

May 2024  
D24M3

## **Subject: Drilled Exhaust Rocker Arm Installation**

**Models Affected: Specific 2022 and 2023 Freightliner and Western Star vehicles, powered with DETROIT™ Gen 5 DD15 Engines manufactured December 14, 2020, through March 10, 2022**

### **General Information**

Daimler Truck North America LLC, on behalf of its DETROIT™ Powertrain Division, is initiating Field Service Campaign D24M3 to modify the vehicles mentioned above.

Select DETROIT™ Gen 5 DD15® engines installed in certain vehicle applications require replacement of all six exhaust rocker arms.

Some vehicles have experienced valve bridge failures due to wear from lack of lubrication to the adjusting screw on the exhaust rocker arm. A new drilled exhaust rocker arm became effective with engines manufactured in March of 2022. The drilled rocker arm utilizes an oil drilling to feed oil to the adjusting screw thus reducing occurrence of this failure.

There are approximately 22,890 engines affected by this Field Service Campaign.

### **Additional Repairs**

Dealers must complete all outstanding Recall and Field Service campaigns prior to the sale or delivery of a vehicle. Dealers will be liable for any progressive damage that results from their 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. Please contact Warranty Campaigns for consideration of additional charges prior to performing the repair.

### **Work Instructions**

Please refer to the attached work instructions. **Prior to performing this field service campaign, check the vehicle for a completion sticker (Form WAR261).**

May 2024  
D24M3

**Replacement Parts**

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

**Table 1 – Replacement Parts for D23M1**

Campaign Number	Part Number	Part Description	Qty per Kit
D24M3	DDE RA4720500633	KIT-OIL DRILLED ROCKER	1
	DDE A4720160121	SEAL, ROCKER COVER	1

**Removed Parts**

**Removed rocker arms must be saved and returned following normal part return procedures.**

**Labor Allowance**

**Table 2 – Labor Allowance for D24M3**

Procedure	Time Allowed (hours)	SRT Number	Corrective Action
<b>D24M3</b>			
<b>D24M3 Drilled Exhaust Rocker Arm Installation</b>	3.1 hours	996-F179A	12-Repair Recall/Campaign

**Claim Reimbursement**

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:

<b>Claim Type</b>	Field Service Campaign
<b>Campaign</b>	D24M3
<b>Component Code</b>	045-008-052
<b>Cause Code</b>	A1-Campaign
<b>Primary Failed Part</b>	DDE AA4710500634 ROCKER ARM - EXHAUST

<b>Procedure</b>	
<b>Labor Number</b>	996-F179A <b>Drilled Exhaust Rocker Arm Installation</b>
<b>Labor Hours</b>	3.1 Hours
<b>Part Number</b>	DDE RA4720500633
<b>Parts Return</b>	<b>SCRAP</b>
<sup>1</sup> Administrative time (SRT 939-6010A) for 0.3 hours is automatically added to the claim.	

**May 2024  
D24M3**

This Field Service Campaign will expire on **May 9, 2025**. Dealers will be notified of any changes.

**IMPORTANT:** OWL must be viewed prior to beginning work to ensure the vehicle is involved and the campaign has not previously been completed.

All claims must be submitted within 30 days of the repair and within 30 days of the termination date of the campaign.

For questions, U.S. and Canadian dealers can contact the Warranty Campaigns Department via web inquiry at [DTNAPortal.com](http://DTNAPortal.com) using the WSC application, or the Customer Assistance Center at (800) 385-4357. Export distributors should submit a Web inquiry or contact your International Service Manager.

May 2024  
D24M3

**\*\*Copy of Notice to Owner\*\***

Detroit Diesel Corporation  
13400 Outer Drive, West  
Detroit, Michigan 48239-4001  
Telephone: 313-592-5000

**Subject: Field Service Campaign D24M3 Drilled Exhaust Rocker Arm  
Installation**

Daimler Truck North America LLC, on behalf of its Detroit Diesel Powertrain Division, is initiating Field Service Campaign D24M3 to modify the vehicles described below.

Some vehicles have experienced valve bridge failures due to wear from lack of lubrication to the adjusting screw on the exhaust rocker arm. A new drilled exhaust rocker arm became effective with engines manufactured in March of 2022. The drilled rocker arm utilizes an oil drilling to feed oil to the adjusting screw thus reducing occurrence of this failure.

Records indicate that your vehicle has one of the eligible engines. Instructions for this Field Service Campaign have been sent to your local Daimler Truck Authorized Repair Facility, and the labor time required to perform this campaign is approximately **3.1** hours.

Please contact a Daimler Truck Authorized Repair Facility and arrange to have the Field Service Campaign performed. To locate an authorized facility, search online at <https://demanddetroit.com/find-a-dealer/>

To reduce downtime and ensure the repair facility is prepared to complete the repair upon your arrival, please make an appointment in advance. Having an appointment enables the repair facility to order and receive the parts required for the Field Service Campaign

Progressive damage could result from delayed completion of this campaign. To ensure vehicle functionality, and optimal performance are not compromised, DTNA highly recommends having the campaign completed as soon as possible. To avoid incurring additional downtime and expenses from progressive damage please complete the campaign in a timely manner.

This service will be completed for you at no charge, prior to **May 9, 2025**, under the provisions of this notice.

We have taken this action in the interest of your continued satisfaction with our products.

**WARRANTY CAMPAIGNS DEPARTMENT**

Enclosure

May 2024  
D24M3

**Work Instructions**






**Subject: Drilled Exhaust Rocker Arm Installation**

**Models Affected: Specific 2022 and 2023 Freightliner and Western Star vehicles, powered with DETROIT™ Gen 5 DD15 Engines manufactured December 14, 2020, through March 10, 2022**

**Corrective Procedure**

**Replacement of the Exhaust Rocker Arms**

This procedure is for replacing the exhaust rocker arms.

<b>Service Tools Used in the Procedure</b>		
<b>Tool Number</b>	<b>Tool Name</b>	<b>Tool Graphic</b>
W470589004000 or W470589094000	Exhaust Rocker Arm Lifter/Spacer Tool	 d580358
W904589046300	Silver Engine Barring Tool	 d580297
W470589001500	Top Dead Center Locating Pin	 d580349
W470589062300	Camshaft Timing Tool Kit	 d580350
W470589042300	Engine Brake Lash Tool 4.6mm	 d580351

May 2024  
D24M3

Replace as follows:



**WARNING:**

**PERSONAL INJURY**

To avoid injury from hot surfaces, wear protective gloves, or allow engine to cool before removing any component.

1. Turn ignition OFF, apply parking brake, chock wheels, and perform any other applicable safety steps.



**WARNING:**

**ELECTRICAL SHOCK**

To avoid injury from electrical shock, use care when connecting battery cables. The magnetic switch studs are at battery voltage.

- Disconnect batteries.
  - Open the hood.
  - If necessary, remove bumper for access.
- Refer to Original Equipment Manufacturer (OEM) procedures.



**WARNING:**

**FIRE HAZARD**

Do not power wash or steam clean the engine bay in the area of vehicle electrical components, unless specified by vehicle manuals or service literature. Power washing/steam cleaning can permanently damage these components, which could result in fire, personal injury, or property damage.

2. Disconnect batteries.
3. Steam clean the engine where the rocker cover meets the camshaft housing.
4. Remove air filter housing. Refer to OEM procedures.
5. If equipped, remove air compressor resonator. Refer to OEM procedures.
6. Remove the rocker cover.

Refer to section "Removal of the Rocker Cover" in the Gen 5 DD15 Platform Workshop Manual.

7. Remove the fuel injector wiring harnesses.

May 2024  
D24M3

Refer to section "Removal of the Front Fuel Injector Wiring Harness" in the Gen 5 DD15 Platform Workshop Manual.

Refer to section "Removal of the Rear Fuel Injector Wiring Harness" in the Gen 5 DD15 Platform Workshop Manual.

8. Remove the engine brake return spring bar from the camshaft housing.

Refer to section "Removal of the Engine Brake Return Springs" in the Gen 5 DD15 Platform Workshop Manual.

9. Remove the exhaust rocker shaft assembly.

Refer to section "Removal of the Exhaust Rocker Shaft Assembly" in the Gen 5 DD15 Platform Workshop Manual.

10. Completely disassemble the exhaust rocker shaft assembly.

11. Lubricate the bushings in the new exhaust rocker arms with clean engine oil.

12. Did the drilled exhaust rocker arm kit come with adjusting screws and lock nuts already installed on the rocker arms?

- a) Yes; go to Step 18.
- b) No; go to Step 13.

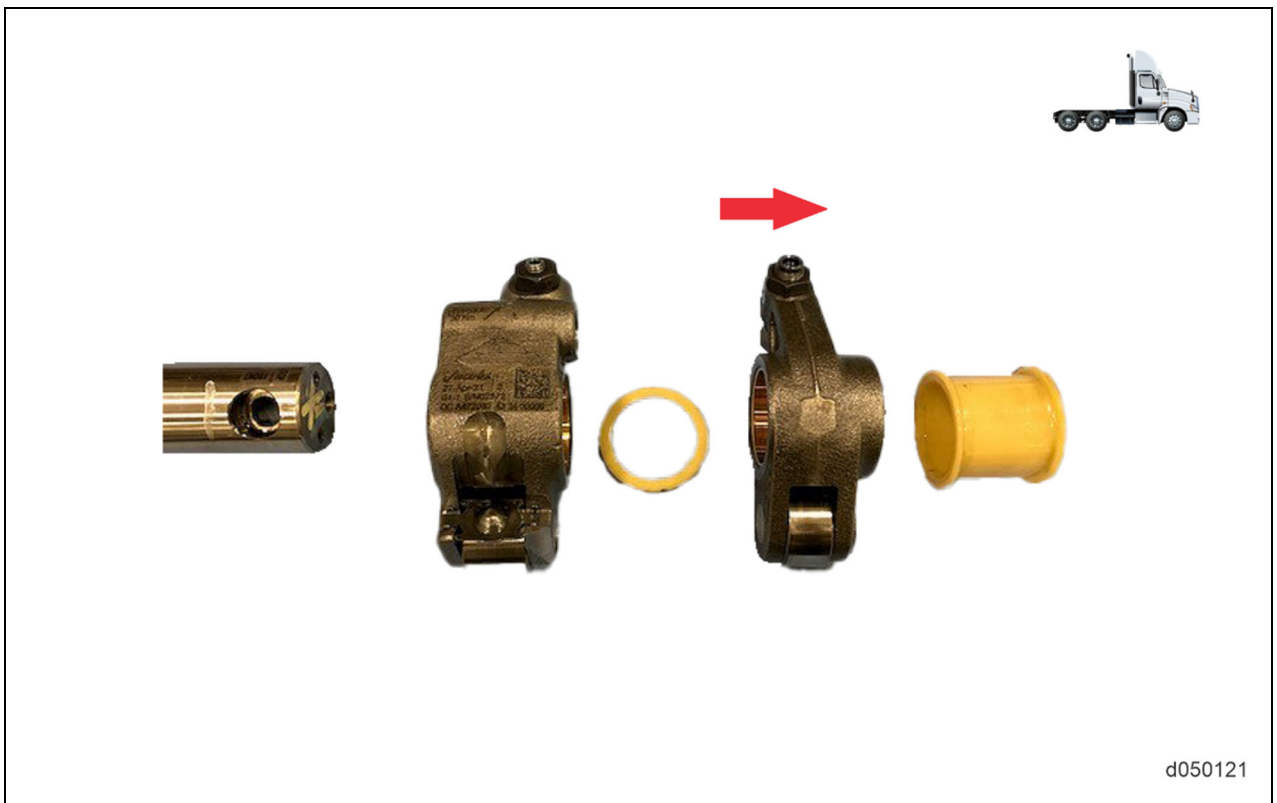
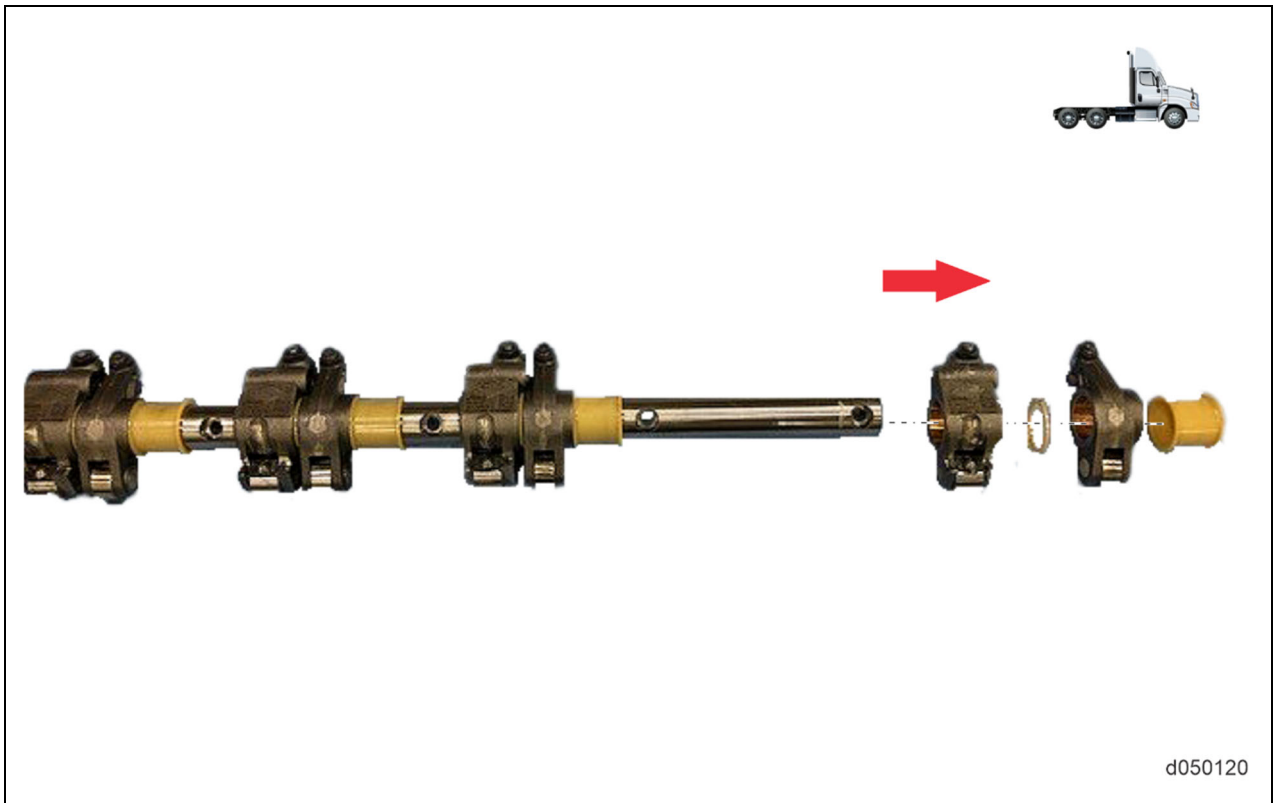
13. Loosely install the adjusting screws in the new exhaust rocker arms. Make sure the adjusting screws are threaded all the way into the rocker arms.

14. Loosely install the locknuts onto the exhaust rocker arm adjusting screws. Do not fully tighten the locknuts.

**Note:** Plastic rocker arm spacers may vary in color.

15. Reassemble the rocker shaft assembly with the exhaust rocker arms, and spacers in correct locations. See below graphics.

May 2024  
D24M3



16. Using the exhaust rocker arm lifter/spacer tool, install the exhaust rocker shaft assembly onto the camshaft

May 2024  
D24M3

caps.

Refer to section "Installation of the Exhaust Rocker Shaft Assembly" in the Gen 5 DD15 Platform Workshop Manual.

- 17.** Install engine brake return spring bar onto the camshaft housing.

Refer to section "Installation of the Engine Brake Return Springs" in the Gen 5 DD15 Platform Workshop Manual.

**NOTE:** Only adjust the exhaust valves and engine brakes. Intake valve adjustment is not required and not included in the labor reimbursement for this campaign.

- 18.** Adjust exhaust valves and engine brakes.

Refer to section "Setting the Valve and Engine Brake Lash" in the Gen 5 DD15 Platform Workshop Manual.

- 19.** Install fuel injector wiring harnesses.

Refer to section "Installation of the Front Fuel Injector Wiring Harness" in the Gen 5 DD15 Platform Workshop Manual.

Refer to section "Installation of the Rear Fuel Injector Wiring Harness" in the Gen 5 DD15 Platform Workshop Manual.

- 20.** Install the rocker cover.

Refer to section "Installation of the Rocker Cover" in the Gen 5 DD15 Platform Workshop Manual.

- 21.** If removed, install the air compressor resonator. Refer to Original Equipment Manufacturer (OEM) procedures.

- 22.** Install the air filter housing. Refer to OEM procedures.



**WARNING:**

**ELECTRICAL SHOCK**

To avoid injury from electrical shock, use care when connecting battery cables. The magnetic switch studs are at battery voltage.

- Disconnect batteries.
- Open the hood.
- If necessary, remove bumper for access.  
Refer to Original Equipment Manufacturer (OEM) procedures.

- 23.** Connect batteries.



**WARNING:**

**PERSONAL INJURY**

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

- Always start and operate an engine in a well ventilated area.
- If operating an engine in an enclosed area, vent the exhaust to the outside.
- Do not modify or tamper with the exhaust system or emission control system.



**WARNING:**

**PERSONAL INJURY**

To avoid injury before starting and running the engine, ensure the vehicle is parked on a level surface, parking brake is set, and the wheels are blocked.



**WARNING:**

**ENGINE EXHAUST**

To avoid injury from inhaling engine exhaust, always operate the engine in a well-ventilated area. Engine exhaust is toxic.

**24.** Start engine (key ON, engine ON) and check for oil leaks.

**25.** If removed, install bumper. Refer to OEM procedures.

**26.** Close the hood.

## Completion Stickers

- Upon completion of Field Service Campaign **D24M3**, clean a spot on the base label (Form WAR259), write the Field Service Campaign Number **D24M3** on a blank, completion sticker (Form WAR261), and attach the completion sticker to the base label.
- Label ordering info: DTNA Portal > Chassis Service Information > Order Literature (Warranty Labels and Chassis Service) > Warranty