SAFETY RECALL NOTICE

VOLVO

IMPORTANT SAFETY RECALL RVXX1503
NHTSA RECALL # 15V-523

DEAR VOLVO TRUCK OWNER:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Volvo Trucks North America has decided that a defect which relates to motor vehicle safety exists in certain Volvo 2012 through 2016 VAH model vehicles manufactured from January 31, 2011 through June 25, 2015.

SAFETY DEFECT: The draglink sealed ball socket boot may be damaged due to the angle of the ball stud. If the boot is compromised, contaminants may enter the ball socket and cause corrosion that can accelerate the wear of the ball.

SAFETY RISK: If this is left untreated, the ball joint can separate from the socket and result in complete loss of steering which may result in a vehicle crash.

PRECAUTIONS YOU CAN TAKE: Volvo strongly recommends that you inspect the ball socket for any damage to the rubber sealing boot or looseness as prescribed in the enclosed Inspection and Replacement Criteria for Drag Links. Daily and periodic inspection is required as stated in the enclosed procedure, as well as the Commercial Motor Vehicle Safety Alliance's Out-of-Service Criteria and Federal Motor Carrier Safety Administration's requirements. This is a requirement for all commercial motor vehicles regardless of the type of drag link, and therefore is not unique to this recall.

TIME REQUIRED FOR THE REPAIR: The time required to repair your vehicle is approximately 1 hour.

WHAT YOU SHOULD DO: You should contact the nearest Volvo Parts and Service Center and make an appointment. The drag links on your vehicle will be replaced at **no charge** to you.

You can locate the closest Volvo Parts and Service Center by going on line to http://www.volvo.com/trucks/na/en-us/dealers/ and selecting "Dealer Locator" or by calling our toll-free number: (800) 528-6586.

NOTICE REGARDING LEASED VEHICLES:

If you are a Lessor of vehicles subject to this Notice, you have an obligation under Federal Law to provide a copy of this Notice to all Lessees within 10 days of your receipt of this Notice. Further, you must maintain a record, which identifies the Lessee(s) to whom you send a copy of this letter, the date you send this letter, and the Vehicle Identification Number(s) of the vehicle(s) that you have leased to that lessee. For purposes of this Notice, the term Lessor means: a person or entity that is the owner, as reflected on the vehicle's title, of any five or more leased vehicles (as defined in CFR Section 577.4), as of the date of notification by the manufacturer of the existence of a safety-related defect or non-compliance with a Federal Motor Vehicle Safety Standard in one or more of the leased motor vehicles.

OWNER RECALL RESPONSE CARD:

The enclosed "Notice of Vehicle Recall" identifies your vehicle. If you no longer own the vehicle, please help us update our records by completing the "Vehicle Disposition Record" portion of the enclosed postage-free Notice of Mandatory Safety Campaign card and mailing it back to us.

ASSISTANCE/ COMPLAINTS:

If your vehicle has not been repaired within a reasonable time after delivering it to a Volvo Parts and Service Center, please contact:

Volvo Trucks North America
Regulatory Affairs Department,
P.O. Box 26115
Greensboro, NC 27402-6115
vtna.regulatoryaffairs@volvo.com

You may also submit complaints to the Administrator of the National Highway Traffic Safety Administration (1200 New Jersey Avenue, S.E., Washington DC 20590 or call the toll-free Auto Safety Hot Line at 1-888-327-4236 (TTY: 1-800-424-9153), or go to http://www.safercar.gov if you believe that Volvo has failed to remedy the defect without charge, or has failed to remedy the vehicle within 60 days of the owners first tender to obtain repair following the earliest time that parts are available.

PRE NOTIFICATION REMEDIES:

If you have previously paid for repairs as a result of this issue, you may be entitled to recovery of those expenses.

Submit copies of all documentation supporting your claim according to the rules specified in the "General Plan for Reimbursement of Pre-notification Remedies" provided in this mailing.

We regret any inconvenience this may cause to your operation, but hope you will appreciate our sincere efforts to demonstrate Volvo's commitment to provide our customers with the best possible product.

VOLVO TRUCKS NORTH AMERICA

Inspection and Replacement Criteria for Drag Links

Introduction:
The Federal Motor Carrier Safety Administration requires pre and post trip inspections of Commercial Motor Vehicles as well as periodic comprehensive whole-vehicle inspections. One of the areas for daily inspection is the steering wheel system. The regulation for steering wheel systems, among other things, requires inspection of the drag link ball-and-socket joints for wear, loose and missing hardware, and damage. The complete requirements can be found at http://www.fmcsa.dot.gov/ .

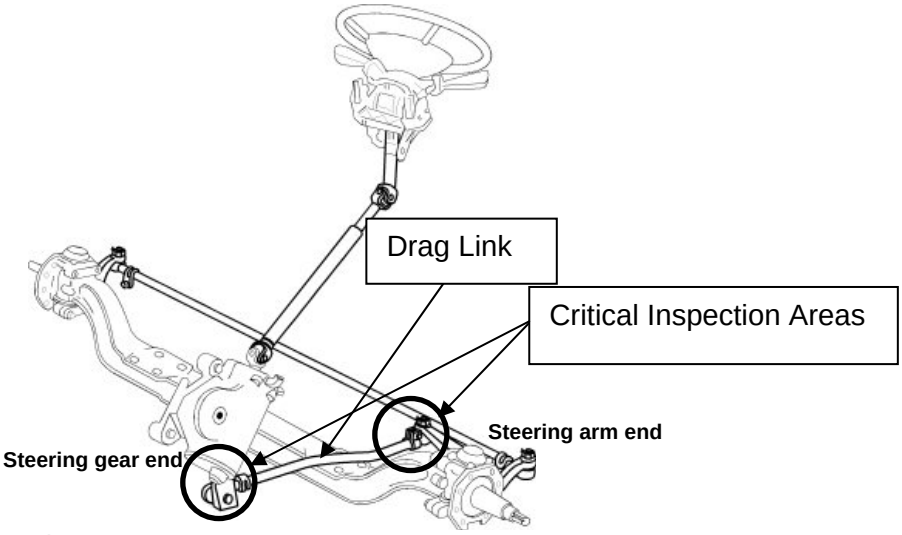


Figure 1

The image above shows the draglink and critical inspection areas. These areas **must be visually inspected daily** for damaged components; missing bolts, nuts, cotter pins; and for damaged sealing boots. Any problems found should be recorded on the daily inspection report.

The drag link ball sockets also require inspection for wear on a quarterly basis or at 25,000 miles (40,234 kilometers), whichever comes first. This is done by pushing and pulling on the drag link by hand to see if there is any movement in the ball socket.

DANGER! Missing or damaged components must be repaired or replaced before placing the vehicle into service. Complete loss of steering may occur!

DANGER! Any movement, other than rotational, measured with hand pressure (i.e., 50 lbs of pressure), requires placing the vehicle out of service for immediate drag link or socket replacement. Complete loss of steering may occur!

Rotational movement is normal and is explained on page 5 of this document.

The information that follows provides the correct inspection and replacement criteria for drag links and ball sockets.

Daily Inspection:

The drag link is located just inside of the driver's side front tire.

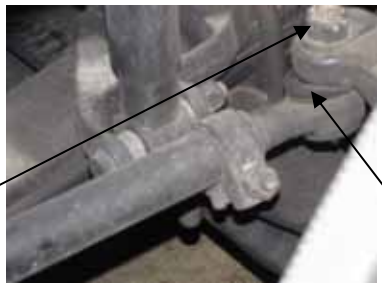
DANGER! The engine must be off, the park brake applied, and wheels properly chocked when conducting this inspection.

Step 1: Inspect for damaged or torn sealing boots and loose or missing attachment nuts and cotter pins.

Any form of tear in the rubber sealing boot requires drag link or ball socket replacement.

Missing cotter pins and loose or missing castellated nuts are to be repaired before driving the vehicle.

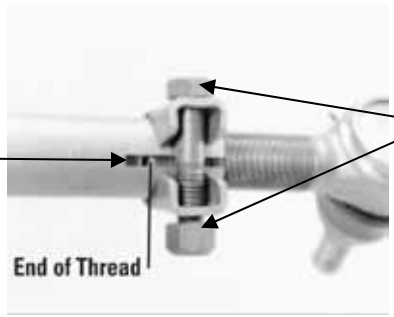
Socket connections are to be inspected daily for missing cotter pins and loose or missing castellated nuts.



Rubber sealing boots are to be inspected daily for damage.

Step 2: Inspect the adjustable end of drag link for loose or missing pinch bolt and for socket thread engagement.

The threaded, adjustable, end is to be inspected daily. If you can see the end of the socket threads through the slot in the tube, the drag link or tie rod must be adjusted or replaced before driving the vehicle.



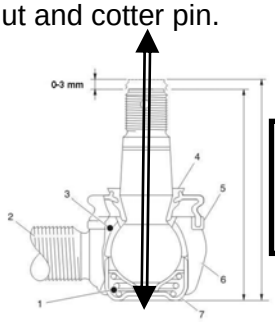
Pinch bolt is to be inspected daily for loose or missing pinch bolt and nut. Missing or loose bolts/nuts are to be repaired before driving the vehicle.

Quarterly Ball Socket Inspection:

DANGER! The engine must be off, the park brake applied, and wheels properly chocked when conducting this inspection.

Frequency: Inspect for lash in sockets every three months or 25,000 miles (40,234 kilometers), whichever comes first.

The drag link has spring loaded ball sockets at each end and is attached with a castellated nut and cotter pin.



Any movement along the axis indicated by the line with arrows requires placing the vehicle out of service for immediate drag link or socket replacement.

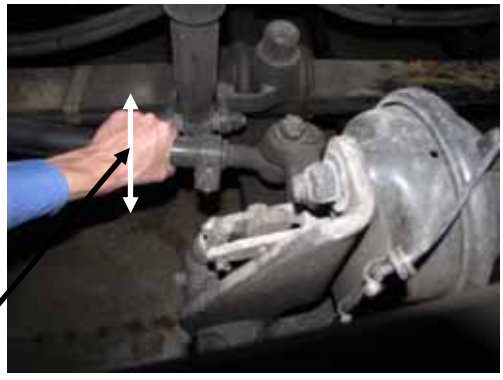
1. Pressure Spring
2. Joint Shaft
3. Ball Race
4. Boot Opening
5. Sealing Boot with Retaining Ring
6. Housing
7. End Cap

This inspection is done by pushing and pulling on the drag link to see if there is any movement in an axial direction. **Any movement, other than rotational, measured with hand pressure of 50 lbs, requires placing the vehicle out of service for immediate drag link or socket replacement.** Rotational movement is normal and is explained on page 5 of this document. If no movement is detected by hand, the socket is operable.

IMPORTANT NOTE! The front wheels must be pointed straight ahead when performing this inspection.

Step 1: Inspection at the adjustable end:

At the steering arm end (i.e., the adjustable end), **push down and pull up** on the drag link in a direction toward the ground by reaching over the driver's side front tire. **Any movement requires placing the vehicle out of service for immediate replacement of the ball socket.**

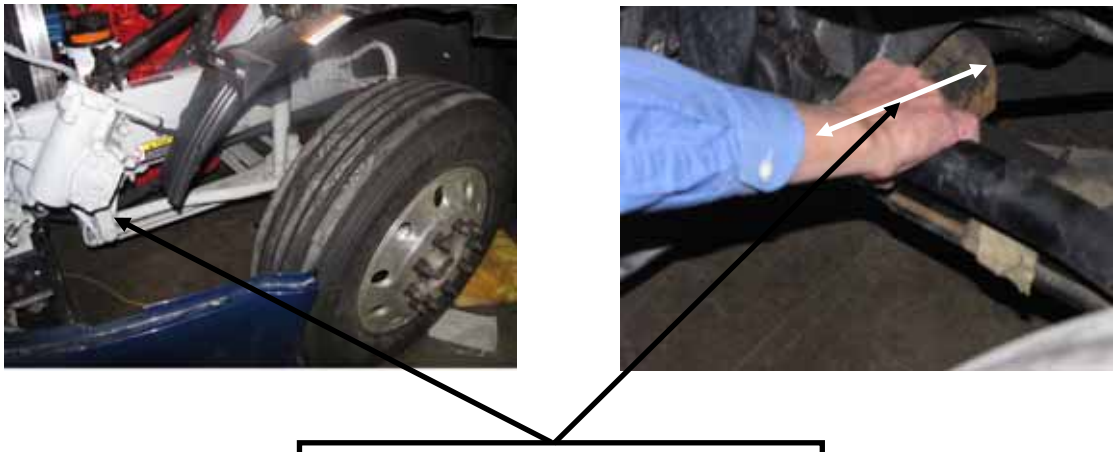


The adjustable end is the rearmost end and is to be checked by pushing down and pulling up on the drag link.

Step 2: Inspection at the fixed end:

At steering gear end (i.e., the fixed end), **push in and pull out** on the drag link in a direction toward the engine. **Any movement, other than rotational, requires placing the vehicle out of service for immediate replacement of the drag link.** Rotational movement is normal and is explained on the bottom of this page.

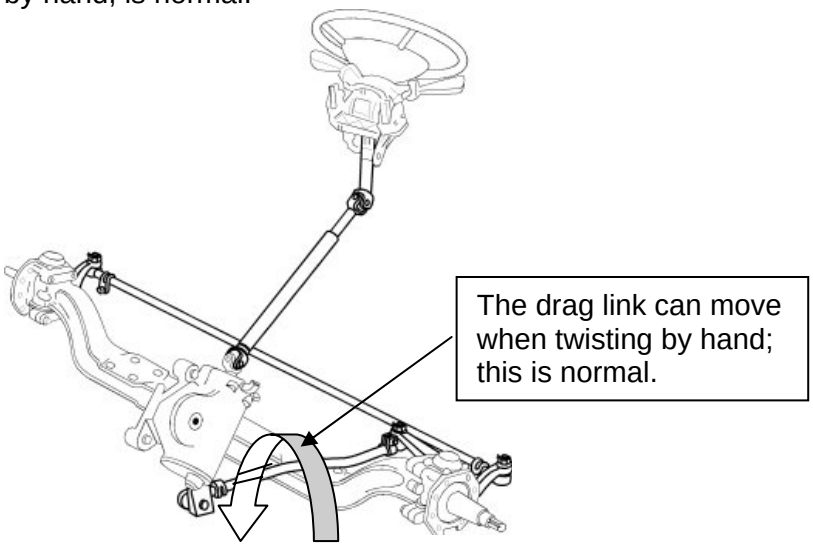
If no movement is detected by hand, the socket is operable.



At steering gear end (i.e., the fixed end), push in toward the engine and then pull back out.

Important Note: Do not use a wrench or other objects to apply leverage when inspecting ball sockets. Applying leverage can damage components, which may ultimately result in loss of steering control.

Important Note: Rotational Movement, movement when twisting or rotating the drag link by hand, is normal.



The drag link can move when twisting by hand; this is normal.