Publication TP-03167
DriveTrain Plus™ by ArvinMeritor
Product Identification Guide
Issued 03-04
Overview

This publication provides identification information for Meritor, Meritor WABCO and Gabriel products. Product pictures and drawings, identification tag locations and model nomenclatures are provided.

How to Obtain Maintenance and Service Information

On the Web

Visit the DriveTrain Plus™ by ArvinMeritor Tech Library at drivetrainplus.com to easily access product and service information. The Library also offers an interactive and printable Literature Order Form.

ArvinMeritor’s Customer Service Center

Call ArvinMeritor’s Customer Service Center at 800-535-5560.

Technical Electronic Library on CD

The DriveTrain Plus™ by ArvinMeritor Technical Electronic Library on CD contains product and service information for most Meritor and Meritor WABCO products. The cost is $20. Specify TP-9853.
Contents

1 Section 1: Brakes
   Automatic Slack Adjusters
   Identification
2 Four-Piston Quadrulic™ Disc Brake Caliper
3 Cam Brakes
   Identification
4 Cam Brakes
5 Model Nomenclature
6 Air Disc Brakes
   Model Nomenclature
7 Wedge Brakes
   Identification
   Model Nomenclature

8 Section 2: Clutches
   Identification
9 Model Nomenclature

10 Section 3: Drivelines
   Identification
   Yoke Identification

12 Section 4: Front Axles
   Front Non-Drive Steer Axles
   Identification
13 Model Nomenclature
14 Front Drive Steer Axles
   Identification
15 Model Nomenclature
16 Model Nomenclature

17 Section 5: Rear Axles
   Single, Tandem and Tridem Rear Drive Axles
   Identification
18 Model Nomenclature
19 Model Nomenclature

20 Section 6: Bus and Coach Axles
   Bus and Coach Non-Drive Axles
   Identification
21 Bus and Coach Drive Axles
   Identification
22 Model Nomenclature

23 Section 7: Trailer Air Suspension Systems
   RideStar® RHP
   Identification
24 RideStar® RFS Series
   Identification
25 RideStar® RFS Series
   Model Nomenclature

26 Section 8: Trailer Axles
   Identification
27 Model Nomenclature

28 Section 9: Transmissions
   FreedomLine®
   Identification
   Model Nomenclature
29 Platform “G”
   Identification
   Model Nomenclature

30 Section 10: Transfer Cases
   Identification
31 Model Nomenclature

32 Section 11: Meritor WABCO Components
   Enhanced Easy-Stop® Trailer ABS
   Identification
   External Modulator Valve
33 Sensor with Molded Socket
   In-Line Filter Valve
   PLC DataMaster™ Trailer Data Extraction Module
   Reverse Detection Module
   Hydraulic Anti-Lock Braking Systems (ABS)
   Identification
34 Modulator Assembly
   Sensor with Molded Socket
   Pneumatic ABS for Trucks, Tractors and Buses
   Identification
35 ABS Valve Package — Rear Axle
   ABS/ATC Valve Package — Rear Axle
   ABS Valve Package — Front Axle
   ABS Modulator Valve
36 Automatic Traction Control Valve
   Straight Sensor
   Right Angle (90°) Sensor
   Air Dryers
   Identification
37 Compressors
38 Air Brake System Valves
39 Single or Dual Circuit Foot Valve and Pedal
   Hand-Operated Valves
40 Leveling Valves

41 Section 12: Gabriel Shocks
   Identification
Automatic Slack Adjusters

Identification

The part number is located on the side of the slack adjuster.

Meritor uses either black, red, yellow, green or blue to color-code an automatic slack adjuster’s internal piston actuator piston according to brake type and air chamber size.

Meritor uses a mylar tag on the body of the current-design slack adjuster to identify the color of the internal actuator piston. A color-coded tie wrap was used on previous-design slack adjusters.
Four-Piston Quadrauliic™ Disc Brake Caliper

An assembly number is located on the side of the four-piston Quadrauliic™ disc brake caliper.

Current Style
Metric caliper bolts
Caliper housing halves held together by bolts in blind holes in the bridge area.
Integral piston/heat shield
Phenolic piston

Previous Style
SAE caliper bolts
Caliper housing halves held together by bolts and nuts in the bridge area.
Separate piston and heat shield
Metal piston
Identification

A model number tag for the brake assembly is located on the camshaft tube. An example of a part number for a 16.5 Q Plus™ brake is QP1 1657 1234X.

For bus and coach, the brakes are identified by a three-letter code on the axle identification plate.

In addition to the model number tag on the cam tube, a brake shoe label is attached to the brake shoe web. This label provides information on brake type, lining material and service parts replacement number.

The brake shoe lining also contains identification. The information that exists on the edge code of the lining is listed in the following order:
- Meritor stamped logo
- Lining mix designation
- Friction code
- Friction Material Standards Institute (FMSI) number, four to eight spaces
- Block type
- Meritor part number, last four digits
- Word drawing engineering change letter
- Julian date, four or five characters

Identifying Q Plus™ LX500 and MX500 Brakes

NOTE: Do not remove the identification tag from the camshaft bracket during the extended maintenance period.

You can identify Q Plus™ LX500 and MX500 cam brakes by checking the identification tags affixed to the brake.

1. A brake shoe tag identifies the brake as Q Plus™.
2. An additional identification tag imprinted with “SEE MERITOR MAINTENANCE MANUAL MM-96173 FOR LUBE INFO,” which is affixed to the brake chamber bracket over the top of the plugged grease hole, identifies the brake as a Q Plus™ LX500 or MX500 brake.
3. Q Plus™ LX500 and MX500 brakes and Meritor automatic slack adjusters do not have grease fittings.

The Meritor brake warranty does not cover the cost of any repairs to a covered product that might result from the use of non-genuine Meritor parts. See Pub. SP9260.
1 Brakes

Cam Brakes

Q Plus™ Components

16.5" X 7" Q PLUS™ SHOE

28 RIVET HOLES IN TABLE

NO BULGE ON WEB

SHOE TAG

MERITOR

CAM TIP TO TIP = 4.25"

1.18 DIA.

DEEPER POCKET

INCREASED LIFT

PART NUMBER LOCATED HERE

FMSI NO. 4707

PLUS-SHAPED HOLES (+) STAMPED IN TABLE

MERITOR 16.5 Q PLUS™ STAMPED ON WEB

16.5" X 7" Q PLUS™ SHOE

Q Plus™ Camshaft

Q Plus™ Shoes

Return Springs

Heavy-duty (blue)

Standard

Q Series Components

16.5" X 7" Q SHOE

32 RIVET HOLES IN TABLE

MERITOR 16.5 Q SERIES STAMPED ON WEB

SHOE TAG

CAM TIP TO TIP = 4.22"

1.378 DIA.

PART NUMBER LOCATED HERE

FMSI NO. 4515G

MERITOR 16.5 Q SERIES STAMPED ON WEB

16.5" Q CAMSHAFT (1.5" DIA.-28 SPLINES)

1.18 DIA.

INCREASED LIFT

DEEPER POCKET

PART NUMBER LOCATED HERE

FMSI NO. 4702

16 RIVET HOLES IN TABLE

NO BULGE ON WEB

15" X 4" Q PLUS™ SHOE

MERITOR

CAM TIP TO TIP = 3.38"

0.998 DIA.

INCREASED LIFT

DEEPER POCKET

PART NUMBER LOCATED HERE

FMSI NO. 1308

USED WITH BACKING PLATE

14 RIVET HOLES IN TABLE

BUSGLE ON WEB

SINGLE WEB

15" X 4" Q SHOE

CAM TIP TO TIP = 3.25"

1.164 DIA.

PART NUMBER LOCATED HERE

4000323a

16 RIVET HOLES IN TABLE

NO BULGE ON WEB

15" X 4" Q PLUS™ SHOE

MERITOR

CAM TIP TO TIP = 4.25"

1.18 DIA.

DEEPER POCKET

INCREASED LIFT

PART NUMBER LOCATED HERE

FMSI NO. 4702

16 RIVET HOLES IN TABLE

NO BULGE ON WEB

15" X 4" Q PLUS™ SHOE

MERITOR

CAM TIP TO TIP = 3.38"

0.998 DIA.

INCREASED LIFT

DEEPER POCKET

PART NUMBER LOCATED HERE

FMSI NO. 1308

USED WITH BACKING PLATE

14 RIVET HOLES IN TABLE

BUSGLE ON WEB

SINGLE WEB

15" X 4" Q SHOE

CAM TIP TO TIP = 3.25"

1.164 DIA.

PART NUMBER LOCATED HERE

4000323a

Camshafts

Q Plus™

Q Plus™

Q Series

Shoes

Q Plus™

Q Series

Return Springs

Heavy-duty (blue)

Standard

Standard
Cam Brakes

Model Nomenclature

Q Plus™ Cam Brakes
Model Numbers and Designations

Letters other than these are for older Q design
(not Q Plus™)

P = Plus
L = LX500
V = MX500

Q = Quick Change
S = Stamped Spider
K = Integral Knuckle
C = Cast Plus™

XXX X 1657 1234

Specification Number

Brake Size
1540 = 15” x 4”
1550 = 15” x 5”
1560 = 15” x 6”
1570 = 15” x 7”
1586 = 15” x 8.6”
1655 = 16-1/2” x 5”
1656 = 16-1/2” x 6”
1657 = 16-1/2” x 7”
1658 = 16-1/2” x 8”
16586 = 16-1/2” x 8.6”

Place holder needed for 16508 brakes

1 = With Manual Slack (Export Only)
2 = With Automatic Slack
3 = With Manual Slack and Air Chamber
4 = With Automatic Slack and Air Chamber
5 = Less Slack but with Air Chamber Supplied
6 = Less Slack and Less Air Chamber A through Z
H = Heavy-Duty Features
T = TracLok™ Feature
W = Wear Sensor Installed

NOTE: For other Meritor brake models, please consult
your Meritor sales or service manager.

4002715c
Meritor air disc brakes are identified by a model number tag attached to the grease fitting on the brake caliper assembly. An example of a part number for a Meritor air disc brake is ADB-1560-1.

DiscPlus™ air disc brakes are identified by a model number tag attached to the top surface of the caliper. An example of a part number for a DiscPlus™ air disc brake is DX 195 1234.

To identify a DXP 195 air release and hydraulic release parking disc brake, refer to the tag located on the chamber bracket.
Wedge Brakes

Identification

Wedge brakes are identified by a model number tag that is typically attached to the camshaft tube or dust shield of the brake assembly. An example of a part number for a wedge brake is RSA 1540 1234.

In addition to the model number tag on the cam tube, a brake shoe label is attached to the brake shoe web. This label provides information on the brake type, lining material and service parts replacement number.

For bus and coach, the brakes can be identified by a code on the axle identification plate.

Model Nomenclature
Identification

To identify a clutch, refer to the identification and serial numbers located on the front of the clutch cover. Refer to these numbers when you replace parts.
Model Nomenclature

**Clutch Specification Number**

- **Series**
  - **H** — Heavy Duty
  - **M** — Medium Duty

- **Facing Type**
  - **A** — LTD AutoJust™ (4-Paddle) (Ceramic)
  - **C** — Ceramic
  - **J** — LTD AutoJust™ (6-Paddle) (Ceramic)
  - **K** — LTD (6-Paddle) (Ceramic)
  - **L** — Standard LTD prior to 6/98, Lite Pedal LTD 6/98 and later (Ceramic)
  - **M** — Molded (Organic)
  - **P** — LTD Lite Pedal prior to 6/98 (Ceramic)

- **Options**
  - **D** — Hi Hysteresis/DD-S50 (Greaseable)
  - **E** — Greaseable Bearing (Free Travel LTD)
  - **F** — Dual Grease (Free Travel LTD)
  - **G** — Sealed Bearing (Free Travel LTD)
  - **H** — 600 HP/Hi Torque Engine (Greaseable)
  - **N** — Greaseable Bearing and Co-Axial
  - **S** — Sealed Extended Lube Bearing
  - **T** — Two-Stage (Greaseable)
  - **U** — 600 HP/Hi Torque Engine (Dual Grease Fitting for Mack)
  - **W** — 600 HP/Hi Torque Engine (Sealed Ext. Lube)
  - **X** — Two Stage (Sealed Extended Lube)
  - **Y** — Hi Hysteresis/DD-S50 (Sealed Extended Lube)
  - **Z** — Dual Grease Housing (Mack LTD)

- **Facing Type**
  - **0** — Ceramic Disc
  - **2** — Flat Flywheel (No longer available)/Dual grease fitting
  - **3** — Hi Torque Dual Grease Fitting
  - **5** — Molded Organic Disc (except Hi Torque LTD clutches which are ceramic)

- **Brake Option**
  - **B** — Clutch Brake
  - **N** — No Brake

**Parts Number**

- **Clamp Load** — Pounds
  - **28** — 2800
  - **32** — 3200
  - **36** — 3600
  - **40** — 4000

**Replacement Clutch Assembly Part Number**

- **R** — Replacement Clutch Assembly Part Number

- **Clutch Type**
  - **0** — 8 Spring Standard or 7 Spring Standard LTD
  - **1** — 14" 8 Spring Lite Pedal
  - **5** — “Super 8” 8 Spring LTD Lite Pedal
  - **6** — “Super 8” 8 Spring Lite Pedal or LTD 6-Paddle
  - **8** — Autojust™ (4-Paddle)
  - **9** — Autojust™ (6-Paddle)

- **Facing Type**
  - **2** — Ceramic Disc
  - **3** — Flat Flywheel (No longer available)/Dual grease fitting
  - **3** — Hi Torque Dual Grease Fitting
  - **5** — Molded Organic Disc (except Hi Torque LTD clutches which are ceramic)

- **Options**
  - **1** — 8 Spring Single-Stage Dampened Disc
  - **4** — 8 Spring Two-Stage Dampened Disc
  - **5** — Single Plate
  - **6** — Standard LTD 7 Spring Dampened Disc (available as ceramic disc only)
  - **7** — Lite Pedal LTD 7 Spring Dampened Disc (available as ceramic disc only)
  - **8** — Two-Stage (Free Travel LTD) (available as ceramic disc only)

All orders should refer to the replacement part number.

© Requires special flywheel damper opening of 10-1/8".
Identification

Meritor driveline components are identified by the following markings on the component:

- Logo stamped on the part
- Balance bosses
- Forging part number which identifies the driveline series

**Meritor Driveline Series**

<table>
<thead>
<tr>
<th>Series</th>
<th>Bearing Diameter</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>16N</td>
<td>1.44&quot; inside</td>
<td>L6N Inside Snap Ring</td>
</tr>
<tr>
<td>17N</td>
<td>1.94&quot; outside</td>
<td>17N Outside Snap Ring</td>
</tr>
<tr>
<td>176N</td>
<td>1.94&quot; outside</td>
<td>176N Outside Snap Ring</td>
</tr>
<tr>
<td>18N</td>
<td>2.38&quot; inside</td>
<td>18N Inside Snap Ring</td>
</tr>
<tr>
<td>20W*</td>
<td>2.38&quot; inside</td>
<td>20W* Inside Snap Ring</td>
</tr>
<tr>
<td>25W*</td>
<td>2.38&quot; inside</td>
<td>25W* Inside Snap Ring</td>
</tr>
</tbody>
</table>

* RPL25 and RPL20 do not follow the above convention and utilize their own unique numbering system.
### Drivelines Identification

#### U-Bolt and Strap and Bolt

<table>
<thead>
<tr>
<th>X</th>
<th>Z</th>
<th>Bearing Diameter</th>
<th>Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Lugs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.22&quot;</td>
<td>1.06&quot;</td>
<td>1.06&quot;</td>
<td>131N</td>
</tr>
<tr>
<td>3.63&quot;</td>
<td>1.19&quot;</td>
<td>1.19&quot;</td>
<td>135N</td>
</tr>
<tr>
<td>4.19&quot;</td>
<td>1.38&quot;</td>
<td>1.38&quot;</td>
<td>148N</td>
</tr>
<tr>
<td>4.97&quot;</td>
<td>1.38&quot;</td>
<td>1.38&quot;</td>
<td>155N</td>
</tr>
<tr>
<td>5.31&quot;</td>
<td>1.88&quot;</td>
<td>1.88&quot;</td>
<td>16N</td>
</tr>
<tr>
<td>6.19&quot;</td>
<td>1.94&quot;</td>
<td>1.94&quot;</td>
<td>17N</td>
</tr>
<tr>
<td>7.09&quot;</td>
<td>1.94&quot;</td>
<td>1.94&quot;</td>
<td>18N</td>
</tr>
<tr>
<td>7.63&quot;</td>
<td>1.94&quot;</td>
<td>1.94&quot;</td>
<td>18N</td>
</tr>
</tbody>
</table>

#### RPL Driveline

<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
<th>Between Lugs</th>
<th>Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.06&quot;</td>
<td>8.38&quot;</td>
<td>7.06&quot;</td>
<td>20WYS</td>
</tr>
<tr>
<td>8.38&quot;</td>
<td>10.0&quot;</td>
<td>8.38&quot;</td>
<td>25WYS</td>
</tr>
</tbody>
</table>

#### Wing Bearing

<table>
<thead>
<tr>
<th>X</th>
<th>Y</th>
<th>Swing Diameter</th>
<th>Pilot Diameter</th>
<th>Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Lugs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.63&quot;</td>
<td>5.31&quot;</td>
<td>5.31&quot;</td>
<td>58WB</td>
<td></td>
</tr>
<tr>
<td>5.84&quot;</td>
<td>5.53&quot;</td>
<td>5.53&quot;</td>
<td>62N</td>
<td></td>
</tr>
<tr>
<td>6.22&quot;</td>
<td>5.84&quot;</td>
<td>5.84&quot;</td>
<td>72N</td>
<td></td>
</tr>
<tr>
<td>6.88&quot;</td>
<td>6.50&quot;</td>
<td>6.50&quot;</td>
<td>85WB</td>
<td></td>
</tr>
<tr>
<td>8.50&quot;</td>
<td>6.13&quot;</td>
<td>6.13&quot;</td>
<td>92N</td>
<td></td>
</tr>
<tr>
<td>8.63&quot;</td>
<td>6.25&quot;</td>
<td>6.25&quot;</td>
<td>92N</td>
<td></td>
</tr>
</tbody>
</table>
4 Front Axles

Front Non-Drive Steer Axles

Identification

The axle build information and assembly date for Meritor front non-drive steer axles is on the axle identification tag.

The identification tag is fastened to the center of the beam at the front surface. The axle assembly date is located in either the lower right-hand or left-hand corner of the tag.

The Julian method is used to indicate the axle assembly date. The first two digits indicate the year, and the last three digits indicate the day of the year.

In the following example, 01 is the year 2001 and 327 refers to November 22.

To identify the model number, refer to the identification plate on the front of the beam. Use the complete model number to obtain parts.
# Front Axles

## Front Non-Drive Steer Axles

### Model Nomenclature

#### Meritor Identification

- **Front Axle**:
  - **Basic Capacity**: [A] 5,000 lbs, [B] 6,000 lbs, [C] 7,000-8,000 lbs, [D] 9,000 lbs, [E] 10,000 lbs, [F] 12,000-13,200 lbs, [G] 14,600 lbs, [L] 16,000-20,000 lbs, [LX] 30,000 lbs, [U] 28,000-30,000 lbs

- **Basic Series**: [F] 981 - [LX] - 122


- **Specification Number**:

- **KPI Drop**:
  - [13] = 68.0, [3.74], [53] = 72.0, [7.34], [16] = 68.0, [3.60], [62] = 85.24, [7.34], [21] = 68.0, [3.30], [63] = 85.25, [7.34], [22] = 68.0, [3.50], [75] = 80.0, [7.50], [23] = 71.0, [3.74], [86] = 67.5, [7.34], [33] = 71.5, [5.00], [94] = 68.5, [7.50], [51] = 72.0, [5.30]

### Manufacturing Location


### Beam, King Pin, Bushing Variation

- [1] = Forged I Beam, Straight King Pins — Easy Steer™ Bushings
- [3] = Forged I Beam, Alloy Material, India

### Brake Type

- [B] = Reaction Beam Disc Brake
- [C] = Air Disc Brake
- [D] = Wedge Brake (Dual Air Chambers)
- [E] = Wedge Brake (Dual Hydraulic Cylinders)
- [F] = Wedge Brake (Single Hydraulic Cylinder)
- [G] = DuraPark® Hydraulic Drum
- [H] = Quadraulic Disc
- [K] = DiscPlus™ Air Disc

### M = Meritor

- **F = Front**

### S = Non-Drive Steer Axle

- **GAWR Pounds or Tonnes Ref: Target Market**

---

*Meritor IP-02167*
4 Front Axles

Front Drive Steer Axles

Identification
The axle build information and assembly date for Meritor front drive steer axles are on the axle identification tag. The identification tag is fastened to the front side of the axle housing.

Model Nomenclature
Meritor heavy-duty front drive steer axle models manufactured before 1989 were identified as shown in the figure below.

<table>
<thead>
<tr>
<th>Customer Specification Number</th>
<th>Brake Type</th>
<th>Basic Capacity</th>
<th>Front Drive Steer Axle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrier Ratio</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>Customer Specification Number</th>
<th>Brake Type</th>
<th>Basic Capacity</th>
<th>Front Drive Steer Axle</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDS-1805-SAX-60 10.59</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| MEDIUM-DUTY FRONT DRIVE STEER AXLE |

| HEAVY-DUTY FRONT DRIVE STEER AXLE |

Meritor TP-03167
### Medium-duty front drive steer axle models are identified by a letter and number system. The letters and numbers give important information about the specific axle model.

#### Model Nomenclature

**Axle Model Type**
- \( S \) = Single Rear (Solo)
- \( X \) = Front Drive Steer
- \( D \) = Dual Rear
- \( N \) = Front Rear less IAD
- \( P \) = Front Rear w/Pump
- \( R \) = Rear Rear
- \( T \) = Tandem Drive
- \( C \) = Coach
- \( H \) = High Entry

**Relative Gearing Size or Series**
- \( 0 \) = No Gearing
- \( 1 \) = 292/347
- \( 2 \) = 337/387
- \( 3 \) = TBD
- \( 4 \) = 381/432
- \( 5 \) = 415/432
- \( 6 \) = 432/457
- \( 7 \) = 457
- \( 8 \) = 460/498

**Wheel End/Brake Attachment/Differential**
- \( A \) = Conventional Spindle/Conventional Brake/Standard Differential
- \( B \) = Conventional Spindle/Conventional Brake/NoSPIN®
- \( C \) = Conventional Spindle/Conventional Brake/Other Differential
- \( D \) = Conventional Spindle/Integral Brake/Standard Differential
- \( E \) = Conventional Spindle/Integral Brake/NoSPIN®
- \( F \) = Conventional Spindle/Integral Brake/Other Differential
- \( G \) = Unitized Spindle/Conventional Brake/Standard Differential
- \( H \) = Unitized Spindle/Integral Brake/Standard Differential
- \( I \) = Unitized Spindle/Integral Brake/NoSPIN®
- \( J \) = Unitized Spindle/Integral Brake/Other Differential
- \( K \) = Ductile Front Drive Axle Carrier, Right Hand
- \( L \) = Ductile Telma
- \( M \) = Ductile Rear, Amboid
- \( N \) = No Carrier

**HSG Wall**
- \( 0 \) = Cast
- \( 1 \) = TBD
- \( 2 \) = 0.370/0.39 in. (9.5/10.0 mm)
- \( 3 \) = 0.500/0.51 in. (12.7/13.0 mm)
- \( 4 \) = TBD
- \( 5 \) = 0.63 in. (16 mm)

**Brake Type**
- \( A \) = Air Disc Brake
- \( B \) = "B" Frame Brake
- \( C \) = Air Drum Brake
- \( D \) = Wedge Brake, Dual Air Chambers
- \( E \) = Wedge Brake, Single Air Chamber
- \( F \) = Wedge Brake, Single Hydraulic Cylinder
- \( G \) = DuraPark Hydraulic Drum
- \( H \) = Qualumatic Disc
- \( J \) = Disc Plus™ Air Disc
- \( K \) = D Plus Cam Brake
- \( L \) = D Plus Cam Brake
- \( M \) = D Plus Cam Brake
- \( N \) = D Plus Cam Brake
- \( P \) = P Series Cam Brake
- \( Q \) = Q Series Cam Brake
- \( R \) = Cast Plus™ Brake
- \( S \) = Wedge Brake, Single Air Chamber
- \( T \) = T Series Cam Brake
- \( U \) = W Series Cam Brake

**MFG Location**
- \( N \) = North America
- \( S \) = South America
- \( E \) = Europe
- \( A \) = Australia/Asia/Africa

**GAWR**
- \( xx \) = GAWR (000) Pounds or Tonnes (dependent on mfg. location)

**Specification Number**
- Includes: TRACK, PARKING BRAKE, TELMA, OTHER

**Carrier Variation**
- \( A \) = Aluminum
- \( D \) = Ductile
- \( M \) = Ductile Rear, Amboid
- \( N \) = No Carrier
- \( R \) = Ductile Front Drive Axle Carrier, Right Hand
- \( T \) = Ductile Telma

**Carrier Type**
- \( 0 \) = No Carrier
- \( 1 \) = Single Speed
- \( 2 \) = Two Speed
- \( 3 \) = Helical Double Reduction
- \( 4 \) = Salisbury
- \( 5 \) = Planetary Double Reduction
- \( 6 \) = Hub Reduction
- \( 7 \) = Portal
- \( 9 \) = Single Speed With Torque Output Limited Engine

**Ratio 1**
- \( M \) = Meritor

**Ratio 2**
- \( N \) = Meritor

**Relative Gearing**
- \( 0 \) = No Gearing
- \( 1 \) = 292/347
- \( 2 \) = 337/387
- \( 3 \) = TBD
- \( 4 \) = 381/432
- \( 5 \) = 415/432
- \( 6 \) = 432/457
- \( 7 \) = 457
- \( 8 \) = 460/498

**T = Ductile Telma**

**P = P Series Cam Brake**

**Q = Q Series Cam Brake**

**S = Wedge Brake, Single Air Chamber**

**T = T Series Cam Brake**

**W = W Series Cam Brake**

**4027504x**
Front Drive Steer Axles

Current heavy-duty front drive steer axle models are identified by a letter and number system. The letters and numbers give important information about the specific axle model.

The first seven positions of the designations identify a basic axle model. The second group of letters and numbers identify particular specifications.

Model Nomenclature

- **Nominal Axle Load Rating (GAWR)**: in Thousands of Pounds
- **Gearing Type**: 1 — Single Speed, 2 — Helical Double-Reduction, 3 — Planetary Double-Reduction, 4 — Hub Reduction
- **Manufacturing Location**: B — Brazil, C — Europe (CVR), M — Europe (Maudslay), N — U.S.A.
- **Main Differential Next Type**: B — Special Differential, C — Driver-Controlled Differential Lock, F — Standard Differential, H — High Traction Differential, N — NoSpin® Differential
- **Main Differential Nest Type**: B — Special Differential, C — Driver-Controlled Differential Lock, D — Standard Differential, F — High Traction Differential, N — NoSpin® Differential
- **Brake Type**: B — Hydraulic Disc Brake, D — RDA Wedge Brake (Dual Air Chambers), E — RDH Wedge Brake (Dual Hydraulic Cylinders), F — RSH Wedge Brake (Single Hydraulic Cylinder), H — Hydraulic Drum Brake, L — Q Plus™ Cam Brake, N — None, Q — Q Series Cam Brake, S — Wedge Brake (Single Air Chamber), T — Serco Cam Brake, V — Wedge Brake (Single Air Chamber)
- **Carrier Ratio**: A — Aluminum, C — Cast Spoke Wheel, F — Ferrous, N — None
- **Axle Specification Number**: Indicates specific customer configuration, variations from the original base axle design. Refer to the Bill of Materials for specification details.
- **Hub Type**: A — Aluminum, C — Cast Spoke Wheel, F — Ferrous, N — None

*NOTE*: This position will be used to designate hub only until more than three digits are required to designate axle specification.

*NOTE*: If a complete axle designation is not required, use the first seven positions of the model designation to identify the basic axle model.

**EXAMPLES OF BASIC AXLE MODELS**:

- **RF-23-100**: Front Drive, 23,000 lb. (10,500 kg)
  - GAWR, Single Speed, 19.62 inch (498 mm) Ring Gear, 185 Carrier Model

- **RF-21-355**: Front Drive, 21,000 lb. (9,526 kg)
  - GAWR, Helical Double-Reduction, 11 inch (279 mm) Ring Gear, 355 Carrier Model (Formerly R-255)
Single, Tandem and Tridem Rear Drive Axles

Identification

An identification tag is riveted on the axle housing or on the differential carrier. Use the model number and the ratio number marked on the identification tag and the number on the carrier to order replacement parts.

AXLE IDENTIFICATION TAG INFORMATION

Model No. . . . . . . . . . . . . . . . . . . .
Customer No. . . . . . . . . . . . . . . . .
Serial No. . . . . Plant . . . . . .
Ratio . . . . . .

LOCATION OF THE IDENTIFICATION TAG, OR STAMP NUMBER, FOR THE AXLES. LOCATION IS DETERMINED FROM THE LEFT DRIVER SIDE LOOKING TOWARD THE FRONT OF THE VEHICLE.

A — FRONT ENGINE DRIVE — RIGHT REAR, NEXT TO COVER
B — REAR ENGINE DRIVE — LEFT OR RIGHT REAR, NEXT TO DRIVE UNIT

4003401c

4000625c

AXLE HOUSING IDENTIFICATION TAG

CARRIER IDENTIFICATION TAG

4000625c
5 Rear Axles

Single, Tandem and Tridem Rear Drive Axles

Model Nomenclature

GAWR
\( xx = \text{GAWR (000) Pounds or Tonnes (dependent on mfg. location)} \)

**AXLE MODEL TYPE**
- S = Single Rear (Solo)
- X = Front Drive Steer
- D = Front Rear w/IAD
- N = Fed Rear less IAD
- P = Fed Rear w/Pump
- R = Rear Rear
- T = Tandem Drive
- Z = Tridem Drive
- C = Coach
- H = High Entry

**RELATIVE GEANNING SIZE OR SERIES**
- 0 = No Gearing
- 1 = 252/347
- 2 = 337/387
- 3 = TBD
- 4 = 415/432
- 5 = 432/457
- 6 = 460/498

**HOUSING WALL**
- 0 = Cast
- 1 = TBD
- 2 = 0.31 in. (8 mm)
- 3 = 0.37/0.39 in. (9.5/10.0 mm)
- 4 = 0.43 in. (11 mm)
- 5 = 0.50/0.51 in. (12.7/13.0 mm)
- 6 = 0.56 in. (14.3 mm)
- 7 = TBD
- 8 = 0.63 in. (16 mm)
- 9 = TBD

**CARRIER VARIATION**
- A = Aluminum
- D = Ductile
- M = Ductile Rear (Ambroid)
- N = No Carrier
- R = Ductile Front Drive Axle Carrier (Right Hand)
- T = Ductile Telma

**MFG LOCATION**
- N = North America
- S = South America
- E = Europe
- A = Australia/Asia/Africa

**SPEC NUMBER**
Includes: TRACK, PARKING BRAKE, OTHER

**BRAKE TYPE**
- B = "B" Frame Brake
- C = Air Disc Brake
- D = Wedge Brake (Dual Air Chambers)
- E = Wedge Brake (Dual Hydraulic Cylinders)
- F = Wedge Brake (Single Hydraulic Cylinder)
- G = DuraPark Hydraulic Drum
- H = Quadraulic Disc
- K = Disc Plus Air Disc
- L = Q Plus™ Cam Brake
- N = None
- P = "P" Series Cam Brake
- Q = "Q" Series Cam Brake
- R = Cast Plus™ Brake
- S = Wedge Brake (Single Air Chamber)
- T = "T" Series Cam Brake
- W = "W" Series Cam Brake

**WHEEL END/BRAKE ATTACHMENT/DIFFERENTIAL**
- A = Conventional Spindle/Conventional Brake/Standard Differential
- B = Conventional Spindle/Conventional Brake/DCDL
- C = Conventional Spindle/Conventional Brake/NoSPIN®
- D = Conventional Spindle/Conventional Brake/Other Differential
- E = Unitized Spindle/Conventional Brake/Standard Differential
- F = Unitized Spindle/Conventional Brake/DCDL
- G = Unitized Spindle/Conventional Brake/NoSPIN®
- H = Unitized Spindle/Conventional Brake/Other Differential
- J = Conventional Spindle/Integral Brake/Standard Differential
- K = Conventional Spindle/Integral Brake/DCDL
- L = Conventional Spindle/Integral Brake/NoSPIN®
- M = Conventional Spindle/Integral Brake/Other Differential
- N = Unitized Spindle/Integral Brake/Standard Differential
- Q = Unitized Spindle/Integral Brake/NoSPIN®
- R = Unitized Spindle/Integral Brake/Other Differential
- S = Bolt on Conventional Spindle/Conventional Brake/No Differential

**4002693a**

M = Mentor
Single, Tandem and Tridem Rear Drive Axles

Model Nomenclature

Gearing Type
1. Single Speed
2. Two Speed
3. Helical Double-Reduction
4. Satisfactory Single Speed
5. Planetary Double-Reduction
6. Hub Reduction

Main Differential Nest Type
B = Special Differential
C = Driver Controlled Differential Lock
D = Standard Differential
H = High Torque Off Differential
N = No-Spin®

Nominal Axle Load Rating (GAWR)
In thousands of pounds. Individual forward and rear axles of a tandem set (Q, N, P, R) are rated as single axles. A tandem set (T) is rated as the combination of the two axles and a tridem set (Z) as the combination of the three axles.

Manufacturing Location
A = Australia
B = Brazil (Braxas)
C = India
D = Mexico (Dirona)
E = Europe (C.V.C.)
F = Europe (Maudslay)
N = U.S.A.

Axle Type
C = Single Rear Drive Axle, Coach
D = Forward-Rear Axle of a Drive Tandem with Inter-Axle Differential
F = Front Drive Axle
H = Forward-Rear Axle of a Drive Tandem or Tandem without Inter-Axle Differential
P = Forward-Rear Axle of a Drive Tandem with Inter-Axle Differential and Pump
R = Rear-Rear Axle of a Drive Tandem
S = Single Rear Drive Axle
T = Tandem Drive Axle Set
Z = Tridem Drive Axle Set

Carrier Type
Carrier size. Larger numbers indicate a higher GCW rated carrier, i.e. larger ring gear, etc. (Refer to Tridem Axle Note 2 below.)

Brake Type
B = Reaction Beam Disc Brake (B-Frame)
C = Air Disc Brake
E = Wedge Brake (Dual Air Chambers)
F = Wedge Brake (Single Hydraulic Cylinder)
G = DualPark Hydraulic Drum
H = Quadraulic Disc
K = Disc Plus Air Disc
L = Q Plus™ Cam Brake
N = None
P = "W" Series Cam Brake
Q = "Q" Series Cam Brake
R = Cast Plus™ Brakes
S = Wedge Brake (Single Air Chamber)
T = "T" Series Cam Brake
W = "W" Series Cam Brake

Axle Specification Number
Identifies specific customer axle configurations (variations from the original axle design). For information about the variation, refer to the Bill of Materials for that specific axle model.

Hub Type
A = Aluminum
C = Cast Spoke Wheel
F = Ferrous
N = None

NOTE: This position will be used to designate hub only until more than three digits are required to designate axle specification.

Axle Design Variation
Indicates axle design level or variation, i.e., RS 20 146 has a thicker wall housing than the RS 20 145. For further information, refer to the Bill of Materials for that specific axle model. (Also refer to Tridem Axle Note 2 below.)

NOTE 1: If a complete axle designation is not required, use the first seven positions of the model designation to identify the basic axle model.

Part Number
RR 20 145 N C Q F* 123

NOTE 2: FOR TRIDEM AXLES ONLY:
For a Tridem Drive Axle Set (Z), the number in the sixth position designates the carrier in the rear axle. The number in the seventh position designates the carriers in the second and third axles.
6 Bus and Coach Axles

Bus and Coach Non-Drive Axles

Identification

The front axle identification plate is located on the axle center.

Identification Number

17101 WX-69

Specification

Variation

Brake Usage

Identification Number

FH 945 L X 3

Specification

Variation

Brake Usage
6 Bus and Coach Axles

Bus and Coach Drive Axles

Identification

An identification tag is located on the axle housing or differential carrier.

Model Nomenclature

Axle Identification
Number

Series and Capacity

61-160 Carrier,
28,000 lb. (12 600 kg)
71-177 Carrier,
28,000 lb. (13 000 kg)

Gear Type

1 — Single Reduction
2 — Two Speed
3 — Double-Reduction
Helical
0 — No Carrier or Axle Shaft

Overall

2 — 96”
3 — 102”

Housing

4 — Standard
5 — Large Box Section
6 — Cast Housing

Assembly Variation

Type Brake

Type Brakes

Assembly

Model No. ...........................
Customer No. .....................
Serial No. .........................
Plant .............................
Date .............................

59000 SERIES

Axle Identification
Number

Series and Capacity

25,000 lb. (11 340 kg)

Gearing Type

7 — Single Reduction
8 — Double Reduction
9 — No Reduction

Overall

2 — 96”
3 — 102”

Housing

2 — Std. Angle Drive 63°
3 — New Generation Angle Drive
4 — Housing Altered to Accommodate
"R" Series Carriers
5 — Large Housing Box Size

4001446a

61000 SERIES

71000 SERIES

Axle Identification
Number

Series and Capacity

61-160 Carrier,
28,000 lb. (12 600 kg)
71-177 Carrier,
28,000 lb. (13 000 kg)

Gear Type

1 — Single Reduction
2 — Two Speed
3 — Double-Reduction
Helical
0 — No Carrier or Axle Shaft

Overall

2 — 96”
3 — 102”

Housing

4 — Standard
5 — Large Box Section
6 — Cast Housing

Assembly Variation

Type Brake

4001446a

4001446a

4001446a
6  Bus and Coach Axles

Bus and Coach Drive Axles

Model Nomenclature

<table>
<thead>
<tr>
<th>RC-23-160 SERIES</th>
<th>Gearing Type</th>
<th>Manufacturing Location</th>
<th>Main Differential Nest Type</th>
<th>Axle Specification Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 — Single Speed</td>
<td>A — Australia</td>
<td>B — Special Differential</td>
<td>Identifies specific customer axle configurations (variations from the original axle design). For information about the variation, see the Bill of Materials for that specific axle model.</td>
</tr>
<tr>
<td></td>
<td>2 — Two Speed</td>
<td>B — Brazil (Braeixo)</td>
<td>C — Driver-Controlled Differential Lock</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3 — Helical Double Reduction</td>
<td>C — India</td>
<td>F — Standard Differential</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4 — Salisbury Single Speed</td>
<td>D — Mexico (Dirana)</td>
<td>H — High Traction® Differential</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 — Planetary Double Reduction</td>
<td>E — Europe (C.V.C.)</td>
<td>N — NoSPIN®</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 — Hub Reduction</td>
<td>M — Europe (Maudslay)</td>
<td>R — Rigid Axle-Less Carrier</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7 — Portal Reduction</td>
<td>N.U.S.A.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Axle Type</th>
<th>Nominal Axle Load Rating (GAWR)</th>
<th>Carrier Type</th>
<th>Axle Design Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C — Single Rear Drive Axle, Coach</td>
<td>in thousands of pounds.</td>
<td>Larger numbers indicate a higher GCW-rated carrier.</td>
<td>Indicates axle design level or variation.</td>
</tr>
<tr>
<td></td>
<td>D — Forward-Rear Axle of a Drive Tandem with Inter-Axle Differential</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N — Forward-Rear Axle of a Drive Tandem or Tridem without Inter-Axle Differential</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>P — Forward-Rear Axle of a Drive Tandem with Inter-Axle Differential and Pump</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>R — Rear-Rear Axle of a Drive Tandem</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>S — Single Rear Drive Axle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>T — Tandem Drive Axle Set</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Z — Tridem Drive Axle Set</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Axle Type</th>
<th>Carrier Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A — Aluminum</td>
<td>Larger numbers indicate a higher GCW-rated carrier.</td>
</tr>
<tr>
<td></td>
<td>C — Cast Spoke Wheel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>F — Ferrous</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N — None</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Brake Type</th>
<th>Main Differential Nest Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C — Air Disc Brake</td>
<td>B — Special Differential</td>
</tr>
<tr>
<td></td>
<td>D — RDA Stopmaster® Wedge Brake (Dual Air Chambers)</td>
<td>C — Driver-Controlled Differential Lock</td>
</tr>
<tr>
<td></td>
<td>E — RDH Stopmaster® Wedge Brake (Dual Hydraulic Cylinders)</td>
<td>F — Standard Differential</td>
</tr>
<tr>
<td></td>
<td>F — RSF Stopmaster® Wedge Brake (Single Hydraulic Cylinder)</td>
<td>H — High Traction® Differential</td>
</tr>
<tr>
<td></td>
<td>L — O Plus™ Cam Brake</td>
<td>N — NoSPIN®</td>
</tr>
<tr>
<td></td>
<td>N — None</td>
<td>R — Rigid Axle-Less Carrier</td>
</tr>
<tr>
<td></td>
<td>P — P Series Cam Brake</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q — Q Series Cam Brake</td>
<td></td>
</tr>
<tr>
<td></td>
<td>R — Cast Plus™ Cam Brake</td>
<td></td>
</tr>
<tr>
<td></td>
<td>S — RSA Stopmaster® Wedge Brake (Single Air Chamber)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>T — T Series Cam Brake</td>
<td></td>
</tr>
<tr>
<td></td>
<td>W — W Series Cam Brake</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Hub Type</th>
<th>Manufacturing Location</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A — Aluminum</td>
<td>A — Australia</td>
</tr>
<tr>
<td></td>
<td>C — Cast Spoke Wheel</td>
<td>B — Brazil (Braeixo)</td>
</tr>
<tr>
<td></td>
<td>F — Ferrous</td>
<td>C — India</td>
</tr>
<tr>
<td></td>
<td>N — None</td>
<td>D — Mexico (Dirana)</td>
</tr>
</tbody>
</table>

*NOTE: This position will be used to designate hub only until more than three digits are required to designate axle specification.
7 Trailer Air Suspension Systems

RideStar™ RHP

Model Nomenclature
The model number on the identification tag provides suspension and axle information.

<table>
<thead>
<tr>
<th>Model Number Example</th>
<th>RHP11</th>
<th>TN</th>
<th>1805</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequence Number: Can be cross referenced to the Bill of Material.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Axle Model</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suspension Model</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Identification
The identification tag is located on the roadside of the suspension near the pin release handle.
7 Trailer Air Suspension Systems

RideStar™ RFS Series

Identification
An identification tag is located on the rear of the roadside trailing arm.
# Trailer Air Suspension Systems

## RideStar™ RFS Series

### Model Nomenclature

#### Suspension Type
- **FS** = Fabricated Suspension
- **IS** = Independent Suspension (ISAS, IFS, IRDS, MiR, MiF, etc.)
- **AL** = AirLeaf (Front)
- **CM** = Composite Spring
- **SM** = Suspension Mechanical Trailer (SMT)
- **FL** = FlexAir
- **XL** = FlexAir Lite
- **HP** = RideStar™ Highway Parallelogram (RHP)
- **FA** = Four Airbags, Four Links
- **TA** = Two Airbags, Four Links
- **LM** = Low Floor Module (Front)

#### Axle or Suspension Capacity (000s)
- 14 = 14,000 lbs.
- 15 = 15,000 lbs.
- 23 = 23,000 lbs.

#### Sequence Number
- Can be cross-referenced to the bill of material

#### Optional Suffix
- Axle Ratio 1 and Axle Ratio 2

#### Brake Type
- **S** = Wedge (Single Air Chamber)
- **D** = Wedge (Dual Air Chambers)
- **E** = Wedge (Dual Hydraulic)
- **F** = Wedge (Single Hydraulic)
- **W** = W Series Cam
- **P** = P Series Cam
- **Q** = Q Series Cam
- **T** = T Series Cam
- **L** = Q Plus™ Cam
- **R** = Cast Plus™
- **C** = Air Disc
- **N** = None

#### Units
- **E** (English — lbs; in.)
- **M** (Metric — kg; mm)

#### Ride Height
- **English Units**: 14 = 14” ride height...
- **Metric Units** (last unit truncated): 43 = 430...439 mm (details can be found in BOM)

#### Position or Location
- **T** = Trailer Top Slung
- **U** = Trailer Under Slung
- **F** = Front Axle — Non-Drive
- **D** = Front Axle — Drive
- **R** = Rear Axle — Drive
- **S** = Steerable Rear Axle — Non-Drive
- **E** = Steerable Rear Axle — Drive
- **A** = Tag Axle

### Example Model Number

RideStar™ Brand = R  
**R**  **FS**  23  **E**  **T**  **L**  0015 - 0489 - XXXX

4007186

--

Meritor IP-02167
Identification

All of the information necessary to identify a particular trailer axle is indicated on the trailer axle identification tag. Located at the center of the axle beam, this ID tag is stamped with the axle model number, serial number and date of manufacture.

The model number is composed of letters and digits, for example, TN-4670-Q-2020. This number is used to identify the axle assembly when ordering replacement parts.

The serial number is composed of letters and digits, for example, KNA-38050685. This number can be used to identify a particular trailer axle, and the material and components used to build the axle.

The date of manufacture is indicated by a Julian date, for example, 27693. The first three digits (276) indicate the 276th day of the year, or October 3. The last two digits (93) indicate the year, or 1993.
Model Nomenclature

### CURRENT PRODUCTION MODEL NUMBERS

<table>
<thead>
<tr>
<th>Beam Capacity</th>
<th>Design Variation</th>
<th>Brake Diameter</th>
<th>Brake Diameter</th>
<th>FMVSS121 Brake Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>lbs</td>
<td>O = Crank</td>
<td>2 = 12.25&quot; (31 cm)</td>
<td>5 = 15&quot; (38 cm)</td>
<td>O = With certification</td>
</tr>
<tr>
<td>kg</td>
<td>D = Drop</td>
<td>6 = 16.5&quot; (42 cm)</td>
<td>0 = No brakes</td>
<td>1 = With certification and ABS provisions or equipment</td>
</tr>
<tr>
<td></td>
<td>Blank = Straight</td>
<td></td>
<td></td>
<td>Blank = Without certification</td>
</tr>
<tr>
<td>lbs</td>
<td>N = 22,500 (10,206)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kg</td>
<td>P = 22,500/25,000 (10,206/11,340)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q = 25,000/25,000 (11,340/11,340)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>R = 22,500/25,000 (10,206/11,340)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>T = Tubular</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Brake Diameter

- 2 = 12.25" (31 cm)
- 5 = 15" (38 cm)
- 6 = 16.5" (42 cm)
- 0 = No brakes

### Brake Diameter

- 2 = 12.25" (31 cm)
- 5 = 15" (38 cm)
- 6 = 16.5" (42 cm)
- 0 = No brakes

### FMVSS121 Brake Certification

- O = With certification
- 1 = With certification and ABS provisions or equipment
- Blank = Without certification

### Beam Capacity

- N = 22,500 (10,206)
- P = 22,500/25,000 (10,206/11,340)
- Q = 25,000/25,000 (11,340/11,340)
- R = 22,500/25,000 (10,206/11,340)
- T = Tubular

### Axle Components

- P = Cam
- Q = Cam-Quick
- QH = Q with hub installed
- QW = Q with wheel installed
- L = Q Plus™
- LH = Q Plus™ with hub installed
- LW = Q Plus™ with wheel installed
- D = Air disc
- DH = Air disc with hub installed
- DW = Air disc with wheel installed

### Sequential Number

- Designates unique model/axle information, such as camshaft length, spider model, lining material, track, etc.

### Modification

- 1 = Single wheel
- 2 = Intermediate
- 3 = Bolted on brakes
- 4 = Manual bearing adjustment
- 6 = Positive bearing adjustment
- 8 = 0.625" nominal wall axles
- 9 = 0.75" nominal wall axles

### Brake Width

- 1 = 10" (25 cm)
- 6 = 8" (20 cm)

### Brake Diameter

- 2 = 12.25" (31 cm)
- 5 = 15" (38 cm)
- 6 = 16.5" (42 cm)

### Brake Diameter

- 2 = 12.25" (31 cm)
- 5 = 15" (38 cm)
- 6 = 16.5" (42 cm)
- 0 = No brakes

---

1. Crank or drop axle beam capacity is 20,000 lbs. (9072 kg).
2. Disregard rating indicated by second letter of model number.
3. Denotes either brake drum or brake rotor diameter.
4. Denotes either brake shoe width or disc brake pad size (60 square inches)
5. Denotes either 7" on 16.5" diameter brakes or 7.5" on 12.25" diameter brakes.
9 Transmissions

FreedomLine®

Identification
An identification plate is installed on the left side of the FreedomLine® transmissions.

Model Nomenclature

<table>
<thead>
<tr>
<th>M</th>
<th>O</th>
<th>16</th>
<th>Z</th>
<th>12</th>
<th>A</th>
<th>16</th>
<th>002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meritor</td>
<td>Torque Rating (lb-ft)</td>
<td>Ratio</td>
<td>Vehicle Manufacturer Specification</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O = Overdrive</td>
<td>13 = 1350</td>
<td>A = Fully Automated</td>
<td>Highest Torque in Transmission (lb-ft)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No letter = Direct Drive</td>
<td>14 = 1450</td>
<td></td>
<td>13 = 1350</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>15 = 1550</td>
<td></td>
<td>14 = 1450</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16 = 1650</td>
<td></td>
<td>15 = 1550</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Z = FreedomLine®</td>
<td>12 = 12-Speed</td>
<td>16 = 16-Speed</td>
<td>16 = 1650</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>16 = 16-Speed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Platform “G”

Identification

An identification plate is installed on the right side of the platform “G” transmissions.

Model Nomenclature

![Diagram of Meritor Transmission Model Number]

- **O**: Overdrive
- **M**: Manual
- **S**: SureShift™

- **Torque Rating (lb-ft)**:
  - 11 = 1150
  - 12 = 1250
  - 13 = 1350
  - 14 = 1450
  - 15 = 1550
  - 16 = 1650

- **Ratio**:
  - A
  - B
  - C

- **Highest Torque in Transmission (lb-ft)**:
  - 11 = 1150
  - 12 = 1250
  - 13 = 1350
  - 14 = 1450
  - 15 = 1550
  - 16 = 1650

- **Design Platform**
  - M = Manual
  - O = Overdrive

Progressive torque is an engine feature that requires a Torq-2 transmission. In models not featuring progressive torque, this number will be the same as the torque rating.

Detroit Diesel Corporation
10 Transfer Cases

Identification

An identification tag is located on the front cover.
Model Nomenclature

<table>
<thead>
<tr>
<th>Transfer Case</th>
<th>Number of Shafts</th>
<th>Nominal Input Torque Rating in High Range (by 1,000 lb-ft)</th>
<th>Optional Features Not Included as Standard Equipment (Up to Three Characters)</th>
<th>Specification Number</th>
<th>Low Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>M - TC - 4 - 2 - 13 - G - 5 - 100 - 100 - 205</td>
<td>M = Meritor</td>
<td></td>
<td>Optional Features</td>
<td>Specification Number</td>
<td>Low Ratio</td>
</tr>
<tr>
<td>M - TC - x - x - xx - x - xxx - 123 - xxxx - xxxx</td>
<td>M = Meritor</td>
<td></td>
<td>Optional Features</td>
<td>Specification Number</td>
<td>Low Ratio</td>
</tr>
</tbody>
</table>

- **M** = Meritor
- **TC** = Transfer Case
- **G** = Grey Iron
- **D** = Ductile Iron
- **A** = Aluminum
- **1** = Single-Speed Design
- **2** = Two-Speed Design
- **3** = Three-Shaft Design
- **4** = Four-Shaft Design
- **D** = Declutch/PTO
- **F** = Differential
- **L** = Lubrication Pump
- **S** = Speed Sensor
- **B** = Brake
**NOTE:** For a complete listing of all Meritor WABCO systems and components, including Roll Stability Control (RSC) for trucks and tractors and Roll Stability Support (RSS) for trailers, please visit the website at www.meritorwabco.com

**Enhanced Easy-Stop™ Trailer ABS**

The Meritor WABCO Easy-Stop™ Trailer ABS is an electronic, self-monitoring system that works with standard air brakes.

**NOTE:** S = Sensors  
M = Modulator Valves

There is a specific ECU/valve assembly for each Easy-Stop™ Trailer ABS configuration.

- For 2S/1M Basic, the assembly consists of an ECU and a single modulator valve assembly.

- For 2S/2M Standard and 2S/2M, 4S/2M and 4S/3M Premium, the assembly consists of an ECU and a dual modulator valve assembly. The valve portion of the ECU/dual modulator valve assembly contains two separate modulator valves that share common control and exhaust ports. The 2S/2M Standard valve has only two sensor outlets and cannot be upgraded.

For Standard and Premium assemblies, the ECU and modulator valve may be individually replaced.

**Identification**

To identify Enhanced Easy-Stop™, check the identification tag on the Electronic Control Unit (ECU). The part numbers for Enhanced Easy-Stop™ systems are shown below.

- 400 500 101 0 (2S/1M Basic for standard trailers)
- 400 500 104 0 (2S/1M Basic for dollies and steerables)
- 400 500 102 0 (2S/2M Standard)
- 400 500 103 0 (2S/2M, 4S/2M and 4S/3M Premium)

A 4S/3M configuration consists of an ECU/dual modulator valve assembly and one external ABS modulator valve.
Sensor with Molded Socket

In-Line Filter Valve
Removes most contaminate particles from the trailer air brake system. Approved for use on all trailer applications for both control and supply lines.

PLC DataMaster™ Trailer Data Extraction Module

Hydraulic Anti-Lock Braking Systems (ABS)
Meritor WABCO Hydraulic ABS is an electronic wheel-speed monitoring and control system used on medium-duty trucks, buses and motor home chassis equipped with a hydraulic brake system.

There are two systems available, C and D version hydraulic ABS. D version ECUs are available in both cab- and frame-mounted versions.
Identification

The hydraulic ABS version installed on the vehicle may be determined by looking at the ECU. The C version system ECUs are larger than the D version ECUs. If the ECU is easily visible, look at the part number identification tag. The D version ECUs will have a D designation printed on the tag. There is no letter designation on C version ECUs.

Modulator Assembly

Sensor with Molded Socket

Pneumatic ABS for Trucks, Tractors and Buses

Meritor WABCO pneumatic ABS is an electronic system that monitors and controls wheel speed during braking for trucks, tractors and buses. The system works with standard air brake systems. Pneumatic ABS ECUs are available for cab- or frame-mounted applications. Basic and universal ECUs are cab-mounted.

Identification

The ABS version is marked on the ECU.
ABS Valve Package — Rear Axle

The valve package provides an alternative to separate valve installation by combining a service brake relay valve with two ABS modulator valves.

ABS Valve Package — Front Axle

The valve package provides an alternative to separate valve installation by combining a quick release valve with two ABS modulator valves.

ABS/ATC Valve Package — Rear Axle

The valve package provides an alternative to separate valve installation by combining a service brake relay valve with two ABS modulator valves and one ATC valve.

ABS Modulator Valve

Also available with open-style connectors.
11 Meritor WABCO Components

Automatic Traction Control Valve

Also available with open-style connector.

PRODUCT IDENTIFICATION ON VALVE BODY

Bayonet-style connector

403441a

Straight Sensor

4004370a

Right Angle (90°) Sensor

4004371a

Air Dryers

Identification

Alphabetical designations of the System Saver Series family of air dryers have specific meanings:
- P indicates an external purge tank is used for desiccant regeneration
- U indicates discharge line — unloaded compressor
- E indicates a Holset-style compressor function
- G indicates integral governor for air compressor control
- UP indicates discharge line — unloaded compressor (with external purge tank)

System Saver 1200/1800: System regeneration valve assembly on side of dryer
System Saver 1200E: Tubing and banjo fitting at front of dryer
System Saver 1200P/1800P: Uses dedicated purge tank. Port 22 drilled and tapped
System Saver 1200U/1800U: Small regeneration hole visible in back of Port 1 when fitting is removed. No spring in turbo cut-off valve assembly
System Saver 1200UP/1800UP: Port 22 drilled and tapped. Small regeneration hole is visible at back of Port 1 when fitting is removed. No spring in turbo cut-off valve assembly. Dedicated purge tank
The air dryer base is the same for both the 1200 and 1800 Series air dryers; however, the 1800 Series canister is 3.2-inches taller than the 1200. This larger canister contains 50% more desiccant, which makes the 1800 ideal for applications calling for frequent starts, stops and long compressor cycles.

Air Compressors

The Meritor WABCO System Saver 318 air compressor provides and maintains air under pressure to operate devices in the air brake and auxiliary air systems of a vehicle. It consists of two major subassemblies: Cylinder head and crankcase/cylinder block. The System Saver 318 air compressor is used on Mack engines and is available in non-through drive and through drive versions. The through drive version is required to run hydraulic power steering pumps.
11 Meritor WABCO Components

Air Brake System Valves

Meritor WABCO provides a complete line of air brake valves. Please visit the website at www.meritorwabco.com for complete information.
11 Meritor WABCO Components

Single or Dual Circuit Foot Valve and Pedal

Hand-Operated Valves
Trailer Brake Control Valves

Park Brake Valve

IR2 Valve

External Steering Column Mount
11 Meritor WABCO Components

Leveling Valves

Figure 11.32

Figure 11.33

Figure 11.34
Identification

Shock absorbers are identified by the following:

- The Gabriel logo, older products do not have the Gabriel stamp
- The country of origin, either Canada or South Africa
- A date code