

October 2021
FL900A
NHTSA #21V-689
Transport Canada #2021-545

Subject: Cascadia Drag Link Tapered Joint

Models Affected: Specific model years 2019-2021 Freightliner Cascadia vehicles manufactured April 2, 2018, through July 14, 2020.

General Information

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

On certain vehicles, the drag link tapered joint, at the steering arm, may not have been tightened to manufacturer specification and may come loose. A loose drag link tapered joint at the steering arm may result in separation of the joint leading to a complete loss of steering, which could lead to a crash.

The drag link will be inspected and torqued to specification. Repairs will be performed by Daimler Trucks North America authorized service facilities.

There are approximately 115,008 vehicles involved in this campaign.

NOTE: Only 2% replacement is expected. Do not overstock replacement parts.

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 and/or part number(s) listed below from your facing Parts Distribution Center.

If our records show your dealership has ordered any vehicle(s) involved in campaign number FL900, a list of the customers and vehicle identification numbers will be available on DTNAConnect. Please refer to this list when ordering parts for this recall.

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Table 1 - Replacement Parts for FL900

NOTE: Only 2% replacement is expected. Do not overstock replacement parts.

Campaign Number	Procedure	Part Description	Part Number	Qty.
FL900A Inspection Only 98% will fall into this category	Inspect castle nut and torque	PIN-COTTER,1 3/4 X 1/8	23-00800-407	1 ea
		BLANK COMPLETION STICKER	WAR260	1 ea
FL900A Replacement Procedure Only 2% will fall into this category	Replace drag link and steering arm Choose appropriate drag link, PLUS Completion Sticker	LINK-STEERING,DRAGLINK-COMMON,SFA,	14-17298-000	1 ea
		ARM-DRAGLINK,COMMON,SFA,TAS85,FL,	14-17300-000	1 ea
		ARM-DRAGLINK,COMMON,SFA,T60,LWB	14-17303-000	1 ea
		DRAGLINK-AB BO,SWB,THP60	14-18527-000	1 ea
		DRAGLINK-AB BO,LWB,THP60	14-18528-000	1 ea
		DRAGLINK-STRG,TRW,NGC,LWB	14-19428-000	1 ea
		DRAGLINK-STRG,TRW,NGC,SWB	14-19429-000	1 ea
		DRAGLINK-TAS85,NGC,14.6K	14-19512-000	1 ea
		DRAGLINK-TAS85,NGC,16K	14-19513-000	1 ea
	BLANK COMPLETION STICKER	WAR260	1 ea	
	Replace drag link and steering arm Vehicles with Hendrickson steering arms, choose appropriate steering arm, PLUS hardware	STEERING ARM AY-LH	HDR 60903 435	1 ea
		STEERING ARM AY-LH	HDR 60903 436	1 ea
		STEERING ARM AY	HDR 60903 439	1 ea
		STEERING ARM ASSEMBLY LH	HDR 60903 474	1 ea
		5/8-11 SOCKET CAP SC	HDR 60236 001	2 ea
		PIN-COTTER,1 3/4 X 1/8	23-00800-407	2
	Replace drag link and steering arm Vehicles with Detroit steering arms, choose appropriate steering arm and capscrew, PLUS cotter pin	ARM-STEERING	MBA 6803382501	1 ea
		ARM, L. H. STEERING	MBA 6803382603	1 ea
		STEERING ARM, M3	MBA 6803382701	1 ea
		STEERING ARM, 14.7K	MBA 6803382801	1 ea
		STEERING ARM (14.7K GAWR)	MBA 6803384401	1 ea
		STEERING ARM	MBA 6803385503	1 ea
		STEERING ARM 430 RH NGC	MBA 6803385603	1 ea
		STEERING ARM	MBA 6813381001	1 ea
		STEERING ARM 390 RH	MBA 6813381101	1 ea
		SCREW,M20X1.5X80-10.9	MBA 308676020025	2 ea
		SCREW M24X2X90	MBA 308676024001	2 ea
	PIN-COTTER,1 3/4 X 1/8	23-00800-407	2 ea	
	Replace drag link and steering arm Vehicles with Meritor steering arms, choose appropriate steering arm, PLUS hardware	ARM-STEERING LH	TDA 3133B8582	1 ea
		ARM-STEERING, LH	TDA 3133F9470	1 ea
		ARM-STEERING, LH	TDA 3133H9472	1 ea
		ARM AND KEYS	TDA 3133N7736K	1 ea
		ARM & KEYS	TDA 3133Z7696K	1 ea
PIN-COTTER		TDA K2618	1 ea	
NUT-STEERING ARM		TDA 1227Y1715	1 ea	
PIN-COTTER,1 3/4 X 1/8		23-00800-407	2 ea	

Table 1

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Removed Parts

U.S. and Canadian Dealers, please follow Warranty Failed Parts Tracking shipping instructions for the disposition of all removed parts. Export distributors, please destroy removed parts unless otherwise advised.

Labor Allowance

Table 2 - Labor Allowance

Campaign Number	Procedure	Time Allowed (hours)	SRT Code	Corrective Action
FL900A	Inspect drag link and torque only	0.4	996-R128A	06-Inspect
FL900A	Inspect drag link and torque; replace drag link and steering arm	2.1	996-R128B	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 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

NOTE: Only 2% replacement is expected. Do not overstock replacement parts.

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 condition code (**FL900-A**).
- In the Primary Failed Part Number field, enter **25-FL900-000**.
- In the Parts field, enter the appropriate kit or part number(s) as shown in the Replacement Parts Table.
- In the Labor field, first enter the appropriate SRT from the Labor Allowance Table. Administrative time will be included automatically as SRT 939-6010A for 0.3 hours.
- The VMRS Component Code is **F99-999-005** 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.
 - Include the approved amount on your claim in the Other Charges section.
 - 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.

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U.S. and Canadian dealers, contact the Warranty Campaigns Department via Web inquiry at DTNACconnect.com/WSC, 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

Subject: Cascadia Drag Link Tapered Joint

For the Notice to U.S. Customers: This notice is sent to you in accordance with the National Traffic and Motor Vehicle Safety Act. **For the Notice to Canadian Customers:** This notice is sent to you in accordance with the requirements of the Motor Vehicle Safety Act. This is to inform you that your vehicle may contain a defect that could affect the safety of a person.

Daimler Trucks North America LLC (DTNA), on behalf of its Freightliner Trucks Division, has decided that a defect which relates to motor vehicle safety exists on specific model years 2019-2021 Freightliner Cascadia vehicles manufactured April 2, 2018, through July 14, 2020.

On certain vehicles, the drag link tapered joint, at the steering arm, may not have been tightened to manufacturer specification and may come loose. A loose drag link tapered joint at the steering arm may result in separation of the joint leading to a complete loss of steering, which could lead to a crash.

The drag link will be inspected and torqued to specification. Repairs will be performed by Daimler Trucks North America authorized service facilities.

Please contact an authorized Daimler Trucks North America dealer to arrange to have the Recall performed and to ensure that parts are available at the dealership. The Recall will take approximately one hour and will be performed at no charge to you. To locate an authorized dealer, search online at Daimler-TrucksNorthAmerica.com/contact-us/. Scroll down to "Locate a Dealer," and select the appropriate brand. You may also confirm your vehicle's involvement in this recall at this URL: <https://dtna-dlinfo.prd.freightliner.com:48518/VinLookup/vin-module/getVinLookupPage>.

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 in the postage-paid envelope 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. **For the Notice to U.S. Customers:** 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>. **For the Notice to Canadian Customers:** If you wish to submit a complaint about this recall, you can contact Transport Canada road safety, 80 rue Noel, Gatineau, Quebec J8Z 0A1 or call (800) 333-0510.

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: Cascadia Drag Link Tapered Joint

Models Affected: Specific model years 2019-2021 Freightliner Cascadia vehicles manufactured April 2, 2018, through July 14, 2020.

NOTE: Only 2% replacement is expected. Do not overstock replacement parts.

Castle Nut Inspection and Tightening

NOTE: This procedure will require two people—one in the cab to turn the steering wheel, and one to observe the drag link steering arm joint as the steering wheel is turned.

1. Check the base label (Form WAR259) for a completion sticker for FL900 (Form WAR261) indicating this work has been done. The base label is usually located on the passenger door about 12 inches (30 cm) below the door latch. If a sticker is present, no work is needed. If there is no sticker, proceed with the next step.
2. Park the vehicle on a level surface, apply the parking brakes, and chock the rear tires.
3. Open the hood.
4. Using your DTNAConnect credentials, go to https://dtnacontent-dtna.prd.freightliner.com/content/dam/techlit/video/chassis/46_steering/Loose_Draglink_Unit32K_2.mp4 to watch a reference video that shows a drag link steering arm joint with movement present. Notice an audible knocking sound.
5. Observe the behavior of the drag link steering arm joint. See [Fig. 1](#).

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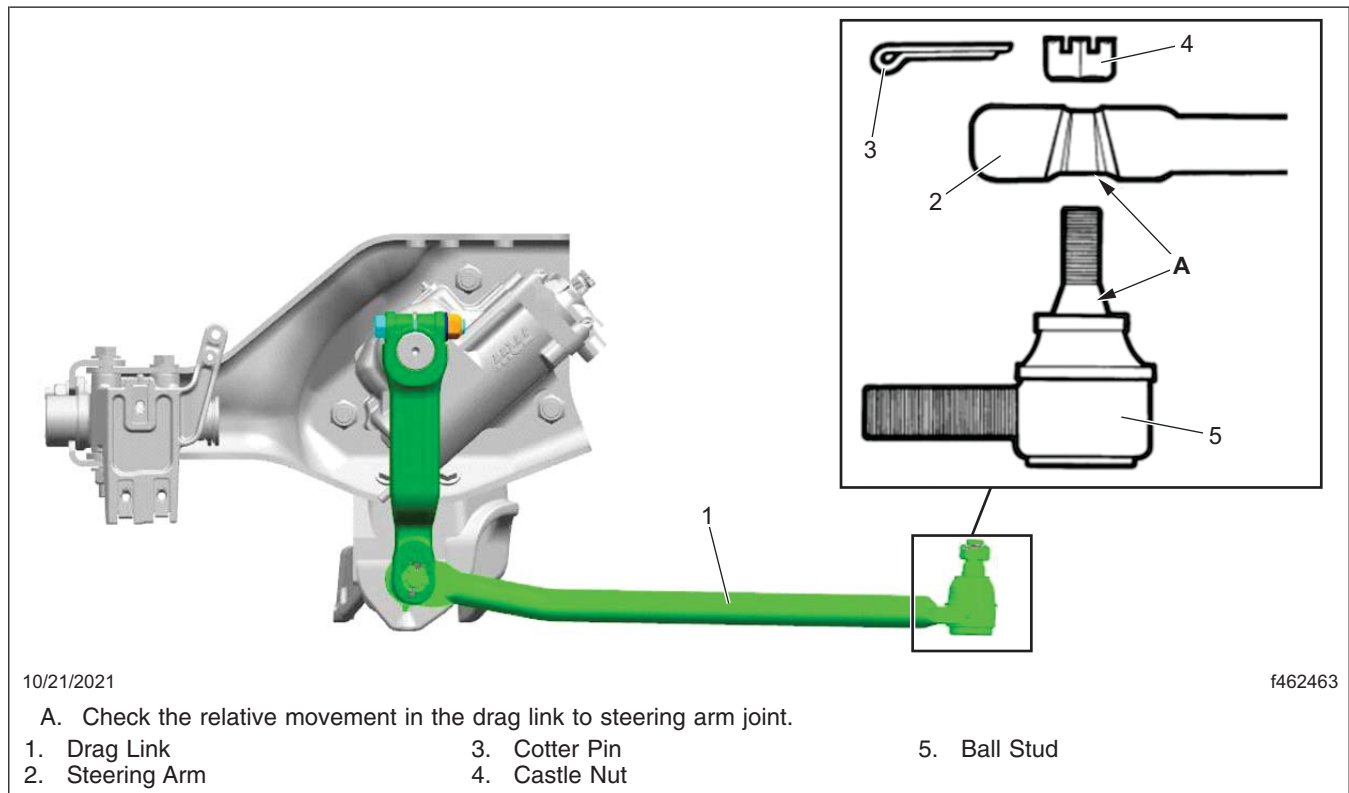


Fig. 1, Drag Link to Steering Arm Joint

5.1 With the engine running at idle, and the parking brakes still engaged, have an assistant turn the steering wheel in small increments from left-to-right and back several times.

! DANGER

Maintain a safe distance from the front tire and moving steering linkage while observing.

5.2 While the steering wheel is being turned, check the behavior of the drag link to steering arm joint.

6. Are any of the following conditions observed?

- The castle nut appears to be loose.
- The cotter pin is not in place.
- There is relative movement in the drag link to steering arm joint when the steering wheel is moved back and forth.

YES → Go to **Drag Link and Steering Arm Replacement** procedure.

NO → Go to the next step.

IMPORTANT: Do not back off the castle nut to align its slots to the cotter pin hole on the ball stud. Further turn the castle nut a maximum of one-sixth of a turn to align it.

7. Remove and discard the cotter pin from the castle nut at the drag link to steering arm joint, then tighten the castle nut to the torque value shown in [Table 3](#). See [Fig. 2](#).

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Castle Nut Torque Values	
Size	Torque: lbf-ft (N·m)
3/4-16	117 to 143 (159 to 194)
7/8-14	207 to 253 (281 to 343)

Table 3, Castle Nut Torque Values

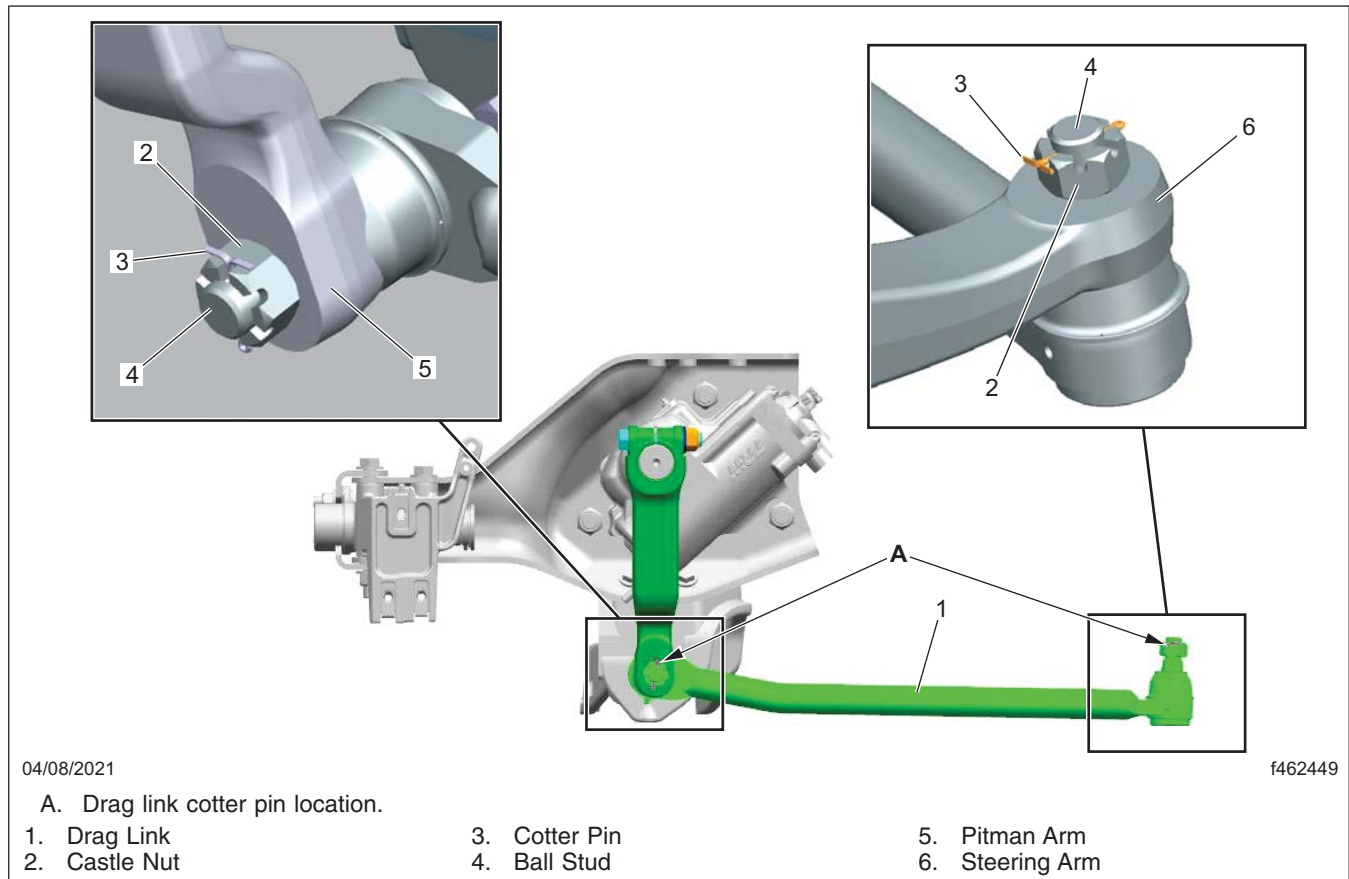


Fig. 2, Drag Link Cotter Pin Location

8. Install and lock a new cotter pin drag link to steering arm joint.
9. Clean a spot on the base label (Form WAR259), write the recall number, FL900, on a blank red completion sticker (Form WAR260), and attach it to the base label, indicating this work has been completed.

Drag Link and Steering Arm Replacement

1. At both ends of the drag link, remove the cotter pins, then remove the castle nuts. See Fig. 2. Discard the cotter pins and castle nuts.
2. Using a ball stud removal tool, remove the ball studs from the pitman arm and the steering arm.
3. Remove the drag link from the vehicle, and discard it.
4. **For Detroit steering arm:**
 - 4.1 Remove the capscrews that attach the steering arm to the knuckle, then remove the steering arm from the vehicle. Discard the steering arm and capscrews.

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- 4.2 Position a new steering arm on the knuckle. Apply Loctite® 277 to the threads of the new steering arm capscrews, then install the capscews.
 - If M20 capscrews are used, tighten them 425 lbf-ft (575 N·m).
 - If M24 capscrews are used, tighten them 664 lbf-ft (900 N·m).

5. For Meritor steering arm:

- 5.1 Remove the cotter pin and castle nut that attaches the steering arm to the knuckle, then remove the steering arm from the vehicle. Discard the steering arm, castle nut and cotter pin.
- 5.2 Press the key into the slot in the arm, then install the new steering arm on the knuckle.

IMPORTANT: Do not back off the castle nut to align its slots to the cotter pin hole on the ball stud. Further turn the castle nut a maximum of one-sixth of a turn to align it.

- 5.3 Install a new castle nut TDA 1227Y1715. Tighten the nut 775 to 1450 lbf-ft (1051-1965 N·m). Install and lock a new cotter pin TDA K2618 on the castle nut.

6. For Hendrickson steering arm:

- 6.1 Remove the capscrews that attach the steering arm to the knuckle, then remove the steering arm from the vehicle. Discard the steering arm and capscrews.
 - 6.2 Position a new steering arm on the knuckle, then install the new capscews HDR 60236-001. Tighten the capscrews 176 to 200 lbf-ft (239 to 271 N·m).
7. Insert the steering arm ball stud of the new drag link assembly through the bottom of the steering arm, then install a new castle nut, and hand-tighten it.
 8. Turn the steering wheel as needed to align the hole in the lower end of the pitman arm with the forward ball stud. Insert the ball stud in the pitman arm from the inboard side. Install a new castle nut, and hand-tighten it.

IMPORTANT: Do not back off the castle nut to align its slots to the cotter pin hole on the ball stud. Further turn the castle nut a maximum of one-sixth of a turn to align it.

9. Tighten the castle nuts to the torque value shown in [Table 3](#).
10. Install and lock a new cotter pin on the castle nuts at both ends of the drag link. See [Fig. 2](#).
11. Clean a spot on the base label (Form WAR259), write the recall number, FL900, on a blank red completion sticker (Form WAR260), and attach it to the base label, indicating this work has been completed.