

A CUMMINS FIELD CAMPAIGN

Please Deliver To: Service Managers and Warranty Decision Makers

FROM: Cummins Global Warranty Administration Communications

Subject: B6.7 Engine-Mounted Fuel Heater Safety Campaign

Number: C2302

Date: 24-Nov-2021

Expires: 24-Nov-2021 (U.S./Canada)
24-Nov-2021 (International)

Attention: U.S. / Canadian Dealers
U.S. / Canadian Distr./Branches and Div. Offices
Worldwide distr./ branches and Div./Reg Offices (Automotive)

This is to revise and replace Campaign 2302-A, dated 14-Jun-20. This revision is to:

- 1 Closing the field action and replacing it with Campaign 2507.

If additional information is required, please contact your Cummins Warranty Operations Group Leader.

DESCRIPTION:

This Safety Campaign is being issued to address a product issue where under certain conditions, internal electrical heating within the fuel heater may create sufficient heat inside the fuel heater to cause plastic in the fuel heater to melt and potentially catch fire.

This Safety Campaign supersedes campaigns C2127, C2128, and ATC2278. The remedy described in this Safety Campaign **must** be performed on your engine, even if your engine was remedied under one of the prior campaigns.

Cummins has reported this issue to the U.S. National Highway Traffic Safety Administration (NHTSA), which has assigned it Recall Number 20E-018.

This Safety Campaign authorizes certified repair locations to disable the fuel heater, to remove the fuse powering the fuel heater circuit, and to cap and secure the fuel heater wiring harness connector on certain B6.7 CM2350 B121B units.

ACTION:

In order to qualify for repair under this field action, an engine:

- 1 will be covered regardless of coverage status, and
- 2 **must** show as OPEN on QuickServe® Online for this field action.

NOTE: The ESN list is attached for reference.

After verifying that the engine meets the above requirements, perform the following actions:

- 1 If a non-disabled fuel heater is currently installed in the fuel filter module and does **not** show signs of a fuel leak or melted plastic, refer to the Scenario 1 service instructions within Attachment B to disable the fuel heater, to remove the fuse powering the fuel heater circuit, and to cap and secure the fuel heater wiring harness connector using kit part number 5633457.
- 2 If a fuel heater is currently installed and shows signs of a fuel leak and/or melted plastic, refer to the Scenario 2 service instructions within Attachment B to install a fuel heater plug and to cap and secure the fuel heater wiring harness connector using kit part number 5579133.
- 3 If the fuel filter module is damaged, refer to the Scenario 3 service instructions within Attachment B to install a plugged fuel filter module and to cap and secure the fuel heater wiring harness connector using kit part numbers 5661486 and 5633457.
- 4 If a fuel heater plug is currently installed, no further repair is needed. Refer to the service instructions within attachment B to confirm that the fuse powering the fuel heater circuit has been removed and that the fuel heater wiring harness connector has been properly capped and secured. Claim **ONLY** Administrative Time and SRT 17-902 (Campaign/SCR Check) to close the field action.

MATERIAL DISPOSITION:

Where applicable, materials removed as a result of this field action **must** be returned to Cummins. Parts flagged via the Cummins Enhanced Parts Return (EPR) process should be returned following the stated instructions. Please return the parts to:

Cummins Service Support Center

910 S. Marr Road, Receiving Location 35

Columbus, IN 47201

Attn: Service Support Center Manager

Email: ssc@cummins.com

NOTE: Parts covered by the Field Action are to be returned to the Cummins Service Support Center. Please include a copy of the claim paperwork and a material return tag with the returned parts. Include the ESN number, the Campaign #2302, and the claim number on the material return tag. For Cummins returns, record WebCumpas# on the outside of the box. For PACCAR returns, record CRA# or Eztrac#.

REIMBURSEMENTS:

Parts:

The following parts are covered under this field action:

NOTE: Only Customer Down Orders or Warranty Orders will be released for this field action at this time.

NOTE: Ordering all 3 parts per one ESN#/unit is not required and **not** allowed. The vast majority (95% or greater) of repairs will **only** require part number 5633457. **Only** order one of the other 2 parts if damage is found when performing Scenario 1. Customer Order Management **must** be given confirmation of damage with the order of either part 5579133 or 5661486. Please state in dealer PO field in Cumpas and BMS "Damage to XX part confirmed". If confirmation of damage is **NOT** given, the order will be canceled.

Part Number	Quantity	Description
557913300	1	PLUG/ HARNESS CAP (OPTIONAL, SEE NOTE ABOVE)
563345700	1	HARNESS CAP ONLY (OPTIONAL, SEE NOTE ABOVE))
566148600	1	FLTR MDL WITH PLUG (OPTIONAL, SEE NOTE ABOVE)

NOTE: Please refer to Attachment B for more details around repairs scenarios.

NOTE: SRTs to gain access that are required to complete the repair, that are sufficiently explained in the claim narrative, may also be claimed on this action.

NOTE: All SRTs listed are OPTIONAL. Select **ONLY** the appropriate SRTs for the repair performed. Claim **ONLY** SRTs 99-007 and Admin if the unit DID require a repair. **Only** SRT 17-902 and Admin should be claimed if the unit DID **NOT** require a repair.

Labor using applicable Access Code and Time:

SRT Code	Description	Time
00-90X	Administrative time	
17-902	CAMPAIGN CHECK - OPTIONAL	
99-007	REMOVE FUSE, DISABLE HEATER OR INSTALL PLUG, CAP HARNESS (QTY 1) - OPTIONAL	

Travel:

Travel is covered under this field action. Towing is covered under this field action.

Other Claimables:

Consumables are covered under this field action.

NOTE: Please consolidate all consumables and claim them as one item in Other Claimables titled "CAMPAIGN SUPPLIES".

Claim Instructions:

For Cummins Dealers, claims for this Field Campaign **must** be filed via **RAPIDSERVE™** Web (rsw.cummins.com). For information regarding **RAPIDSERVE™** Web, please reference the "Warranty" tab in QuickServe® Online. If there are additional questions, please contact your local Cummins Distributor.

Account Code: 65
Pay Code: Distributor = X
Pay Code: Dealer = D
Pay Code: International = I
Failure Code: WFEHTE

Attachments

c2302_esn-list.xlsx;c2302_attachment-b.pdf



C2302 B6.7 Engine-Mounted Fuel Heater Campaign

Revised: 08 July 2020

Contents

Special Note

- The purpose of this campaign is to disable the fuel heater. If a plug is in place rather than a heater, either from completion of TRP 2129, action taken by following TSB190038, or being built with a plug, then no further action is needed at this time.

Verification

- Locate the Stage 1 fuel filter head on engine. The engine fuel heater is located on the top right side of the fuel filter head. See Figure 1 below.

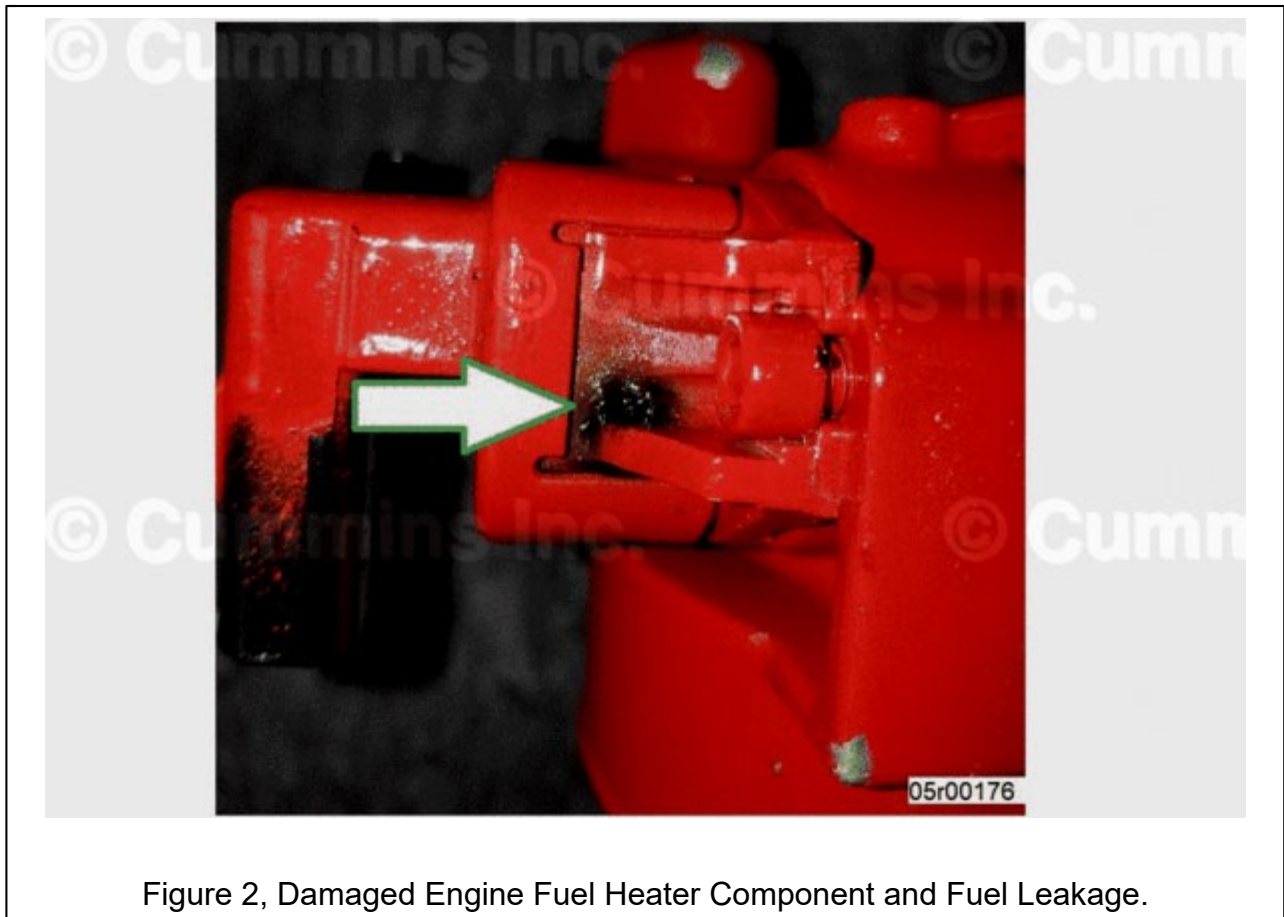


Figure 1, Location of Fuel Filter Heating Element.

1. Engine fuel heater
2. Cable tie
3. Electrical connector

Note: The location in the connector (3) of the red and white wires in Figure 1 above may differ slightly based on previous campaign work done to this engine.

- Check the fuel heater to see if there is damage (melting or leaking), similar to Figure 2.
 - If engine fuel heater is **not** damaged or leaking fuel after engine shutdown, and the fuel filter module is **not** damaged, follow **scenario 1**.
 - If engine fuel heater is damaged, or leaking fuel after engine shutdown, but fuel filter module is **not** damaged, follow instructions for **scenario 2**.
 - If fuel filter module is damaged, follow instructions for **scenario 3**.



Parts Needed

Table 1, Associated Part Numbers

Part Description	Cummins Part Number
Scenario 1: Electrical Plug- See Figure 3	5633457
Scenario 2: Engine Fuel Heater Port Plug Kit- See Figure 4	5579133
Scenario 3: Fuel Filter Module with plug	5661486



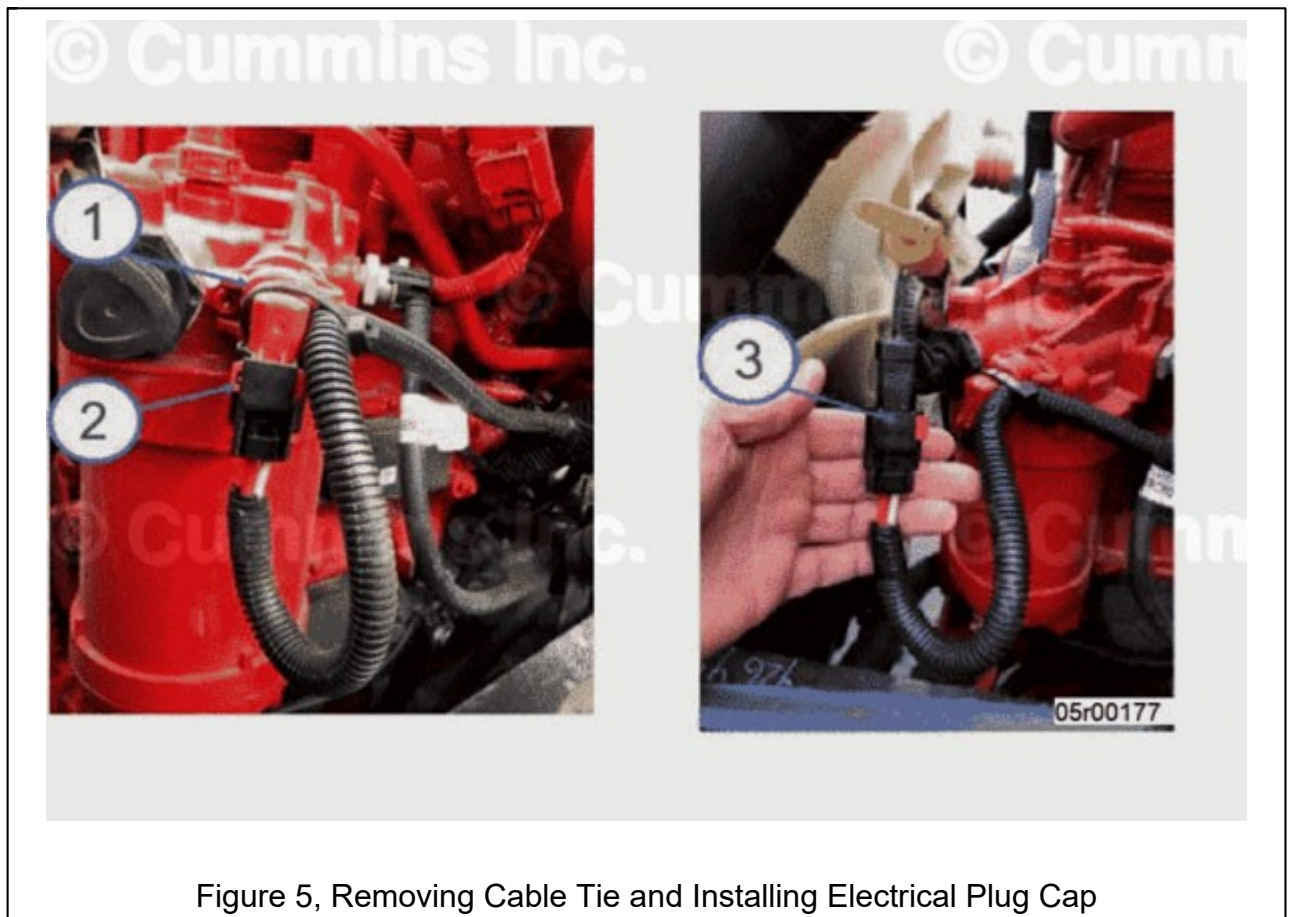
Figure 3, 5633457, KIT, HARNESS INSTALLATION



Figure 4, Part Number 5579133 Contents: Left: Heater Plug and Allen Screws.
Right: Electrical Plug.

Resolution- steps for all scenarios

- Remove cable tie that secures the wiring harness to engine fuel heater. See Figure 5.
- Unlock connector by moving red tab to the right and disconnecting from engine fuel heater. See Figure 5.
- Unplug electrical connector from engine fuel heater and protect the female end of the wiring harness to prevent any damage and/or contamination from occurring by using electrical plug supplied in kit.
- Secure fuel heater harness to engine wiring harness using zip ties to prevent damage. See Figure 6.
 - a. Cable tie part numbers:
 - i. Navistar® part number 306132C1
 - ii. Supplier part number T120R0HSH4



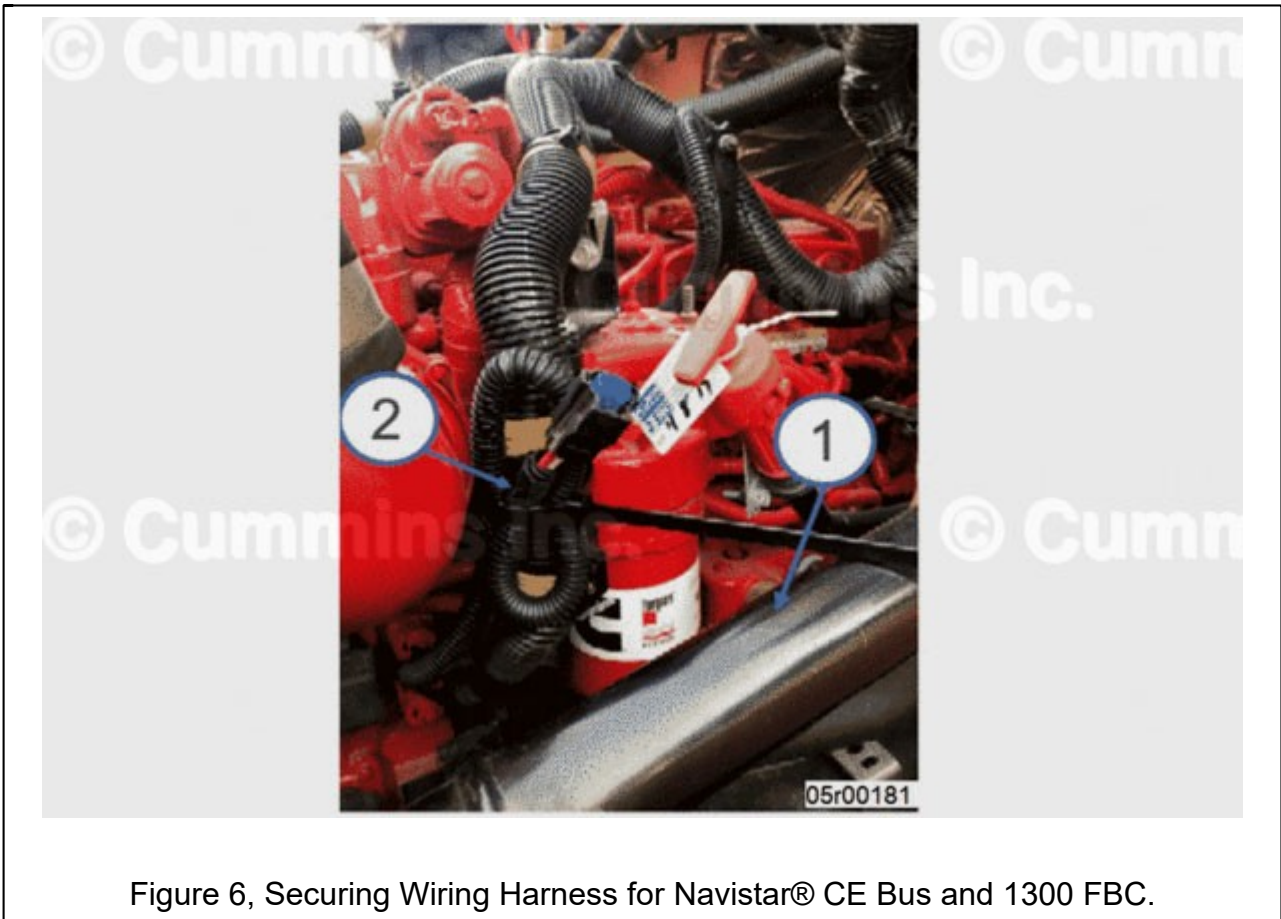
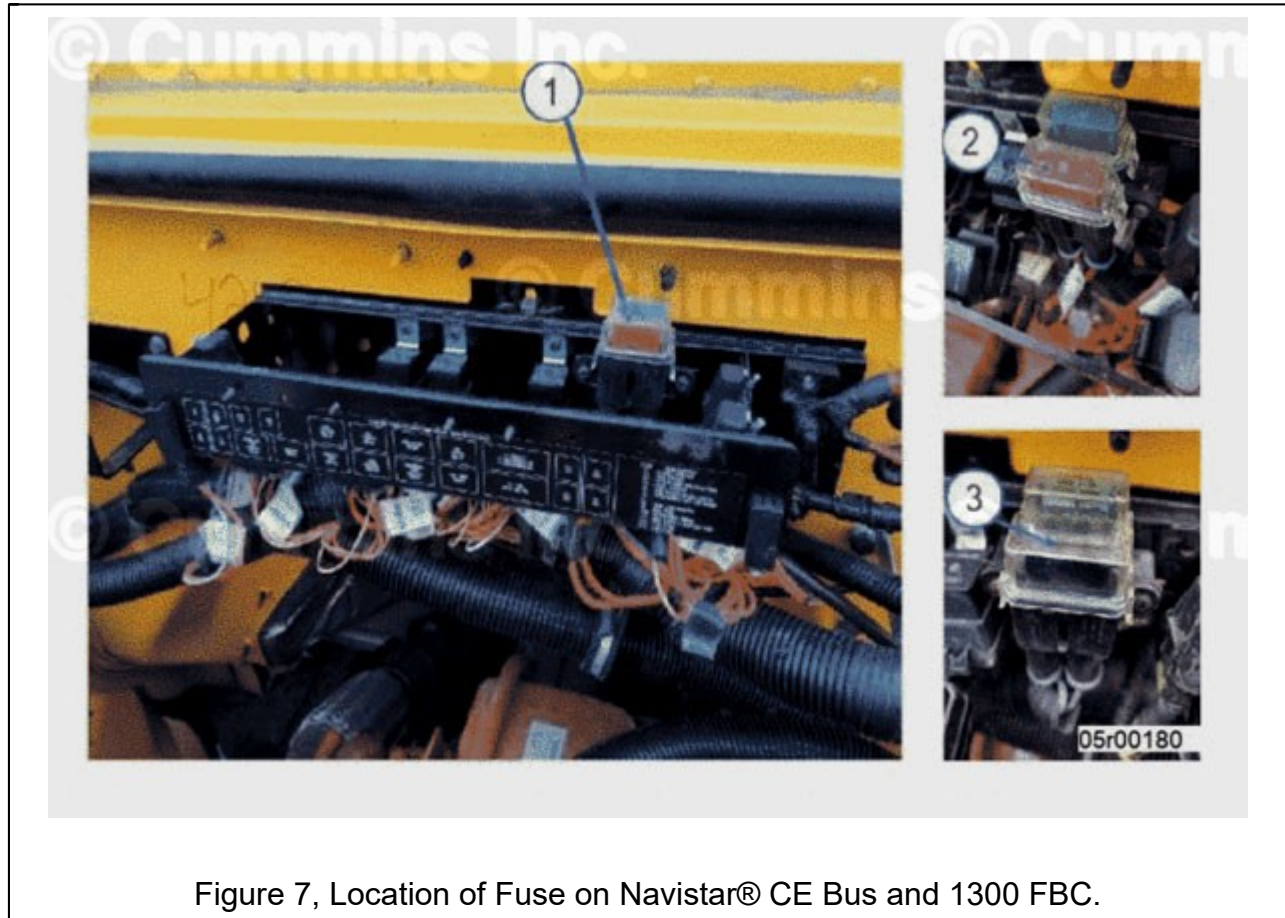


Figure 6, Securing Wiring Harness for Navistar® CE Bus and 1300 FBC.

- Remove fuse powering engine fuel heater circuit on chassis. See model specific instructions in Figures 7-9.
- Address cold weather fuel gelling issues with chemical treatment (such as Power Service Diesel Fuel Supplement® +Cetane Boost®) to the fuel system.
- Disable fuel heater following specific scenario instructions on the following pages.

Navistar® CE Bus and 1300 FBC Fuse and Wire Harness Instruction

1. Disconnect vehicle battery.
2. Locate red 50 amp or green 30 amp Maxi Fuse on under hood fuse panel. See Figure 7 below.
3. Remove fuse cap and discard Maxi Fuse. See Figure 7 below.
4. Reinstall fuse cap. Do **not** replace fuse. See Figure 7 below.



Navistar® Truck / TC Commercial Bus Fuse and Instructions

Remove fuse.

1. Disconnect vehicle battery
2. Remove 30 or 40 amp fuse located at 2C cavity. See Figure 8 below.

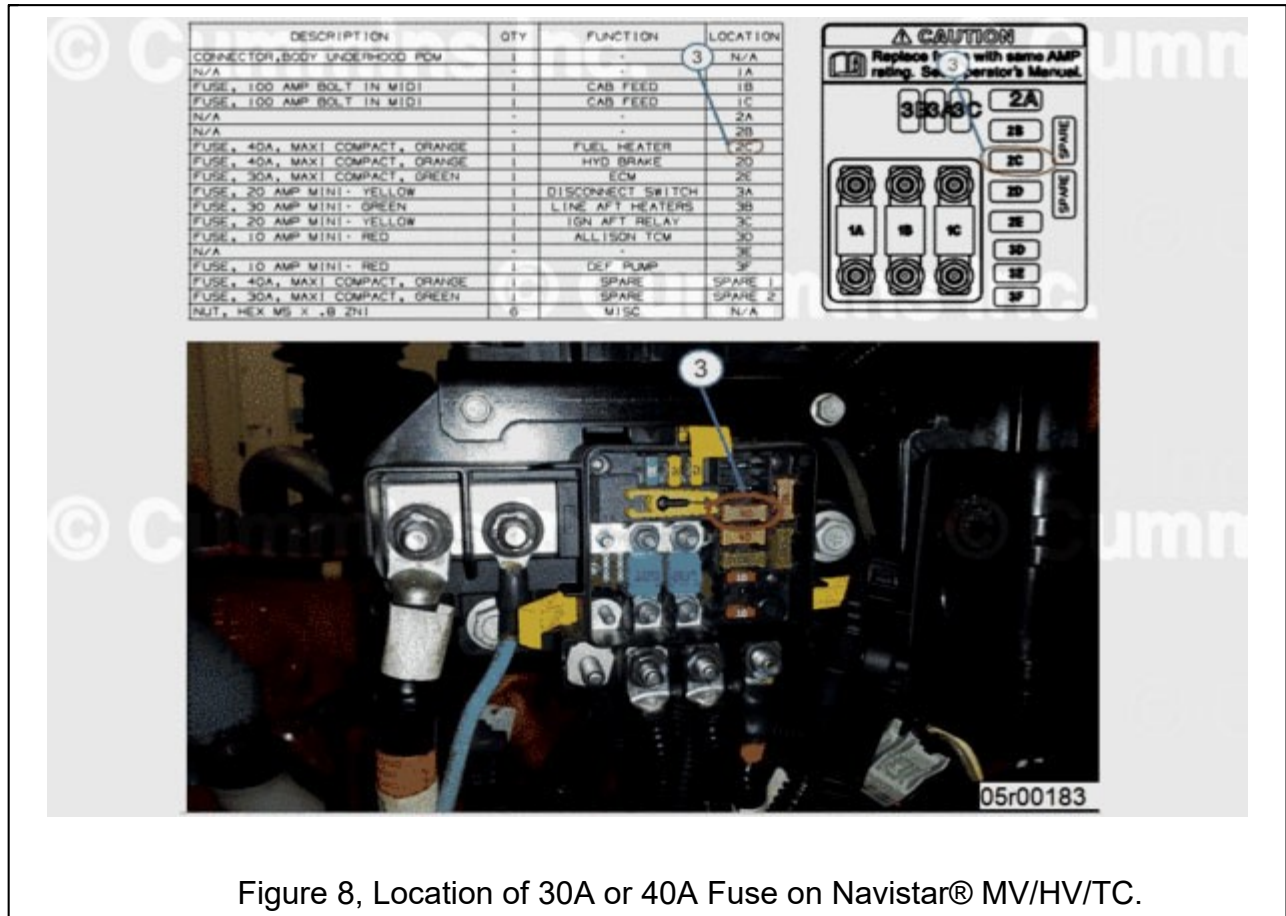


Figure 8, Location of 30A or 40A Fuse on Navistar® MV/HV/TC.

Location of Fuse on Navistar® DuraStar (4300) / WorkStar (7300) / HC Commercial Bus

Remove fuse.

1. Disconnect vehicle battery.
2. Remove Power Distribution Module (PDM) cover, located under the hood on the driver side. See Figure 9 below.
3. Remove fuse located at 2C cavity. See Figure 9 below.



Scenario-Specific Instructions

Scenario 1: Engine fuel heater is **not** damaged, or is **not** leaking fuel after engine shutdown, and the fuel filter module is **not** damaged:

1. Ensure that the fuse is removed, harness is secured, and connector is plugged using PN 5633457, as detailed on pages 4-8.
2. Without removing the fuel heater from the filter head, disable the on-engine fuel heater by cutting through the connector with a fine-toothed hacksaw blade, die/angle grinder with cut-off wheel, or other rotary/reciprocating tool capable of making clean, smooth cuts. Be careful not to damage nearby components when cutting. **Do not use a screwdriver, hammer, bolt cutter, or side cuts.** Figure 10 shows the preferred cut

location and Figure 11 shows the acceptable area range for the cut. Figure 12 shows a fuel heater with the work completed.



Figure 10: Preferred location to cut

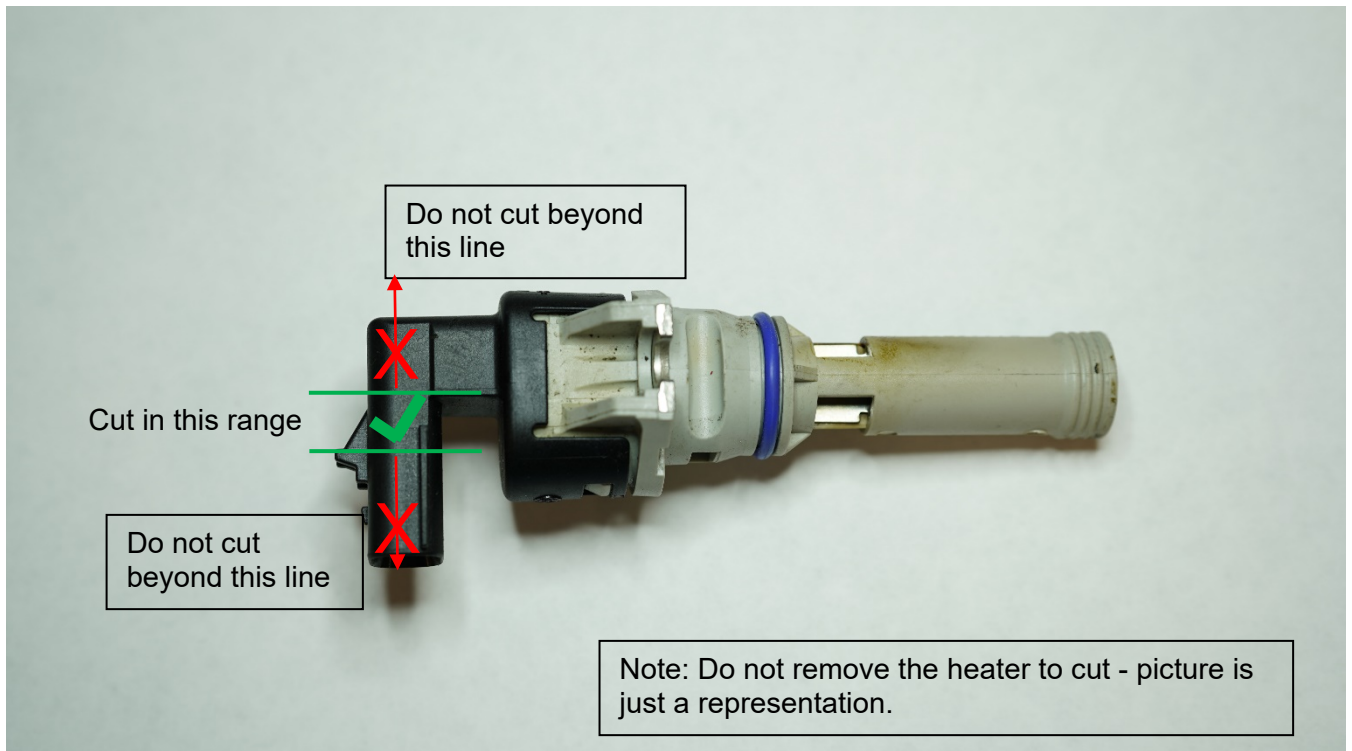


Figure 11: Acceptable cutting range to disable fuel heater.

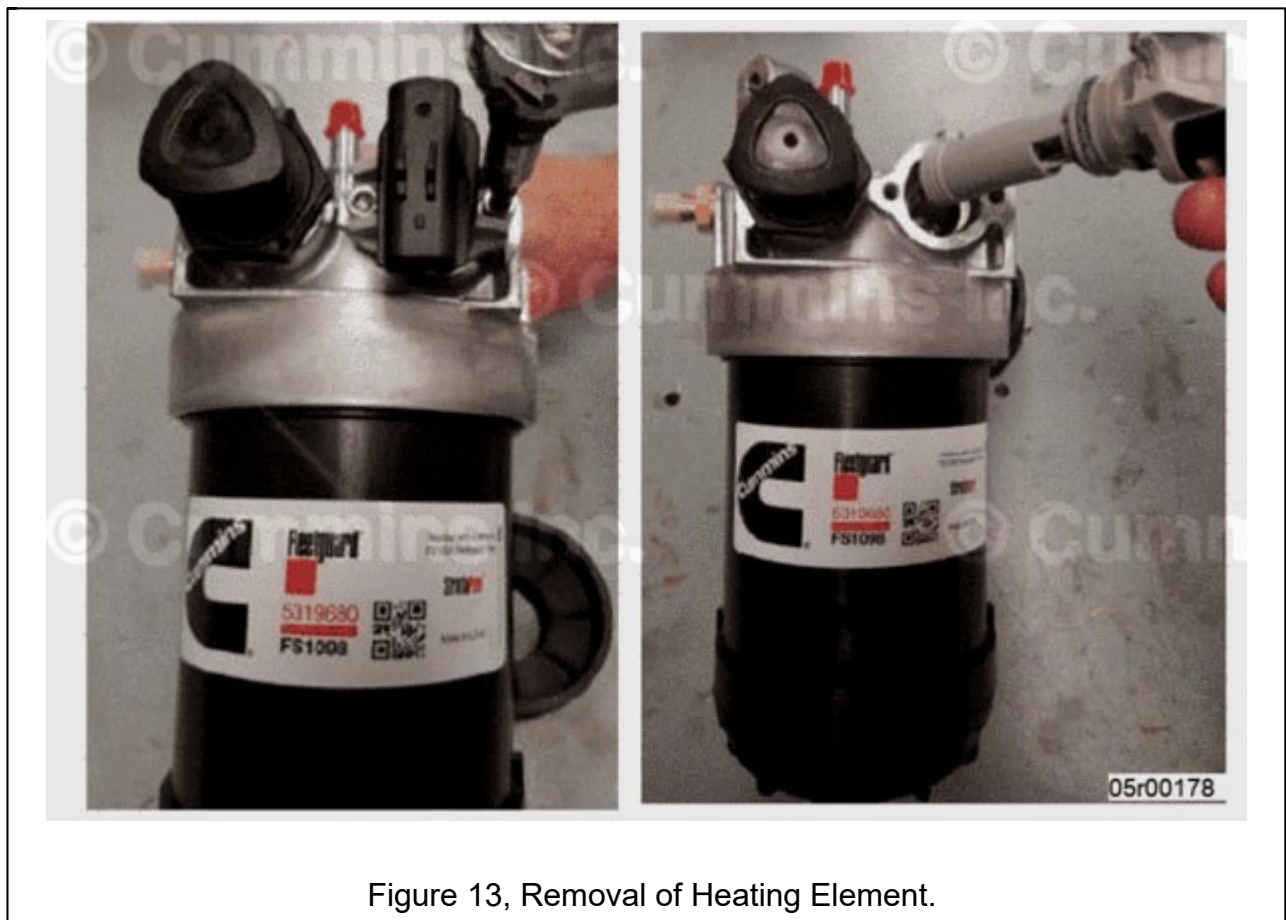


Figure 12: Fuel Heater shown after cutting complete

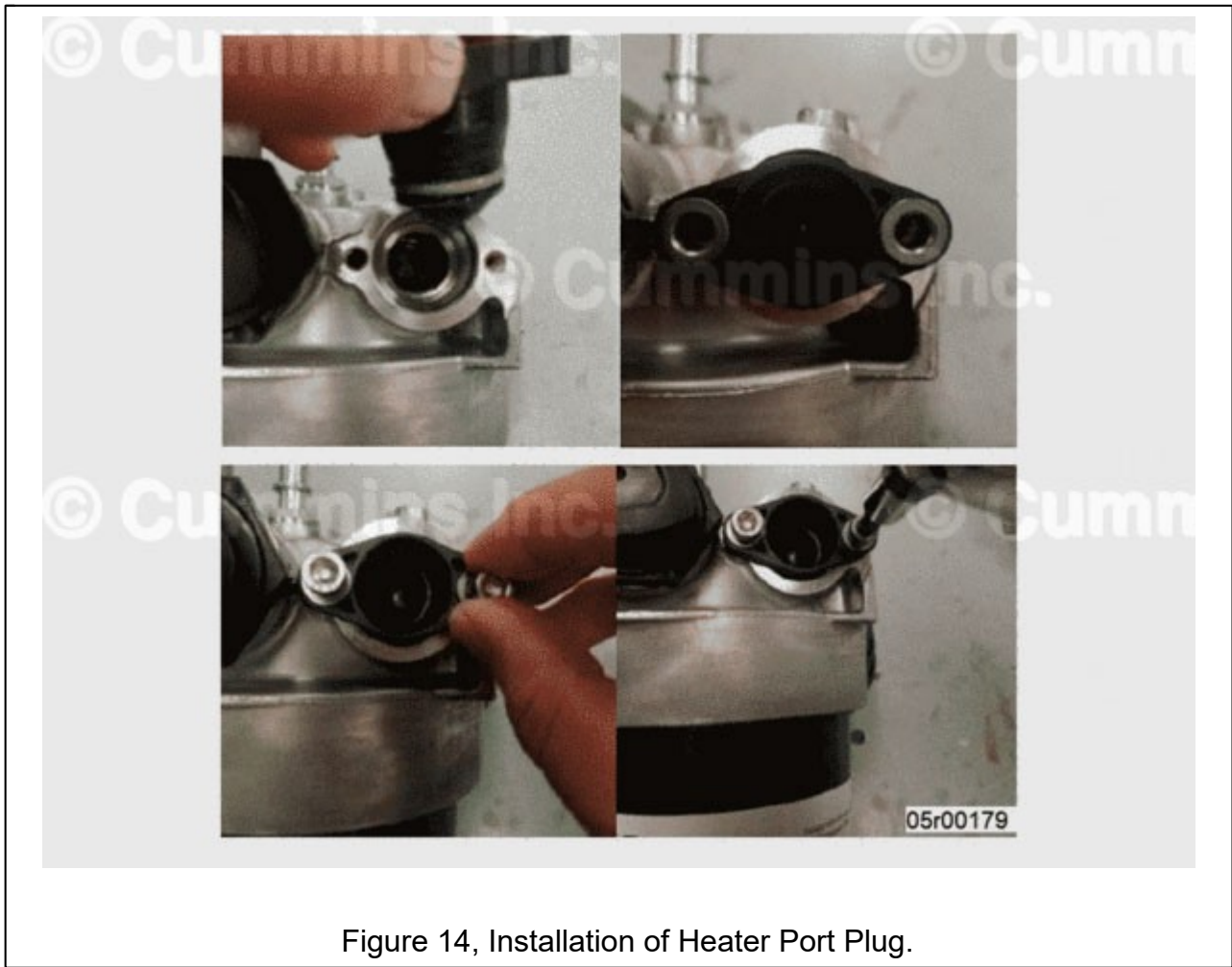
3. Inspect nearby components to ensure that nothing was damaged during the cutting procedure.
4. Restart engine and check heater area to ensure there is no fuel leakage from the area that was cut or other issues resulting from cutting procedure.
5. If fuel leakage is seen, refer to instructions in scenario 2.

Scenario 2: Engine fuel heater is damaged, or leaking fuel after engine shutdown, but fuel filter module is **not** damaged: Replace existing fuel heater and associated components with engine fuel heater plug kit, Part Number 5579133. The existing fuel heater must be returned to Cummins, see Material Disposition section in the campaign document for information on properly returning parts.

1. Ensure that the fuse is removed, harness is secured, and connector is plugged using PN 5633457, as detailed on pages 4-8.
2. Remove and discard two allen screws securing engine fuel heater to the fuel filter head with a 5mm hex driver. See Figure 13.
3. Pull the engine fuel heater straight out of the fuel filter head. Capture any fuel that may leak from the fuel filter. See Figure 13.



4. Clean face of engine fuel heater port with a lint free cloth and inspect for any sharp edges and/or contaminants. Clean if needed.
5. Lubricate the o-ring on the plug (supplied in kit part number 5579133) with clean diesel fuel and carefully install into the engine fuel heater port, making sure to properly align before installing. See Figure 14.
6. Use the two allen screws supplied to secure the plug to the fuel filter head and tighten to 11 N-m [6.6 ft-lb]. See Figure 14.



Scenario 3: If fuel filter module is damaged

1. Ensure that the fuse is removed, harness is secured, and connector is plugged using PN 5633457, as detailed on pages 4-8.
2. Install new fuel filter module, Part Number 5661486.
 - See B6.7 CM2350 B121B Service Manual, Bulletin 5411223.