

VOLVO

Volvo Trucks North America, Inc.

October 16, 2000

CERTIFIED MAIL - RETURN RECEIPT

Associate Administrator for Enforcement
National Highway Traffic Safety Administration
400 Seventh Street, S.W.
Washington, DC 20590

00V-246.106

The following information is submitted in accordance with the requirements of 49 CFR Part 573.5 as it applies to a defect relating to motor vehicle safety.

573.5(c)(1)
Volvo Trucks North America, Inc.
P.O. Box 26115
Greensboro, NC 27402-6115

573.5(c)(2)
Volvo ACL, VN, WG, and WX model, heavy duty class 8 vehicles assembled by Volvo Trucks North America, Inc. between July 19, 1999 and October 18, 1999, with a Meritor 12,000lb front steel axle.

The vehicles affected by this notification will be selected using the serial numbers of the axles supplied to Volvo Trucks North America, by ArvinMeritor.

ArvinMeritor
2135 West Maple Road
Troy, MI 48084-7186
Telephone: (248) 435-1725

573.5(c)(3)
Approximately six thousand, five hundred, and seventy-five (6,575) vehicles potentially contain the suspect defect. See exhibit "A"

573.5(c)(4)
Percentage of vehicles expected to contain the suspect defect is unknown.

VOLVO

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NHTSA
October 16, 2000

573.5(c)(5)

The steer axle tie rod assembly may have been assembled with a TRW 20-EDL model ball-socket assembly that may separate due to premature wear.

573.5(c)(6)

- 6-8-00 Volvo Trucks received a report alleging that one of the tie rod ends (ball-socket) separated from the steer axle tie rod.
- 6-15-00 Failed ball-socket assembly received, and sent to ArvinMeritor for analysis.
- 10-3-00 Volvo Trucks North America, Inc. received notification from ArvinMeritor that they were recalling certain front steer axles because the ball-socket assembly may fail. ArvinMeritor will identify suspect axles, as data becomes available. See attached Exhibit "A".
- 10-10-00 Volvo Trucks North America, Inc. decided that some of its vehicles were built with an ArvinMeritor steer axle that may contain the suspect ball-socket assembly on the tie rod, and will facilitate the recall for ArvinMeritor.

573.5(c)(7)

Not applicable

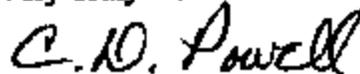
573.5(c)(8)

Volvo Trucks North America, Inc. will initiate a voluntary owner notification, and recall of all vehicles built with axles that may contain the suspect ball-socket assemblies. The recall repair will consist of replacing the suspect ball-socket assemblies.

The number, which has been assigned to this recall by Volvo Trucks North America, Inc., is RVXX0005.

The recall is tentatively scheduled to commence within 45 working days of this notification.

Very Truly Yours



Charles D. Powell
Recall Administrator

ArvinMeritor.

2135 West Maple Road
Troy, MI 48064-7188

arvinmeritorinc.com

September 27, 2000

Mr. Chuck Powell
Recall Administrator
Volvo Trucks North America
P. O. Box 26115
7900 Service Road
Greensboro, SC 27402-2009

EXHIBIT A
LEGAL DEPT.
OCT 03 2000

Subject: Campaign Notice: Model 20-EDL Tie Rod End Sockets manufactured by TRW and shipped to ArvinMeritor from July 5, 1999 through October 18, 1999.

ArvinMeritor File: None NHTSA File: 00E-047

Dear Customer,

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

General Information

On August 30, 2000 TRW notified ArvinMeritor (formerly Meritor Automotive) that a potential defect exists in certain tie rod ends (designated Model 20-EDL) that TRW had manufactured and shipped to ArvinMeritor between July 5, 1999 and October 18, 1999.

Copies of TRW's Notification Letter to ArvinMeritor and ArvinMeritor's Notification to NHTSA are enclosed.

TRW has recommended that the suspect Model 20-EDL Tie Rod Ends be replaced.

TRW and ArvinMeritor have agreed that TRW will manage details of the Campaign directly with affected customers.

ArvinMeritor has been researching shipment records and will soon provide both TRW and ArvinMeritor's affected customers with information intended to help locate suspect components. Thereafter, TRW will be contacting affected customers to develop plans for stocking appropriate inventory, establishing a "hot line" for customer inquiries, directing the disposition of removed parts, providing reimbursement for completed repairs, maintaining records of completed repairs, providing quarterly campaign completion status to NHTSA and the like.

ArvinMeritor records indicate that suspect tie rod ends had been purchased and sold to ArvinMeritor customers through several possible distribution channels:

- (1) installed in front axle assemblies and shipped as original equipment for:
 - (A) Line Haul Vehicles - axle assemblies shipped from Asheville, NC
 - (B) Specialty Vehicles - axle assemblies shipped from Newark, Ohio
- (2) aftermarket components shipped as either tie rod ends, cross-tube assemblies, or complete axle assemblies
 - (A) From ArvinMeritor's After Market Parts and Service (AP & S) in Florence, KY
 - (B) From ArvinMeritor's After Market Parts and Service (AP & S) in Cleveland, Ohio

Rather than delay the Notification Process by accumulating and consolidating shipment data from all affected facilities, ArvinMeritor will forward shipment records to affected vehicle manufacturers in individual increments as shipment data from each of these facilities becomes available.

September 27, 2000

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Questions or Complaints

If you conclude that ArvinMeritor has not enabled you to remedy this condition in a reasonable time, you may submit a complaint to the:

**Administrator
National Highway Traffic Safety Administration
400 Seventh Street, S.W.
Washington, D.C. 20590**

- or -

**Call the toll free Auto Safety Hotline: 1-800-424-9393
(Washington D.C. Residents call 202-366-0123)**

We regret any inconvenience that this situation may cause but assure you that ArvinMeritor's concern is for your continued satisfaction with our products.

Sincerely,

ArvinMeritor


G. T. Bowman

Manager, Product Integrity and Reliability

copy: NHTSA

September, 2000

National Highway Traffic Safety Administration
400 Seventh Street S.W.
Washington, D.C. 20590
Attention: Associate Administrator of Enforcement

Subject: Defect Information Report, in accordance with 49 CFR 573.5
Ref: NHTSA 00E-047
TRW's August 30, 2000 Notification to ArvinMeritor

Certain TRW 20-EDL Model Ball Sockets Manufactured and Sold from July 5,
1999 Through October 3, 1999

ArvinMeritor File: None

NHTSA File: 00E-047 (TRW)

Gentlemen:

This Defect Information Report is submitted by ArvinMeritor (formerly Meritor Automotive) in accordance with the requirements of The National Motor Vehicle Safety Act of 1966 as set forth in 49 CFR 573.5. This information is presented to correspond to the sub paragraphs of section 573.5 (c).

(1) This report is submitted by

ArvinMeritor
2135 West Maple Road
Troy, Michigan 48064

(2) This report pertains to certain Model 20_EDL Ball Sockets Manufactured by TRW and sold to ArvinMeritor from July 5, 1999 through October 3, 1999.

ArvinMeritor has determined that the earliest affected axle assemblies were manufactured on July 5, 1999 based ArvinMeritor's analysis of the receipt and use of the tie rod end shipment records that were attached to TRW's August 30, 2000 Notification to ArvinMeritor.

September, 2000

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ArvinMeritor has determined that the last affected axle assemblies using the affected tie rod ends were manufactured on October 31, 1999. ArvinMeritor's analysis estimates that the last suspect material would have been installed in axle assemblies by this date.

- (3) ArvinMeritor estimates that approximately 51,000 axle assemblies are affected.
- (4) The percentage of actually defective assemblies is unknown.
- (5) ArvinMeritor has relied on the information contained in TRW's Notification.
- (6) In late May 2000, ArvinMeritor received a report of that a TRW tie rod end had separated in service. Meritor promptly informed TRW who conducted the ensuing investigation.
- (7) This issue does not involve non-compliance with a motor vehicle standard.
- (8) In order to address this issue, ArvinMeritor intends to notify the affected purchasers and advise them to follow TRW's recommendations for repair.

Following is an approximate schedule for the program:

September, 2000 Complete ArvinMeritor Notification to Purchasers

Refer to TRW schedule for other scheduled activities.

We trust that the information provided in this document is fully responsive to the requirements of 49 CFR 573.5. All additions or modifications to any of the information given will be reported promptly to NHTSA. Any questions with respect to the information provided should be directed to the undersigned.

Respectfully Submitted,

ArvinMeritor



G. T. Bowman

Manager, Product Integrity



TRW Automotive
Commercial Steering Systems

P.O. Box 60
Lafayette, IN 47902-0060
317.428.5377
Fax 317.428.1868
SHIP 800 Heath Street, 47904

August 30, 2000

Sent via facsimile and express mail

Mr. Michael Barnett
Mr. Tom Bowman
ArvinMeritor Inc.
2135 West Maple Road
Troy, MI 48048

Re: Certain TRW 20-EDL Model Ball-sockets Manufactured and Sold from July 5, 1999 Through October 3, 1999. NHTSA Campaign ID Number: 00E-047

Dear Mr. Barnett and Mr. Bowman:

TRW Commercial Steering Systems (TRW) has determined that a potential defect exists which relates to motor vehicle safety in certain TRW 20-EDL model ball-socket assemblies manufactured from July 5, 1999 through October 3, 1999.

The TRW 20-EDL model ball-socket assemblies may separate due to premature wear in some applications. If the TRW 20-EDL model ball-socket assembly were to separate, there could be a loss of vehicle steering control in some applications.

TRW recommends that the suspect TRW 20-EDL ball-socket assemblies be replaced in some applications. TRW can provide assistance in making this determination. Affected vehicles should be repaired as soon as feasible. The repairs should be completed by a vehicle manufacturer's authorized repair facility.

Identification of Affected Parts.

This recall relates to TRW 20-EDL model ball-socket assemblies manufactured and sold to ArvinMeritor, Inc. by TRW during the period from July 5, 1999 through October 3, 1999. The suspect TRW 20-EDL model ball-socket assemblies have TRW manufacturing date codes of 9G1, 9G2, 9G3, 9G4, 9H1, 9H2, 9H3, 9H4, 9H5, 9J1, 9J2, 9J3, and 9J4. Exhibit A contains a list of the TRW parts sold to ArvinMeritor, Inc. that may contain the suspect TRW 20-EDL model ball-socket assemblies.

Replacement Parts

The remedy for the suspect TRW 20-EDL model ball-socket assemblies will be to replace them with the appropriate size TRW DL ball-socket assemblies. Vehicle manufacturers may purchase replacement DL ball-sockets directly from TRW.

TRW DL ball-socket assemblies can be purchased as individual TRW DL ball-socket assemblies, or as service kits. The service kits for tie-rods will contain two TRW DL ball-socket assemblies and a service bulletin. The TRW part number for the 24-DL ball-socket assembly tie-rod service kit is L24KP0018. The TRW part number for the 20-DL ball-socket assembly tie-rod service kit is L20KP0006. Replacement TRW DL ball-socket assemblies and service kits will be available for purchase after September 8, 2000.

For suspect TRW 20-EDL model socket assemblies that may have been sold as service parts, TRW is preparing two additional service kits. One service kit will have a TRW 20-DL ball-socket assembly with right hand stem threads (part number L20KP0006) and the other service kit will have a TRW 20-DL ball-socket assembly with left-hand stem threads (part number L20KP0007). Both kits will contain a service bulletin.

TRW will ship replacement service kits directly to locations that ArvinMeritor, Inc. or the vehicle manufacturer specifies. TRW and ArvinMeritor, Inc. will determine the best method for handling freight charges.

Labor and Handling Allowances

TRW will allow up to one and one-tenth (1.1) hours labor for each tie-rod service kit installed (two tie-rod ends) and toe-in adjustment made by an OEM authorized dealer or fleet at the dealer or fleets normal hourly rate. Handling charges should not exceed 30% of the dealer's net cost of parts.

Removed Material Disposition

To obtain reimbursement for cost of parts, labor, handling, and expenses associated with installing the service kits, the dealers should follow existing procedures for standard warranty. TRW requires the dealers or fleets to destroy the replaced parts by grinding the stem threads to the point where the ball-socket assembly can no longer be used. The removed tie-rod ends should then be scrapped. The dealer or fleet should complete the instructions included with the service kit and then file a warranty claim. TRW will accept warranty claims directly from the vehicle manufacturers.

Claims for Credit

Warranty claims for installing the service kits associated with this notice should contain the following information:

- Reference to NHTSA Campaign ID Number 00E-047 or vehicle manufacture campaign number.
- 17-digit vehicle identification number (VIN).
- Vehicle owner's name, address, and telephone number.
- Vehicle in-service date.
- Vehicle repair date.
- Vehicle mileage at the time of repair.
- Repairing facility name, address, and telephone number.
- Total labor hours required performing the work, not to exceed 1.1 hours.
- Repair facilities hourly labor rate.

Note: Failure to provide complete information may delay processing of the warranty claim.

Mr. Michael Barnett
Mr. Tom Bowman
August 30, 2000
Page 3 of 6

Questions and Request for Literature

TRW has prepared two service bulletins to assist dealers and fleets with replacing suspect TRW 20-EDL ball-socket assemblies. Service manual number LNK-112 is for tie rod end replacement. Service Bulletin number LNK-114 is for replacing service sockets. Any questions or requests for TRW service bulletins should be directed to

Mike Davis
TRW Commercial Steering Systems
P.O. Box 60
Lafayette, IN 47902
765.429.1715

TRW will have a toll free telephone number available after September 8, 2000 to assist dealers and fleets with questions regarding this field action. The number will be 866.280.3287.

Please call me if you would like to discuss any provisions of this letter.

We regret any inconvenience that this situation may cause. TRW wants to assure ArvinMeritor, Inc. that TRW is concerned for customer safety and your continued satisfaction with our products.

Sincerely,


Larry Laffew
Director Operations

Attachment: List of Part Numbers

VOLVO

Volvo Trucks North America, Inc.

November 8, 2000

CERTIFIED MAIL - RETURN RECEIPT

00V-246.106

Associate Administrator for Enforcement
National Highway Traffic Safety Administration
400 Seventh Street, S.W.
Washington, DC 20590

The following amended information is submitted in accordance with the requirements of 49 CFR Part 573.5 as it applies to a defect relating to motor vehicle safety.

573.5(c)(1)
Volvo Trucks North America, Inc.
P.O. Box 26115
Greensboro, NC 27402-6115

573.5(c)(2)
Volvo ACL, VN, WG, and WX model, heavy duty class 8 vehicles assembled by Volvo Trucks North America, Inc. between July 5, 1999 and October 20, 1999, with a Meritor 12,000lb front steer axle.

The vehicles affected by this notification will be selected using the serial numbers of the axles supplied to Volvo Trucks North America, by ArvinMeritor.

ArvinMeritor
2135 West Maple Road
Troy, MI 48084-7186
Telephone: (248) 435-1725

573.5(c)(3)
Thirteen thousand, three hundred, and seventy-three (13,373) vehicles potentially contain the suspect defect. See exhibit "B", and "C"

573.5(c)(4)
Percentage of vehicles expected to contain the suspect defect is unknown.

VOLVO

Page Two
NHTSA
November 8, 2000

573.5(c)(5)

The steer axle tie rod assembly may have been assembled with a TRW 20-EDL model ball-socket assembly that may separate due to premature wear.

573.5(c)(6)

- 6-8-00 Volvo Trucks received a report alleging that one of the tie rod ends (ball-socket) separated from the steer axle tie rod.
- 6-15-00 Failed ball-socket assembly received, and sent to ArvinMeritor for analysis.
- 10-3-00 Volvo Trucks North America, Inc. received notification from ArvinMeritor that they were recalling certain front steer axles because the ball-socket assembly may fail. ArvinMeritor will identify suspect axles, as data becomes available. See attached Exhibit "A".
- 10-10-00 Volvo Trucks North America, Inc. decided that some of its vehicles were built with an ArvinMeritor steer axle that may contain the suspect ball-socket assembly on the tie rod, and will facilitate the recall for ArvinMeritor.
- 10-23-00 Meritor identified by Volvo part number axles and number of axles that may contain the suspect TRW ball-sockets. See exhibits "B" and "C".

573.5(c)(7)

Not applicable

573.5(c)(8)

Volvo Trucks North America, Inc. will initiate a voluntary owner notification, and recall of all vehicles built with axles that may contain the suspect ball-socket assemblies. The recall repair will consist of replacing the suspect ball-socket assemblies.

The number, which has been assigned to this recall by Volvo Trucks North America, Inc., is RVXX0005.

The recall is tentatively scheduled to commence within 45 working days of this notification.

Very Truly Yours


Charles D. Powell
Recall Administrator

ArvinMeritor

2135 W. Maple Rd.
Troy, MI 48064

arvinmeritorinc.com

Volvo Trucks North America
P.O. Box 28115
7900 Service Road
Greensboro, SC 27402-2008
Attn: Chuck Powell
Recall Administrator

EXHIBIT B

LEGAL DEPT.

OCT 25 2000

Dear Chuck,

This letter is in regard to the TRW tie rod end campaign and definition of the ArvinMeritor axle population that will need to be recalled. The method to be used to define the affected population required ArvinMeritor to identify axle serial numbers for all axle models which used the defective tie rod ends, during the period of time identified by TRW. The OEM would then link our axle serial numbers to their vin numbers and define the end users that needed to be notified of the recall. This method of defining the population has become problematic. After several attempts to extract the axle serial number data from the ArvinMeritor shipment history file I have determined that the data is suspect and should not be used. Unfortunately, during the recall period we were in the process of starting up the Arden front axle assembly facility and experienced problems recording shipment data. Other issues have surfaced with regard to accurate OEM part numbers and ship to locations. In general these problems impact a very small portion of the total population, but given the nature of this campaign it is imperative to identify the most accurate population possible.

I have reviewed these problems with Dave Hobson at TRW and he agrees to alter the methods to be used to identify the recall population. The alternate method is to use OEM shipments of ArvinMeritor axle models during a specified time period.

The ArvinMeritor axle models that used the defective tie rod ends are as follows:

| | | |
|--------|--------|--------|
| FC-941 | FF-981 | MFS 12 |
| FC-965 | FF-982 | MFS 13 |
| FD-965 | FF-983 | MFS 14 |
| FF-961 | FF-984 | |
| FF-941 | FF-986 | |
| FF-942 | FF-987 | |
| FF-943 | FG-941 | |
| FF-944 | FG-943 | |
| FF-966 | MFS B | |
| FF-967 | MFS 10 | |

The only ArvinMeritor models that are excluded from the campaign are FL 941, FL-943, MFS 16, MFS 18, and MFS 20. These axle models use a type 24-tie rod end that is not included in the campaign. It is probable that some of the axle models listed above were not used during the campaign period.

TRW has identified the first possible shipment date of defective material to ArvinMeritor as July 5, 1999 and the last possible shipment date as October 18, 1999. Based on analysis of ArvinMeritor usage and inventory levels, we are very confident that all of the defective tie rod ends were purged from our inventory, and built into axles by November 10, 1999. The OEM will need to add time to the November 10th date to allow for truck build and consumption of the ArvinMeritor axles. This additional time is discretionary to the OEM should be based on conservative usage rates of Meritor axles.

This method of defining the campaign population will result in identification of more vehicles than actually require change out. This situation is controlled by the inspection procedures defined in the TRW service bulletin. This method will also identify a very small population of vehicles that used a Lemforder tie rod end. The Lemforder tie rod assembly is used on very low volume "dropped end" applications. The TRW inspection procedures will also exclude change out of Lemforder product.

In summary the procedure we are requesting the OEM to use to define recall population is:

1. Define axle models used from the listing above.
2. Use the July 5th start date for the campaign.
3. Use the November 10, 1999 last ship date of defective product from ArvinMeritor and add additional time for truck build.

I apologize for the confusion and delay associated with the start of this campaign. If there are any questions or issues with this procedure please call me a (248) 435 7447.

Sincerely,



Mike Barnett
Product Manager
CVS Axles
ArvinMeritor

FACSIMILE **EXHIBIT** Arvin Meritor.

To: CHUCK POWELL

From: MIKE BARNETT

Location: VOLVO

Location: TROY

Fax: 336-373-2089

Fax: 248-435-1968

Talk:

Talk:

248-435-7447

Pages: 3 (including cover)

Date:

10/23/00

Subject:

SEE ATTACHED

Date Range 7/5/99 Thru 11/20/00

| | | |
|------------|------------|-------|
| FF943NX603 | 37001-0154 | 3 |
| FF943NX604 | 37001-0155 | 9 |
| FF943NX609 | 3082246 | 2 |
| FF943NX688 | 3941053 | 1 |
| FF943NX695 | 3941019 | 4 |
| FF943NX724 | 20357458 | 47 |
| FF944NX614 | 8096882 | 57 |
| FF944NX615 | 3179222 | 84 |
| FF961NX160 | 8025498 | 15 |
| FF961NX175 | 8024740 | 1 |
| FF961NX2 | 37001-3212 | 27 |
| FF961NX209 | 37001-3211 | 76 |
| FF966NX1 | 8077620 | 1,205 |
| FF966NX10 | 8083914 | 1,206 |
| FF966NX11 | 8083915 | 3,545 |
| FF966NX14 | 8085849 | 219 |
| FF966NX15 | 8085850 | 40 |
| FF966NX2 | 8077621 | 1,990 |
| FF966NX3 | 8077622 | 43 |
| FF966NX4 | 8077625 | 47 |
| FF967NX1 | 8084327 | 210 |
| FF967NX2 | 8086547 | 16 |
| FF967NX3 | 8086548 | 83 |
| FF967NX4 | 8086549 | 254 |
| FF967NX5 | 3187653 | 20 |
| FF967NX6 | 3187654 | 1,546 |
| FF967NX7 | 3187655 | 183 |
| FF967NX8 | 3187656 | 208 |
| FF986LX1 | 8082905 | 44 |
| FF986LX2 | 8082906 | 558 |
| FF986LX8 | 8084843 | 275 |
| FF986LX9 | 8084844 | 305 |
| FF987LX1 | 8086543 | 2 |
| FF987LX2 | 8086544 | 134 |
| FF987LX7 | 3188429 | 1 |
| FG941NX610 | 37001-0173 | 4 |
| FG941NX611 | 37001-0175 | 112 |
| FG941NX646 | 37001-0184 | 2 |
| FG941NX906 | 8096599 | 3 |
| FG943NX607 | 37001-0179 | 34 |
| FG943NX608 | 37001-0180 | 6 |
| FG943NX653 | 8077600 | 1 |