

## Field Service Bulletin Trucks

 Date
 Group
 No.
 Release
 Page

 8.2014
 **511 008 01** 1(19)

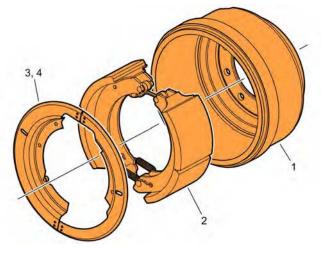
## SB-10056584-3106

Brake Drum, Replacement Steer Axle VN, VHD, VAH

# FSB 511-008, Brake Drum, Replacement (Steer Axle)

(August 2014)

Some VOLVO VN, VHD, and VAH trucks built between 08/29/2011 and 06/30/2014, equipped with a VOLVO 14.6k steer axle, unitized hub, and 152 mm (6.0 in) wide Meritor brake shoes can show signs of brake shoe protrusion beyond the brake drum. This condition is resolved by installing new 152 mm (6.0 in) brake shoes, new dust shields, and new 178 mm (7.0 in) wide brake drums (20536276).



W5092666

#### **Required Parts (Brake Drum Replacement)**

Item	Description	Part Number	Qty
1	Brake Drum, 178 mm (7.0 in) wide	20536276	2
2	Meritor Brake Shoe Kit, 152 mm (6.0 in) wide	TDAKSMA15014715QP	2
3	Brake Dust Shield, Left, Meritor	22375171	2
4	Brake Dust Shield, Right, Meritor	22375304	2
5	O-Ring, Hub Cap	3197784	2

Service personnel: Please circulate, read and initial

Service Manager	Warranty Adminis- trator	Workshop Foreman	Service T	echnicians	;		

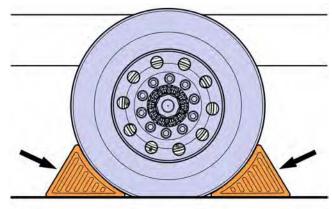
Volvo Trucks North America	Date	Group	No.	Release	Page
Field Service Bulletin	8.2014	<b>511</b>	<b>008</b>	<b>01</b>	2(19)
Field Service Bulletin	8.2014	511	008	01	2(19

#### **Decommissioning the Truck for Repair**

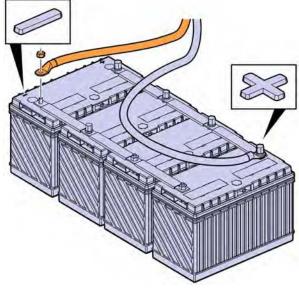
You must read and understand the precautions and guidelines in Service Information, group 50, "General Safety Practices, Brakes" before performing this procedure. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.

**NOTE:** Information is subject to change without notice. Illustrations are used for reference only and can differ slightly from the actual vehicle being serviced. However, key components addressed in this information are represented as accurately as possible.

- 1 Park the vehicle on a flat and level surface.
- 2 Apply the parking brake.
- 3 Place the transmission in neutral or park.
- 4 Install the wheel chocks.



Volvo Trucks North America	Date	Group	No.	Release	Page
Field Service Bulletin	8.2014	511	008	01	3(19)

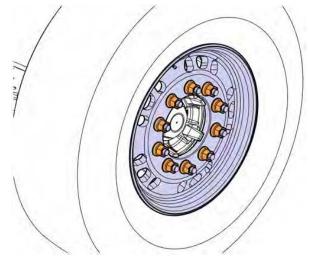


5 Disconnect the cable from the battery's negative terminal.

## Brake Drum, Replacement, Meritor (1.9 hrs)

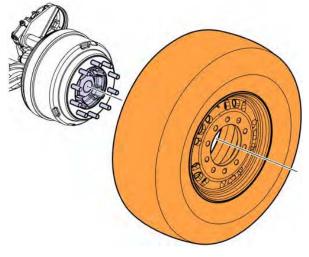
Note: The left side is shown for instructional purposes.

- 1 Lift the steer axle with a jack, place the truck on jack stands, and remove the jack.
- 2 Remove the wheel nuts.



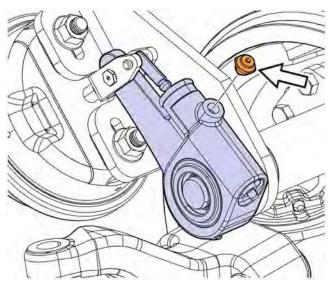
Volvo Trucks North America	Date	Group	No.	Release	Page
Field Service Bulletin	8.2014	511	008	01	4(19)

3 Remove the wheel.



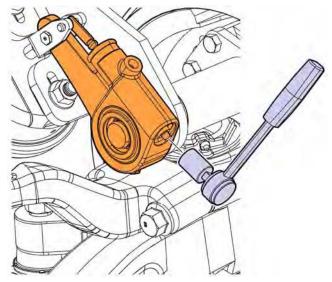
4 Remove the slack adjuster pawl.

**Note:** The Meritor slack adjuster is shown in this procedure for backing off the brakes. However, this procedure is similar for other brands.



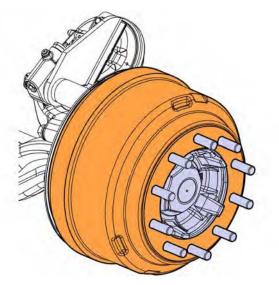
Volvo Trucks North America	Date	Group	No.	Release	Page
Field Service Bulletin	8.2014	511	008	01	5(19)

5 Back off of the brake (slack adjuster).



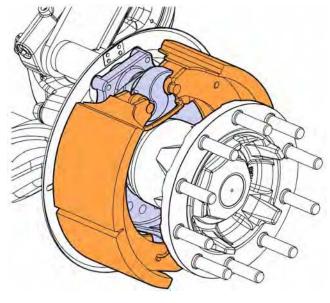
W5092670

6 Remove the brake drum. Note: Discard the brake drum.

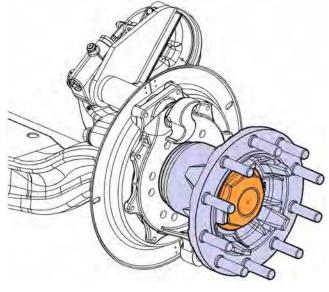


Volvo Trucks North America	Date	Group	No.	Release	Page
Field Service Bulletin	8.2014	511	008	01	6(19)

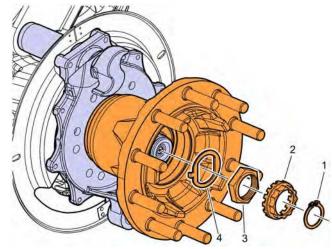
7 Remove the brake shoes, brake springs, and rollers.



8 Remove the hub cap.



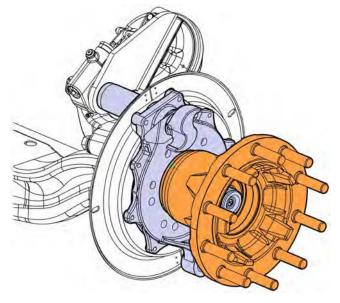
Volvo Trucks North America	Date	Group	No.	Release	Page
Field Service Bulletin	8.2014	511	008	01	7(19)



9 Remove the snap ring (1), lock plate (2), hex nut (3), and D-Washer (4).

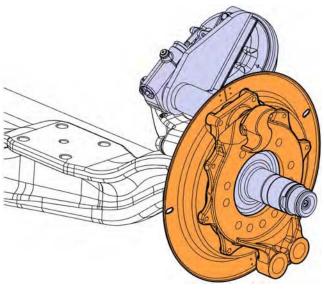
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10 Remove the hub.



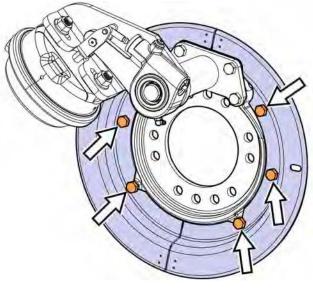
<b>Volvo Trucks</b>	North America
<b>Field Service</b>	Bulletin

11 Remove the brake spider and dust shield from the steering knuckle. **Note:** Disconnect the brake chamber hose.



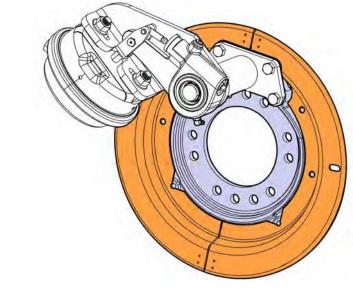
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12 Remove the six fasteners securing the existing dust shields.



Volvo Trucks North America	Date	Group	No.	Release	Page
Field Service Bulletin	8.2014	511	008	01	9(19)

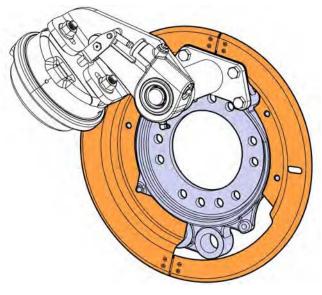
13 Remove the dust shield sections and discard.



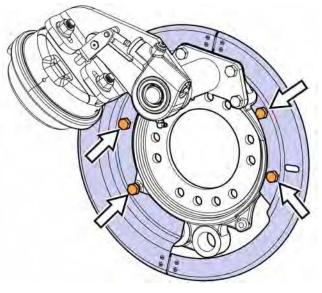
W5092683

14 Assemble the new dust shield and brake spider.

**Note:** See the table on page 1 for the correct dust shield part number.



15 install the fasteners securing the new dust shield and brake spider. 16 Tighten the fasteners to  $40 \pm 5$  Nm ( $29 \pm 3$  ft-lb).

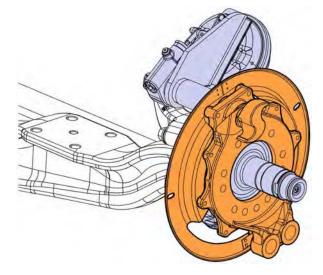


W5092685

17 Install the brake spider assembly.

Note: Connect the brake chamber hose.

18 Tighten the fasteners to  $230 \pm 23$  Nm (170  $\pm$  17 ft-lb).



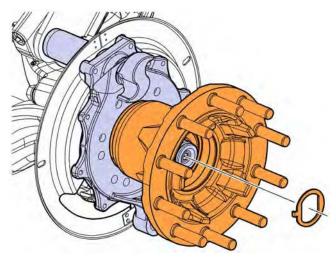
Volvo Trucks North America	Date	Group	No.	Release	Page
Field Service Bulletin	8.2014	511	008	01	11(19)

19 Check the threads on spindle and the hex nut to ensure they are serviceable.

Note: If the threads are damaged on spindle or hex nut, repair or replace as required.

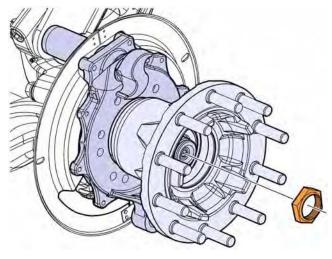
20 Install the hub assembly and D-washer.

**Note:** Ensure wheel bearing o-ring is in the correct position and undamaged during hub installation.

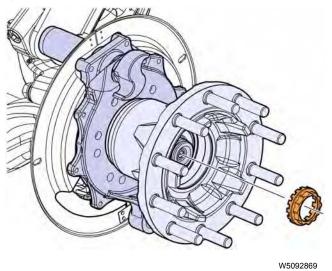


Volvo Trucks North America	Date	Group	No.	Release	Page
Field Service Bulletin	8.2014	511	008	01	12(19)

- 21 Install the hex nut and tighten by hand.
- 22 Tighten the hex nut to  $150 \pm 30$  Nm ( $110 \pm 22$  ft-lb).
- 23 Rotate the hub 20 revolutions in any direction.
- 24 Tighten the hex nut again to 1000  $\pm$  100 Nm (737  $\pm$  73 ft-lb)



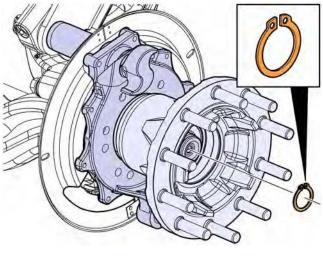
25 Position the lock plate onto the hex nut.



Volvo Trucks North America	Date	Group	No.	Release	Page
Field Service Bulletin	8.2014	511	008	01	13(19)

26 Install and secure the snapping ring.

Note: Ensure the snapping ring located securely in the spindle groove.



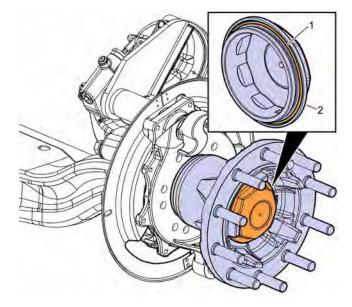
W5092870

27 Assemble the o-ring (part number 3197784) and hub cap (2).

28 Install the hub cap (2) and o-ring (1) onto the hub.

Note: To prevent damage to the o-ring during hub cap installation, lubricate the o-ring.

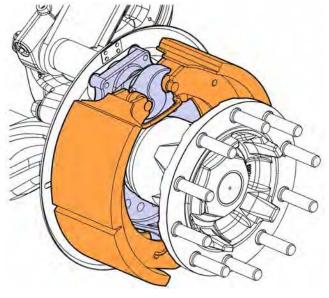
Note: Do not lubricate the hub cap threads.



29 Tighten the hub cap to  $500 \pm 50$  Nm ( $368 \pm 37$  ft-lb)

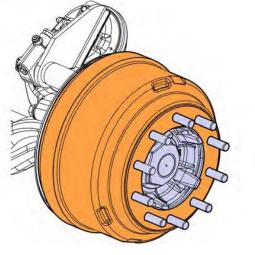
30 Install the replacement brake shoes, springs and rollers.

Note: The brake springs and rollers are included in the brake shoe kit.



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31 Install the replacement brake drum (178 mm (7.0 in) wide). See the table on page 1 for the correct part number.

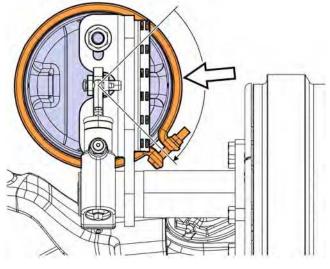


32 If applicable, loosen the brake chamber clamp and re-position the clamp at a 45° angle or until proper clearance of the wheel is obtained. See figure below.

**Note:** Do not rotate the brake chamber. Rotate the clamp only.

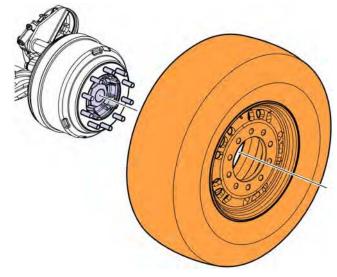
Note: Ensure the brake chamber clamp does not interfere with the wheel.

33 If applicable, tighten the brake chamber clamp fastener to 44 ± 4 Nm (32 ± 3 ft-lb).



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34 Install the wheel.

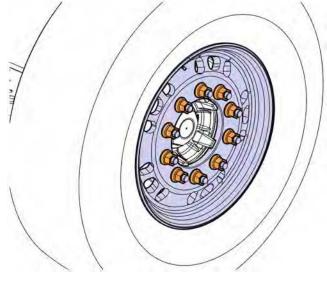


<b>Volvo Trucks</b>	North America
<b>Field Service</b>	Bulletin

Date	Group	No.	Release	Page
8.2014	511	008	01	16(19)

35 Install the wheel nuts.

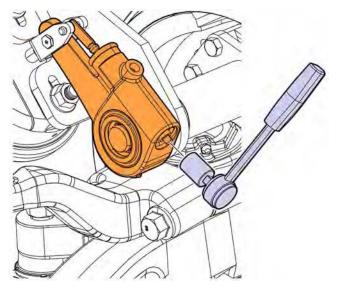
36 Tighten the wheel nuts to 610 Nm (450 ft-lb).



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37 Adjust the brake as recommended per (slack adjuster) manufacturer.

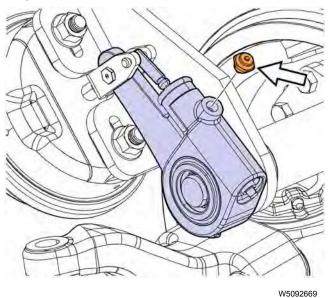
**Note:** The Meritor slack adjuster is shown in this procedure for adjusting the brake. However, this procedure is similar for other brands.



Volvo Trucks North America	Date	Group	No.	Release	Page
Field Service Bulletin	8.2014	511	008	01	17(19)

38 Install the slack adjuster pawl.

39 Tighten the slack adjuster pawl to  $21 \pm 3$  Nm (186  $\pm 30$  in-lb).

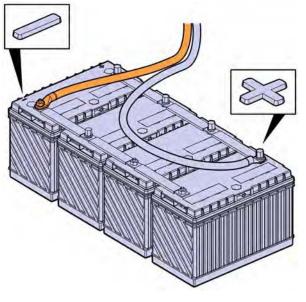


- 40 Repeat steps 1 through 39 for the right side of the truck.
- 41 Lift the steer axle with a jack, remove the jack stands, and lower the axle.
- 42 Go to Commissioning the Truck for Operation.

Volvo Trucks North America	Date	Group	No.	Release	Page
Field Service Bulletin	8.2014	511	008	01	18(19)

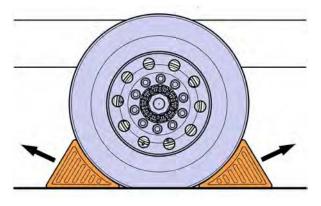
## **Commissioning the Truck for Operation**

1 Connect the battery cable to the negative (ground) terminal.



W3086758

2 Remove the wheel chocks.



Volvo Trucks North America	Date	Group	No.	Release	Page
Field Service Bulletin	8.2014	511	008	01	19(19)

#### Reimbursement

This repair may be eligible for reimbursement if a product failure was experienced within time and mileage limits of the applicable Warranty coverage. Reimbursement is obtained via the normal claim handling process.	UCHP Reimbursement	eWarranty Reimbursement
Claim Type (used only when uploading from the Dealer Bus. Sys.)	W	W
Labor Code		
Primary Labor Code (Brake Drum, Replacement)	5112-03-09-07 1.9 hrs.	51102–0–06 1.9 hrs.
Causal Part	25017906	25017906

VOLVO Trucks North America reserves the right to make any changes in design or to make additions to or upon its products without incurring any obligations to install the same on vehicles previously built.