



# KIC<sup>®</sup>

The World Turns to KIC<sup>™</sup>

**WHEEL ENDS**  
Hub Assemblies,  
Brake Drums,  
Rotors, Wheels,  
& Accessories

**2015**



# KIC Product Catalog

## CATALOG INDEX

<b>Hub &amp; Drum Assemblies - Cast Spokes - Hub/Rotors</b>	
KIC Hub & Drum Assembly Part Numbering System .....	2
Icon Legend.....	2
Hub Dynamic Capacities.....	3
Ductile & Gray Iron Properties.....	3
Assembly Part Number by Application .....	4
Hub Series Index by SAE Designation.....	8
Assembly Part Number Index.....	10
Assembly Part Number Index by Gunite Hub PN.....	14
Assembly Part Number Index by Webb Hub PN.....	15
<b>Brake Drums</b>	
Brake Drum Numbering System.....	47
Brake Drum Nomenclature.....	47
Brake Drum Types.....	48
Brake Drum Dimensional Data (By PN) .....	49
Brake Drum Dimensional Data (By Brake Shoe Size) .....	52
Competitive Interchange (Competitor to KIC) .....	56
Competitive Interchange (KIC to Competitor) .....	60
Brake Rotors .....	66
<b>Components</b>	
Component Parts .....	67
Component Cross-Reference.....	72
<b>Installation &amp; Maintenance</b>	
Wheel Type Identification .....	73
Wheel Bearing Adjustment Procedures.....	75
Wheel Seal and Bearing Removal, Installation & Maintenance .....	77
Recommendations for Wheel End Lubrication .....	82
Wheel Installation & Maintenance .....	90
Brake Drum & Rotor Identification & Replacement .....	94
Brake Drum Failure Analysis.....	96
<b>Literature</b>	
Torque Label Order Form.....	99

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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**[www.kic-group.com](http://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

0 0 1 — 0 1 0 2 5 L T N

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
012		3820	39520
013	D10	25523	28920
014	A65	6535	892
PRT	Part only - No Assemblies		
SVC	Hub Machined with Cups Only		
HUB	Hub Machined with Cups & Studs (No Drum)		
CST	Casting Only		

Hub Series
1025

SUFFIX	Description	Application
B	Balanced Assembly (When not standard)	Disc/Spk
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
M	Timken® Bearing Cups	Disc/Spk
N	Fasteners Installed (in Lieu of Shipping Nuts)	Disc
T	ABS Tone Ring	Disc/Spk
X	Extra-Long Studs	Disc
Y	General/Hyatt® Bearing Cups	Disc/Spk
Z	Stemco® Platinum Performance System™ Bearing Cups	Disc/Spk

### Example: 001-01025LTN

“N Spindle Configuration, 1025 Series Hub Casting with 4.79” M22 Studs, Tone Ring, 10 ea. 22mm Flange Nuts Installed, Assembled with Drum”

### Example: 001-75000TH

“N Spindle Configuration, 75000 Series Spoke Wheel Casting with ABS Tone Ring, 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.

## Icon Legend

General/Hyatt and Stemco, Platinum Performance System, are trademarks their respective companies



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

**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
012	N/A	39520 39581	3820 3877	5,000 lbs
013	L/190	47620 47686	39520 39590	10,500 lbs
014	A65	892 896	6535 6580	32,500 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

# Assembly Part Number by Application



## Trailer - Disc Wheel

Assembly PN	Assembly Description Hub Casting Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
001-00103	Hub Pilot, M22 x 3.97 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 4.82 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
001-00133	Hub Pilot, M22 x 3.97 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	21
001-00133L	Hub Pilot, M22 x 4.82 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	21
001-00225	Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" XHD Drum Bal Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-00225L	Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" XHD Drum Bal Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01000	Hub Pilot, M22 x 3.97 Stud, 16.5 x 5" Drum Bal Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01000L	Hub Pilot, M22 x 4.82 Stud, 16.5 x 5" Drum Bal Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01001	Hub Pilot, M22 x 3.97 Stud, 16.5 x 8-5/8" Drum Bal Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01001L	Hub Pilot, M22 x 4.82 Stud, 16.5 x 8-5/8" Drum Bal Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01025	Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01025L	Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" Drum Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01026	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7" Drum Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01026L	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7" Drum Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01027	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7" Drum Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01027L	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7" Drum Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01070	Hub Pilot, M22 x 3.97 Stud, 15.0 x 8-5/8" Drum Bal Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01070L	Hub Pilot, M22 x 3.97 Stud, 15.0 x 8-5/8" Drum Bal Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18



# Assembly Part Number by Application

## Trailer - Disc Wheel

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	17
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	17
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	20
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	20
001-21025	Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum Bal Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-21025L	Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" Drum Bal Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
004-40130	Hub Pilot, M22 x 3.97 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	33
004-40130L	Hub Pilot, M22 x 4.82 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	33
004-40131	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	33
004-40132	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	33
004-01043	Hub Pilot, M22 x 3.97 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
004-01043L	Hub Pilot, M22 x 4.82 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
004-01048	Hub Pilot, M22 x 3.97 Stud, 16.5 x 8 5/8" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-01048L	Hub Pilot, M22 x 4.82 Stud, 16.5 x 8 5/8" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-21043	Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-21043L	Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-40103	Hub Pilot, M22 x 3.97 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	31
004-40103L	Hub Pilot, M22 x 4.82 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	31
004-40110	Hub Pilot, M22 x 3.97 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

# Assembly Part Number by Application



## Trailer - Disc Wheel

Assembly PN	Assembly Description Hub Casting Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
004-40110L	Hub Pilot, M22 x 4.82 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
004-40310	Hub Pilot, M22 x 3.97 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	34
004-40310L	Hub Pilot, M22 x 4.82 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	34
004-41045	Hub Pilot, M22 x 3.97 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
004-41045L	Hub Pilot, M22 x 4.82 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
006-02133	Hub Pilot, M22 x 3.97 Stud, 16.5 x 8-5/8" Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	39
006-02133L	Hub Pilot, M22 x 4.82 Stud, 16.5 x 8-5/8" Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	39
006-02134	Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	40
006-02134L	Hub Pilot, M22 x 4.82" Stud, 16.5 x 7" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	40
006-02135	Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	39
006-02135L	Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	39
006-02136	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	40
006-02137	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	40
006-02138	Hub Pilot, M22 x 3.97 Stud, 16.5 x 8-5/8" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	40
006-02138L	Hub Pilot, M22 x 4.82" Stud, 16.5 x 8-5/8" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	40
007-09518	Hub Pilot M24 x 5.47 Stud, 18 x 7" Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	W (A45)	772 787	6535 6580	41
014-09442	Hub Pilot M24 x 5.47 Stud, 18 x 7" Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	A65	892 896	6535 6580	46



# Assembly Part Number by Application

## 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	23
001-75000	5-Spoke x 20" 16.5 x 7" Brake Drum Ductile Iron 5-spoke 20"	N	HM218210 HM218248	HM212011 HM212049	24
001-75207	5-Spoke x 20" 16.5 x 7" Brake Drum Ductile Iron 5-spoke 20"	N	HM218210 HM218248	HM212011 HM212049	25
001-76227	6-Spoke x 22" 16.5 x 7" Brake Drum Ductile Iron 6-spoke 22"	N	HM218210 HM218248	HM212011 HM212049	26

## Truck/Trailer - Steer Axle

Assembly PN	Assembly Description Hub Casting Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
001-02540	Hub Pilot, M22 x 3.70 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	22
001-02540L	Hub Pilot, M22 x 3.97 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	22
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	22
001-02544L	Hub Pilot, M22 x 3.97 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	22
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	22
001-02545L	Hub Pilot, M22 x 3.97 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	22
001-02546	Hub Pilot, M22 x 3.70 Stud, 15 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	22
001-02546L	Hub Pilot, M22 x 3.97 Stud, 15 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	22
001-02546X	Hub Pilot, M22 x 4.25 Stud, 15 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	22
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	22
001-02547L	Hub Pilot, M22 x 3.97 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	22
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	27
002-00137L	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	27



# Assembly Part Number by Application



## Truck/Trailer - Steer Axle

Assembly PN	Assembly Description Hub Casting Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
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	27
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	27
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	27
002-00142L	Hub Pilot, M22 x 3.97 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	27
002-00144	Hub Pilot, M22 x 3.70 Stud, 15 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	27
002-00144L	Hub Pilot, M22 x 3.97 Stud, 15 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	27
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	30
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	30
002-00237	Hub Pilot, M22 x 3.70 Stud, 15 x 4" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt	FF/FG	HM212011 HM212049	3720 3782	28
002-00237L	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	28
005-51005L	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	6420 6461A	552A 555S	38
005-51005X	Hub Pilot, M22 x 4.82 Stud, 16.5 x 6" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FL	6420 6461A	552A 555S	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	42
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	43
012-05010L	Hub Pilot M18 x 1.5 Stud, 12.8" 4.35" Drum Bal Ductile Iron 6 stud hub w/ 205.05mm Dia. Bolt Circle, Uses Out- board Drum - Serrated stud	N/A	39520 39581	3820 3877	44
012-05110L	Hub Pilot M22 x 1.5 Stud, 12.8" x 4" Drum Bal Ductile Iron 8-stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N/A	39520 39581	3820 3877	45



# Hub Series listed 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	1006 Series Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Inboard Drum - Shoulder Stud	N	HM218210 HM218248	HM212011 HM212049	17
001	1025 Series Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated 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	20
001	133 Series Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	21
001	2540 Series Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	22
001	7000 Series Ductile Iron 3-spoke 15"	N	HM218210 HM218248	HM212011 HM212049	23
001	75000 Series Ductile Iron 5-spoke 20"	N	HM218210 HM218248	HM212011 HM212049	24
001	75207 Series Ductile Iron 5-spoke 20"	N	HM218210 HM218248	HM212011 HM212049	25
001	76227 Series Ductile Iron 6-spoke 22"	N	HM218210 HM218248	HM212011 HM212049	26
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	27
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	30
002	237 Series Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FF/FG	HM212011 HM212049	3720 3782	28
004	40103 Series Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	31
004	40110 Series Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	32
004	40130 Series Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	33
004	40310 Series Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	34
004	41043 Series Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004	41045 Series Ductile Iron 8-stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	36
005	51005 Series Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FL	6420 6461A	552A 555S	38

# Hub Series Index by SAE Designation



Prefix	Hub Series Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
006	2133 Series Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	39
006	2134 Series Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	40
007	9518 Series Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	W (A45)	772 787	6535 6580	41
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	42
011	4100 Series Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Rotor - Serrated stud	I80 (FC)	JM207010 JM207049A	25820 25877	43
012	5010 Series Ductile Iron 6 stud hub w/ 205.05mm Dia. Bolt Circle, Uses Outboard Drum - Serrated stud	N/A	39520 39581	3820 3877	44
012	5110 Series Ductile Iron 8-stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N/A	39520 39581	3820 3877	45
014	9442 Series Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	A65	892 896	6535 6580	46

## Assembly Part Number Index

Assembly PN	Assembly Description Hub Casting Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
001-00103	Hub Pilot, M22 x 3.97 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 4.82 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
001-00133	Hub Pilot, M22 x 3.97 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	21
001-00133L	Hub Pilot, M22 x 4.82 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	21
001-00225	Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" XHD Drum Bal Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-00225L	Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" XHD Drum Bal Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01000	Hub Pilot, M22 x 3.97 Stud, 16.5 x 5" Drum Bal Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01000L	Hub Pilot, M22 x 4.82 Stud, 16.5 x 5" Drum Bal Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01001	Hub Pilot, M22 x 3.97 Stud, 16.5 x 8-5/8" Drum Bal Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18



# Assembly Part Number Index

Assembly PN	Assembly Description Hub Casting Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
001-01001L	Hub Pilot, M22 x 4.82 Stud, 16.5 x 8-5/8" Drum Bal Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01025	Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01025L	Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" Drum Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01026	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7" Drum Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01026L	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7" Drum Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01027	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7" Drum Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01027L	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7" Drum Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01070	Hub Pilot, M22 x 3.97 Stud, 15.0 x 8-5/8" Drum Bal Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-01070L	Hub Pilot, M22 x 3.97 Stud, 15.0 x 8-5/8" Drum Bal Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-02540	Hub Pilot, M22 x 3.70 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	22
001-02540L	Hub Pilot, M22 x 3.97 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	22
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	22
001-02544L	Hub Pilot, M22 x 3.97 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	22
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	22
001-02545L	Hub Pilot, M22 x 3.97 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	22
001-02546	Hub Pilot, M22 x 3.70 Stud, 15 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	22
001-02546L	Hub Pilot, M22 x 3.97 Stud, 15 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	22
001-02546X	Hub Pilot, M22 x 4.25 Stud, 15 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	22
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	22
001-02547L	Hub Pilot, M22 x 3.97 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	22

# 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	17
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	17
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	20
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	20
001-21025	Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum Bal Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-21025L	Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" Drum Bal Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N	HM218210 HM218248	HM212011 HM212049	18
001-70003	3-Spoke x 15" Wheel, 12.25 x 7.5" Drum Ductile Iron 3-spoke 15"	N	HM218210 HM218248	HM212011 HM212049	23
001-75000	5-Spoke x 20" 16.5 x 7" Brake Drum Ductile Iron 5-spoke 20"	N	HM218210 HM218248	HM212011 HM212049	24
001-75207	5-Spoke x 20" 16.5 x 7" Brake Drum Ductile Iron 5-spoke 20"	N	HM218210 HM218248	HM212011 HM212049	25
001-76227	6-Spoke x 22" 16.5 x 7" Brake Drum Ductile Iron 6-spoke 22"	N	HM218210 HM218248	HM212011 HM212049	26
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	27
002-00137L	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	27
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	27
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	27
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	27
002-00142L	Hub Pilot, M22 x 3.97 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	27
002-00144	Hub Pilot, M22 x 3.70 Stud, 15 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	27
002-00144L	Hub Pilot, M22 x 3.97 Stud, 15 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	27
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	30
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	30
004-40130	Hub Pilot, M22 x 3.97 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	33



# Assembly Part Number Index

Assembly PN	Assembly Description Hub Casting Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
004-40130L	Hub Pilot, M22 x 4.82 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	33
004-40131	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	33
004-40132	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	33
004-01043	Hub Pilot, M22 x 3.97 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
004-01043L	Hub Pilot, M22 x 4.82 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
004-01048	Hub Pilot, M22 x 3.97 Stud, 16.5 x 8 5/8" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-01048L	Hub Pilot, M22 x 4.82 Stud, 16.5 x 8 5/8" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-21043	Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-21043L	Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard drum - Serrated stud	P	HM518410 HM518445	HM518410 HM518445	35
004-40103	Hub Pilot, M22 x 3.97 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	31
004-40103L	Hub Pilot, M22 x 4.82 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	31
004-40110	Hub Pilot, M22 x 3.97 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
004-40110L	Hub Pilot, M22 x 4.82 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
004-40310	Hub Pilot, M22 x 3.97 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	34
004-40310L	Hub Pilot, M22 x 4.82 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	34
004-41045	Hub Pilot, M22 x 3.97 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
004-41045L	Hub Pilot, M22 x 4.82 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
005-51005L	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	6420 6461A	552A 555S	38
005-51005X	Hub Pilot, M22 x 4.82 Stud, 16.5 x 6" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	FL	6420 6461A	552A 555S	38
006-02133	Hub Pilot, M22 x 3.97 Stud, 16.5 x 8-5/8" Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	39

# Assembly Part Number Index



Assembly PN	Assembly Description Hub Casting Description	SAE Code	Inner Cup Inner Cone	Outer Cup Outer Cone	Catalog Page
006-02133L	Hub Pilot, M22 x 4.82 Stud, 16.5 x 8-5/8" Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	39
006-02134	Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	40
006-02134L	Hub Pilot, M22 x 4.82" Stud, 16.5 x 7" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	40
006-02135	Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	39
006-02135L	Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	39
006-02136	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	40
006-02137	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	40
006-02138	Hub Pilot, M22 x 3.97 Stud, 16.5 x 8-5/8" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	40
006-02138L	Hub Pilot, M22 x 4.82" Stud, 16.5 x 8-5/8" Drum Bal Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	K30	752 759	742 740	40
007-09518	Hub Pilot M24 x 5.47 Stud, 18 x 7" Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	W (A45)	772 787	6535 6580	41
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	42
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	43
012-05010L	Hub Pilot M18 x 1.5 Stud, 12.8" x 4.35" Drum Bal Ductile Iron 6 stud hub w/ 205.05mm Dia. Bolt Circle, Uses Outboard Drum - Serrated stud	N/A	39520 39581	3820 3877	44
012-05110L	Hub Pilot M22 x 1.5 Stud, 12.8" x 4" Drum Bal Ductile Iron 8-stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	N/A	39520 39581	3820 3877	45
014-09442	Hub Pilot M24 x 5.47 Stud, 18 x 7" Drum Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud	A65	892 896	6535 6580	46

## Assembly Part Number Index by Gunite Hub PN

Gunite PN	KIC PN	Description	SAE Designation	Catalog Page
5712-4	001-01025	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7" Drum	N	18
5711-4	001-01025L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7" Drum	N	18
5714RH3	001-01026	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7" Drum	N	18
5714LH3	001-01027	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7" Drum	N	18
HF850K	001-02540L	Hub Pilot, M22 x 3.94 Stud, 16.5 x 6" Drum Bal	N	22
HF850K	001-02545L	Hub Pilot, M22 x 3.94 Stud, 16.5 x 5" Drum Bal	N	22
5721-2	004-40130	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7" Drum	P	33
5719RH2	004-40131	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7" Drum	P	33



# Assembly Part Number Index by Gunite Hub PN

Gunite PN	KIC PN	Description	SAE Designation	Catalog Page
5719LH2	004-40132	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7" Drum	P	33
5720-2	004-01043L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7" Drum	P	35

# 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	17
10069BETR	001-10061	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7" Drum	N	17
10519CLML	001-10512	Stud Pilot, 3/4-16 LH 12.25" x 7.5" Drum	N	20
10519CLMR	001-10511	Stud Pilot, 3/4-16 RH 12.25" x 7.5" Drum	N	20
20231UQ3	001-01025	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7" Drum	N	18
20231UQ5	001-01025L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7" Drum	N	18
20231UQML	001-01027	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7" Drum	N	18
20231UQMR	001-01026	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7" Drum	N	18
20271CW3	001-00133	Hub Pilot, M22 x 3.94 Stud, 12.25 x 7.5" Drum	N	21
20271CW5	001-00133L	Hub Pilot, M22 x 4.79 Stud, 12.25 x 7.5" Drum	N	21
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
22501XQ	011-04100	Hub Pilot M22 x 2.87 Studs, 15" Rotor	I80 (FC)	43
23231UQ3	004-40130	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7" Drum	P	33
23231UQ5	004-40130L	Hub Pilot, M22 x 4.79 Stud, 16.5 x 7" Drum	P	33
23231UQML	004-40132	Stud Pilot, 3/4-16 LH Stud, 16.5 x 7" Drum	P	33
23231UQMR	004-40131	Stud Pilot, 3/4-16 RH Stud, 16.5 x 7" Drum	P	33
23431UQ3	004-01043	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7" Drum	P	35
23431UQ5	004-01043L	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	27
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	22
25401RK3	001-02547L	Hub Pilot, M22 x 3.94 Stud, 16.5 x 7" Drum Bal	N	22
70159CKH	001-70003	3-Spoke x 15" Wheel, 12.25 x 7.5" Drum	N	23
75209GCH	001-75207	5-Spoke x 20" 16.5 x 7" Brake Drum	N	25
76229GCH	001-76227	6-Spoke x 22" 16.5 x 7" Brake Drum	N	26



# 1002 Series Assemblies



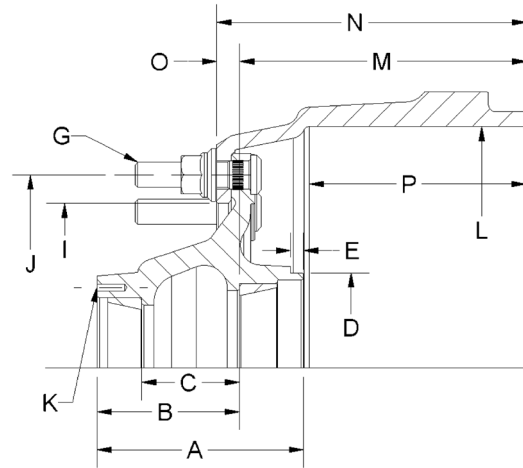
Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

## SAE "N" Spindle

Inner Bearing Cup / Cone HM218210 / HM218248  
 Outer Bearing Cup / Cone HM212011 / HM212049

## Hub Specifications

Std. Hub Weight 59 lbs.  
 A: Hub Overall Length 7.06  
 B: Inner Cup to Mounting Face 4.87  
 C: Distance Between Cups 3.35  
 D: Tone Ring Bore Diameter 6.50  
 E: Tone Ring Bore Depth 0.44  
 J: Bolt Circle 335mm (13.19")  
 K: Bolt Pattern 6 Holes 5/16"-18 UNC,  
 5.50 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>001-00103</b>	<b>54250-01</b>				PRT-00117		9.81	177	
Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	M22 x 1.5	2.65	0.78		
<b>001-00103L</b>	<b>54250-01</b>				PRT-00118		9.81	179	
Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	M22 x 1.5	3.50	0.78		
<b>001-00104</b>	<b>54250-01</b>				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	2.41	0.78		

## Option "T" - ABS Tone Ring

Part Number PRT-13237  
 Description 100-Tooth Tone Ring - Powdered Metal  
 Pitch Diameter 6.77



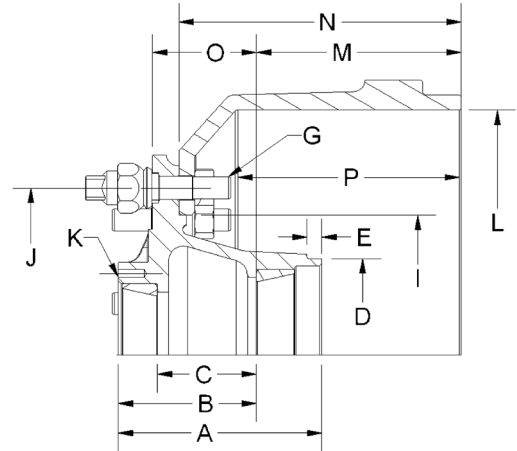
Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Inboard Drum - Shoulder Stud

## SAE "N" Spindle

Inner Bearing Cup / Cone	HM218210 / HM218248
Outer Bearing Cup / Cone	HM212011 / HM212049

## Hub Specifications

Std. Hub Weight	53 lbs.
A: Hub Overall Length	6.85
B: Inner Cup to Mounting Face	4.65
C: Distance Between Cups	3.34
D: Tone Ring Bore Diameter	6.50
E: Tone Ring Bore Depth	0.50
J: Bolt Circle	11.25
K: Bolt Pattern	6 Holes 5/16"-18 UNC, 5.50 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>001-10061</b>	<b>RH</b>	<b>52020-01</b>			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		
<b>001-10062</b>	<b>LH</b>	<b>52020-01</b>			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 Tone Ring

Part Number	PRT-13237
Description	100-Tooth Tone Ring - Powdered Metal
Pitch Diameter	6.77

## Notes

Uses PRT-00152 Locknut.



# 1025 Series Assemblies



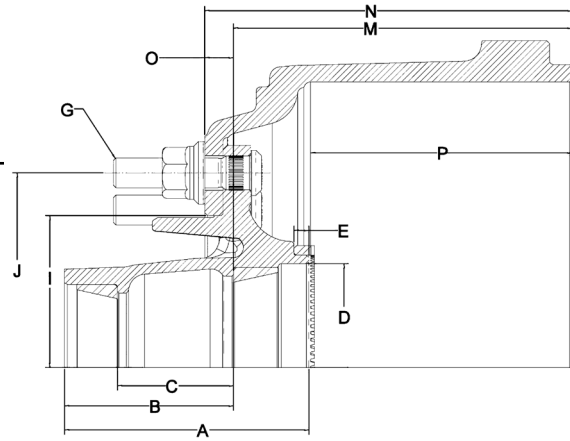
Ductile Iron 10 stud hub (2Gen) w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

## SAE "N" Spindle

Inner Bearing Cup / Cone      HM218210 / HM218248  
 Outer Bearing Cup / Cone      HM212011 / HM212049


## Hub Specifications

Std. Hub Weight                      42 lbs.  
 A: Hub Overall Length              7.06  
 B: Inner Cup to Mounting Face      4.87  
 C: Distance Between Cups          3.34  
 D: Tone Ring Bore Diameter        6.50  
 E: Tone Ring Bore Depth            0.43  
 J: Bolt Circle                          11.25  
 K: Bolt Pattern                        6 Holes 5/16"-18 UNC,  
    5.50 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>001-00225</b>			<b>54261-018</b>			PRT-00117	9.79	168	
Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" XHD Drum Bal	16.50	7.60	8.78	10.59	M22 x 1.5	2.65	0.80		
<b>001-00225L</b>			<b>54261-018</b>			PRT-00118	9.79	169	
Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" XHD Drum Bal	16.50	7.60	8.78	10.59	M22 x 1.5	3.50	0.80		
<b>001-01000</b>			<b>54257-018</b>			PRT-00117	7.79	140	
Hub Pilot, M22 x 3.97 Stud, 16.5 x 5" Drum Bal	16.50	5.50	8.78	8.56	M22 x 1.5	2.69	0.77		
<b>001-01000L</b>			<b>54257-018</b>			PRT-00118	7.79	141	
Hub Pilot, M22 x 4.82 Stud, 16.5 x 5" Drum Bal	16.50	5.50	8.78	8.56	M22 x 1.5	3.54	0.77		
<b>001-01001</b>			<b>54229-018</b>			PRT-00117	10.51	167	
Hub Pilot, M22 x 3.97 Stud, 16.5 x 8-5/8" Drum Bal	16.50	9.00	8.78	11.39	M22 x 1.5	2.65	0.90		
<b>001-01001L</b>			<b>54229-018</b>			PRT-00118	10.51	168	
Hub Pilot, M22 x 4.82 Stud, 16.5 x 8-5/8" Drum Bal	16.50	9.00	8.78	11.39	M22 x 1.5	3.50	0.90		
<b>001-01025</b>			<b>60001-01</b>			PRT-00117	9.79	151	
Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum	16.50	7.56	8.78	10.62	M22 x 1.5	2.64	0.83		
<b>001-01025L</b>			<b>60001-01</b>			PRT-00118	9.79	152	
Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" Drum	16.50	7.56	8.78	10.62	M22 x 1.5	3.46	0.83		
<b>001-01026</b>		<b>RH</b>	<b>60001-01</b>			PRT-01292	9.79	150	
Stud Pilot, 3/4-16 RH Stud, 16.5 x 7" Drum	16.50	7.56	8.78	10.62	3/4-16 RH	1.41	0.83		
<b>001-01026L</b>		<b>RH</b>	<b>60001-01</b>			PRT-01294	9.79	151	
Stud Pilot, 3/4-16 RH Stud, 16.5 x 7" Drum	16.50	7.56	8.78	10.62	3/4-16 RH	1.82	0.83		
<b>001-01027</b>		<b>LH</b>	<b>60001-01</b>			PRT-01293	9.79	150	
Stud Pilot, 3/4-16 LH Stud, 16.5 x 7" Drum	16.50	7.56	8.78	10.62	3/4-16 LH	1.41	0.83		
<b>001-01027L</b>		<b>LH</b>	<b>60001-01</b>			PRT-01295	9.79	151	
Stud Pilot, 3/4-16 LH Stud, 16.5 x 7" Drum	16.50	7.56	8.78	10.62	3/4-16 LH	1.82	0.83		



<b>001-01070</b>						<b>54270-018</b>		PRT-00117	10.95	167	
Hub Pilot, M22 x 3.97 Stud, 15.0 x 8-5/8" Drum Bal	15.00	9.29	8.78	11.77	M22 x 1.5	2.65	0.80				
<b>001-01070L</b>						<b>54270-018</b>		PRT-00118	10.95	168	
Hub Pilot, M22 x 3.97 Stud, 15.0 x 8-5/8" Drum Bal	15.00	9.29	8.78	11.77	M22 x 1.5	3.46	0.80				
<b>001-21025</b>						<b>60000-018</b>		PRT-00117	9.78	146	
Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum Bal	16.50	7.56	8.78	10.56	M22 x 1.5	2.69	0.78				
<b>001-21025L</b>						<b>60000-018</b>		PRT-00118	9.78	147	
Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" Drum Bal	16.50	7.56	8.78	10.56	M22 x 1.5	3.54	0.78				

### Option "T" - ABS Tone Ring

Part Number	PRT-13237
Description	100-Tooth Tone Ring - Powdered Metal
Pitch Diameter	6.77

### Notes

001-01001 suitable for centerline brake shoes  
Fill port option available.



# 1051 Series Assemblies



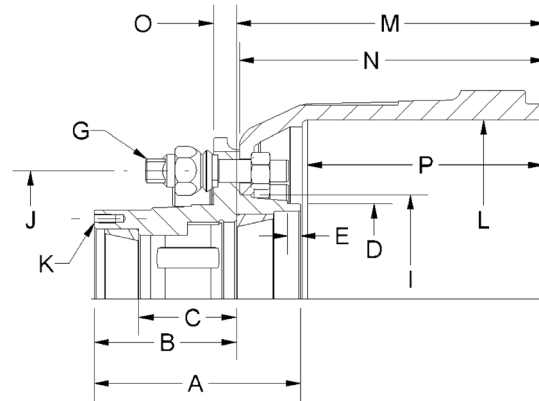
Ductile Iron 10 stud hub w/ 8.75" Dia. Bolt Circle. Uses Inboard Drum - Shoulder Stud

## SAE "N" Spindle

Inner Bearing Cup / Cone HM218210 / HM218248  
 Outer Bearing Cup / Cone HM212011 / HM212049

## Hub Specifications

Std. Hub Weight 44 lbs.  
 A: Hub Overall Length 7.06  
 B: Inner Cup to Mounting Face 4.86  
 C: Distance Between Cups 3.34  
 D: Tone Ring Bore Diameter 6.39  
 E: Tone Ring Bore Depth 0.32  
 J: Bolt Circle 8.75  
 K: Bolt Pattern 6 Holes 5/16"-18 UNC,  
 5.50 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>001-10511</b>	<b>RH</b>	<b>53039-01</b>			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		
<b>001-10512</b>	<b>LH</b>	<b>53039-01</b>			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 Tone Ring

Part Number PRT-10981  
 Description 80-Tooth Tone Ring  
 Pitch Diameter 6.77



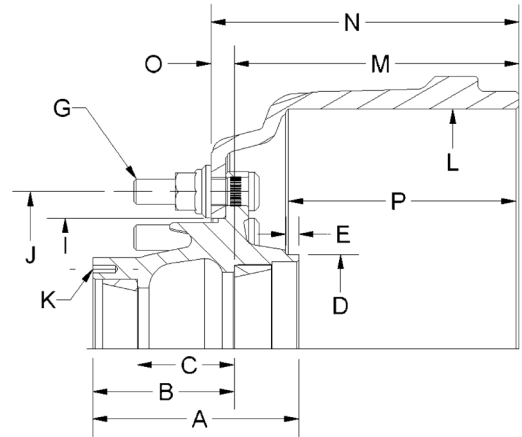
Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

## SAE "N" Spindle

Inner Bearing Cup / Cone      HM218210 / HM218248  
 Outer Bearing Cup / Cone      HM212011 / HM212049

## Hub Specifications

Std. Hub Weight                      37 lbs.  
 A: Hub Overall Length              7.09  
 B: Inner Cup to Mounting Face      4.87  
 C: Distance Between Cups          3.34  
 D: Tone Ring Bore Diameter        6.39  
 E: Tone Ring Bore Depth            0.44  
 J: Bolt Circle                          275mm (10.83")  
 K: Bolt Pattern                        6 Holes 5/16"-18 UNC,  
    5.50 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>001-00133</b>									
Hub Pilot, M22 x 3.97 Stud, 12.25 x 7.5" Drum	12.25	9.84	9.00	11.22	M22 x 1.5	2.65	10.44	127	
<b>001-00133L</b>									
Hub Pilot, M22 x 4.82 Stud, 12.25 x 7.5" Drum	12.25	9.84	9.00	11.22	M22 x 1.5	3.50	10.44	129	

## Option "T" - ABS Tone Ring

Part Number      PRT-10981  
 Description      80-Tooth Tone Ring  
 Pitch Diameter    6.77

## Notes

Fill port option available.



# 2540 Series Assemblies



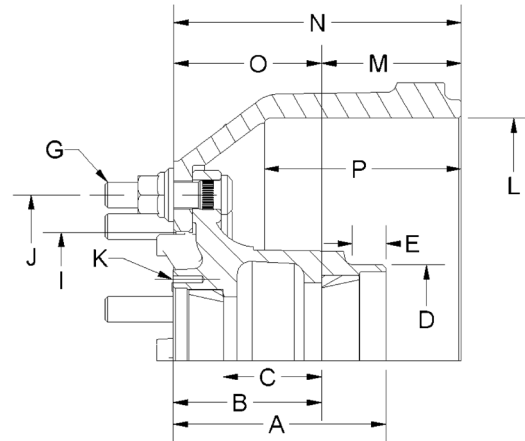
Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

## SAE "N" Spindle

Inner Bearing Cup / Cone HM218210 / HM218248  
 Outer Bearing Cup / Cone HM212011 / HM212049

## Hub Specifications

Std. Hub Weight 55 lbs.  
 A: Hub Overall Length 7.22  
 B: Inner Cup to Mounting Face 5.04  
 C: Distance Between Cups 3.34  
 D: Tone Ring Bore Diameter 6.50  
 E: Tone Ring Bore Depth 1.14  
 J: Bolt Circle 11.25  
 K: Bolt Pattern 6 Holes 5/16"-18 UNC,  
 5.50 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>001-02540</b>		<b>54242-018</b>			PRT-00121		4.74	182	
Hub Pilot, M22 x 3.70 Stud, 16.5 x 6" Drum Bal	16.50	6.47	8.78	9.76	M22 x 1.5	2.13	5.02		
<b>001-02540L</b>		<b>54242-018</b>			PRT-00117		4.74	183	
Hub Pilot, M22 x 3.97 Stud, 16.5 x 6" Drum Bal	16.50	6.47	8.78	9.76	M22 x 1.5	2.36	5.02		
<b>001-02540X</b>		<b>54242-018</b>			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		
<b>001-02544L</b>		<b>54224-018</b>			PRT-00117		3.96	126	
Hub Pilot, M22 x 3.97 Stud, 16.5 x 6" Drum Bal	15.00	4.77	8.78	8.86	M22 x 1.5	2.48	4.90		
<b>001-02545</b>		<b>54238-018</b>			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		
<b>001-02545L</b>		<b>54238-018</b>			PRT-00117		4.25	159	
Hub Pilot, M22 x 3.97 Stud, 16.5 x 5" Drum Bal	16.50	5.29	8.78	9.14	M22 x 1.5	2.36	4.88		
<b>001-02546</b>		<b>54295-018</b>			PRT-00121		4.96	134	
Hub Pilot, M22 x 3.70 Stud, 15 x 6" Drum Bal	15.00	6.64	8.78	9.85	M22 x 1.5	2.12	4.89		
<b>001-02546L</b>		<b>54295-018</b>			PRT-00117		4.96	135	
Hub Pilot, M22 x 3.97 Stud, 15 x 6" Drum Bal	15.00	6.64	8.78	9.85	M22 x 1.5	2.36	4.89		
<b>001-02546X</b>		<b>54295-018</b>			PRT-00122		4.96	137	
Hub Pilot, M22 x 4.25 Stud, 15 x 6" Drum Bal	15.00	6.64	8.78	9.85	M22 x 1.5	2.65	4.89		
<b>001-02547</b>		<b>60001-018</b>			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		
<b>001-02547L</b>		<b>60001-018</b>			PRT-00117		5.70	169	
Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum Bal	16.50	7.56	8.78	10.62	M22 x 1.5	2.47	4.92		



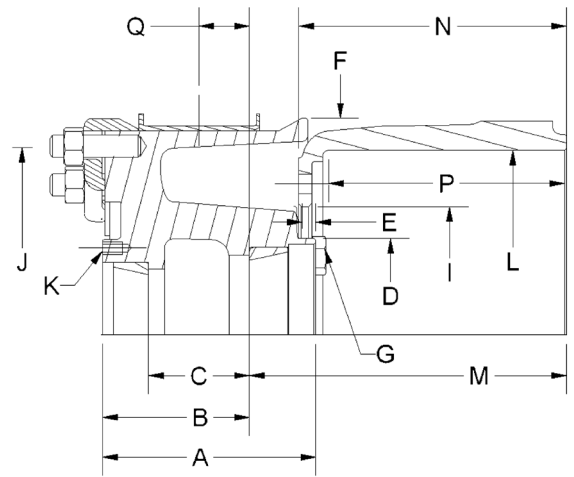
Ductile Iron 3-spoke 15"


## SAE "N" Spindle

Inner Bearing Cup / Cone      HM218210 / HM218248  
 Outer Bearing Cup / Cone      HM212011 / HM212049

## Hub Specifications

Std. Hub Weight                      97 lbs.  
 A: Hub Overall Length              6.97  
 B: Inner Cup to Mounting Face      4.87  
 C: Distance Between Cups          3.34  
 D: Tone Ring Bore Diameter        6.39  
 E: Tone Ring Bore Depth            0.45  
 J: Bolt Circle                          12.50  
 K: Bolt Pattern                        6 Holes 5/16"-18 UNC,  
    5.50 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>001-70003</b>			<b>52743-11</b>		PRT-00143		10.71	163	
3-Spoke x 15" Wheel, 12.25 x 7.5" Drum	12.25	7.89	8.50	8.88	N/A	N/A	N/A		

## Option "T" - ABS Tone Ring

Part Number      PRT-10981  
 Description      80-Tooth Tone Ring  
 Pitch Diameter    6.77

## Notes

Rim Size 15 x 8.0 max





# 75000 Series Assemblies



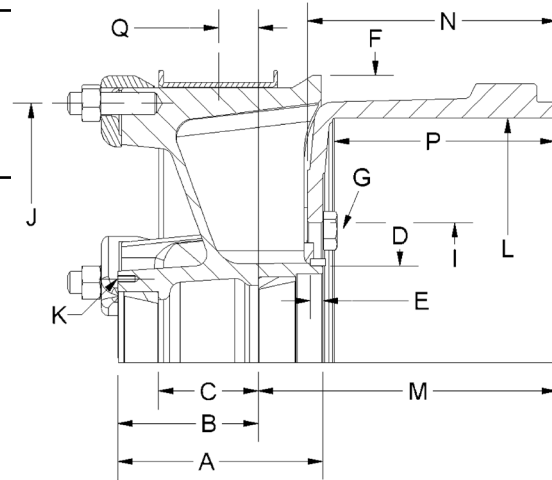
Ductile Iron 5-spoke 20"


## SAE "N" Spindle

Inner Bearing Cup / Cone      HM218210 / HM218248  
 Outer Bearing Cup / Cone      HM212011 / HM212049

## Hub Specifications

Std. Hub Weight                      70 lbs.  
 A: Hub Overall Length              6.73  
 B: Inner Cup to Mounting Face      5.18  
 C: Distance Between Cups          3.34  
 D: Tone Ring Bore Diameter        6.50  
 E: Tone Ring Bore Depth            0.44  
 J: Bolt Circle                          17.5  
 K: Bolt Pattern                        6 Holes 5/16"-18 UNC,  
    5.50 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>001-75000</b>	<b>52230-10</b>				PRT-00151		9.90	175	
5-Spoke x 20" 16.5 x 7" Brake Drum	16.50	7.50	9.44	8.39	N/A	N/A	N/A		

## Option "T" - ABS Tone Ring

Part Number      PRT-13237  
 Description      100-Tooth Tone Ring - Powdered Metal  
 Pitch Diameter    6.77

## Notes

Rim Size 20 x 8.0 max  
 Uses PRT-00075 Rim Nuts  
 Uses PRT-00123 Rim Clamps  
 Uses PRT-00114 Rim Stud  
 Uses PRT-04020 4" Spacer Band  
 Uses PRT-00152 Drum Bolt Nut



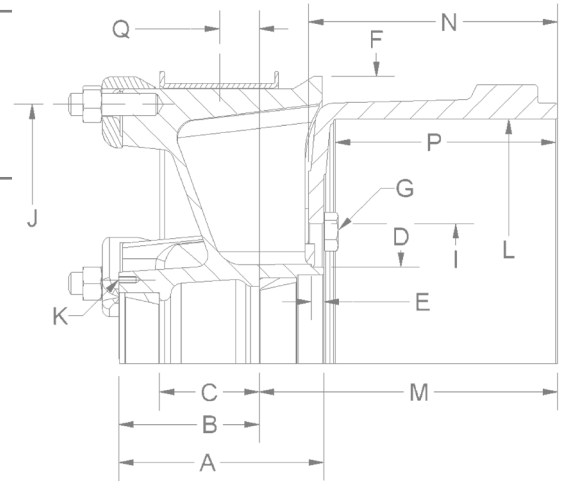
Ductile Iron 5-spoke 20"

## SAE "N" Spindle

Inner Bearing Cup / Cone      HM218210 / HM218248  
 Outer Bearing Cup / Cone      HM212011 / HM212049

## Hub Specifications

Std. Hub Weight                      81 lbs.  
 A: Hub Overall Length              6.93  
 B: Inner Cup to Mounting Face      4.74  
 C: Distance Between Cups          3.34  
 D: Tone Ring Bore Diameter        6.50  
 E: Tone Ring Bore Depth            0.44  
 J: Bolt Circle                          17.5  
 K: Bolt Pattern                        6 Holes 5/16"-18 UNC,  
    5.50 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>001-75207</b>	<b>52230-10</b>				PRT-00151		10.07	186	
5-Spoke x 20" 16.5 x 7" Brake Drum	16.50	7.50	9.44	8.39	N/A	N/A	N/A		

## Option "T" - ABS Tone Ring

Part Number      PRT-13237  
 Description      100-Tooth Tone Ring - Powdered Metal  
 Pitch Diameter    6.77

## Notes

Rim Size 20 x 8.0 max  
 Uses PRT-00075 Rim Nuts  
 Uses PRT-00123 Rim Clamps  
 Uses PRT-00114 Rim Stud  
 Uses PRT-04020 4" Spacer Band  
 Uses PRT-00152 Drum Bolt Nut

**75207 Replaced by 75000 Series - See Page 24**



# 76227 Series Assemblies



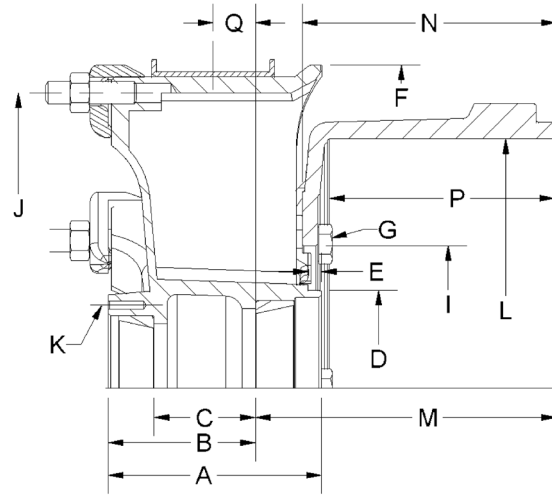
Ductile Iron 6-spoke 22"


## SAE "N" Spindle

Inner Bearing Cup / Cone      HM218210 / HM218248  
 Outer Bearing Cup / Cone      HM212011 / HM212049

## Hub Specifications

Std. Hub Weight                      87 lbs.  
 A: Hub Overall Length              7.05  
 B: Inner Cup to Mounting Face      4.8  
 C: Distance Between Cups          3.34  
 D: Tone Ring Bore Diameter        6.50  
 E: Tone Ring Bore Depth            0.44  
 J: Bolt Circle                          19.52  
 K: Bolt Pattern                        6 Holes 5/16"-18 UNC,  
    5.50 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>001-76227</b>	<b>52230-10</b>				PRT-00143		9.95	192	
6-Spoke x 22" 16.5 x 7" Brake Drum	16.50	7.50	9.44	8.39	N/A	N/A	N/A		

## Option "T" - ABS Tone Ring

Part Number      PRT-13237  
 Description      100-Tooth Tone Ring - Powdered Metal  
 Pitch Diameter    6.77

## Notes

Rim Size 20 x 8.0 max  
 Uses PRT-00075 Rim Nuts  
 Uses PRT-00123 Rim Clamps  
 Uses PRT-00114 Rim Stud  
 Uses PRT-00152 Drum Bolt Nut



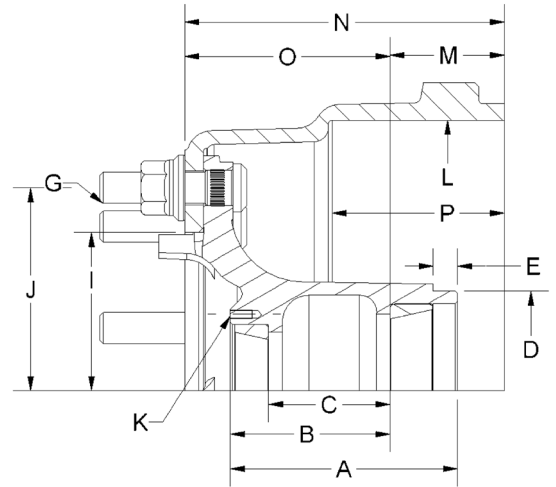
Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

## SAE "FF/FG" Spindle

Inner Bearing Cup / Cone      HM212011 / HM212049  
 Outer Bearing Cup / Cone      3720 / 3782

## Hub Specifications

Std. Hub Weight                      45 lbs.  
 A: Hub Overall Length              6.30  
 B: Inner Cup to Mounting Face      4.43  
 C: Distance Between Cups          3.37  
 D: Tone Ring Bore Diameter        5.52  
 E: Tone Ring Bore Depth            0.67  
 J: Bolt Circle                          11.25  
 K: Bolt Pattern                        6 holes 5/16"-18 UNC.  
    4.50 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>002-00137</b>									
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	115	
<b>002-00137L</b>									
Hub Pilot, M22 x 3.97 Stud, 15 x 4" Drum Bal	15.00	4.77	8.78	8.86	M22 x 1.5	2.61	5.69	118	
<b>002-00138</b>									
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	113	
<b>002-00139</b>									
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	113	
<b>002-00142</b>									
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	2.38	5.69	148	
<b>002-00142L</b>									
Hub Pilot, M22 x 3.97 Stud, 16.5 x 5" Drum Bal	16.50	5.29	8.78	9.14	M22 x 1.5	2.62	5.69	149	
<b>002-00144</b>									
Hub Pilot, M22 x 3.70 Stud, 15 x 5" Drum Bal	15.00	6.26	8.78	9.47	M22 x 1.5	2.36	5.69	122	
<b>002-00144L</b>									
Hub Pilot, M22 x 3.97 Stud, 15 x 5" Drum Bal	15.00	6.26	8.78	9.47	M22 x 1.5	2.36	5.69	123	

## Option "T" - ABS Tone Ring

Part Number                      PRT-10925  
 Description                        100-Tooth Tone Ring  
 Pitch Diameter                    6.46



## 237 Series Assemblies

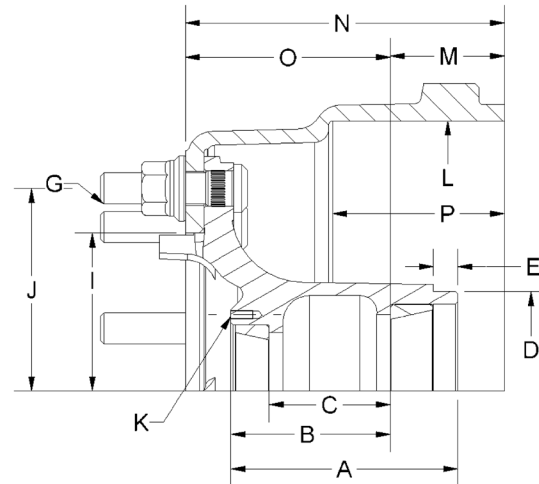
Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

### SAE "FF/FG" Spindle

Inner Bearing Cup / Cone      HM212011 / HM212049  
 Outer Bearing Cup / Cone      3720 / 3782

### Hub Specifications

Std. Hub Weight                    36 lbs.  
 A: Hub Overall Length            6.90  
 B: Inner Cup to Mounting Face    4.44  
 C: Distance Between Cups        3.38  
 D: Tone Ring Bore Diameter      5.52  
 E: Tone Ring Bore Depth        0.66  
 J: Bolt Circle                        11.25  
 K: Bolt Pattern                    6 Holes 5/16"-18 UNC.,  
    4.50 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>002-00237</b>							3.29	106	
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	5.57		
<b>002-00237L</b>							3.29	106	
Hub Pilot, M22 x 3.94 Stud, 15 x 4" Drum Bal	15.00	4.77	8.78	8.86	M22 x 1.5	2.60	5.57		

### Option "T" - ABS Tone Ring

Part Number      PRT-10925  
 Description      100-Tooth Tone Ring  
 Pitch Diameter    6.46



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# 200 Series Assemblies



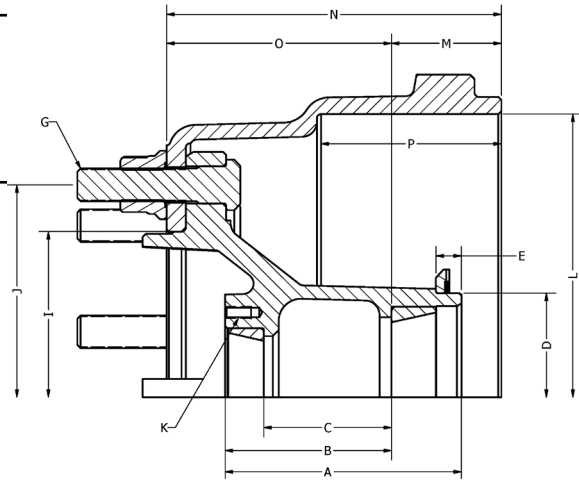
Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

## SAE "FF/FG" Spindle

Inner Bearing Cup / Cone      HM212011 / HM212049  
 Outer Bearing Cup / Cone      3720 / 3782

## Hub Specifications

Std. Hub Weight                    41 lbs.  
 A: Hub Overall Length            6.25  
 B: Inner Cup to Mounting Face    4.40  
 C: Distance Between Cups        3.37  
 D: Tone Ring Bore Diameter      5.52  
 E: Tone Ring Bore Depth         0.67  
 J: Bolt Circle                        11.25  
 K: Bolt Pattern                      6 holes 5/16"-18 UNC.  
    4.50 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>002-00200</b>	<b>54224-018</b>				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		
<b>002-00200L</b>	<b>54224-018</b>				PRT-00122		2.91	113	
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 Tone Ring

Part Number      PRT-10925  
 Description      100-Tooth Tone Ring  
 Pitch Diameter    6.46

## Notes

002-0200 series for 5.44" brake offset applications



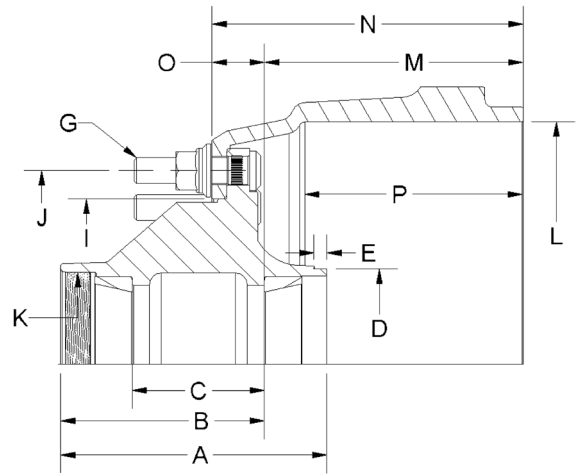
Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

## SAE "P" Spindle

Inner Bearing Cup / Cone      HM518410 / HM518445  
 Outer Bearing Cup / Cone      HM518410 / HM518445

## Hub Specifications

Std. Hub Weight                      74 lbs.  
 A: Hub Overall Length              9.06  
 B: Inner Cup to Mounting Face      6.94  
 C: Distance Between Cups          4.50  
 D: Tone Ring Bore Diameter        6.50  
 E: Tone Ring Bore Depth            0.44  
 J: Bolt Circle                          335mm (13.19")  
 K: Bolt Pattern                        6.25 X 8 TPI Threaded



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>004-40103</b>							8.80		
Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	M22 x 1.5	2.65	1.79	191	
<b>004-40103L</b>							8.80		
Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	M22 x 1.5	3.48	1.79	193	

## Option "T" - ABS Tone Ring

Part Number      PRT-13237  
 Description      100-Tooth Tone Ring - Powdered Metal  
 Pitch Diameter    6.77

## Notes

004-00103 has been superseded by 004-40103





# 40110 Series Assemblies



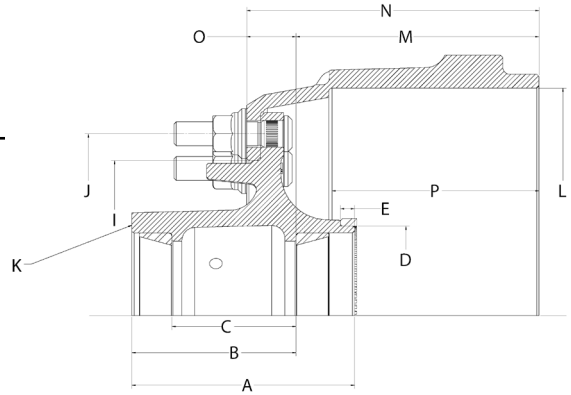
Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

## SAE "P" Spindle

Inner Bearing Cup / Cone      HM518410 / HM518445  
 Outer Bearing Cup / Cone      HM518410 / HM518445

## Hub Specifications

Std. Hub Weight                      71 lbs.  
 A: Hub Overall Length              8.07  
 B: Inner Cup to Mounting Face      5.95  
 C: Distance Between Cups        4.50  
 D: Tone Ring Bore Diameter       6.50  
 E: Tone Ring Bore Depth          0.44  
 J: Bolt Circle                        335mm (13.19")  
 K: Bolt Pattern                      6 Holes M31 x 1.25  
     UNC, 6.50 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>004-40110</b>							8.81	188	
Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	M22 x 1.5	2.52	1.79		
<b>004-40110L</b>							8.81	190	
Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	M22 x 1.5	2.52	1.79		

## Option "T" - ABS Tone Ring

Part Number      PRT-13237  
 Description      100-Tooth Tone Ring - Powdered Metal  
 Pitch Diameter    6.77

## Notes

Fill port option available.



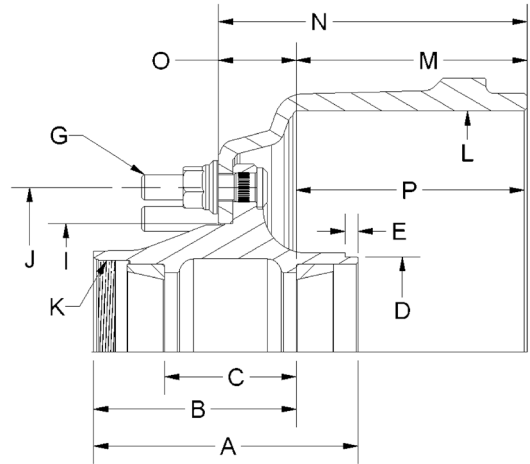
Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard drum - Serrated stud

## SAE "P" Spindle

Inner Bearing Cup / Cone      HM518410 / HM518445  
 Outer Bearing Cup / Cone      HM518410 / HM518445

## Hub Specifications

Std. Hub Weight                      64 lbs.  
 A: Hub Overall Length              9.06  
 B: Inner Cup to Mounting Face      6.94  
 C: Distance Between Cups        4.50  
 D: Tone Ring Bore Diameter       6.50  
 E: Tone Ring Bore Depth         0.44  
 J: Bolt Circle                         11.25  
 K: Bolt Pattern                       6.25 X 8 TPI Threaded



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>004-40130</b>							8.80		
Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum	16.50	7.56	8.78	10.62	M22 x 1.5	2.63	1.82	172	
<b>004-40130L</b>							8.80		
Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" Drum	16.50	7.56	8.78	10.62	M22 x 1.5	3.50	1.82	174	
<b>004-40131</b>							8.80		
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	169	
<b>004-40132</b>							8.80		
Stud Pilot, 3/4-16 LH Stud, 16.5 x 7" Drum	16.50	7.56	8.78	10.62	3/4-16 LH	1.63	1.82	169	

## Option "T" - ABS Tone Ring

Part Number      PRT-13237  
 Description      100-Tooth Tone Ring - Powdered Metal  
 Pitch Diameter    6.77



# 40310 Series Assemblies



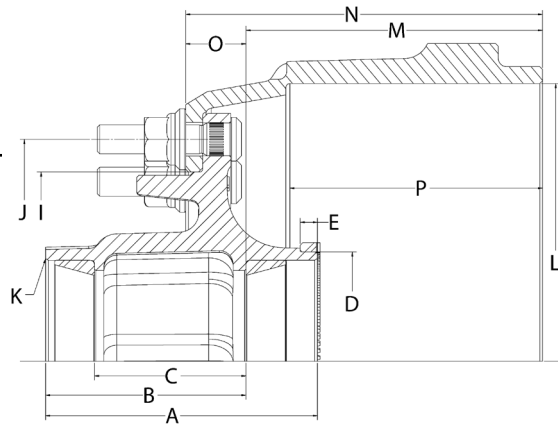
Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

## SAE "P" Spindle

Inner Bearing Cup / Cone HM518410 / HM518445  
 Outer Bearing Cup / Cone HM518410 / HM518445

## Hub Specifications

Std. Hub Weight 61 lbs.  
 A: Hub Overall Length 8.07  
 B: Inner Cup to Mounting Face 5.95  
 C: Distance Between Cups 4.50  
 D: Tone Ring Bore Diameter 6.50  
 E: Tone Ring Bore Depth 0.44  
 J: Bolt Circle 335mm (13.19")  
 K: Bolt Pattern 6 Holes M31 x 1.25 UNC, 6.50 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>004-40310</b>							8.81	178	
Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	M22 x 1.5	3.13	1.79		
<b>004-40310L</b>							8.81	178	
Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	M22 x 1.5	3.13	1.79		

## Option "T" - ABS Tone Ring

Part Number PRT-13237  
 Description 100-Tooth Tone Ring - Powdered Metal  
 Pitch Diameter 6.77

## Notes

Fill port option available.



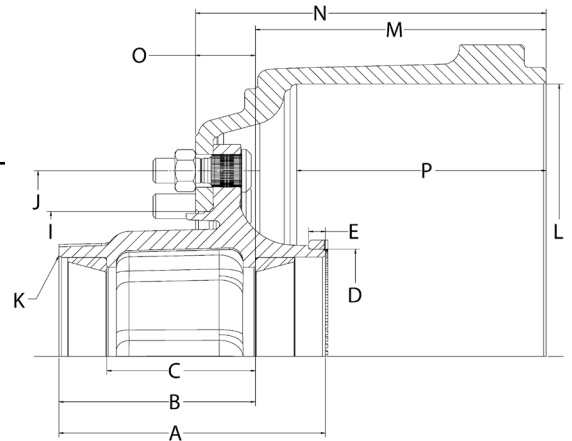
Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard drum - Serrated stud

## SAE "P" Spindle

Inner Bearing Cup / Cone      HM518410 / HM518445  
 Outer Bearing Cup / Cone      HM518410 / HM518445

## Hub Specifications

Std. Hub Weight                      48 lbs.  
 A: Hub Overall Length              8.07  
 B: Inner Cup to Mounting Face      5.95  
 C: Distance Between Cups          4.50  
 D: Tone Ring Bore Diameter        6.50  
 E: Tone Ring Bore Depth            0.51  
 J: Bolt Circle                          11.25  
 K: Bolt Pattern                        6 Holes 5/16"-18 UNC,  
    6.75 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>004-01043</b> Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum	16.50	7.56	8.78	10.62	M22 x 1.5	2.60	8.81	156	
<b>004-01043L</b> Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" Drum	16.50	7.56	8.78	10.62	M22 x 1.5	3.45	8.81	158	
<b>004-01048</b> Hub Pilot, M22 x 3.97 Stud, 16.5 x 8 5/8" Drum Bal	16.50	9.00	8.78	11.33	M22 x 1.5	2.52	9.62	165	
<b>004-01048L</b> Hub Pilot, M22 x 4.82 Stud, 16.5 x 8 5/8" Drum Bal	16.50	9.00	8.78	11.33	M22 x 1.5	3.37	9.62	165	
<b>004-21043</b> Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum Bal	16.50	7.56	8.78	10.56	M22 x 1.5	2.60	8.80	150	
<b>004-21043L</b> Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" Drum Bal	16.50	7.56	8.78	10.56	M22 x 1.5	3.45	8.80	152	

## Option "T" - ABS Tone Ring

Part Number      PRT-13237  
 Description      100-Tooth Tone Ring - Powdered Metal  
 Pitch Diameter    6.77

## Notes

Fill port option available.



# 41045 Series Assemblies



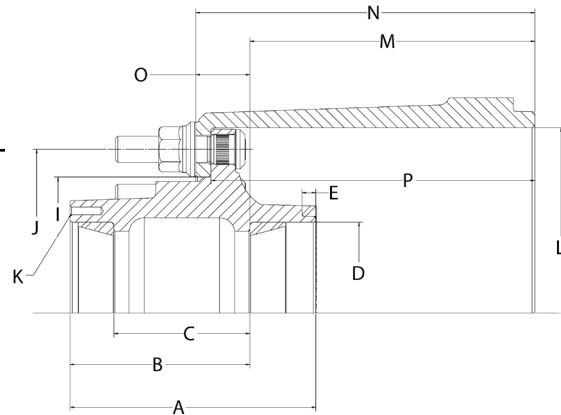
Ductile Iron 8-stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard drum - Serrated stud

## SAE "P" Spindle

Inner Bearing Cup / Cone HM518410 / HM518445  
 Outer Bearing Cup / Cone HM518410 / HM518445

## Hub Specifications

Std. Hub Weight 0 lbs.  
 A: Hub Overall Length 9.06  
 B: Inner Cup to Mounting Face 6.94  
 C: Distance Between Cups 4.50  
 D: Tone Ring Bore Diameter 6.39  
 E: Tone Ring Bore Depth 0.39  
 J: Bolt Circle 275mm (10.83")  
 K: Bolt Pattern 6 Holes 5/16"-18 UNC, 6.75 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>004-41045</b>							9.43	141	
Hub Pilot, M22 x 3.97 Stud, 12.25 x 7.5" Drum	12.25	9.84	9.00	11.22	M22 x 1.5	2.65	1.79		
<b>004-41045L</b>							9.43	142	
Hub Pilot, M22 x 4.82 Stud, 12.25 x 7.5" Drum	12.25	9.84	9.00	11.22	M22 x 1.5	3.50	1.79		

## Option "T" - ABS Tone Ring

Part Number PRT-10981  
 Description 80-Tooth Tone Ring  
 Pitch Diameter 6.77



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# 51005 Series Assemblies



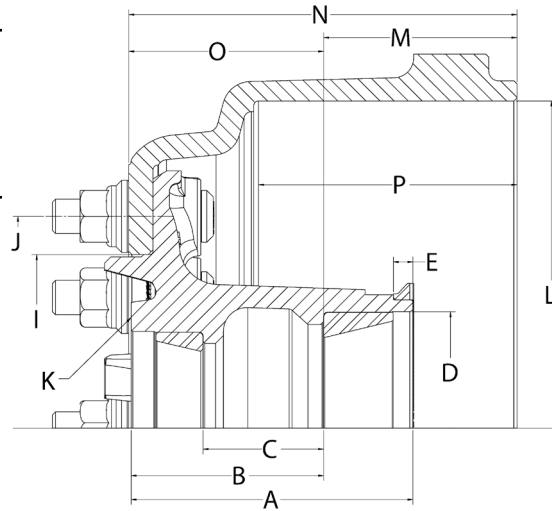
Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

## SAE "FL" Spindle

Inner Bearing Cup / Cone      6420 / 6461A  
 Outer Bearing Cup / Cone      552A / 555S

## Hub Specifications

Std. Hub Weight                      61 lbs.  
 A: Hub Overall Length              7.08  
 B: Inner Cup to Mounting Face      4.29  
 C: Distance Between Cups          3.03  
 D: Tone Ring Bore Diameter        6.50  
 E: Tone Ring Bore Depth            0.49  
 J: Bolt Circle                          11.25  
 K: Bolt Pattern                        6 Holes 5/16"-18 UNC,  
    5.50 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>005-51005L</b>	<b>54248-018</b>				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	2.44	4.90		
<b>005-51005X</b>	<b>54248-018</b>				PRT-00118		4.86	169	
Hub Pilot, M22 x 4.82 Stud, 16.5 x 6" Drum Bal	16.50	6.41	8.78	9.76	M22 x 1.5	3.01	4.90		

## Option "T" - ABS Tone Ring

Part Number      PRT-10935  
 Description      100-Tooth Tone Ring  
 Pitch Diameter    6.92



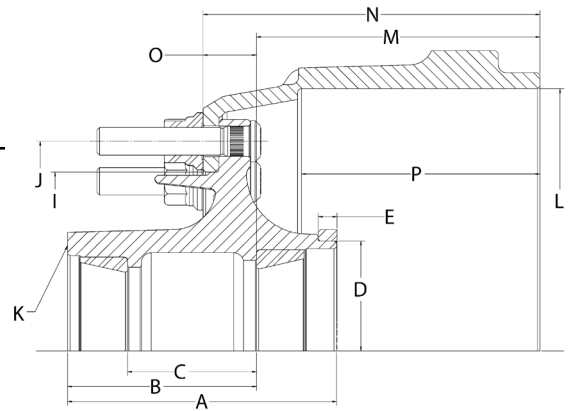
Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

## SAE "K30" Spindle

Inner Bearing Cup / Cone	752 / 759
Outer Bearing Cup / Cone	742 / 740

## Hub Specifications

Std. Hub Weight	48 lbs.
A: Hub Overall Length	8.46
B: Inner Cup to Mounting Face	5.94
C: Distance Between Cups	4.06
D: Tone Ring Bore Diameter	N/A
E: Tone Ring Bore Depth	N/A
J: Bolt Circle	13.19
K: Bolt Pattern	6 Holes 5/16"-18 UNC., 6.75 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>006-02133</b>									
Hub Pilot, M22 x 3.97 Stud, 16.5 x 8-5/8" Drum	16.50	9.15	11.25	12.37	M22 x 1.5	2.40	10.64	187	
<b>006-02133L</b>									
Hub Pilot, M22 x 4.82 Stud, 16.5 x 8-5/8" Drum	16.50	9.15	11.25	12.37	M22 x 1.5	3.26	10.64	189	
<b>006-02135</b>									
Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	M22 x 1.5	2.41	8.91	186	
<b>006-02135L</b>									
Hub Pilot, M22 x 4.82 Stud, 16.5 x 7" Drum	16.50	7.44	11.25	10.59	M22 x 1.5	3.26	8.91	188	

## Option "T" - ABS Tone Ring

Part Number	PRT-13301
Description	100-Tooth Tone Ring
Pitch Diameter	7.28

## Notes

Fill port option available.





# 2134 Series Assemblies



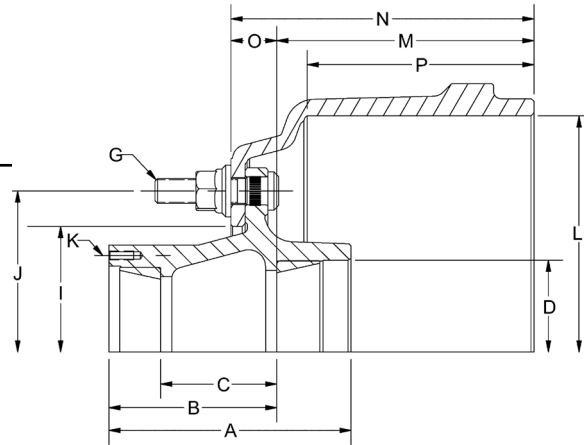
Ductile Iron 10 stud hub w/ 11.25" Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

## SAE "K30" Spindle

Inner Bearing Cup / Cone 752 / 759  
Outer Bearing Cup / Cone 742 / 740

## Hub Specifications

Std. Hub Weight 23 lbs.  
A: Hub Overall Length 8.47  
B: Inner Cup to Mounting Face 5.95  
C: Distance Between Cups 4.06  
D: Tone Ring Bore Diameter N/A  
E: Tone Ring Bore Depth N/A  
J: Bolt Circle 11.25  
K: Bolt Pattern 6 Holes 5/16"-18 UNC.,  
6.75 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>006-02134</b>							8.99	148	
Hub Pilot, M22 x 3.97 Stud, 16.5 x 7" Drum Bal	16.50	7.60	8.78	10.59	M22 x 1.5	2.65	1.60		
<b>006-02134L</b>							8.99	150	
Hub Pilot, M22 x 4.82" Stud, 16.5 x 7" Drum Bal	16.50	7.60	8.78	10.59	M22 x 1.5	3.50	1.60		
<b>006-02136</b>	<b>RH</b>						8.99	148	
Stud Pilot, 3/4-16 RH Stud, 16.5 x 7" Drum Bal	16.50	7.60	8.78	10.59	3/4-16 RH	1.58	1.60		
<b>006-02137</b>	<b>LH</b>						8.99	148	
Stud Pilot, 3/4-16 LH Stud, 16.5 x 7" Drum Bal	16.50	7.60	8.78	10.59	3/4-16 LH	1.64	1.60		
<b>006-02138</b>							9.7	182	
Hub Pilot, M22 x 3.97 Stud, 16.5 x 8-5/8" Drum Bal	16.50	9.00	8.78	11.39	M22 x 1.5	2.57	1.71		
<b>006-02138L</b>							9.7	183	
Hub Pilot, M22 x 4.82" Stud, 16.5 x 8-5/8" Drum Bal	16.50	9.00	8.78	11.39	M22 x 1.5	3.42	1.71		

## Option "T" - ABS Tone Ring

Part Number PRT-13301  
Description 100-Tooth Tone Ring  
Pitch Diameter 7.28

## Notes

Fill port option available.



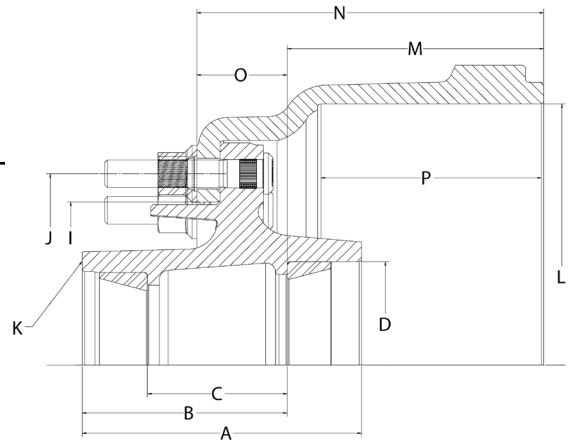
Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

## SAE "W (A45)" Spindle

Inner Bearing Cup / Cone	772 / 787
Outer Bearing Cup / Cone	6535 / 6580

## Hub Specifications

Std. Hub Weight	87 lbs.
A: Hub Overall Length	9.63
B: Inner Cup to Mounting Face	7.06
C: Distance Between Cups	4.81
D: Tone Ring Bore Diameter	N/A
E: Tone Ring Bore Depth	N/A
J: Bolt Circle	335mm (13.19")
K: Bolt Pattern	6 Holes 1/4"-20 UNC, 7.25 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>007-09518</b>									
Hub Pilot M24 x 5.47 Stud, 18 x 7" Drum	18.00	7.67	11.25	11.95	M24 x 1.5	2.74	1.80	287	

### Notes

Uses PRT-00110 1.5 x M24 Flange Nut



# 4000 Series Assemblies



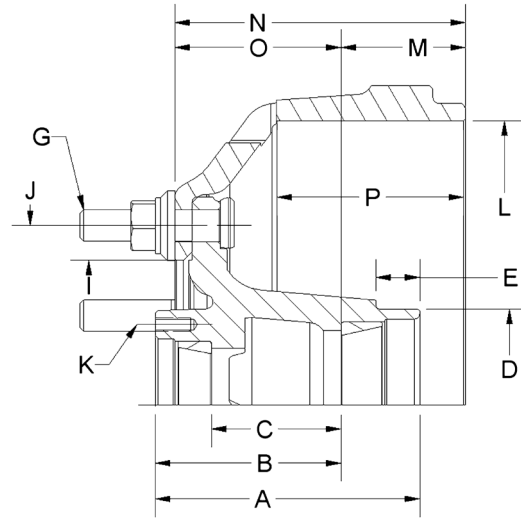
Ductile Iron 6 stud hub w/ 8.07" Dia Bolt Circle. Uses Outboard Drum - Clipped Head Stud

## SAE "I80 (FC)" Spindle

Inner Bearing Cup / Cone JM207010 / JM207049A  
 Outer Bearing Cup / Cone 25820 / 25877

## Hub Specifications

Std. Hub Weight 25 lbs.  
 A: Hub Overall Length 5.94  
 B: Inner Cup to Mounting Face 4.17  
 C: Distance Between Cups 2.91  
 D: Tone Ring Bore Diameter 4.32  
 E: Tone Ring Bore Depth 0.98  
 J: Bolt Circle 205.05 mm (8.07")  
 K: Bolt Pattern 4 Holes 5/16"-18 UNC,  
 3.63 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>011-04000L</b>	<b>54256-018</b>				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		

### Notes

KIC recommends 250-300 ft. lbs. torque range on the M18 studs for the 011-04000  
 Uses PRT-00116 Flange Nut



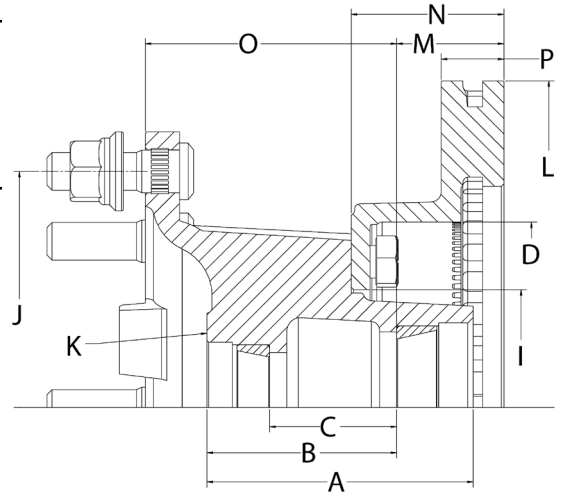
Ductile Iron 8 stud hub w/ 275mm Dia. Bolt Circle. Uses Rotor - Serrated stud

## SAE "I80 (FC)" Spindle

Inner Bearing Cup / Cone JM207010 / JM207049A  
 Outer Bearing Cup / Cone 25820 / 25877

## Hub Specifications

Std. Hub Weight 45 lbs.  
 A: Hub Overall Length 6.10  
 B: Inner Cup to Mounting Face 4.35  
 C: Distance Between Cups 2.91  
 D: Tone Ring Bore Diameter 8.98  
 E: Tone Ring Bore Depth N/A  
 J: Bolt Circle 275mm (10.827")  
 K: Bolt Pattern 4 Holes 5/16"-18 UNC,  
 3.63 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>011-04100</b>	<b>70003-01</b>				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		

### Notes

Uses PRT-00256 bolt & PRT-00903 washer to fasten rotor to hub



# 5010 Series Assemblies



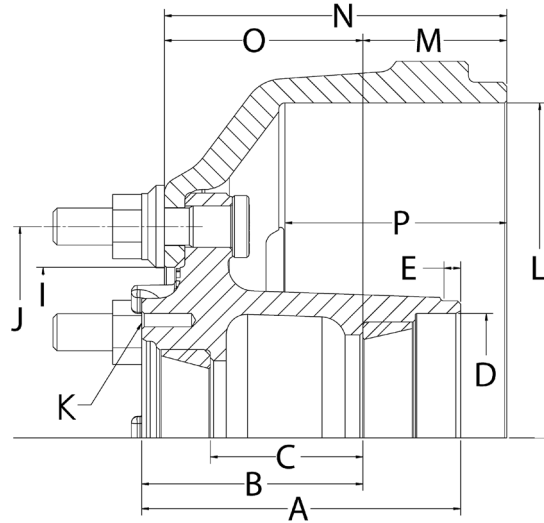
Ductile Iron 6 stud hub w/ 205.05mm Dia. Bolt Circle, Uses Outboard Drum - Serrated stud


## SAE "N/A" Spindle

Inner Bearing Cup / Cone 39520 / 39581  
 Outer Bearing Cup / Cone 3820 / 3877

## Hub Specifications

Std. Hub Weight 27 lbs.  
 A: Hub Overall Length 6.08  
 B: Inner Cup to Mounting Face 4.22  
 C: Distance Between Cups 2.91  
 D: Tone Ring Bore Diameter 5.24  
 E: Tone Ring Bore Depth N/A  
 J: Bolt Circle 205.05mm (8.07")  
 K: Bolt Pattern 6 Holes 5/16"-18 UNC,  
 4.06 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>012-05010L</b>									
Hub Pilot M18 x 1.5 Stud, 12.8" 4.35" Drum Bal	12.80	4.25	6.52	6.52	M18 x 1.5	2.13	4.22	73	

### Notes

KIC recommends 250-300 ft. lbs. torque range on the M18 studs for the 012-05010  
 Uses PRT-00116 Flange Nut



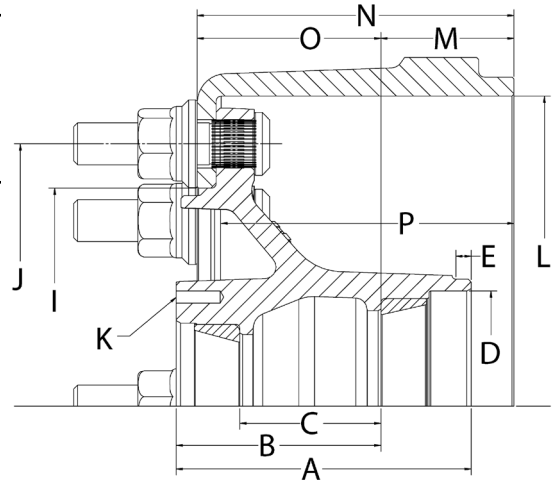
Ductile Iron 8-stud hub w/ 275mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud

## SAE "N/A" Spindle

Inner Bearing Cup / Cone 39520 / 39581  
 Outer Bearing Cup / Cone 3820 / 3877

## Hub Specifications

Std. Hub Weight 37 lbs.  
 A: Hub Overall Length 6.09  
 B: Inner Cup to Mounting Face 4.22  
 C: Distance Between Cups 2.91  
 D: Tone Ring Bore Diameter 5.24  
 E: Tone Ring Bore Depth N/A  
 J: Bolt Circle 275mm (10.827")  
 K: Bolt Pattern 6 Holes 5/16"-18 UNC,  
 4.50 Bolt Circle



Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>012-05110L</b>	<b>54289-018</b>				PRT-00121		2.74	83	
Hub Pilot M22 x 1.5 Stud, 12.8" x 4" Drum Bal	12.80	6.14	9.00	6.54	M22 x 1.5	2.55	3.79		



# 9442 Series Assemblies



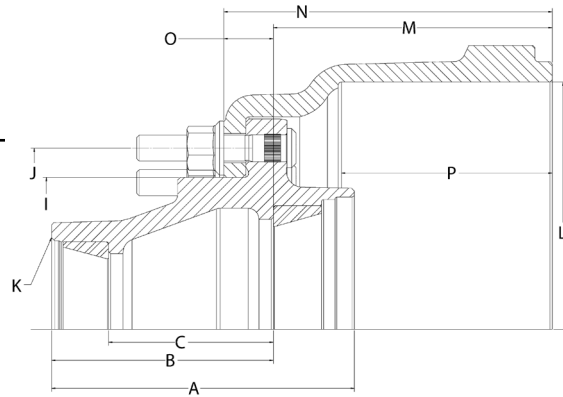
Ductile Iron 10 stud hub w/ 335mm Dia. Bolt Circle. Uses Outboard Drum - Serrated stud


## SAE "A65" Spindle

Inner Bearing Cup / Cone 892 / 896  
Outer Bearing Cup / Cone 6535 / 6580

## Hub Specifications

Std. Hub Weight 91 lbs.  
A: Hub Overall Length 11.03  
B: Inner Cup to Mounting Face 8.08  
C: Distance Between Cups 6.00  
D: Tone Ring Bore Diameter N/A  
E: Tone Ring Bore Depth N/A  
J: Bolt Circle 335mm (13.19")  
K: Bolt Pattern 6 Holes 1/4"-20 UNC,  
7.25 Bolt Circle

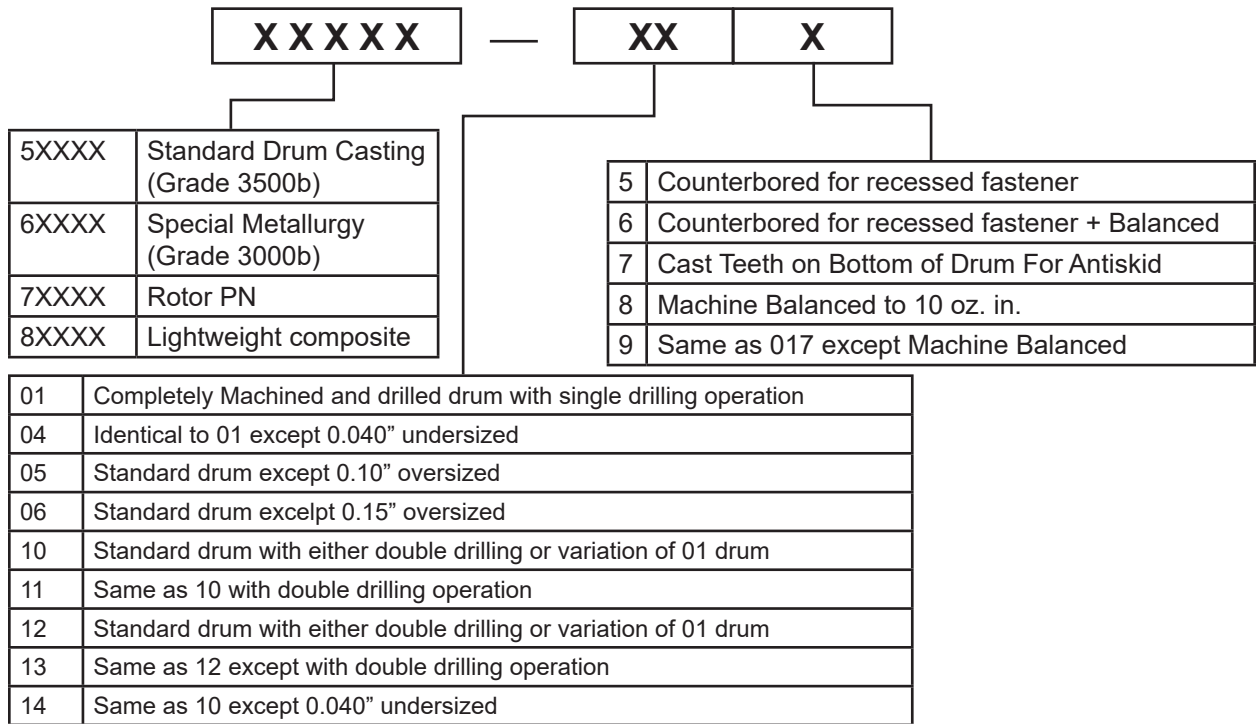


Assembly PN	Drum PN				G - Stud PN		M - Cup to Drum	Assy Weight	Drum Image
	L Brake Face Dia	P Brake Face Width	I Hub Pilot	N Overall Depth	Thread	Stud Stand Out	O Cup Face to Mtg.		
<b>014-09442</b>	<b>54304-01</b>				PRT-04565		10.15	291	
Hub Pilot M24 x 5.47 Stud, 18 x 7" Drum	18.00	7.67	11.25	11.95	M24 x 1.5	2.74	1.80		

### Notes

Uses PRT-00110 1.5 x M24 Flange Nut

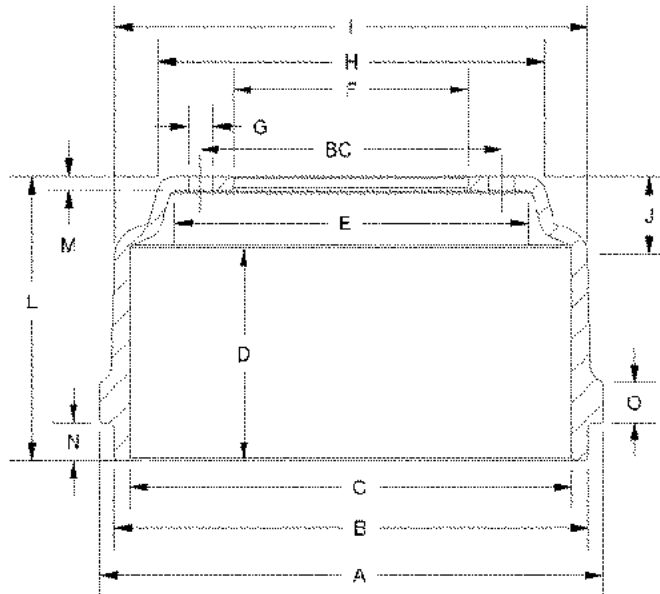




**EXAMPLE:**

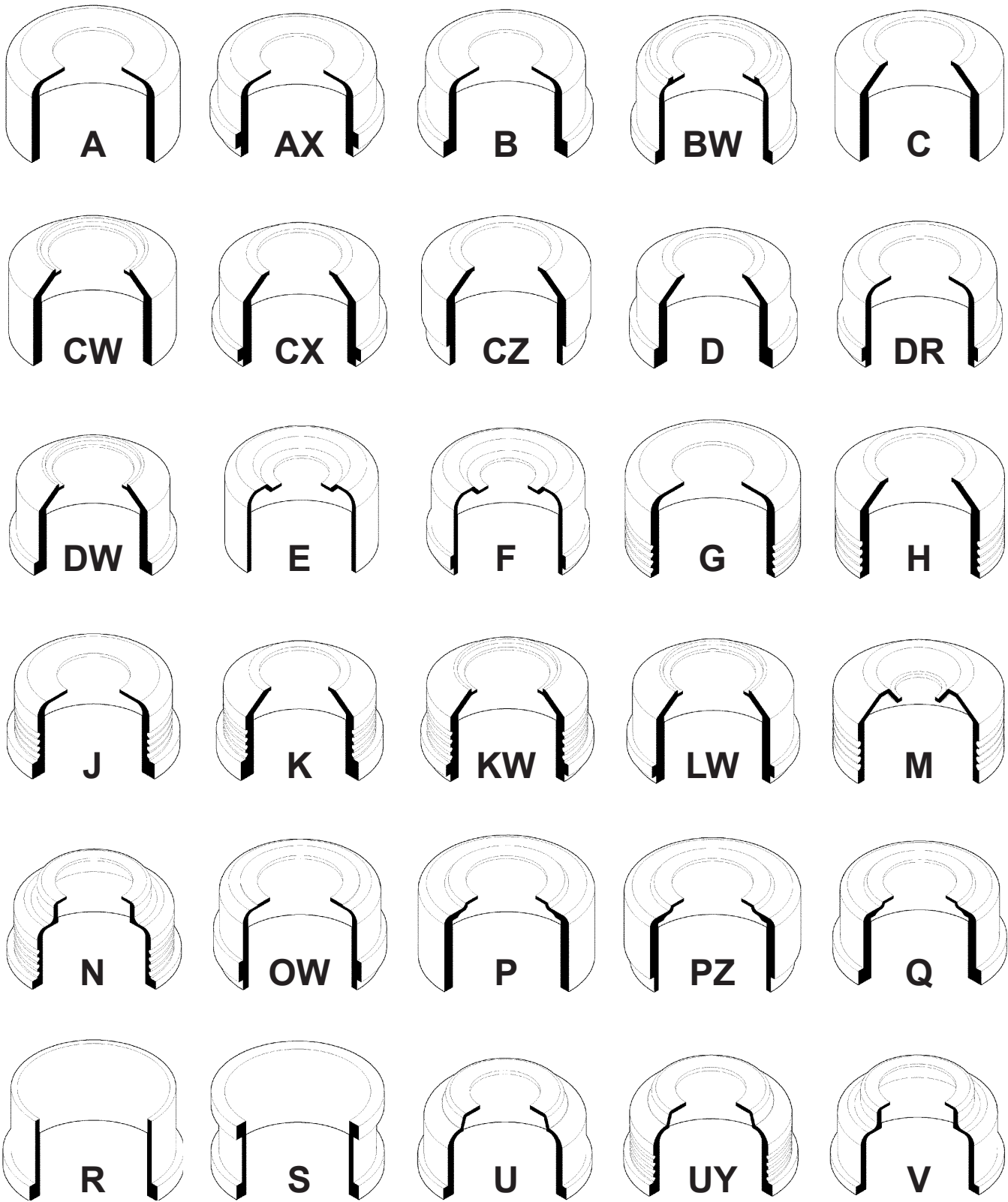
60001-01: 60001 Casting, completely machined and drilled with single drilling operation  
 60001-018: Same as 60001-01 except machine balanced to 10 oz. in.

## Brake Drum Nomenclature



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





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	Brake Face Width	Overall Depth	Hub Pilot	Bolt Hole Circle	Bolt Holes		Special Info
								No.	Dia.	
51283-14	D	98	14.46	5.50	8.31	9.44	11.25	10	1.31	6, BAL, Obsolete
51421-01	P	66	17.25	4.68	7.50	9.88	11.25	10	0.81	
51952-11	D	108	16.5	7.30	8.13	11.00	12.75	5 & 6	0.64	
51961-10	CX	105	16.5	7.50	8.44	11.00	12.50	5 & 6	0.66	Obsolete
52020-01	CX	99	16.5	7.63	9.50	9.44	11.25	10	0.83	
52120-12	CX	101	16.5	7.44	8.44	11.25	12.75	5 & 6	0.78	
52120-128	CX	101	16.5	7.44	8.44	11.25	12.75	5 & 6	0.78	BAL - Special Order
52230-10	CX	105	16.5	7.50	8.39	9.44	11.00	5 & 6	0.78 & 0.66	
52327-10	DR	108	16.5	7.50	8.75	9.50	11.25	10	0.81	
52327-11	<del>DR</del>	<del>108</del>	<del>16.5</del>	<del>7.50</del>	<del>8.75</del>	<del>9.50</del>	<del>11.25</del>	<del>10</del>	<del>0.81</del> <del>0.64</del>	Obsolete - use 54249-01
52336-108	K	169	14.5	10.56	12.81	9.44	11.25	10	1.31	1[5 holes],3,5,7,10, 12.75" Pilot, BAL
52336-148	K	169	14.5	10.56	12.81	9.44	11.25	10	1.31	1[5 holes],3,5,6,7,12.75" Pilot, BAL
52472-128	K	79	14.5	5.31	8.00	9.44	11.25	10	1.31	1[5 holes],3,5,7,12.75" Pilot, BAL
52480-108	K	125	14.5	8.44	11.50	9.44	11.25	10	1.28	1[5 holes],3,5,13" Pilot, BAL, Obsolete
52511-01	CX	79	12.25	8.00	9.04	7.00	8.25	6	0.66	
52647-11	<del>OW</del>	<del>94</del>	<del>16.5</del>	<del>7.38</del>	<del>8.25</del>	<del>11.25</del>	<del>12.75</del>	<del>5 &amp; 6</del>	<del>0.66</del>	Obsolete - use 54264-01
52705-30	CX	114	16.5	7.81	10.61	9.00	11.25	10	0.81	
52705-308	CX	114	16.5	7.82	10.61	9.00	11.25	10	0.81	BAL
52743-11	CX	66	12.25	7.89	8.88	8.50	10.00	3 & 6	0.69	
52757-308	D	112	14.5	5.31	8.00	9.44	11.25	10	1.31	1[5 holes],12.75" Pilot, BAL, Obsolete
52824-138	K	113	14.5	6.44	8.69	9.44	11.25	10	1.31	1[5holes],3,5,7,12.75"Pilot, BAL
52824-148	K	113	14.46	6.44	8.69	9.44	11.25	10	1.31	1[5holes],3,5,6,12.75"Pilot, BAL - Special Order
52877-11	CX	121	16.5	7.52	10.75	9.44	11.25	10	0.81	1 [3 holes]
52878-01	CX	105	16.5	7.51	10.44	8.53	11.25	10	0.81	Cast-in Grease Slinger
52890-13	CX	103	16.5	7.63	8.75	10.50	12.75	5 & 6	0.78	
52918-01	CX	167	16.5	10.56	13.38	8.53	11.25	10	0.80	Obsolete
52919-017	CX	110	16.5	6.50	9.81	9.00	11.25	10	1.31	Obsolete
52965-117	D	205	15.13	10.48	12.38	9.44	11.25	10	1.31	Obsolete
52965-119	D	205	15.13	10.48	12.38	9.44	11.25	10	1.31	BAL
52966-108	D	134	15.13	6.69	8.66	9.44	11.25	10	1.31	1[5holes],5,10,12.75"Pilot, BAL
52975-118	<del>E</del>	<del>83</del>	<del>16.14</del>	<del>6.63</del>	<del>8.38</del>	<del>11.73</del>	<del>13.19</del>	<del>40</del>	<del>0.94</del>	Obsolete - Use 54298-118
52976-118	<del>E</del>	<del>110</del>	<del>16.14</del>	<del>9.19</del>	<del>11.84</del>	<del>11.73</del>	<del>13.19</del>	<del>45</del>	<del>0.94</del>	Obsolete- Use 54299-118
52981-018	CX	88	15	4.44	8.76	9.00	11.25	10	1.28	BAL, Obsolete
53026-01	CX	114	16.5	7.81	10.63	8.53	11.25	10	0.81	
53026-018	CX	114	16.5	7.81	10.63	8.53	11.25	10	0.81	BAL, Special Order
53033-30	U	114	16.5	7.63	10.63	9.00	10.83	8	1.00	
53039-01	CX	74	12.25	8.31	10.47	7.13	8.75	10	0.81	
53039-11	CX	74	12.25	8.25	10.47	7.13	8.75	6	0.81	
53075-018	U	79	15	4.89	8.87	8.78	11.25	10	0.94	BAL
54201-108	H	84	15	4.78	8.86	8.78	11.25	10	1.28	BAL
54202-01	K	110	16.5	7.36	10.30	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	Brake Face Width	Overall Depth	Hub Pilot	Bolt Hole Circle	Bolt Holes		Special Info
								No.	Dia.	
54203-01	AX	137	18	7.48	8.24	11.00	12.75	6	0.66	
54207-018	G	69	15	4.43	5.84	9.25	11.25	5 & 6	0.78	BAL
54208-01	K	118	16.5	7.34	8.13	8.53	11.25	10	0.81	
54209-018	K	112	16.5	7.44	10.31	9.00	11.25	10	0.87	BAL
54210-018	B	105	16.5	6.32	7.44	11.25	12.75	6	0.78	BAL
54212-01	L	117	16.5	7.26	9.69	8.78	11.25	10	1.28	Obsolete
54213-01	Q	114	16.5	7.40	11.18	8.78	11.25	10	1.00	
54213-018	Q	114	16.5	7.40	11.18	8.78	11.25	10	1.00	BAL
54214-018	L	87	15	5.50	9.22	8.78	11.25	10	1.28	BAL
54215-01	AX	79	12.25	7.96	9.07	8.50	10.00	6	0.66	Obsolete
54216-01	Q	90	16.5	5.47	8.10	8.78	11.25	10	1.28	BAL
54216-018	Q	90	16.5	5.47	8.10	8.78	11.25	10	1.28	BAL
54217-018	AX	87	16.5	5.23	6.41	10.00	12.75	5 & 6	0.78	BAL
54224-018	KFD	70	15	4.77	8.86	8.78	11.25	10	1.00	BAL
54226-018	QFD	131	16.5	6.75	9.88	9.00	11.25	10	1.25	10, BAL, Obsolete
54228-01	UF	103	15	9.90	12.20	8.78	11.25	10	1.00	Approved for 19.5" disc wheels
54228-018	UF	103	15	9.90	12.20	8.78	11.25	10	1.00	BAL, Approved for 19.5" disc wheels
54229-01	QFD	117	16.5	8.98	11.41	8.78	11.25	10	1.00	
54229-018	QFD	117	16.5	9.00	11.39	8.78	11.25	10	1.00	BAL
54230-01	CX	145	18	7.56	8.87	11.25	12.75	6 & 6	0.78 & 0.65	
54231-018	U	181	16.5	9.44	11.56	11.25	13.19	10	1.06	BAL
54232-018	U	147	16.5	9.16	11.28	11.25	13.19	10	1.06	BAL
54234-018	K	117	16.5	7.48	10.82	8.78	11.25	10	1.00	BAL
54236-018	K	134	16.5	8.87	11.46	8.78	11.25	10	0.94	BAL, Obsolete
54238-018	U	101	16.5	5.29	9.14	8.78	11.25	10	1.25	BAL
54240-01	U	107	16.5	6.77	9.65	11.25	13.19	10	0.94	Obsolete
54241-018	CX	83	15	4.84	8.84	9.00	11.25	10	1.28	BAL
54242-018	CX	126	16.5	6.47	9.76	8.78	11.25	10	1.00	BAL
54243-018	U	88	15	4.50	9.04	9.00	11.25	10	1.25	BAL
54244-01	AX	89	12.25	9.84	11.22	9.00	10.83	8	1.00	
54244-018	AX	89	12.25	9.84	11.22	9.00	10.83	8	1.00	BAL
54248-018	U	106	16.5	6.41	9.76	8.78	11.25	10	1.31	BAL
54248-308	U	106	16.5	6.41	9.76	9.00	11.25	10	1.31	BAL
54249-01	OW	105	16.5	7.49	8.74	9.50	11.25	5 & 6	0.82 & 0.65	
54250-01	UD	117	16.5	7.44	10.59	11.25	13.19	10	1.00	
54250-018	UD	117	16.5	7.44	10.59	11.25	13.19	10	1.00	BAL
54251-01	UD	139	16.5	9.15	12.37	11.25	13.19	10	0.94	
54253-018	AX	145	16.14	9.03	10.85	11.10	13.19	10	0.91	BAL
54256-018	CX	46	12.8	4.25	6.52	6.52	8.07	6	0.73	1.5, BAL
54257-018	U	99	16.5	5.50	8.56	8.78	11.25	10	1.00	BAL
54258-018	U	103	16.5	6.57	9.44	11.25	13.19	10	1.00	BAL
54259-018	CX	85	15	5.47	9.22	9.00	11.25	10	1.28	BAL

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	Brake Face Width	Overall Depth	Hub Pilot	Bolt Hole Circle	Bolt Holes		Special Info
								No.	Dia.	
54261-018	U	125	16.5	7.60	10.59	8.78	11.25	10	1.00	BAL
54264-01	F	91	16.5	7.19	8.19	11.25	12.75	5 & 6	0.78 & 0.66	11.25 Hub Bore
54266-018	OW	124	16.5	6.50	9.75	8.53	11.25	10	1.28	BAL
54267-018	V	126	16.5	7.46	10.37	8.78	11.25	10	0.94	BAL
54268-018	V	103	16.5	6.62	9.65	11.25	13.19	10	1.00	4, BAL
54268-128	V	103	16.5	6.62	9.65	11.25	13.19	10	1.00	BAL
54269-01	U	122	16.5	8.61	11.10	8.75	11.25	10	1.03	Special Order
54269-018	U	122	16.5	8.61	11.10	8.75	11.25	10	1.03	BAL
54270-018	B	118	15	9.29	11.77	8.78	11.25	10	1.00	BAL
54271-01	V	106	15	7.75	10.59	8.78	11.25	10	0.94	Obsolete
54272-018	OW	75	15	4.78	8.98	8.75	11.25	10	0.81	BAL
54275-018	OW	101	16.5	5.52	9.22	9.00	11.25	10	1.28	BAL
54276-018	G	81	15	4.54	9.04	8.78	11.25	10	1.00	BAL, Obsolete
54280-018	K	180	14.5	10.51	12.81	9.44	11.25	10	1.31	10, 12.75 Pilot Dia., BAL
54281-018	K	111	14.5	6.46	8.69	9.44	11.25	10	1.31	12.75 Pilot Dia., BAL
54282-018	AX	75	15.00	6.26	9.47	8.78	11.25	10	0.94	1
54284-01	AX	120	15.5	8.38	10.69	11.06	13.19	10	1.03	Obsolete
54286-018	CX	136	16.14	9.12	11.81	14.41	13.19	10	0.93	11.73 Hub Bore, BAL
54289-018	AX	46	12.8	6.14	6.54	9.00	10.83	8	1.00	BAL
54290-018	U	183	16.5	10.69	13.19	8.78	11.25	10	1.00	BAL
54292-018	U	123	16.5	6.67	9.88	8.78	11.25	10	1.00	BAL
54293-018	CX	79	15	4.58	9.04	8.78	11.25	10	1.28	BAL
54294-018	U	136	16.5	9.70	12.39	9.00	10.83	8	1.00	BAL, Obsolete
54295-018	U	79	15	6.64	9.85	8.78	11.25	10	1.00	1, BAL
54296-018	U	80	15	5.40	9.31	8.78	11.25	10	1.00	BAL
54298-118	OW	90	16.14	6.63	8.43	11.73	13.19	10	0.87	BAL
54299-118	U	130	16.14	9.19	11.81	11.74	13.19	10	0.91	BAL
54301-018	U	130	16.5	6.73	9.54	8.78	11.25	10	1.28	BAL
54304-01	UD	200	18	7.67	11.95	11.25	13.19	10	1.06	
54727-01	U	132	16.5	9.63	12.39	8.78	11.25	10	1.00	
555-01811	L	141	18	7.88	9.75	11.25	13.19	10	1.06	Special Order
555-18006B	QD	138	18	7.50	8.75	9.50	11.25	6	0.75	Banded, Special Order
555-20057B	A	238	20	8.56	12.63	11.00	13.19	10	1.06	Banded, Special Order
555-2005B	A	242	20	8.50	12.50	10.63	13.19	10	1.06	Banded, Special Order
555-2009B	D	198	20	8.52	10.25	10.63	13.19	6	0.81	Banded, Special Order
555-2021B	D	209	20	7.41	9.25	13.25	15.00	12	0.78	13.50" Pilot, Banded, Special Order
555-2023	D	240	20	8.61	10.94	13.25	15.00	12	0.78	13.50" Pilot, Special Order
555-2027	P	218	20	8.61	10.94	11.00	12.50	12	0.66	11.25" Pilot, Special Order
555-2035B	QD	190	20	9.00	11.00	9.50	11.25	6	0.66	Banded, Special Order
60000-018	U	102	16.5	7.56	10.56	8.78	11.25	10	1.00	BAL
60001-01	U	108	16.5	7.56	10.62	8.78	11.25	10	1.00	
60001-018	U	108	16.5	7.56	10.62	8.78	11.25	10	1.00	BAL
80000-018	U	88	16.5	7.56	10.43	8.78	11.25	10	1.00	BAL - Steel Shell Composite

# 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	8.5	10.00	3 & 6	0.69	CX	66	
	54215-01	12.25	7.96	9.07	8.5	10.00	6	0.66	AX	79	Obsolete
12.25 x 8	53039-01	12.25	8.31	10.47	7.13	8.75	10	0.81	CX	74	
	53039-11	12.25	8.25	10.47	7.13	8.75	6	0.81	CX	74	
	54244-01	12.25	9.84	11.22	9.00	10.83	8	1.00	AX	89	
	54244-018	12.25	9.84	11.22	9.00	10.83	8	1.00	AX	89	BAL
12.8 x 3.93 (325mm x 100mm)	54256-018	12.8	4.25	6.52	6.52	8.07	6	0.73	CX	46	1,5, BAL
12.8 x 4	54289-018	12.8	6.14	6.54	9.00	10.83	8	1.00	AX	46	BAL
14.5 x 10	52336-108	14.5	10.56	12.81	9.44	11.25	10	1.31	K	169	1[5 holes],3,5,7,10, 12.75" Pilot, BAL
	52336-148	14.5	10.56	12.81	9.44	11.25	10	1.31	K	169	1[5 holes],3,5,6,7,12.75" Pilot, BAL
	54280-018	14.5	10.51	12.81	9.44	11.25	10	1.31	K	180	10, 12.75 Pilot Dia., BAL
14.5 x 5	51283-14	14.46	5.50	8.31	9.44	11.25	10	1.31	D	98	6, BAL, Obsolete
	52472-128	14.5	5.31	8.00	9.44	11.25	10	1.31	K	79	1[5 holes],3,5,7,12.75" Pilot, BAL
	52757-308	14.5	5.31	8.00	9.44	11.25	10	1.31	D	112	1[5 holes],12.75" Pilot, BAL, Obsolete
14.5 x 6	52824-138	14.5	6.44	8.69	9.44	11.25	10	1.31	K	113	1[5holes],3,5,7,12.75"Pilot, BAL
	52824-148	14.46	6.44	8.69	9.44	11.25	10	1.31	K	113	1[5holes],3,5,6,12.75"Pilot, BAL - Special Order
	54281-018	14.5	6.46	8.69	9.44	11.25	10	1.31	K	111	12.75 Pilot Dia., BAL
14.5 x 8	52480-108	14.5	8.44	11.5	9.44	11.25	10	1.28	K	125	1[5 holes],3,5,13" Pilot, BAL, Obsolete
15 x 4	52981-018	15	4.44	8.76	9.00	11.25	10	1.28	CX	88	BAL, Obsolete
	53075-018	15	4.89	8.87	8.78	11.25	10	0.94	U	79	BAL
	54201-108	15	4.78	8.86	8.78	11.25	10	1.28	H	84	BAL
	54207-018	15	4.43	5.84	9.25	11.25	5 & 6	0.78	G	69	BAL
	54224-018	15	4.77	8.86	8.78	11.25	10	1.00	KFD	70	BAL
	54241-018	15	4.84	8.84	9.00	11.25	10	1.28	CX	83	BAL
	54243-018	15	4.50	9.04	9.00	11.25	10	1.25	U	88	BAL
	54272-018	15	4.78	8.98	8.75	11.25	10	0.81	OW	75	BAL
	54276-018	15	4.54	9.04	8.78	11.25	10	1.00	G	81	BAL, Obsolete
15 x 5	54293-018	15	4.58	9.04	8.78	11.25	10	1.28	CX	79	BAL
	54214-018	15	5.50	9.22	8.78	11.25	10	1.28	L	87	BAL
	54259-018	15	5.47	9.22	9.00	11.25	10	1.28	CX	85	BAL
15 x 6	54296-018	15	5.40	9.31	8.78	11.25	10	1.00	U	80	BAL
	54295-018	15	6.64	9.85	8.78	11.25	10	1.00	U	79	1, BAL
	54282-018	15	6.26	9.47	8.78	11.25	10	0.94	AX	75	1
15 x 7	54271-01	15	7.75	10.59	8.78	11.25	10	0.94	V	106	Obsolete

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**

# KIC 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 8.62	54228-01	15	9.90	12.2	8.78	11.25	10	1.00	UF	103	Approved for 19.5" disc wheels
	54228-018	15	9.90	12.2	8.78	11.25	10	1.00	UF	103	BAL, Approved for 19.5" disc wheels
	54270-018	15	9.29	11.77	8.78	11.25	10	1.00	B	118	BAL
15.125 x 10	52965-117	15.13	10.48	12.38	9.44	11.25	10	1.31	D	205	Obsolete
	52965-119	15.13	10.48	12.38	9.44	11.25	10	1.31	D	205	BAL
15.125 x 6	52966-108	15.13	6.69	8.66	9.44	11.25	10	1.31	D	134	1[Shoes],5,10,12.75"Pilot, BAL
15.5 x 8	54284-01	15.5	8.38	10.69	11.06	13.19	10	1.03	AX	120	Obsolete
16.14 x 6	<del>52975-118</del>	<del>16.14</del>	<del>6.63</del>	<del>8.38</del>	<del>11.73</del>	<del>13.19</del>	<del>10</del>	<del>0.91</del>	<del>U</del>	<del>83</del>	Obsolete - Use 54298-118
	54298-118	16.14	6.63	8.43	11.73	13.19	10	0.87	OW	90	BAL
16.14 x 8.62	<del>52976-118</del>	<del>16.14</del>	<del>9.19</del>	<del>11.81</del>	<del>11.73</del>	<del>13.19</del>	<del>15</del>	<del>0.91</del>	<del>U</del>	<del>110</del>	Obsolete- Use 54299-118
	54253-018	16.14	9.03	10.85	11.1	13.19	10	0.91	AX	145	BAL
	54286-018	16.14	9.12	11.81	14.41	13.19	10	0.93	CX	136	11.73 Hub Bore, BAL
16.14 x 9	54299-118	16.14	9.19	11.81	11.74	13.19	10	0.91	U	130	BAL
16.5 x 10	52918-01	16.5	10.56	13.38	8.53	11.25	10	0.8	CX	167	Obsolete
	54290-018	16.5	10.69	13.19	8.78	11.25	10	1.00	U	183	BAL
16.5 x 4	54217-018	16.5	5.23	6.41	10	12.75	5 & 6	0.78	AX	87	BAL
16.5 x 5	<del>54216-01</del>	<del>16.5</del>	<del>5.47</del>	<del>8.10</del>	<del>8.78</del>	<del>11.25</del>	<del>10</del>	<del>1.28</del>	<del>Q</del>	<del>90</del>	Obsolete - Use 54216-018
	54216-018	16.5	5.47	8.10	8.78	11.25	10	1.28	Q	90	BAL
	54238-018	16.5	5.29	9.14	8.78	11.25	10	1.25	U	101	BAL
	54257-018	16.5	5.50	8.56	8.78	11.25	10	1.00	U	99	BAL
	54275-018	16.5	5.52	9.22	9.00	11.25	10	1.28	OW	101	BAL
16.5 x 6	52919-017	16.5	6.50	9.81	9.00	11.25	10	1.31	CX	110	Obsolete
	54210-018	16.5	6.32	7.44	11.25	12.75	6	0.78	B	105	BAL
	54226-018	16.5	6.75	9.88	9.00	11.25	10	1.25	QFD	131	10, BAL, Obsolete
	54240-01	16.5	6.77	9.65	11.25	13.19	10	0.94	U	107	Obsolete
	54242-018	16.5	6.47	9.76	8.78	11.25	10	1.00	CX	126	BAL
	54248-018	16.5	6.41	9.76	8.78	11.25	10	1.31	U	106	BAL
	54248-308	16.5	6.41	9.76	9.00	11.25	10	1.31	U	106	BAL
	54258-018	16.5	6.57	9.44	11.25	13.19	10	1.00	U	103	BAL
	54266-018	16.5	6.5	9.75	8.53	11.25	10	1.28	OW	124	BAL
	54268-018	16.5	6.62	9.65	11.25	13.19	10	1.00	V	103	4, BAL
16.5 x 6	54268-128	16.5	6.62	9.65	11.25	13.19	10	1.00	V	103	BAL
	54292-018	16.5	6.67	9.88	8.78	11.25	10	1.00	U	123	BAL
	54301-018	16.5	6.73	9.54	8.78	11.25	10	1.28	U	130	BAL

# 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	51952-11	16.5	7.30	8.13	11.00	12.75	5 & 6	0.64	D	108	
	51961-10	16.5	7.50	8.44	11.00	12.5	5 & 6	0.66	CX	105	Obsolete
	52020-01	16.5	7.63	9.5	9.44	11.25	10	0.83	CX	99	
	52120-12	16.5	7.44	8.44	11.25	12.75	5 & 6	0.78	CX	101	
	52120-128	16.5	7.44	8.44	11.25	12.75	5 & 6	0.78	CX	101	BAL - Special Order
	52230-10	16.5	7.50	8.39	9.44	11.00	5 & 6	0.78 & 0.66	CX	105	
	52327-10	16.5	7.50	8.75	9.50	11.25	10	0.81	DR	108	
	52327-11	<del>16.5</del>	<del>7.50</del>	<del>8.75</del>	<del>9.50</del>	<del>11.25</del>	<del>5 &amp; 6</del>	<del>0.81 &amp; 0.64</del>	<del>DR</del>	<del>108</del>	Obsolete - use 54249-01
	52647-11	<del>16.5</del>	<del>7.38</del>	<del>8.25</del>	<del>11.25</del>	<del>12.75</del>	<del>5 &amp; 6</del>	<del>0.66</del>	<del>OW</del>	<del>94</del>	Obsolete - use 54264-01
	52705-30	16.5	7.81	10.61	9.00	11.25	10	0.81	CX	114	
	52705-308	16.5	7.82	10.61	9.00	11.25	10	0.81	CX	114	BAL
	52877-11	16.5	7.52	10.75	9.44	11.25	10	0.81	CX	121	1 [3 holes]
	52878-01	16.5	7.51	10.44	8.53	11.25	10	0.81	CX	105	Cast-in Grease Slinger
	52890-13	16.5	7.63	8.75	10.5	12.75	5 & 6	0.78	CX	103	
	53026-01	16.5	7.81	10.63	8.53	11.25	10	0.81	CX	114	
	53026-018	16.5	7.81	10.63	8.53	11.25	10	0.81	CX	114	BAL, Special Order
	53033-30	16.5	7.63	10.63	9.00	10.83	8	1.00	U	114	
	54202-01	16.5	7.36	10.30	8.78	11.25	10	1.00	K	110	
	54208-01	16.5	7.34	8.13	8.53	11.25	10	0.81	K	118	
	54209-018	16.5	7.44	10.31	9.00	11.25	10	0.87	K	112	BAL
	54212-01	16.5	7.26	9.69	8.78	11.25	10	1.28	L	117	Obsolete
	54213-01	16.5	7.4	11.18	8.78	11.25	10	1.00	Q	114	
	54213-018	16.5	7.4	11.18	8.78	11.25	10	1.00	Q	114	BAL
	54234-018	16.5	7.48	10.82	8.78	11.25	10	1.00	K	117	BAL
	54249-01	16.5	7.49	8.74	9.50	11.25	5 & 6	0.82 & 0.65	OW	105	
	54250-01	16.5	7.44	10.59	11.25	13.19	10	1.00	UD	117	
	54250-018	16.5	7.44	10.59	11.25	13.19	10	1.00	UD	117	BAL
	54261-018	16.5	7.60	10.59	8.78	11.25	10	1.00	U	125	BAL
	54264-01	16.5	7.19	8.19	11.25	12.75	5 & 6	0.78 & 0.66	F	91	11.25 Hub Bore
	54267-018	16.5	7.46	10.37	8.78	11.25	10	0.94	V	126	BAL
	60000-018	16.5	7.56	10.56	8.78	11.25	10	1.00	U	102	BAL
	60001-01	16.5	7.56	10.62	8.78	11.25	10	1.00	U	108	
60001-018	16.5	7.56	10.62	8.78	11.25	10	1.00	U	108	BAL	
80000-018	16.5	7.56	10.43	8.78	11.25	10	1.00	U	88	BAL - Steel Shell Composite	

# KIC 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 8.62	54229-01	16.5	8.98	11.41	8.78	11.25	10	1.00	QFD	117	
	54229-018	16.5	9.00	11.39	8.78	11.25	10	1.00	QFD	117	BAL
	54231-018	16.5	9.44	11.56	11.25	13.19	10	1.06	U	181	BAL
	54232-018	16.5	9.16	11.28	11.25	13.19	10	1.06	U	147	BAL
	54236-018	16.5	8.87	11.46	8.78	11.25	10	0.94	K	134	BAL, Obsolete
	54251-01	16.5	9.15	12.37	11.25	13.19	10	0.94	UD	139	
	54294-018	16.5	9.70	12.39	9.00	10.83	8	1.00	U	136	BAL, Obsolete
	54727-01	16.5	9.63	12.39	8.78	11.25	10	1.00	U	132	
16.50 x 8	54269-01	16.5	8.61	11.1	8.75	11.25	10	1.03	U	122	Special Order
	54269-018	16.5	8.61	11.1	8.75	11.25	10	1.03	U	122	BAL
17.25 x 5	51421-01	17.25	4.68	7.50	9.88	11.25	10	0.813	P	66	
18 x 7	54203-01	18	7.48	8.24	11.00	12.75	6	0.66	AX	137	
	54230-01	18	7.56	8.87	11.25	12.75	6 & 6	0.78 & 0.65	CX	145	
	54304-01	18	7.67	11.95	11.25	13.19	10	1.06	UD	200	
	555-01811	18	7.88	9.75	11.25	13.19	10	1.06	L	141	Special Order
	555-18006B	18	7.50	8.75	9.5	11.25	6	0.75	QD	138	Banded, Special Order
20 x 7	555-2021B	20	7.41	9.25	13.25	15.00	12	0.78	D	209	13.50" Pilot, Banded, Special Order
20 x 8	555-20057B	20	8.56	12.63	11.00	13.19	10	1.06	A	238	Banded, Special Order
	555-2005B	20	8.50	12.5	10.63	13.19	10	1.06	A	242	Banded, Special Order
	555-2009B	20	8.52	10.25	10.63	13.19	6	0.81	D	198	Banded, Special Order
	555-2023	20	8.61	10.94	13.25	15.00	12	0.78	D	240	13.50" Pilot, Special Order
	555-2027	20	8.61	10.94	11.00	12.5	12	0.66	P	218	11.25" Pilot, Special Order
	555-2035B	20	9.00	11.00	9.50	11.25	6	0.66	QD	190	Banded, Special Order



# Competitive Interchange (Competitor to KIC)



<b>BLUEBIRD BUS</b>		<b>DAYTON/ MERITOR</b>	<b>KIC</b>	<b>DAYTON/ MERITOR</b>	<b>KIC</b>
<b>BLUEBIRD</b>	<b>KIC</b>				
1117365	54275-018	120728	51952-11	122604	52647-11
1460062	54234-018	120743	51952-11	122606	52511-01
1460112	52327-10	120754	51961-10	122607	52878-01
1460195	54207-018	120782	52020-01	122607	53026-01
1579200	54236-018	120822	54215-01	122643	52020-01
2014318	52336-108	120877	52877-11	122667	52327-10
2081332	52965-117	120936	54203-01	122683	52120-128
2081333	52966-108	121040	54249-01	122744	54249-01
2137222	52918-01	122009	52890-13	122752	54208-01
2137610	52120-128	122046	54217-018	122782	52647-11
2237670	54295-018	122079	52120-128	122812	51283-14
2602167	54208-01	122083	52120-128	122819	52511-01
2602167	52878-01	122103	52327-10	122822A	52230-10
8071947	60001-01	122103	52327-11	122853	52230-10
		122103	54249-01	122854	52020-01
		122104	54207-018	122905	52020-01
		122126	52327-10	122921	54272-018
		122153	52120-128	122925	54264-01
		122155	52230-10	122948	54209-018
		122194	52327-10	122963	54215-01
		122201	52327-11	122971	52511-01
		122222	52230-10	122978	52878-01
		122276	54215-01	122986	54209-018
		122300	52890-13	122990	54249-01
		122328	51961-10	122996	54249-01
		122329	51961-10	123022	60001-01
		122340	52890-13	123025	54250-01
		122374	52120-128	123039	52120-128
		122376	52743-11	123058	52327-11
		122376	54215-01	123200	52890-13
		122430	52890-13	123207	60001-01
		122453	52878-01	123207	60001-018
		122453	54208-01	123254	54201-108
		122455	52647-11	123297	54209-018
		122490	52120-128	123312	52981-018
		122502	52647-11	123312	54241-018
		122518	52327-10	123363	54261-018
		122532	54249-01	123365	54261-018
		122548	52705-308	123366	53075-018
		122550	52705-30	123376	52878-01
		122550	52705-308	123382	54201-108
		122560	52647-11	123383	54238-018
		122600	51952-11	123391	54209-018

<b>DAYTON/MERITOR</b>	
<b>DAYTON/ MERITOR</b>	<b>KIC</b>
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
120408	52472-128
120493	52511-01
120501	52647-11
120586	52327-11
120664	52327-10
120664	54249-01



# Competitive Interchange (Competitor to KIC)

DAYTON/ MERITOR	KIC	DAYTON/ MERITOR	KIC	DURABRAKE	
				DURABRAKE	KIC
123396	53075-018	3219-P-1602	54249-01	1244	53039-01
123399	54248-018	3219-P-2356	52020-01	12617	52743-11
123404	60001-01	3219-P-4072	54208-01	12617	54215-01
123404	60001-018	3219-P-4280	54259-018	12637	52511-01
123413	53075-018	3219-Q-4229	54208-01	14048	52965-117
123415	52877-11	3219-R-1604	54249-01	14048	52965-119
123416	60001-018	3219-R-2228	52327-10	14158	52981-018
123417	52020-01	3219-R-2930	52020-01	14503	52757-308
123419	52647-11	3219-R-3944	52918-01	14508	52480-108
123420	54201-108	3219-S-1605	52327-10	14512	52472-128
123421	53075-018	3219-S-3945	52918-01	14513	52336-108
123422	52877-11	3219-S-4543	54208-01	14513	52336-148
123427	54210-018	3219-T-1944	52020-01	14518	52824-138
123428	54727-01	3219-T-2486	52230-10	14518	52824-148
123431	54207-018	3219-T-4544	54208-01	14659	54259-018
123448	54214-018	3219-V-3714	52705-308	15113	54299-118
123537	54261-018	3219-V-4468	52918-01	15115	54298-118
123537	60001-018	3219-W-1137	52020-01	16051	54231-018
123561	54258-018	3219-W-1427	52020-01	1607	52918-01
123569	54301-018	3219-W-3689	52020-01	16139	52647-11
123580	54269-018	3219-W-4261	52918-01	16141	53033-30
123581	54727-01	3219-W-5821	60001-01	16149	51961-10
12582	52020-01	3219-X-4262	52918-01	16289B	54217-018
3219-A-1795	52020-01	3219-Y-3561	52705-308	1629	52020-01
3219-A-4265	52919-017	3219-Y-5797	54258-018	1639	52327-10
3219-A-4291	54208-01	3219-Z-4264	52919-017	1640	52327-11
3219-A-5825	54727-01	3219-Z-4290	54208-01	1640	54249-01
3219-B-4006	52919-017	3219-Z-5122	52918-01	16464	54258-018
3219-C-3929	54241-018	4219-Z-3848	54241-018	16474	54268-018
3219-C-4007	52919-017	53-123537-002	80000-018	16516	54264-01
3219-C-5853	54301-018	B3219-G-5129	52824-138	16600	54301-018
3219-E-1462	51283-14	B3219-G-5857	54259-018	16729	52877-11
3219-E-2449	52020-01	B3219-U-4493	52336-108	16778	52120-12
3219-E-3567	54272-018	B3219-Y-5121	52965-119	16792	60001-01
3219-F-2450	52020-01			16792	60001-018
3219-F-3568	54272-018			16792B	60001-018
3219-G-3569	54259-018			16794	52705-30
3219-G-3933	54208-01			16795	53026-01
3219-H-3570	54259-018			16797	52878-01
3219-J-3078	52020-01			16874	52230-10
3219-J-3936	54208-01			16907	51952-11
3219-J-4742	54241-018			16997	52890-13
3219-N-4070	54208-01				

# Competitive Interchange (Competitor to KIC)



<b>DURABRAKE</b>		<b>KIC</b>	<b>GUNITE</b>		<b>GUNITE</b>	<b>KIC</b>
18006	555-18006B		<b>GUNITE</b>	<b>KIC</b>	3744	54270-018
1811	555-01811	2546C		54249-01	3750B	54228-01
18788	54203-01	2566X		52757-308	3753X	54295-018
2005	555-2005B	2577A		51961-10	3757	54213-01
20057B	555-20057B	2705		52020-01	3757X	54213-018
2009B	555-2009B	2747A		54230-01	3760BX	54207-018
2021B	555-2021B	2920X		54275-018	3771X	54224-018
2023	555-2023	2983C		52230-10	3773X	60001-01
2027	555-2027	2997D		52890-13	3774X	54214-018
		3022BX		54210-018	3782	54269-01
		3120		52877-11	3782X	54269-018
		3136A		54264-01	3784	52230-10
		3136B		54264-01	3786X	54226-018
		3141		52705-30	3800X	54293-018
		3141B		53033-30	3807	54229-01
		3158X		52981-018	3834	52230-10
		3166		53026-01	3851	52965-117
		3174		52743-11	3851X	52965-119
		3197		54203-01	3855RX	52824-148
		3219A		54271-01	3855X	54281-018
		3289X		54217-018	3856X	54298-118
		3295A		52120-12	3857X	54299-118
		3295AX		52120-128	3887X	54244-018
		3401		60001-01	3889X	54234-018
		3402		54202-01	3890X	54236-018
		3437X		54248-308	3893X	54266-018
		3441X		54209-018	8656	51952-11
		3467B		52511-01	3887	54244-01
		3475		52918-01	3887X	54244-018
		3513		52919-017	3889X	54234-018
		3543		52878-01	3890X	54236-018
		3557		53039-01	3893X	54266-018
		3557A		53039-11	3922X	60000-018
		3576X		54261-018	8656	51952-11
		3595		54216-01		
		3600A		60001-01		
		3600AX		60001-018		
		3647X		54213-018		
		3676AX		54257-018		
		3687X		54248-018		
		3699		54208-01		
		3710X		54238-018		
		3721AX		54201-108		
		3721X		53075-018		

<b>ERIE</b>		<b>KIC</b>
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	60001-018	
2764-5	60001-01	
2764-5	60001-018	
2765	51952-11	
2766	54203-01	
2770E	52120-12	
2771	52705-30	
2771	52705-308	
2772	52890-13	
2773	52647-11	
2773-3	54264-01	
2777	52965-117	
2777	52965-119	



# Competitive Interchange (Competitor to KIC)

NEW FLYER	
NEWFLYER	KIC
6303647	52824-148
6312397	54298-118
6312400	54299-118
6327402	52336-108
6329620	54231-018
6329670	54258-018
6331255	54232-018
6331583	54253-018
6336592	54268-018
6337398	54301-018
6348633	52824-138

STEMCO	
STEMCO	KIC
89996B	80000-018

WEBB WHEEL	
WEBB	KIC
56864B	60000-018
60876F	52877-11
61527B	53075-018
61528B	54201-108
61577F	54271-01
61780F	51961-10
61788F	54203-01
61854F	54230-01
61950B	54295-018
61991B	54270-018
61951B	54282-018
62026F	54253-018
62027	555-2027
62117B	54217-018
62200F	52020-01
62671F	54212-01
62997F	52890-13
63617	52743-11
63631F	53039-01
63635F	53039-11
63637F	52511-01
63647F	54215-01
63680B	54244-018

WEBB	KIC
63680F	54244-01
64003U	51283-14
64004B	52472-128
64009B	52480-108
64015B	52336-108
64026	54253-018
64039B	54299-118
64040B	54298-118
64046B	52966-108
64048B	52965-119
64048F	52965-117
64051B	54231-018
64053B	54232-018
64089B	54286-018
64115B	52336-108
64115B	54280-018
64115D	52336-148
64117B	54281-018
64117D	52824-148
64119B	52824-138
65004B	52757-308
65152B	54248-018
65162B	54242-018
65166B	54266-018
65169F	54226-018
65170B	54292-018
65266B	54210-018
65514B	54207-018
65541B	54241-018
65546B	54272-018
65548B	54293-018
65549B	54243-018
65551B	54259-018
65554B	54214-018
65555B	54276-018
65600B	54301-018
65600C	54301-018
65651B	54275-018
65654B	54238-018
65670B	54234-018
66250F	54250-01
66258F	54251-01
66353B	54213-018

WEBB	KIC
66353F	54213-01
66364B	54258-018
66366F	54240-01
66374B	54268-018
66661B	54267-018
66800B	54269-018
66800F	54269-01
66812F	52918-01
66814F	54727-01
66816B	54294-018
66827B	54236-018
66852F	54208-01
66854F	54229-01
66864B	60001-018
66864F	60001-01
66865B	54209-018
66867B	54267-018
66873F	54202-01
66875F	53033-30
66884	60001-01
66884B	54261-018
66892F	52878-01
66893B	53026-018
66893F	53026-01
66895B	52705-308
66895F	52705-30
67518F	52230-10
68730F	52327-10
68765	52327-11
68765F	54249-01
68845F	54216-01
68897F	51952-11
68942F	52647-11
68958F	54264-01
68981B	52120-128
68981F	52120-12
68985B	54257-018
69790F	54284-01

# Competitive Interchange (KIC to Competitor)



KIC	BLUEBIRD	DAYTON/ MERITOR	DURABRAKE	ERIE	GUNITE	NEWFLYER	WEBB WHEEL
51283-14		3219-E-1462					64003U
51283-14		122812					64003U
51952-11		120155	16907	2765	8656		68897F
51952-11		122600	16907	2765	8656		68897F
51952-11		120728	16907	2765	8656		68897F
51952-11		120743	16907	2765	8656		68897F
51952-11		120743	16907	2765	8656		68897F
51961-10		120754	16149	2762	2577A		61780F
51961-10		120754	16149	2762	2577A		61780F
51961-10		122329	16149	2762	2577A		61780F
51961-10		120152	16149	2762	2577A		61780F
51961-10		122328	16149	2762	2577A		61780F
52020-01		3219-T-1944	1629	2760	2705		62200F
52020-01		123417	1629	2760	2705		62200F
52020-01		3219-R-2930	1629	2760	2705		62200F
52020-01		12582	1629	2760	2705		62200F
52020-01		122854	1629	2760	2705		62200F
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		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-W-3689	1629	2760	2705		62200F
52020-01		3219-J-3078	1629	2760	2705		62200F
52020-01		122905	1629	2760	2705		62200F
52020-01		3219-W-1427	1629	2760	2705		62200F
52020-01		3219-W-1137	1629	2760	2705		62200F
52020-01		3219-P-2356	1629	2760	2705		62200F
52120-12			16778	2770E	3295A		68981F
52120-128	2137610	122374			3295AX		68981B
52120-128	2137610	122490			3295AX		68981B
52120-128	2137610	122153			3295AX		68981B
52120-128	2137610	122683			3295AX		68981B
52120-128	2137610	122683			3295AX		68981B
52120-128	2137610	123039			3295AX		68981B
52120-128	2137610	122079			3295AX		68981B
52120-128	2137610	122083			3295AX		68981B
52230-10		120107	16874	2738-1	3784		67518F
52230-10		120038	16874	2738-1	3784		67518F
52230-10		120017	16874	2738-1	3784		67518F
52230-10		122222	16874	2738-1	2983C		67518F
52230-10		120046	16874	2738-1	3784		67518F
52230-10		120389	16874	2738-1	3784		67518F
52230-10		122155	16874	2738-1	3784		67518F
52230-10		122822A	16874	2738-1	3784		67518F
52230-10		122853	16874	2738-1	3784		67518F



# Competitive Interchange (KIC to Competitor)

KIC	BLUEBIRD	DAYTON/ MERITOR	DURABRAKE	ERIE	GUNITE	NEWFLYER	WEBB WHEEL
52230-10		120001	16874	2738-1	3834		67518F
52230-10		3219-T-2486	16874	2738-1	3784		67518F
52327-10	1460112	122194	1639	2740-1			68730F
52327-10	1460112	122103	1639	2740-1			68730F
52327-10	1460112	120369	1639	2740-1			68730F
52327-10	1460112	120040	1639	2740-1			68730F
52327-10	1460112	120664	1639	2740-1			68730F
52327-10	1460112	122126	1639	2740-1			68730F
52327-10	1460112	3219-S-1605	1639	2740-1			68730F
52327-10	1460112	3219-R-2228	1639	2740-1			68730F
52327-10	1460112	122518	1639	2740-1			68730F
52327-10	1460112	122126	1639	2740-1			68730F
52327-10	1460112	122667	1639	2740-1			68730F
52327-11		122201	1640	2740			68765
52327-11		123058	1640	2740			68765
52327-11		123058	1640	2740			68765
52327-11		120586	1640	2740			68765
52327-11		120172	1640	2740			68765
52327-11		122103	1640	2740			68765
52336-108	2014318	B3219-U-4493	14513			6327402	64015B
52336-108	2014318	B3219-U-4493	14513			6327402	64115B
52336-148			14513				64115D
52472-128		120408	14512				64004B
52480-108		120406	14508				64009B
52511-01		122606	12637	2700-10	3467B		63637F
52511-01		120493	12637	2700-10	3467B		63637F
52511-01		122606	12637	2700-10	3467B		63637F
52511-01		122819	12637	2700-10	3467B		63637F
52511-01		122971	12637	2700-10	3467B		63637F
52647-11		122782	16139	2773			68942F
52647-11		122502	16139	2773			68942F
52647-11		122455	16139	2773			68942F
52647-11		120190	16139	2773			68942F
52647-11		120196	16139	2773			68942F
52647-11		123419	16139	2773			68942F
52647-11		122560	16139	2773			68942F
52647-11		122604	16139	2773			68942F
52647-11		123419	16139	2773			68942F
52647-11		120501	16139	2773			68942F
52647-11		122455	16139	2773			68942F
52705-30		122550	16794	2771	3141		66895F
52705-308		3219-Y-3561		2771			66895B
52705-308		122548		2771			66895B
52705-308		122550		2771			66895B
52705-308		3219-V-3714		2771			66895B
52743-11		122376	12617	2752	3174		63617
52757-308			14503		2566X		65004B
52824-138		B3219-G-5129	14518			6348633	64119B

# Competitive Interchange (KIC to Competitor)



KIC	BLUEBIRD	DAYTON/ MERITOR	DURABRAKE	ERIE	GUNITE	NEWFLYER	WEBB WHEEL
52824-148			14518		3855RX	6303647	64117D
52877-11		123422	16729	2764	3120		60876F
52877-11		120877	16729		3120		60876F
52877-11		123415	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		122430	16997	2772	2997D		62997F
52890-13		122340	16997	2772	2997D		62997F
52890-13		122300	16997	2772	2997D		62997F
52890-13		123200	16997	2772	2997D		62997F
52918-01	2137222	3219-R-3944	1607		3475		66812F
52918-01	2137222	3219-V-4468	1607		3475		66812F
52918-01	2137222	3219-Z-5122	1607		3475		66812F
52918-01	2137222	3219-S-3945	1607		3475		66812F
52918-01	2137222	3219-W-4261	1607		3475		66812F
52918-01	2137222	3219-X-4262	1607		3475		66812F
52919-017		3219-A-4265			3513		
52919-017		3219-B-4006			3513		
52919-017		3219-Z-4264			3513		
52919-017		3219-C-4007			3513		
52965-117	2081332		14048	2777	3851		64048F
52965-119		B3219-Y-5121	14048	2777	3851X		64048B
52966-108	2081333						64046B
52981-018		123312	14158		3158X		
53026-01		122607	16795	2764	3166		66893F
53026-018							66893B
53033-30			16141		3141B		66875F
53033-30			16141		3141B		66875F
53033-30			16141		3141B		66875F
53033-30			16141		3141B		66875F
53039-01			1244		3557		63631F
53039-11					3557A		63635F
53075-018		123421			3721X		61527B
53075-018		123396			3721X		61527B
53075-018		123366			3721X		61527B
53075-018		123413			3721X		61527B
54201-108		123254			3721AX		61528B
54201-108		123420			3721AX		61528B
54201-108		123382			3721AX		61528B
54202-01					3402		66873F
54202-01					3402		66873F
54203-01		120936	18788	2766	3197		61788F
54207-018	1460195	123431			3760BX		65514B
54207-018	1460195	122104			3760BX		65514B
54207-018	1460195				3760BX		65514B



# Competitive Interchange (KIC to Competitor)

KIC	BLUEBIRD	DAYTON/ MERITOR	DURABRAKE	ERIE	GUNITE	NEWFLYER	WEBB WHEEL
54208-01	2602167	3219-G-3933					66852F
54208-01	2602167	122453					66852F
54208-01	2602167	3219-Z-4290					66852F
54208-01	2602167	3219-S-4543					66852F
54208-01	2602167	3219-Q-4229					66852F
54208-01	2602167	3219-P-4072					66852F
54208-01	2602167	3219-J-3936					66852F
54208-01	2602167	3219-A-4291					66852F
54208-01	2602167	3219-T-4544			3699		66852F
54208-01	2602167	122752					66852F
54208-01	2602167	3219-N-4070					66852F
54209-018		123297			3441X		66865B
54209-018		123391			3441X		66865B
54209-018		122948			3441X		66865B
54209-018		122986			3441X		66865B
54210-018		123427			3022BX		65266B
54212-01							62671F
54213-01					3757		
54213-01					3757		66353F
54213-018					3757X		66353B
54213-018					3647X		66353B
54214-018		123448			3774X		65554B
54215-01		122276	12617				63647F
54215-01		122963	12617				63647F
54215-01		122376	12617				63647F
54215-01		122376	12617				63647F
54215-01		120822	12617				63647F
54216-01					3595		68845F
54217-018		122046	16289B		3289X		62117B
54224-018					3771X		
54224-018							
54226-018					3786X		65169F
54228-01					3750B		
54229-01					3807		66854F
54230-01		120271			2747A		61854F
54231-018			16051			6329620	64051B
54232-018						6331255	64053B
54234-018	1460062				3889X		65670B
54236-018	1579200				3890X		66827B
54238-018		123383			3710X		65654B
54238-018		123383			3710X		65654B
54238-018		123383			3710X		65654B
54240-01							66366F
54241-018		4219-Z-3848					65541B
54241-018		3219-J-4742					65541B
54241-018		123312					65541B
54241-018		3219-C-3929					65541B
54242-018							65162B



# Competitive Interchange (KIC to Competitor)

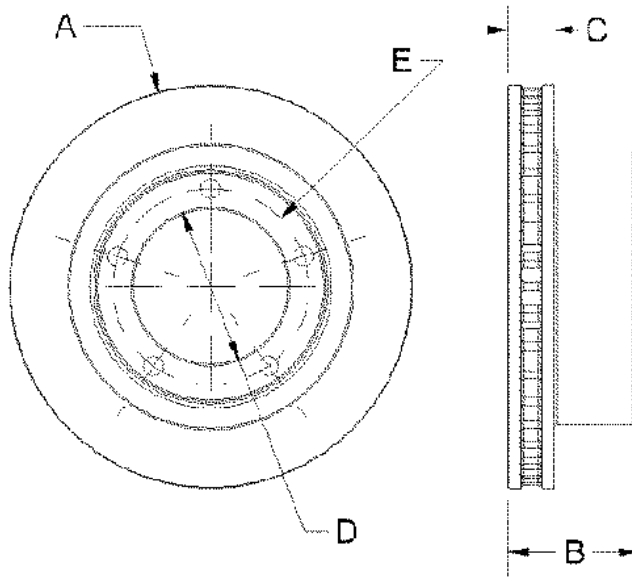


KIC	BLUEBIRD	DAYTON/ MERITOR	DURABRAKE	ERIE	GUNITE	NEWFLYER	WEBB WHEEL
54243-018							65549B
54244-01							63680F
54244-018					3887X		63680B
54248-018		123399			3687X		65152B
54248-308					3437X		
54249-01		3219-R-1604	1640		2546C		68765F
54249-01		121040	1640		2546C		68765F
54249-01		120664	1640		2546C		68765F
54249-01		122990	1640		2546C		68765F
54249-01		122744	1640		2546C		68765F
54249-01		3219-P-1602	1640		2546C		68765F
54249-01		122996	1640		2546C		68765F
54249-01		122532	1640		2546C		68765F
54249-01		122103	1640		2546C		68765F
54250-01		123025					66250F
54251-01							66258F
54253-018							64026
54253-018						6331583	62026F
54257-018					3676AX		
54257-018							68985B
54258-018		123561	16464			6329670	66364B
54258-018		3219-Y-5797	16464			6329670	66364B
54259-018		3219-P-4280					65551B
54259-018		B3219-G-5857					65551B
54259-018		3219-H-3570					65551B
54259-018		3219-G-3569					65551B
54259-018			14659				
54261-018		123537			3576X		66884B
54261-018		123363			3576X		66884B
54261-018		123365			3576X		66884B
54264-01		122925	16516	2773-3	3136B		68958F
54264-01		122925	16516	2773-3	3136A		68958F
54266-018					3893X		65166B
54267-018							66661B
54267-018							66867B
54268-018			16474			6336592	66374B
54269-01					3782		66800F
54269-018		123580			3782X		66800B
54270-018					3744		
54270-018							61991B
54271-01					3219A		61577F
54272-018		3219-F-3568					65546B
54272-018		122921					65546B
54272-018		3219-E-3567					65546B
54275-018	1117365				2920X		65651B
54276-018							65555B
54280-018							64115B
54281-018					3855X		64117B



# Competitive Interchange (KIC to Competitor)

KIC	BLUEBIRD	DAYTON/ MERITOR	DURABRAKE	ERIE	GUNITE	NEWFLYER	WEBB WHEEL
54282-018							61951B
54284-01							69790F
54286-018							64089B
54292-018							65170B
54293-018					3800X		65548B
54293-018					3800X		65548B
54293-018					3800X		65548B
54294-018							66816B
54295-018	2237670				3753X		61950B
54298-118			15115		3856X	6312397	64040B
54299-118			15113		3857X	6312400	64039B
54301-018		3219-C-5853	16600				65600C
54301-018		123569	16600			6337398	65600B
54727-01		3219-A-5825					66814F
54727-01		123428					66814F
54727-01		123581					66814F
555-01811			1811				
555-18006B			18006				
555-20057B			20057B				
555-2005B			2005				
555-2009B			2009B				
555-2021B			2021B				
555-2023			2023				
555-2027			2027				62027
60000-018					3922X		56864B
60001-01		123404	16792	2764-5	3600A		66864F
60001-01	8071947				3773X		66884
60001-01			16792	2764-5	3600A		66864F
60001-01		3219-W-5821	16792	2764-5	3600A		66864F
60001-01		123207	16792	2764-5	3600A		66864F
60001-01					3401		66864F
60001-01		123022	16792	2764-5	3600A		66864F
60001-018		123207	16792B	2764-5	3600AX		66864B
60001-018		123207	16792B	2764-5	3600AX		66864B
60001-018		123207	16792		3600AX		66864B
60001-018		123207	16792B	2764-5	3600AX		66864B
60001-018			16792	2764	3600AX		66864B
60001-018		123537	16792	2764	3600AX		66864B
60001-018		123404	16792	2764	3600AX		66864B
60001-018		123207	16792B	2764-5	3600AX		66864B
60001-018		123416	16792	2764	3600AX		66864B
80000-018			STEMCO 89996B	MERITOR 53-123537-002			

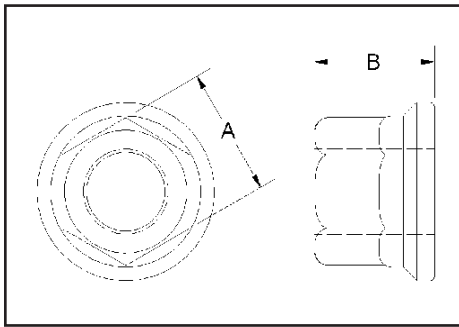


Rotor PN	A Dia.	B Depth	C Face Width	D Hub Bore	E Bolt Circle	No. Bolt Holes	Bolt Hole Dia.	Weight
70003-01	15.00	3.50	1.43	5.40	6.75	6	0.76	39

## KIC to Competitor Rotor Interchange

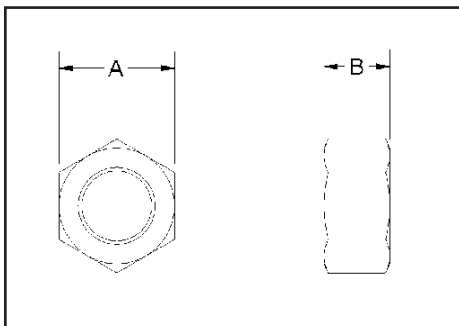
Rotor PN	Webb
70003-01	54770

## Flange Nuts



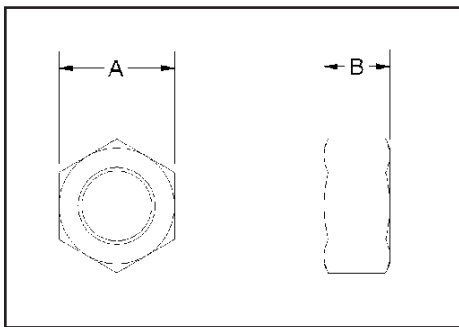
Part No.	Thread Size	A Hex Size	B Height
PRT-00110	M24 x 1.5	1.42	1.34
PRT-00115	M22 x 1.5	1.30	1.22
PRT-00116	M18 x 1.5	1.06	0.97

## Lock Nuts



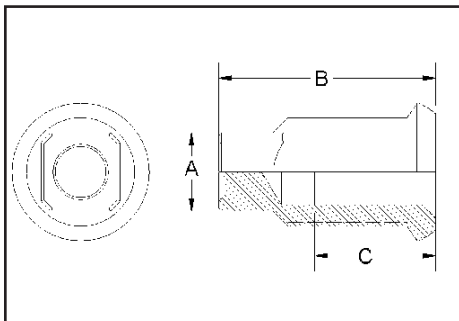
Part No.	Thread Size	A Hex Size	B Height
PRT-00144	5/8 - 18	1.12	0.65
PRT-00152	3/4 - 16	1.12	0.65

## Rim Nuts

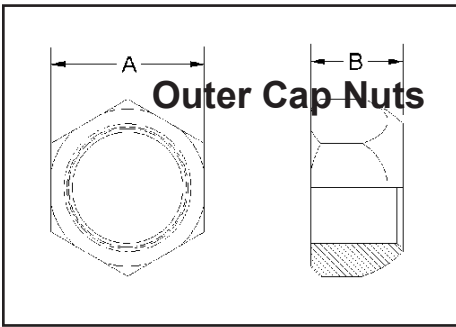


Part No.	Thread Size	A Hex Size	B Height
PRT-00075	3/4 - 10	1.12	0.72

## Inner Cap Nuts

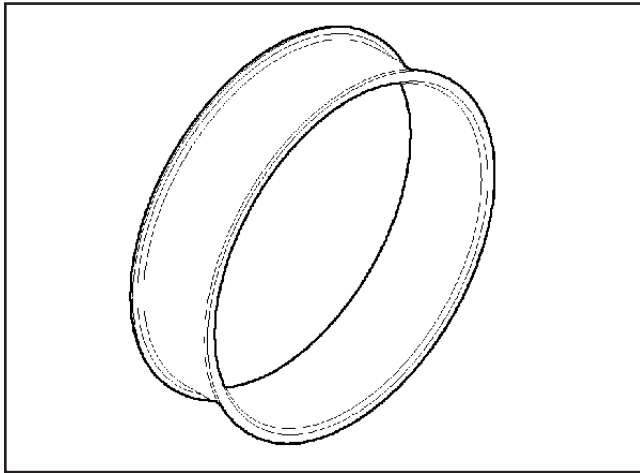


Part No.	Inner Thread	Outer Thread	A Square	B Length	C Inner Thread Depth	Notes
PRT-05549L	3/4 - 16	1-1/8 - 16	0.81	2.24	1.25	Standard for Dual Steel Wheels
PRT-05549R	3/4 - 16	1-1/8 - 16	0.81	2.24	1.25	



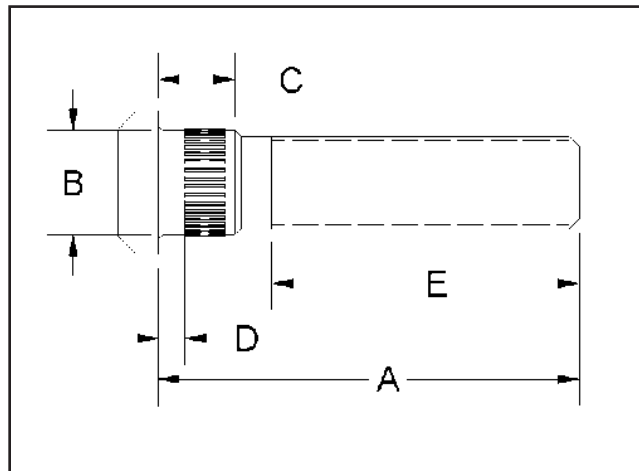
Part No.	Thread Size	A Hex Size	B Height	Notes
PRT-05652L	3/4 - 16	1.5	0.88	For Single Steel Wheels
PRT-05652R	3/4 - 16	1.5	0.88	
PRT-05552L	1-1/8 - 16	1.5	0.88	For Dual or Single Wheels
PRT-05552R	1-1/8 - 16	1.5	0.88	

## Rim Spacer Bands



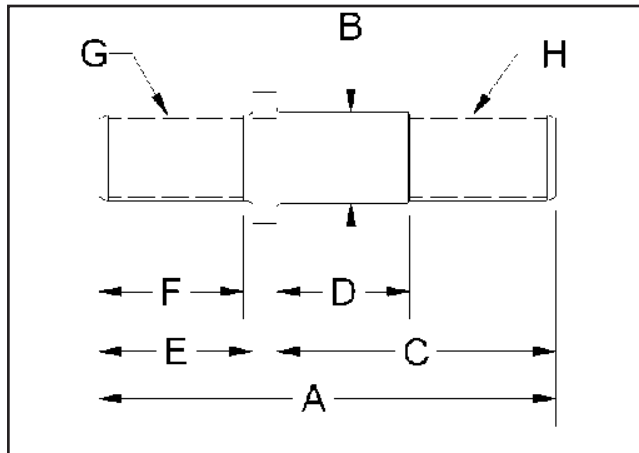
Part No.	Size
PRT-04015	15 x 4"
PRT-04020	20 x 4"

## Serrated Studs



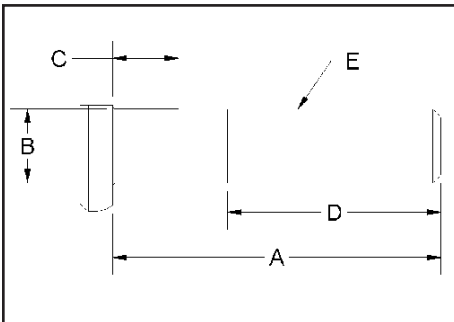
Part No.	A	B	C	D	E	Thread
PRT-00117	3.94	0.98	0.72	0.25	2.88	M22 x 1.5
PRT-00118	4.79	0.98	0.72	0.25	3.73	M22 x 1.5
PRT-00121	3.70	0.98	0.72	0.25	2.58	M22 x 1.5
PRT-00122	4.25	0.98	0.72	0.25	3.19	M22 x 1.5
PRT-00983	3.04	0.98	0.70	0.26	2.06	M22 x 1.5
PRT-01292	2.72	0.98	0.81	0.22	1.50	3/4-16 RH
PRT-01293	2.72	0.98	0.81	0.22	1.50	3/4-16 LH
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-04565	5.47	0.98	1.25	0.24	3.76	M24 x 1.5

## Shoulder Studs



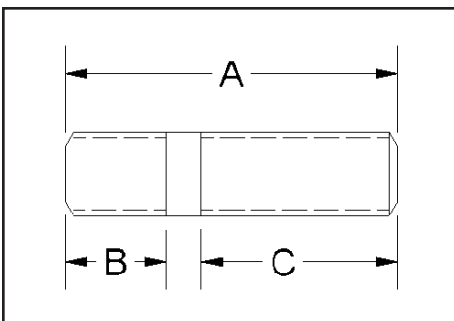
Part No.	A	B	C	D	E	F	G	H
	4.00	0.78	2.47	1.06	1.34	1.08	3/4-16 RH	3/4-16 RH
PRT-00875	4.00	0.78	2.47	1.06	1.34	1.08	3/4-16 LH	3/4-16 RH

## Clipped Head Studs



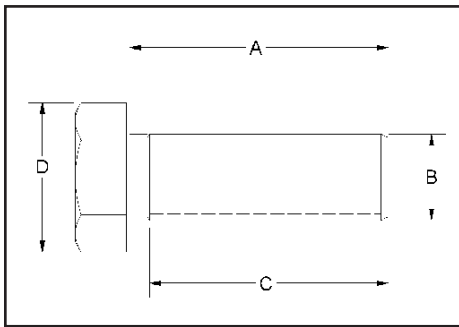
Part No.	A	B	C	D	E Thread
PRT-01296	3.15	0.71	0.63	2.05	M18 x 1.5

## Rim Studs



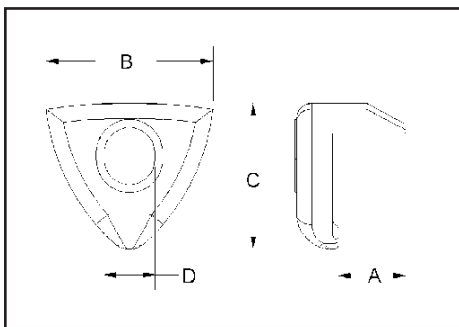
Part No.	A	Wheel End	Nut End	Thread
		B	C	
PRT-00114	3.00	0.97	1.83	3/4-10

## 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-05088	2.25	5/8-18	1.50	0.94
PRT-05253	2.25	3/4-10	1.75	1.13

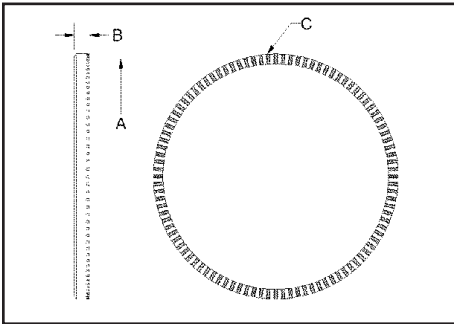
## Rim Clamps



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



## ABS Tone Rings



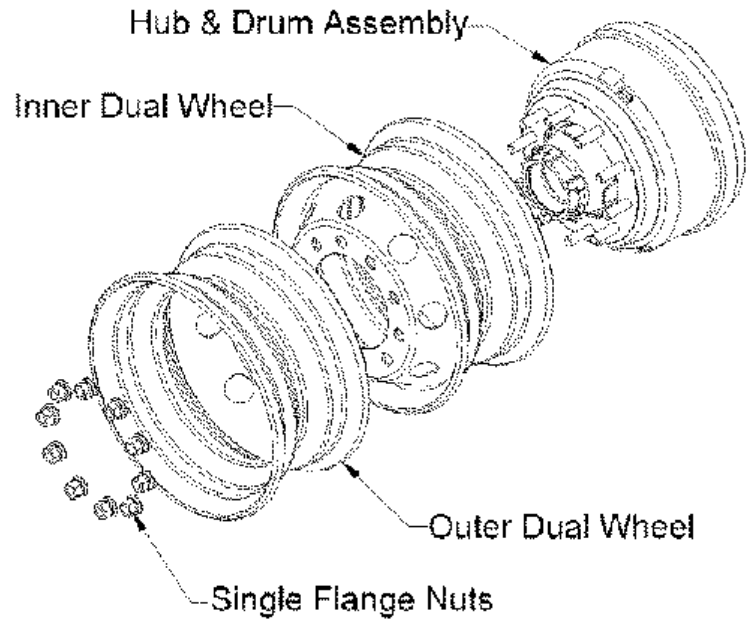
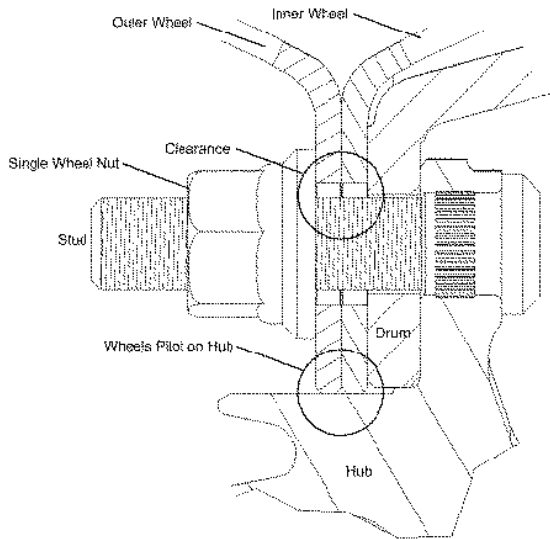
Part No.	A Pitch Dia.	B Height	C No. of Teeth	D Inside Dia.
PRT-10925	6.46	0.35	100	5.51
PRT-10981	6.77	0.47	80	6.39
PRT-10935	6.92	0.51	100	6.49
PRT-13237	6.77	0.59	100	6.49
PRT-13301	7.28	0.59	100	6.92

## 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-00874	E5561R	139902		20X52	13990	
PRT-00875	E5561L	139913		20X53	13991	
PRT-01294	E5910R			20X344		
PRT-01295	E5910L			20X345		

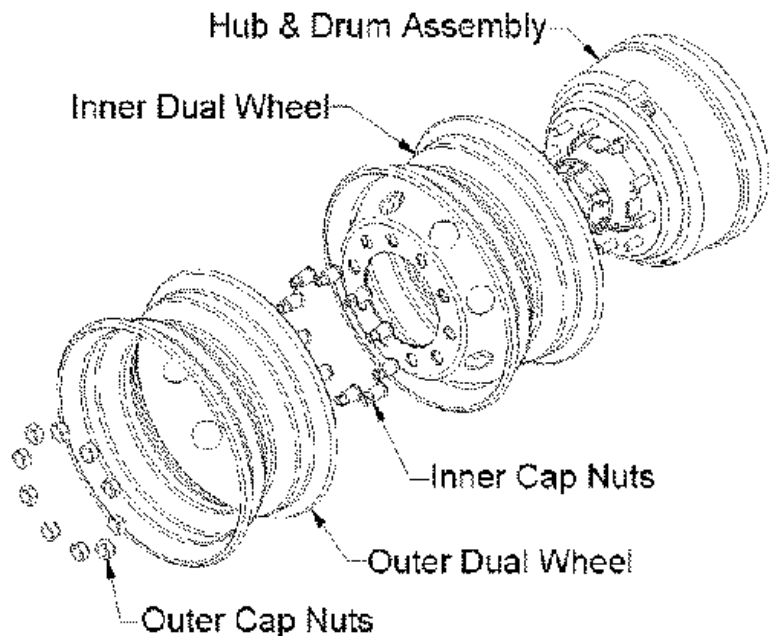
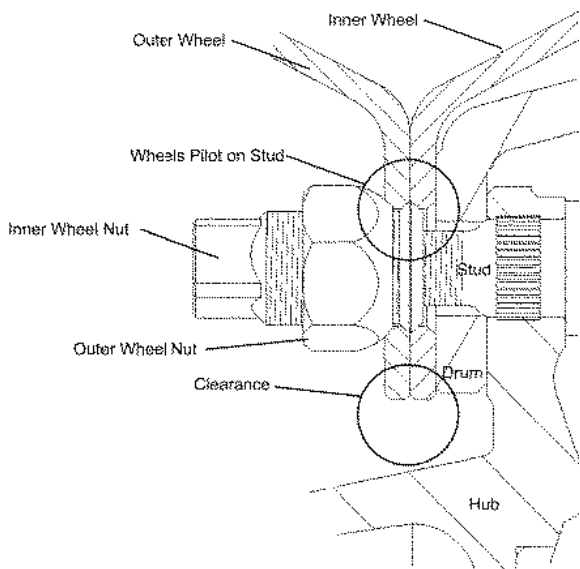
## Hub Piloted Disc Wheels

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.*

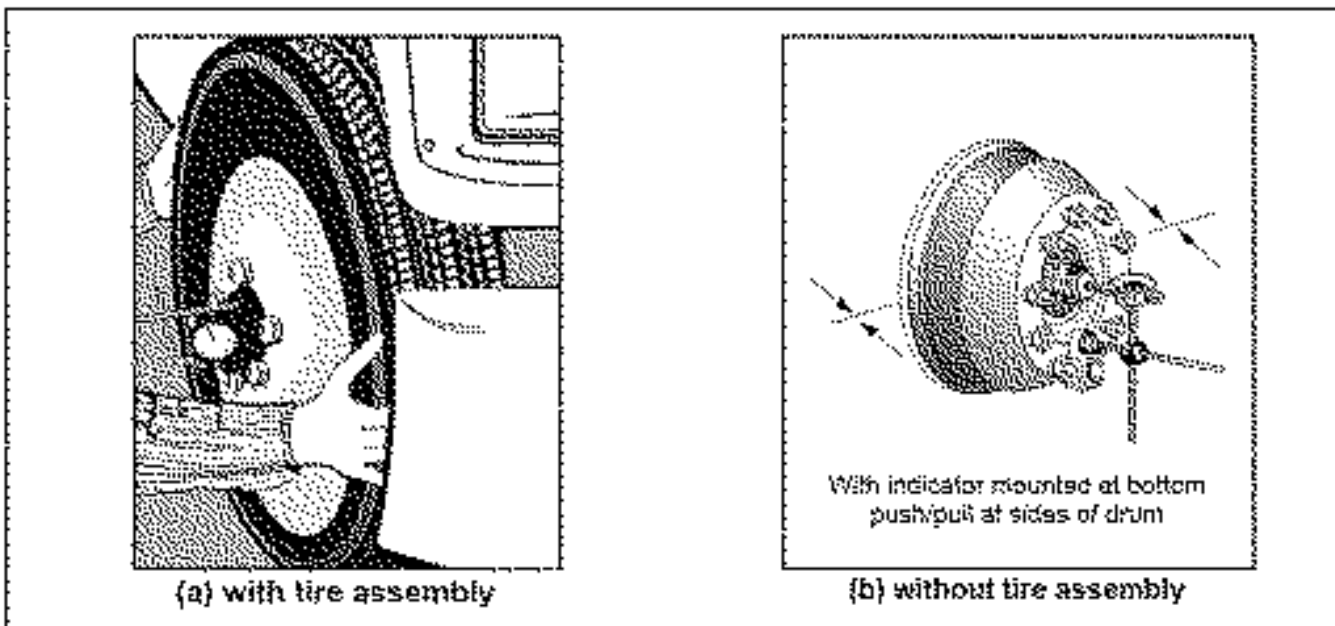
## PROCEDURES

**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



**Fig. 1: Dial Indicator Set-Up**

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 re-install. 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

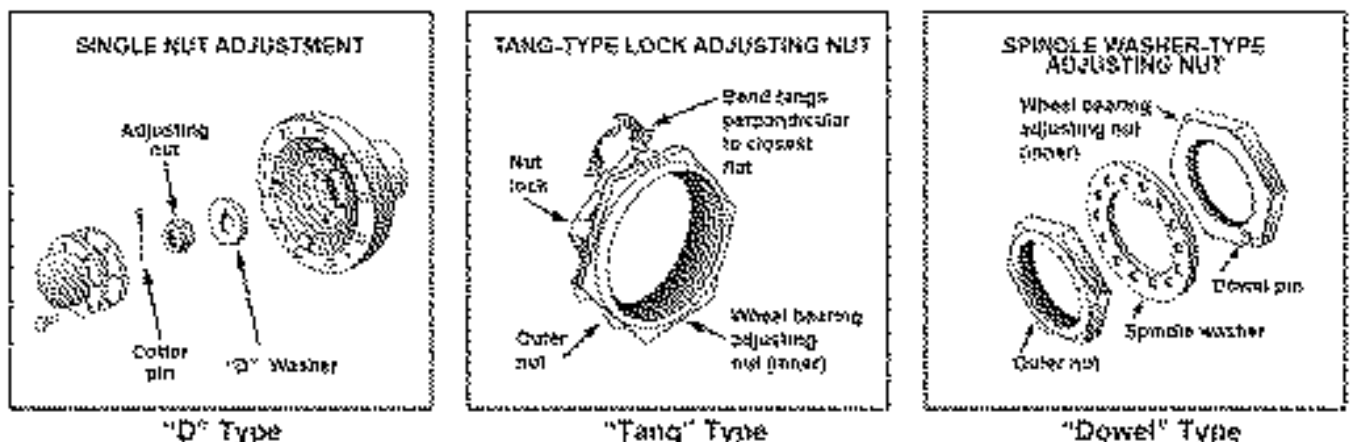
If end play is too loose, remove the outer (jam) nut and pull the washer away from the inner (adjusting) nut, but not off the spindle. Tighten the inner (adjusting) nut to the next alignment hole of the washer. Reassemble the washer and re-torque the outer (jam) nut. Refer to **Table 1** for torque values.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



**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.

**cavities and bearings must be lubricated to prevent failure. For final wheel end assembly refer to TMC RP 622.**

**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**

**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.

**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.

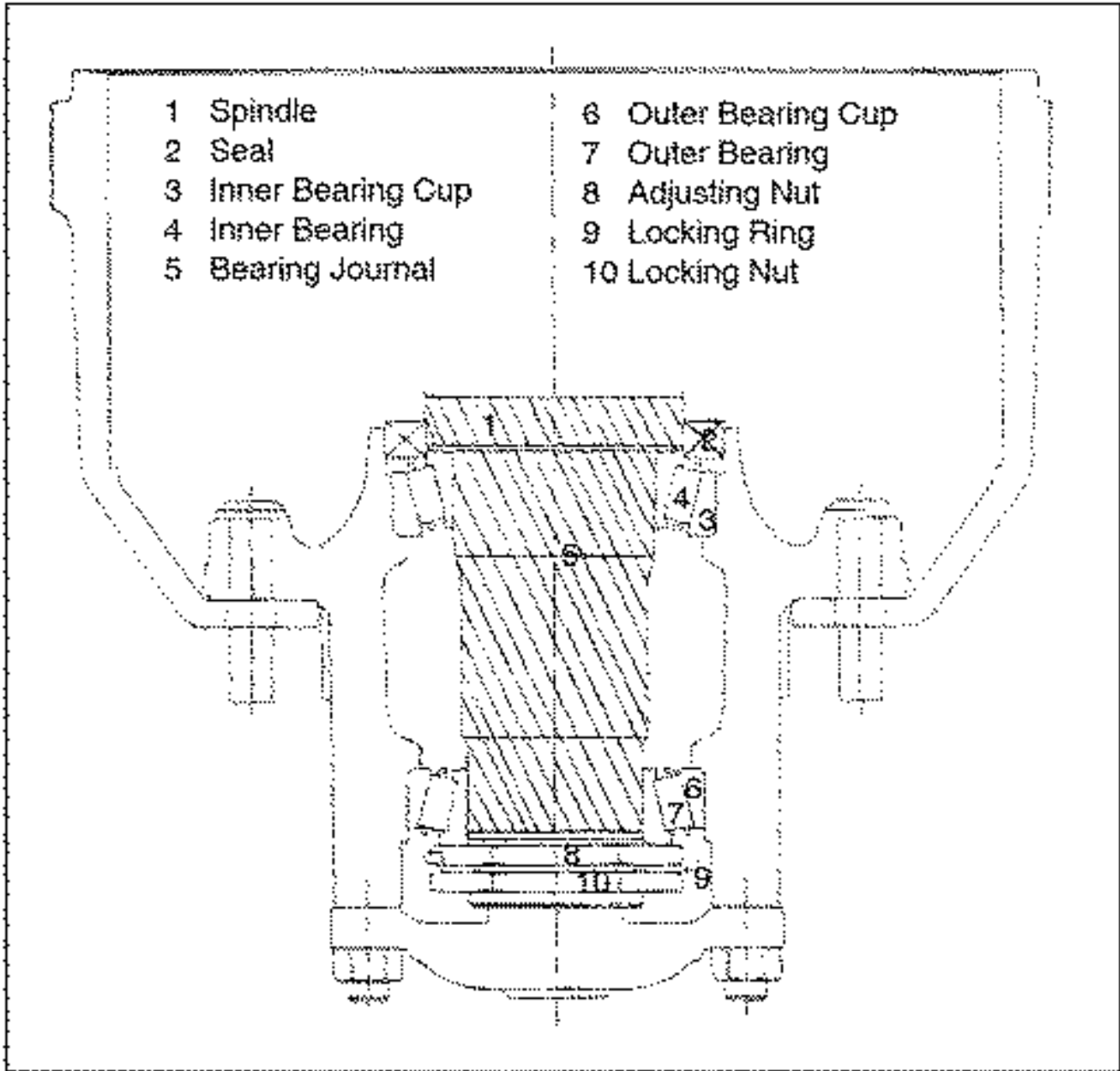
**WHEEL SEAL AND BEARING REMOVAL AND DISASSEMBLY**

**Wheel Seal Removal**—A pry-bar is recommended for removal of the seal from the hub bore. A spindle-mount 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,

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 roughness with 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 until 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.



**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

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

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

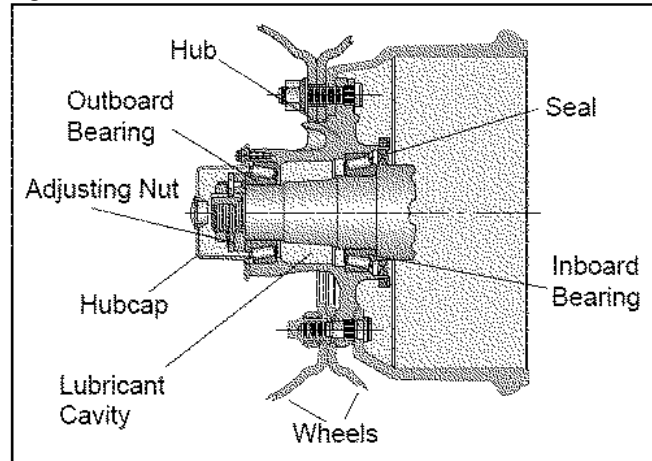
Non-driven wheel ends can be lubricated effectively with either oil or grease, depending on the fleet application. Both lubricating substances use oil as the lubricating medium. (Refer to RP 624, *Lubricant Fundamentals for details*.)

### A. Non-Driven Oil-Lubricated Wheel Ends

#### Inspection and Preparation

Clean and inspect the wheel end components includ-

ing



**Fig. 1: Non-Drive Wheel End**

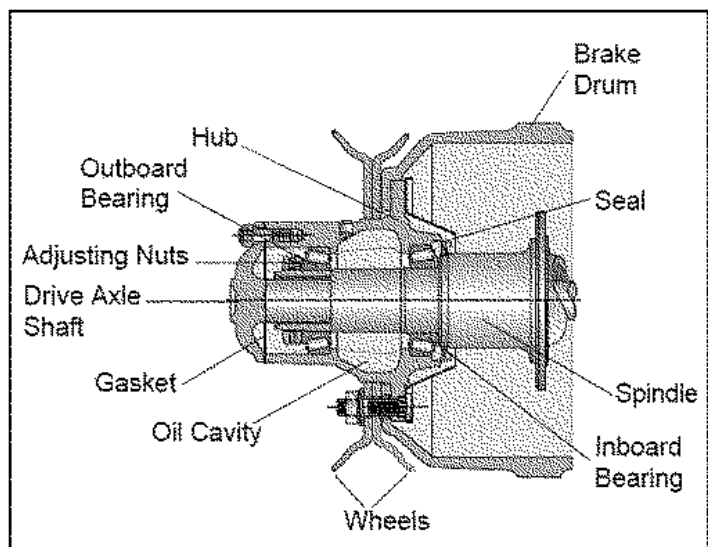
all bearings, hubcaps, hub and bearing cups, axle spindle, and fasteners, removing all contaminants and lubricant residue. Replace seal, hubcap gasket, and all questionable parts. For detailed procedures, refer to TMC RP 622.

#### 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**

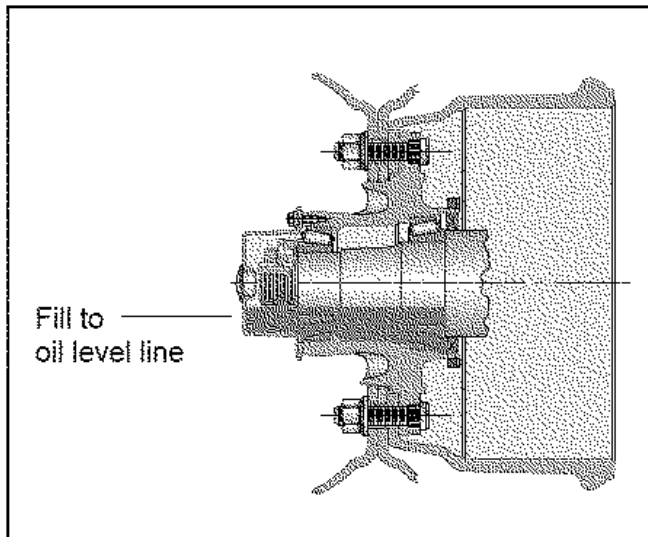
## Hub Fill Procedures: Oil

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).

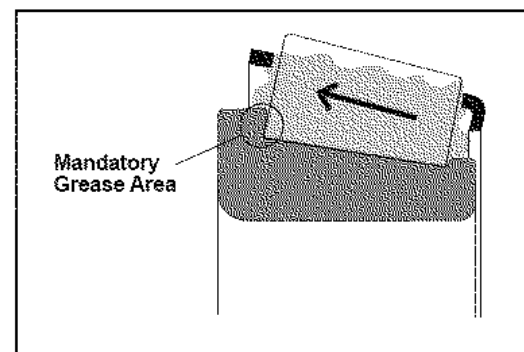
## Component Lubrication

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.**)

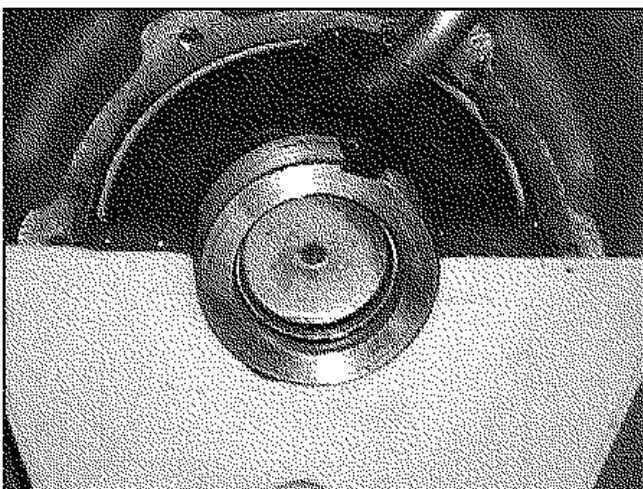
**NOTE:** A template may be used to hold the lubricant in place while filling the hub cavity. (See **Figures 5** and **5C.**)

**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.

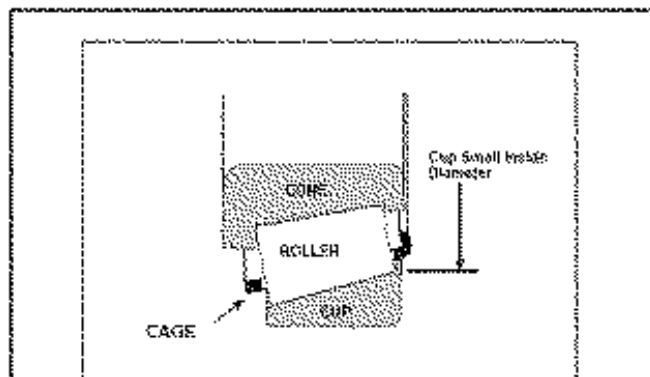
**NOTE:** If a metal hub cap is used, it is necessary to coat the interior surfaces with a film of grease. Use special care not to cover the vent with grease.

### Hub Fill Procedures: Hard Grease

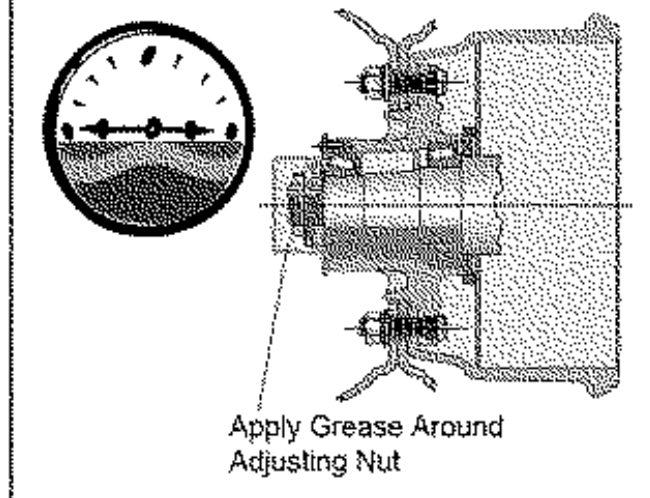
Before installing the hub, pack grease into the hub cavity. Fill the circumference of the hub cavity using the bearing races as the proper level guide. (See **Figure 6.**)

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)**



**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.

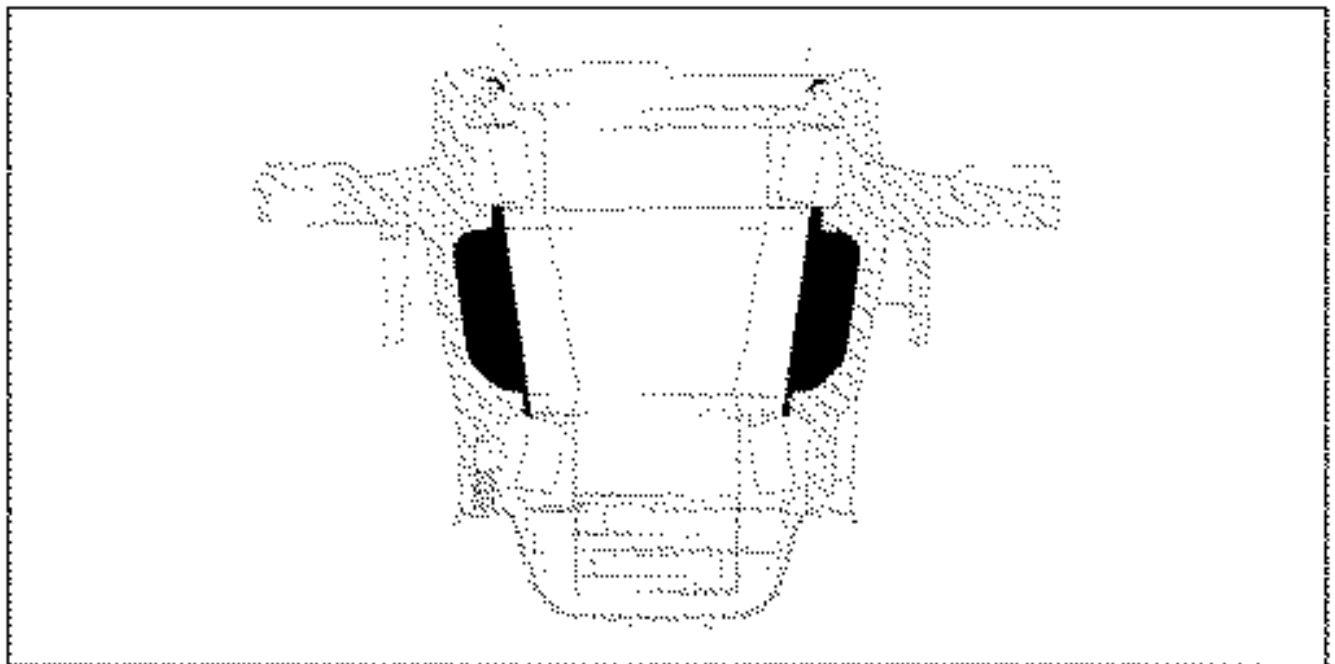
**CAUTION** : Failure to lubricate bearing correctly and maintain proper lubrication may result in bearing damage. For additional information refer to TMC RP 618 and RP 622.

**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 hub-caps, 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

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 wheel-ends, 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:	230° 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 @ 40° C minimum
Viscosity Index:	75 minimum for petroleum oil and 90 minimum for synthetic oil
Pour Point:	-10° 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 @ 40° C (Typical)
Viscosity Index:	90 minimum
Pour Point:	-40° C

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

## DISC WHEEL INSTALLATION PROCEDURE – HUB PILOTED DISC WHEEL SYSTEM

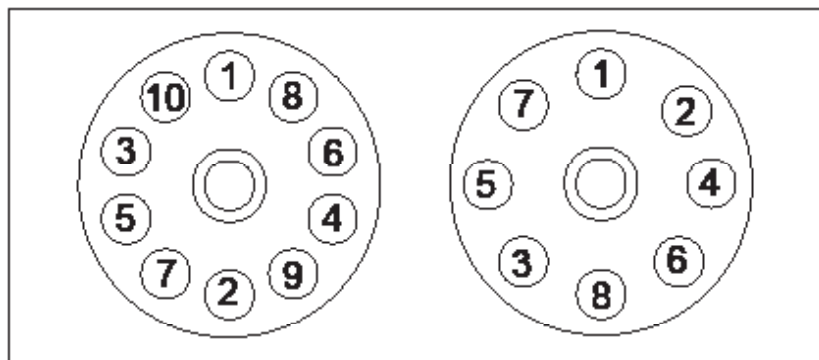
1. Check all parts for damage including wheels and rings. Ensure that studs, nuts pilots and mounting faces of hubs, drums and wheels are free of dirt and grease. The hub or drum mounting face must be cleaned and kept flat. Clean hub or drum surface and piloted with a wire brush if rust or debris is 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**

TMC Recommended Practices: Used by permission

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.

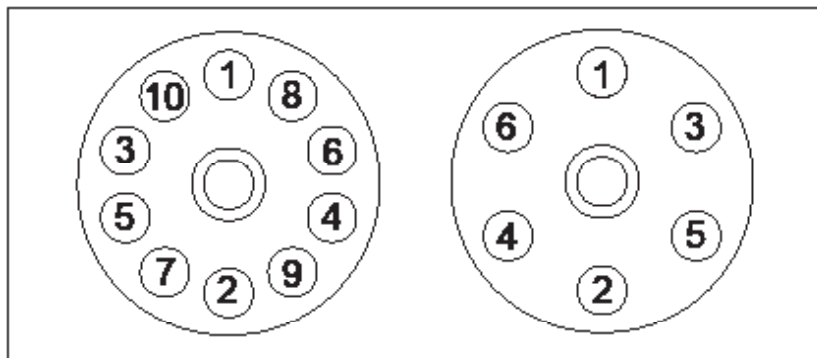
1. Check all parts for damage including wheels and rings. Ensure that studs, nuts and mounting faces of hubs, drums and wheels are free of dirt and grease. The hub or drum mounting face must be cleaned and kept flat. Clean hub or drum surface with a wire brush if rust or debris is present. Note the condition 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 3/4" 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**

TMC Recommended Practices: Used by permission

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

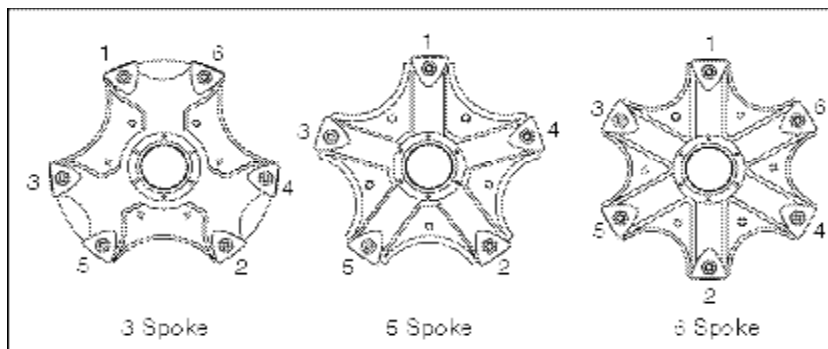
6. Separate all frozen cap nuts prior to reinstalling the wheel. Do not attempt to reapply wheels that come off with the inner cap nut frozen to the outer cap nut. Each nut must be reinstalled properly with each nut tightened to the proper torque level.
7. **Never lubricate wheel or nut ball seats or 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 criss-cross tightening sequence.
9. Place the outer dual wheel over the ends of the inner nuts and install 2 outer nuts 180 degrees apart finger-tight 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 re-torque 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**

## 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	300-400
	M20 x 1.5	280-330
	M22 x 1.5	450-500
		<b>Ft-Lb (Dry)</b>
Stud-Piloted, double cap nut Standard type (7/8" radius)	3/4"-16	450-500
	1-1/8"-16	450-500
Stud-piloted, double cap nut Heavy duty type (1-3/16" radius)	15/16"-12	750-900
	1-1/8"-16	750-900
	1-5/16"-12	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	160-200
3/4"-10	200-260



## Brake Drum Identification

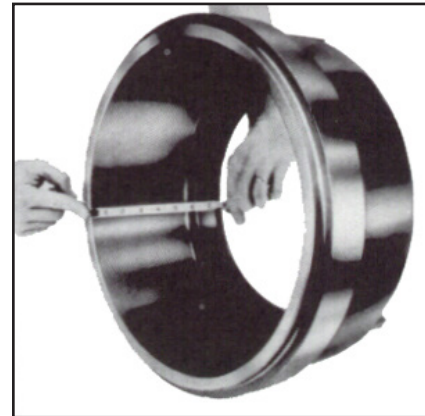
1. When specifying replacement brake drums & rotors the following information is required:
  - The manufacturer's name
  - The manufacturer's part or casting number
  - Description of any other markings appearing on the drum or rotor.
2. If that information isn't available, the following is the next 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**



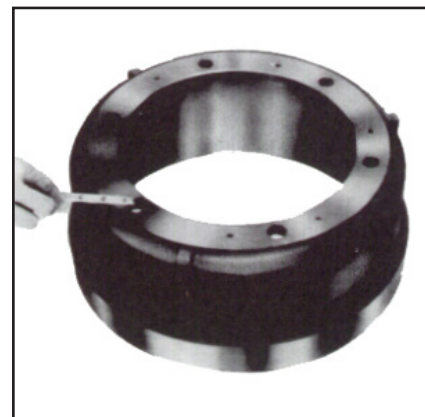
**Overall depth**



**Pilot/hub diameter**



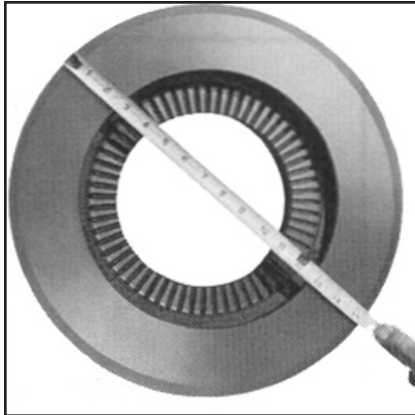
**Bolt circle diameter**



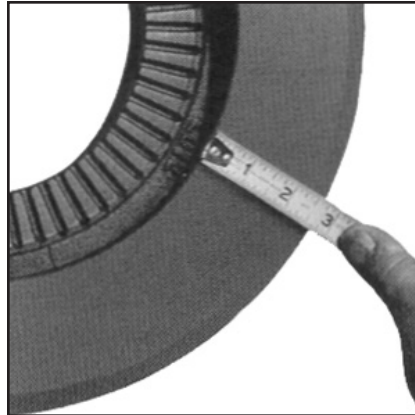
**Size & number of bolt holes**

TMC Recommended Practices: Used by permission

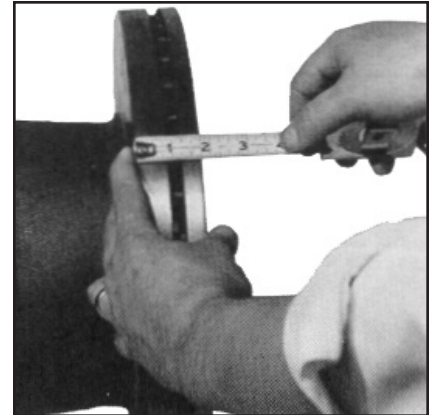
## Brake Rotor Identification



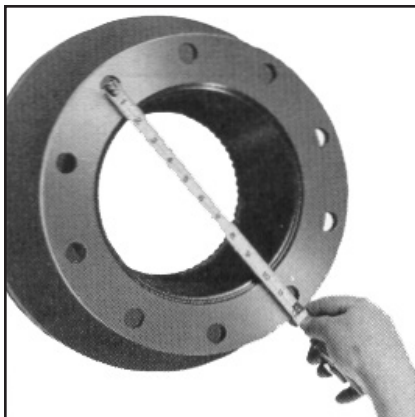
Outside diameter of rotor



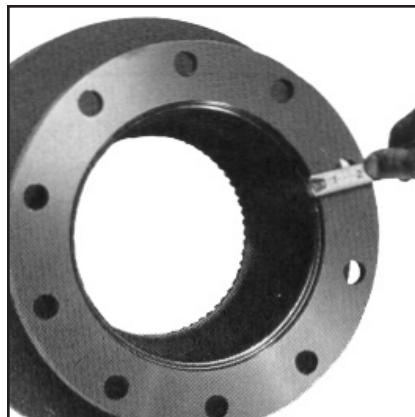
Width of braking surface



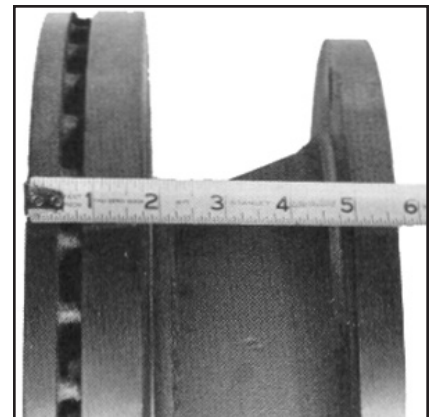
Rotor width



Bolt circle diameter and pilot diameter



Size and number of bolts.



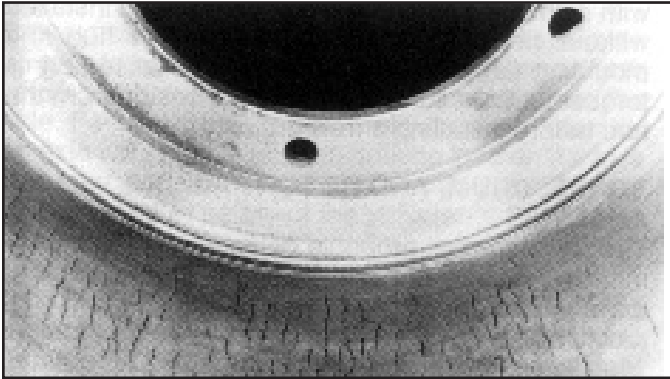
Overall depth of U-section and hat section rotors.



Problem	Probable Causes	Recommended Actions
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## Heat Checking

This problem is signified by a bluish color and disfigurement of the brake parts.



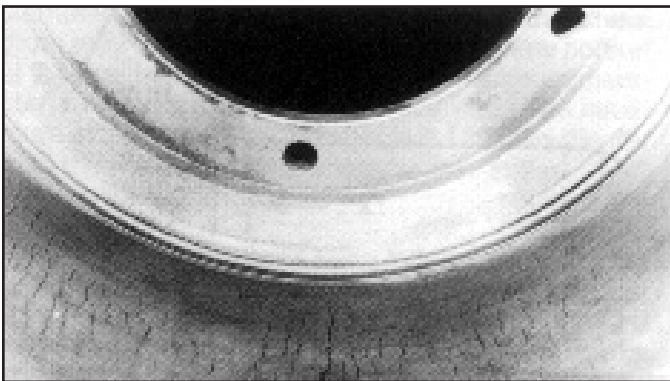
Heat-checking is a normal condition of the brake drum caused by constant heating and cooling of the braking surface.

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).

Replace brake drum.

Excessive heating and cooling.

Check to see if drum is adequate for the application.

Brake balance.

Check for pneumatic or torque balance problems.

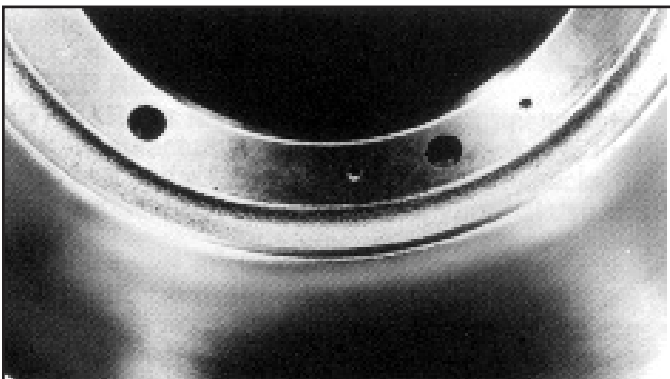
Driver abuse.

Driver training

**Replace cracked drums immediately.**

## Blue Drums

This problem is signified by a bluish color and disfigurement of the brake part.



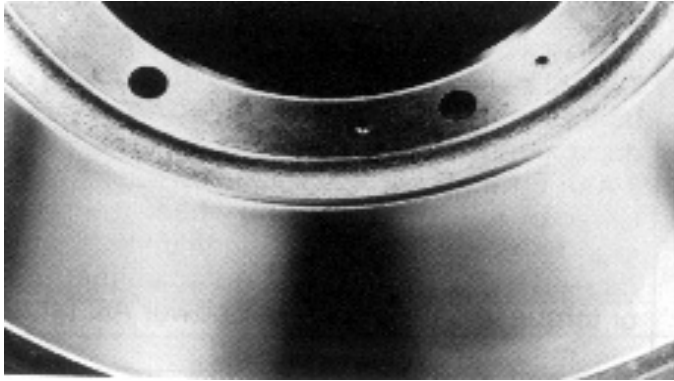


Excessive heat from dragging brakes or brake imbalance.

Look for weak or broken return springs or binding brake actuation.

Swollen linings.

Consult lining manufacturer.

Drum can be used if deep cracks are not present.

Problem	Probable Causes	Recommended Actions
<p><b>Polished Drums</b></p> 	<p>Recognized from a mirror-like finish on the braking surface.</p> <p>Improper lining friction rating.</p> <p>Drum resurfaced with too fine of a micro-finish.</p> <p>Light contact of linings to drum.</p>	<p>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.</p>
<p><b>Out-of-round Drums</b></p> 	<p>Variations in drum diameter at different points on the braking surface</p> <p>Heat distortion</p> <p>Drum has been dropped or stored on its side.</p> <p>Improper chucking when turning drum.</p>	<p>Turn brake drum if within limits or replace.</p>
<p><b>Oversize Worn Drums</b></p> 	<p>Uneven lining wear, or braking surface diameter measures in excess of allowable limits.</p> <p>Normal wear condition (age).</p>	<p><b>Replace brake drums and brake linings.</b></p>

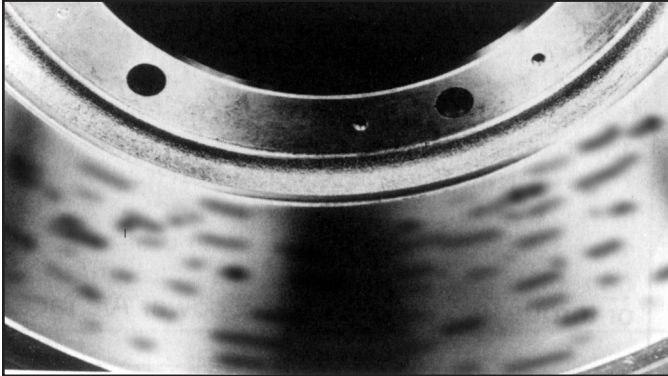
## Problem

## Probable Causes

## Recommended Actions

### Martensite Spots

The brake surface shows black spots which are slightly raised and are hard and brittle

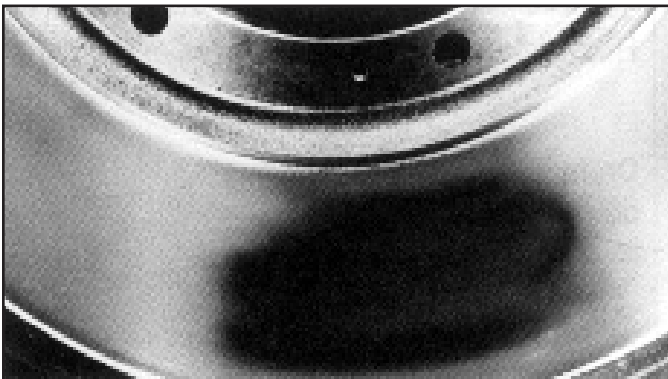


Martensite is formed by rapidly heated brakes to approximately the 1400° F range followed by rapid cooling. This condition is caused by brake drag or torque imbalance.

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

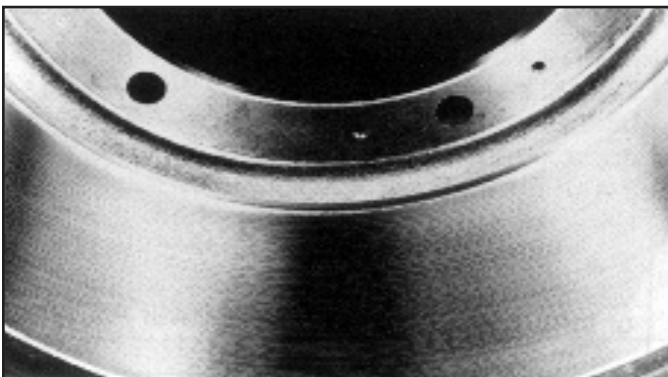


Leaking oil/grease seal or improper lubrication of brake components.

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.

Repair or install rivet plugs.

Dust shield may cause or cure this problem.

Poor quality brake lining.

Consult lining manufacture.

Turn brake drum if within limits or replace.

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](http://www.kic-group.com)

**THIS VEHICLE IS EQUIPPED WITH HUB PILOTED WHEEL SYSTEM**

10-Hole Sequence

**WHEEL INSTALLATION**

- AVOID WHEEL OR BRAKE DRUM BINDING ON HUB
- USE 2-PIECE FLANGE NUTS, RIGHT HAND THREAD
- BEFORE INSTALLING NUTS, APPLY OIL TO STUD THREADS, AND BETWEEN RUT BODY & FLANGE
- TORQUE SEQUENCE PER 8 OR 10 HOLE DIAGRAM
- TIGHTEN NUTS FIRST TO 53 FT-LB, THEN TO 450-500 FT-LB TORQUE
- RETORQUE 50 TO 100 MILES AFTER INSTALLATION. CHECK TORQUE PERIODICALLY THEREAFTER.

8-Hole Sequence

Wheel and tire servicing can be dangerous. ALWAYS REMOVE ALL AIR FIRST BEFORE DEMOUNTING TIRES. Follow proper procedures as required by OSHA Regulation 1910.177 for the air and tire / wheel servicing.

**THE KIC GROUP** VANCOUVER, WA 1-800-488-5422  
KIC HOLDINGS, INC.

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

QTY \_\_\_\_\_

**THIS VEHICLE IS EQUIPPED WITH BALL SEAT MOUNTED DISC WHEEL SYSTEM**

5-19 STUD HUBS  
RECOMMENDED TORQUE CITY:  
74 - 76 AND 78 - 19 THREADED: 450-500 FT. LBS.  
74 - 76 AND 78 - 19 THREADED: 700-800 FT. LBS.

**WHEEL INSTALLATION**

- AVOID WHEEL OR BRAKE DRUM BINDING ON HUB
- TORQUE SEQUENCE PER DIAGRAM (6-19 HOLES)
- TORQUE INNER CAP NUTS TO 54 FT. LBS. USING SEQUENCE SHOWN. THEN TIGHTEN CAP NUTS TO RECOMMENDED TORQUE.
- TORQUE OUTER CAP NUTS TO 50 FT. LBS. USING SEQUENCE SHOWN THEN TIGHTEN CAP NUTS TO RECOMMENDED TORQUE.
- RETORQUE 50 TO 100 MILES AFTER INSTALLATION. CHECK TORQUE PERIODICALLY THEREAFTER.

Wheel and tire servicing can be dangerous. ALWAYS REMOVE ALL AIR FIRST BEFORE DEMOUNTING TIRES. Follow proper procedures as required by OSHA Regulation 1910.177 for the air and rim / wheel servicing.

**THE KIC GROUP** VANCOUVER, WA AND LAREDO, TX 1-800-488-5422  
KIC HOLDINGS, INC.

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

QTY \_\_\_\_\_

**THE KIC GROUP** VANCOUVER, WA 1-800-488-5422  
KIC HOLDINGS, INC.

**TORQUE SPECIFICATIONS**

**SPoke WHEELS (FOR DEMOUNTABLE RIM SYSTEMS)**

SPoke WHEELS  
RECOMMENDED TORQUE DATA  
24" - 10 100-150 FT. LBS.  
24" - 10 200-300 FT. LBS.

SECURE CLAMPS EVENLY IN POSITION AND TORQUE USING RECOMMENDED SEQUENCE

7 Spoke    5 Spoke    6 Spoke

**⚠ DANGER**

Read and Observe the following safety instructions before operating or working on the wheel. Failure to do so may result in personal injury or death. Use only the correct type of tools and equipment. Do not use tools or equipment that are damaged or worn. Do not use tools or equipment that are not designed for this purpose. Do not use tools or equipment that are not designed for this purpose. Do not use tools or equipment that are not designed for this purpose.

Spoke Wheel (PRT-SPK3.5x12)

QTY \_\_\_\_\_

Company Name \_\_\_\_\_

Attn: \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Telephone \_\_\_\_\_

Email (optional) \_\_\_\_\_