Subject: GHG17 DETROIT™ DD13® Software Reprogramming and Emission Label Replacement for Motor Coach Industries, Inc. (MCI®) Revision 1

Models Affected: GHG17 DD13 Engines in MCI® Applications

General Information

Daimler Trucks North America LLC, on behalf of its DETROIT™ Powertrain Division, is initiating Field Service Campaign D20M4 to modify the vehicles mentioned above.

Certain DETROIT™ GHG17 DD13® engines installed in MCI® vehicles will require reprogramming to a minimum of the software versions listed below.

- MCM Software Version 6.8.0.1
- ACM Software Version 7.60.2.0
- CPC Software Version R44_00_000A

All affected units in this campaign will need their emission label replaced. This includes engines with test emission labels AND engines with certified emission labels.

Updated software and certified emission labels became effective with GHG17 DD13® engines manufactured after January 1, 2020. GHG17 DD13® engines manufactured before January 1, 2020, will need the MCM, ACM, and CPC reprogrammed and the emission label replaced.

The updated software includes improvements for the following fault codes.

- SPN: 3216/FMI 16: Selective Catalyst Reduction Inlet NOx Sensor - Drift High (MCM Only)
- SPN: 520371/FMI 16: Selective Catalyst Reduction Closed Loop Control at Maximum Limit (Multiples Sources)
- SPN: 520372/FMI 14: Selective Catalyst Reduction Closed Loop Control at Maximum Limit (Timeout)
- SPN: 520372/FMI 16: Selective Catalyst Reduction Closed Loop Control at Maximum Limit

Depending on the level of the currently installed software, the update may also include improvements for fault codes SPN 1636/FMI 16 and SPN 2659/FMI 0.

There are approximately 630 engines affected by this Field Service Campaign.

Work Instructions

Please refer to the attached work instructions.

Replacement Parts

Replacement parts are now available and can be obtained from the Order Center on DTNA Connect. Refer to **Certified Emission Label Ordering Instructions** on page 15. **All vehicles involved in this campaign will require a replacement emission label.** This includes units currently equipped with test emission labels AND units equipped with certified emission labels.

Important: The Emission Certification Label must be ordered before the customer arrives to avoid unnecessary downtime. Please allow 2 to 3 days for label shipment.

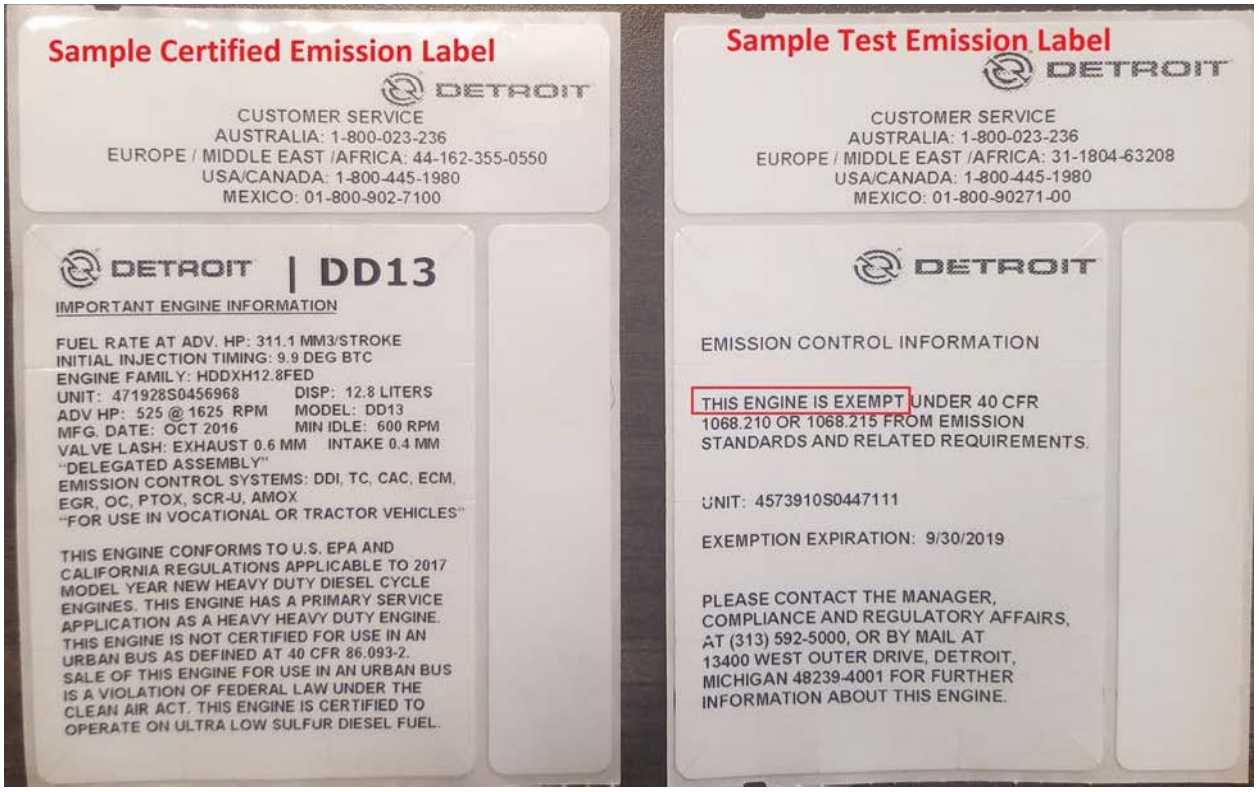


Fig. 1, Sample Emission Labels

Table 1 – Replacement Parts for D20M4

Campaign Number	Part Number	Part Description	Qty per Kit
D20M4	See Page 15 For Ordering Instructions	Certified Emission Label	1

Removed Parts

The emission label is designed to be removed in pieces. After replacement, the removed label must be attached to the certified emission label check sheet. Attach an image of the filled out check sheet, with the removed label, to the warranty claim. Refer to **Work Instructions** for further direction.

Labor Allowance

NOTE: Reference Pages 13-14, "Work Instructions", Step 20. The "Certified Emission Label Check Sheet" MUST BE ATTACHED to the claim in the Online Warranty Link (OWL) System.

Table 2 – Labor Allowance for D20M4

Procedure	Time Allowed (hours)	SRT Number	Corrective Action
D20M4			
No Reprogramming Required, Install Emission Label, Perform Regen **(x2)** and SCR Eff Test(s)	3.0 hours	996-F202A	12-Repair Recall/Campaign
Reprogram MCM/CPC/ACM, Install Emission label, Perform Regen **(x2)** and SCR Eff Test(s)	3.6 Hours	996-F202B	12-Repair Recall/Campaign
No Reprogramming Required With Additional Regen, Install Emission Label, Perform Regen **(x3)** and SCR Eff Test(s)	3.7 hours	996-F202C	12-Repair Recall/Campaign
Reprogram MCM/CPC/ACM With Additional Regen, Install Emission label, Perform Regen **(x3)** and SCR Eff Test(s)	4.3 Hours	996-F202D	12-Repair Recall/Campaign

Claim Reimbursement

NOTE: Reference Pages 13-14, "Work Instructions", Step 20. The "Certified Emission Label Check Sheet" MUST BE ATTACHED to the claim in the Online Warranty Link (OWL) System.

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	**Field Service Campaign**
Campaign **(number with appropriate condition code)**	**D20M4**
Component Code	**044-003-286**
Cause Code	**A1-Campaign**
Primary Failed Part	**DDC REPROGRAM1**
Procedure A[1]	
Use this operation if programming was NOT REQUIRED.	
Labor Number	996-F202A **No Reprogramming Required**, Install Emission Label, Perform Regen (x2) and SCR Eff Test(s)
Labor Hours	3.0 Hours
Part Number	DDC REPROGRAM1
Parts Return	NONE
Procedure B[1]	
Use this operation if programming was REQUIRED.	
Labor Number	996-F202B **Reprogram MCM/CPC/ACM**, Install Emission label, Perform Regen (x2) and SCR Eff Test(s)
Labor Hours	3.6 Hours
Part Number	DDC REPROGRAM1
Parts Return	NONE

Procedure C[1]	
Use this operation if programming was NOT REQUIRED but a third regen was required at step 14.	
Labor Number	996-F202C **No Reprogramming Required** **With Additional Regen**, Install Emission Label, Perform Regen **(x3)** and SCR Eff Test(s)
Labor Hours	3.7 Hours
Part Number	DDC REPROGRAM1
Parts Return	NONE
Procedure D[1]	
Use this operation if programming was REQUIRED and a third regen was required at step 14.	
Labor Number	996-F202D **Reprogram MCM/CPC/ACM** **With Additional Regen**, Install Emission label, Perform Regen **(x3)** and SCR Eff Test(s)
Labor Hours	4.3 Hours
Part Number	DDC REPROGRAM1
Parts Return	NONE
[1] Administrative time (SRT 939-6010A) for 0.3 hours is automatically added to the claim.	

This Field Service Campaign will terminate on **March 13, 2021**. 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, contact the Warranty Campaigns Department via Web inquiry at DTNAConnect.com / WSC, or the Customer Assistance Center at (800) 385-4357. Export distributors submit a Web inquiry or contact your International Service Manager.

Daimler Trucks
North America LLC

Field Service Campaign

March 2020
D20M4 Rev

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

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

Subject: **Field Service Campaign D20M4**

GHG17 DETROIT™ DD13® Software Reprogramming and Emission Label Replacement for Motor Coach Industries, Inc. (MCI®)

Daimler Trucks North America LLC, on behalf of its Detroit Diesel Powertrain Division, is initiating Field Service Campaign D20M4 to modify the vehicles mentioned above.

Certain DETROIT™ GHG17 DD13® engines installed in MCI® vehicles will require reprogramming. All affected units in this campaign will need their emission label replaced. This includes engines with test emission labels AND engines with certified emission labels.

Updated software and certified emission labels became effective with GHG17 DD13® engines manufactured after January 1, 2020. GHG17 DD13® engines manufactured before January 1, 2020, will need the MCM, ACM, and CPC reprogrammed and the emission label replaced.

Records available to us indicate that your vehicle has one of the eligible engines. Instructions for this Field Service Campaign have been sent to your local Detroit Diesel Authorized Repair Facility and the labor time required to perform this campaign is approximately **3.6** hours.

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

You must make an appointment with the repair facility at least two weeks in advance of the actual repair in order for the repair facility to order and receive the certified emission label to complete this Field Service Campaign. Failure to provide advance notification to the repair facility may result in a delayed repair.

This service will be completed for you at no charge, prior to **March 13, 2021**, under the provisions of this notice.

We are sorry to cause you this inconvenience; however, we have taken this action in the interest of your continued satisfaction with our products.

DETROIT WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

Work Instructions

Subject: GHG17 DETROIT™ DD13® Software Reprogramming and Emission Label Replacement for Motor Coach Industries, Inc. (MCI®)

Models Affected: DD13 Engines in MCI® Applications

IMPORTANT: Owners of vehicles have been instructed to contact the dealership in advance to have the Emission Certification Label ordered so it will be available when they arrive for the campaign. See **Certified Emission Label Ordering Instructions** starting on page 15.

Corrective Procedure

1. Apply the parking brake, chock the wheels, and perform any other applicable safety steps.

2. Begin the process by connecting DiagnosticLink® version 8.11 with Service Pack 1 (or higher versions) to the vehicle. Make sure that all the powertrain modules (ACM, CPC, and MCM) are connected.

NOTICE:
BEFORE you begin reprogramming, make sure the VIN is correct in all modules (ACM, CPC, and MCM). If the VIN is not correct in all modules, you will get an error message when attempting to reprogram.

3. Make sure the VIN is correct in all modules (ACM, CPC, and MCM) by looking at the "Identification" screen in DiagnosticLink®. If the VIN is not correct in all modules, you can correct the VIN under the Actions drop-down menu in DiagnosticLink® by selecting the "Check VIN Synchronization" item. Select "Start" from this panel and follow the prompts. You will be prompted to cycle the key until the routine has completed. When synchronization is complete, turn the key back on and continue with the download process.

4. On the Identification screen, check the current MCM, ACM and CPC software versions. Listed below are the **MINIMUM** software versions. See Figure 2 for an example of the Identification screen.

- **a.** MCM Software Version 6.8.0.1
- **b.** ACM Software Version 7.60.2.0
- **c.** CPC Software Version R44_00_000A

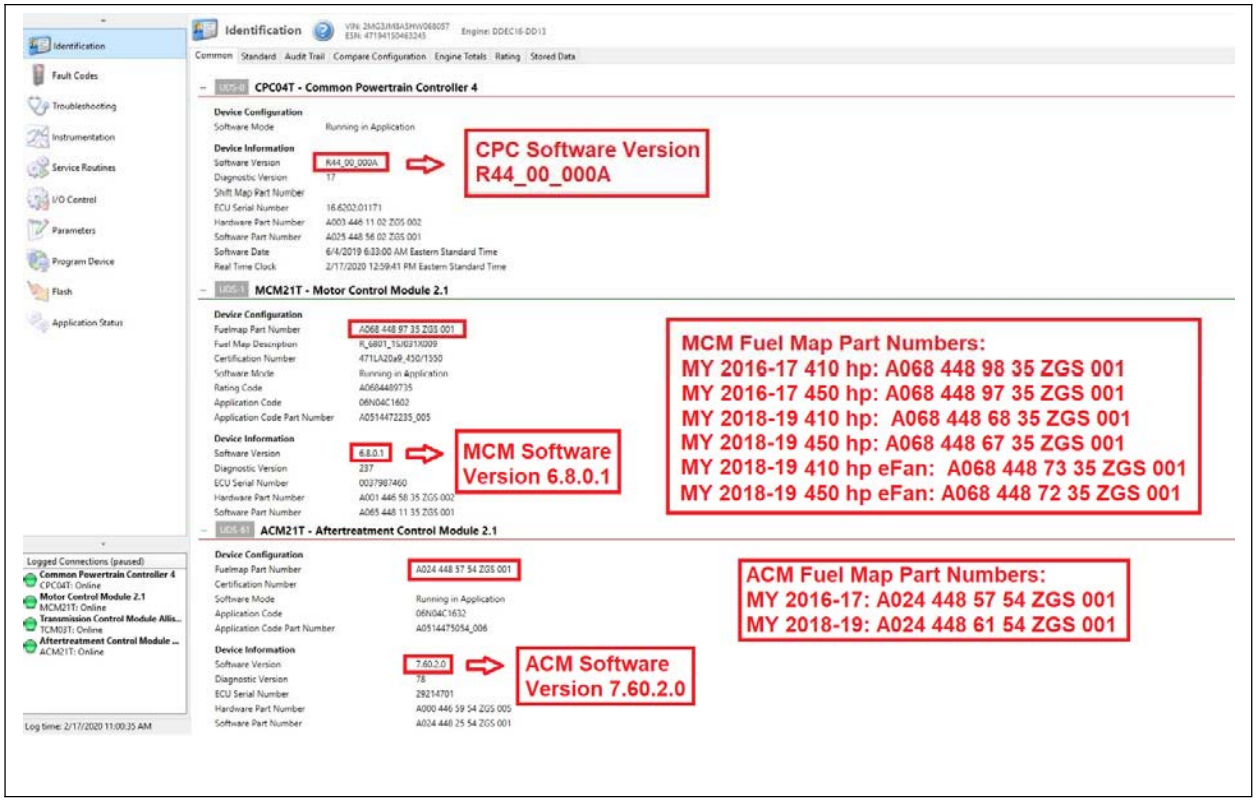


Fig. 2, DiagnosticLink® Identification Screen (CPC/MCM)

5. Are the **software levels** for **ALL** powertrain modules equal to or higher than the minimum software levels listed in step 4? All powertrain modules must meet the **MINIMUM** requirements.

a) If less than the minimum software levels, proceed to step 6.
b) If greater than or equal to the minimum software levels, proceed to step 11.

6. Select the “Program Device” option along the left side of the DiagnosticLink® screen.

7. Select the “Add” button in the upper right corner of the DiagnosticLink® screen and enter the engine serial number. Then click the “Connect to Server” button in the bottom right corner of the DiagnosticLink® screen. See Figure 3.

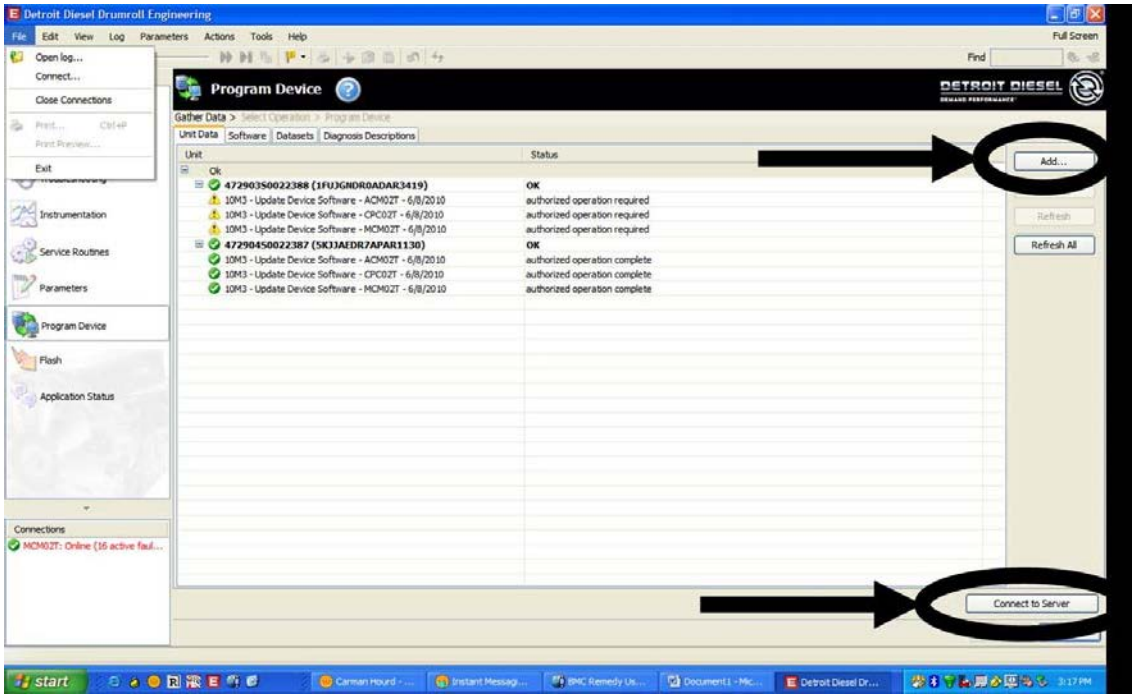


Fig. 3, Adding Engine Serial Number and Connecting to Server

8. Select “Next” after connecting to the server.

9. **Update Device Software** on all modules that need programming to meet the **MINIMUM** software levels listed in step 4.

10. When programming is complete, click the “Finish” button and perform the following to allow the modules to synchronize with each other:

a) Turn the vehicle ignition OFF, disconnect the USB Link at either the computer port or vehicle diagnostic port, and wait one minute.
b) Turn the vehicle ignition ON and wait one minute.
c) Turn the vehicle ignition OFF and wait one minute.
d) Turn the vehicle ignition ON and wait one minute.
e) Reconnect the USB Link, reconnect DiagnosticLink® to the MCM, ACM, CPC, and confirm the proper software levels.

11. Update the server by navigating to the Program Device tab and clicking the “Connect to Server” button in the bottom right corner of the DiagnosticLink® screen.

NOTE: SPN 3361/FMI 5 and/or SPN 4334/FMI 4 may set when the DEF dosing valve electrical connector is disconnected. The fault code can be cleared using DiagnosticLink after the DEF dosing valve electrical connector is reconnected.

12. Disconnect the DEF dosing unit electrical connector.

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

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:
HOT EXHAUST
During parked regeneration the exhaust gases will be extremely HOT and could cause a fire if directed at combustible materials. The vehicle must be parked outside.

13. With the dosing unit disconnected, start the engine and perform a parked regeneration. Let the parked regeneration complete.

14. Leave the dosing unit disconnected. Perform an additional parked regeneration monitoring DPF outlet temperature and NOx conversion efficiency. Once DPF outlet temperature reaches 520°C (968°F), verify that NOx conversion efficiency is less than 0.12 (12%). Allow the parked regeneration to complete.

a. If NOx conversion efficiency is less than 0.12 (12%), continue to step 15.
b. If NOx conversion efficiency is greater than 0.12 (12%) there may still be DEF deposits inside the ATS. Leave the DEF dosing unit disconnected and repeat step 14.

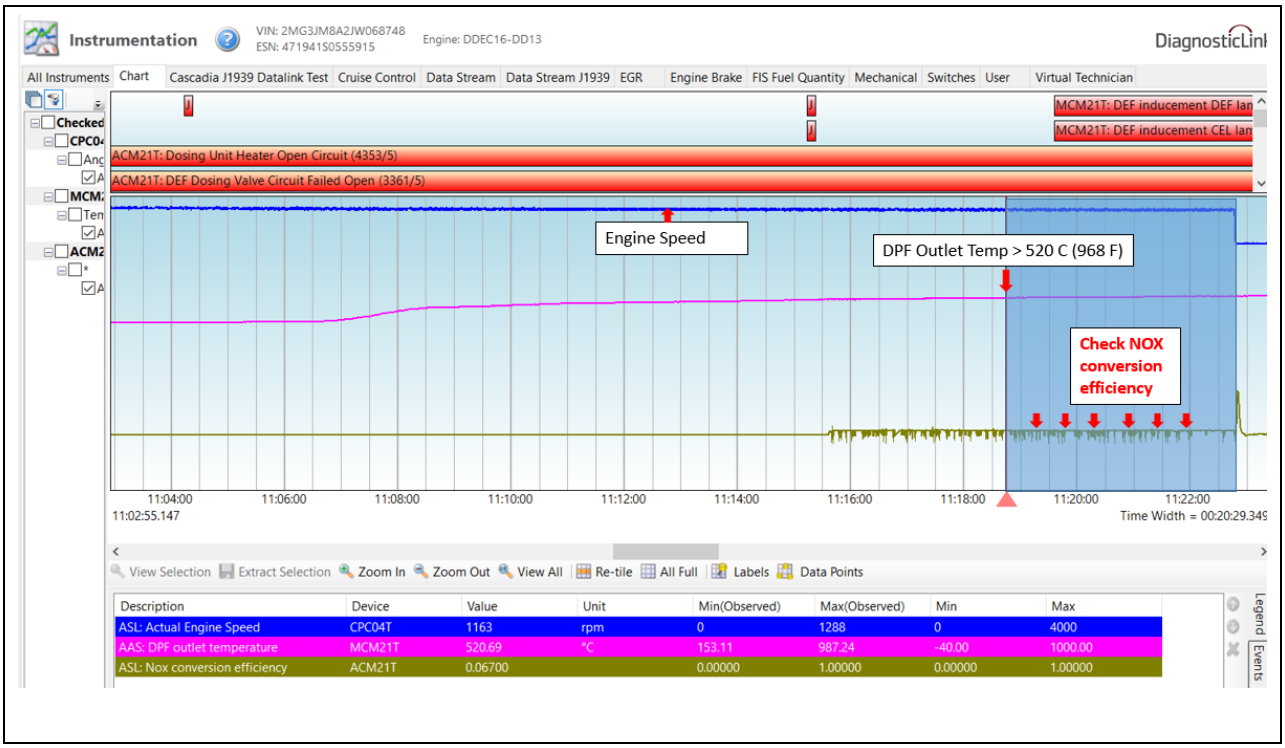


Fig. 4, Parked Regeneration with DEF dosing unit disconnected

Note: NOx conversion efficiency will read 0.02550 until both NOx sensors are online. This is a default value that should not be used for this step.

15. Once the parked regeneration has completed, turn the ignition OFF for five minutes to allow the modules to disconnect.

16. Reconnect the DEF dosing unit electrical connector.

17. Turn the ignition ON and start the engine.

18. Perform an SCR Efficiency Test and monitor **ASL: NH3 LARMF compensation factor.** See figure 5. Does **ASL: NH3 LARMF compensation factor** reach 1.00 by the end of the test?

a) Yes; Go to step 19.

b) No; **ASL: NH3 LARMF compensation factor** should gradually increase during the SCR Efficiency Test. If it does not reach 1.00 by the end of the test, **repeat step 18.**

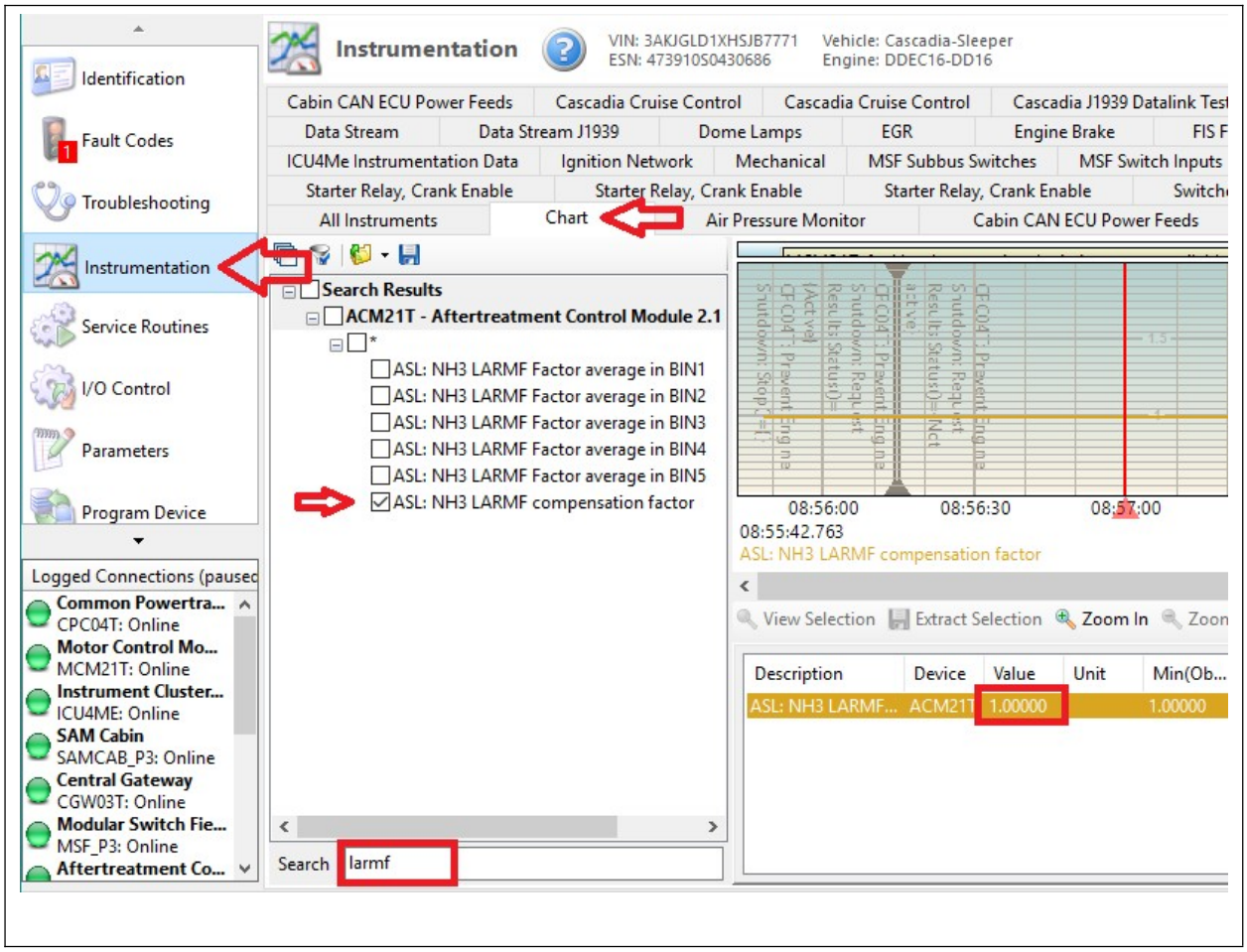


Fig. 5, ASL: NH3 LARMF compensation factor

Important: ALL units in the campaign require label replacement. That includes units with test emission labels and units with certified emission labels. See figure 6 for sample emission labels.

19. Remove and replace the emission label from the engine rocker cover based on the engine serial number listing included with this Field Service Campaign. Note that the old label is designed to come off in pieces during removal from the engine.

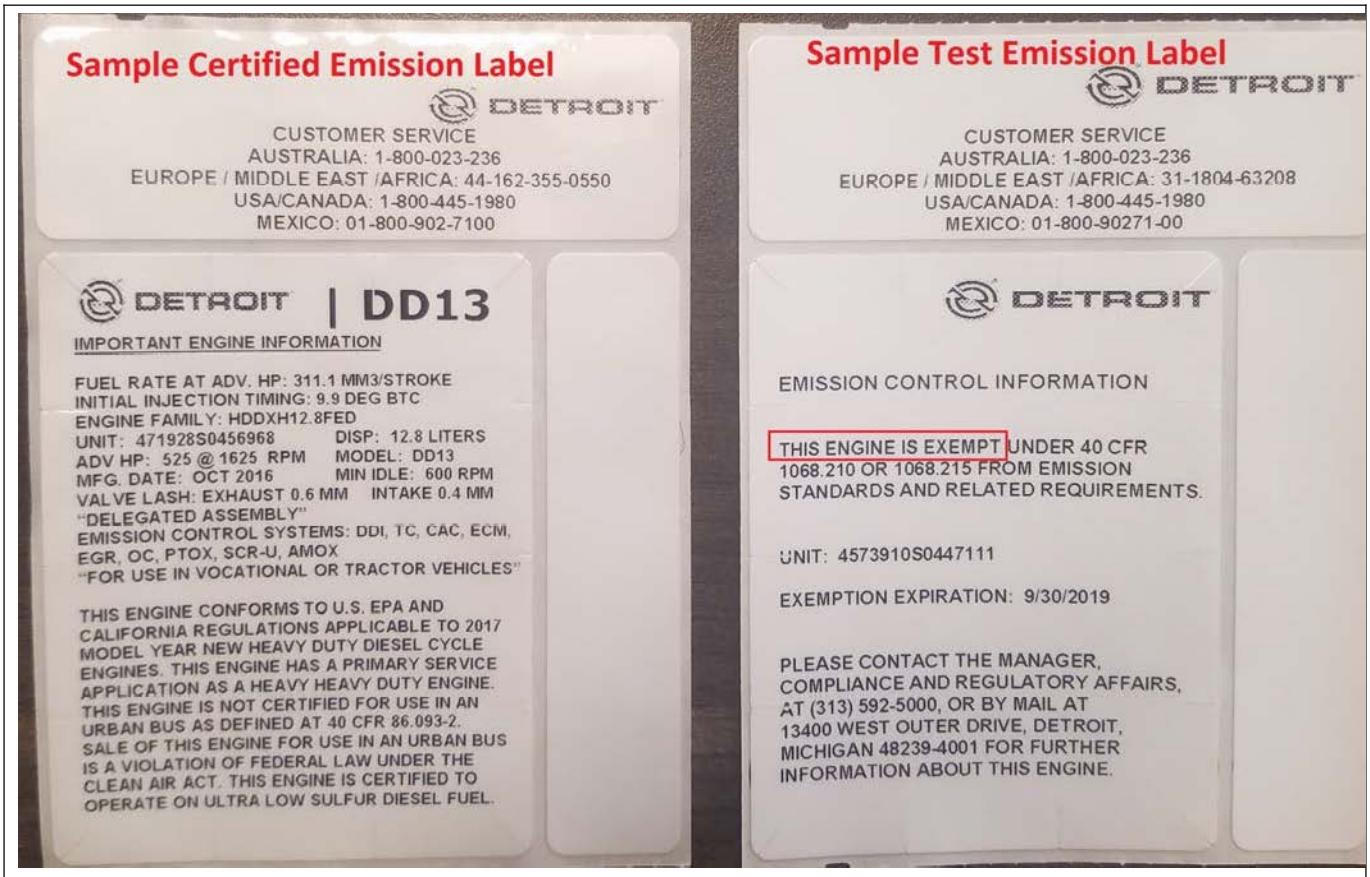
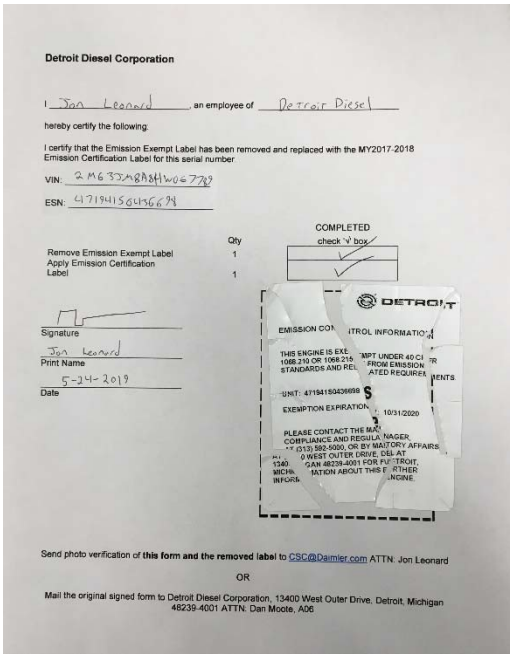


Fig. 6, Sample Emission Labels

20. Fill out the attached **Certified Emission Label Check Sheet** and attach the pieces of the old label to the check sheet. For verification, **attach an image of the form with the removed label to the claim in OWL.** See figure 7.



Detroit Diesel Corporation

I Jon Leonard, an employee of Detroit Diesel

hereby certify the following:

I certify that the Emission Exempt Label has been removed and replaced with the MY2017-2018 Emission Certification Label for this serial number

VIN: 2M633M8A8HW067782

ESN: 47194156456678

	Qty	COMPLETED check √ box
Remove Emission Exempt Label	1	√
Apply Emission Certification Label	1	√

Signature

Jon Leonard
Print Name

5-24-2019
Date

DETROIT

EMISSION CON ITROL INFORMATION

THIS ENGINE IS EXE APT UNDER 40 C FROM EMISSION STANDARDS AND REL ATED REQUIRE MENTS

UNIT: 47194156456678

EXEMPTION EXPIRATION: 10/31/2020

PLEASE CONTACT THE MA COMPLIANCE AND REGULA NAGER, (313) 592-5000, OR BY MAI TORY AFFAIRS, 0 WEST OUTER DRIVE, DSL-AT DAN 48239-4001 FOR FU TROIT, MATION ABOUT THIS F RTHER NGINE.

Send photo verification of **this form and the removed label** to CSC@Daimler.com ATTN: Jon Leonard

OR

Mail the original signed form to Detroit Diesel Corporation, 13400 West Outer Drive, Detroit, Michigan 48239-4001 ATTN: Dan Moote, A06

Fig. 7, Certified Emission Label Check Sheet

21. Repairs are complete.

Certified Emission Label Check Sheet

Detroit Diesel Corporation

I_____, an employee of _____

hereby certify the following:

I certify that the Emission Label has been removed and replaced with a new Certified Emission Label for this serial number.

VIN: _____

ESN: _____

	Qty	COMPLETED check '√' box
Remove Emission Label	1	
Apply New Certified Emission Label	1	

_____
Signature

_____
Print Name

_____
Date

Attach pieces of old label here:

Attach image verification of the form and the removed label to the claim in Online Warranty Literature (OWL).

Certified Emission Label Ordering Instructions

1. Navigate to the Order Center on DTNA Connect. See Figures 8 and 9 below.
   Order Center - Clean Idle

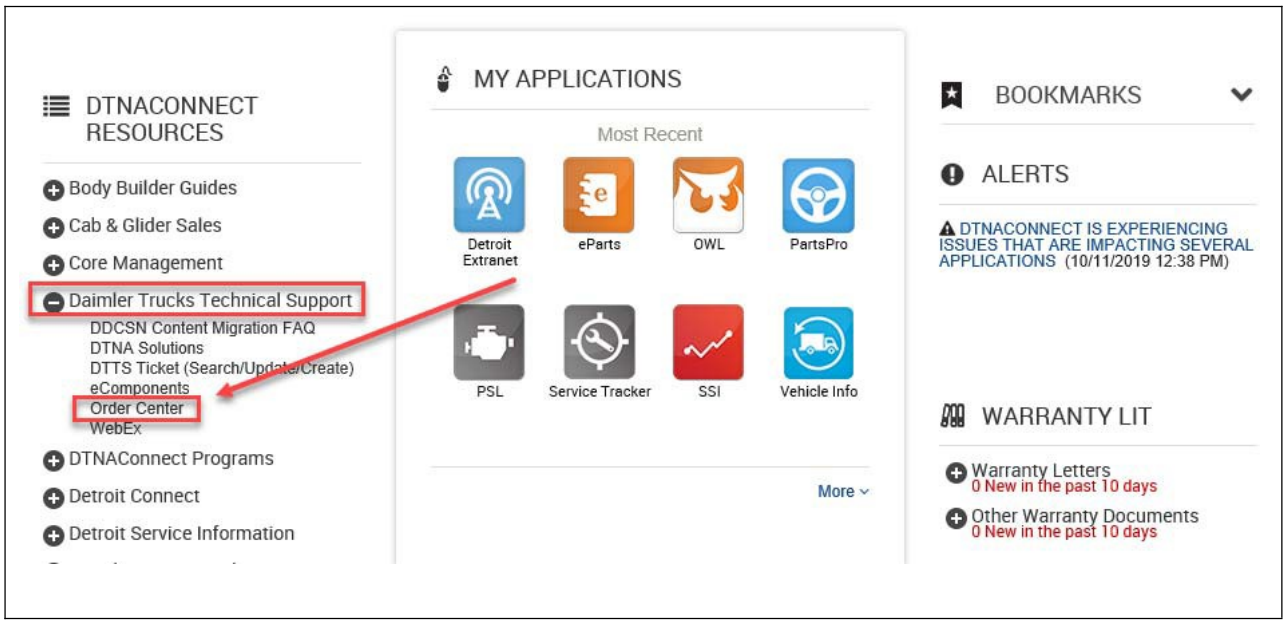


Fig. 8, DTNA Connect

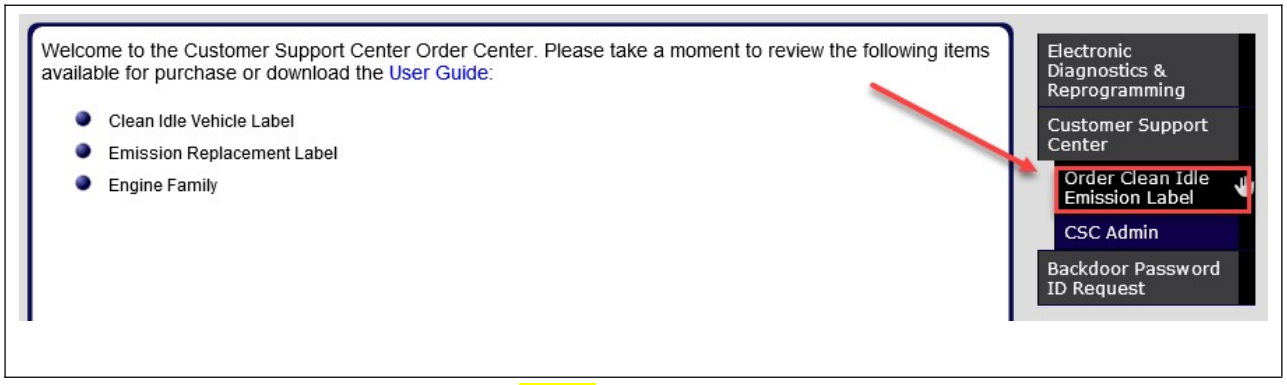


Fig. 9, Order Center

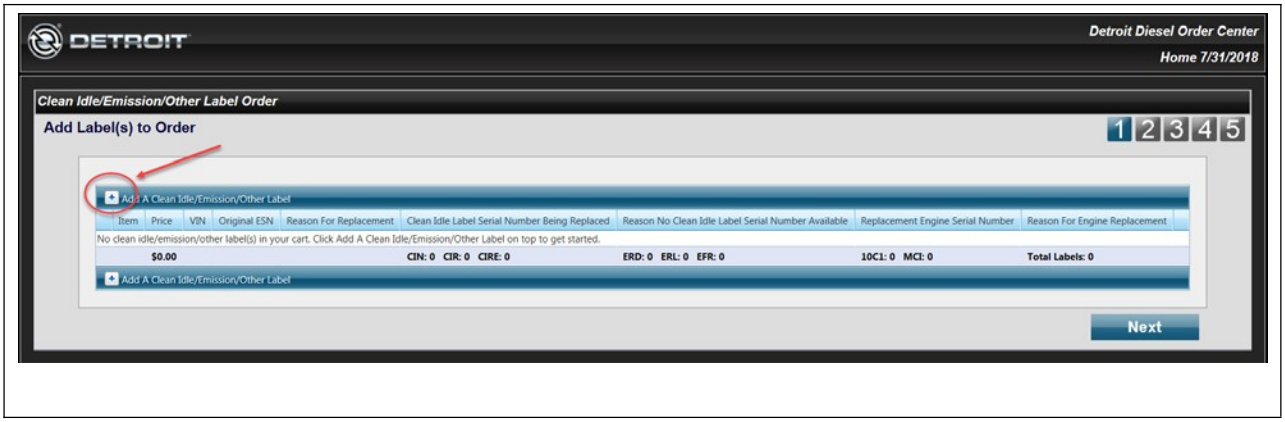


Fig. 10, Emission Label Ordering Process

2. Click the “+” icon next to “Add a Clean Idle / Emission / Other Label.” See Figure 10.
3. Use the item drop-down menu and select “D20M4 Campaign Label.” See Figure 11.

NOTE: The price for the D20M4 Campaign Label should be $0.00.

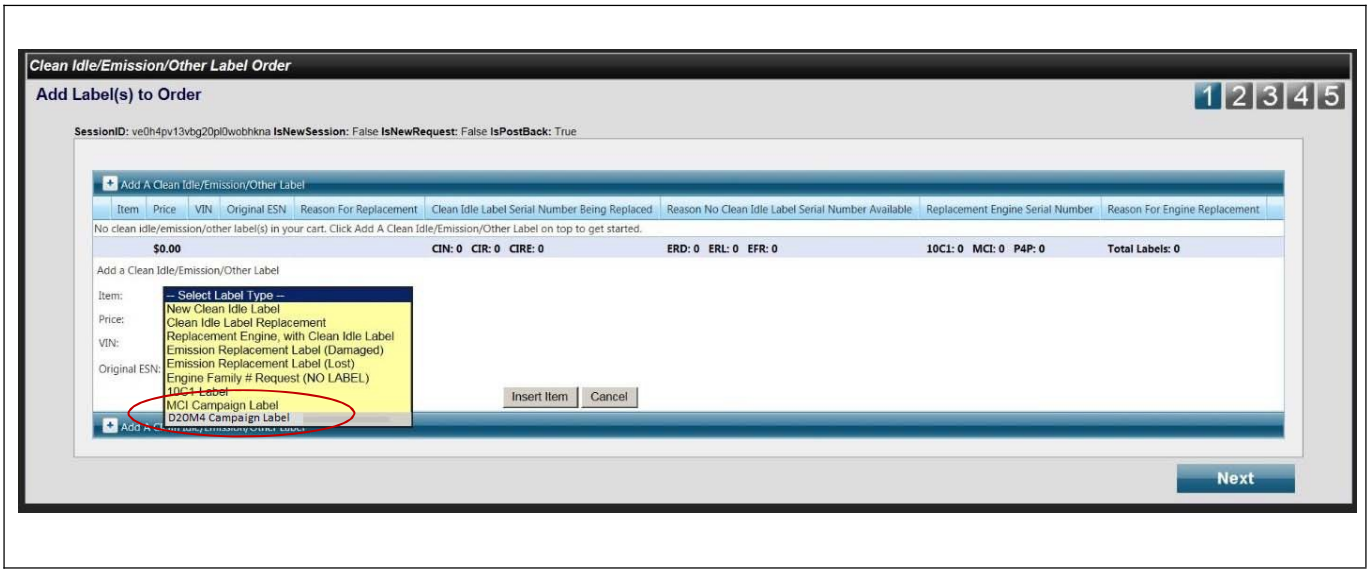


Fig. 11, Emission Label Ordering Process

4. Complete the “VIN” and “Original ESN” fields and select “Insert Item.” See Figure 12.

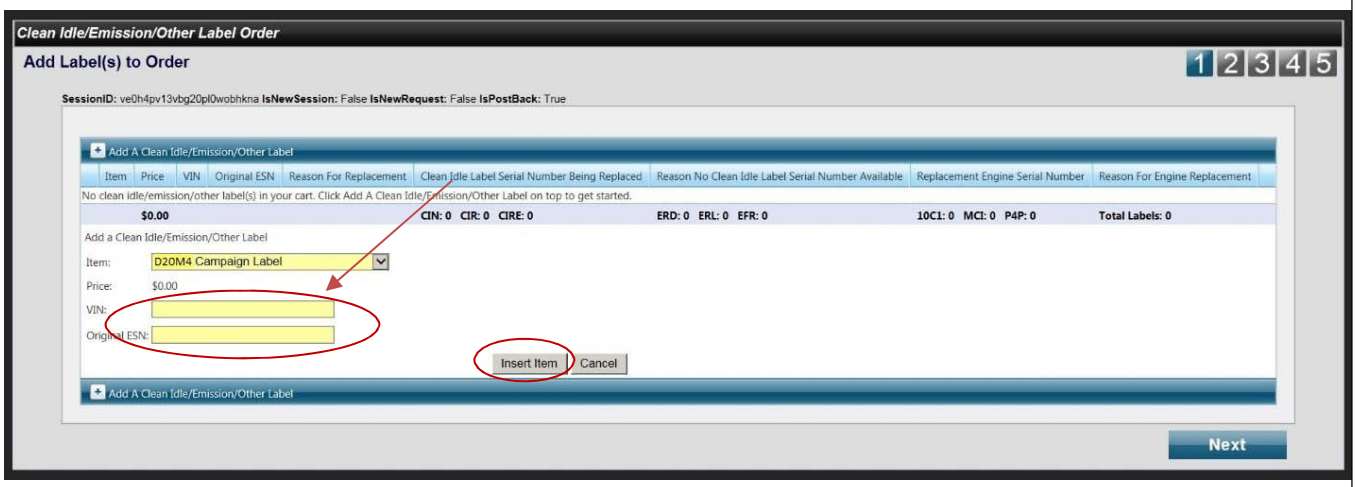


Fig. 12, Emission Label Ordering Process

5. Click “Next” to complete the ordering process. Once your request is submitted in the Order Center, you will receive an email confirmation. Submitting follow-up requests will create duplicate cases. Please call the DETROIT™ Customer Support Center CSC at 800-445-1980 or email csc@daimler.com if you need to follow-up.