

June 2016
FL712AB
NHTSA #16V-366

Subject: ZF IFS Front Axle Steering Gears

Models Affected: Specific Freightliner Custom Chassis motor-home chassis manufactured May 1, 2014, through June 16, 2015, with certain ZF North America front axles.

General Information

Daimler Trucks North America LLC (DTNA), behalf of its wholly owned subsidiary, Freightliner Custom Chassis Corporation, has decided that a defect that relates to motor vehicle safety exists on the vehicles mentioned above.

There are approximately 1,300 vehicles involved in this campaign.

On certain steering gears, incorrect spacers may have been installed, resulting in wear leading to a loss of the connection between the steering wheel and front axle wheels. If this happens, there could be a loss of steering control, increasing the risk of a vehicle crash.

FL712A: (136 vehicles) All steering gears in this group will be replaced. Customers have been asked to contact dealers in advance in order to have the replacement gear on hand when they arrive for the recall.

FL712B: (1,214 vehicles) All steering gears will be inspected for specific serial numbers. Gears with suspect serial numbers will be replaced, gears with "good" serial numbers need no further work. It is expected that only nine gears will require replacement. Due to the small number of replacement parts needed, gears may not be stocked. Customers have been advised that shipping time will need to be allowed for in the rare instances when a gear will be replaced.

Additional Repairs

Dealers must complete all outstanding Recall and Field Service campaigns prior to the sale or delivery of a vehicle. A Dealer will be liable for any progressive damage that results from its failure to complete campaigns before sale or delivery of a vehicle.

Owners may be liable for any progressive damage that results from failure to complete campaigns within a reasonable time after receiving notification.

Work Instructions

Please refer to the attached work instructions. Prior to performing the campaign, check the vehicle for a completion sticker (Form WAR260).

Replacement Parts

Replacement parts are now available and can be obtained by ordering the kit or part number(s) listed below from your facing Parts Distribution Center.

If our records show your dealership has ordered any vehicles involved in campaign number FL712, a list of the customers and vehicle identification numbers will be available in OWL. Please refer to this list when ordering parts for this recall.

Table 1 - Replacement Parts for FL712

IMPORTANT: Orders for steering gears must include the vehicle serial number.

| Campaign Number | Part Description | Part Number | Qty. per Vehicle |
|-----------------|--|----------------|------------------|
| FL712AB | STEERING GEAR - RECALL FL712 | ZFT 0501327786 | 1 ea |
| | BOLT-PINCH,STEERING,M10-1.25,GEOMET X, D | 14-18771-000 | 2 ea |
| | NUT-HEX,PREVAILING TORQUE,M10,GEOMET XL | 14-18772-000 | 2 ea |
| | ATF, DEXRON III/TES-389 | N/A | 1 to 8 qts |
| | COMPLETION STICKER | WAR260 | 1 ea |

Table 1

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Removed Parts

U.S. and Canadian Dealers, removed steering gears will be returned. Please see the instructions below. Any changes to parts disposition will be noted in Warranty Failed Parts Tracking shipping instructions. Export distributors, please destroy removed parts unless otherwise advised.

- Be sure the return tag includes the vehicle serial number, axle serial number, and repair date.
- Shipping address:
ZF Gainesville, LLC
Attention: Matt Douglas
1925 New Harvest Road, SW
Gainesville, GA 30507
- Supplier contact for questions:
Matt Douglas
matt.douglas@zf.com
(770) 297-4217 Phone
(770) 297-4021 Fax

Labor Allowance

Table 2 - Labor Allowance

| Campaign Number | Procedure | Time Allowed (hours) | SRT Code | Corrective Action |
|-----------------|--|----------------------|-----------|---------------------------|
| FL712A | Replace steering gear | 1.7 | 996-0981B | 12-Repair Recall/Campaign |
| FL712B | Inspect steering gear date codes | 0.2 | 996-0981A | 06-Inspect |
| | Inspect steering gear date codes and replace steering gear | 1.9 | 996-0981C | 12-Repair Recall/Campaign |

Table 2

IMPORTANT: When the Recall has been completed, locate the base completion label in the appropriate location on the vehicle, and attach the red completion sticker provided in the recall kit (Form WAR260). If the vehicle does not have a base completion label, clean a spot on the appropriate location of the vehicle and first attach the the base completion label (Form WAR259). If a recall kit is not required or there is no completion sticker in the kit, write the recall number on a blank sticker and attach it to the base completion label.

Claims for Credit

You will be reimbursed for your parts, labor, and handling (landed cost for Export Distributors) by submitting your claim through the Warranty system within 30 days of completing this campaign. Please reference the following information in OWL:

- Claim type is **Recall Campaign**.
- In the Campaign field, enter the campaign number and appropriate group (**FL712-A or FL712-B**).
- In the Primary Failed Part field, enter **25-FL712-000**.
- Claims for this recall require the following information in the repair details of the claim:
 - Steering gear serial number
 - Axle serial number
 - DIS

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- In the Parts section, enter the appropriate part number(s) as shown in the Replacement Parts Table.
- In the Labor section, enter the appropriate SRT from the Labor Allowance Table. Administrative time will be included automatically as SRT 939-6010A for 0.4 hours for RVs.
- The VMRS Component Code is **015-003-061** and the Cause Code is **A1 - Campaign**.
- **U.S. and Canada -- Reimbursement for Prior Repairs.** When a customer asks about reimbursement, please do the following:
 - Accept the documentation of the previous repair.
 - Make a brief check of the customer's paperwork to see if the repair may be eligible for reimbursement. (See the "Copy of Owner Letter" section of this bulletin for reimbursement guidelines.)
 - Submit an OWL Recall Pre-Approval Request for a decision.
 - Attach the documentation to the pre-approval request.
 - If approved, submit a based on claim for the pre-approval.
 - Reimburse the customer the appropriate amount.

IMPORTANT: OWL must be viewed prior to performing the recall to ensure the vehicle is involved and the campaign has not been previously completed. Also, check for a completion sticker prior to beginning work.

For questions, U.S. and Canadian dealers, contact the Warranty Campaigns Department from 7:00 a.m. to 4:00 p.m. Pacific Time, Monday through Friday, via Web inquiry at DTNACConnect.com / WSC, or the Customer Assistance Center at (800) 385-4357, after normal business hours, if you have any questions or need additional information. Export distributors, submit a Web inquiry or contact your International Service Manager.

U.S. and Canadian Dealers: To return excess kit inventory related to this campaign, U.S. dealers must submit a Parts Authorization Return (PAR) to the Memphis PDC. Canadian dealers must submit a PAR to their facing PDC. All kits must be in resalable condition. PAR requests must include the original purchase invoice number. Export Distributors: Excess inventory is not returnable.

The letter notifying U.S. and Canadian vehicle owners is included for your reference.

Please note that the National Traffic and Motor Vehicle Safety Act, as amended (Title 49, United States Code, Chapter 301), requires the owner's vehicle(s) be corrected within a reasonable time after parts are available to you. The Act states that failure to repair a vehicle within 60 days after tender for repair shall be prima facie evidence of an unreasonable time. However, circumstances of a particular situation may reduce the 60 day period. Failure to repair a vehicle within a reasonable time can result in either the obligation to (a) replace the vehicle with an identical or reasonably equivalent vehicle, without charge, or (b) refund the purchase price in full, less a reasonable allowance for depreciation. The Act further prohibits dealers from selling a vehicle unless all outstanding recalls are performed. Any lessor is required to send a copy of the recall notification to the lessee within 10 days. Any subsequent stage manufacturer is required to forward this notice to its distributors and retail outlets within five working days.

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Copy of Notice to Owners - FL712A

Subject: ZF IFS Front Axle Steering Gears

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

Daimler Trucks North America LLC (DTNA), behalf of its wholly owned subsidiary, Freightliner Custom Chassis Corporation, has decided that a defect which relates to motor vehicle safety exists on specific Freightliner Custom Chassis motorhome chassis manufactured May 1, 2014, through June 16, 2015, with certain ZF North America independent front steering axles.

On certain steering gears, incorrect spacers may have been installed, resulting in wear leading to a loss of the connection between the steering wheel and front axle wheels. If this happens, there could be a loss of steering control, increasing the risk of a vehicle crash.

DTNA and Freightliner Custom Chassis urge that you DO NOT DRIVE YOUR VEHICLE until a replacement steering gear is available. Your vehicle should only be driven cautiously to a DTNA/Freightliner/Western Star dealership for repair. Replacement gears are being shipped now and are expected to be available in the next two weeks.

Steering gears will be replaced. **Please make arrangements to have this Recall performed at the earliest opportunity beginning June 9, 2016.**

Advance arrangements are needed. Please contact an authorized Daimler Trucks North America dealer to order a replacement steering gear for your vehicle so it is available when you arrive. To locate an authorized dealer, search online at www.Daimler-TrucksNorthAmerica.com / Contact Us / Find a Dealer. The Recall will take just over two hours and will be performed at no charge to you.

You may be liable for any progressive damage that results from your failure to complete the Recall within a reasonable time after receiving notification.

If you do not own the vehicle that corresponds to the identification number(s) which appears on the Recall Notification, please return the notification to the Warranty Campaigns Department with any information you can furnish that will assist us in locating the present owner. If you have leased this vehicle, Federal law requires that you forward this notice to the lessee within 10 days. If you are a subsequent stage manufacturer, Federal law requires that you forward this notice to your distributors and retail outlets within five working days. If you have paid to have this recall condition corrected prior to this notice, you may be eligible to receive reimbursement. Please see the reverse side of this notice for details.

If you have questions about this Recall, please contact the Warranty Campaigns Department at (800) 547-0712, 7:00 a.m. to 4:00 p.m. Pacific Time, Monday through Friday, e-mail address DTNA.Warranty.Campaigns@Daimler.com, or the Customer Assistance Center at (800) 385-4357 after normal business hours. If you are not able to have the defect remedied without charge and within a reasonable time, you may wish to submit a complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590; or call the Vehicle Safety Hotline at (888) 327-4236 (TTY: 800-424-9153); or to <http://www.safercar.gov>.

We regret any inconvenience this action may cause but feel certain you understand our interest in motor vehicle safety.

WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

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Copy of Notice to Owners - FL712B

Subject: ZF IFS Front Axle Steering Gears

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

Daimler Trucks North America LLC (DTNA), behalf of its wholly owned subsidiary, Freightliner Custom Chassis Corporation, has decided that a defect which relates to motor vehicle safety exists on specific Freightliner Custom Chassis motorhome chassis manufactured May 1, 2014, through June 16, 2015, with certain ZF North America independent front steering axles.

On certain steering gears mounted on the front axle on the affected vehicles, an incorrect spacer may have been installed. This may potentially result in wear over time leading to a loss of the mechanical connection between the steering wheel and front axle wheels. If this happens, there could be a loss of steering control, increasing the risk of a vehicle crash.

DTNA and Freightliner Custom Chassis urge that you DO NOT DRIVE YOUR VEHICLE until it is inspected. Your vehicle should only be driven cautiously to a DTNA/Freightliner/Western Star dealership for inspection. Replacement gears are being shipped now and are expected to be available for those who need them in the next two weeks.

Steering gears will be inspected and replaced if necessary. **Please make arrangements to have your vehicle inspected at the earliest opportunity beginning June 9, 2016.**

Please contact an authorized Daimler Trucks North America dealer to arrange to have the Recall performed. To locate an authorized dealer, search online at www.Daimler-TrucksNorthAmerica.com / Contact Us / Find a Dealer. The Recall will take approximately half an hour to just over two hours, depending on the work needed, and will be performed at no charge to you. **It cannot be determined if your vehicle will need a new steering gear until it is inspected by a DTNA dealer. In the unlikely event that a replacement is needed, please keep in mind that time must be allowed for shipping a new steering gear to your location for installation.**

You may be liable for any progressive damage that results from your failure to complete the Recall within a reasonable time after receiving notification.

If you do not own the vehicle that corresponds to the identification number(s) which appears on the Recall Notification, please return the notification to the Warranty Campaigns Department with any information you can furnish that will assist us in locating the present owner. If you have leased this vehicle, Federal law requires that you forward this notice to the lessee within 10 days. If you are a subsequent stage manufacturer, Federal law requires that you forward this notice to your distributors and retail outlets within five working days. If you have paid to have this recall condition corrected prior to this notice, you may be eligible to receive reimbursement. Please see the reverse side of this notice for details.

If you have questions about this Recall, please contact the Warranty Campaigns Department at (800) 547-0712, 7:00 a.m. to 4:00 p.m. Pacific Time, Monday through Friday, e-mail address DTNA.Warranty.Campaigns@Daimler.com, or the Customer Assistance Center at (800) 385-4357 after normal business hours. If you are not able to have the defect remedied without charge and within a reasonable time, you may wish to submit a complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590; or call the Vehicle Safety Hotline at (888) 327-4236 (TTY: 800-424-9153); or to <http://www.safercar.gov>.

We regret any inconvenience this action may cause but feel certain you understand our interest in motor vehicle safety.

WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

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Reimbursement to Customers for Repairs Performed Prior to Recall

If you have already **paid** to have this recall condition corrected you may be eligible to receive reimbursement.

Requests for reimbursement may include parts and labor. Reimbursement may be limited to the amount the repair would have cost if completed by an authorized Daimler Trucks North America LLC dealer. The following documentation must be presented to your dealer for consideration for reimbursement.

Please provide original or clear copies of all receipts, invoices, and repair orders that show

- The name and address of the person who paid for the repair
- The Vehicle Identification Number (VIN) of the vehicle that was repaired
- What problem occurred, what repair was done, when the repair was done
- Who repaired the vehicle
- The total cost of the repair expense that is being claimed
- Proof of payment for the repair (such as the front and back of a cancelled check or a credit card receipt)

Reimbursement will be made by check from your Daimler Trucks North America LLC dealer.

Please speak with your Daimler Trucks North America LLC authorized dealer concerning this matter.

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Work Instructions

Subject: ZF IFS Front Axle Steering Gears

Models Affected: Specific Freightliner Custom Chassis motor-home chassis manufactured May 1, 2014, through June 16, 2015, with certain ZF North America front axles.

Steering Gear Serial Number Inspection

1. Check the base label (Form WAR259) for a completion sticker for FL712 (Form WAR260), indicating this work has been done. The base label is usually located on the front wall under the dash. If a sticker is present, no work is needed. If there is no sticker, proceed with the next step.

DANGER

When working on the vehicle, shut down the engine and set the parking brake. Before working under the vehicle, always place jack stands under the frame rails to ensure the vehicle cannot drop. Failure to follow these steps could result in serious personal injury or death.

2. Park the vehicle on a level surface, shut down the engine, and set the park brake. Using lifts, raise the vehicle.
NOTE: Due to the location of the type plate, it may be easier to maneuver a camera within the frame and take a picture of the type plate.
3. Locate the steering gear type plate on the input side near the intermediate shaft. See [Fig. 1](#). Record the four-digit serial number on the bottom right of the type plate. See [Fig. 2](#). Also record the axle serial number. (Both serial numbers are required on the claim.)

If the steering gear serial number is **not** 5545-5789, the steering gear does not need to be replaced. Clean a spot on the base label (Form WAR259), write the recall number, FL712, on a completion sticker (Form WAR260), and attach it to the base label.

If the serial number **is** within the suspect range of 5545-5789, the steering gear must be replaced. Go to *Steering Gear Replacement*.

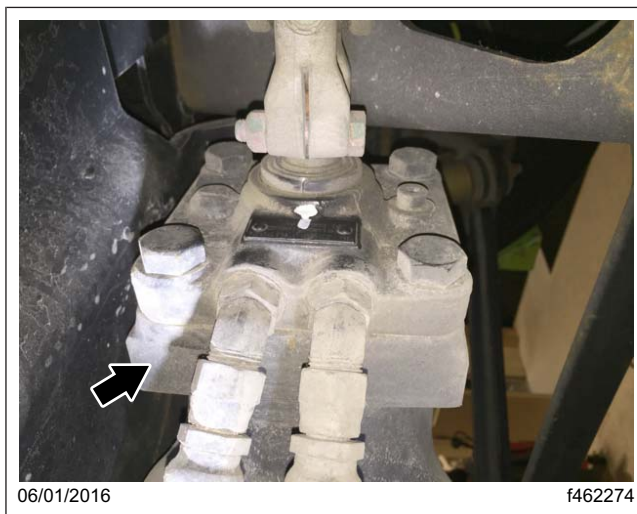


Fig. 1, Steering Gear



Fig. 2, Steering Gear Type Plate, Four-Digit Serial Number

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Tools

| Tools Needed to Replace the Steering Gear | |
|--|--|
| Tool Description | Comment |
| Lifts/Jack Stands | Raising and securing the vehicle |
| Impact Gun | Used throughout to loosen and tighten bolts |
| Tie Straps | Securing tie rods and hoses out of the way |
| Side Cutters/Pliers | Removing cotter pin on castle nut for tie rods |
| Steel Hammer | Removing cotter pin, tie rod joint, and pitman arm |
| Two-Arm Puller, 2-3/4 inch | Removing tie rod joint and pitman arm |
| Ratchet | Appropriate for various sized sockets/adaptors/swivel |
| Caps and Plugs | 1/2 inch (JIC 8) plugs with caps (qty. 4) to plug hydraulic hoses |
| Paint Marker/Tag | Identifying hydraulic hoses and steering positions (intermediate shaft) |
| Lift Table/Jack | Support and lower the steering gear out of the frame |
| Shims/Blocks | Support the steering gear |
| Torque Wrench | Capable of 420 lbf-ft (570 N·m) |
| Punch | Staking the locknut on the pitman arm |
| Power Steering Fluid | Dexron III type ATF |
| Pry Bar | Removing the intermediate shaft from input on the steering gear |
| Torque Seal F-900 | Applied to pinch bolt and locknut for intermediate shaft |
| Wrenches/Sockets | 36 mm socket 7/16 inch (11 mm) socket/wrench 7/8 inch (22 mm) wrench 17 mm socket/wrench 1-3/16 inch (30 mm) socket/wrench 2-3/4 inch impact socket |

Table 3, Tools Needed to Replace the Steering Gear

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Steering Gear Replacement

IMPORTANT: The removed steering gear will be returned. See the *Removed Parts* and *Claims for Credit* sections of the bulletin for more information.

1. Disassemble the left and right tie rods from the pitman arm. See **Fig. 3**.

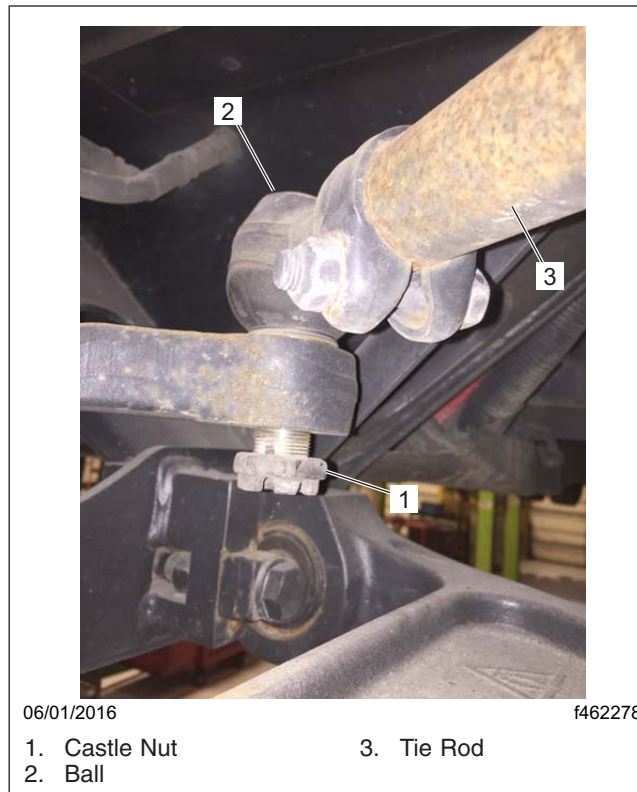


Fig. 3, Tie Rod Assembly

NOTICE

Do not use a pry bar or pickle fork to remove the tie rod end, or seal damage could occur.

- 1.1 Remove the cotter pin.
- 1.2 Loosen the castle nut on the tie rod end.
- 1.3 Using an air/steel hammer or two arm puller, pop the joint from the pitman arm.
- 1.4 Using tie straps, secure the tie rods to the frame so they are out of the way.

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2. Remove the P-clip that secures the hydraulic hoses to the frame. See [Fig. 4](#).

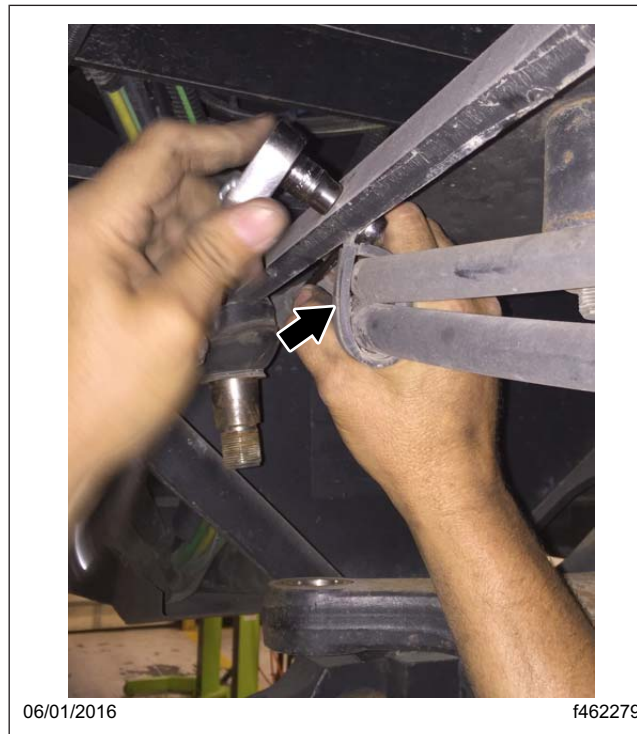


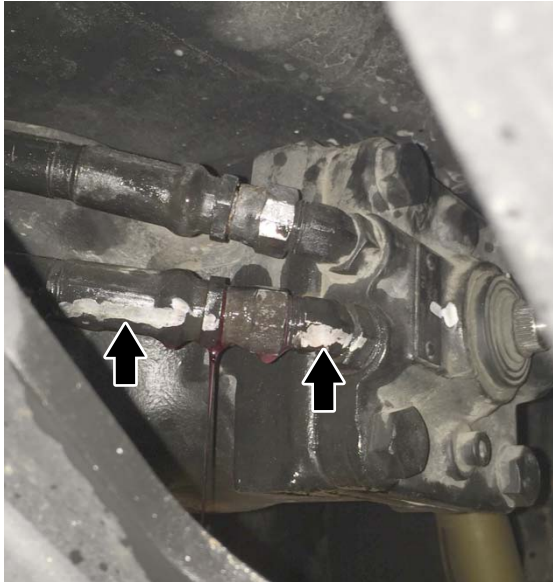
Fig. 4, Removing the P-Clip

WARNING

Hydraulic fluid may leak onto the shop floor. If this should occur, make certain the spill is cleaned up to avoid slipping when removing the steering gear.

3. Place a drain pan under the hydraulic lines of the steering gear.
4. Mark the hydraulic hoses and the fittings at the steering gear for identification later. See [Fig. 5](#). Disconnect the hoses and remove the fittings from the steering gear. Put the fittings aside in a clean area free of dust and debris.
 - 4.1 Plug the connectors on the hoses and steering gear with caps to prevent fluid from bleeding out. See [Fig. 6](#). If caps are not available, drain the system according to shop practice.
 - 4.2 Using tie straps, secure the hoses to the frame so they are out of the way.

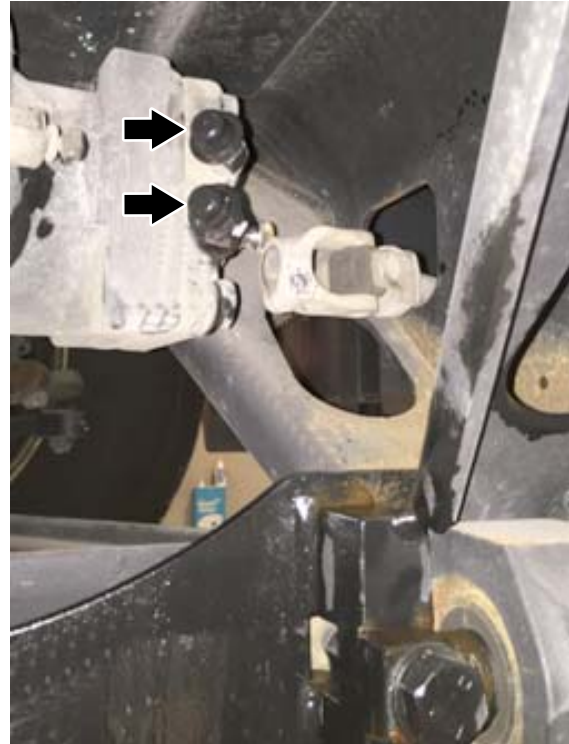
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Fig. 5, Steering Gear Hydraulic Hoses



06/01/2016

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Fig. 6, Hydraulic Hose Connections Capped

IMPORTANT: Ensure that the steering wheel is centered before marking the intermediate shaft and the 90-degree miter box.

NOTE: It will help to mark the position of the intermediate shaft at the 90-degree miter box before removal. This will make it easier to align during installation. See [Fig. 7](#).

5. Disconnect the intermediate shaft. See [Fig. 8](#).
 - 5.1 Remove and discard the pinch bolt from the U-joint of the intermediate shaft.
 - 5.2 Spread the joint slight using a pry bar in the slot to increase the gap.
 - 5.3 Slide the U-joint forward and out of the way.

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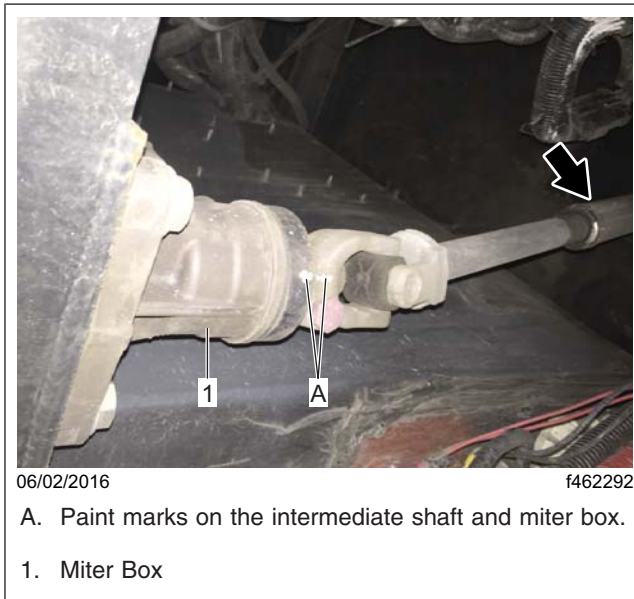


Fig. 7, 90-Degree Miter Box and Intermediate Shaft

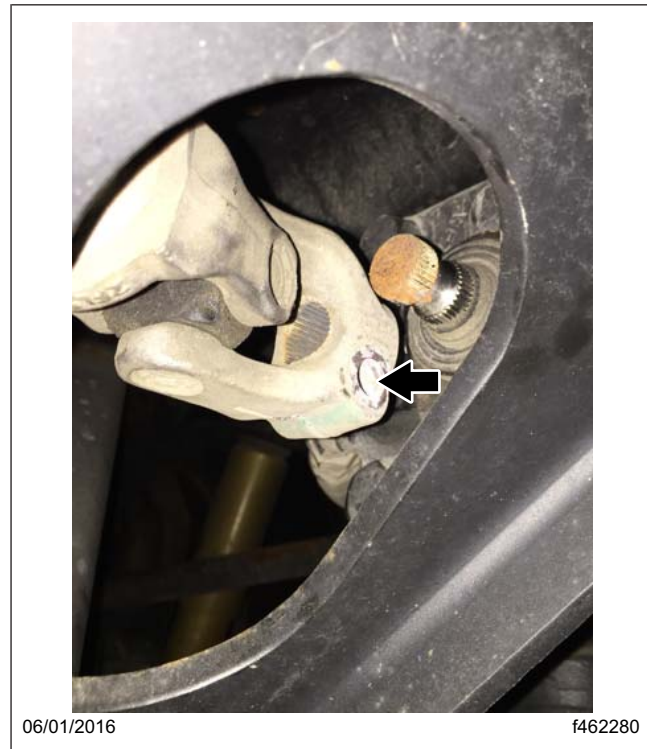


Fig. 8, Intermediate Shaft Disconnected (pinch bolt removed)

DANGER

The steering gear is very heavy. Two technicians are needed to safely remove and lower the steering gear. Failure to follow these instructions could lead to severe personal injury.

6. Remove the steering gear.
 - 6.1 Loosen, but do not remove, the four mounting bolts.
 - 6.2 Leaving the center-most mounting bolt assembled to prevent the steering gear from falling, remove the other three bolts. See [Fig. 9](#).
 - 6.3 Position shims across the lower control arms and use a jack to support the steering gear when disconnected. See [Fig. 10](#)

NOTE: Remove the steer box through the passenger side of the axle (by the pitman arm), while rotating the the steering gear down onto the shims.

- 6.4 Remove the center-most mounting bolt and lower the steering gear.

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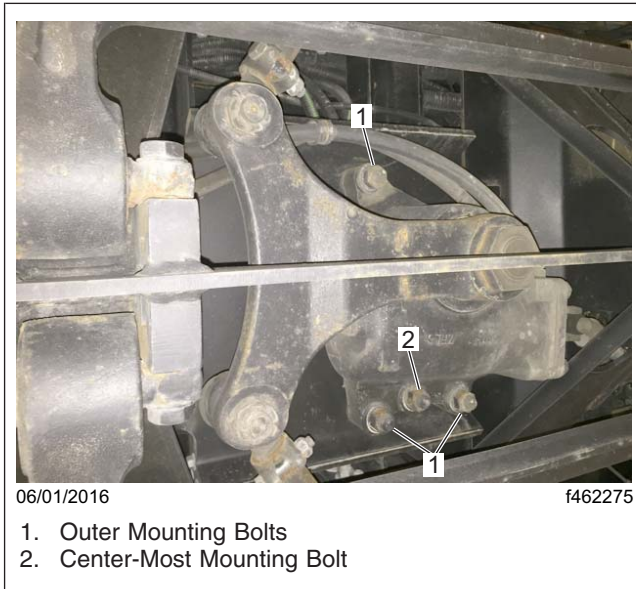


Fig. 9, Steering Gear Mounting Bolts



Fig. 10, Positioning the Shims

7. Remove the pitman arm.

NOTE: The pitman arm-to-steer gear is a press fit, so the two-arm puller will need to be large enough so that an impact gun can run down.

- 7.1 Loosen the locknut securing the pitman arm to the box.
- 7.2 Using a two-arm puller, remove the pitman arm from the box. See [Fig. 11](#). If necessary, hit it with a steel hammer to loosen and break free.

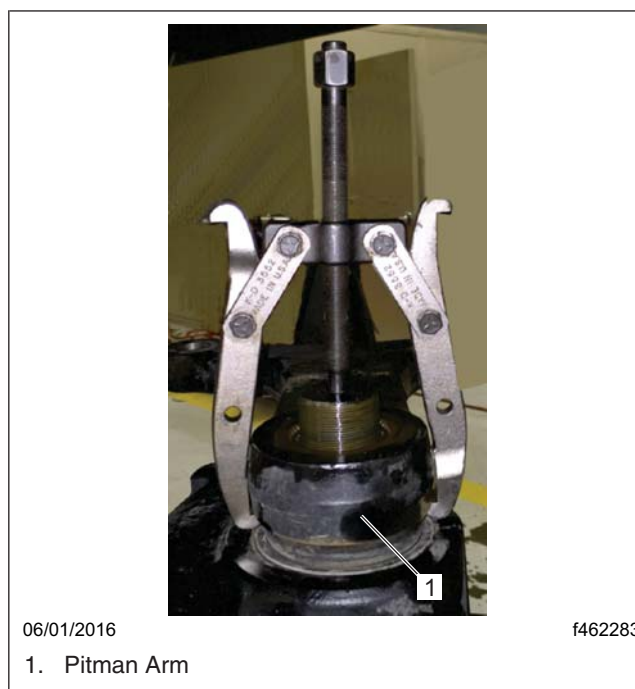


Fig. 11, Removing the Pitman Arm with a Two-Arm Puller

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IMPORTANT: During the installation process, take care to minimize the rotation of the pitman shaft as much as possible while removed in order to avoid changing the steering wheel alignment.

8. Install the pitman arm on the new steering gear. Make sure the alignment marks on the shaft of the box and the pitman arm match up. See [Fig. 12](#) .
 - 8.1 Line up the splines on the pitman arm with the correct steering position of the box.
 - 8.2 Using an impact gun, tighten the locknut until the pitman arm is pressed all the way onto the shaft. Tighten 420 lbf·ft (570 N·m).
 - 8.3 Using a punch, stake the locknut. See [Fig. 13](#).

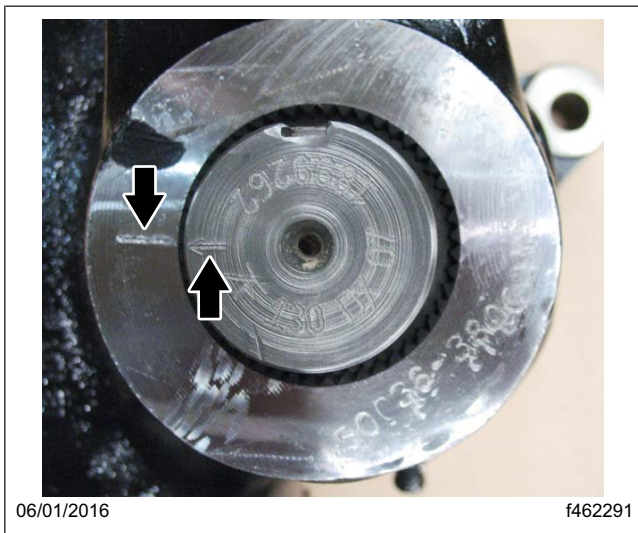


Fig. 12, Alignment Marks on the Shaft of the Steering Gear and Pitman Arm

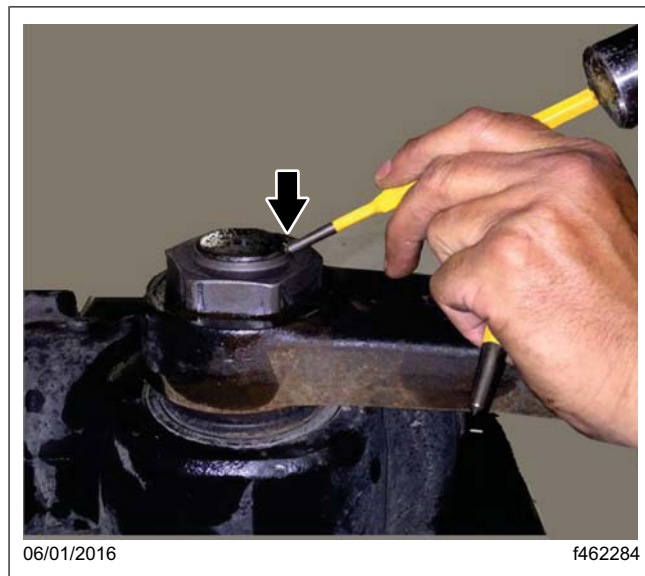


Fig. 13, Staking the Locknut

9. Install the new steering gear on the chassis.

DANGER

The steering gear is very heavy. Two technicians are needed to safely position and install the steering gear. Failure to follow these instructions could lead to severe personal injury.

NOTE: Install the steer box through the passenger side of the axle (pitman arm first), while rotating the steering gear up and into position.

- 9.1 Using a jack and shims, position the new steering gear in the proper installation position. See [Fig. 14](#). and [Fig. 15](#).
- 9.2 Using the four mounting bolts, secure the steering gear. Tighten the bolts 361 lbf·ft (490 N·m). See [Fig. 9](#).

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Fig. 14, New Steering Gear Installation

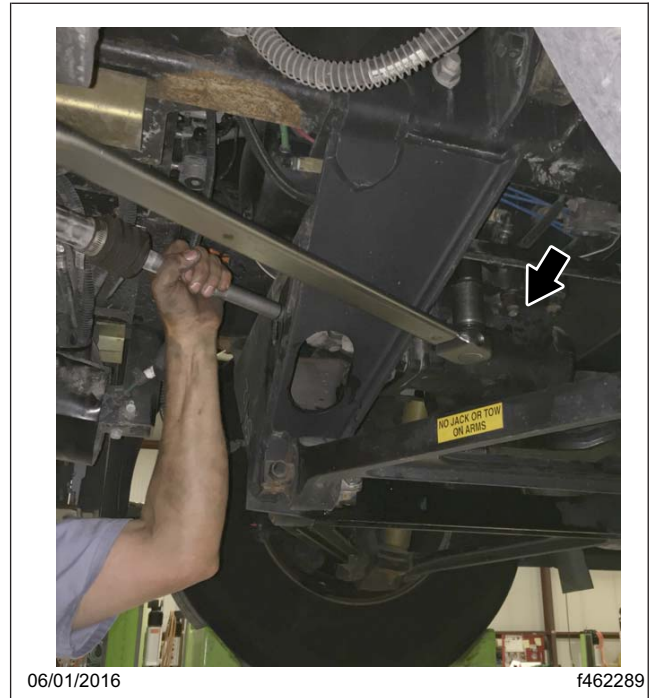


Fig. 15, Positioning the Steering Gear (box is hidden by the A-frame)

10. Place a drain pan under the steering gear and hydraulic hoses.
 11. Using the identification marks made earlier, install the hydraulic fittings removed earlier. Orient and tighten the hydraulic hoses to the steering gear. Tighten the hoses 60 lbf·ft (80 N·m). See
 12. Using a P-clip, mount the hydraulic hoses to the frame. See [Fig. 16](#)
 13. Connect the intermediate shaft onto the steering gear.
- NOTE: Ensure that the intermediate shaft is properly aligned by aligning the marks on the 90-degree miter box. See [Fig. 7](#).
- 13.1 Slide the intermediate shaft U-joint onto the steering gear input shaft. See [Fig. 17](#).
 - 13.2 Install a new pinch bolt in the U-joint and tighten with a new locknut. Tighten 35 lbf·ft (48 N·m).
 - 13.3 Apply white Torque Seal F-900 on the exposed pinch bolt threads and locknut.

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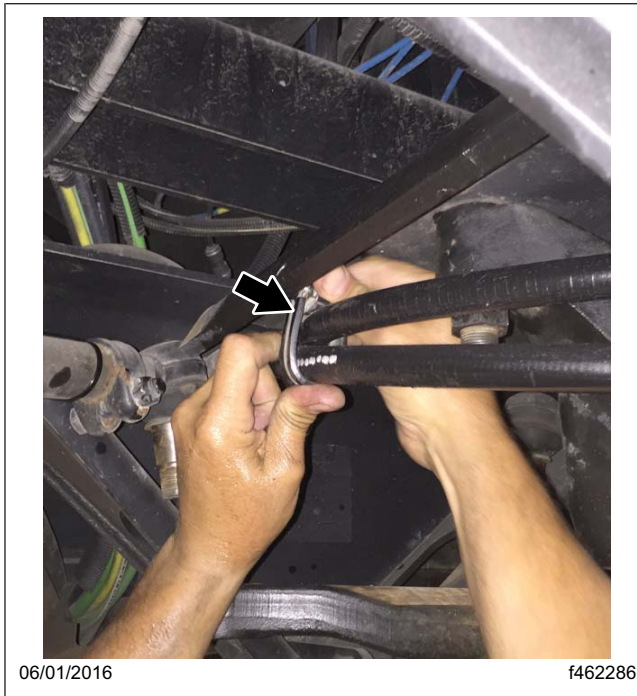


Fig. 16, Mounting the Hydraulic Hoses to the Frame

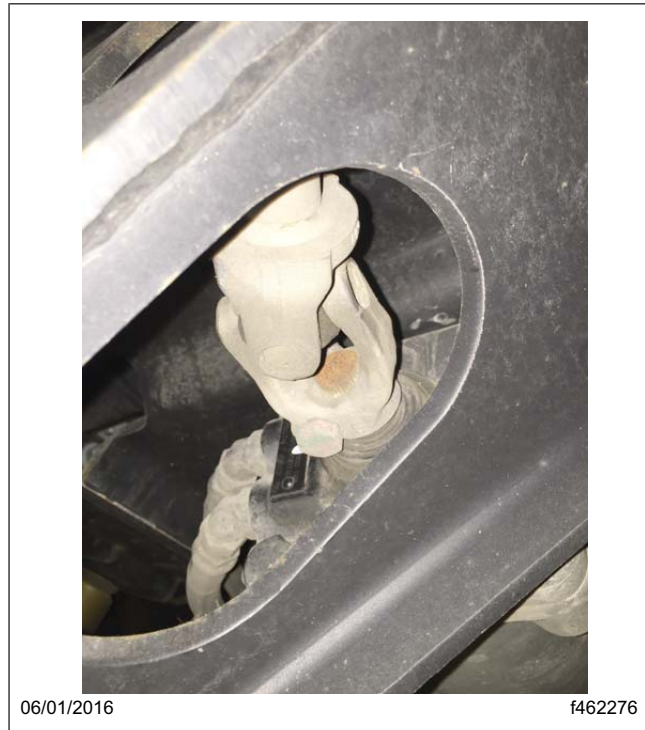


Fig. 17, Intermediate Shaft Connected to the Steering Gear

14. Install the tie rods.

NOTE: Coat the tie rod end ball with 15/40 oil before tightening the tie rod end fasteners.

- 14.1 Insert the tie rod end in the pitman arm taper. Connect the tie rod end. See [Fig. 18](#).
- 14.2 Tighten the castle nuts on the left and right sides 184 lbf-ft (250 N·m).
- 14.3 Install the cotter pins. See [Fig. 19](#).

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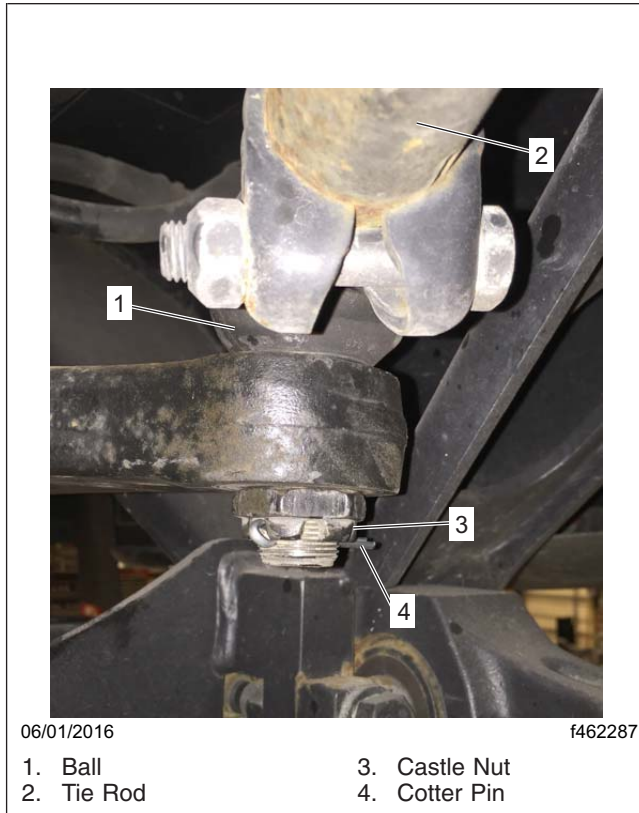


Fig. 18, Tie Rod Installation

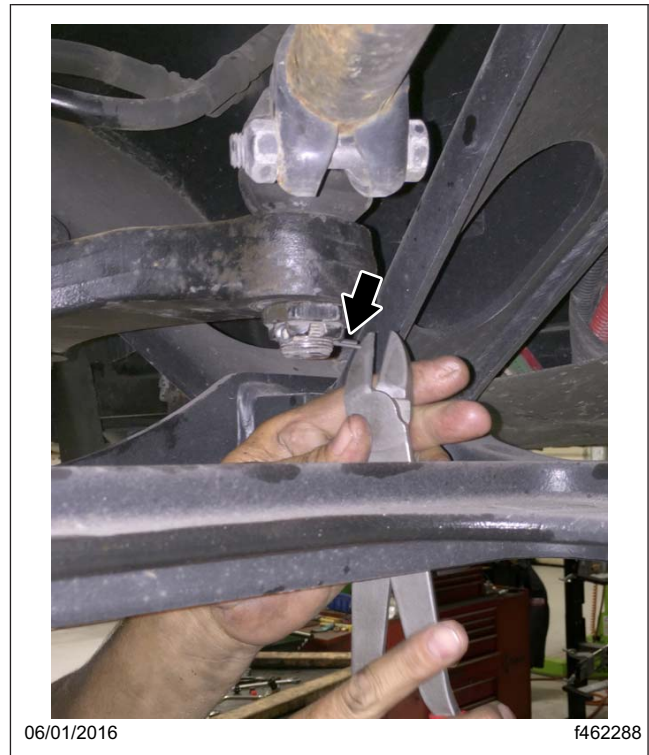


Fig. 19, Installing the Cotter Pins

15. Fill the power steering reservoir with Dexron III type ATF and bleed the system as follows.

IMPORTANT: Do not turn the steering wheel until instructed. Doing so can cause air to enter the system, which can make it more difficult and time-consuming to bleed air from the system.

- 15.1 Fill the power steering reservoir with Dexron III type ATF until nearly full. Crank the starter for 10 seconds without allowing the engine to start; if the engine does start, shut it down immediately. Check and fill the reservoir as needed. Repeat this procedure three times, each time checking and filling the reservoir.
 - 15.2 Start the engine and let it idle for two minutes. Shut down the engine, and check the fluid level in the reservoir.
 - 15.3 Start the engine again. Turn the steering wheel from full-left to full-right, several times. As necessary, add fluid until the reservoir dipstick reads at the full line.
16. Clean a spot on the base label (Form WAR259), write the recall number, FL712, on a completion sticker (Form WAR260), and attach it to the base label.