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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.
Section 1: Brakes
Automatic Slack Adjusters
Identification

2 Four-Piston Quadraulic™ Disc Brake Caliper
3 Cam Brakes
Identification

4 Cam Brakes
Model Nomenclature

6 Air Disc Brakes
Model Nomenclature

7 Wedge Brakes
Identification
Model Nomenclature

Section 2: Clutches
Identification

9 Model Nomenclature

Section 3: Drivelines
Identification
Yoke Identification

Section 4: Front Axles
Front Non-Drive Steer Axles
Identification

13 Model Nomenclature

14 Front Drive Steer Axles
Identification
Model Nomenclature

15 Model Nomenclature

16 Model Nomenclature

Section 5: Rear Axles
Single, Tandem and Tridem Rear Drive Axles
Identification

18 Model Nomenclature

19 Model Nomenclature

Section 6: Bus and Coach Axles
Bus and Coach Non-Drive Axles
Identification

21 Bus and Coach Drive Axles
Identification
Model Nomenclature

22 Model Nomenclature

Section 7: Trailer Air Suspension Systems
RideStar™ RHP
Identification

24 RideStar™ RFS Series
Identification

25 RideStar™ RFS Series
Model Nomenclature

Section 8: Trailer Axles
Identification

27 Model Nomenclature

Section 9: Transmissions
FreedomLine™
Identification
Model Nomenclature

29 Platform “G”
Identification
Model Nomenclature

Section 10: Transfer Cases
Identification

31 Model Nomenclature

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

Modulator Assembly
Sensor with Molded Socket
Pneumatic ABS for Trucks, Tractors and Buses

Identification

ABS Valve Package — Rear Axle

ABS/ATC Valve Package — Rear Axle

ABS Valve Package — Front Axle

ABS Modulator Valve

Automatic Traction Control Valve

Straight Sensor

Right Angle (90°) Sensor

Air Dryers

Identification

Air Compressors

Air Brake System Valves

Single or Dual Circuit Foot Valve and Pedal

Hand-Operated Valves

Leveling Valves

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.
1 Brakes

Four-Piston Quadraulic™ Disc Brake Caliper

<table>
<thead>
<tr>
<th>Current Style</th>
<th>Previous Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metric caliper bolts</td>
<td>SAE caliper bolts</td>
</tr>
<tr>
<td>Caliper housing halves held together by bolts in blind holes in the bridge area.</td>
<td>Caliper housing halves held together by bolts and nuts in the bridge area.</td>
</tr>
<tr>
<td>Integral piston/heat shield</td>
<td>Separate piston and heat shield</td>
</tr>
<tr>
<td>Phenolic piston</td>
<td>Metal piston</td>
</tr>
</tbody>
</table>

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

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. SP9088.

EXAMPLE: MERITOR MA212 FF 4707 ANC 0133 D-158 53076

4002661b

400287a

400286a

4002955c

16.5-INCH Q PLUS™ BRAKE WITH A STAMPED SPIDER
1 Brakes

Cam Brakes

**Q Plus™ Components**

- FMSI NO. 4707
  - PLUS-SHAPED HOLES (+) STAMPED IN TABLE
  - 28 RIVET HOLES IN TABLE
  - NO BULGE ON WEB
  - SHOE TAG
  - DEEPER POCKET
  - INCREASED LIFT
  - 16.5" X 7" Q PLUS™ SHOE

**Q Series Components**

- FMSI NO. 4515G
  - BULGE ON WEB
  - SHOE TAG
  - 16.5" X 7" Q SHOE

**FMSI NO. 4702**

- USED WITH SPIDER
  - NO BULGE ON WEB
  - DOUBLE WEB
  - 15" X 4" Q PLUS™ SHOE

**FMSI NO. 4702a**

- PART NUMBER LOCATED HERE
- DEEPER POCKET
- INCREASED LIFT
- 16.5" Q PLUS™ CAMSHAFT (1.5" DIA.-28 SPLINES)

**FMSI NO. 4515Ga**

- PART NUMBER LOCATED HERE
- DEEPER POCKET
- INCREASED LIFT
- 16.5" Q CAMSHAFT (1.5" DIA.-10 OR 28 SPLINES)

**FMSI NO. 4702b**

- USED WITH SPIDER
  - NO BULGE ON WEB
  - SINGLE WEB
  - 15" X 4" Q SHOE

**FMSI NO. 4702c**

- PART NUMBER LOCATED HERE
- DEEPER POCKET
- INCREASED LIFT
- 15" Q PLUS™ CAMSHAFT (1.5" DIA.-28 SPLINES)

**FMSI NO. 4702d**

- PART NUMBER LOCATED HERE
- DEEPER POCKET
- INCREASED LIFT
- 15" Q CAMSHAFT (1.25" DIA.-10 OR 24 SPLINES)

<table>
<thead>
<tr>
<th>Camshafts</th>
<th>Shoes</th>
<th>Return Springs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q Plus™</td>
<td>Q Plus™</td>
<td>Heavy-duty (blue)</td>
</tr>
<tr>
<td>Q Plus™</td>
<td>Q Series</td>
<td>Standard</td>
</tr>
<tr>
<td>Q Series</td>
<td>Q Series</td>
<td>Standard</td>
</tr>
</tbody>
</table>
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™

Brake Size
- 1540 = 15" x 4"
- 1550 = 15" x 5"
- 1560 = 15" x 6"
- 1670 = 16" x 7"
- 1686 = 16" 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"

Specification Number

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.
1 Brakes

Air Disc Brakes

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.

Model Nomenclature

DiscPlus™ Air Disc Brakes Model Numbers and Designations

<table>
<thead>
<tr>
<th>D</th>
<th>X</th>
<th>195</th>
<th>1234</th>
</tr>
</thead>
<tbody>
<tr>
<td>DX</td>
<td>195</td>
<td>225</td>
<td></td>
</tr>
</tbody>
</table>

Customer Part No.

DXP 195-2001
99YK214

DXP 195 ASSEMBLY
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

RDA BRAKE

RDC

C = COACH

D = DOUBLE ACTUATED

MERITOR STOPMASTER® WEDGE BRAKE

59733-RDC-18

MERITOR IDENTIFICATION NUMBER

BRAKE IDENTIFICATION NUMBER

MERITOR SERVICE PARTS, SHOE AND LINING ASSEMBLY, PART NUMBER

MERITOR LINING MATERIAL DESIGNATION

Shoe

S MA 212 4707 QP

$ MA 212 4707 QP

Friction Mix

Brake Type Designation

FMSI

Phil FMSI

Meritor Brand Designation (MA = Meritor R = Rockwell)

BRAKES

LINING:

REPLACE WITH:

S MA 212 4707 QP

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.

Shoe

R = MERITOR (ROCKWELL)

S = SINGLE AIR CHAMBER

D = DUAL AIR CHAMBERS

A = AIR-ACTUATED

H = HYDRAULIC-ACTUATED

4002632

4002632a

4034157b
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.

Identification Tag and Serial Number Tag Attached to the Clutch Cover

Identification Serial Numbers Etched on the Clutch Housing
Clutches

Model Nomenclature

![Diagram of clutches model nomenclature]

**CLUTCH SPECIFICATION NUMBER**

<table>
<thead>
<tr>
<th>Cover</th>
<th>Number of Discs</th>
<th>Brake Option</th>
<th>Clutch Type</th>
<th>Brakes</th>
<th>Size</th>
<th>Facing Type</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1</td>
<td>D</td>
<td>0 — 8 Spring Standard or 7 Spring Standard LTD</td>
<td>B</td>
<td>14 - 15-1/2&quot;</td>
<td>A — LTD AutoJust™ (4-Paddle) (Ceramic)</td>
<td>1 — 8 Spring Single-Stage Dampened Disc</td>
</tr>
<tr>
<td>S</td>
<td>2</td>
<td>N</td>
<td>5 — &quot;Super 8&quot; 8 Spring Lite Pedal</td>
<td></td>
<td></td>
<td>C — Ceramic Disc</td>
<td>2 — Flat Flywheel (No longer available)/Dual grease fitting</td>
</tr>
<tr>
<td>S</td>
<td>1</td>
<td>E</td>
<td>6 — Autojust™ (6-Paddle)</td>
<td></td>
<td></td>
<td>J — LTD AutoJust™ (6-Paddle) (Ceramic)</td>
<td>3 — Hi Torque Dual Grease Fitting</td>
</tr>
<tr>
<td>S</td>
<td>2</td>
<td>F</td>
<td>7 — Lite Pedal LTD 7 Spring Dampened Disc (available as ceramic disc only)(2)</td>
<td></td>
<td></td>
<td>K — LTD (6-Paddle) (Ceramic)</td>
<td>5 — Molded Organic Disc (except Hi Torque LTD clutches which are ceramic)</td>
</tr>
<tr>
<td>S</td>
<td>2</td>
<td>G</td>
<td>8 — Two-Stage (Free Travel LTD) (available as ceramic disc only)(3)</td>
<td></td>
<td></td>
<td>M — Standard LTD prior to 6/98, Lite Pedal LTD 6/98 and later (Ceramic)</td>
<td>6 — Standard LTD 7 Spring Dampened Disc (available as ceramic disc only)(2)</td>
</tr>
<tr>
<td>S</td>
<td>2</td>
<td>H</td>
<td>9 — Two-Stage (Free Travel LTD) (available as ceramic disc only)(3)</td>
<td></td>
<td></td>
<td>P — LTD Lite Pedal prior to 6/98 (Ceramic)</td>
<td>7 — Lite Pedal LTD 7 Spring Dampened Disc (available as ceramic disc only)(2)</td>
</tr>
</tbody>
</table>

Note: 1 — 8 Spring Two-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)(2) (applies only to LTD clutches which are ceramic) (3) (applies only to LTD clutches which are ceramic) (4) (applies only to LTD clutches which are ceramic)

**All orders should refer to the replacement part number.**

---

**REPLACEMENT CLUTCH ASSEMBLY PART NUMBER**

![Diagram of replacement clutch assembly part number]

<table>
<thead>
<tr>
<th>Meritor Designation</th>
<th>Unique Identification Number</th>
<th>Clutch Type</th>
<th>Brakes</th>
<th>Size</th>
<th>Facing Type</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>151406</td>
<td>0 — 8 Spring Standard or 7 Spring Standard LTD</td>
<td>B</td>
<td>14 - 15-1/2&quot;</td>
<td>A — LTD AutoJust™ (4-Paddle) (Ceramic)</td>
<td>1 — 8 Spring Single-Stage Dampened Disc</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 — 14&quot; 8 Spring Lite Pedal</td>
<td></td>
<td></td>
<td>C — Ceramic Disc</td>
<td>2 — Flat Flywheel (No longer available)/Dual grease fitting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 — &quot;Super 8&quot; 8 Spring Lite Pedal</td>
<td></td>
<td></td>
<td>J — LTD AutoJust™ (6-Paddle) (Ceramic)</td>
<td>3 — Hi Torque Dual Grease Fitting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 — &quot;Super 8&quot; 8 Spring Lite Pedal or LTD 6-Paddle</td>
<td></td>
<td></td>
<td>K — LTD (6-Paddle) (Ceramic)</td>
<td>5 — Molded Organic Disc (except Hi Torque LTD clutches which are ceramic)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8 — Autojust™ (4-Paddle)</td>
<td></td>
<td></td>
<td>M — Standard LTD prior to 6/98, Lite Pedal LTD 6/98 and later (Ceramic)</td>
<td>6 — Standard LTD 7 Spring Dampened Disc (available as ceramic disc only)(2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9 — Autojust™ (6-Paddle)</td>
<td></td>
<td></td>
<td>P — LTD Lite Pedal prior to 6/98 (Ceramic)</td>
<td>7 — Lite Pedal LTD 7 Spring Dampened Disc (available as ceramic disc only)(2)</td>
</tr>
</tbody>
</table>

Note: 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)(2) (applies only to LTD clutches which are ceramic) (3) (applies only to LTD clutches which are ceramic) (4) (applies only to LTD clutches which are ceramic)

---

**Facing Type**

- A — LTD AutoJust™ (4-Paddle) (Ceramic)
- C — Ceramic
- J — LTD AutoJust™ (6-Paddle) (Ceramic)
- K — LTD (6-Paddle) (Ceramic)
- M — Molded (Organic)
- P — LTD Lite Pedal prior to 6/98 (Ceramic)

**Series**

- H — Heavy Duty
- M — Medium Duty

**Cover**

- C — Cast
- S — Stamped

**Size**

- 14 — 14-1/2"
3 Drivelines

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>16N</th>
<th>17N</th>
<th>176N</th>
<th>18N</th>
<th>25W*</th>
<th>20W*</th>
</tr>
</thead>
<tbody>
<tr>
<td>58WB</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>62N</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>72N</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>82N</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>85NB</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* RPL 25 and RPL 20 do not follow the above convention and utilize their own unique numbering system.

Yoke Identification

<table>
<thead>
<tr>
<th>X Across Earwork</th>
<th>Y Between Earwork</th>
<th>Z Bearing Diameter</th>
<th>Series</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.19&quot;</td>
<td>1.44&quot;</td>
<td>0.94&quot;</td>
<td>16N</td>
<td>Inside Snap Ring</td>
</tr>
<tr>
<td>2.38&quot;</td>
<td>1.06&quot;</td>
<td>1.19&quot;</td>
<td>10N</td>
<td>Outside Snap Ring</td>
</tr>
<tr>
<td>3.47&quot;</td>
<td>1.06&quot;</td>
<td>1.19&quot;</td>
<td>13N</td>
<td>Outside Snap Ring</td>
</tr>
<tr>
<td>3.56&quot;</td>
<td>1.19&quot;</td>
<td>1.19&quot;</td>
<td>135N</td>
<td>Inside Snap Ring</td>
</tr>
<tr>
<td>3.88&quot;</td>
<td>1.19&quot;</td>
<td>1.19&quot;</td>
<td>131N</td>
<td>Inside Snap Ring</td>
</tr>
<tr>
<td>3.13&quot;</td>
<td>1.19&quot;</td>
<td>1.19&quot;</td>
<td>141N</td>
<td>Outside Snap Ring</td>
</tr>
<tr>
<td>4.44&quot;</td>
<td>1.19&quot;</td>
<td>1.19&quot;</td>
<td>14IN</td>
<td>Outside Snap Ring</td>
</tr>
<tr>
<td>3.13&quot;</td>
<td>1.38&quot;</td>
<td>1.38&quot;</td>
<td>14BN</td>
<td>Thrust Plate</td>
</tr>
<tr>
<td>4.44&quot;</td>
<td>1.38&quot;</td>
<td>1.38&quot;</td>
<td>14BN</td>
<td>Thrust Plate</td>
</tr>
<tr>
<td>4.19&quot;</td>
<td>1.38&quot;</td>
<td>1.38&quot;</td>
<td>15BN</td>
<td>Thrust Plate</td>
</tr>
<tr>
<td>5.25&quot;</td>
<td>1.38&quot;</td>
<td>1.38&quot;</td>
<td>15BN</td>
<td>Thrust Plate</td>
</tr>
<tr>
<td>4.93&quot;</td>
<td>1.84&quot;</td>
<td>1.84&quot;</td>
<td>18N</td>
<td>Cover Plate</td>
</tr>
<tr>
<td>5.31&quot;</td>
<td>1.84&quot;</td>
<td>1.84&quot;</td>
<td>18N</td>
<td>Cover Plate</td>
</tr>
<tr>
<td>6.09&quot;</td>
<td>1.84&quot;</td>
<td>1.84&quot;</td>
<td>17N</td>
<td>Cover Plate</td>
</tr>
<tr>
<td>7.00&quot;</td>
<td>1.84&quot;</td>
<td>1.84&quot;</td>
<td>176N</td>
<td>Cover Plate</td>
</tr>
<tr>
<td>7.55&quot;</td>
<td>1.84&quot;</td>
<td>1.94&quot;</td>
<td>18N</td>
<td>Cover Plate</td>
</tr>
<tr>
<td>5.19&quot;</td>
<td>1.63&quot;</td>
<td>1.63&quot;</td>
<td>750N</td>
<td>Outside Snap Ring</td>
</tr>
<tr>
<td>6.06&quot;</td>
<td>1.94&quot;</td>
<td>1.94&quot;</td>
<td>850N</td>
<td>Outside Snap Ring</td>
</tr>
<tr>
<td>7.89&quot;</td>
<td>2.50&quot;</td>
<td>2.50&quot;</td>
<td>950N</td>
<td>Outside Snap Ring</td>
</tr>
<tr>
<td>7.00&quot;</td>
<td>2.06&quot;</td>
<td>2.06&quot;</td>
<td>20RPL</td>
<td>Wing/Outside Snap Ring</td>
</tr>
<tr>
<td>8.33&quot;</td>
<td>2.06&quot;</td>
<td>2.06&quot;</td>
<td>25RPL</td>
<td>Wing/Outside Snap Ring</td>
</tr>
</tbody>
</table>
3 Drivelines

Identification

**U-Bolt and Strap and Bolt**

- **X** Between Lugs
  - 3.22" 1.06" 131N
  - 3.63" 1.06" 133N
  - 3.63" 1.19" 135N
  - 4.19" 1.19" 141N
  - 4.19" 1.38" 148N
  - 4.97" 1.38" 155N
  - 5.31" 1.94" 17N
  - 6.19" 1.94" 17N
  - 7.09" 1.94" 17N
  - 7.63" 1.94" 18N

- **Z** Bearing Diameter

**Wing Bearing**

- **X** Swing Diameter
  - 5.63" 5.31" 58WB
  - 5.84" 5.53" 62N
  - 6.22" 5.84" 72N
  - 6.88 6.50" 85WB
  - 8.50" 8.13" 92N
  - 8.63" 8.25" 92N

- **Y** Pilot Diameter

**RPL Driveline**

- **X** Between Lugs
  - 7.06" 20WYS
  - 8.38" 25WYS
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 Non-Drive Steer Axles

Model Nomenclature

Meritor Identification

- **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
  - H: 16,000-20,000 lbs
  - LX: 30,000 lbs
  - U: 28,000-30,000 lbs

- **Basic Series**

- **Brake Usage**

- **Specification Number**

- **Number Design Variation**
  - 0: Tapered King Pin
  - 1: Straight King Pin
  - 2: Special Tie Rods
  - 3: 5' Drop from Center of Spindle to Pad
  - 4: 5' Drop from Center of Spindle to Pad and Special Tie Rods
  - 5: Special Wheel Ends

- **Major Variation**
  - 0: Pre-FMVSS-121 Design
  - 1: Straight Sealed King Pin and New Tie Rod Assembly
  - 2: Sealed King Pin Construction
  - 3: Larger Axle Beam and Knuckles
  - 4: Ezy Steer™ Design
  - 5: Tubular Axle Beam
  - 6: Lightweight Axle Beam
  - 7: Center Point™ Design
  - 8: Ezy Steer Plus™

- **KPI Drop** (inches)
  - KPI Drop (inches)
  - 13 = 68.0 3.74
  - 16 = 68.0 3.60
  - 21 = 69.0 3.30
  - 22 = 69.0 3.50
  - 23 = 71.0 3.74
  - 25 = 71.5 5.00
  - 53 = 72.0 3.74
  - 62 = 65.24 3.74
  - 63 = 65.25 3.74
  - 75 = 60.0 2.50
  - 85 = 67.5 2.50
  - 86 = 67.5 3.60
  - 92 = 68.5 3.50
  - 94 = 68.5 5.00

- **Beam, King Pin, Bushing Variation**
  - M: Meritor
  - F: Front
  - S: Non-Drive Steer Axle
  - GAWR Pounds or Tonnes (Ref: Target Market)

- **Brake Type**
  - B = Reaction Beam
  - 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
  - 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
  - Z = Non-Meritor Brake

- **Manufacturing Location**
  - N = N.A.
  - D = D.A.
  - E = Europe
  - A = Australia/Asia

- **Axle Spec. Number**

MFS-XX-0XXNXXX

- **Target Market**
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>Carrier Ratio</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</td>
<td>10.59</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Front Drive Steer Axles

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
- A = Single Rear (Solo)
- B = Prod Rear (HRD)
- C = Prod Rear (AO)
- D = Prod Rear (AO)
- E = Prod Rear (Pump)
- F = Prod Rear (Pump)
- G = Prod Rear (Tandem)
- H = Prod Rear (Tandem)
- I = Coach
- J = Coach
- K = Prod Rear (High Entry)
- L = Prod Rear (High Entry)

#### 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

#### 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
- 8 = Single Speed With Torque Output

#### Carrier Variation
- A = Aluminum
- B = Ductile
- C = Ductile Rear, Amboid
- D = Ductile Rear, Amboid
- E = Ductile Rear, Amboid
- F = Ductile Rear, Amboid
- G = Ductile Rear, Amboid
- H = Ductile Rear, Amboid

#### Carrier Wall
- 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)

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

#### Brake Type
- A = “B” Frame Brake
- B = Cast Disc Brake
- C = Cast Disc Brake
- D = Wedge Brake, Dual Air Chambers
- E = Wedge Brake, Dual Air Chambers
- F = Wedge Brake, Single Hydraulic Cylinder
- G = DuraPark Hydraulic Drum
- H = Qualdraulic Disc
- I = Disc Plus™ Air Disc
- J = Disc Plus™ Air Disc
- K = D Plus Cam Brake
- L = D Plus Cam Brake
- M = None
- N = None
- P = P Series Cam Brake
- Q = Q Series Cam Brake
- R = Q Series Cam Brake
- S = Wedge Brake, Single Air Chamber
- T = T Series Cam Brake
- U = W Series Cam Brake
- V = W Series Cam Brake

#### Specification Number
- Includes: TRACK, PARKING BRAKE, TELMA, OTHER
4 Front Axles

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

<table>
<thead>
<tr>
<th>Manufacturing Location</th>
<th>Main Differential Next Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>B — Brazil</td>
<td>B — Special Differential</td>
</tr>
<tr>
<td>C — Europe (CVC)</td>
<td>C — Driver-Controlled</td>
</tr>
<tr>
<td>N — Europe (Maudslay)</td>
<td>D — Differential Lock</td>
</tr>
<tr>
<td>N — U.S.A.</td>
<td>F — Standard Differential</td>
</tr>
<tr>
<td></td>
<td>H — High Traction Differential</td>
</tr>
<tr>
<td></td>
<td>N — NoSpin® Differential</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gearing Type</th>
<th>Axle Design Variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 — Single Speed</td>
<td>Indicates axle design level or variation, e.g. RF-21-155 indicates same base carrier as RF-21-155 except 155 is right-hand geared and 156 is left-hand geared. Refer to Bill of Materials for details.</td>
</tr>
<tr>
<td>2 — Helical Double-Reduction</td>
<td></td>
</tr>
<tr>
<td>3 — Planetary Double-Reduction</td>
<td></td>
</tr>
<tr>
<td>6 — Hub Reduction</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Brake Type</th>
<th>Hub Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>B — Hydraulic Disc Brake</td>
<td></td>
</tr>
<tr>
<td>D — RDA Wedge Brake (Dual Air Chambers)</td>
<td></td>
</tr>
<tr>
<td>E — RDA Wedge Brake (Dual Hydraulic Cylinders)</td>
<td></td>
</tr>
<tr>
<td>F — RSH Wedge Brake (Single Hydraulic Cylinder)</td>
<td></td>
</tr>
<tr>
<td>H — Hydraulic Drum Brake</td>
<td></td>
</tr>
<tr>
<td>L — Q Plus™ Cam Brake</td>
<td></td>
</tr>
<tr>
<td>N — None</td>
<td></td>
</tr>
<tr>
<td>Q — Q Series Cam Brake</td>
<td></td>
</tr>
<tr>
<td>S — Wedge Brake (Single Air Chamber)</td>
<td></td>
</tr>
<tr>
<td>A — Aluminum</td>
<td></td>
</tr>
<tr>
<td>C — Cast Spoke Wheel</td>
<td></td>
</tr>
<tr>
<td>F — Ferrous</td>
<td></td>
</tr>
<tr>
<td>N — None</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Carrier Ratio</th>
<th>Nominal Axle Load Rating (GAWR) in Thousands of Pounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Drive Steer Axle</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Axle Specification Number</th>
<th>Indicates specific customer configuration, variations from the original base axle design. Refer to the Bill of Materials for specification details.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF 16 1 4 5 N F Q F* 123 614</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hub Type</th>
<th>Nominal Axle Load Rating (GAWR) in Thousands of Pounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>A — Aluminum</td>
<td></td>
</tr>
<tr>
<td>C — Cast Spoke Wheel</td>
<td></td>
</tr>
<tr>
<td>F — Ferrous</td>
<td></td>
</tr>
<tr>
<td>N — None</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Carrier Ratio</th>
<th>Nominal Axle Load Rating (GAWR) in Thousands of Pounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Drive Steer Axle</td>
<td></td>
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</tr>
</thead>
<tbody>
<tr>
<td>RF 16 1 4 5 N F Q F* 123 614</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: 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-23-180: Front Drive, 23,000 lb. (10,500 kg)  GAWR, Single Speed, 19.62 inch (498 mm) Ring Gear, 180 Carrier Model
RF-21-255: 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
# Rear Axles

## Single, Tandem and Tridem Rear Drive Axles

### Model Nomenclature

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

**Housing Wall**  
0 = Cast  
1 = TBD  
2 = 0.31 in. (8 mm)  
3 = 0.370/0.39 in. (9.5/10.0 mm)  
4 = 0.43 in. (11 mm)  
5 = 0.500/0.51 in. (12.7/13.0 mm)  
6 = 0.56 in. (14.3 mm)  
7 = TBD  
8 = 0.63 in. (16 mm)  
9 = TBD

**Axle Type**  
0 = No Carrier  
1 = Single Speed  
2 = Two Speed  
3 = Helical Diff Red  
4 = Salisbury  
5 = Planetary Diff Red  
6 = Hub Reduction  
7 = Portal  
8 = Single Speed with Torque Output Limited Engine

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

**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 = Quadratic 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

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

**Spec Number**  
Includes: TRACK, PARKING BRAKE, OTHER

**Ratio 1**

**Ratio 2**
## 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 TYPE**
B. Special Differential
C. Driver Controlled Differential Lock
F. Standard Differential
H. High Tractive Differential
N. No-SPIN™

**NOMINAL AXLE LOAD RATING (GAWR)**
In thousands of pounds. Individual forward and rear axles of a tandem set (D, 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 (Braseixos)
C. India
D. Mexico (Dirona)
E. Europe (C.V.C.)
M. 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 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. (Also refer to Tridem Axle Note 2 below.)

**HUB TYPE**
A. Aluminum
C. Cast Spoke Wheel
F. Ferrous
N. None

**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.

**NOTE 1:** If a complete axle designation is not required, use the 1st seven positions of the model designation to identify the basic axle model. (Also refer to Tridem Axle Note 2 below.)

**AXLE DESIGN VARIATION**
Indicates axle design level or variation, (e.g., RS 23 161 has a thicker wall housing than the RS 23 160). For information about the variation, refer to the Bill of Materials for that specific axle model.

**NOTE 2:** If a complete Tridem Axle Set (Z) is used, the number in the sixth position designates the carrier in the 1st 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.

<table>
<thead>
<tr>
<th>Identification Number</th>
<th>Front Axle Identification Number</th>
<th>Specification Variation</th>
<th>Brake Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>17101 WX-69</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Identification Number</th>
<th>Front Axle Identification Number</th>
<th>Specification Variation</th>
<th>Brake Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>FH 945 L X 3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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

Bus and Coach Axles
6 Bus and Coach Axles

Bus and Coach Drive Axles

Model Nomenclature

RC-23-160 SERIES

Gearing Type
1 — Single Speed
2 — Two Speed
3 — Helical Double Reduction
4 — Salisbury Single Speed
5 — Planetary Double Reduction
6 — Hub Reduction
7 — Portal Reduction

Nominal Axle Load Rating (GAWR)
In thousands of pounds.

Axle Type
C — Single Rear Drive Axle, Coach
D — Forward-Rear Axle of a Drive Tandem with Inter-Axle Differential
N — Forward-Rear Axle of a Drive Tandem or Tridem 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

Manufacturing Location
A — Australia
B — Brazil (Brasixos)
C — India
D — Mexico (Dirona)
E — Europe (C.V.C.)
M — Europe (Maudslay)
N — U.S.A.

Main Differential Nest Type
B — Special Differential
C — Driver-Controlled Differential Lock
F — Standard Differential
H — High Traction® Differential
N — NoSPIN®
R — Rigid Axle-Less Carrier

Brake Type
C — Air Disc Brake
D — RDA Stopmaster® Wedge Brake (Dual Air Chambers)
E — RDH Stopmaster® Wedge Brake (Dual Hydraulic Cylinders)
F — RSH Stopmaster® Wedge Brake (Single Hydraulic Cylinder)
L — Q Plus™ Cam Brake
N — None
P — P Series Cam Brake
Q — Q Series Cam Brake
R — Cast Plus™ Cam Brake
S — RSA Stopmaster® Wedge Brake (Single Air Chamber)
T — T Series Cam Brake
W — W Series Cam Brake

Brake Type
A — Aluminum
C — Cast Spoke Wheel
F — Ferrous
N — None

Axle Specification Number
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.

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

Identification

The identification tag is located on the roadside of the suspension near the pin release handle.

Model Nomenclature

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

Model Number Example

RHP11  TN  1805

- Sequence Number: Can be cross referenced to the Bill of Material.
- Axle Model
- Suspension Model

Suspension Capacity
Nominal Ride Height
Model Number
Serial Number

FOR SUSPENSION NOMINAL RIDE HEIGHT (NRH), REFER TO THE NRH VALUE INDICATED ON THIS LABEL. FOR THE ACTUAL RIDE HEIGHT VALUE, REFER TO THE VEHICLE/TRAILER MANUFACTURER’S SPECIFICATION.
7 Trailer Air Suspension Systems

RideStar™ RFS Series

Identification

An identification tag is located on the rear of the roadside trailing arm.
RideStar™ RFS Series

Model Nomenclature

**Suspension Type**
- FS = Fabricated Suspension
- IS = Independent Suspension
- AL = AirLeaf® (Front)
- CM = Composite Spring
- SM = Suspension Mechanical Trailer (SMT)
- FL = FlexAir
- FA = Four Airbags, Four Links
- TA = Two Airbags, Four Links
- LM = Low Floor Module (Front)

**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

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

**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)
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 Type</th>
<th>T = Tubular</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design Variation</td>
<td>C = Crank; D = Drop; Blank = Straight</td>
</tr>
<tr>
<td>Brake Diameter</td>
<td>2 = 12.25&quot; (31 cm); 5 = 15&quot; (38 cm); 6 = 16.5&quot; (42 cm); 0 = No brakes</td>
</tr>
<tr>
<td>FMVSS121 Brake Certification</td>
<td>0 = With certification; 1 = With certification and ABS provisions or equipment; Blank = Without certification</td>
</tr>
<tr>
<td>Beam Capacity</td>
<td>N = 22,500 (10,206); P = 22,500/11,340; Q = 25,000/11,340; R = 22,500/11,340; T = 22,500/10,206; B = 22,500/10,206</td>
</tr>
<tr>
<td>Brake Width</td>
<td>1 = 10&quot; (25 cm); 5 = 8.625&quot; (22 cm); 6 = 8&quot; (20 cm); 0 = No brakes</td>
</tr>
<tr>
<td>Axle Components</td>
<td>P = Cam; Q = Cam-Quick Change; QH = Q with hub installed; DW = Q with wheel installed; L = Q Plus™ cam brake; LH = Q Plus™ with hub installed; LW = Q Plus™ with wheel installed</td>
</tr>
<tr>
<td>Modification</td>
<td>1 = Single wheel; 2 = Intermodal; 3 = Bolted on brakes; 4 = Manual bearing adjustment; 6 = Positive bearing adjustment; 8 = 0.625&quot; nominal wall axles; 9 = 0.75&quot; nominal wall axles</td>
</tr>
</tbody>
</table>

1. Crank or drop axle beam capacity is 20,000 lbs. (9072 kg). Disregard rating indicated by second letter of model number.
2. Denotes either brake drum or brake rotor diameter.
3. Denotes either brake shoe width or disc brake pad size (60 square inches)
4. 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>FREEDOMLINE® TRANSMISSION MODEL NUMBER</th>
<th>VEHICLE MANUFACTURER TRANSMISSION PART NUMBER</th>
<th>TRANSMISSION SERIAL NUMBER</th>
<th>MANUFACTURING DATE</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>MERITOR MODEL NUMBER</th>
<th>M</th>
<th>O</th>
<th>16</th>
<th>Z</th>
<th>12</th>
<th>A</th>
<th>A</th>
<th>16</th>
<th>002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Torque Rating (lb-ft)</td>
<td>13 = 1350</td>
<td>14 = 1450</td>
<td>15 = 1550</td>
<td>16 = 1650</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ratio</td>
<td>Z = FreedomLine®</td>
<td>12 = 12-Speed</td>
<td>16 = 16-Speed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle Manufacturer Specification</td>
<td>A = Fully Automated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest Torque in Transmission (lb-ft)</td>
<td>13 = 1350</td>
<td>14 = 1450</td>
<td>15 = 1550</td>
<td>16 = 1650</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Vehicle Manufacturer Specification

- M = Meritor
- O = Overdrive
- No letter = Direct Drive

- Z = FreedomLine®
- 12 = 12-Speed
- 16 = 16-Speed
Platform “G”

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

Model Nomenclature

<table>
<thead>
<tr>
<th>M</th>
<th>O</th>
<th>16</th>
<th>G</th>
<th>10</th>
<th>C</th>
<th>M</th>
<th>18®</th>
<th>002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meritor</td>
<td>Torque Rating (lb-ft)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No letter = Direct Drive</td>
<td>11 = 1150</td>
<td>12 = 1250</td>
<td>13 = 1350</td>
<td>14 = 1450</td>
<td>15 = 1550</td>
<td>16 = 1650</td>
<td></td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detroit Diesel Corporation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

© Detroit Diesel Corporation

4004199a

4004457a
10 Transfer Cases

Identification

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

<table>
<thead>
<tr>
<th>Model Identification</th>
<th>M - TC - 4 - 2 - 13 - G - 5 - 100 - 100 - 205</th>
</tr>
</thead>
<tbody>
<tr>
<td>M = Meritor</td>
<td>Number of Shafts: 4</td>
</tr>
<tr>
<td></td>
<td>Number of Speeds: 2</td>
</tr>
<tr>
<td></td>
<td>Housing Material: G - Grey Iron</td>
</tr>
<tr>
<td></td>
<td>Specification Number: 5</td>
</tr>
<tr>
<td></td>
<td>Optional Features: Not Included as Standard Equipment</td>
</tr>
<tr>
<td></td>
<td>Low Ratio: 100 - 205</td>
</tr>
</tbody>
</table>

### Optional Features
- D = Declutch/PTO
- F = Differential
- L = Lubrication Pump
- S = Speed Sensor
- B = Brake

<table>
<thead>
<tr>
<th>Model Identification</th>
<th>M - TC - x - x - xx - x - xxx - 123 - xxxx- xxxx</th>
</tr>
</thead>
<tbody>
<tr>
<td>M = Meritor</td>
<td>Number of Shafts: x</td>
</tr>
<tr>
<td></td>
<td>Number of Speeds: x</td>
</tr>
<tr>
<td></td>
<td>Housing Material: xx</td>
</tr>
<tr>
<td></td>
<td>Specification Number: xx</td>
</tr>
<tr>
<td></td>
<td>Optional Features: Not Included as Standard Equipment</td>
</tr>
<tr>
<td></td>
<td>Low Ratio: 123 - xxxx</td>
</tr>
</tbody>
</table>

### Optional Features
- D = Declutch/PTO
- F = Differential
- L = Lubrication Pump
- S = Speed Sensor
- B = Brake

---

**Note:** Numbers represent specific configurations and features associated with the transfer cases provided by Meritor.
11 Meritor WABCO Components

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.

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

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)
11 Meritor WABCO Components

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.

Reverse Detection 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.

PLC DataMaster™ Trailer Data Extraction Module
11 Meritor WABCO Components

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.

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.

Modulator Assembly

Sensor with Molded Socket

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.

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

Figure 11.18

Figure 11.19

Figure 11.20

Figure 11.21

PART NUMBER

WABCO XXXX

PART NUMBER

WABCO XXXX

MANUFACTURING LOCATION CODE

DATE CODE —
FIRST TWO DIGITS = BUILD WEEK
LAST TWO DIGITS = BUILD YEAR

PRODUCT IDENTIFICATION ON VALVE BODY

BAYONET-STYLE CONNECTOR

Also available with open-style connector.

4004370a

4004371a

4004431a

4004437a

4004273a

4004370a

4004371a
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.
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
11 Meritor WABCO Components

Leveling Valves

CAB LEVELING VALVE

CONTROL LEVER

VERTICAL LINKAGE

DELIVERY PORT

SUPPLY PORT

EXHAUST AREA

PRODUCT IDENTIFICATION ON VALVE BODY

CHASSIS LEVELING VALVE

CONTROL LEVER

VERTICAL LINKAGE

DELIVERY PORT

DELIVERY PORT

SUPPLY PORT

PILOT PORT

EXHAUST AREA

PRODUCT IDENTIFICATION ON VALVE BODY
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