TP-01104
Supersedes TSA-8909
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MERITOR®

Service Parts Instructions

Installing Greasable Drive Flanges on Hubs on Meritor's Heavy-Duty Front Drive Steering Axles

Models FDS-1805/1807/1808 and FDS-2100/2101/2102/2107

Kit Numbers 2433, 2434, 2447, 2448

Front Drive Steering Axle Models FDS-1805/1807/1808 and FDS-2100/2101/2102/2107

The following kits provide additional lubrication in the hubs of Meritor's heavy-duty front drive steering axle models listed above, where extra spline lubrication is required. **Figure 1**.

Each kit services one wheel end, so two kits are required to service one axle. Call ArvinMeritor's Commercial Vehicle Aftermarket at 888-725-9355 to order kits.

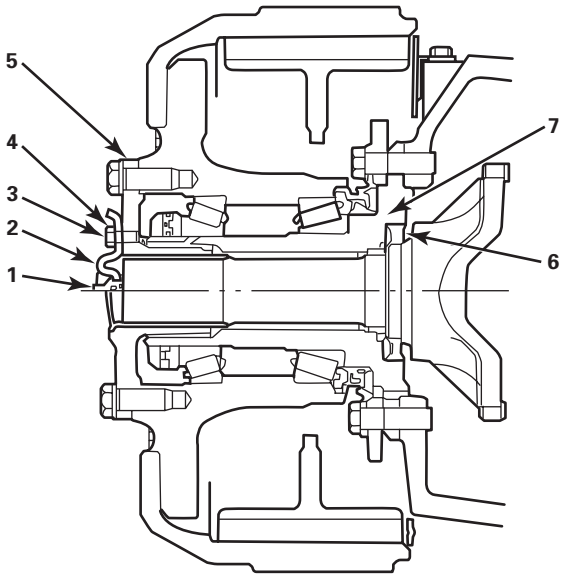
Kit Number	Wheel-End
2433	Stamped
2434	
2447	Spoke
2448	

For complete maintenance and service instructions for Meritor's heavy-duty front drive steering axles, refer to Maintenance Manual 12. Call ArvinMeritor's Customer Service Center at 800-535-5560 to order this publication or visit the Tech Library section at arvinmeritor.com at the following address.

arvinmeritor.com/tech_library/home.asp

Figure 1

WITH KIT INSTALLED



WITHOUT KIT

(SHOWN WITH STAMPED WHEELS)

Item	Part	Part No.	Quantity
Kit No. 2434 (for stamped wheels)			
1	Grease Fitting	1199-N-1860	1
2	Hubcap	3262-L-1052	1
3	Capscrew	S-266-1	4
4	Washer	1229-C-1667	4
5	Drive Flange Assembly	A-3270-V-1036	1
6	Oil Seal	A-1205-Z-1534	1
	Instruction Sheet	TSA-8909	
Kit No. 2433* (for stamped wheels)			
7	Spindle Assembly	A-3213-B-1588	1
	Kit No. 2434 (above)		1
Kit No. 2447 (for spoke wheels)			
1	Grease Fitting	1199-N-1860	1
2	Hubcap	3262-L-1052	1
3	Capscrew	S-266-1	4
4	Washer	1228-C-1687	4
5	Drive Flange Assembly	A-3270-D-1044	1
6	Oil Seal	A-1205-Z-1534	1
	Instruction Sheet	TSA-8909	1
Kit No. 2448* (for spoke wheels)			
7	Spindle Assembly	A-3213-B-1588	1
	Kit No. 2447 (above)		1

* Order spindle kits only if spindles must be replaced.

⚠ WARNING

To prevent serious eye injury, always wear safe eye protection when you perform vehicle maintenance or service.

Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving. Support the vehicle with safety stands. Do not work under a vehicle supported only by jacks. Jacks can slip and fall over. Serious personal injury can result.

Installation Procedures

Remove the Wheels, Drums and Hubs from the Axle

1. Raise the vehicle so the axle being serviced is off the ground.
2. Install jack stands under each corner of the vehicle to hold it in position.
3. Retract the brake linings with the brake adjuster so that the drums will clear the linings.

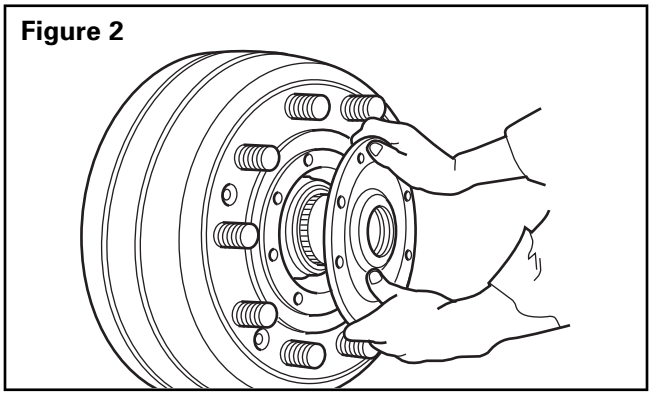
NOTE: Do not remove the wheel (rim and tire) at this time.

⚠ WARNING

Use a brass or leather mallet for assembly and disassembly procedures. Do not hit steel parts with a steel hammer. Pieces of a part can break off and cause serious personal injury.

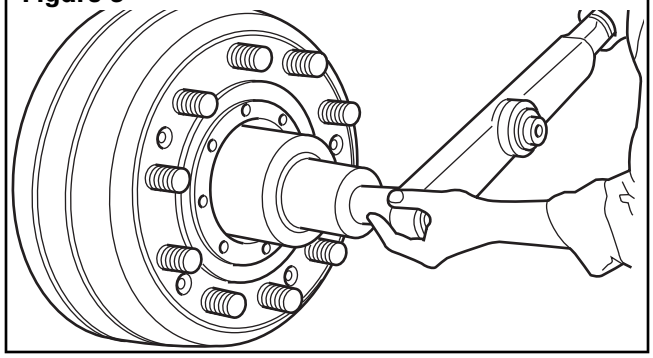
4. Remove the capscrews and washers. Remove the drive flange from the hub. **Figure 2**. If necessary, loosen the drive flange from the hub by hitting the flange with a soft mallet.

Figure 2



5. Remove the outer wheel bearing nut, lock washer and the inner wheel bearing nut from the spindle. Use the correct size wrench socket to prevent damage to the adjusting nuts. **Figure 3**.

Figure 3

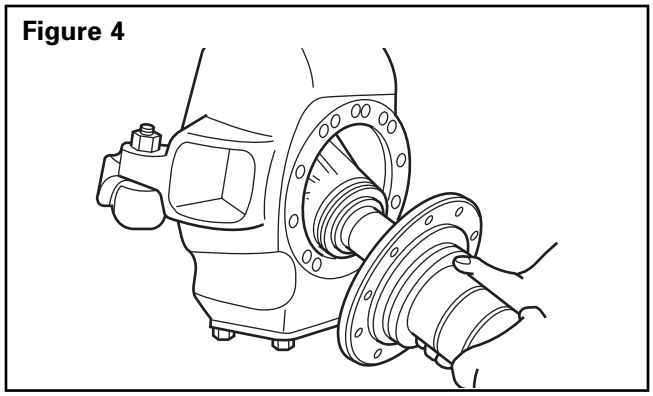


6. Pull the hub, drum and wheel assembly straight off the spindle. Use the tire to hold on to and pull. If necessary, hit the inside of the wheel with a soft mallet to loosen it. Be careful that the outer bearing cone does not fall when the hub is removed.
7. Remove and discard the inner oil seal from the hub.

Remove the Brake and Spindle from the Steering Knuckle

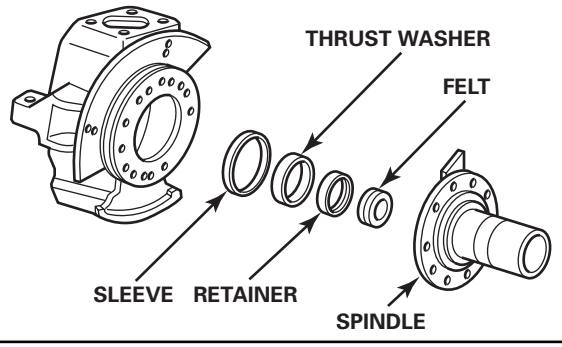
1. Disconnect the air or hydraulic lines from the brake assembly.
2. Disassemble the oil deflector and brake assembly from the spindle and steering knuckle by removing the attaching capscrews. Some brake models require that the shoe return springs be removed before the capscrews can be reached.
3. Pull the spindle straight out from the knuckle and drive shaft. **Figure 4**. The axle shaft seal will remain on the axle shaft.

Figure 4



4. If the spindle is being replaced, discard the entire spindle and associated sleeved, thrust washer, felt seal and retainer, then proceed to Step 7. If the spindle is bring reused, proceed to Step 5.
5. The felt seal, retainer, thrust washer and sleeve for the axle shaft seal will remain inside the spindle. **Figure 5**. Carefully disassemble the retainer and felt seal with a screwdriver or sharp tool. **Do not disassemble the axle shaft oil seal sleeve or the thrust washer from the spindle.**

Figure 5



6. Discard the felt seal and retainer.
7. Clean and inspect all of the disassembled parts. Repair or replace any that are worn or damaged.

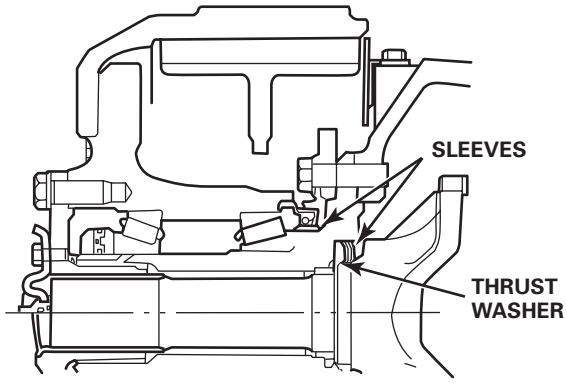
NOTE: Refer to Maintenance Manual 12 for disassembly and reassembly instructions for the complete wheel-end if it's necessary to replace the axle shaft.

8. Inspect the axle shaft splines for wear or damage. If spline wear permits the new drive flange to rotate more than 1/2 degree, replace the outer shaft before installing the new parts.

Assemble the Spindle and the Brake Assembly to the Steering Knuckle

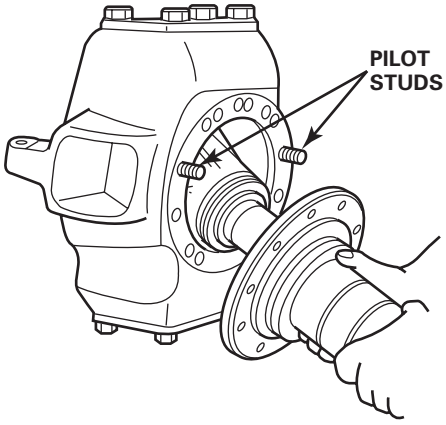
If a new spindle assembly (part number A-3213-B-1588) is used, the new oil seal sleeves are already installed and a new thrust washer is included. **Figure 6**.

Figure 6



1. Install the thrust washer into its bore in the spindle.
2. Install two temporary pilot studs into the knuckle, 180 degrees apart. Tighten the studs finger tight.
3. Install the flange of the spindle onto the pilot studs so that the keyway slot for the wheel bearing adjusting nut is at the top. **Figure 7**.
4. Install the brake assembly and oil deflector on18to the spindle with capscrews and washers. Tighten the capscrews to 180-230 lb-ft (245-313 N•m). T

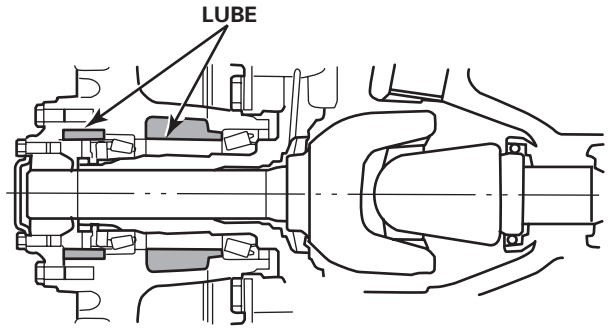
Figure 7



Install the Hub

1. Remove the hub from the wheel (rim and tire) and the drum.
2. Pack the bearing cones with O-617-A or O-617-B grease by forcing the grease into the cavities between the rollers and cage from the large end of the cones. Pack the hub with grease until it is even with the inside diameter of the bearing cones. **Figure 8**.

Figure 8

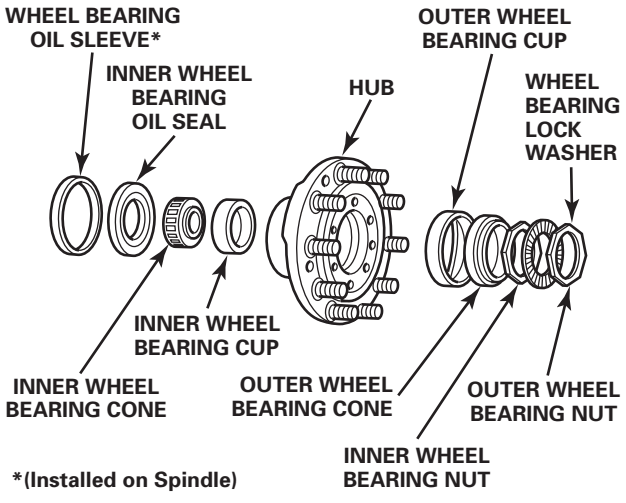


CAUTION

Do not force the seal after it has touched the bottom of the bore. Seal damage will result.

3. Install a new inner oil seal in the hub. Apply a layer of non-hardening sealing compound to the outside of the seal and press the seal into the bore in the hub. **Figure 9**.

Figure 9

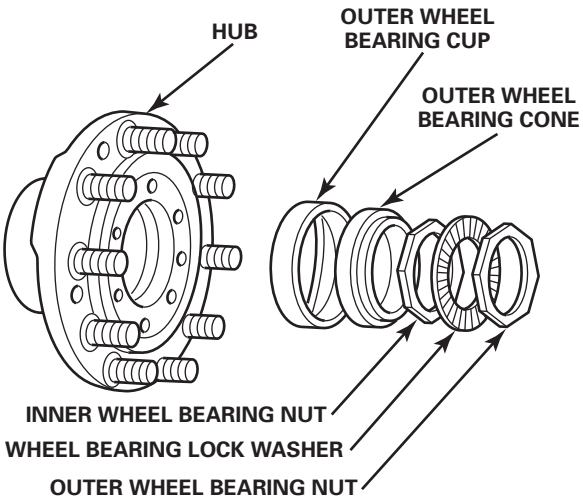


4. Install the hub assembly onto the spindle. Be careful that the oil seal is not damaged during installation. Press the hub until the inner bearing is flat against the face of the spindle.
5. Install the outer bearing cone on the spindle. Press the bearing cone into its cup inside of the hub.

Adjust the Wheel Bearings

1. Install the inner wheel bearing adjusting nut on the spindle. **Figure 10**. Tighten the nut to 50 lb-ft (68 N•m) while the hub is being rotated in both directions. T

Figure 10



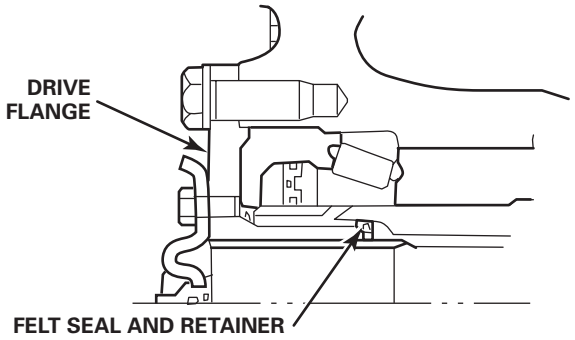
2. Loosen the adjusting nut 1/6 to 1/4 turn.
3. Assemble the lock washer and outer nut on the spindle against the adjusting nut. Tighten the outer nut to 200-300 lb-ft (272-408 N•m). T

Assemble the Drum and New Drive Flange

1. Install the drum over the hub pilot. Tighten the drum mounting flathead screws to 15-30 lb-ft (20.4-41.0 N•m).

NOTE: The new drive flange assembly (part number A-3270-V-1036 or A-3270-D-1044) already has the felt seal and retainer installed. **Figure 11**.

Figure 11



WARNING

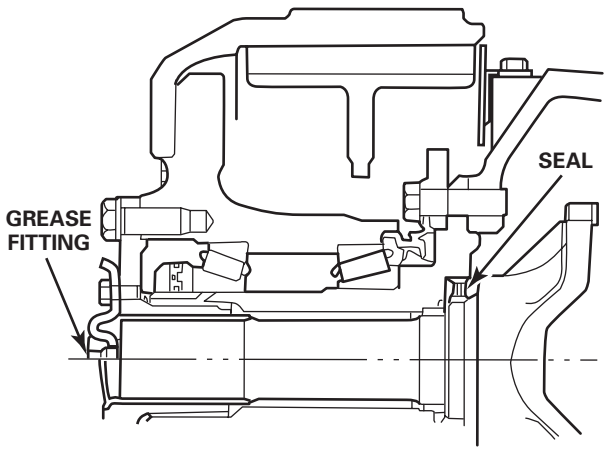
Take care when you use silicone gasket materials to avoid serious personal injury. Follow the manufacturer's instructions to prevent irritation to the eyes and skin.

2. Apply a layer of silicone gasket material to the hub mounting surface of the new drive flange.
3. Apply O-617-A or O-617-B wheel bearing grease to the inside splines of the drive flange and the splines of the drive shaft.
4. Install the drive flange on the hub and fasten it with washers and capscrews. Tighten the capscrews to 180-230 lb-ft (245-313 N•m).
5. Install the new hubcap with the grease fitting to the drive flange. Apply a 0.125-inch continuous bead of silicone gasket material to either the mounting surface of the hubcap or the drive flange. Tighten the capscrews to 40-55 lb-ft (54.4-74.8 N•m).
6. Assemble the wheel (tire and rim) to the drum. Tighten the wheel nuts to the manufacturer's specifications.

Lubrication

1. Apply O-617-A or O-617-B grease through the grease fitting until it purges at the axle shaft seal. **Figure 12**. (Capacity is approximately 0.5 pounds of grease.)
2. Lubricate also when seals are replaced, when brakes are relined, at 30,000 miles or after 2,000 hours of operation. If mileage is less than 30,000 miles or 2,000 hours of operation per year, lubricate twice a year (Spring and Fall).

Figure 12



Pump lube through grease fitting until lube purges at axle shaft seal.

Notes

Notes

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