

Interference Between Exhaust Pipe U-Bolt and Sleeper Rail

M-252-004

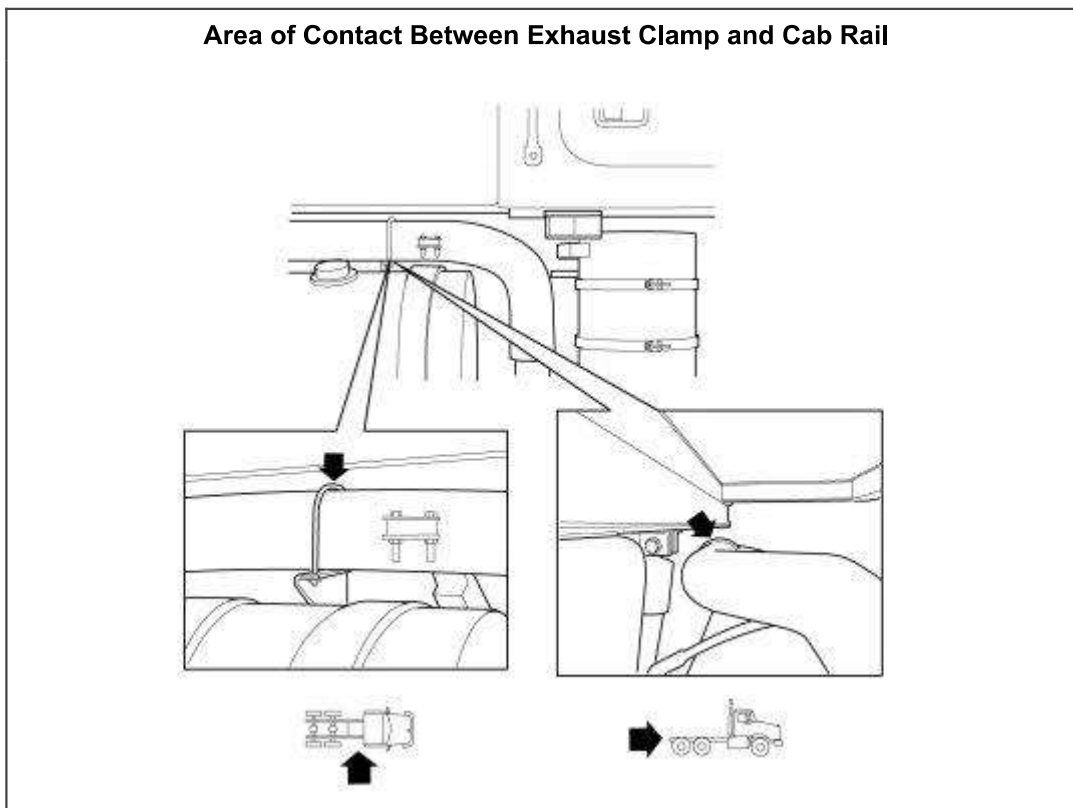
(May 2008)

Valid for

All Mack CXU, CHU sleeper chassis equipped a single exhaust and a Mack-Cap DPF built before April 2008.

Case description

Effective April 21, 2008, a revised intermediate exhaust pipe and DPF outlet pipe was implemented into production on CXU and CHU sleeper chassis equipped with a single exhaust system and MACK-Cap Diesel Particulate Filter (DPF). This change was made to eliminate an interference condition between the intermediate pipe U-bolt and the right-hand side lower cab rail. The revision to these pipes routes the intermediate pipe inboard of the cab rail in the area where contact may occur. Should contact between the exhaust pipe U-bolt and cab rail be encountered on a chassis manufactured prior to April 21, 2008, replacement of the existing intermediate pipe and DPF outlet pipe with the components outlined in this bulletin is recommended.



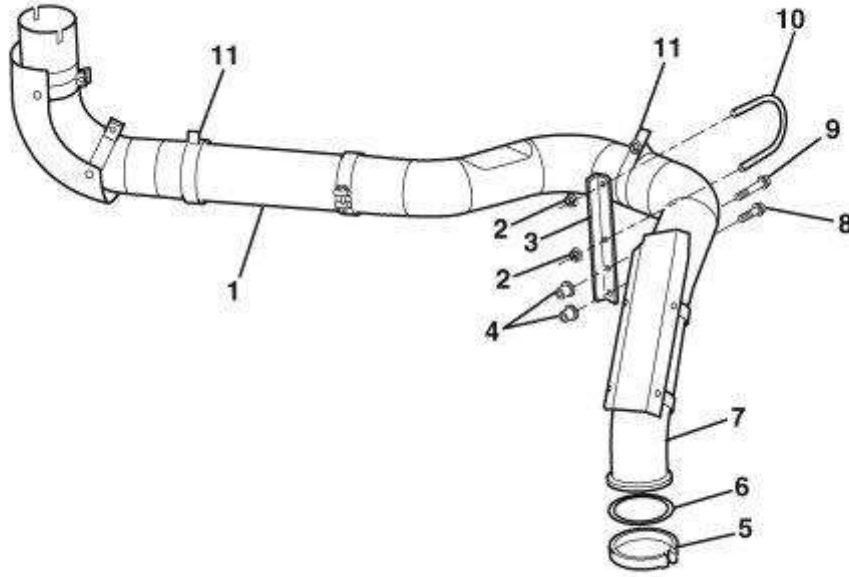
Note: Not applicable to Mack Trucks Australia.

Parts

Parts required for installation of the revised intermediate exhaust pipe are as follows:

Note: Part numbers for the replacement intermediate exhaust pipes are specific to cab length and exhaust system orientation (either inboard- or outboard-mounted).

Revised Intermediate Exhaust Pipe and Related Components

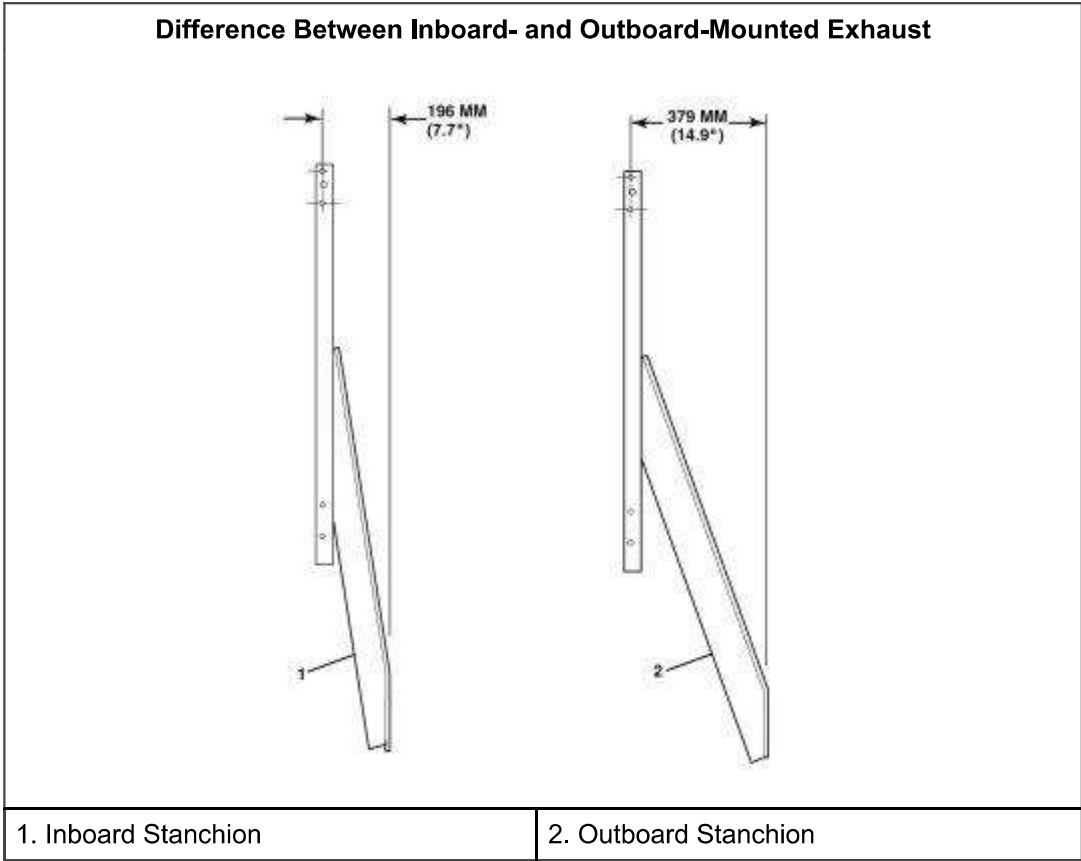


Key	Qty.	Part number	Description
1	1	21131028	Pipe, intermediate exhaust, 48" sleeper, outboard-mounted exhaust system
		21131029	Pipe, intermediate exhaust, 56" sleeper, outboard-mounted exhaust system
		21131030	Pipe, intermediate exhaust, 60" sleeper, outboard-mounted exhaust system
		21131031	Pipe, intermediate exhaust, 70" sleeper, outboard-mounted exhaust system
		21131046	Pipe, intermediate exhaust, 48" sleeper, inboard-mounted exhaust system
		21131047	Pipe, intermediate exhaust, 56" sleeper, inboard-mounted exhaust system
		21131050	Pipe, intermediate exhaust, 60" sleeper, inboard-mounted exhaust system
		21131054	Pipe, intermediate

			exhaust, 70" sleeper, inboard-mounted exhaust system
2	2	969316	Nut
3	1	20492424	Bracket, intermediate exhaust pipe mounting
4	4	3187719	Collar, Huck-Spin® frame fastener
5	2	20961913	Clamp, V-band, outlet pipe-to-DPF outlet
6	1	21095726	Gasket, DPF outlet
7	1	21131655	Outlet pipe
8	3	4AM34	Pin, Huck-Spin® frame fastener
9	1	3187721	Pin, Huck-Spin® frame fastener
10	1	8071857	U-bolt, intermediate exhaust pipe mounting
11	1	21021850	Clamp

Note: Huck-Spin® pins (part number 4AM34) and collars (part number 3187719) will be required for installation into the empty holes in the frame where the original exhaust pipe U-bolt bracket was mounted.

To determine if the chassis is equipped with either an inboard- or outboard-mounted exhaust, look at the exhaust mounting stanchion. The difference between the two mounting arrangements is the tilt of the stanchion bracket. Refer to the illustration below:



Procedure

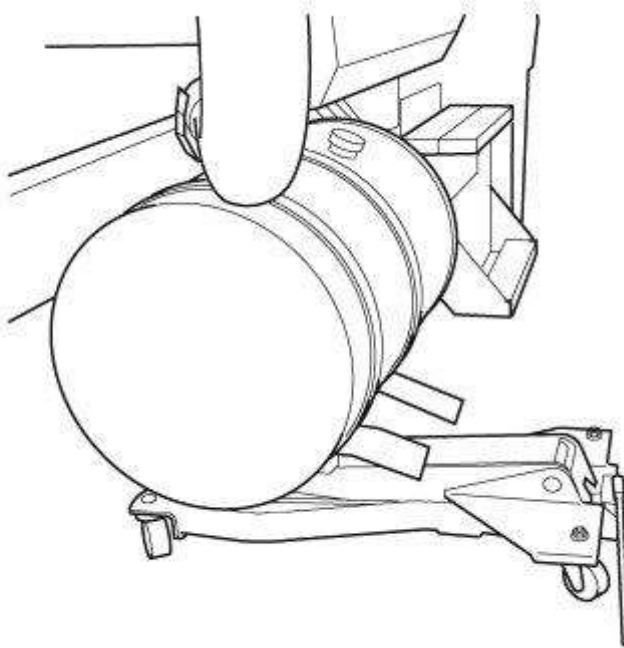
1. Secure the chassis for service, apply the parking brakes and block the wheels to prevent the vehicle from moving.
2. Remove the fuel tank from the right-hand side of the vehicle.



Warning

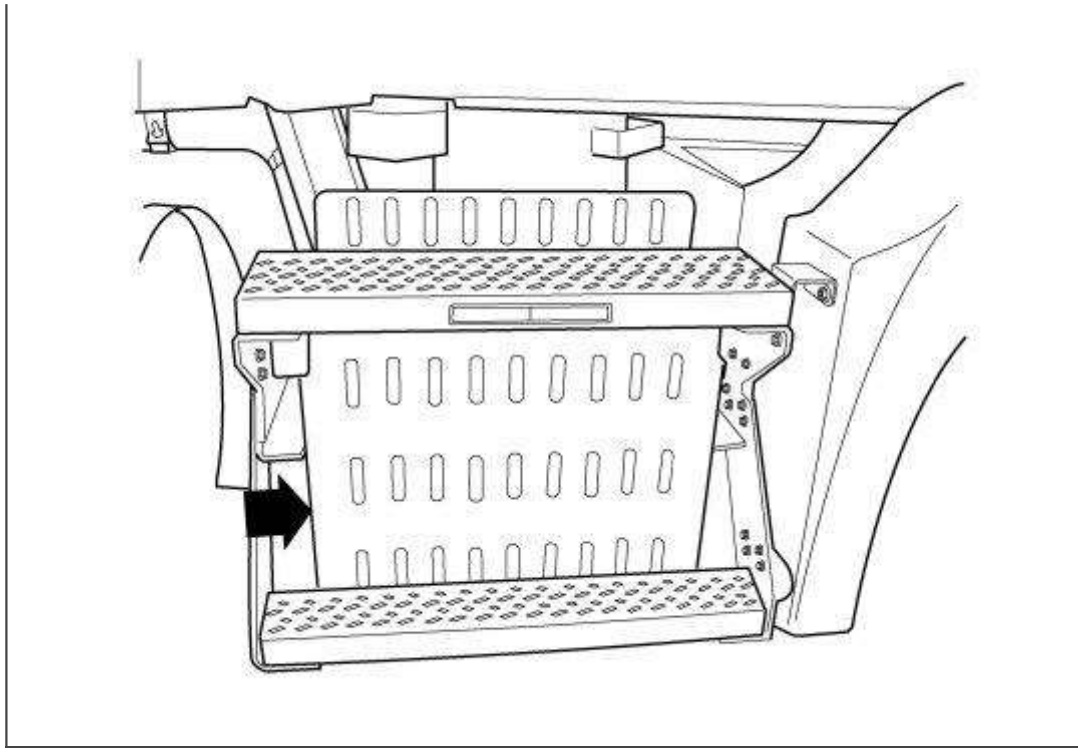
Use a suitable lifting device (such as a transmission jack with a suitable cradle) to remove the fuel tank. Be sure the transmission jack is positioned under the center of the tank to keep it properly balanced while the tank is being removed. The fuel in the tank may slosh from side-to-side, resulting in the tank falling from the jack.

Using Transmission Jack to Remove Fuel Tank

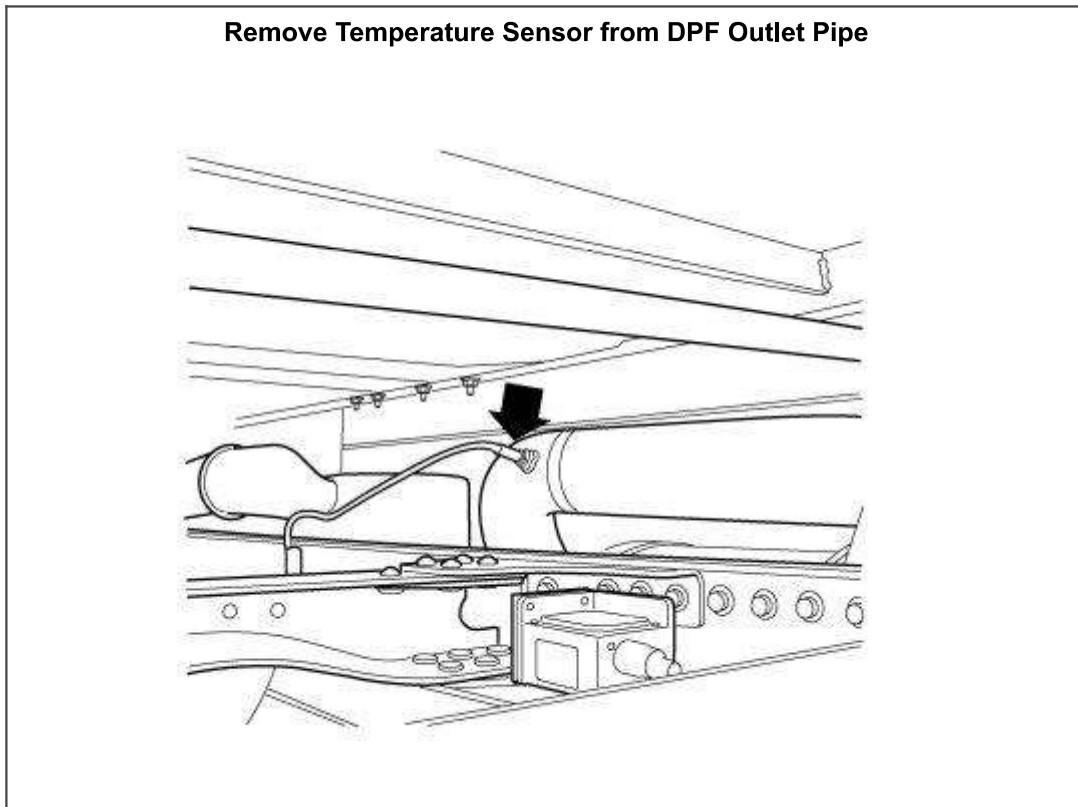


3. Remove the shield from in front of the DPF unit to gain access for removing the outlet pipe.

Remove DPF Shield

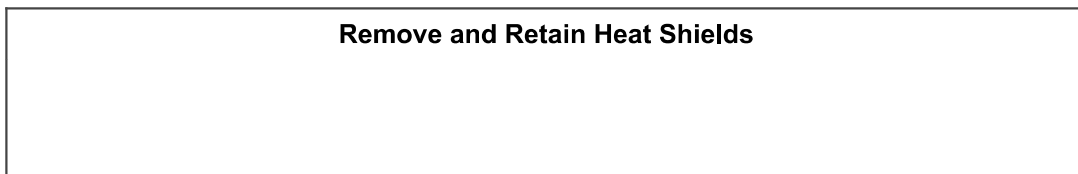


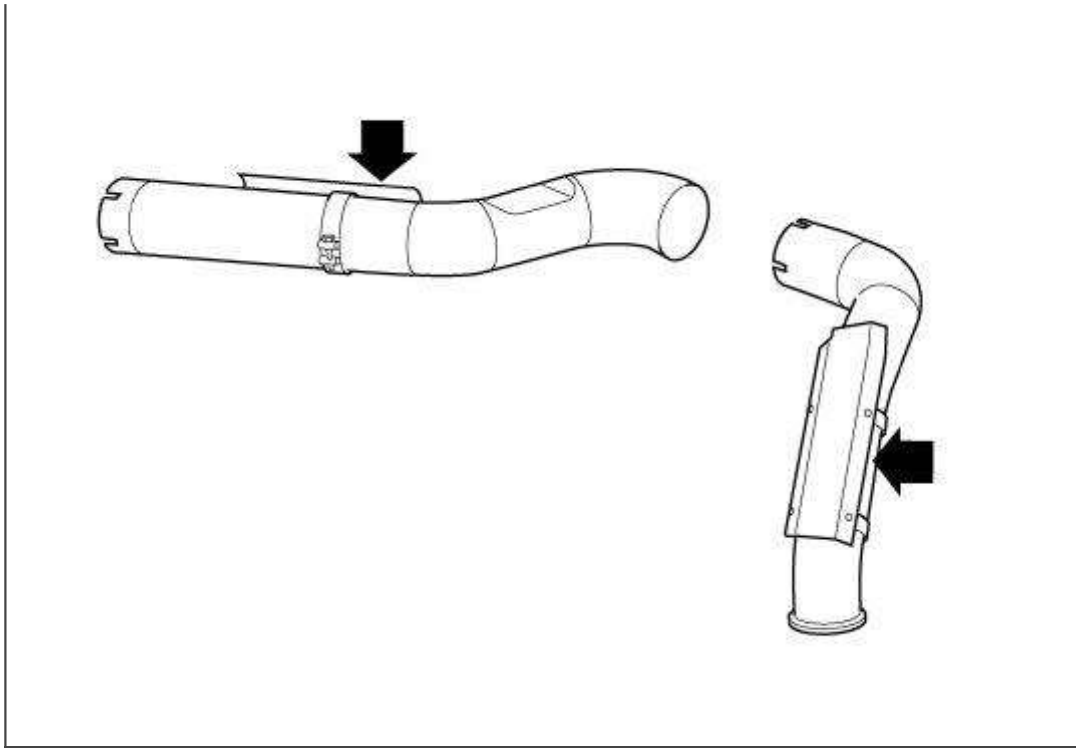
4. Remove the temperature sensor from the DPF outlet pipe.



5. Remove the existing DPF outlet and intermediate exhaust pipes.

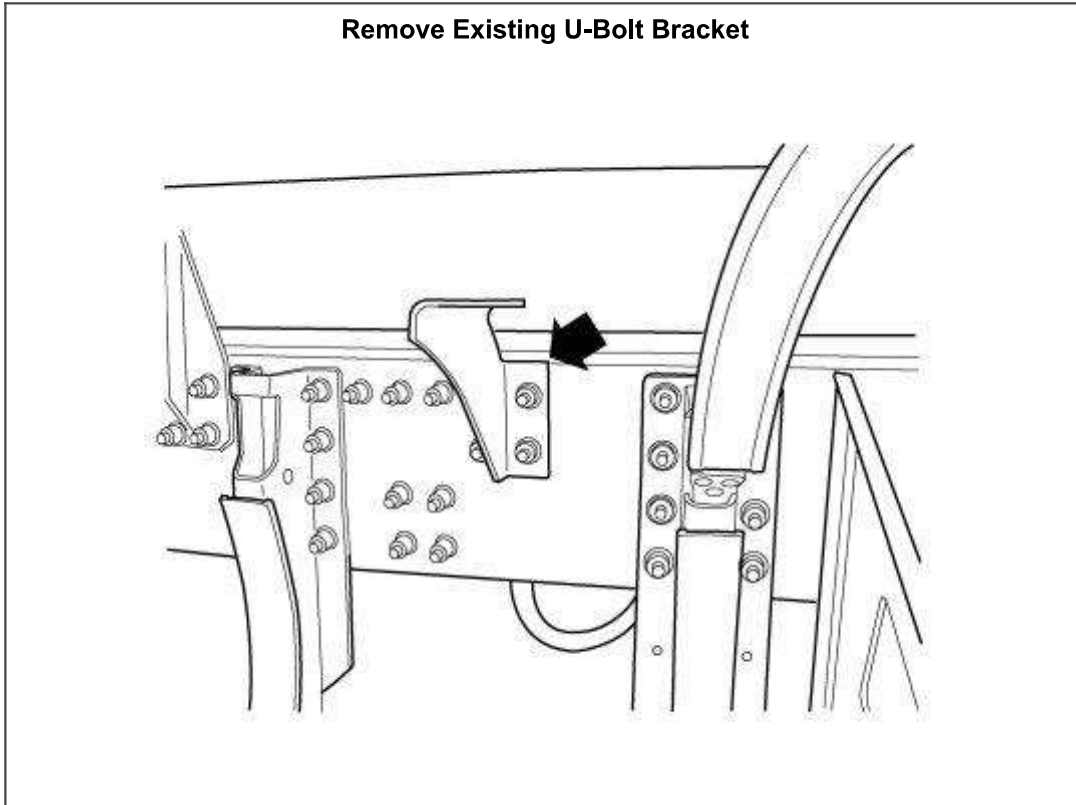
6. Remove and retain the heat shields from the existing outlet and intermediate pipes. The existing intermediate pipe, DPF outlet pipe, clamps, U-bolt and gasket can be discarded.





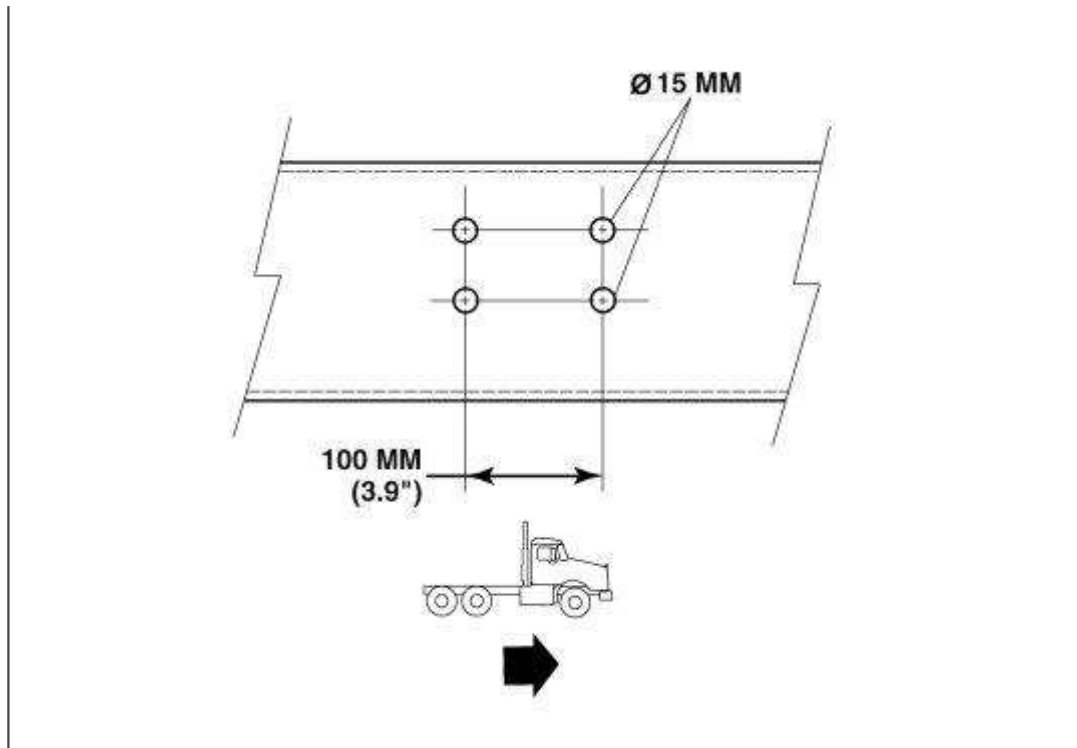
7. Remove and discard the existing exhaust mounting U-bolt bracket.

Note: The U-bolt bracket is secured to the frame rail with Huck-Spin® frame fasteners. Use of a hydraulic collar splitter is the recommended method for removing Huck® fasteners. If a collar splitter is not available or is impractical to use, the collars can be cut with a torch. Refer to the Frame, Axle and Suspension Service, and Total Vehicle Alignment Service Manual, 14–103, for detailed information on removing Huck® fasteners.

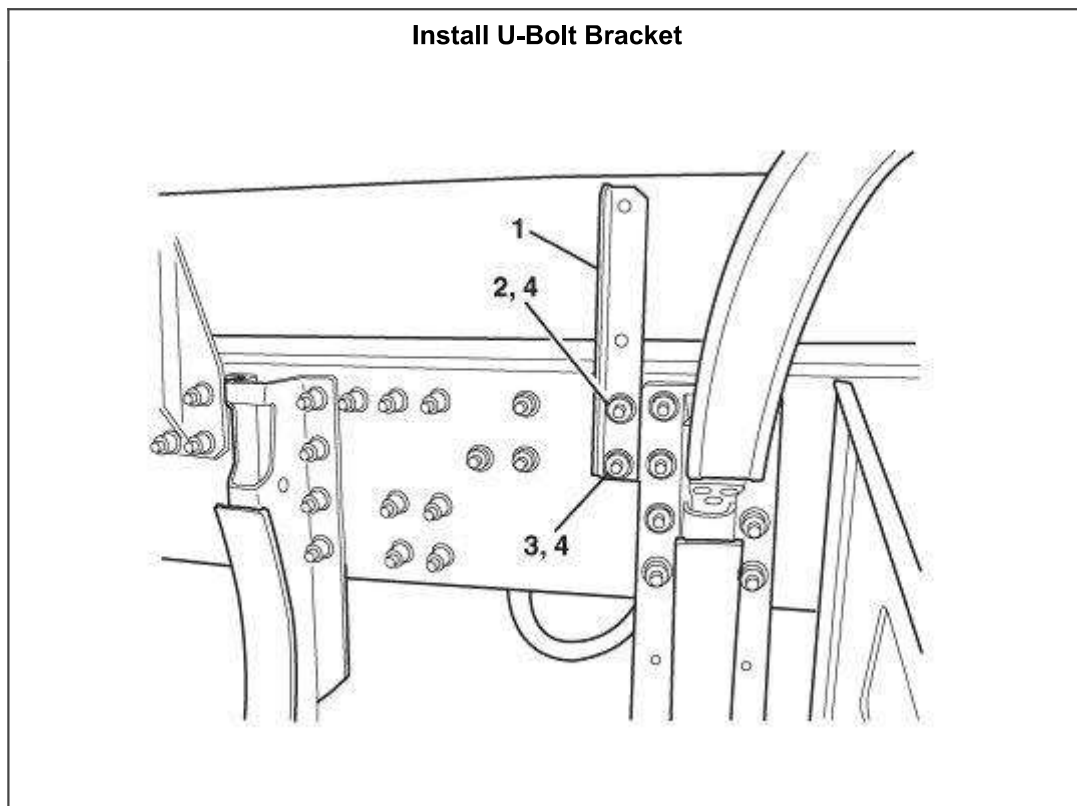


8. Mark and drill two 15 mm diameter holes in the frame rail, 100 mm (3.9") forward from the centerline of the existing U-bolt mounting holes.





9. Install the replacement U-bolt bracket (part number 20492424) to the frame rail using two Huck-Spin® collars (part number 3187719), and pin part Nos. 3187721 in the upper mounting hole and 4AM34 in the lower mounting hole.

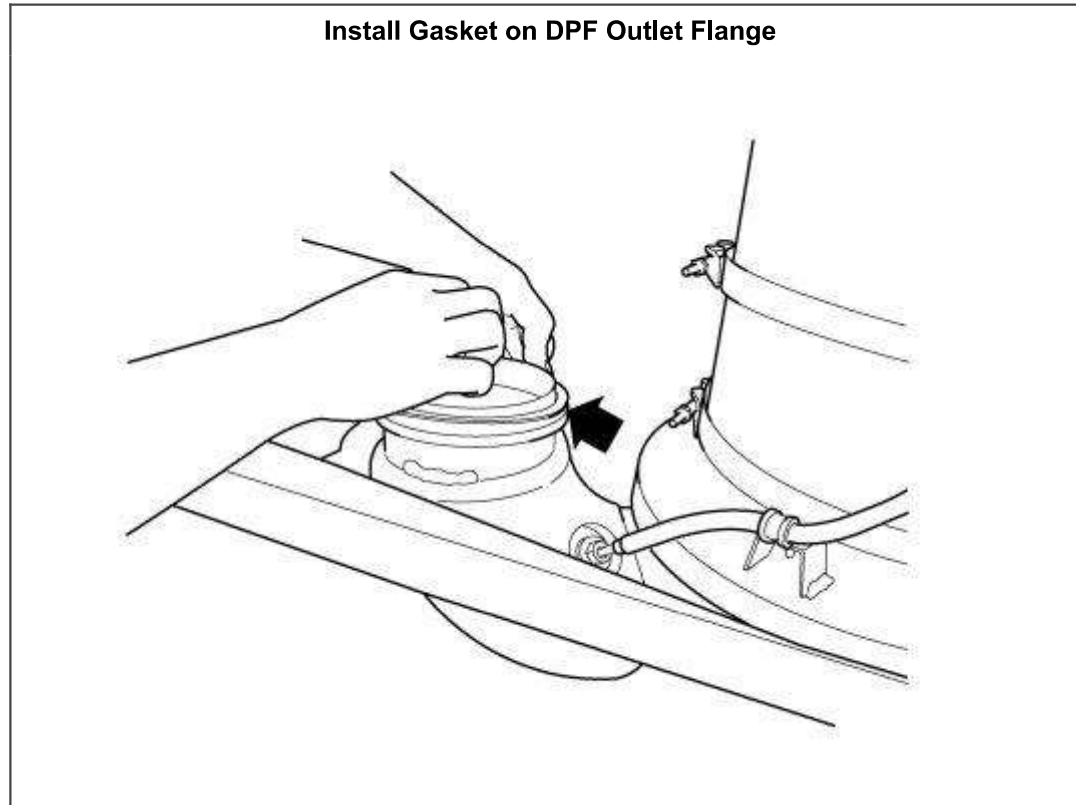


Key	Qty.	Part number	Description
1	1	20492424	Bracket, U-bolt, exhaust mounting
2	1	3187721	Pin, Huck-Spin® metric frame fastener (upper hole)
3	1	4AM34	Pin, Huck-Spin® metric frame fastener (lower hole)

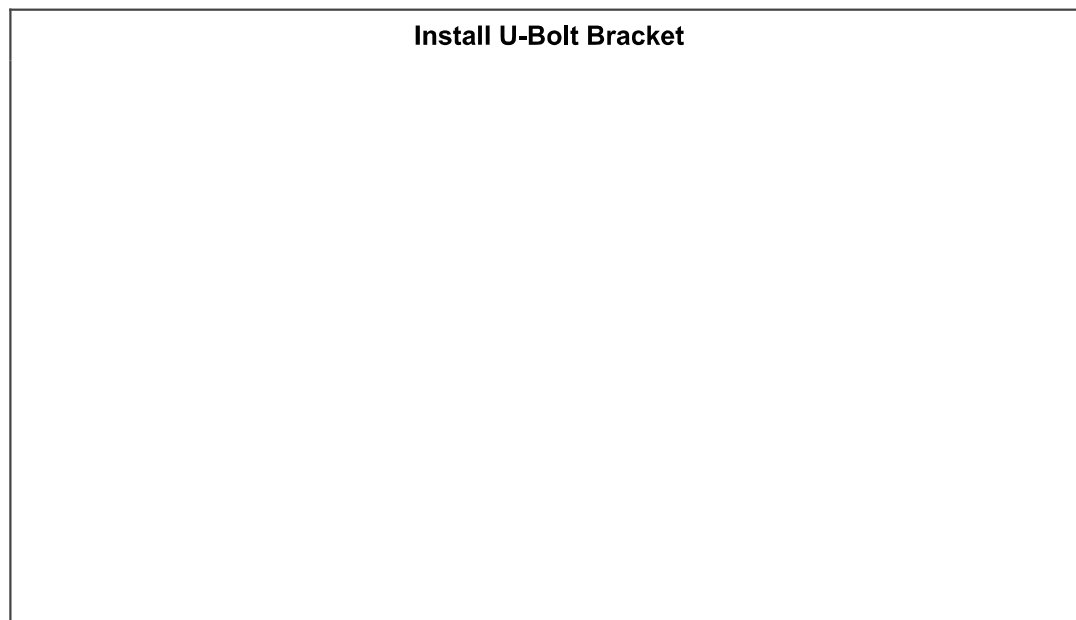
4	2	3187719	Collar, Huck-Spin® metric frame fastener
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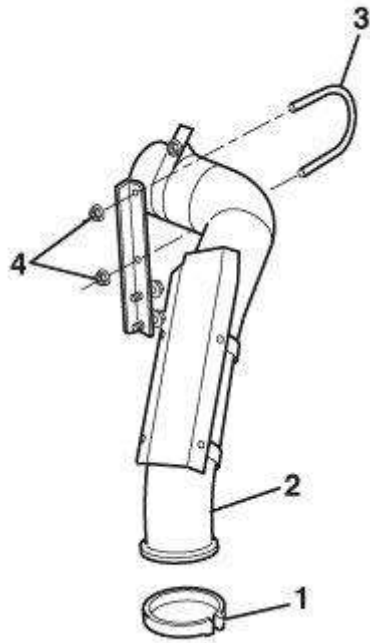
Note: Install two Huck-Spin® fasteners (pin part number 4AM34 and collar part number 3187719) in the two empty holes in the frame from where the previous U-bolt bracket was removed.

- Loosely install the heat shields which were removed from the existing outlet and intermediate pipes, onto the replacement DPF outlet pipe (part number 21131655) and intermediate exhaust pipe (part number depends upon sleeper length and exhaust stanchion type, refer to the part number table on page 2).
- Install a new gasket (part number 21095726) onto the DPF outlet flange.



- Using a new clamp (part number 21021850), install the replacement DPF outlet pipe. Do not tighten the clamp at this time.
- Secure the DPF outlet pipe to the U-bolt bracket with a U-bolt (part number 8071857) and two nuts (part number 969316). Do not tighten the nuts at this time.

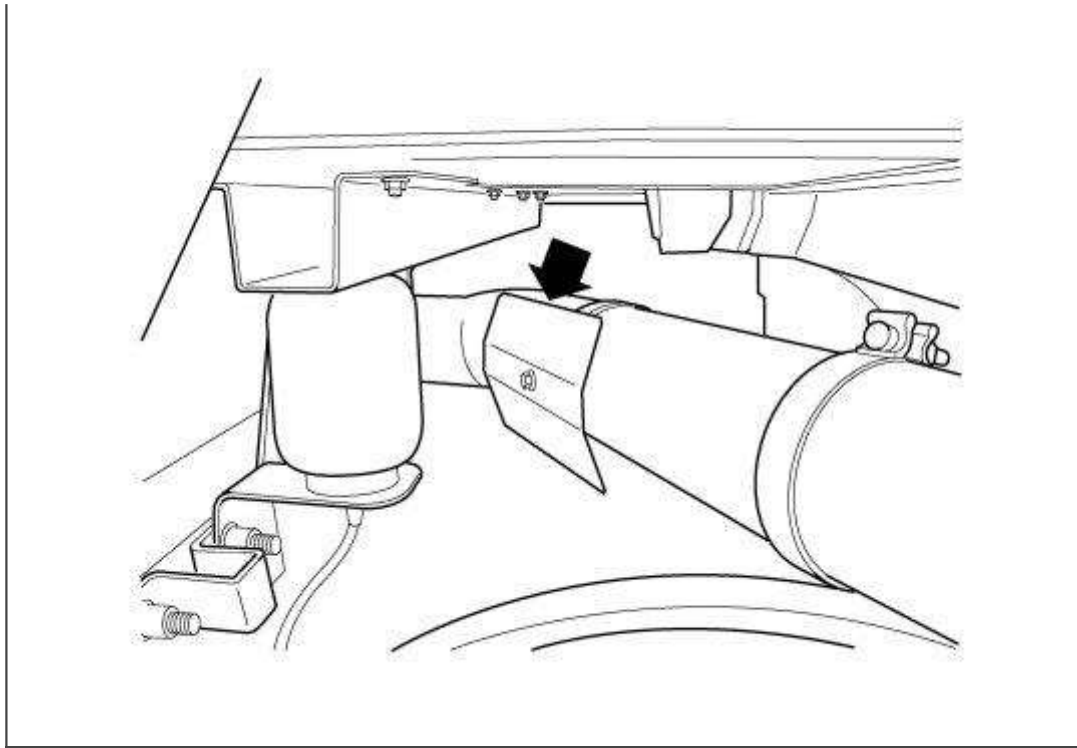




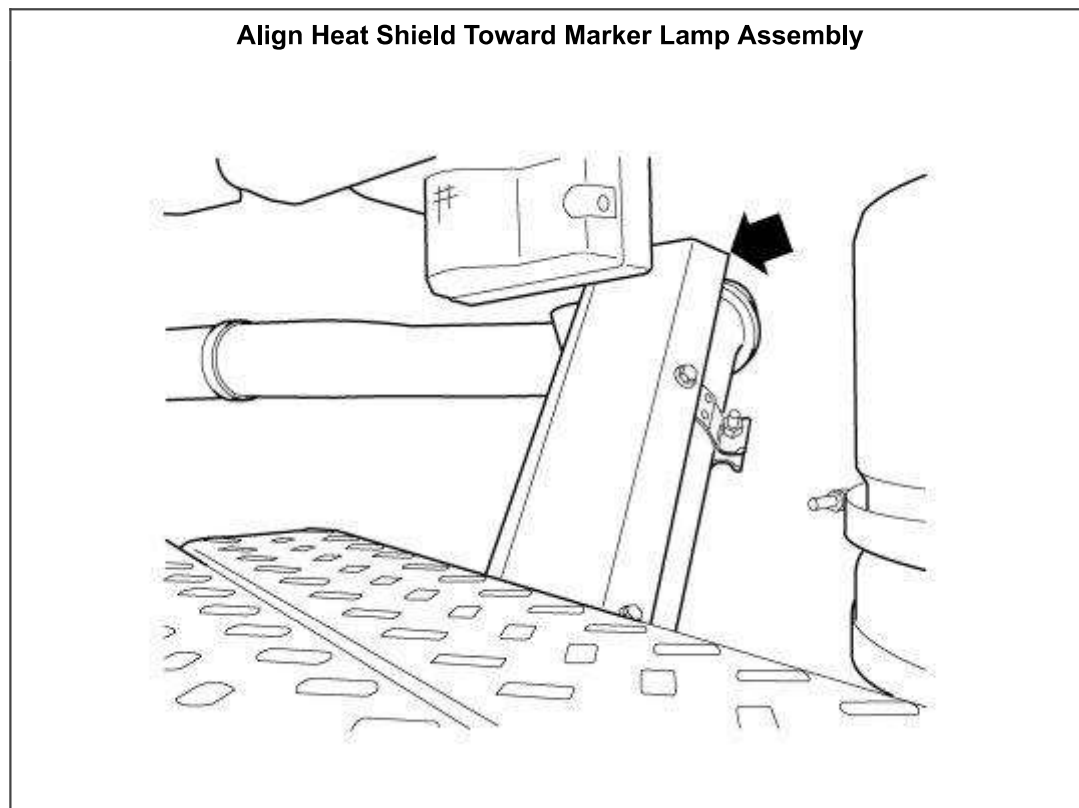
Key	Qty.	Part number	Description
1	1	21021850	Clamp, outlet pipe-to-DPF outlet
2	1	21131655	Outlet pipe
3	1	8071857	U-bolt
4	2	969316	Nuts

14. Reinstall the DPF temperature sensor to the spud on the DPF outlet pipe.
15. Using two clamps (part number 20961913), install the intermediate pipe (part number determined by sleeper length and exhaust stanchion arrangement). Do not tighten the clamps at this time.
16. After making sure the intermediate pipe and DPF outlet pipe are in proper alignment, and the DPF outlet pipe is seated properly on the flange, tighten all the V-band clamp, band clamps and U-bolt nuts to the following specifications:
 - V-band clamp (outlet pipe to DPF outlet) — 6.8 N•m (60 lb-in)
 - Band clamps — 61 N•m (45 lb-ft)
 - U-bolt nuts — 20 N•m (15 lb-ft)
17. Align the heat shields, and then tighten the clamps. The heat shield located on the intermediate pipe should face the cab air bag as shown in the illustration below.

Align Heat Shield Toward Cab Air Bag



The shield located on the outlet pipe should face the marker lamp assembly as shown in the illustration below.



18. Reinstall the fuel tank and the shield in front of the DPF unit. When reinstalling the fuel tank, make sure the rubber insulators are properly positioned under the mounting straps, and tighten the strap T-bolt nuts as follows:
- **Steel Fuel Tanks**— 61 N•m (45 lb-ft)
 - **Aluminium Fuel Tanks**— 54 N•m (40 lb-ft)

Warranty information

Reimbursement

This repair may be eligible for reimbursement if a product failure was experienced within time and mileage limits of the applicable Warranty coverage. Reimbursement is obtained via the normal claim handling process.

Claim Type (used only when uploading from the Dealer Bus. Sys.)

W

Labour Code

234 6C 00 80 – 3.0 hrs – Time allowed to remove and replace existing intermediate exhaust and DPF outlet pipes, drill frame rail and install new mounting bracket on CXU and CHU models. Does not include “take-charge” time.

234 4H 00 80 – 1.3 hrs – Additional time to remove and reinstall chassis fairings for access as required.

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Technical Service