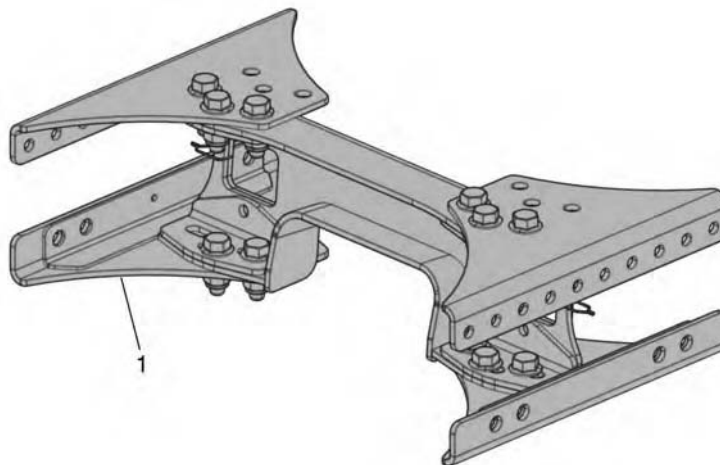


Rear Suspension Crossmember,
Replacement
VN, VHD, VNX

FSB 711-008, Rear Suspension Crossmember, Replacement

(July 2017)

Some VOLVO VN, VHD and VNX trucks built from 09/03/2012 to 07/17/2017, and equipped with the NEWAY ADZ rear suspension may exhibit cracks in the rear suspension front of bogie or bogie crossmember. Multiple stress points have been redesigned to address failures of these crossmembers. Replacement of the bogie crossmember or front of bogie crossmember is necessary to resolve this issue. All old versions of these crossmembers will be superseded by the new parts listed in the replacement parts table on page 2. Follow the repair procedures outlined in this Field Service Bulletin (FSB) to perform this repair procedure.



W7124511

Rear Suspension Crossmember Replacement Parts

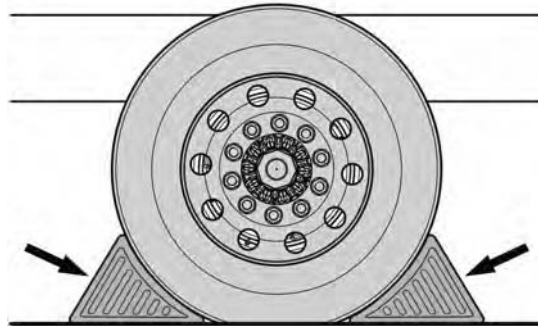
Item	Description	Old Part	New Part	Qty
1	Crossmember Assembly, Front, 816	22510589	23093717	1
1	Crossmember Assembly, Front, 826	22510590	23093718	1
1	Crossmember Assembly, Front, 836	22510591	23093719	1
1	Crossmember Assembly, Rear, 816	22510593	23093720	1
1	Crossmember Assembly, Rear, 826	22510594	23093721	1
1	Crossmember Assembly, Rear, 836	22510595	23093722	1
1	Crossmember Assembly, Front, 816 (52K Axle)	22510585	23093723	1
1	Crossmember Assembly, Front, 826 (52K Axle)	22510586	23093724	1
1	Crossmember Assembly, Front, 836 (52K Axle)	22510587	23093725	1

Decommissioning the Truck for Repair

You must read and understand the precautions and guidelines in Service Information, group 70, "General Safety Practices, Frame, Springs, Shocks & Wheels" before performing this procedure. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.

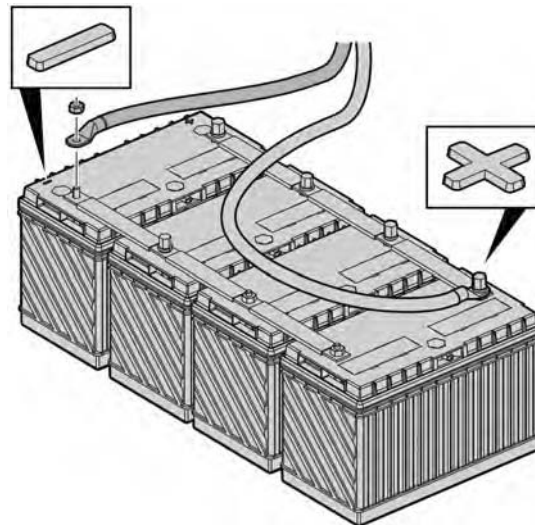
NOTE: Information is subject to change without notice. Illustrations are used for reference only and can differ slightly from the actual vehicle being serviced. However, key components addressed in this information are represented as accurately as possible.

- 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 on the front wheels.



W7086748

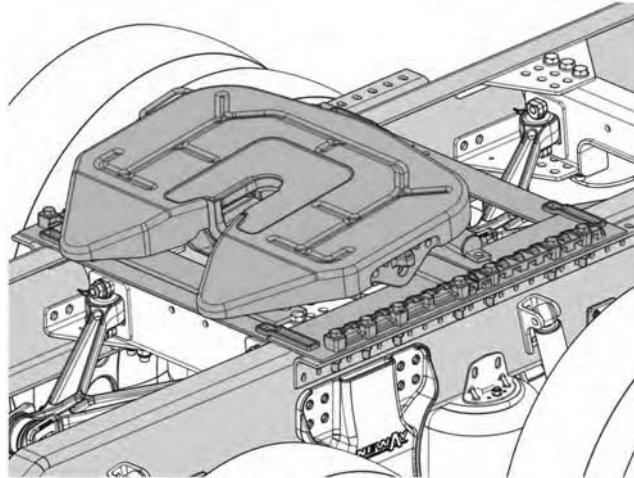
- 5 Disconnect the cable from the battery's negative terminal.



W3086747

Rear Suspension Crossmember, Replacement

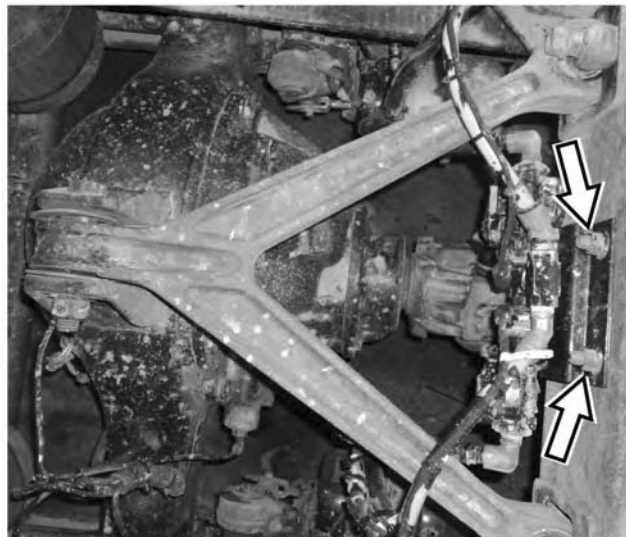
- 1 Measure and record pinion angle on affected carrier.
- 2 Disconnect air line to the slide release cylinder on the fifth wheel.
- 3 Remove the bolts securing the and fifth wheel assembly.
- 4 Using assistance and a lifting device, remove the fifth wheel assembly.



W7124512

- 5 Remove the fasteners securing the valve and bracket to the crossmember.
- 6 Remove the bracket and valve assembly from the crossmember.

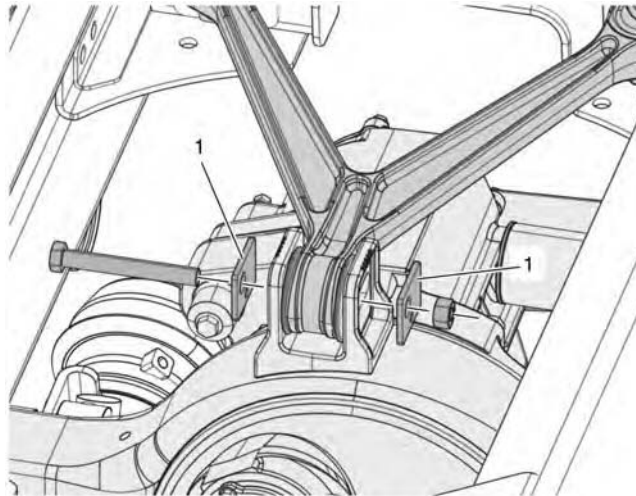
Note: Leave the air lines with the valve hanging in place.



W7124513

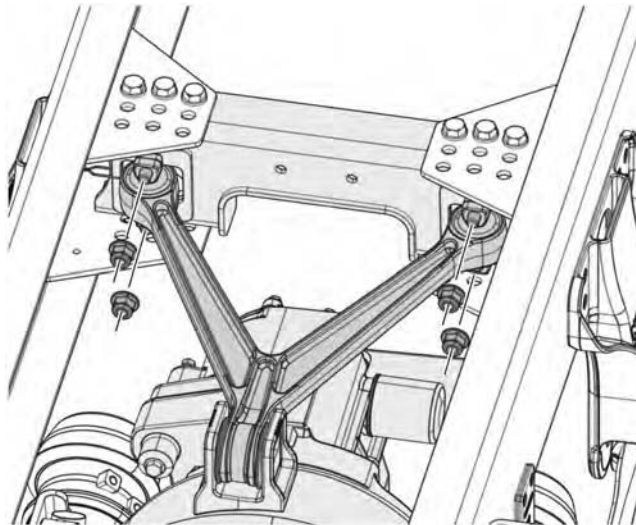
- 7 Remove the fastener, and both washers (1) securing the v-stay rod to the carrier.

Note: Record the hole position of the left and right washers (1) before removal. To ensure proper pinion angle during v-stay rod installation, the left and right washers should be installed as recorded.



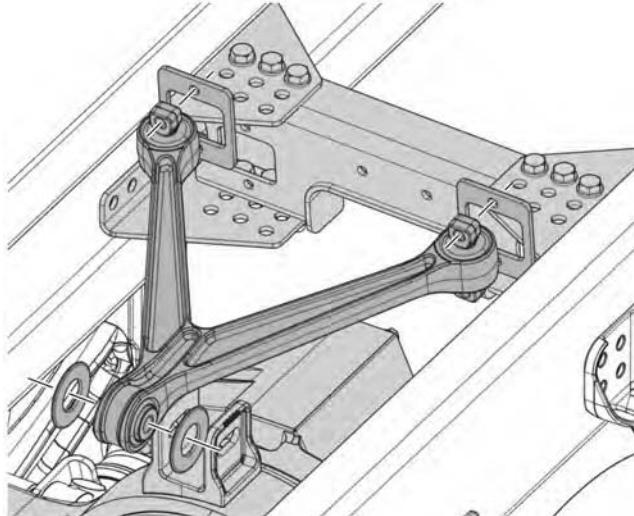
W7124705

- 8 Remove the fasteners and spacers securing the v-stay rod to the crossmember.



W7124515

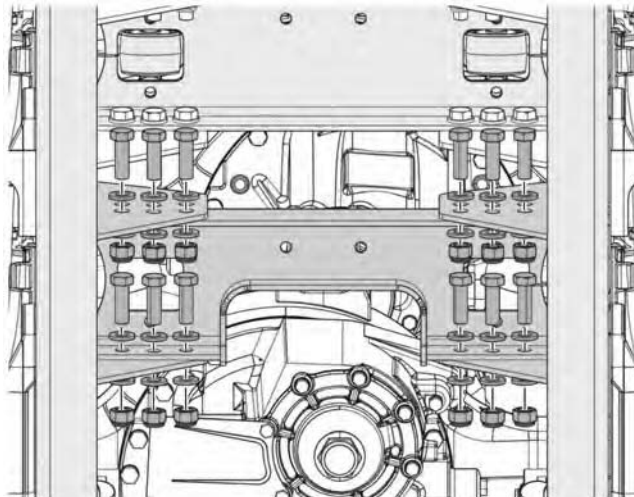
- 9 Remove the v-stay rod assembly from the carrier and crossmember.



W7124706

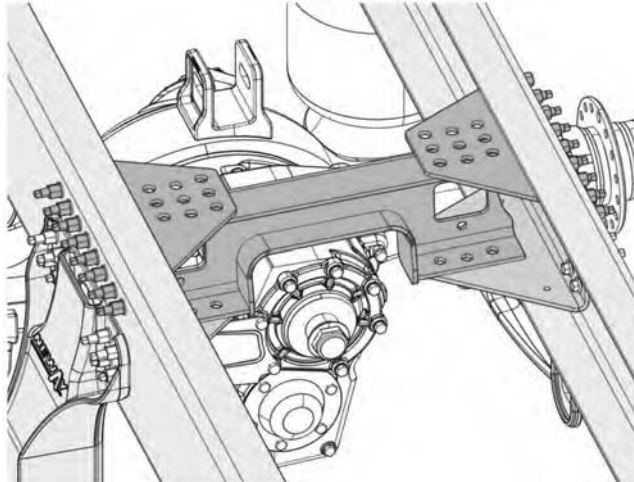
- 10 Remove the upper and lower fasteners securing the crossmember to the crossmember supports

Note: Record the location of bolts relative to the crossmember and the tie plate.



W7124708

- 11 Remove the huck bolts securing the upper crossmember supports.
- 12 Remove the crossmember.

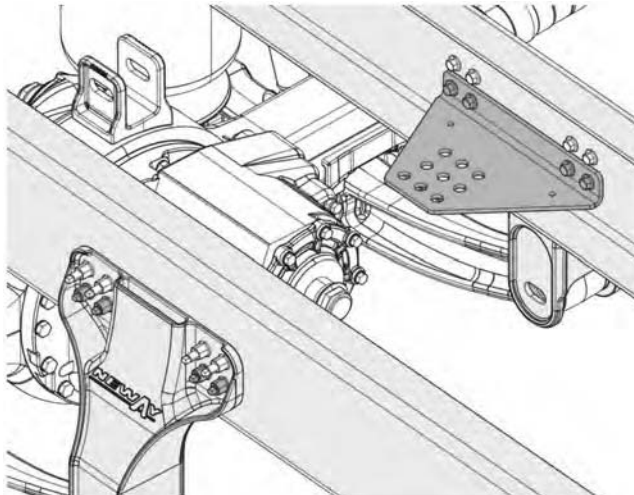


W7124518

- 13 Remove the huck bolts securing the lower crossmember supports.

Note: Leave the 4 huck bolts in the middle of lower crossmember support securing the suspension.

- 14 Remove the lower crossmember supports.



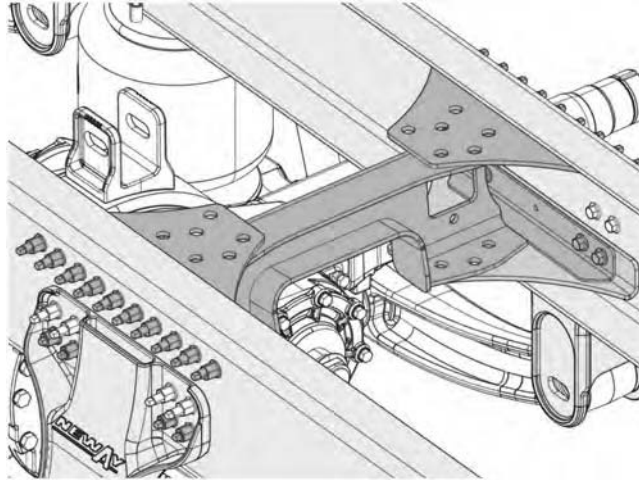
W7124519

15 Loosely install the new supports and crossmember.

Note: Use huck bolts and collars for frame rail mounting hardware.

16 Using a huck tool, secure the side rails with huck collars for huck collar locations as shown.

17 For M16 10.9 bolt locations, tighten fasteners to 275 ± 45 Nm (203 ± 33 ft-lb).

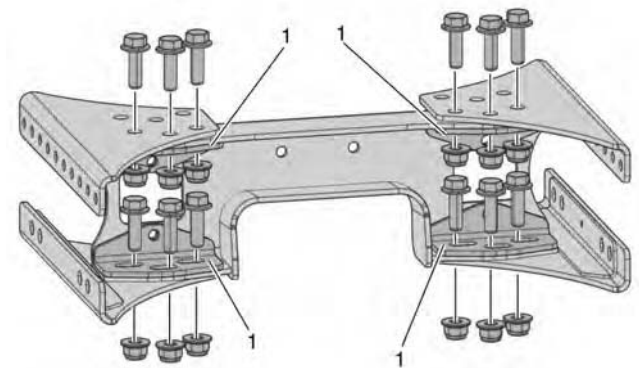


W7124527

18 Install the fasteners and triangular support braces in the previously recorded locations from step 10.

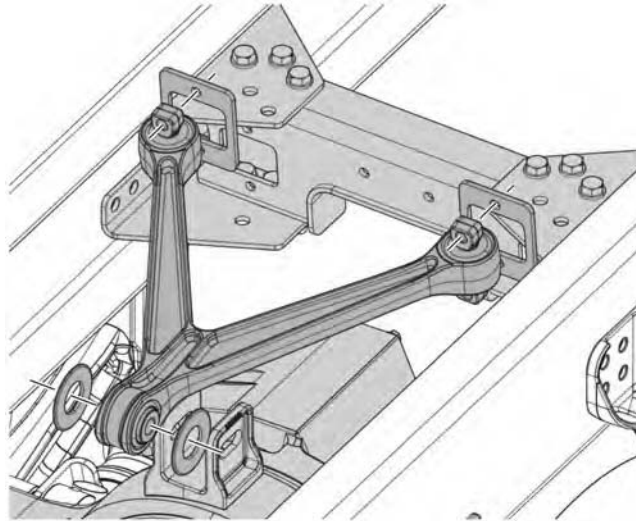
Note: **DO NOT** use any washers with the fasteners.

19 Tighten the fasteners to 535.5 Nm (395 ft-lbs).



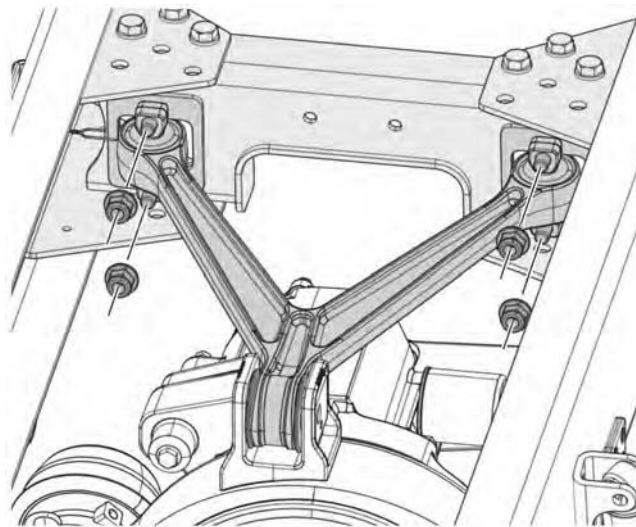
W7124522

20 Position the v-stay rod, with shims on the crossmember and carrier as shown in the figure below.



W7124709

21 Loosely install the fasteners securing the v-stay rod as shown.
22 Tighten the fasteners to specification as shown in the table below.

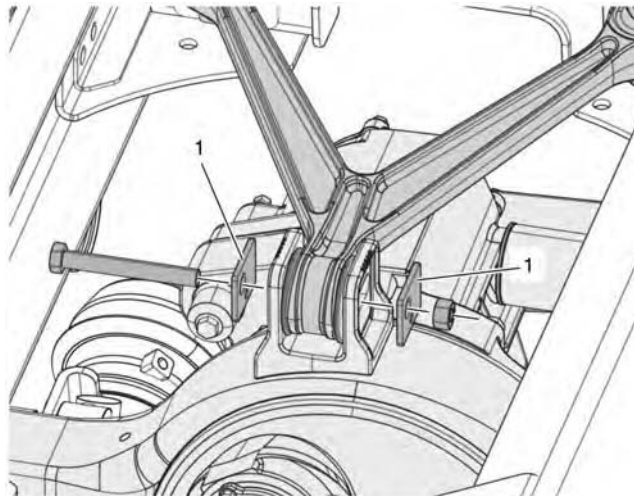


W7124710

V-Stay Rod Torque Specifications	
Bolt Size	Torque Specification
15.875 mm (5/8 in)	216.9 Nm (160 ft-lb)
25.4 mm (1.0 in)	813.5 Nm (600 ft-lb)

23 As previously recorded, install the fastener, and both washers (1) securing the v-stay rod to the carrier.

Note: To ensure proper pinion angle during v-stay rod installation, the left and right washers should be installed as previously recorded.

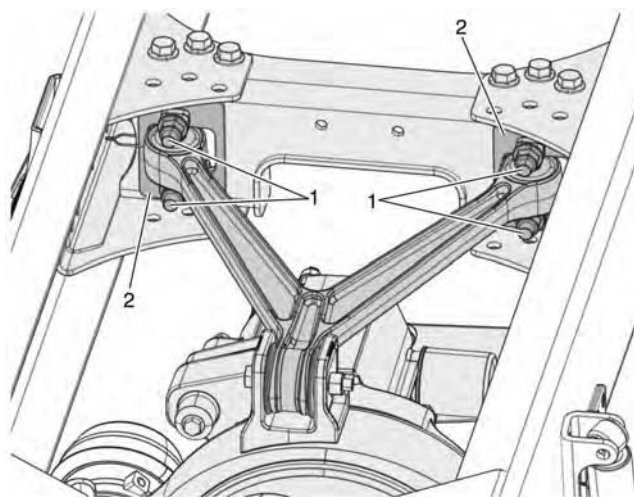


W7124705

24 Check the pinion angle for proper angle.

Note: If the pinion angle is not correct, proceed to steps 25 through 28 for instructions on adjusting and refining pinion angle using various shims.

25 To refine pinion angle, loosen the nut and shim (2) between the bolt (1) and the crossmember.



W7124551

26 Select the appropriate shims for adjustment by using the reference table below. Install the shims as shown in the figure for step 23.

SHIM THICKNESS VALUE (FOR REFERENCE ONLY) SAF-HOLLAND PART NUMBERS	
Shim Thickness	Part Number
(1/2) .500 [12.7] = APROX 1.50	90034763
(3/8) .375 [9.53] = APROX 1.12	90034791
(5/16) .312 [7.92] = APROX 1.00	90034740
(1/4) .250 [6.25] = APROX 0.75	90034789
(3/16) .188 [4.77] = APROX 0.56	90034773
(8Ga) .164 [4.16] = APROX 0.50	90034763
(1/8) .125 [3.12] = APROX 0.38 - 90034787	90034787

27 Re-tighten the fasteners to 23,000 lb min clamp load after the proper angle is achieved.

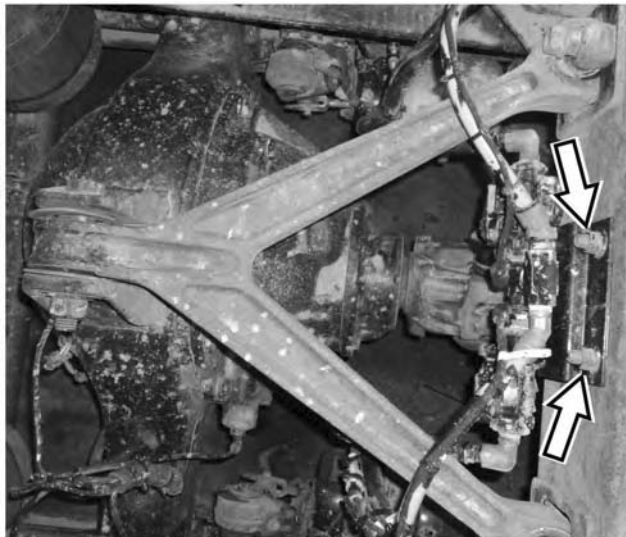
28 When tightening the head of the bolt, torque to 271 Nm (200 ft-lb) with SAF-HOLLAND hardware.

Note: Target clamp load 23,000 - 28,000 lbs.

Note: The torque value will change depending on who supplies the hardware.

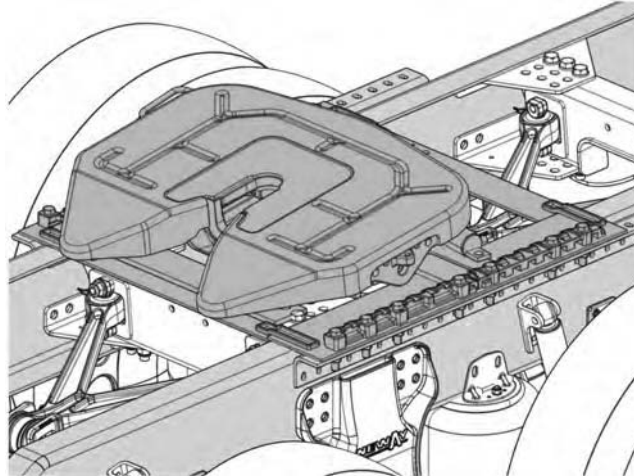
29 Install the previously removed valve, air lines, bracket and fasteners to the rear suspension crossmembr.

30 Tighten the fasteners to 85 ± 15 Nm (63 ± 11 ft-lb).



W7124513

- 31 Using a lifting device and assistance, install the fifth wheel and fasteners.
- 32 Tighten the fasteners to 175 ± 30 Nm (129 ± 22 ft-lb).

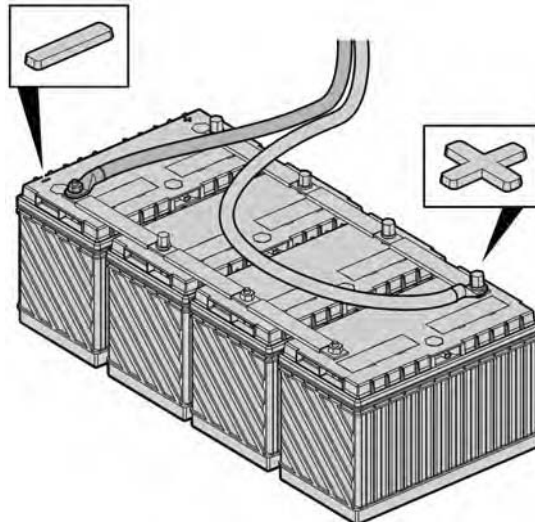


W7124512

- 33 Connect air line to the slide release cylinder on the fifth wheel.

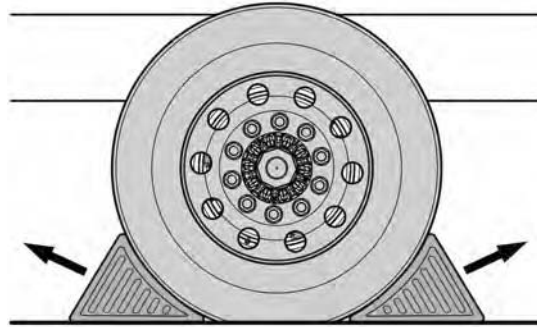
Commissioning the Truck for Operation

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



W3086758

2 Remove the wheel chocks.



W7086759

Reimbursement

<p>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.</p>	<p>UCHP Reimbursement</p>
<p>Claim Type (used only when uploading from the Dealer Bus. Sys.)</p>	<p>W</p>
<p>Labor Code</p>	<p style="background-color: #cccccc;"></p>
<p>Primary Labor Code (Rear Suspension Crossmember, Replacement) Single Crossmember</p>	<p>7112-03-09-01 2.5 hrs.</p>
<p>Labor Code (Rear Suspension Crossmember, Replacement) Two Crossmembers</p>	<p>7112-03-09-03 4.3 hrs.</p>
<p>Causal Part</p>	<p>22510589, 22510590, 22510591, 22510593, 22510594, 22510595, 22510585, 22510586, or 22510587</p>

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.