Yes (5)	(36) Vertical	79	None	64004B	Yes (5)	(36) Vertical	87
	52472-31	Yes (5)	(36) Vertical	79	None	64004F	Yes (5)	(36) Vertical	87
	52544-10	Yes (6)	(4) Circumferential	112	None	64113F	Yes (5)	(3) Circumferential	102
	52544-108	Yes (6)	(4) Circumferential	112	None	64113B	Yes (5)	(3) Circumferential	102
	52544-14	Yes (6)	(4) Circumferential	112	None	64113U	Yes (5)	(3) Circumferential	102
	52544-148	Yes (6)	(4) Circumferential	112	None	64113D	Yes (5)	(3) Circumferential	102
	52544-308	Yes (6)	(4) Circumferential	112	None	64112B	Yes (5)	(3) Circumferential	110
	52544-328	Yes	Circumferential	112	None	64112D	Yes	Circumferential	110
	52544-328	Yes	Circumferential	112	None	64112F	Yes	Circumferential	110
	52757-128	None	(4) Circumferential	103	None	65004A	No	(36) Vertical	91
	52757-308	None	(4) Circumferential	112	None	65004B	Yes (5)	(36) Vertical	87
14.5 x 6	52824-108	Yes (6)	(4) Circumferential	116	None	64017B	Yes (5)	(4) Circumferential	112
	52824-108	Yes (6)	(4) Circumferential	116	None	64117B	Yes (5)	(4) Circumferential	112
	52824-138	Yes (6)	(4) Circumferential	113	None	64119B	Yes (5)	(4) Circumferential	114
	52824-148	Yes (6)	(4) Circumferential	117	None	64117D	Yes (5)	(4) Circumferential	112
	54281-018	None	Circumferential	110	None	64117B	No	Circumferential	128
14.5 x 8	52480-108	Yes (5)	(5) Circumferential	125	None	64009B	Yes (5)	(36) Vertical	145
	52480-148	Yes (5)	(5) Circumferential	125	None	64009D	Yes (5)	(36) Vertical	145
	54287-01	Yes (5)	None	136	None	64073F	Yes (5)	None	136
15 x 10	52908-117	Yes (10)	(20) Vertical	187	Yes (60)	64038F	Yes	Vertical	177
	52908-119	Yes (10)	(20) Vertical	187	Yes (60)	64038B	Yes	Vertical	177

Design Information by Brake Shoe Size

Brake Shoe Size	KIC PN	Vents (No.)	No. & Type or Ribs	Weight	Timing Slots	WEBB	Webb Wheel Vents	Webb Wheel Ribs	Webb Weight
15 x 10	52908-147	Yes (10)	(20) Vertical	187	Yes (60)	64038U	Yes (5)	(30) Vertical	133
	52908-149	Yes (10)	(20) Vertical	187	Yes (60)	64038D	Yes (5)	(30) Vertical	133
15 x 4	54211-01	None	None	72	None	64481F	No	None	72
	54276-018	None	None	81	None	65555B	None	None	81
15 x 6	52906-117	Yes (10)	(20) Vertical	112	None	64036F	Yes (5)	(30) Vertical	133
	52906-119	Yes (10)	(20) Vertical	112	None	64036B	Yes (5)	(30) Vertical	133
	52906-147	Yes (10)	(20) Vertical	112	None	64036U	Yes (5)	(30) Vertical	133
	52906-149	Yes (10)	(20) Vertical	112	None	64036D	Yes (5)	(30) Vertical	133
15.125 x 10	52965-117	Yes (5)	None	205	Yes (60)	64048F	Yes (5)	None	189
	52965-119	Yes (5)	None	205	Yes (60)	64048B	Yes (5)	None	189
	52965-147	Yes (5)	None	205	Yes (60)	64048U	Yes (5)	None	189
	52965-149	Yes (5)	None	205	Yes (60)	64048D	Yes (5)	None	189
	52966-108	Yes(5)	None	134	None	64046B	Yes (5)	None	132
	52966-149	Yes(5)	None	134	None	64046D	Yes (5)	None	132
16.14 x 6	52975-118	None	(10) Cast Slots	83	Yes (60)	64040B	No	None	98
	52975-148	None	(10) Cast Slots	83	Yes (60)	64040D	No	None	98
	54206-018	None	None	115	None	64062B	No	None	115
16.14 x 8.62	52976-118	None	(10) Cast Slots	110	Yes (60)	64039B	No	None	135
	52976-14	None	(10) Cast Slots	110	None	64039U	No	None	135
	52976-14	None	(10) Cast Slots	110	None	64089U	No	None	135
	52976-148	None	(10) Cast Slots	110	None	64039D	No	None	135
	54205-01	None	None	137	None	64059F	No	None	137
	54286-018	None	None	136	None	64089B	No	None	136
16.5 x 6	52919-017	None	None	110	Yes (60)	64004F	No	None	122
	52919-017	None	None	110	Yes (60)	65169B	No	None	122
	54258-018	None	No	103	None	66364B	No	No	103
	54292-018	None	None	123	None	65170B	No	None	123
16.5 x 7	54202-01	None	None	110	None	66873F	No	None	115
	54213-01	None	None	114	None	66353F	No	None	114
16.5 x 8	54235-018	Yes (5)	None	139	Yes (60)	64047B	Yes (5)	None	139
16.5 x 8.62	54229-01	None	None	117	None	66854F	No	None	127
	54231-01	Yes (5)	None	181	None	64051F	Yes (5)	None	181
	54231-018	Yes (5)	None	181	None	64051B	Yes (5)	None	181
	54232-018	Yes (5)	None	147	None	64053B	Yes (5)	None	147

Competitive Interchange (Competitor to KIC)

Bluebird Bus

BLUEBIRD	KIC
1117357	52919-019
1117365	54275-018
1145465	54235-018
1460062	54234-018
1460112	52327-10
1460187	52918-018
1460195	54207-018
1554773	54237-018
1579200	54236-018
1583384	52919-019
2081332	52965-117
2081333	52966-108
2137222	52918-01
2137610	52120-128
2236760	54270-018
2237670	54295-018
2602167	52878-01
2602167	54208-01
2647352	54235-018

Dayton/Meritor

DAYTON	KIC
120001	52230-10
120017	52230-10
120038	52230-10
120040	52327-10
120046	52230-10
120063	52020-01
120106	52020-01
120107	52230-10
120152	51961-10
120155	51952-11
120172	52327-11
120190	52647-11
120196	52647-11
120271	54230-01
120369	52327-10
120389	52230-10
120406	52480-108
120406	52480-148
120408	52472-11

Dayton/Meritor (cont.)

DAYTON	KIC
120408	52472-128
120408	52472-31
120408	52757-128
120493	52511-01
120501	52647-11
120586	52327-11
120664	52327-10
120664	54249-01
120728	51952-11
120743	51952-11
120754	51961-10
120782	52020-01
120822	54215-01
120877	52877-11
120882	52219-01
120936	54203-01
120981	54211-01
121040	54249-01
122009	52890-13
122046	54217-018
122079	52120-128
122083	52120-128
122103	52327-10
122103	52327-11
122103	54249-01
122104	54207-018
122126	52327-10
122153	52120-128
122155	52230-10
122194	52327-10
122201	52327-11
122222	52230-10
122276	54215-01
122300	52890-13
122328	51961-10
122329	51961-10
122340	52890-13
122374	52120-128
122376	52743-11
122376	54215-01
122430	52890-13
122453	52878-01

Dayton/Meritor (cont.)

DAYTON	KIC
122453	54208-01
122455	52647-11
122490	52120-128
122502	52647-11
122518	52327-10
122532	54249-01
122548	52705-308
122550	52705-30
122550	52705-308
122556	54225-018
122560	52647-11
122600	51952-11
122601	52120-12
122604	52647-11
122606	52511-01
122607	52878-01
122607	53026-01
122643	52020-01
122667	52327-10
122683	52120-128
122744	54249-01
122750	52544-10
122750	52544-108
122750	52544-14
122752	54208-01
122778	52544-10
122779	52544-10
122782	52647-11
122799	52219-01
122808	52544-10
122812	51283-14
122812	52544-10
122819	52511-01
122822A	52230-10
122853	52230-10
122854	52020-01
122905	52020-01
122921	54272-018
122925	54264-01
122948	54209-018
122963	54215-01
122971	52511-01

Dayton/Meritor (cont.)

DAYTON	KIC
122978	52878-01
122986	54209-018
122990	54249-01
122996	54249-01
123022	53033-01
123025	54250-01
123039	52120-128
123058	52327-11
123200	52890-13
123207	53033-01
123207	53033-018
123207	60001-018
123254	54201-108
123297	54209-018
123312	52981-018
123312	54241-018
123315	54227-01
123363	54261-018
123365	54261-01
123365	54261-018
123366	53075-018
123376	52878-01
123382	54201-108
123383	54238-018
123391	54209-018
123396	53075-018
123399	54248-018
123404	53033-01
123404	53033-018
123413	53075-018
123415	52877-11
123416	53033-018
123416	54261-01
123417	52020-01
123419	52647-11
123420	54201-108
123421	53075-018
123422	52877-11
123427	54210-018
123428	54727-01
123431	54207-018
123448	54214-018

Dayton/Meritor (cont.)

DAYTON	KIC
123537	53033-018
123537	54261-018
123561	54258-018
123569	54233-018
123569	54288-018
12574	54218-01
12582	52020-01
3219-A-1795	52020-01
3219-A-4265	52919-017
3219-A-4291	54208-01
3219-A-5825	54727-01
3219-B-3980	54225-018
3219-B-4006	52919-017
3219-B-4266	52919-019
3219-C-3929	54241-018
3219-C-3981	54225-018
3219-C-4007	52919-017
3219-C-5853	54233-018
3219-D-5100	52544-328
3219-E-1462	51283-14
3219-E-2449	52020-01
3219-E-3567	54272-018
3219-F-1462	51283-10
3219-F-1462	52544-108
3219-F-2450	52020-01
3219-F-2684	51283-10
3219-F-2684	52472-11
3219-F-3568	54272-018
3219-F-3932	54227-01
3219-F-5128	54287-01
3219-G-2685	52472-11
3219-G-3569	54259-018
3219-G-3933	54208-01
3219-G-4973	54287-01
3219-H-3570	54259-018
3219-H-3934	54227-01
3219-H-4090	52908-117
3219-J-2610	52219-01
3219-J-3078	52020-01
3219-J-3936	54208-01
3219-J-4742	54241-018
3219-L-3366	52472-11

Dayton/Meritor (cont.)

DAYTON	KIC
3219-M-3289	52472-11
3219-N-4070	54208-01
3219-P-1602	54249-01
3219-P-1628	52472-11
3219-P-2356	52020-01
3219-P-4072	54208-01
3219-P-4280	54259-018
3219-P-4462	52472-11
3219-Q-3501	51283-10
3219-Q-4229	54208-01
3219-R-1604	54249-01
3219-R-2228	52327-10
3219-R-2280	52219-01
3219-R-2930	52020-01
3219-R-3320	52472-11
3219-R-3944	52918-01
3219-R-4282	54227-01
3219-S-1605	52327-10
3219-S-2281	52219-01
3219-S-2981	52219-01
3219-S-3945	52918-01
3219-S-4543	54208-01
3219-T-1944	52020-01
3219-T-2486	52230-10
3219-T-4544	54208-01
3219-U-4883	52544-328
3219-V-3324	52544-328
3219-V-3688	53039-31
3219-V-3714	52705-308
3219-V-4468	52918-01
3219-V-4494	52544-10
3219-W-1137	52020-01
3219-W-1427	52020-01
3219-W-3689	52020-01
3219-W-4261	52918-01
3219-W-5821	53033-01
3219-X-4262	52918-01
3219-X-4782	52544-328
3219-Y-3561	52705-308
3219-Y-5797	54258-018
3219-Z-3328	52544-10
3219-Z-4264	52919-017

Dayton/Meritor (cont.)

DAYTON	KIC
3219-Z-4290	54208-01
3219-Z-5122	52918-01
3219-Z-5798E	54231-01
3219-Z-5798X	54231-01
4219-Z-3848	54241-018
B3219-C-5099	52824-108
B3219-D-5100	52544-308
B3219-G-5129	52824-138
B3219-G-5857	54259-018
B3219-U-4493	52336-108
B3219-W-4495	52824-108
B3219-Y-5121	52965-119

Durabrake

DURABRAKE	KIC
1244	53039-01
12617	52743-11
12617	54215-01
12637	52511-01
13037	444-13037
13038	444-13038
13911	444-13911
14025	444-14025
1403	52906-117
1403	52906-119
1404	52906-147
1404	52906-149
1404	52908-117
1404	52908-119
1404	52908-147
1404	52908-149
14048	52965-117
14048	52965-119
14048	52965-147
14048	52965-149
14158	52981-018
14503	52757-128
14503	52757-308
14508	52480-108
14508	52480-148
14512	52472-128
14512	52472-31

Durabrake (cont.)

DURABRAKE	KIC
14513	52336-108
14513	52336-148
14515	52544-10
14515	52544-108
14515	52544-14
14518	52824-138
14518	52824-148
15113	52976-118
15113	52976-14
15113	52976-148
15115	52975-118
15115	52975-148
1521	444-01521
15441	444-15441
15735	444-15735
16045	54237-018
1606	52919-019
1607	52918-01
1607	52918-048
1612	444-01612
16139	52647-11
16141	53033-30
16149	51961-10
16155	52919-019
16155	52919-149
16267	54235-018
16289B	54217-018
1629	52020-01
16296	52219-01
16325	54218-01
1639	52327-10
1640	52327-11
1640	54249-01
16516	54264-01
1670	54167-01
16729	52877-11
16778	52120-12
16792	53033-01
16792	53033-018
16792B	60001-018
16794	52705-30
16795	53026-01

Durabrake (cont.)

DURABRAKE	KIC
16797	52878-01
16874	52230-10
16907	51952-11
16997	52890-13
18006	555-18006B
1811	555-01811
18788	54203-01
2003B	555-2003B
2005	555-2005B
20056	555-20056
20057B	555-20057B
2009B	555-2009B
2021B	555-2021B
2023	555-2023
2027	555-2027

Erie

ERIE	KIC
2700-10	52511-01
2738-1	52230-10
2740	52327-11
2740-1	52327-10
2752	52743-11
2760	52020-01
2762	51961-10
2764	52877-11
2764	52878-01
2764	53026-01
2764	53033-018
2764-5	53033-01
2764-5	60001-018
2765	51952-11
2766	54203-01
2767	52906-117
2768	52908-117
2768	52908-119
2768	52908-147
2768	52908-149
2770E	52120-12
2771	52705-30
2771	52705-308
2772	52890-13

Erie (cont.)

ERIE	KIC
2773	52647-11
2773-3	54264-01
2777	52965-117
2777	52965-119
2777	52965-147
2777	52965-149

Gunite

GUNITE	KIC
2546B	52327-10
2546C	52327-11
2546C	54249-01
2566	52472-11
2566X	52757-128
2566X	52757-308
2568	52480-148
2577A	51961-10
2705	52020-01
2747A	54230-01
2908A	444-01521
2920X	54275-018
2974	54218-01
2983C	52230-10
2997D	52890-13
3022B	54210-018
3120	52877-11
3136A	52647-11
3136B	54264-01
3141	52705-30
3141B	53033-30
3158X	52981-018
3166	53026-01
3174	52743-11
3197	54203-01
3219	54227-01
3219A	54271-01
3289X	54217-018
3295	52120-128
3295A	52120-12
3383	52219-01
3402	54202-01
3412	52544-10

Gunite (cont.)

GUNITE	KIC
3412R	52544-14
3412X	52544-108
3413	52908-117
3413	52908-119
3413	52908-147
3413	52908-149
3413R	52906-117
3413R	52906-147
3413RX	52906-119
3413RX	52906-149
3437	54225-018
3441X	54209-018
3467	52511-01
3475	52918-01
3475RX	52918-048
3475X	52918-018
3513	52919-017
3513	52919-019
3513RX	52919-149
3543	52878-01
3557	53039-01
3557A	53039-11
3576X	54261-018
3595	54216-01
3600A	53033-01
3600AX	53033-018
3600AX	60001-018
3618	54204-01
3674	54211-01
3676AX	54257-018
3687X	54248-018
3687X	54292-018
3699	54208-01
3710X	54238-018
3721AX	54201-108
3721X	53075-018
3744X	54270-018
3750B	54228-01
3753X	54295-018
3757	54213-01
3760BX	54207-018
3784	52230-10

Gunite (cont.)

GUNITE	KIC
3786X	54226-018
3800X	54293-018
3807	54229-01
3834	52230-10
3851R	52965-117
3851R	52965-147
3851RX	52965-119
3851RX	52965-149
3852RX	52966-149
3854RX	52336-148
3854X	52336-108
3854X	54280-018
3855RX	52824-148
3855X	52824-108
3855X	52824-138
3855X	54281-018
3856RX	52975-148
3856X	52975-118
3857R	52976-14
3857RX	52976-148
3857X	52976-118
3889X	54234-018
3890X	54236-018
3891X	54237-018
3892X	54235-018
3893X	54266-018
8656	51952-11

New Flyer

NEWFLYER	KIC
6303647	52824-148
6304236	54288-018
6312397	52975-118
6312400	52976-118
6318067	52975-148
6321869	52976-14
6327402	52336-108
6329620	54231-018
6329670	54258-018
6331255	54232-018
6336592	54268-018

Competitive Interchange (Competitor to KIC)

Webb Wheel (cont.)

WEBB	KIC
60876F	52877-11
61527B	53075-018
61528B	54201-108
61577F	54271-01
61591F	54227-01
61780F	51961-10
61788F	54203-01
61854F	54230-01
61950B	54295-018
61991B	54270-018
62027	555-2027
62117B	54217-018
62200F	52020-01
62240F	54218-01
62671F	54212-01
62997F	52890-13
63617	52743-11
63631F	53039-01
63635F	53039-11
63637F	52511-01
63647F	54215-01
63680F	54244-01
63688F	53039-31
64003D	51283-148
64003F	51283-10
64003U	51283-14
64004B	52472-128
64004F	52472-11
64004F	52472-31
64004F	52919-017
64009B	52480-108
64009D	52480-148
64017B	52824-108
64036B	52906-119
64036D	52906-149
64036F	52906-117
64036U	52906-147
64038B	52908-119
64038D	52908-149
64038F	52908-117
64038U	52908-147
64039B	52976-118
64039D	52976-148
64039U	52976-14
64040B	52975-118
64040D	52975-148
64045B	54237-018

Webb Wheel (cont.)

WEBB	KIC
64046B	52966-108
64046D	52966-149
64047B	54235-018
64048B	52965-119
64048D	52965-149
64048F	52965-117
64048U	52965-147
64050B	54220-018
64051B	54231-018
64051F	54231-01
64053B	54232-018
64059F	54205-01
64062B	54206-018
64073F	54287-01
64089B	54286-018
64089U	52976-14
64112B	52544-308
64112D	52544-328
64112F	52544-328
64113B	52544-108
64113D	52544-148
64113F	52544-10
64113U	52544-14
64115B	52336-108
64115Bá	54280-018
64115D	52336-148
64117B	52824-108
64117B	54281-018
64117D	52824-148
64119B	52824-138
64481F	54211-01
65004A	52757-128
65004B	52757-308
65152B	54248-018
65162B	54242-018
65166B	54266-018
65167B	54225-018
65169B	52919-017
65169B	52919-019
65170B	54292-018
65266B	54210-018
65514B	54207-018
65541B	54241-018
65546B	54272-018
65548B	54293-018
65549B	54243-018
65551B	54259-018

Webb Wheel (cont.)

WEBB	KIC
65554B	54214-018
65555B	54276-018
65600B	54233-018
65600C	54233-018
65651B	54275-018
65654B	54238-018
65670B	54234-018
66250F	54250-01
66258F	54251-01
66353F	54213-01
66364B	54258-018
66366F	54240-01
66374B	54268-018
66661B	54267-018
66812	52918-018
66812D	52918-048
66812F	52918-01
66814F	54727-01
66816F	54294-018
66827B	54236-018
66852F	54208-01
66854F	54229-01
66864B	53033-018
66864B	60001-018
66864F	53033-01
66865B	54209-018
66873F	54202-01
66875F	53033-30
66879F	54247-01
66884B	54261-018
66884F	54261-01
66892F	52878-01
66893F	53026-01
66895B	52705-308
66895F	52705-30
67518F	52230-10
68730F	52327-10
68732	52327-11
68765F	54249-01
68845F	54216-01
68891F	52219-01
68897F	51952-11
68918	54204-01
68942F	52647-11
68958F	54264-01
68981B	52120-128
68981F	52120-12

Competitive Interchange (KIC to Competitor)

KIC	BLUEBIRD	DAYTON/MERITOR	DURAMETAL	ERIE	GUNITE	NEWFLYER	WEBB
444-01521			1521		2908A		
444-01612			1612				
444-13037			13037				
444-13038			13038				
444-13911			13911				
444-14025			14025				
444-15441			15441				
444-15735			15735				
51283-10		3219-F-1462					64003F
51283-10		3219-F-2684					64003F
51283-10		3219-Q-3501					64003F
51283-14		122812					64003U
51283-14		3219-E-1462					64003U
51283-148							64003D
51952-11		120155	16907	2765	8656		68897F
51952-11		120728	16907	2765	8656		68897F
51952-11		120743	16907	2765	8656		68897F
51952-11		122600	16907	2765	8656		68897F
51961-10		120152	16149	2762	2577A		61780F
51961-10		120754	16149	2762	2577A		61780F
51961-10		122328	16149	2762	2577A		61780F
51961-10		122329	16149	2762	2577A		61780F
52020-01		120063	1629	2760	2705		62200F
52020-01		120106	1629	2760	2705		62200F
52020-01		120782	1629	2760	2705		62200F
52020-01		122643	1629	2760	2705		62200F
52020-01		122854	1629	2760	2705		62200F
52020-01		122905	1629	2760	2705		62200F
52020-01		123417	1629	2760	2705		62200F
52020-01		12582	1629	2760	2705		62200F
52020-01		3219-A-1795	1629	2760	2705		62200F
52020-01		3219-E-2449	1629	2760	2705		62200F
52020-01		3219-F-2450	1629	2760	2705		62200F
52020-01		3219-J-3078	1629	2760	2705		62200F
52020-01		3219-P-2356	1629	2760	2705		62200F
52020-01		3219-R-2930	1629	2760	2705		62200F
52020-01		3219-T-1944	1629	2760	2705		62200F
52020-01		3219-W-1137	1629	2760	2705		62200F
52020-01		3219-W-1427	1629	2760	2705		62200F
52020-01		3219-W-3689	1629	2760	2705		62200F
52120-12		122601	16778	2770E	3295A		68981F
52120-128	2137610	122079			3295		68981B
52120-128	2137610	122083			3295		68981B
52120-128	2137610	122153			3295		68981B
52120-128	2137610	122374			3295		68981B
52120-128	2137610	122490			3295		68981B
52120-128	2137610	122683			3295		68981B
52120-128	2137610	123039			3295		68981B
52219-01		120882	16296		3383		68891F
52219-01		122799	16296		3383		68891F
52219-01		3219-J-2610	16296		3383		68891F
52219-01		3219-R-2280	16296		3383		68891F
52219-01		3219-S-2281	16296		3383		68891F
52219-01		3219-S-2981	16296		3383		68891F
52230-10		120001	16874	2738-1	3834		67518F
52230-10		120017	16874	2738-1	3784		67518F
52230-10		120038	16874	2738-1	3784		67518F
52230-10		120046	16874	2738-1	3784		67518F
52230-10		120107	16874	2738-1	3784		67518F
52230-10		120389	16874	2738-1	3784		67518F
52230-10		122155	16874	2738-1	3784		67518F
52230-10		122222	16874	2738-1	2983C		67518F
52230-10		122822A	16874	2738-1	3784		67518F
52230-10		122853	16874	2738-1	3784		67518F
52230-10		3219-T-2486	16874	2738-1	3784		67518F
52327-10	1460112	120040	1639	2740-1	2546B		68730F

Competitive Interchange (KIC to Competitor)

KIC	BLUEBIRD	DAYTON/MERITOR	DURAMETAL	ERIE	GUNITE	NEWFLYER	WEBB
52327-10	1460112	120369	1639	2740-1	2546B		68730F
52327-10	1460112	120664	1639	2740-1	2546B		68730F
52327-10	1460112	122103	1639	2740-1	2546B		68730F
52327-10	1460112	122126	1639	2740-1	2546B		68730F
52327-10	1460112	122194	1639	2740-1	2546B		68730F
52327-10	1460112	122518	1639	2740-1	2546B		68730F
52327-10	1460112	122667	1639	2740-1	2546B		68730F
52327-10	1460112	3219-R-2228	1639	2740-1	2546B		68730F
52327-10	1460112	3219-S-1605	1639	2740-1	2546B		68730F
52327-11		120172	1640	2740	2546C		68732
52327-11		120586	1640	2740	2546C		68732
52327-11		122103	1640	2740	2546C		68732
52327-11		122201	1640	2740	2546C		68732
52327-11		123058	1640	2740	2546C		68732
52336-108		B3219-U-4493	14513		3854X	6327402	64115B
52336-148			14513		3854RX		64115D
52472-11		120408			2566		64004F
52472-11		3219-F-2684			2566		64004F
52472-11		3219-G-2685			2566		64004F
52472-11		3219-L-3366			2566		64004F
52472-11		3219-M-3289			2566		64004F
52472-11		3219-P-1628			2566		64004F
52472-11		3219-P-4462			2566		64004F
52472-11		3219-R-3320			2566		64004F
52472-128		120408	14512				64004B
52472-31		120408	14512				64004F
52480-108		120406	14508				64009B
52480-148		120406	14508		2568		64009D
52511-01		120493	12637	2700-10	3467		63637F
52511-01		122606	12637	2700-10	3467		63637F
52511-01		122819	12637	2700-10	3467		63637F
52511-01		122971	12637	2700-10	3467		63637F
52544-10		122750	14515		3412		64113F
52544-10		122778	14515		3412		64113F
52544-10		122779	14515		3412		64113F
52544-10		122808	14515		3412		64113F
52544-10		122812	14515		3412		64113F
52544-10		3219-V-4494	14515		3412		64113F
52544-10		3219-Z-3328	14515		3412		64113F
52544-108		122750	14515		3412X		64113B
52544-108		3219-F-1462	14515		3412X		64113B
52544-14		122750	14515		3412R		64113U
52544-148							64113D
52544-308		B3219-D-5100					64112B
52544-328		3219-D-5100					64112D
52544-328		3219-U-4883					64112F
52544-328		3219-V-3324					64112D
52544-328		3219-X-4782					64112D
52647-11		120190	16139	2773	3136A		68942F
52647-11		120196	16139	2773	3136A		68942F
52647-11		120501	16139	2773	3136A		68942F
52647-11		122455	16139	2773	3136A		68942F
52647-11		122502	16139	2773	3136A		68942F
52647-11		122560	16139	2773	3136A		68942F
52647-11		122604	16139	2773	3136A		68942F
52647-11		122782	16139	2773	3136A		68942F
52647-11		123419	16139	2773	3136A		68942F
52705-30		122550	16794	2771	3141		66895F
52705-308		122548		2771			66895B
52705-308		122550		2771			66895B
52705-308		3219-V-3714		2771			66895B
52705-308		3219-Y-3561		2771			66895B
52743-11		122376	12617	2752	3174		63617
52757-128		120408	14503		2566X		65004A
52757-308			14503		2566X		65004B
52824-108		B3219-C-5099			3855X		64017B
52824-108		B3219-W-4495			3855X		64117B

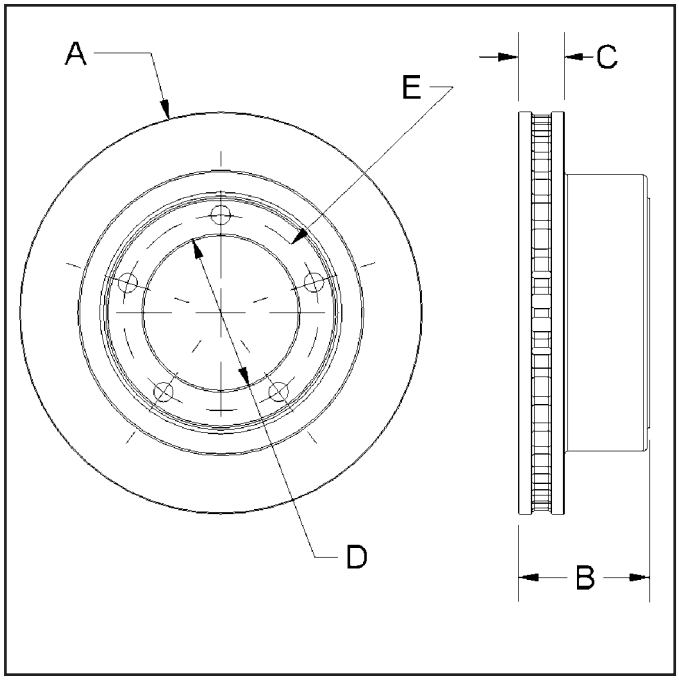
Competitive Interchange (KIC to Competitor)

KIC	BLUEBIRD	DAYTON/MERITOR	DURAMETAL	ERIE	GUNITE	NEWFLYER	WEBB
52824-138		B3219-G-5129	14518		3855X		64119B
52824-148			14518		3855RX	6303647	64117D
52877-11		120877	16729		3120		60876F
52877-11		123415	16729	2764	3120		60876F
52877-11		123422	16729	2764	3120		60876F
52878-01	2602167	122453	16797		3543		66892F
52878-01	2602167	122607	16797	2764	3543		66892F
52878-01	2602167	122978	16797	2764	3543		66892F
52878-01	2602167	123376	16797	2764	3543		66892F
52890-13		122009	16997	2772	2997D		62997F
52890-13		122300	16997	2772	2997D		62997F
52890-13		122340	16997	2772	2997D		62997F
52890-13		122430	16997	2772	2997D		62997F
52890-13		123200	16997	2772	2997D		62997F
52906-117			1403	2767	3413R		64036F
52906-119			1403		3413RX		64036B
52906-147			1404		3413R		64036U
52906-149			1404		3413RX		64036D
52908-117		3219-H-4090	1404	2768	3413		64038F
52908-119			1404	2768	3413		64038B
52908-147			1404	2768	3413		64038U
52908-149			1404	2768	3413		64038D
52918-01	2137222	3219-R-3944	1607		3475		66812F
52918-01	2137222	3219-S-3945	1607		3475		66812F
52918-01	2137222	3219-V-4468	1607		3475		66812F
52918-01	2137222	3219-W-4261	1607		3475		66812F
52918-01	2137222	3219-X-4262	1607		3475		66812F
52918-01	2137222	3219-Z-5122	1607		3475		66812F
52918-018	1460187				3475X		66812
52918-048			1607		3475RX		66812D
52919-017		3219-A-4265			3513		64004F
52919-017		3219-B-4006			3513		65169B
52919-017		3219-C-4007			3513		65169B
52919-017		3219-Z-4264			3513		65169B
52919-019	1117357		16155		3513		65169B
52919-019	1583384	3219-B-4266	1606		3513		65169B
52919-149			16155		3513RX		
52965-117	2081332		14048	2777	3851R		64048F
52965-119		B3219-Y-5121	14048	2777	3851RX		64048B
52965-147			14048	2777	3851R		64048U
52965-149			14048	2777	3851RX		64048D
52966-108	2081333						64046B
52966-149					3852RX		64046D
52975-118			15115		3856X	6312397	64040B
52975-148			15115		3856RX	6318067	64040D
52976-118			15113		3857X	6312400	64039B
52976-14							64089U
52976-14			15113		3857R	6321869	64039U
52976-148			15113		3857RX		64039D
52981-018		123312	14158		3158X		
53026-01		122607	16795	2764	3166		66893F
53033-01			16792	2764-5	3600A		66864F
53033-01		123022	16792	2764-5	3600A		66864F
53033-01		123207	16792	2764-5	3600A		66864F
53033-01		123404	16792	2764-5	3600A		66864F
53033-01		3219-W-5821	16792	2764-5	3600A		66864F
53033-018			16792	2764	3600AX		66864B
53033-018		123207	16792		3600AX		66864B
53033-018		123404	16792	2764	3600AX		66864B
53033-018		123416	16792	2764	3600AX		66864B
53033-018		123537	16792	2764	3600AX		66864B
53033-30			16141		3141B		66875F
53039-01			1244		3557		63631F
53039-11					3557A		63635F
53039-31		3219-V-3688					63688F
53075-018					3721X		61527B
53075-018		123366			3721X		61527B

Competitive Interchange (KIC to Competitor)

KIC	BLUEBIRD	DAYTON/MERITOR	DURAMETAL	ERIE	GUNITE	NEWFLYER	WEBB
53075-018		123396			3721X		61527B
53075-018		123413			3721X		61527B
53075-018		123421			3721X		61527B
54167-01			1670				
54201-108		123254			3721AX		61528B
54201-108		123382			3721AX		61528B
54201-108		123420			3721AX		61528B
54202-01					3402		66873F
54203-01		120936	18788	2766	3197		61788F
54204-01					3618		68918
54205-01							64059F
54206-018							64062B
54207-018	1460195				3760BX		65514B
54207-018	1460195	122104			3760BX		65514B
54207-018	1460195	123431			3760BX		65514B
54208-01	2602167	122453			3699		66852F
54208-01	2602167	122752			3699		66852F
54208-01	2602167	3219-A-4291			3699		66852F
54208-01	2602167	3219-G-3933			3699		66852F
54208-01	2602167	3219-J-3936			3699		66852F
54208-01	2602167	3219-N-4070			3699		66852F
54208-01	2602167	3219-P-4072			3699		66852F
54208-01	2602167	3219-Q-4229			3699		66852F
54208-01	2602167	3219-S-4543			3699		66852F
54208-01	2602167	3219-T-4544			3699		66852F
54208-01	2602167	3219-Z-4290			3699		66852F
54209-018		122948			3441X		66865B
54209-018		122986			3441X		66865B
54209-018		123297			3441X		66865B
54209-018		123391			3441X		66865B
54210-018		123427			3022B		65266B
54211-01		120981			3674		64481F
54212-01							62671F
54213-01					3757		66353F
54214-018		123448					65554B
54215-01		120822	12617				63647F
54215-01		122276	12617				63647F
54215-01		122376	12617				63647F
54215-01		122963	12617				63647F
54216-01					3595		68845F
54217-018		122046	16289B		3289X		62117B
54218-01		12574	16325		2974		62240F
54220-018							64050B
54225-018		122556			3437		65167B
54225-018		3219-B-3980			3437		65167B
54225-018		3219-C-3981			3437		65167B
54226-018					3786X		
54227-01		123315			3219		61591F
54227-01		3219-F-3932			3219		61591F
54227-01		3219-H-3934			3219		61591F
54227-01		3219-R-4282			3219		61591F
54228-01					3750B		
54229-01					3807		66854F
54230-01		120271			2747A		61854F
54231-01		3219-Z-5798E					64051F
54231-01		3219-Z-5798X					64051F
54231-018						6329620	64051B
54232-018						6331255	64053B
54233-018		123569					65600B
54233-018		3219-C-5853					65600C
54234-018	1460062				3889X		65670B
54235-018	1145465		16267		3892X		64047B
54235-018	2647352		16267		3892X		64047B
54236-018	1579200				3890X		66827B
54237-018	1554773		16045		3891X		64045B
54240-01							66366F

KIC	BLUEBIRD	DAYTON/MERITOR	DURAMETAL	ERIE	GUNITE	NEWFLYER	WEBB
54241-018		123312					65541B
54241-018		3219-C-3929					65541B
54241-018		3219-J-4742					65541B
54241-018		4219-Z-3848					65541B
54242-018							65162B
54243-018							65549B
54244-01							63680F
54247-01							66879F
54248-018		123399			3687X		65152B
54249-01		120664	1640		2546C		68765F
54249-01		121040	1640		2546C		68765F
54249-01		122103	1640		2546C		68765F
54249-01		122532	1640		2546C		68765F
54249-01		122744	1640		2546C		68765F
54249-01		122990	1640		2546C		68765F
54249-01		122996	1640		2546C		68765F
54249-01		3219-P-1602	1640		2546C		68765F
54249-01		3219-R-1604	1640		2546C		68765F
54250-01		123025					66250F
54251-01							66258F
54257-018					3676AX		
54258-018		123561				6329670	66364B
54258-018		3219-Y-5797				6329670	66364B
54259-018		3219-G-3569					65551B
54259-018		3219-H-3570					65551B
54259-018		3219-P-4280					65551B
54259-018		B3219-G-5857					65551B
54261-01		123365					66884F
54261-01		123416					66884F
54261-018		123363			3576X		66884B
54261-018		123365			3576X		66884B
54261-018		123537			3576X		66884B
54264-01		122925	16516	2773-3	3136B		68958F
54266-018					3893X		65166B
54267-018							66661B
54268-018						6336592	66374B
54270-018	2236760				3744X		61991B
54271-01					3219A		61577F
54272-018		122921					65546B
54272-018		3219-E-3567					65546B
54272-018		3219-F-3568					65546B
54275-018	1117365				2920X		65651B
54276-018							65555B
54280-018					3854X		64115Bá
54281-018					3855X		64117B
54286-018							64089B
54287-01		3219-F-5128					64073F
54287-01		3219-G-4973					64073F
54288-018		123569				6304236	
54292-018					3687X		65170B
54293-018					3800X		65548B
54294-018							66816F
54295-018	2237670				3753X		61950B
54727-01		123428					66814F
54727-01		3219-A-5825					66814F
555-01811			1811				
555-18006B			18006				
555-2003B			2003B				
555-20056			20056				
555-20057B			20057B				
555-2005B			2005				
555-2009B			2009B				
555-2021B			2021B				
555-2023			2023				
555-2027			2027				62027
60001-018		123207	16792B	2764-5	3600AX		66864B

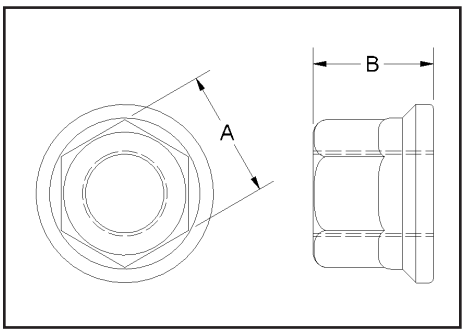


Rotor PN	A Dia.	B Depth	C Face Width	D Hub Bore	E Bolt Circle	No. Bolt Holes	Bolt Hole Dia.	Weight
666-13380	13.36	4.34	2.00	5.14	6.50	5	0.66	31
666-13381	13.36	4.34	2.00	5.14	6.50	6	0.66	31
666-13382	12.31	1.79	2.03	4.65	5.81	8	0.66	22
70001-01	12.79	5.85	1.34	6.65	7.72	8	0.55	42
70002-01	14.84	5.91	1.77	8.65	9.83	10	0.63	62
70003-01	15.00	3.50	1.43	5.40	6.75	6	0.76	39

KIC to Competitor Rotor Interchange

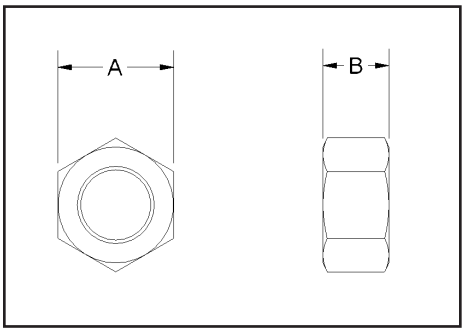
Rotor PN	Kelsey Hayes	Webb
666-13380	09146901	
666-13382	09168801	
70003-01		54770

Flange Nuts



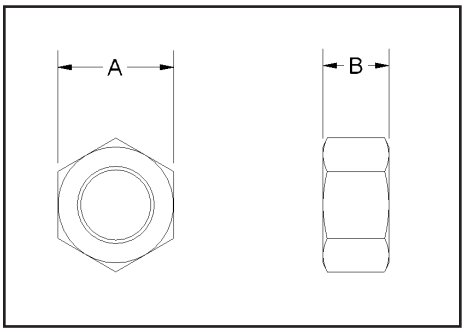
Part No.	Thread Size	A Hex Size	B Height
PRT-00115	M22 x 1.5	1.30	1.22
PRT-00116	M18 x 1.5	1.06	0.97

Lock Nuts



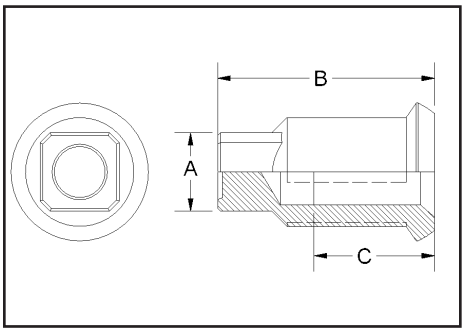
Part No.	Thread Size	A Hex Size	B Height
PRT-00144	5/8 - 18	1.12	0.65
PRT-00152	3/4 - 16	1.12	0.65
PRT-00903	5/8 - 18	0.94	0.55
PRT-05354	3/4 - 10	1.13	0.73

Rim Nuts



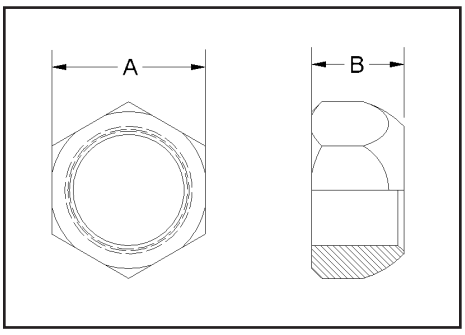
Part No.	Thread Size	A Hex Size	B Height
PRT-00075	3/4 - 10	1.12	0.72
PRT-05260	3/4 - 10	1.25	0.73

Inner Cap Nuts



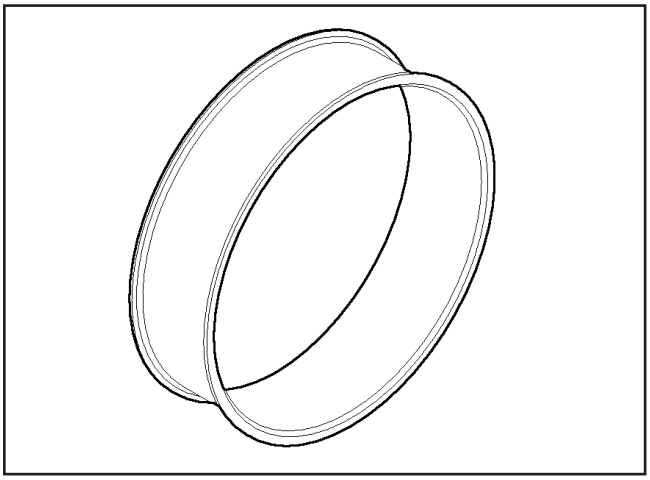
Part No.	Inner Thread	Outer Thread	A Square	B Length	C Inner Thread Depth	Notes
PRT-5549L	3/4 - 16	1-1/8 - 16	0.81	2.24	1.25	Standard for Dual Steel Wheels
PRT-5549R	3/4 - 16	1-1/8 - 16	0.81	2.24	1.25	

Outer Cap Nuts



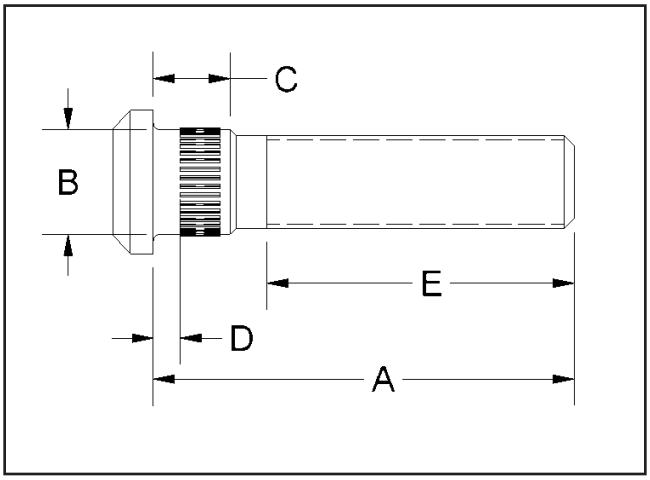
Part No.	Thread Size	A Hex Size	B Height	Notes
PRT-5652L	3/4 - 16	1.5	0.88	For Single Steel Wheels
PRT-5652R	3/4 - 16	1.5	0.88	
PRT-5552L	1-1/8 - 16	1.5	0.88	For Dual or Single Wheels
PRT-5552R	1-1/8 - 16	1.5	0.88	

Rim Spacer Bands



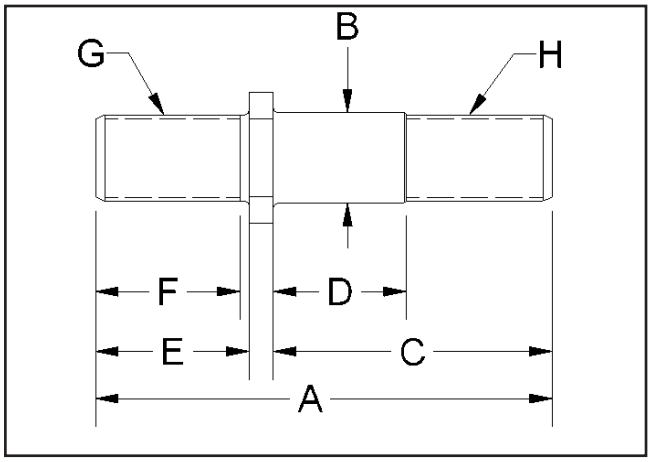
Part No.	Size
PRT-04015	15 x 4”
PRT-04020	20 x 4”
PRT-04024	24 x 4”
PRT-05022	22 x 5-5/8”
PRT-05024	24 x 5-5/8”

Serrated Studs



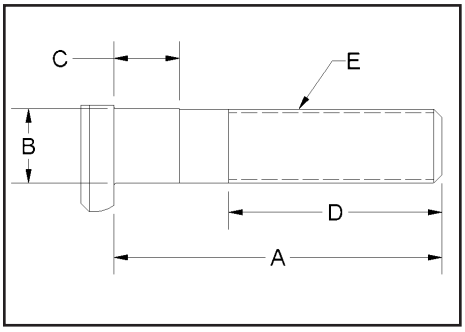
Part No.	A	B	C	D	E	F
PRT-00021	3.60	0.98	0.75	0.25	1.77	7/8-11 BSF RH
PRT-00022	3.60	0.98	0.75	0.25	1.77	7/8-11 BSF LH
PRT-00117	3.94	0.98	0.72	0.25	2.88	M22 x 1.5
PRT-00118	4.79	0.98	0.72	0.25	3.73	M22 x 1.5
PRT-00119	2.66	0.98	0.81	0.25	1.46	3/4-16 LH
PRT-00120	2.66	0.98	0.81	0.25	1.46	3/4-16 RH
PRT-00121	3.70	0.98	0.72	0.25	2.58	M22 x 1.5
PRT-00122	4.25	0.98	0.72	0.25	3.19	M22 x 1.5
PRT-00627	3.56	1.22	0.92	0.25	2.36	1-1/8-16 RH
PRT-00628	3.56	1.22	0.92	0.25	2.36	1-1/8-16 LH
PRT-00983	3.04	0.98	0.70	0.26	2.06	M22 x 1.5
PRT-01294	3.13	0.98	0.81	0.25	1.63	3/4-16 RH
PRT-01295	3.13	0.98	0.81	0.25	1.63	3/4-16 LH
PRT-00025	3.75	0.97	0.72	0.25	2.50	M20 x 1.5 LH
PRT-00026	3.75	0.97	0.72	0.25	2.50	M20 x 1.5 RH

Shoulder Studs



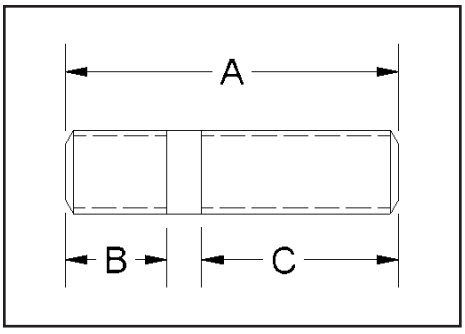
Part No.	A	B	C	D	E	F	G	H
PRT-00874	4.00	0.78	2.47	1.06	1.34	1.08	3/4-16 RH	3/4-16 RH
PRT-00875	4.00	0.78	2.47	1.06	1.34	1.08	3/4-16 LH	3/4-16 RH

Clipped Head Studs



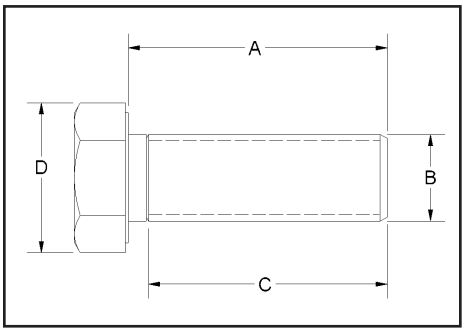
Part No.	A	B	C	D	E Thread
PRT-01296	3.15	0.71	0.63	2.05	M18 x 1.5

Rim Studs



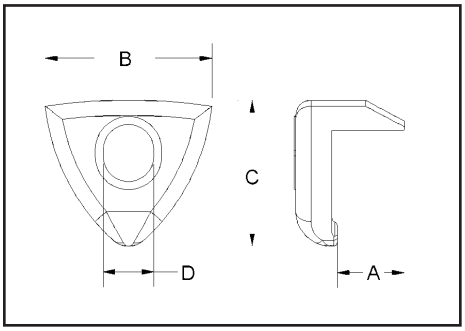
Part No.	A	Wheel End	Nut End	Thread
		B	C	
PRT-00114	3.00	0.97	1.83	3/4-10

Cap Screws



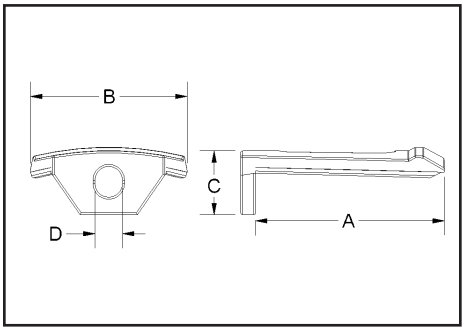
Part No.	A	B Thread	C	D Across Flats
PRT-00143	2.25	5/8-18	1.50	0.94
PRT-00151	2.25	3/4-16	1.75	1.12
PRT-00256	2.17	3/4-10	1.57	1.10
PRT-05088	2.25	5/8-18	1.50	0.94
PRT-05253	2.25	3/4-10	1.75	1.13

Rim Clamps



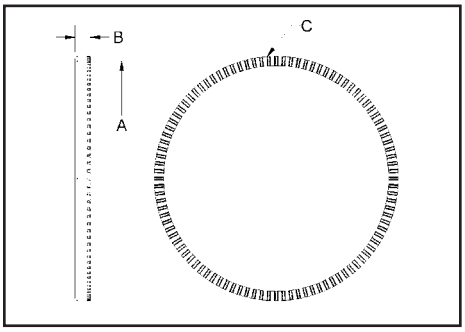
Part No.	A	B	C	D Stud Dia.
PRT-00123	1.01	2.88	2.38	0.75
PRT-00904	0.81	6.00	2.38	0.94

Rim Clamps - Single Wheel Application



Part No.	A	B	C	D Stud Dia.
PRT-05976	5.77	3.31	2.15	0.75

ABS Tone Rings



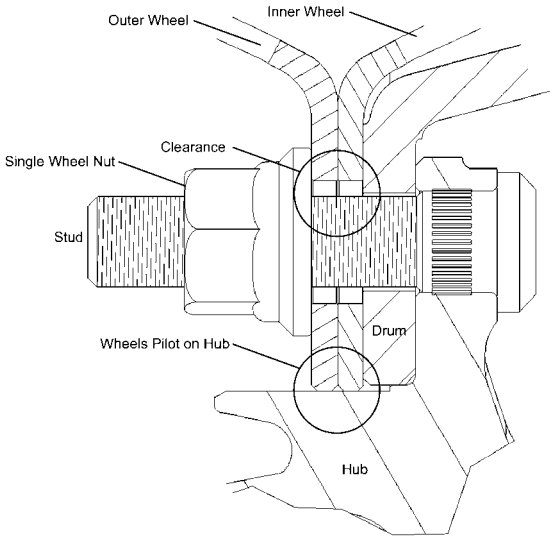
Part No.	A Pitch Dia.	B Height	C No. of Teeth	D Inside Dia.
PRT-03237	6.77	0.59	100	6.49
PRT-00925	6.46	0.35	100	5.51
PRT-00981	6.77	0.47	80	6.39
PRT-00982	6.25	0.53	100	4.31
PRT-00935	6.92	0.51	100	6.49

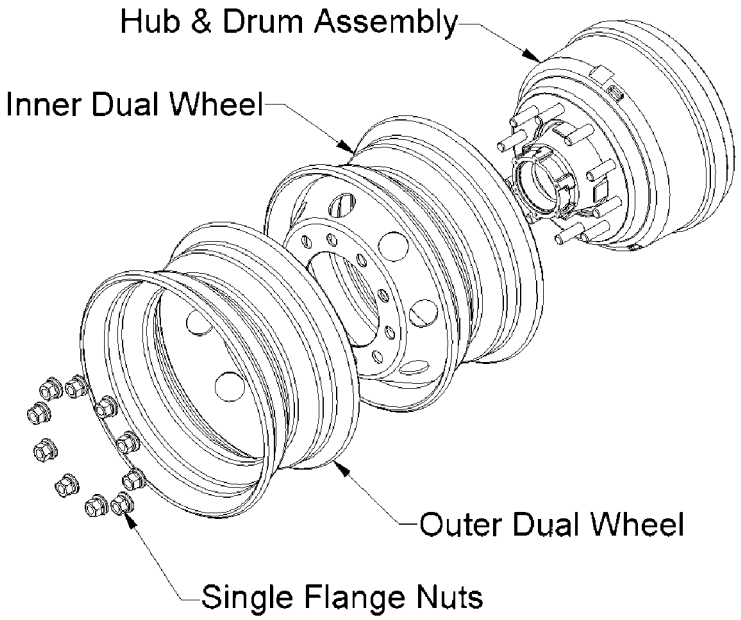
Component Cross-Reference

KIC #	Euclid	Webb	Gunite	Meritor	Budd	Dayton
PRT-00114	E4956A		WP147			08-006854
PRT-00117	E6035	101162				
PRT-00118	E6034	101160				
PRT-00119	E5911L			20X403		
PRT-00120	E5911R			20X402		
PRT-00121	E8988		W1246			
PRT-00122	E10676		W1327			
PRT-00627	E9001R			20X1356		
PRT-00628	E9001L			20X1357		
PRT-00874	E5561R	139902		20X52	13990	
PRT-00875	E5561L	139913		20X53	13991	
PRT-00983	E10242	101191				
PRT-01294	E5910R			20X344		
PRT-01295	E5910L			20X345		

Hub Piloted Disc Wheels

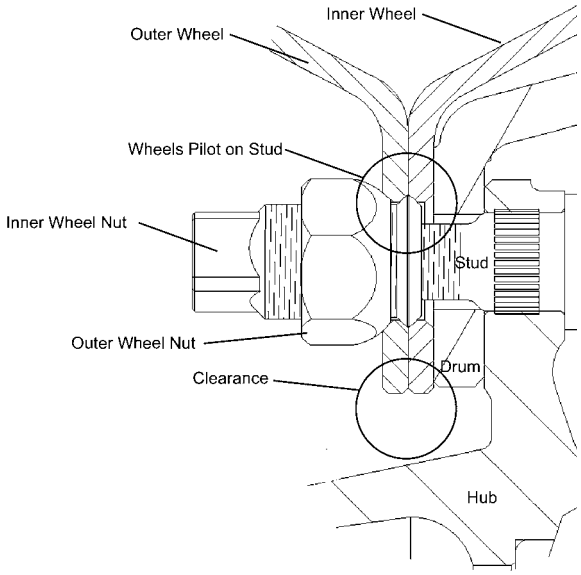
Hub Piloted disc wheels are designed to center on the hub at the center hole or bore of the wheel. The wheel center hole locates the wheel on pilots built into the hub. Hub piloted wheels are used with two piece flange nuts which contact the disc face around the bolt hole. Only one nut on each stud is used to fasten single or dual wheels to a vehicle. All stud and nut threads are right hand. Hub piloted wheels have straight through bolt holes with no ball seat, which provides a visual way of identifying them

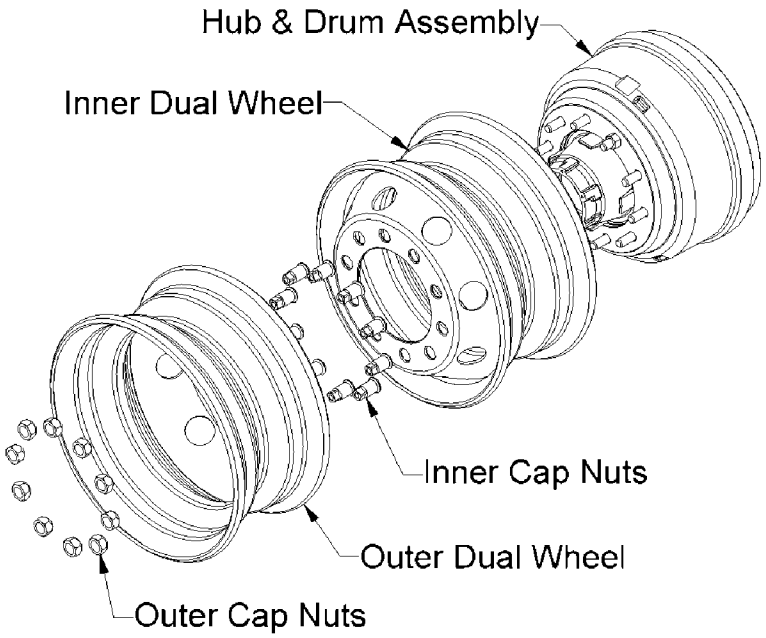




Stud Piloted Disc Wheels

Stud piloted disc wheels are designed to be centered by the nuts on the studs. The seating action of the ball seat nuts in the ball seat bolt holes centers the wheels. Stud piloted dual wheels require inner and outer cap nuts. Fasteners with left-hand threads are used on the left side of the vehicle and those with right hand threads are used on the right side of the vehicle.





PREFACE
The following Recommended Practice is subject to the Disclaimer at the front of TMC's Recommended Maintenance Practices Manual. Users are urged to read the Disclaimer before considering adoption of any portion of this Recommended Practice.

OBJECTIVE
The goal of this Recommended Procedure is to achieve a verifiable wheel bearing end play of 0.001" to 0.005" (0.025 mm to 0.127 mm).

SCOPE
The following service procedures apply to steer, drive, and trailer axle assemblies using conventional double nut or single nut systems. Follow these service procedures carefully to prevent premature wheel end component failure and increase seal and bearing life.

ABS (anti-lock braking systems) and traction control systems with wheel end sensing require precise bearing adjustment to function properly.

This Recommended Practice details proper service procedures for D-type, bendable-type, and dowel-type spindle nut washers.

NOTE: For single nut self-locking systems, consult manufacturers' instructions.

If you have a system that differs from what is indicated in this procedure, consult the vehicle manufacturer's recommended procedure.

WARNING: Never work under a unit supported by only a jack. Always support the vehicle with stands. Block the wheels and make sure the unit will not roll before releasing brakes.

CAUTION: If your axle is equipped with spoke wheels and the rim clamps have been disassembled to remove the tire and rim assembly, the tire and rim assembly must be reinstalled and the rim clamps properly torqued BEFORE adjusting the wheel bearings. Failure to do this may result in improper wheel bearing adjustment.

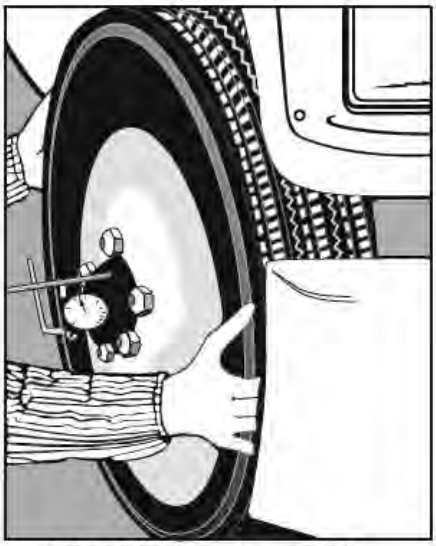
REFERENCES
TMC RP 622,*Wheel Seal and Bearing Removal, Installation and Maintenance.*

PROCEDURES
Step 1: Lubricate the bearing with clean axle lubricant of the same type used in the axle sump or hub assembly.

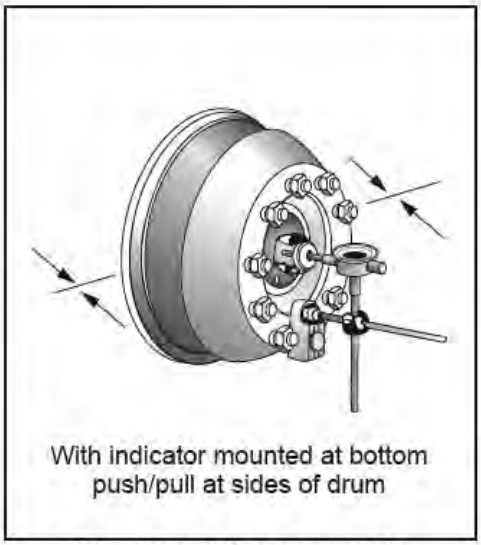
IMPORTANT
(a) In oil bath systems that rely on differential fill to provide lubricant to the wheel seals, do not pack bearings with grease before installation. Grease will temporarily restrict or prevent the proper circulation of axle lubricant and may contribute to wheel seal failure.

(b) Never use an impact wrench to adjust wheel bearings.

Step 2: After the wheel hub and bearings are assembled



(a) with tire assembly



(b) without tire assembly

Fig. 1: Dial Indicator Set-Up

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on the spindle or axle tube, torque the inner (adjusting) nut to 200 lbf• ft (271 N•m) while rotating the wheel hub assembly. Refer to **Table 1** at the end of this Recommended Practice.

Step 3: Back off the inner (adjusting) nut one full turn. Rotate the wheel.

Step 4: Re-torque the inner (adjusting) nut to 50 lbf• ft (68 N•m) while rotating the wheel hub assembly. Refer to **Table 1** at the end of this Recommended Practice.

Step 5: Back off the inner (adjusting) nut. Refer to Table 1 at the end of this Recommended Practice for the proper back-off amount.

Step 6: Install the locking washer.

If dowel pin and washer (or washer tang and nut flat) are not aligned, remove the washer, turn it over and reinstall. If required, loosen the inner (adjusting) nut just enough for alignment.

IMPORTANT
Never tighten the inner (adjusting) nut for alignment at this point of the procedure. This may pre-load the bearing and cause premature failure.

Step 7: Install and torque the outer (jam) nut. Refer to **Table 1** at the end of this Recommended Practice for proper torque values.

NOTE: This adjustment allows the wheel to rotate freely with 0.001" to 0.005" (0.025 mm to 0.0127 mm) end play.

Step 8: Verify end play with a dial indicator. Wheel end play is the free movement of the tire and wheel assembly along the spindle axis.

(a) Make sure the brake drum-to-hub fasteners are tightened to the manufacturers' specifications.

(b) Attach a dial indicator with its magnetic base to the hub or brake drum.

(c) Adjust the dial indicator so that its plunger or pointer is against the end of the spindle with its line of action approximately parallel to the axis of the spindle. See **Fig. 1.**

(d) Grasp the wheel assembly at the 3 o'clock and 9 o'clock positions. Push the wheel assembly in and out while oscillating it to seat the bearings. Read bearing end play as the total indicator movement.

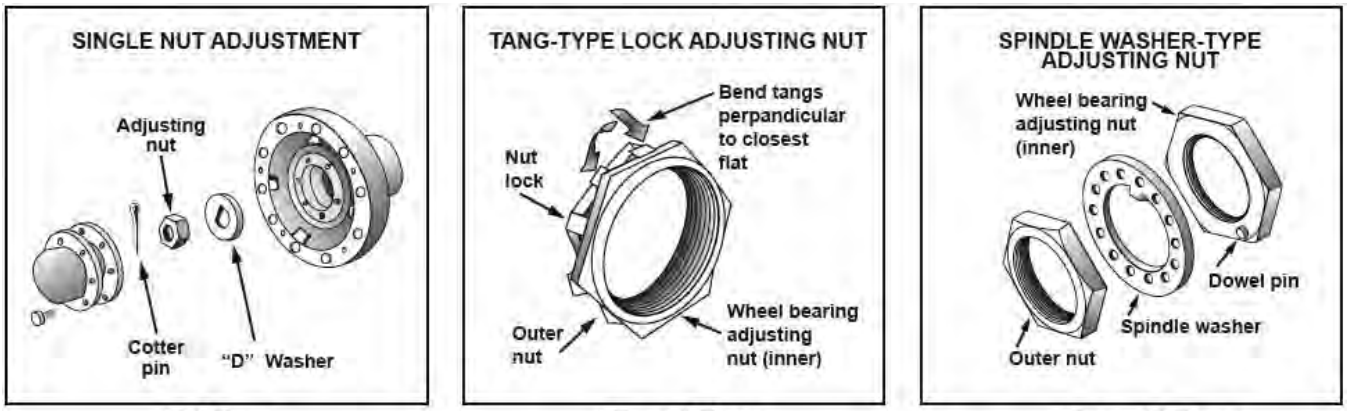
NOTE: If end play is not within specification, readjustment is required.

Step 9: RE-ADJUSTMENT PROCEDURE

Excessive End Play
If end play is too loose, remove the outer (jam) nut and pull the washer away from the inner (adjusting) nut, but not off the spindle. Tighten the inner (adjusting) nut to the next alignment hole of the washer. Reassemble the washer and re-torque the outer (jam) nut. Refer to **Table 1** for torque values. Verify end play with a dial indicator.

Insufficient End Play
If end play is not present, remove the outer (jam) nut and pull the washer away from the inner (adjusting) nut, but not off the spindle. Loosen the inner (adjusting) nut to the next alignment hole of the washer. Reassemble the washer and re-torque the outer (jam) nut. Refer to **Table 1** for torque values. Verify end play with a dial indicator.

FINE TUNING THE ADJUSTMENT
If, after performing the readjustment procedures, end



"D" Type "Tang" Type "Dowel" Type

Fig. 2: Adjusting Nut Identification and Installation

play is 0.004” - 0.005” (0.102 mm - 0.127 mm) range, repeat the appropriate procedures, removing the washer from the spindle, tighten or loosen the inner adjusting nut the equivalent of 1/2 of an alignment hole of the washer, or reversing the alignment washer, and reinstalling it onto the spindle. Reassemble and re-torque the outer (jam) nut. Refer to **Table 1** for torque values. Verify end play with a dial indicator.

NOTE: Bendable-type washer lock only: Secure nuts by bending one wheel nut washer tang over the inner and outer nut. Bend the tangs over the closest flap perpendicular to the tang. See Fig. 2.

CAUTION: Before operating the unit, the wheel hub cavities and bearings must be lubricated to prevent failure. For final wheel end assembly refer to TMC RP 622.

TABLE 1

WHEEL BEARING ADJUSTMENT PROCEDURE

STEP 1: Lubricate the wheel bearing with clean axle lubricant of the same type used in the axle sump or hub assembly.
Note: Never use an impact wrench when tightening or loosening lug nuts or bolts during the procedure.

INITIAL ADJUSTING NUT TORQUE	INITIAL BACK OFF	FINAL ADJUSTING NUT TORQUE	BACK OFF			JAM NUT TORQUE		ACCEPTABLE END PLAY
			AXLE TYPE	THREADS PER INCH	FINAL BACK OFF	NUT SIZE	TORQUE SPECIFICATIONS	
STEP 2	STEP 3	STEP 4		STEP 5	STEP 6	STEP 7		STEP 8
200 lb•ft (271 N•m) While Rotating Wheel	One Full Turn	50 lb•ft (68 N•m) While Rotating Wheels	Steer (Front) Non-Drive	12	1/6 Turn *	Install Cotter Pin to Lock Axle Nut in Position		0.001”-0.005” (.025-.127 mm) As Measured Per Procedure With Dial Indicator
				18	1/4 Turn *			
				14	1/2 Turn	Less Than 2-5/8” (6.7 mm)	200-300 lb•ft (271-407 N•m)	
				18				
			Drive	12	1/4 Turn	Dowel Type Washer	300-400 lb•ft (407-542 N•m)	
				16		Tang Type Washer **	200-275 lb•ft (271-373 N•m)	
			Trailer	12	1/4 Turn	2-5/8” (66.7 mm) and over	300-400 lb•ft (407-542 N•m)	
				16				

* If dowel pin and washer (or washer tang and nut flat) are not aligned, remove the washer, turn it over, and reinstall. If required, loosen the inner (adjusting) nut just enough for alignment.
** Bendable type washer lock only: Secure nuts by bending one wheel nut washer tang over the inner and outer nut. Bend the tangs over the closest flat perpendicular to the tang.

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PREFACE
The following Recommended Practice is subject to the Disclaimer at the front of TMC's *Recommended Maintenance Practices Manual*. Users are urged to read the Disclaimer before considering adoption of any portion of this Recommended Practice.

PURPOSE AND SCOPE
This Recommended Practice defines practices and procedures to perform a wheel seal replacement that meets fleet requirements. This Recommended Practice sets forth procedures and standards for storage, handling, and installation of wheel seals and wheel bearings for heavy-duty vehicles.

INTRODUCTION
A wheel seal is comprised of as many as six components, each manufactured to within a tolerance of a few thousandths of an inch. These components are assembled in precision fixtures, packed, and delivered ready for use. A wheel seal is a precision component, expected to do a demanding job. How it performs depends largely on the conditions of the seven mating wheel end components and the care taken during installation.

WHEEL SEAL AND BEARING HANDLING AND STORAGE
Many wheel seal failures can be traced to improper handling and/or storage of the seals or bearings prior to use. Seals and bearings must be handled with care.

1. Wheel seals should be kept away from electric motors, welding equipment, and all other sources of ozone. Fluorescent light and direct sunlight are also destructive to wheel seals.

2. Store wheel seals and wheel bearings in a clean, dry place. They should not be exposed to extremes of either dryness or dampness.

3. Wheel seals and wheel bearings should be kept in their original factory packaging until ready for installation. Never store wheel seals or wheel bearings unprotected in open bins, where they may be exposed to airborne contaminants.

4. Never hang wheel seals and bearings on hooks or nails. Never tag wheel seals or bearings with inventory tags by looping wire through the seal or bearing. These practices will damage the delicate seal lip, the rubber inside diameter (I.D.) or outside diameter (O.D.) of the seal, or precision machined bearing surfaces.

Keep wheel seals and bearings clean—Never lay wheel seals and bearings on a dirty surface and wash your hands prior to handling them. Avoid dropping oil seals and bearings. This will cause internal damage which may not be visibly apparent, but may be sufficient to impair their efficiency. Seals or bearings which have been dropped should be replaced.

NOTE: Never rotate an unlubricated wheel bearing or spin it with an air gun.

WHEEL SEAL AND BEARING REMOVAL AND DISASSEMBLY
Wheel Seal Removal—A pry-bar is recommended for removal of the seal from the hub bore. A spindlemount wheel seal can be driven off the spindle by striking the ring from the back side or prying off with a crow's foot bar. If a flat wear sleeve is on the spindle, remove it by striking the sleeve face with the round end of a ball peen hammer, expanding it for easy removal. Never use a sharp tool or chisel to remove the sleeve, because this will damage the shoulder area of the spindle. Discard the used wheel seal and use a new one during reassembly.

Bearing Cup Removal: Ferrous Hubs—Removal of bearings and cups should be done with extreme care so that hub bores, bearings, spindles, and housings are not damaged. Follow the hub manufacturer's procedures for removing the bearing cups. This can best be done by using a bearing puller or press. When pullers or presses are not available for cup removal, a soft steel bar may be used. Do not use hardened drifts, center punches, or brass bars. They may chip and cause damage or personal injury.

Bearing Cup Removal: Aluminum Hubs—Removal of bearings and cups should be done with extreme care so that hub bores, bearings, spindles, and housings are not damaged. Follow the hub manufacturer's procedures for removing the bearing cups. To remove the cups, heat the hub to 250 - 300° F (120 - 150°C) in an oven. Do not exceed 300° F (150°C). Higher temperatures may weaken the hub material. Do not use acetylene torches or other welding equipment to heat the hub because localized high temperatures may result, weakening the hub. Allow enough time in the oven for the hub to reach a uniform temperature. Hub temperatures can be measured by using a temperature probe such as a thermocouple or temperature sensitive wax markers which are widely available from temperature measuring equipment suppliers. Use the appropriate safety equipment when handling the hot hub to avoid burns. Next, place the heated hub in a press and press the cup out.

Cleaning Wheel Bearings—A bearing which has been

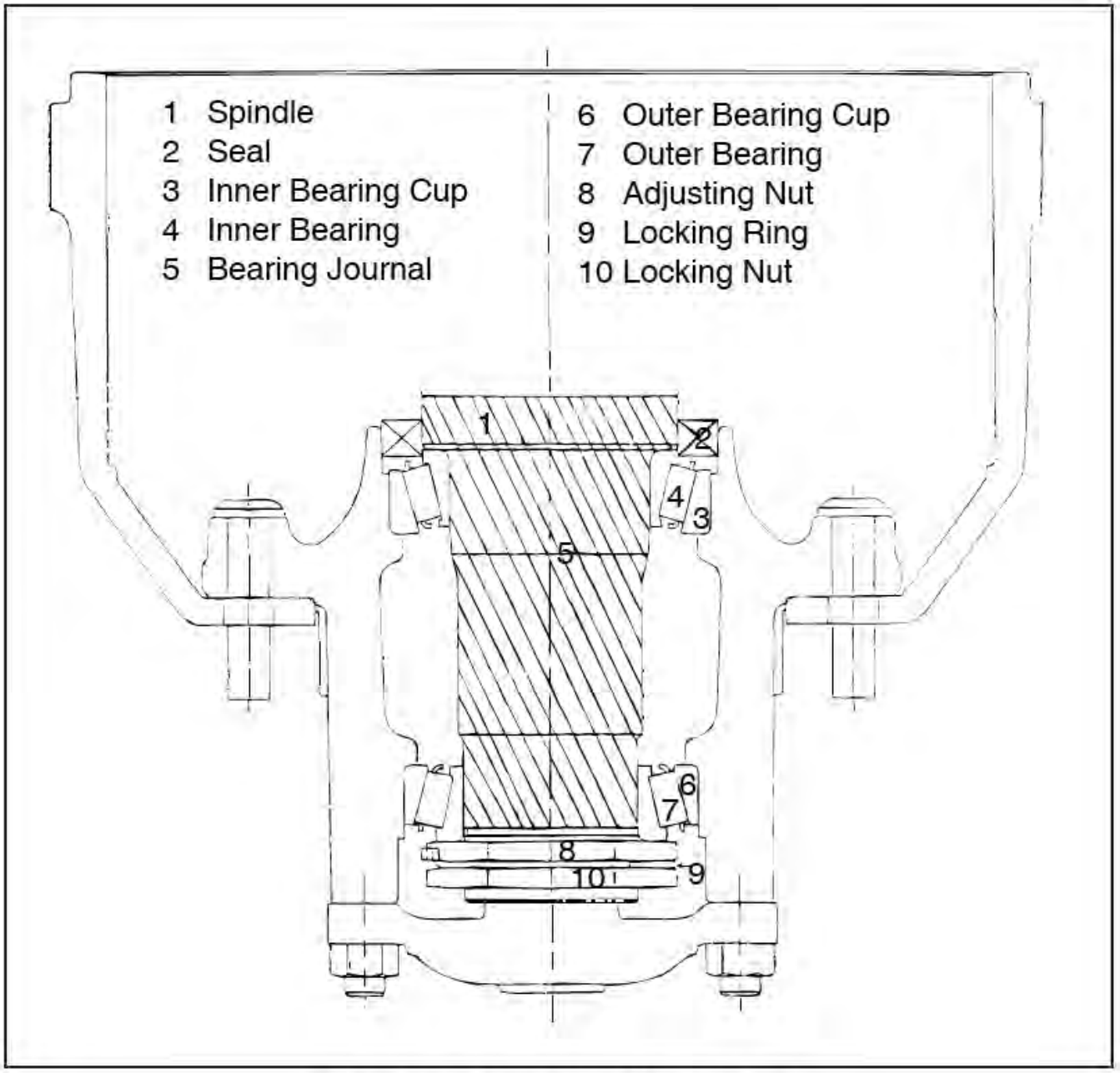


Fig. 1: An Installed Wheel Seal

removed from a vehicle should first be cleaned with a petroleum distillate solvent. The solvent itself must be clean and filtered. Steam or water should never be used. They will rust bearings in a very short time.

After a bearing has been cleaned with solvent, it should be dried using a compressed air gun and blowing air through the bearing from one end of the roller to the other. When air is used to dry a bearing, make sure there is no water in the air line and do not spin the bearing at any time with compressed air.

To ensure against unnecessary wear, all parts and assemblies coming in contact with, or operating together with, the bearing should be thoroughly cleaned with solvent, dipped in clean axle lubricant, and placed in protective oil paper. If oil paper is not available, use a clean, dry shop towel.

PREPARING WHEEL SEALS AND BEARINGS FOR INSTALLATION

Refer to **Fig. 1**, for a diagram of a properly installed wheel seal and related components. The correct installation of oil seals ensures maximum sealing efficiency and service life. There are four items which affect proper installation and oil seal performance: first, the hub bore and the spindle must be prepared to receive the seal; second, the seal must be prepared for installation; third,

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the seal must be properly installed using tools designed for the purpose; and fourth, bearing end play must be properly adjusted.

The contact surfaces where the new seal will be installed must be free from rust, scale, old sealant, nicks, burrs, and any roughness that would prevent a good seal. Clean contact surfaces with scrapers that are softer than the hub material to avoid scratching the hub or seal bore. When cleaning aluminum hubs, use non-metallic scrapers to prevent damage.

Inspecting and Preparing the Hub Bore—

1. Inspect the bore into which the seal fits. Check for nicks or gouges that could cause leakage. Sharp corners at the bore entrance can score the seal O.D. when it is pressed in and can cause oil leakage.

2. Remove any rust, scale, old sealant, and roughnesswith a scraper. Then use fine emery or crocus cloth for a final cleaning. If there are any deep grooves, fill them in with a hardening gasket material. Redress the filled area with emery or crocus cloth.

3. Sharp edges on the bore entrance should be chamfered or rounded off with a scraper, then carefully smoothed with an abrasive cloth.

4. Thoroughly clean and dry the entire area. Make certain it is completely free of dirt, grit, chips, or other abrasives which will score or mar the seal's outer surface and cause leakage. 5. Be sure all oil is removed from the lubricant cavity. Wipe the cavity clean using a clean, dry cloth.

6. In the event of wheel bearing failure or severe contamination (by sand, grit, water, metal etc.), the lubricant cavity should be flushed of the old lubricant and refilled with clean lubricant.

Inspecting and Preparing the Spindle—

1. Thoroughly clean the spindle with solvent and a clean, dry shop rag, then examine the spindle for flaws.

2. Remove any rust, old sealant, and roughness with a scraper and use crocus cloth to polish the spindle area that contacts the sealing surface. Fill deep scratches or chisel marks with a hardening gasket material and redress the damaged area. Clean all threads and keyways thoroughly with a wire brush to avoid false bearing adjustment and to avoid introduction of contaminants into the lubricant cavity.

3. Sharp edges on the lead-in chamfer on the seal's bearing shoulder should be rounded off with a file or oilstone.

4. Wipe the entire spindle surface with a clean, dry cloth, making certain the spindle is completely free of dirt, grit, chips, or other abrasives which could damage the seal's inner surface and cause oil leakage. Clean all threads and keyways.

5. Apply a thin coat of non-hardening sealant to the axle shoulder when installing sealing systems which employ an axle ring or wear sleeve.

Bearing Inspection—A bearing which has been removed from a vehicle should be cleaned with solvent. Steam or water will rust bearings and should never be used.

Bearings that are rusted, flaked, pitted, or have damaged cages should be replaced. It is wise to replace all questionable bearings and always replace the cup and cone as a matched set. Never reassemble a tapered roller bearing in a damaged or worn housing or on damaged or worn spindles.

Housing spindles should not be remachined if the bearing journal is worn. Contact your OEM/axle supplier if wear is present. After the cleaned bearing has been inspected and found to be satisfactory, it should be dipped in axle lubricant and wrapped in clean oil paper if not used immediately.

Replacement bearings should be stored in a clean, dry place and should not be removed from their cartons ntil ready for use. There is no need to remove the rust preventative coating from new bearings upon installation.

After a new bearing has been removed from the carton and wrapper, it should be immediately installed on the vehicle. Never place bearings on a floor or a dirty workbench, or in a dirty wash tank. Do not leave them exposed in open trays, pans, or cabinets where dirt, dust, and moisture can reach them.

Preparing the Seal for Installation—

1. Carefully examine the new seal for any evidence of damage or careless handling.

2. Some seals are lubricated before packaging to prevent rusting or oxidation during storage. Do not remove this factory lubrication. Other seals may require lubrication before installation. Follow the seal manufacturer's recommendation. If lubrication is needed, use a light film of wheel

end oil.

Bearing Cup Installation: Ferrous Hubs—If a bearing cup has to be replaced, care should be taken not to create burrs or otherwise damage the cup or cup seats. The cup seats should be inspected for burrs or nicks and repaired to ensure bearings seat properly. If the hub bore is scored or damaged, the hub should be replaced. Proper drivers should be used to install cups to prevent bearing damage. The hub bore should provide a press fit.

Bearing Cup Installation: Aluminum Hubs—Clean and inspect the bearing bore and cup seat. Remove nicks, burrs, and foreign material. If the bore is scored or damaged, the hub should be replaced. The hub bore should provide a press fit.

To install bearing cups, heat the hub in an oven to 250 to 300° F (120 to 150° C). Hub temperatures can be checked by using a temperature probe such as a thermocouple or temperature sensitive wax markers which are widely available from temperature measuring equipment suppliers. To ease assembly, the cup may also be chilled.

Coat the cup O.D. with a liquid graphite-based lubricant, such as Lubri-Kote, A 1040 CR, or equivalent. Using a cup driver and applying hand pressure, seal the cup squarely against the shoulder. Lubricate both inner and outer cups with axle oil and install, mating new bearing cones with new cups.

WHEEL SEAL AND BEARING INSTALLATION PROCEDURES

After the bore, spindle, seal, wear ring (where applicable), and bearing have been examined and prepared, the wheel seal is ready for installation. Recommendations on installation tools and procedures vary among different wheel seal manufacturers, so be sure to use only installation tools and procedures recommended and approved by the wheel seal manufacturer.

NOTE: All pre-lubrication must be done using the same oil that will be used in service unless the wheel seal is pre-lubed at the factory.

Hub Mounted Wheel Seal: Tool Installation—

1. Place the hub assembly flat or at least at a 45° angle for seal installation.

2. Select the correct tool handle, adapter plate, and bearing pilot for the seal being installed. Tool identification information is printed on most manufacturers' packages or in catalogs. Prelube the inner bearing cone with clean oil and place it in the hub. Place the oil seal on the tool with the air side facing the adapter plate or place the seal onto the hub bore and insert the tool assembly into the seal as recommended by the wheel seal manufacturer.
3. Hold the tool straight and drive the seal with firm hammer strokes until the seal is squarely seated. Ensure that the inner bearing rotates freely. Lubricate the I.D. of oil seal with clean oil.

NOTE: If the seal uses a separate wear sleeve, install it on the spindle as follows:

a. Place the wear sleeve on the spindle shoulder.
b. Select the proper tool and drive the sleeve home. Check that it is completely on the spindle and the edge is square with the shoulder within 0.005 inches.

Hub Mounted Wheel Seal: Hand Installation—

1. Lightly lubricate the seal I.D. and O.D. evenly with oil. Also apply a thin film of oil on the hub bore that is to receive the seal. Never install the seal without oil.

2. Hand press the seal evenly into the bore. A rubber mallet or other soft-faced tool, if recommended by the manufacturer, may be used to gently tap the seal into place. Apply an even driving force to avoid cocking the seal or damaging the flange surface. Be sure that the seal is evenly seated and bottomed in the bore.

Spindle Mounted Wheel Seal: Tool Installation—

1. Place the seal on the spindle so that it has begun to seat on the seal journal with the "oil side" marking facing the spindle end.

2. Select the correct installation tool supplied by the seal manufacturer. Do not install seals without the correct tools and/or adapters (where applicable).
3. Place the correct driving tool in place and drive the seal until the tool bottoms out. Rotate the tool and repeat to ensure proper seal location.

4. Remove the driving tool and inspect the seal to ensure that it is square and bottomed out within 0.005" on the spindle shoulder. Do not proceed with further assembly until the seal is flush with the spindle shoulder.

5. Pre-lubricate the inner bearing and insert it onto the spindle. Fill the hub cavity with oil.

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REASSEMBLY NOTE: Wheel bearing adjustment affects wheel seal and wheel bearing life. The first indication of excessive wheel end play is wheel seal leakage.

1. The axle must be level. If tires are mounted on the hub, use a wheel dolly and align the hub assembly with the spindle and push into position. Care should be taken to avoid contacting the spindle end during the assembly process. Caution must be exercised when installing the seal over keyways or threads.

2. With the wheel dolly in place, fill the hub cavity with clean oil. **This step is mandatory for proper bearing and seal performance.** Apply clean oil to the outer bearing and place it in the hub. Inspect the threads of the adjusting nuts and hand tighten prior to removing the wheel dolly.

3. All major seal, bearing, and axle manufacturers require a minimum of 0.001" to a maximum of 0.005" end play for adequate seal and bearing performance. Performance improves as end play decreases to 0.001". Compliance with end play requirements are verified with a calibrated dial indicator on every wheel end.

Specific torquing procedures to achieve the end play tolerances are documented and available from the individual axle, bearing and seal suppliers.

NOTE: Never use an impact wrench to adjust wheel bearings.

4.a. For steering axles and trailer axles only— Install the hub cap using a new gasket and fill with clean oil to the proper level. Allow time for the lubricant to pass through the outer bearing before rechecking to verify the final oil level. Hub cap bolts should be torqued to 10 to 14 foot-pounds in a star pattern. Check the hub cap vent plug to make certain the vent hole is clean. Reinsert the plug.

4.b. For drive axles only—Reinstall the axle shaft using a new gasket or gasket material. Torque the nuts to the manufacturer's specifications. If wheel hubs are equipped with oil fill/drain plugs, add a pint of oil to each wheel end.

For standard hubs, each side of the drive axle must be raised a minimum of 8 inches to move the lubricant into the opposite wheel end. Recheck the main sump for the proper oil level and top off the lubricant level if required.

Always check the axle breather to be sure it is operating properly and is completely free of dirt and debris.

LUBRICATION

Correctly lubricate wheel seals and bearings in accordance with OEM recommendations. Improper lubricant level could cause severe wheel end damage. Do not mix lubricants.

PREFACE
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PURPOSE AND SCOPE
The purpose of this Recommended Practice is to offer equipment users recommendations and operational considerations for selecting lubricants for use in wheel end applications. This Recommended Practice applies to Class 3- 8 trucks, buses, tractors, and trailers designed for on-highway applications. This Recommended Practice applies to only "traditionally" equipped axles and hubs. This Recommended Practice defines "traditionally" equipped axles and hubs as wheel ends equipped with two single row, widespread, tapered roller bearing assemblies which are manually adjusted.

This Recommended Practice addresses two categories of wheel ends: driven and non-driven. Non-driven wheel ends include steer, dolly, trailer, pusher and tag axles. (See **Figures 1** and **2**). The lubricant used in the wheel ends can be either ***petroleum-based*** or ***synthetic-based*** oils or greases.

REFERENCE
For additional information on wheel bearing adjustment, installation and maintenance, refer to TMC:

- RP 618, *Wheel Bearing Adjustment Procedures.*
- RP 622, *Wheel Seal and Bearing Removal, Installation, and Maintenance.*

Other relevant TMC Recommended Practices include:

- RP 624, *Lubricant Fundamentals.*
- RP 709, *Hubcap Standardization — Bolted- On Type.*

Fleet managers should also reference original equipment manufacturer (OEM) maintenance and service manuals as appropriate.

NON-DRIVEN AXLE LUBRICANT CONSIDERATIONS
Non-driven wheel ends can be lubricated effectively with either oil or grease, depending on the fleet application. Both lubricating substances use oil as the lubricating medium. (Refer to RP 624, *Lubricant Fundamentals for details*.)

A. Non-Driven Oil-Lubricated Wheel Ends

Inspection and Preparation
Clean and inspect the wheel end components including

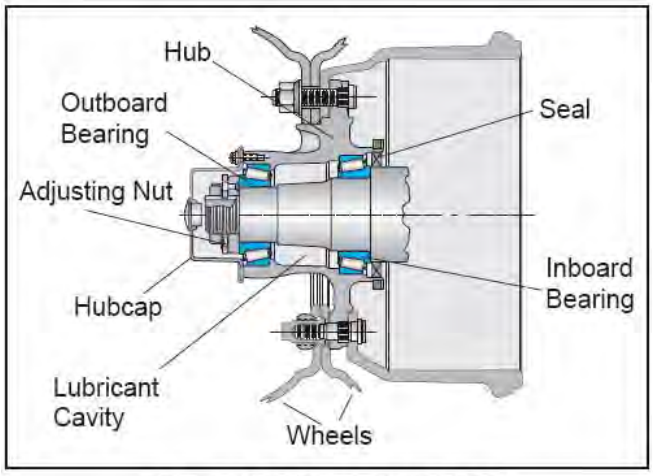


Fig. 1: Non-Drive Wheel End

all bearings, hubcaps, hub and bearing cups, axle spindle, and fasteners, removing all contaminants and lubricant residue. Replace seal, hubcap gasket, and all questionable parts. For detailed procedures, refer to TMC RP 622.

Component Lubrication
Pre-lubricate the inner and outer wheel bearing cones with clean lubricant of the same type used in the hub assembly.

⚠CAUTION: Failure to lubricate bearing correctly, and maintain proper lubrication, may result in bearing damage. For additional information refer to TMC RP 618 and RP 622.

⚠CAUTION:In oil bath systems, do not pack bearings with grease before installation. Grease will temporarily restrict or prevent the proper circulation of lubricant and may contribute to wheel seal failure.

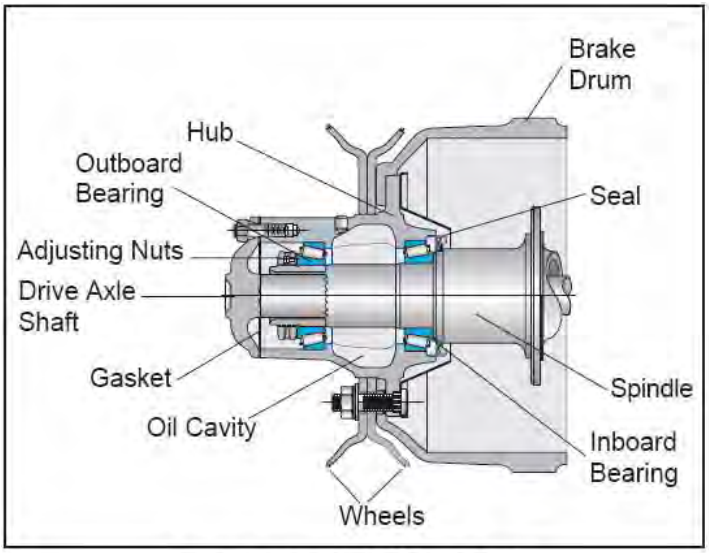


Fig. 2: Drive Axle Wheel End

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Hub Fill Procedures: Oil
Install the wheel seals as documented in RP 622. Apply lubricant to the bearing journals and bearing cones. Use the same lubricant that will be used to lubricate the system. This will help inhibit fretting corrosion and make assembly easier. Use lifting equipment to align the hub assembly with the spindle taking care not to damage the seal and spindle threads. While the hub is supported/suspended, fill the hub cavity with clean oil and push the hub into position, or push the hub into position and then fill the hub cavity.

Install the outer bearing, and adjusting nut systems. Adjust wheel bearings using TMC RP 618 or OEM Maintenance Manual. Verify end play (0.001" to 0.005") with a dial indicator.

Hubcap Considerations: Oil
Select the proper vented, bolt-on or threaded hubcap for the application and follow hubcap suppliers' instructions for proper attachment to the wheel hub. Fill wheel end assembly through the fill port with the same oil. Allow time for the oil to seep through the outer bearing and fill the hub cavity. Continue to add oil until the oil reaches the oil fill line as indicated on the hubcap. (See **Figure 3**.)

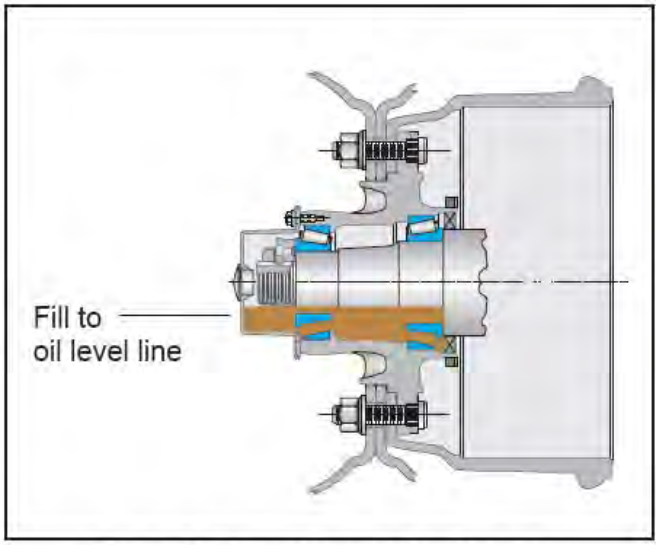


Fig. 3: Lubrication Fill Oil (Static)

NOTE: For hubcaps with side fill plugs, do not allow the oil to go past the centerline or vent hole.

⚠ **CAUTION**: Overfilling or under filling a wheel hub with lubricant may result in premature component failure.

Install center fill or side fill plug. Torque side fill plug to hubcap manufacturer's specifications. Clean-up any over spills that would give the appearance of a leaking hubcap.

B. Non-Driven Grease-Lubricated Wheel Ends

NOTE: Semi-fluid greases are NLGI 000 and 00. NLGI 0 is a soft grease. All three grades listed above are treated as semi-fluid greases in this RP. Hard greases are defined as NLGI 1, 2, and 3 consistencies in this RP.

Inspection and Preparation
Clean and inspect the wheel end components including all bearings, hubcaps, hub and bearing cups, axle spindle, and fasteners, removing all contaminants and lubricant residue. Replace seal, hubcap gasket, and all questionable parts. For detailed procedures, refer to TMC RP 622.

NOTE: If retrofitting an oil or grease system with a semi-fluid grease, be sure to note the need for special cleaning instructions, fill procedures and equipment (i.e., vented hubcap).

Component Lubrication
Pack the inner and outer wheel bearing cones full with grease. Work the grease into the bearing in the direction of the arrow shown in **Figure 4** by machine or hand such that the grease goes under the bearing cage toward the cone rib and roller ends.

For corrosion prevention, place a light film of grease on all metal components, including the hubcap. Wipe off the excess grease. Install the wheel seals as described in TMC RP 622.

⚠ **CAUTION**:Failure to lubricate bearing correctly and maintain proper lubrication may result in bearing damage. For detailed procedures, refer to TMC RP 618 and RP 622.

⚠ **WARNING**: If grease packing is done by hand, appropriate protection — such as gloves and clothing — should be worn to minimize skin contact with the grease.

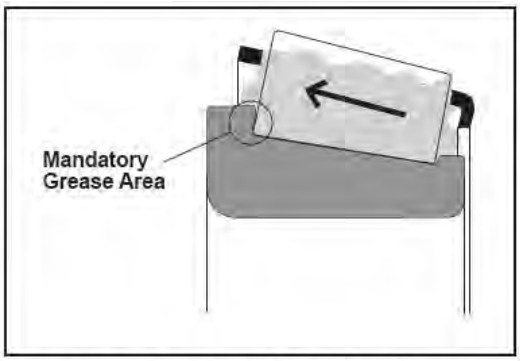


Fig. 4: Packing of Bearing Cone

⚠ **CAUTION** :Overfilling or under filling a wheel hub with lubricant may result in premature component failure.

Hub Fill Procedures: Semi-fluid Grease
If tires are not mounted, install the hub on the spindle. Take care to not damage the seal. Use lifting equipment to align the hub assembly with the spindle taking care to not damage the seal and spindle threads and push the hub assembly into position. With the hub supported, before installing the outer bearing cone, begin filling from the bottom of the hub cavity. Top-off by placing the pump nozzle above the spindle, and continue pumping grease into the hub cavity. (See **Figure 5**.)

The grease fill amount should be to a 3 o'clock and 9 o'clock level. This represents 50 percent hub cavity fill. (See **Figures 5A** and **5B**.)

NOTE: A template may be used to hold the lubricant in place while filling the hub cavity. (See **Figures 5** and **5C**.)

⚠ **CAUTION** :Make sure that there are no air-pockets trapped under the grease. If pumping equipment is used, ensure the pump does not aerate the grease. Aeration of the grease may result in underfilling.

Install the outer bearing, washers and adjusting nuts. Adjust wheel bearings per TMC's RP 618 or per OEM Maintenance Manual. Verify end play (0.001" to 0.005") with a dial indicator. Before installing the hubcap, apply a coating of grease around the wheel bearing adjustment nut(s).

Hubcap Considerations: Semi-fluid Grease
Use an appropriate tamper-proof, vented hubcap. These hubcaps prevent gear oils from being accidentally added to grease-filled wheel ends.

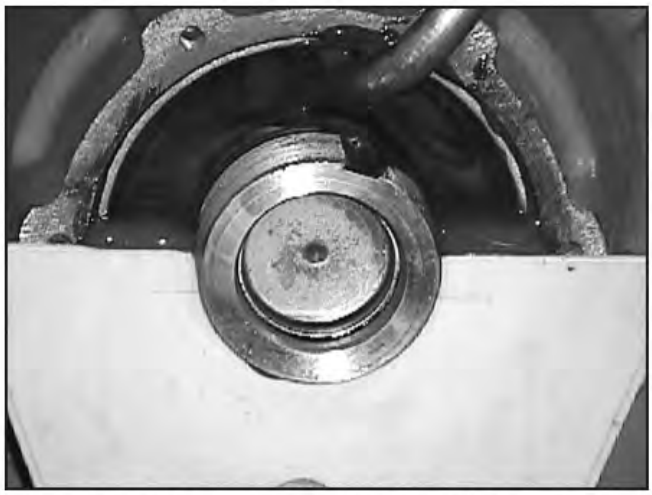


Fig. 5: Semi-Fluid Grease Top Off Procedure

NOTE: Because of the hubcap's special venting capability and the properties of the semi-fluid grease, do not fill the hubcap with grease.

NOTE: If a metal hub cap is used, it is necessary to coat the interior surfaces with a film of grease. Use special care not to cover the vent with grease.

Hub Fill Procedures: Hard Grease
Before installing the hub, pack grease into the hub cavity. Fill the circumference of the hub cavity using the bearing races as the proper level guide. (See **Figure 6**.)

Use lifting equipment to align the hub assembly with the spindle taking care to not damage the seal and spindle threads. Push the hub assembly into position.

Install the outer bearing, washers and adjusting nuts. Adjust wheel bearings per TMC's RP 618 or OEM Maintenance Manual. Verify end play (0.001" to 0.005") with a dial indicator. Apply a coating of grease around the adjusting nut(s).

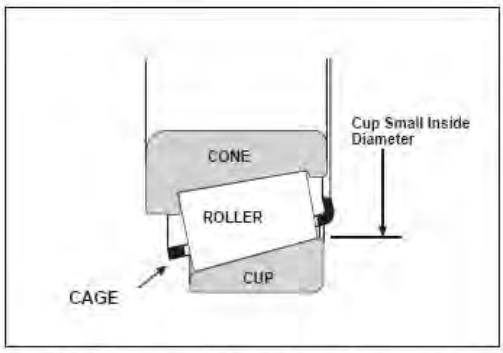


Fig. 5B: Tapered Bearing Nomenclature

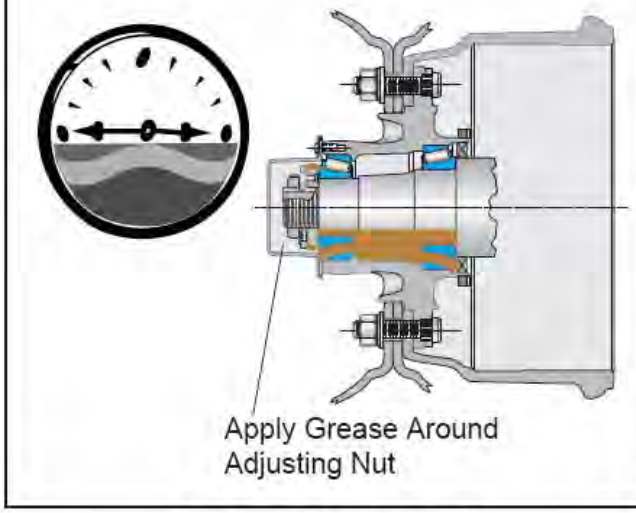


Fig 5A: Lubrication Fill
Semi-Fluid Grease (No. 00)

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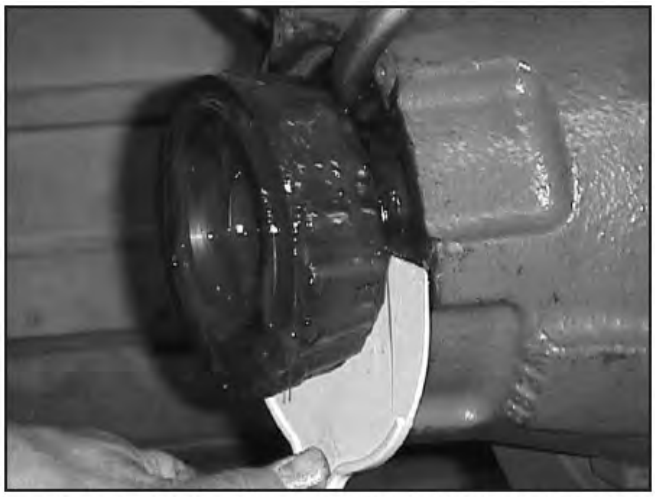


Fig. 5C: Using Template to Hold Lubricant

Hubcap Considerations: Hard Grease

Use an appropriate tamper-proof, hubcap. These hubcaps prevent gear oils from being accidentally being added to grease-filled wheel ends. Follow the recommendation of the seal supplier to determine if the hubcap should be vented or non-vented.

NOTE: If a metal hub cap is used, it is necessary to coat the interior surfaces with a film of grease. Use special care not to cover the vent with grease.

DRIVEN AXLE LUBRICANT WHEEL END CONSIDERATIONS

NOTE: In this Recommended Practice, all driven axles are oil lubricated.

Inspection and Preparation

If the wheel end is disassembled, clean and inspect the wheel end components including all bearings, axle shafts, hub and bearing cups, axle, and fasteners, removing all contaminants and lubricant residue. Replace seal, axle flange gasket, and all questionable parts. For detail procedures, refer to TMC RP 622.

Component Lubrication

Pre-lubricate the inner and outer wheel bearing cones with clean lubricant of the same type used in the axle reservoir.

⚠ **CAUTION** : Failure to lubricate bearing correctly and maintain proper lubrication may result in bearing damage. For additional information refer to TMC RP 618 and RP 622.

⚠ **CAUTION** : In oil bath systems, do not pack bearings with grease before installation. Grease will temporarily restrict or prevent the proper circulation of lubricant and may contribute to wheel seal failure.

Hub Fill Procedures: Oil

Install the wheel seals, as documented in RP 622. Fill hub cavity with oil. Use lifting equipment to align the hub assembly with the spindle taking care to not damage the seal and spindle threads. Push the hub assembly into position.

While the hub is supported, fill the hub cavity with clean oil and push into position or push into position and then fill the hub cavity.

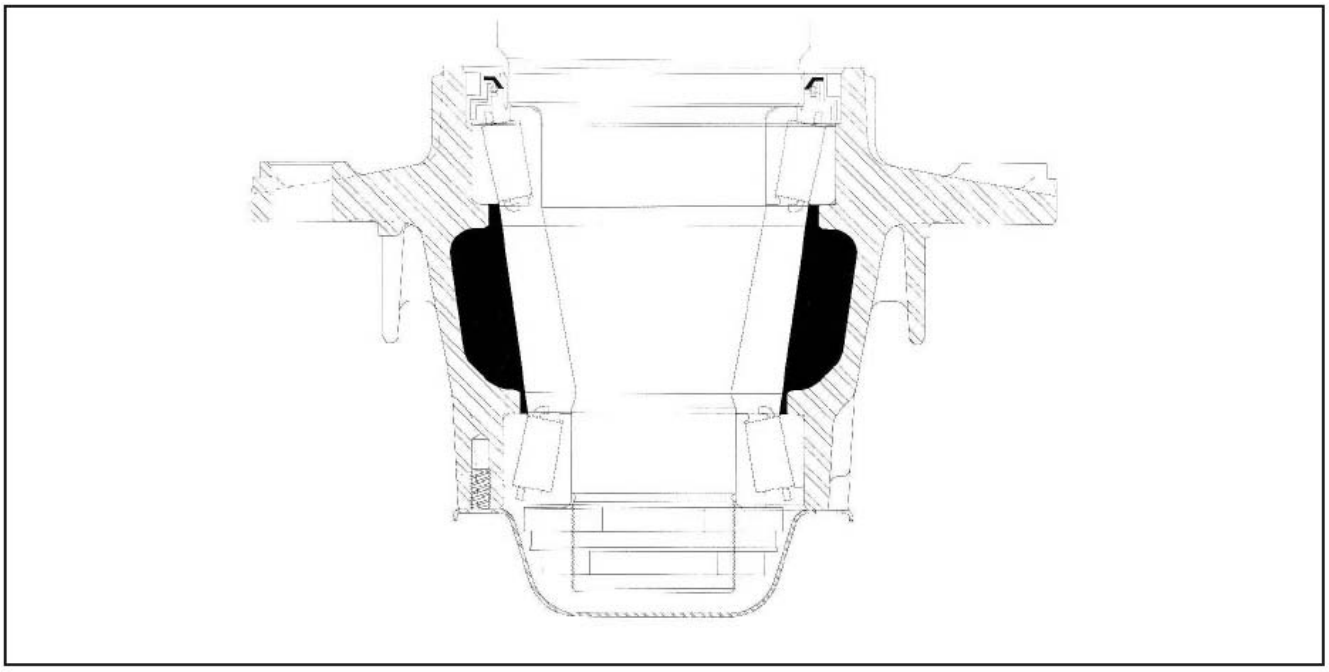


Fig. 6: Lubrication Fill Greases (Nos. 1,2, & 3)

Install the outer bearing, washers and adjusting nuts. Adjust wheel bearings per TMC's RP 618 or OEM Maintenance Manual. Verify end play (0.001" to 0.005") with a dial indicator.

Install the flanged drive axle shaft with a new axle flange gasket. Torque flange nuts to axle manufacturer's specification. Clean-up any over spills that would give the appearance of a leaking system.

Oil is supplied directly to the wheel ends at assembly and through the axle tube during operation. To achieve final fill level, each end of the drive axle must be raised a minimum of eight inches for one minute to move the lubricant into the opposite wheel end. Recheck the main sump for the proper oil level and top off the lubricant level, if required. The oil fill level is always to the bottom of the fill plug or hole in the axle reservoir.

⚠ **CAUTION** :Do not pack the drive axle wheel bearings with grease when the wheel ends will be lubricated with oil from the axle differential. (See RP 622 and RP 618.)

NOTE: Always check the axle breather to be sure it is operating properly and completely free of dirt and debris.

MAINTENANCE AND INSPECTION REQUIREMENTS

The following inspection criteria are intended for units whose vocation is strictly on-highway use only. The inspection criteria are not intended for unitized or pre-set wheel ends, refer to systems manufacturer for inspection and service recommendations.

These recommendations depend on the proper assembly of the system, including the proper lubricant fill level.

A. OIL LUBRICATED WHEEL ENDS INSPECTION CRITERIA

Level 1—Simple Inspection (Pre-Trip/In-Service)

Walk around vehicle and check wheel-ends for obvious signs of lubricant leakage, such as hubcap gasket and wheel seal areas, oil soaked brake linings. Check for broken or missing components. Any seepage is reason for further inspection and appropriate action.

Take appropriate action if leaks or oil soaked brake linings are noted.

NOTE FOR DRIVERS: After making an en route stop, walk around the unit and feel the hubs. If there is any significant differences in temperatures or excessive temperature, contact your maintenance department. When feeling hubs for temperature, seasonal influences should be taken into consideration.

If wheel-ends are equipped with a sight glass on the hubcaps, check to ensure the oil is at the proper fill level.

NOTE: Oil residue may be present at the vent area. This is an indicator that the system is venting properly. This should not be construed as system leakage.

Level 2—100,000 miles or Annual Inspection:

For non-driven axles check lubricant level and condition. If lubricant is contaminated replace old lubricant with the same type lubricant. If lubricant condition is good and level is low, fill to the proper level. Check for any signs of leakage at the seal or hubcap gasket areas. Check for oil soaked brake linings.

For driven axles, check for any signs of leakage at the seal or axle flange gasket areas. Also check for leaks at hub fill hole if so equipped. Check for oil soaked brake linings.

Take appropriate action if leaks or oil soaked brake linings are noted.

B. GREASE LUBRICATED WHEEL ENDS INSPECTION CRITERIA

Level 1—Simple Inspection (Pre-Trip/In-Service)

Walk around vehicle and check wheel-ends for obvious signs of lubricant leakage, such as hubcap gasket and wheel seal areas, grease soaked brake linings. Check for broken or missing components. Any seepage is reason for further inspection and appropriate action.

NOTE FOR DRIVERS: After making an en route stop, walk around the unit and feel the hubs. If there is any significant differences in temperatures or excessive temperature contact the maintenance department. When feeling hubs for temperature, seasonal influences should be taken into consideration.

Level 2—Detailed External Inspection (Conducted at PM or at least annually)

Check wheel-ends for obvious signs of lubricant leakage, such as hubcap gasket and wheel seal areas, grease soaked brake linings. Any seepage is reason for further inspection and appropriate action. Raise the vehicle and check for smooth rolling of wheels. Check for signs of excessive end play in the wheel-end. This does not include removal of the hub cap.

NOTE: Leaking grease may not spread over the hub and brake components as with hubs filled with oil. When

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inspecting for grease leaks the inspection must be done very carefully with the aid of a bright beam of light from a flashlight or droplight.

NOTE: Some grease seals will purge very small amounts of grease in normal operation. If there is seepage around the hubcap flange area, take appropriate action to eliminate seepage as directed by your maintenance instructions.

If leakage in the seal area is found, remove the wheel end and replace the hubcap gasket, seal and lubricant. Inspect the spindle and bearings for damage and replace if needed. Anything abnormal requires Level 3 Inspection.

⚠ **CAUTION** : A clogged vent can damage the wheel seal allowing internal pressure build up in the wheel end.

Level 3—Lube Level Inspection (Per OEM Recommendation)

When using grease in a wheel-end the only method to accurately check the lubricant level is by pulling the outer bearing. If using a hard grease, there is no need for a Level 3 Inspection.

⚠ **CAUTION** : Failure to remove the outer bearing may provide a false lubricant level reading.

To verify proper lube level the following procedures need to be performed.

1. Before performing any maintenance on the vehicle take appropriate action to ensure the vehicle is safely secured.
2. Remove hubcap, hubcap gasket and inspect hubcap for adequate venting capabilities.
3. Verify wheel-bearing end play for conformance to RP 618.
4. Record end play measurements.

   ⚠ **CAUTION** : Apply the parking brake, if axle is equipped. This will ensure that the wheel/hub assembly is supported and held steady during removal of the spindle nut and outer bearing. This will eliminate the possibility of spindle, bearing or seal damage due to the cocking or slipping of the wheel-hub assembly.

   ⚠ **CAUTION**: Care should be taken so the wheel-end assembly is properly supported.

5. Remove adjusting nuts.
6. Remove outer bearing.
7. While maintaining proper support to the wheelend or hub, visually check lube level. In a semi-fluid grease system, if the lubricant flows out of the hub cavity, the hub cavity should be refilled to the 3 o'clock and 9 o'clock level. This represents 50 percent hub cavity fill. (See **Figures 5** and **5A**.)

   In a semi-fluid grease system, if the grease doesn't flow, inspect lubricant condition in the hub cavity. Go to Level 4 Inspection if abnormal conditions are noted. If no abnormal conditions are noted, add grease until it flows out of the hub cavity.

   NOTE: If changing grease types or brands, contact your lubricant supplier to insure compatibility.

8. Clean bearing and inspect for wear and damage. When reassembling industry standard wheelends, assemble per RP 618.

   NOTE: Manufacturer is defined as the final assembler of the product or the particular system supplier.

Level 4—Wheel-end Disassembly Inspection (Complete System Tear-down)

If any abnormal conditions are found during inspection Levels 1, 2, or 3, remove wheel-end for inspection. Lube change intervals as determined by the manufacturer dictate when Level 4 service is performed.

NOTE: Manufacturer is defined as the final assembler of the product or the particular system supplier.

When reassembling industry standard wheel-ends, assemble per RP 622 and RP 618. Seals and gaskets must be replaced.

Failed Component Analysis

Save prematurely failed parts and lube samples for analysis. The lubricant sample collected should be at least four ounces. A similarly sized new lubricant sample (not previously used) is also required. This will aid in supplier assisted detection and prevention of premature failures. The components' history of usage should also be provided (i.e., vehicle's vocation, mileage, maintenance records, and history of inspection and repair/replacement of components such as seals, seal wear rings, lubricant, bearings, etc.).

OPERATIONAL CONSIDERATIONS FOR LUBRICANTS

Service interval ranges from 100,000 miles to five years in over-the-road service, depending on axle type, manufacturer recommendations, and lubricant performance.

Mineral oil based lubricants have lower initial costs than synthetics lubricants, but need to be changed more frequently in some equipment. When choosing a lubricant, the fleet needs to consider:

- the manufacturer's recommendation for the axlemake and model in service.
- the fleet savings associated with extended service intervals.
- the total cost of the lubricant.

NOTE: Because seal performance may vary when switching lubricants, consult your seal supplier for compatibility concerns.

Note:
Please refer to your axle manufacturer's installation & maintenance manual for hub installation and bearing adjustment procedures

TYPICAL LUBRICANT RECOMMENDATIONS

Oils

A. Non-Drive Axles

1. Synthetic
   Transmission Lubricants
   - SAE 50 - All year around

2. Petroleum
   Rust and Oxidation (R&O) Inhibited Gear Oil
   Transmission Oils
   - SAE 30 - Extreme Cold
   - SAE 40
   - SAE 50 - warmer ambient conditions

NOTE: Because of the extreme pressure properties of EP gear oil, its use is not recommended in non-driven axles. While the use of EP gear oil is permitted in non-driven axles by several component suppliers, it may in fact compromise bearing service life and durability

B. Drive Axles

1. Synthetic
   Rated API GL-5 or meeting military specification (MIL-L-2105D)
   - SAE 75W-90 - all year around
   - SAE 75W-140 - all year around or severe service
   - SAE 80W-140

2. Petroleum Gear Oils
   Rated API GL-5 or meeting military specification (MIL-L-2105D)
   - SAE 80W-90 - all year around
   - SAE 85W-140 - all year around or hot environment

Grease

A. Non-Drive Axles

1. Petroleum or Synthetic
   - NLGI 00, 1, 2, 3

B. Drive Axles

Drive axle wheel ends are not normally lubricated with a grease.

Typical Characteristics of Greases

Soap Type:	Lithium Complex or equivalent
Dropping Point:	230º C minimum
Consistency:	NLGI 1, 2 or 3
Additives:	Corrosion and oxidation inhibitors, EP optional
Base Oil:	Solvent refined petroleum oil or synthetic
Base Oil Viscosity:	150 cSt @ 40º C minimum
Viscosity Index:	75 minimum for petroleum oil and 90 minimum for synthetic oil
Pour Point:	-10º C

Typical Characteristics of Semi-Fluid Greases

Soap Type:	Lithium Complex or Equivalent
Consistency:	NLGI 00
Additives:	Corrosion and oxidation inhibitors, EP Optional
Base Oil:	Synthetic or Petroleum Oil
Base Oil Viscosity:	460 cSt @ 40º C (Typical)
Viscosity Index:	90 minimum
Pour Point:	-40º C

If lubricant specification differs from the characteristics listed above, determine compatibility with system components. Consult your lubricant supplier for assistance.

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DISC WHEEL INSTALLATION PROCEDURE – HUB PILOTED DISC WHEEL SYSTEM

1. Check all parts for damage including wheels and rings. Ensure that studs, nuts pilots and mounting faces of hubs, drums and wheels are free of dirt and grease. The hub or drum mounting face must be cleaned and kept flat. Clean hub or drum surface and piloted with a wire brush if rust or debris is present. Make sure the wheels are hub piloted wheels with bolt holes drilled straight through without ball seats. Stud piloted wheels must not be used as substitutes for hub piloted wheels under any circumstance. Never try to use a hub piloted wheel with stud piloted hub or stud piloted nuts. The result could be loss of torque, a cracked wheel, or possible wheel loss.

   Note the condition of the hub and the hub pilots. Replace the hub if worn or cracked bolt holes or a worn hub face are evident, or if the pilots are worn or broken. Check the hub for damage and flatness. Replace if the original flat area is reduced in diameter by wear.

2. Wire brush the base of each stud as well as the threads to remove any rust or foreign material which could bind up the wheel nuts.

3. Ensure the brake drum is positioned on the raised step of the pilots, and is seated fully against the hub.

4. Check for damaged studs and stripped stud threads as evidenced by shiny threads. Also look for worn or damaged mounting faces by using a straight edge. Replace any parts which exhibit wear or damage. Ensure replacement studs are the proper ones for the system used. Stud breakage can occur if the wrong studs are used.

   If a stud is broken, replace it and the stud on each side of the broken one. If 2 or more studs are broken, replace them all. Use a press to install studs and be sure the hub flange is supported. Aluminum hubs require different stud installation procedures. Consult the manufacturer for recommendations. Stud heads can be bent from hammer blows which will prevent the stud from seating properly and can result in stud failure.

5. Make sure the center hole of the wheel is clean so it will fit easily on the hub pilots.

6. Use correct nuts. Nuts used for stud piloted systems cannot be used in hub piloted systems. Hub piloted wheels use flange nuts for both the single and dual wheel applications. No inner cap nuts are required.

7. Check the wheel nuts. Ensure that multi-piece nuts turn smoothly on their flanges. Discard all nuts with damaged threads.

8. Apply two drops of oil to a point between the nuts and flange and two drops to the last 2 or 3 threads at the end of each stud. Also lightly lubricate the pilots on the hub to ease wheel installation and removal. Do not get lubricant on the mounting face of the drum or wheel.

9. Rotate the hub so that one pilot is at the 12 o'clock position. Place single wheel or inner dual wheel onto the hub being careful not to damage stud threads. Make sure the wheel is fully seated against the drum.

10. For dual wheels, place the outer wheel onto the hub making sure the hand holds are lined up for easy access to the tire valves. Make sure the outer wheel is pushed fully up against the inner wheel. Install nuts finger-tight at the 12 o'clock and 6 o'clock positions,

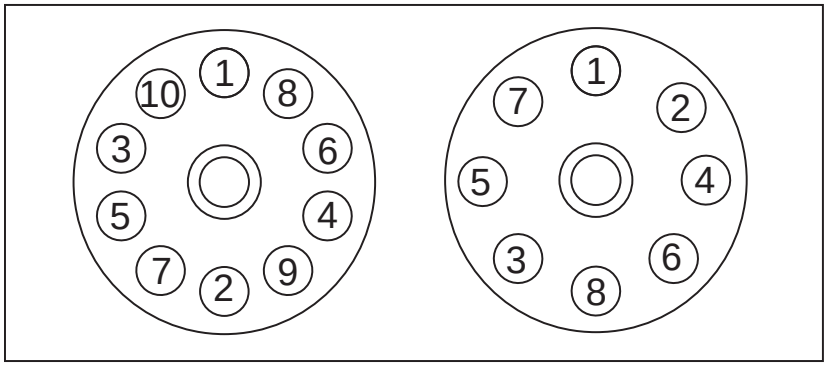


Figure 1: Nut Tightening Sequence for Hub Piloted Disc Wheels

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then apply nuts finger-tight on the remaining studs. Snug the nuts to about 50 ft. lbs. following a crisscross sequence as shown in **Figure 1.** Finally, tighten all the nuts to the recommended torque (see **Table 1**) using the same crisscross sequence.

11. After the wheels are installed, check to see that both wheels are still seated on to the pilots and are flat against the drum. This can be done by inspecting the seating of the wheels on all four pilots and by turning the wheels and checking for irregularity of the wheel assembly.

12. After a wheel assembly has been installed, recheck the torque level between 50 and 100 miles of operation and retighten if necessary to the recommended torque using the proper sequence. It is recommended that a torque check be made as part of a vehicle's scheduled maintenance program or at 10,000 mile intervals, whichever comes first. Individual fleet experience may dictate shorter intervals or allow longer intervals.

13. If air wrenches are used, they must be periodically calibrated for proper torque output. Use a torque wrench to check the air wrench output. If output is not correct, take the necessary steps to adjust output.

DISC WHEEL INSTALLATION PROCEDURE – STUD PILOTED DISC WHEEL SYSTEM.

1. Check all parts for damage including wheels and rings. Ensure that studs, nuts and mounting faces of hubs, drums and wheels are free of dirt and grease. The hub or drum mounting face must be cleaned and kept flat. Clean hub or drum surface with a wire brush if rust or debris is present. Note the condition of the hub and drum. Replace them if worn or cracked bolt holes or a worn hub or drum face are evident . If a heavy duty ball seat (1-3/16" spherical radius) system is used, make sure the wheels are proper for the vehicle. Never mix hub-piloted disc wheels and hubs with ball-seat disc wheels and hubs. The result could be loss of torque, a cracked wheel or possible wheel loss.

2. Wire brush at the base of each stud as well as the threads to remove any rust or foreign material which could bind up the wheel nuts.

3. Check for damaged studs. Replace any parts which exhibit wear or damage. Ensure replacement studs are the proper ones for the system used. Stud breakage can result if the wrong studs are used.

   If a stud is broken, replace it and the stud on each side of the broken one. If 2 or more studs are broken, replace them all. Use a press to install studs and be sure the hub flange is supported. Aluminum hubs require different stud installation procedures. Consult the manufacturer for recommendations. Stud heads can be bent from hammer blows which will prevent the stud from seating properly and can result in stud failure.

4. Check the wheel for damage, elongated bolt holes, wear, corrosion, cracks around bolt holes or center hole or torch cuts and replace as necessary. If slight burrs have been raised around the ball seats, use a file to remove them. Be sure not to cut into the flat surface of the wheel mounting face. Wire brush inner and outer cap nuts if rust accumulation is evident. If threads are damaged or corrosion is heavy, discard nuts. Also discard nuts that show damage or wear to ball seats or hex areas.

5. Be certain you have correct fasteners. Nuts used in the hub piloted system cannot be used in the stud piloted system. Single aluminum wheels on ¾" stud use different nuts than steel wheels. Dual aluminum wheels require special inner nuts with greater strength

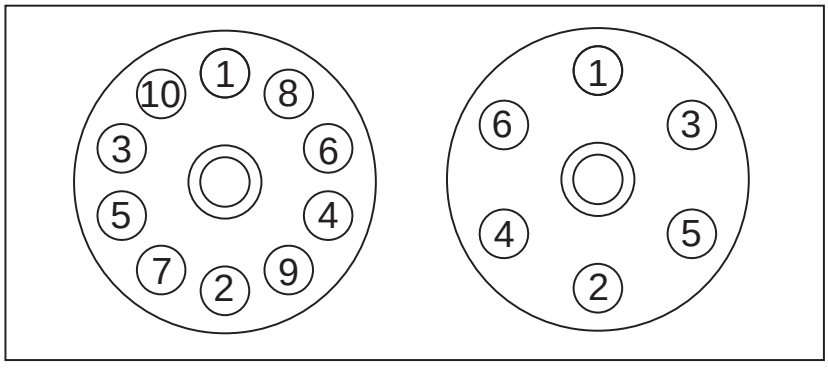


Figure 2: Nut Tightening Sequence for Stud Piloted Disc Wheels

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and length than steel wheel inner nuts (See TMC RP 217A, *Attaching Hardware for Disc Wheels.*)

6. Separate all frozen cap nuts prior to reinstalling the wheel. Do not attempt to reapply wheels that come off with the inner cap nut frozen to the outer cap nut. Each nut must be reinstalled properly with each nut tightened to the proper torque level.

7. **Never lubricate wheel or nut ball seats or mounting faces.** If lubrication is desired, it should be used sparingly only on the threads of the studs and/or nuts. If lubrication is used, consult the wheel manufacturer for torque recommendations.

8. Slide the front wheel or inner dual wheel over the studs being careful not to damage the stud threads. Lift the wheel to center one stud within its bolt hole while installing an inner nut finger tight. Repeat with another nut about 180 degrees away from the first. Install the remaining nuts. Snug up nuts to about 50 ft. lbs. in the sequence shown in Figure 2. Do tighten then fully until all have been seated. This procedure will permit the uniform seating of nuts and ensure the even, face to face contact of the wheels against the hub or drum. Tighten the nuts to the recommended mounting torque (see Table 1) using the same crisscross tightening sequence.

9. Place the outer dual wheel over the ends of the inner nuts and install 2 outer nuts 180 degrees apart fingertight to locate the wheel. Install the remaining nuts and tighten to 50 ft. lbs. using a crisscross sequence as shown in **Figure 2**. Finally tighten the outer nuts to the recommended torque (see **Table 1**) using the same sequence.

10. After a wheel assembly has been installed, recheck the torque level between 50 and 100 miles of operation and retighten if necessary to the recommended torque using the proper sequence. To check and retorque an inner nut, it is necessary to loosen the outer nut first, and then tighten the inner nut. Finally, the outer nuts must be retightened to the proper level.

11. It is recommended that a torque check be made as part of a vehicles scheduled maintenance program or at 10,000 mile intervals whichever comes first. Individual fleet experience may dictate shorter intervals or allow longer intervals.

12. If air wrenches are used, they must be periodically calibrated for proper torque output. Use a torque wrench to check the air wrench output. If output is not correct, take the necessary steps to adjust output.

SPOKE WHEEL/DEMOUNTABLE RIM SYSTEM INSTALLATION PROCEDURES

1. Ensure that the correct spacer band, rim, and clamp combinations are being used for the application. Check all parts for damage. Ensure that studs, nuts, clamps and 28 degree mounting surfaces of the cast spoke wheel and rim are sound, clean and free from grease. Clean the cast spoke wheel with a wire brush if scale is present. The spacer band should be clean and free from distortion.

2. Replace any damaged or distorted part. Do not weld, heat, or braze.

3. Install the rim after the tire is inflated. Multi-piece rims may distort at high inflation and become difficult to slip onto the cast spoke wheel. If this occurs deflate the tire to not less than 80% of the recommended inflation until the rim is mounted on the truck. If difficulties still exist, contact the rim manufacturer for recommendations. Always adhere to OSHA standard No. 29 CFR, Part 1910.177 "Servicing Single-Piece and Multi-Piece Rims/Wheels" and TMC RP 209B,

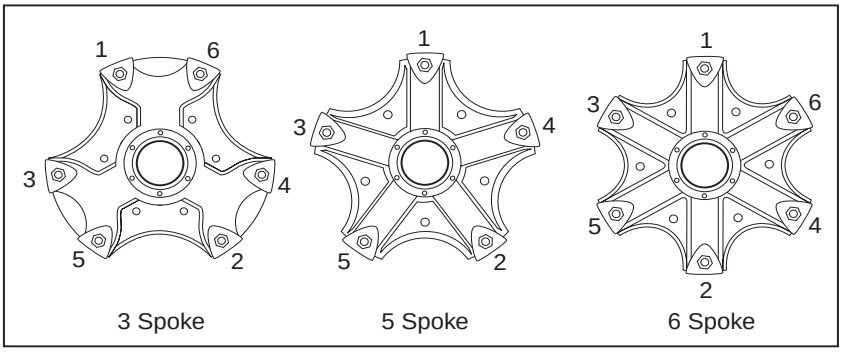


Figure 3: Nut Tightening Sequence for Spoke Wheels

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Tire and Rim Safety Procedures.

4. For front assemblies, align the locators between the spokes, then place the rim and inflated tire on the cast spoke wheel.
5. For rear assemblies, align the locators between the spokes, then place the inside rim over the cast spoke wheel as far as possible. Push the spacer band over the cast spoke wheel with a constant pressure on both sides. Guard against cocking. The band should fit snugly to the spokes and against the inside rim gutter edge. Place the outer dial rim in position.

   Note: 8.5 and wider tube type rims may require special size spoke wheels and spacer bands.

6. Secure clamps evenly in position and snug-up the nuts in the sequence shown in **Figure 3**.

7. Do not tighten nuts fully until all of them have been snugged up This will permit the rims to properly align themselves on the 28 degree mounting surfaces of the cast spoke wheel. Correct alignment if necessary at this time. Tighten the nuts to the recommended torque (see **Table 2**). Maintain them at that level through planned, periodic checks. Be sure not to exceed the recommended torque values. If the heel of the rear clamps bottom out before reaching 80% of the recommended torque levels, ensure that proper clamps and spacers are being used. Complete the tire inflation to the recommended level.

8. After a demountable rim has been installed, recheck the torque on the clamp nuts between 50 and 100 miles of operation and retighten the nuts to the proper torque level using the proper nut tightening sequence.
9. It is recommended that a torque check be made as part of a vehicles scheduled maintenance program or at 10,000-mile intervals whichever comes first. Individual fleet experience may dictate shorter intervals or allow longer intervals.
10. If air wrenches are used, they must be periodically calibrated for proper torque output. Use a torque wrench to check the air wrench output. If output is not correct, take the necessary steps to adjust output.

Note: Demountable rims are not all the same offset. Use the proper size tires, rims, spacer and clamps to provide tire and vehicle clearance.

TABLE 1
RECOMMENDED MOUNTING TORQUE FOR DISC WHEELS

Mounting Type	Nut Thread	Torque Level Ft-Lb (Oiled*)
Hub Piloted with flange nut	11/16" - 16 M20 x 1.5 M22 x 1.5	300-400 280-330 450-500
		Ft-Lb (Dry)
Stud-Piloted, double cap nut Standard type (7/8" radius)	3/4"-16 1-1/8"-16	450-500 450-500
Stud-piloted, double cap nut Heavy duty type (1-3/16"" radius)	15/16"-12 1-1/8"-16 1-5/16"-12	750-900 750-900 750-900

*** See "Disc Wheel Installation Procedure-Hub Piloted Disc Wheel System", Step 10**

Notes:

1. If using specialty fasteners, consult the manufacturer for recommended torque levels.
2. Tightening wheel nuts to their specified torque levels is extremely important. Under tightening which results in loose wheels can damage wheels, studs and hubs and can result in wheel loss. Over tightening can damage studs, nuts and wheels and result in loose wheels as well.
3. Regardless of the torque method used, all torque wrenches, air wrenches and any other tools should be calibrated periodically to ensure the proper torque is applied.

TABLE 2
RECOMMENDED MOUNTING TORQUE FOR DEMOUNTABLE RIMS

Stud Size	Torque Level Ft. Lbs. (Dry)
5/8"-11 3/4"-10	160-200 200-260

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Brake Drum Identification

1. When specifying replacement brake drums & rotors the following information is required:
   - The manufacturer's name
   - The manufacturer's part or casting number
   - Description of any other markings appearing on the drum or rotor.

2. If that information isn't available, the following is the next best:
   - Vehicle manufacturer
   - Vehicle model
   - Axle or spindle size
   - Whether disc or spoke wheel application
   - Brake size and type of actuation (S-cam, Wedge, Air, Hydraulic, etc.)
   - Whether inboard or outboard mounting

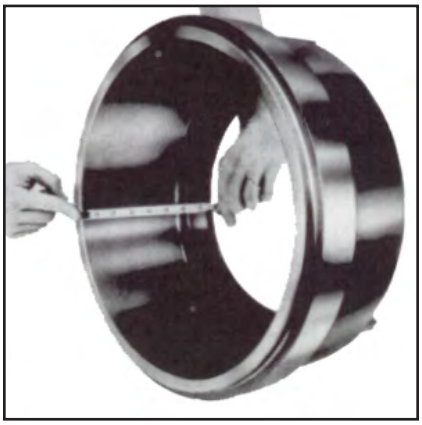
3. If that information isn't available, the following is required.
   - It will be necessary to make accurate measurements to determine the type and size of the brake drum or rotor needed, particularly if the part number can not be determined. The photographs following show the items to measure and check prior to ordering a new brake drum or rotor.



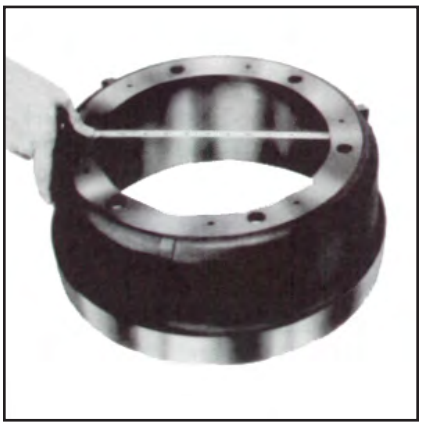
Diameter brake surface (allow for drum wear)



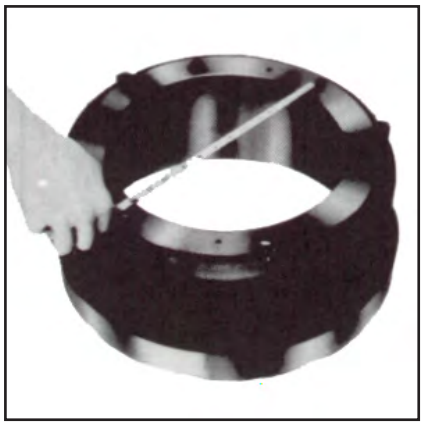
Width of braking surface



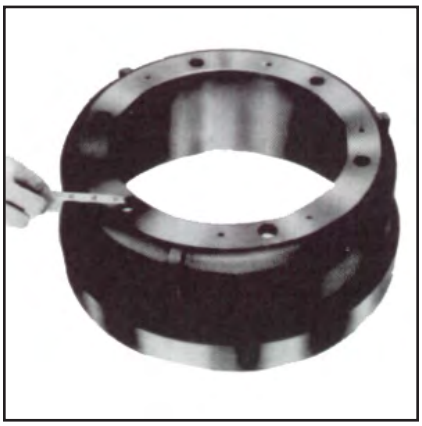
Overall depth



Pilot/hub diameter



Bolt circle diameter

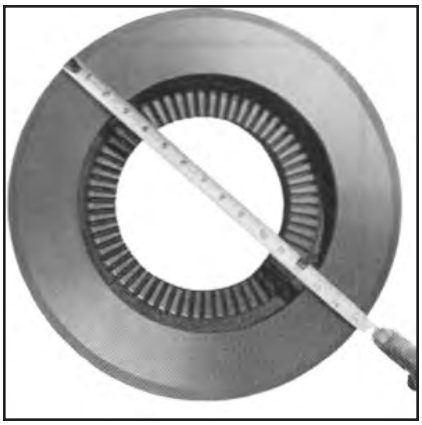


Size & number of bolt holes

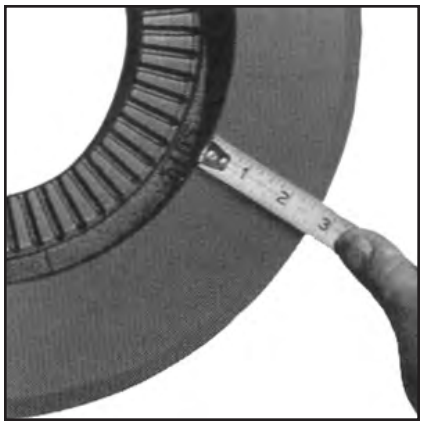
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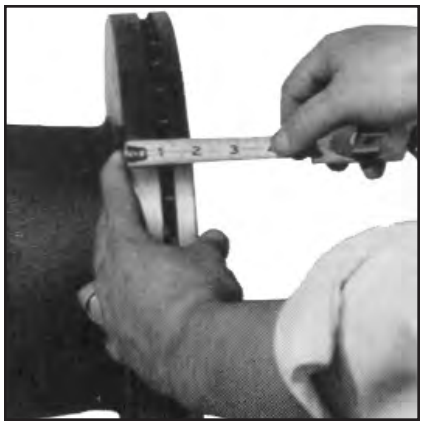
Brake Rotor Identification



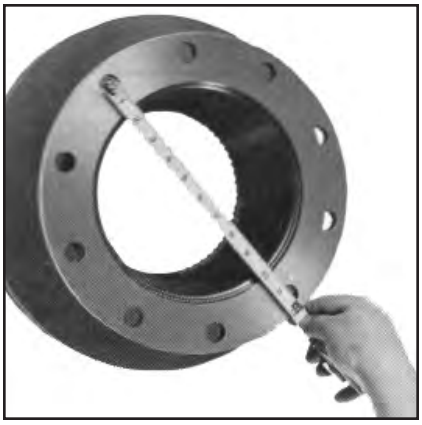
Outside diameter of rotor



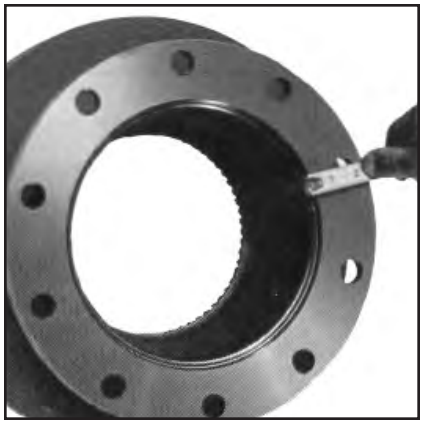
Width of braking surface



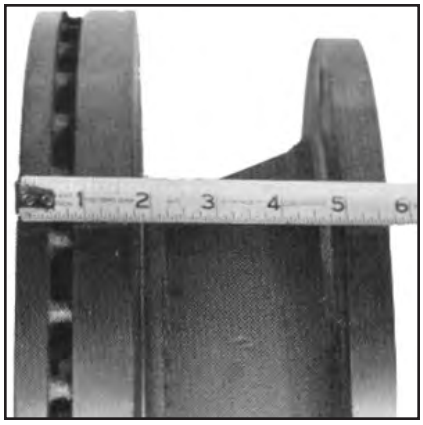
Rotor width



Bolt circle diameter and pilot diameter



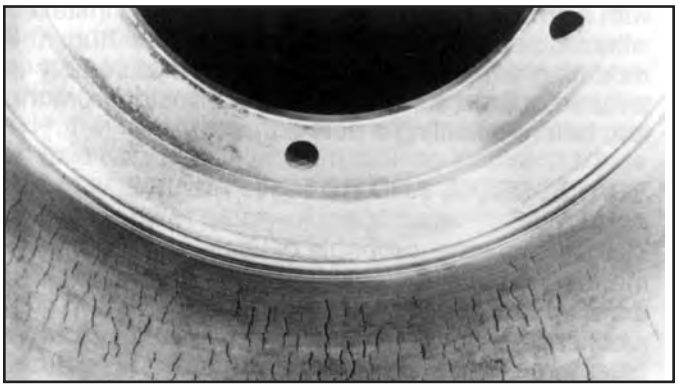
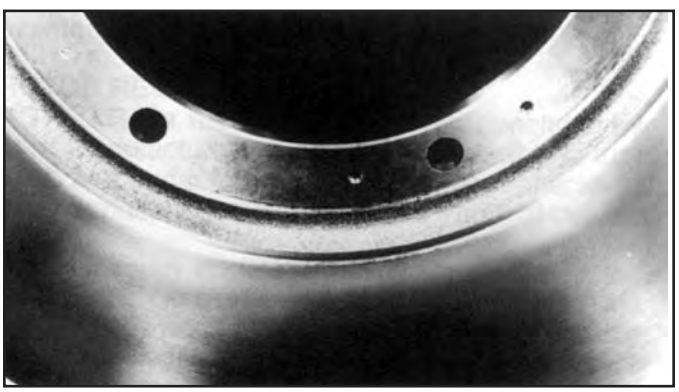
Size and number of bolts.



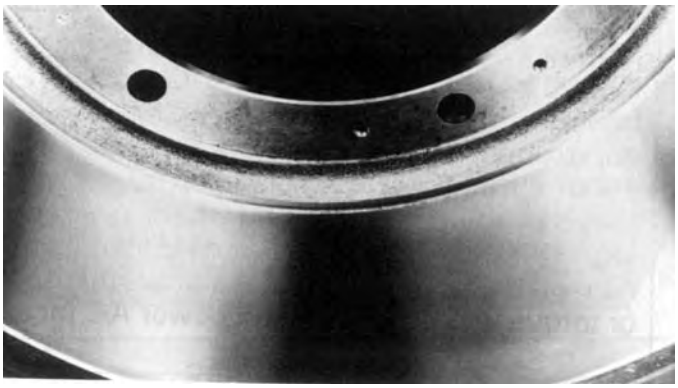
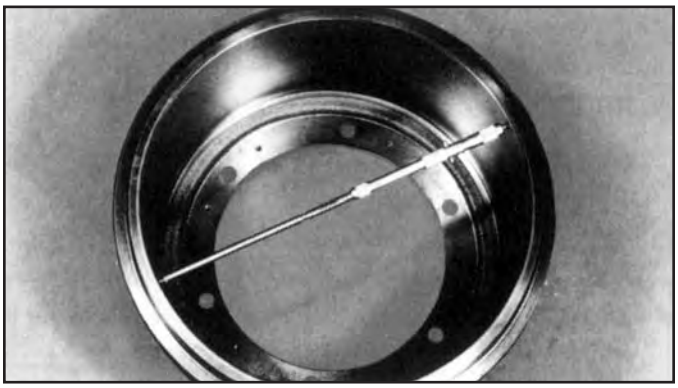
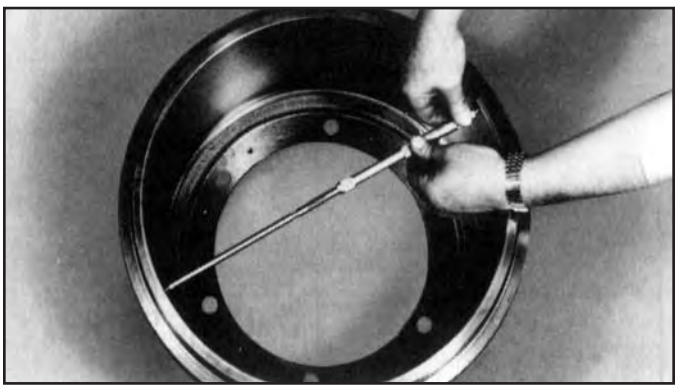
Overall depth of U-section and hat section rotors.

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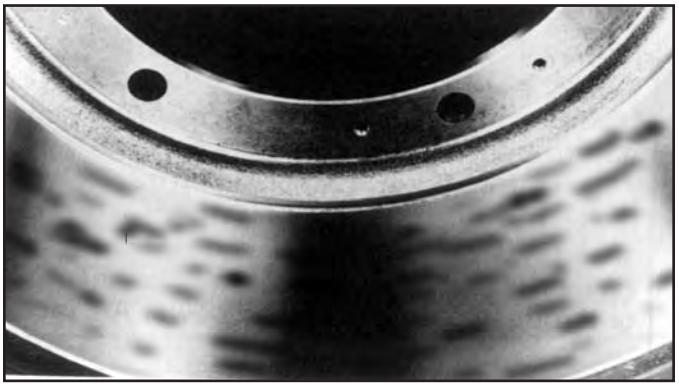
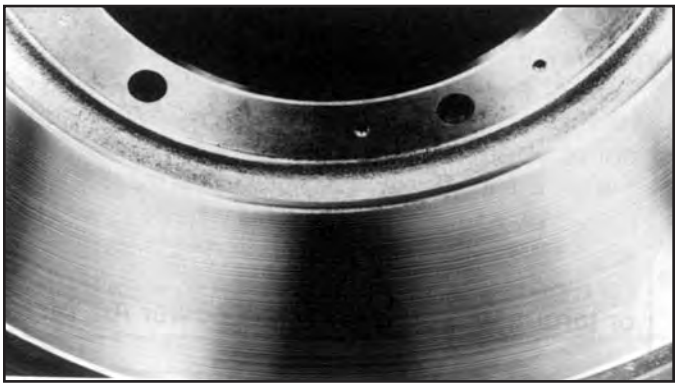
Brake Drum Failure Analysis

Problem	Probable Causes	Recommended Actions
Heat Checking	This problem is signified by a bluish color and disfigurement of the brake parts.	
	Heat-checking is a normal condition of the brake drum caused by constant heating and cooling of the braking surface.	Heat checking does not impair brake performance, reuse drum if within tolerance. **If deep cracks have developed, replace drum immediately**
Cracked Drums	Upon inspection, the drum is found to have cracked all the way through the entire wall.	
	Mishandling (new drum). Excessive heating and cooling. Brake balance. Driver abuse.	Replace brake drum. Check to see if drum is adequate for the application. Check for pneumatic or torque balance problems. Driver training **Replace cracked drums immediately.**
Blue Drums	This problem is signified by a bluish color and disfigurement of the brake part.	
	Excessive heat from dragging brakes or brake imbalance. Swollen linings.	Look for weak or broken return springs or binding brake actuation. Consult lining manufacturer. Drum can be used if deep cracks are not present.

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Problem	Probable Causes	Recommended Actions
Polished Drums	Recognized from a mirror-like finish on the braking surface.	
	Improper lining friction rating. Drum resurfaced with too fine of a micro-finish. Light contact of linings to drum.	Consult vehicle or lining manufacture for an alternate lining material. Micro-finish should be 150-200 RMS. Check condition of return springs, camshaft bushings, air system and shoe to drum contact. Remove the gloss with eighty (80) grit emery cloth.
Out-of-round Drums	Variations in drum diameter at different points on the braking surface	
	Heat distortion Drum has been dropped or stored on its side. Improper chucking when turning drum.	Turn brake drum if within limits or replace.
Oversize Worn Drums	Uneven lining wear, or braking surface diameter measures in excess of allowable limits.	
	Normal wear condition (age).	**Replace brake drums and brake linings.**

Brake Drum Failure Analysis

Problem	Probable Causes	Recommended Actions
Martensite Spots	The brake surface shows black spots which are slightly raised and are hard and brittle	
	Martensite is formed by rapidly heated brakes to approximately the 1400° F range followed by rapid cooling. This condition is caused by brake drag or torque imbalance.	Replace brake drum. Check for dragging brake, check balance between tractor/trailer and wheel to wheel (i.e. air distribution, brake adjustment, and power A/L factors.)
Grease Stained Drums	The drum shows discolored spots on surface, with oil or grease on brake assembly	
	Leaking oil/grease seal or improper lubrication of brake components.	Repair source of oil or grease leak, clean the brake drums and replace the linings.
Scored Drums	The problem is indicated by a grooved appearance on the brake surface	
	Grooves, loose rivets or bolts, or foreign material in rivet holes. Abrasive material in brake drum. Poor quality brake lining.	Repair or install rivet plugs. Dust shield may cause or cure this problem. Consult lining manufacture. Turn brake drum if within limits or replace.

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Torque Label Order Form

If you are an OEM or Distributor of KIC Hub/Drum assemblies, we will supply you with torque safety stickers to be applied to trucks and trailers. Please fill out the form below and fax back to 360-696-3132 or call 800-488-5422 to order. You may also order stickers from **www.kic-group.com**



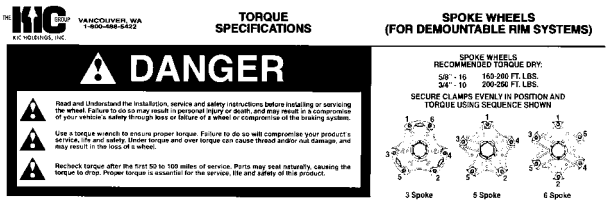
Unimount (Hub Piloted) Mounting System
(PRT-HP3.5x5)

QTY_____



Ball Seat Nut (Stud Piloted) Mounting System
(PRT-SP3.5x5)

QTY_____



Spoke Wheel
(PRT-SPK3.5x12)

QTY_____

Company Name _____

Attn: _____

Address _____

City, State, Zip _____

Telephone _____

Email (optional) _____

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Fleet managers and tire professionals, get the most comprehensive tire analysis guide in the industry. The updated *Guide* is packed with more than 200 color photographs and illustrations and contains detailed descriptions of every tire failure and service condition for both original and retread tires. It shows what to look for when examining diagonal tire wear, irregular wear, side wall separations, the "zipper condition," shoulder wear, and much more! It also tells you how to correct the problem.

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CD-ROM Version—
TMC/ATA Members: #T0121 ..... $79.00 each
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Tire Pre-Trip Inspection Guidelines Video/CD

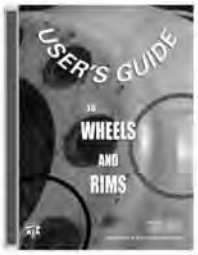


This video covers proper inspection of equipment and repair procedures. It also defines legally permissible and out-of-service tire conditions. See examples of tire wear and learn how to easily identify damaged tires. CD-ROM version includes all of the video with the addition of an interactive, computer-based self-test.

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Antilock braking systems are now required by law on all new tractors. They'll soon be required on all new trailers, dollies, and straight trucks. Don't let your technicians be caught untrained and unready for these new systems. This new TMC manual—developed in conjunction with motor carriers, manufacturers, and government officials—offers basic instruction in ABS theory, operation, diagnostics, and maintenance. Great as an introductory primer for technicians or as a supplement to manufacturers' literature.

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Technician Guidelines for Antilock Braking Systems (ABS) Video

TMC/ATA Members: #T0328 ..... $59.00 each
Nonmembers: ..... $79.00 each

Technician's Tool Inventory



Keep track of every tool in your shop with this handy 12-page form. List them by category, quantity, and brand name—even record specialty and shop-made tools. Ideal for security and insurance purposes.

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2-10 forms	*$1.75 each*	*2-10 forms*	*$2.33 each*
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VMRS 2000 Implementation Handbook

The Owner's Manual to VMRS! All the information you need to implement VMRS 2000—the latest version of the Vehicle Maintenance Reporting Standards. Essential reference for standard coding convention for maintenance and parts inventory. Applicable to many industries, including trucking, utilities, off-road, pickup/delivery, construction, etc. Includes instructions, descriptions, sample reports and forms, applications, and procedures. Version 1.04. #T0612

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5,000 forms	*CALL*	*5,000 forms*	*CALL*
10,000 forms	*CALL*	*10,000 forms*	*CALL*

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