



Service Bulletin

File in Section: 06 - Engine

Bulletin No.: 12-06-04-002C

Date: September, 2014

INFORMATION

Subject: Information on Exhaust Fluid Range, Exhaust Fluid Quality Poor, Service Exhaust Fluid System or Service Emission System Driver Information Center Messages

Models: 2010-2015 Chevrolet Express, Silverado
2010-2015 GMC Savana, Sierra
Equipped with 6.6L Duramax™ Diesel Engine (RPO LGH and LML)

Attention: This bulletin also applies to any of the above models that may be Israel export vehicles.

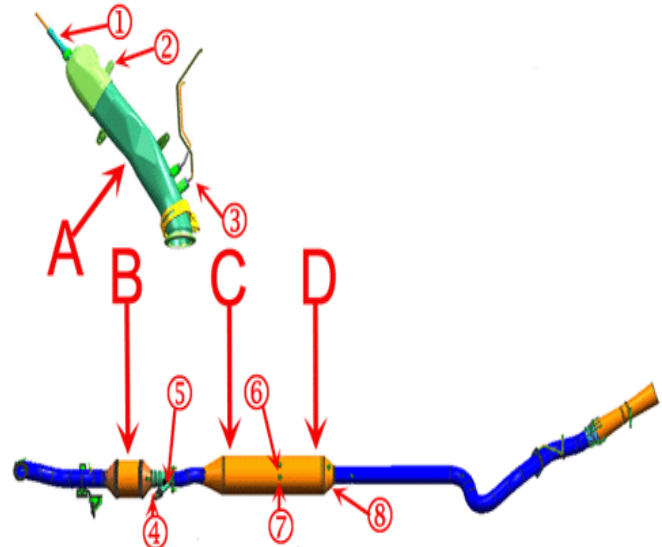
This bulletin has been revised to add the 2015 model year and information. Please discard Corporate Bulletin Number 12-06-04-002B.

The following diagnosis might be helpful if the vehicle exhibits the symptom(s) described in this bulletin.

A dealer may encounter customer concerns of the driver information center (DIC) showing messages of exhaust fluid range, exhaust fluid quality poor, service exhaust fluid system or service emission system. The message may have originally illuminated as a result of diesel exhaust fluid related DTCs, including but not limited to, P207F, P20EE, P2BAD, P249D, P249E or P202E. In some cases, the technician may have actually repaired the root cause of the DTC that originally illuminated the message but if the correct reset procedure is not followed, the message may remain on even though no DTCs are resetting. As a result, the information below may be helpful in determining why the message is on when no DTCs are resetting.

General information and helpful guidelines to use when diagnosing and repairing diesel exhaust fluid related DIC warnings and messages.

Common exhaust system component location and identification:



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Legend

- (A) Turbocharger Downpipe
- (1) NOX sensor number 1
- (2) Exhaust Gas Temperature (EGT) sensor 1
- (3) Hydrocarbon (HC) injector
- (B) Diesel Oxidation Catalyst (DOC)
- (4) Exhaust Gas Temperature (EGT) sensor 2
- (5) Diesel Exhaust Fluid (DEF) Reductant injector
- (C) Selective Catalytic Reduction (SCR)

- (6) NOX sensor number 2
- (7) Exhaust Gas Temperature (EGT) sensor 3
- (D) Diesel Particulate Filter (DPF)
- (8) Exhaust Gas Temperature (EGT) sensor 4

2011 Diesel Exhaust Fluid (DEF) DIC

Messages:

Service Exhaust Fluid System (Tamper): This message displays when a DTC sets related to the DEF system that is interpreted as tampering with the system. A detailed warning strategy is explained in SI Document 2410875.

Exhaust Fluid Quality Poor: This message displays when the exhaust fluid is of poor quality or DEF related hardware reflects poor quality. A DTC may be set. A detailed warning strategy is explained in SI Document 2410872.

Exhaust Fluid Range X MI (KM): This message displays when the DEF tank has 1,000 miles (1,609 km) or less range remaining. A DTC will not be set. The DEF mileage countdown may not match the actual mileage the vehicle is traveling. A detailed warning strategy is explained in SI Document 2410869.

If a combination of the above conditions exists simultaneously on a vehicle, the order of repair must be followed by using the DIC as the guide to what needs to be fixed first. The DIC will always display the correct order of repair. For example, if a tamper condition and a poor quality condition exist together, the DIC will display "Service Exhaust Fluid System" until the tamper condition is corrected. It will then display "Exhaust Fluid Quality Poor," which will need to be corrected next.

2012-2015 Diesel Exhaust Fluid (DEF) DIC

Messages:

Service Exhaust Fluid System (Tamper): This message displays when a DTC sets related to the DEF system that is interpreted as tampering with the system. A detailed warning strategy is explained in SI Document 2595030.

Exhaust Fluid Quality Poor: This message displays when the exhaust fluid is of poor quality or DEF related hardware reflects poor quality. A DTC may be set. A detailed warning strategy is explained in SI Document 2595024.

Service Emission System (Not-Tamper): This message displays when a DTC sets related to the DEF system that is interpreted as an Emission Control fault. A detailed warning strategy is explained in SI Document 2595096.

Exhaust Fluid Range X MI (KM): This message displays when the DEF tank has 1,000 miles (1,609 km) or less range remaining. The DEF mileage countdown may not match the actual mileage the vehicle is traveling. A detailed warning strategy is explained in SI Document 2595014.

If a combination of the above conditions exists simultaneously on a vehicle, the order of repair must be followed by using the DIC as the guide to what needs to be fixed first. The DIC will always display the correct

order of repair. For example, if a tamper condition and a poor quality condition exist together, the DIC will display "Service Exhaust Fluid System" until the tamper condition is corrected. It will then display "Exhaust Fluid Quality Poor," which will need to be corrected next.

Do not forget to check the obvious such as:

- Look for Aftermarket Air Cleaner
- Look at ALER – Refer to the latest version of PIP4932: Duramax Diesel Airflow Leak Equivalency Ratio and P0101
- Look at Calibration – Refer to the latest version of Bulletin 08-06-04-006
- Look for Exhaust Leak – Downpipe to Cat, Cracked Downpipe
- Look for Charge Air Cooler System leaks
- Check the DEF Fluid (check for contamination, water dilution, etc.)

If any of the codes listed below are present, all of the codes in the same group or "bucket" must run and pass before the Reductant Fluid Quality Test (RFQT) or Reductant System Malfunction Warning Test will run and pass to turn off the Service Exhaust Fluid System message or the Service Emission System message. All codes must be repaired before P207F, P20EE, and P2BAD. Follow the SI procedure, model year specific, to correct P207F, P20EE and P2BAD. The DIC messages will be turned off during the steps embedded in the applicable Service Information document.

2011

Tamper

Group 1: P203D, P2047, P208A, P21AB, P21B0, P2200, P2205, P229E, P22A3, U010E, U029D, U029E, P204C, P205C

Group 2: P204F, P202E

Group 3: P20B9, P20BD, P20C1

Group 4: P242D, P2033, P2047, P208A, P20A0

2012

Not Tamper

Group 1: P20BC, P20C0, P20C4, P1048, P1049, P2032, P203C, P203D, P2048, P2049, P204C, P204D, P208A, P208B, P208D, P20A1, P21AA, P21AB, P21AF, P21B0, P2200, P2205, P229E, P22A3, P242C, PC10E, P1043, P20E8, P20E9, P204B, P20A0, P20A3, P20A2, P205C

Tamper Group 2: P204F, P202E

Tamper Group 3: PC29D, PC29E, P242D, P2033, P2047

Tamper Group 4: P20B9, P20BB, P20BD, P20BF, P20C1, P20C3

2013-2015

Tamper

Bucket 1: P204F, P202E

Bucket 2: PC29D, PC29E, P2047, P242D, P2033

Bucket 3: P20B9, P20BB, P20BD, P20BF, P20C1, P20C3

Not Tamper

Bucket 1: P1043, P1048, P1049, P2032, P203C, P203D, P2048, P204C, P204D, P205C, P208A, P208D, P20A0, P20A2, P20A3, P20BC, P20C0, P20C4, P20E9, P21AA, P21AB, P21AF, P21B0, P242C, PC10E

Bucket 2: P204B

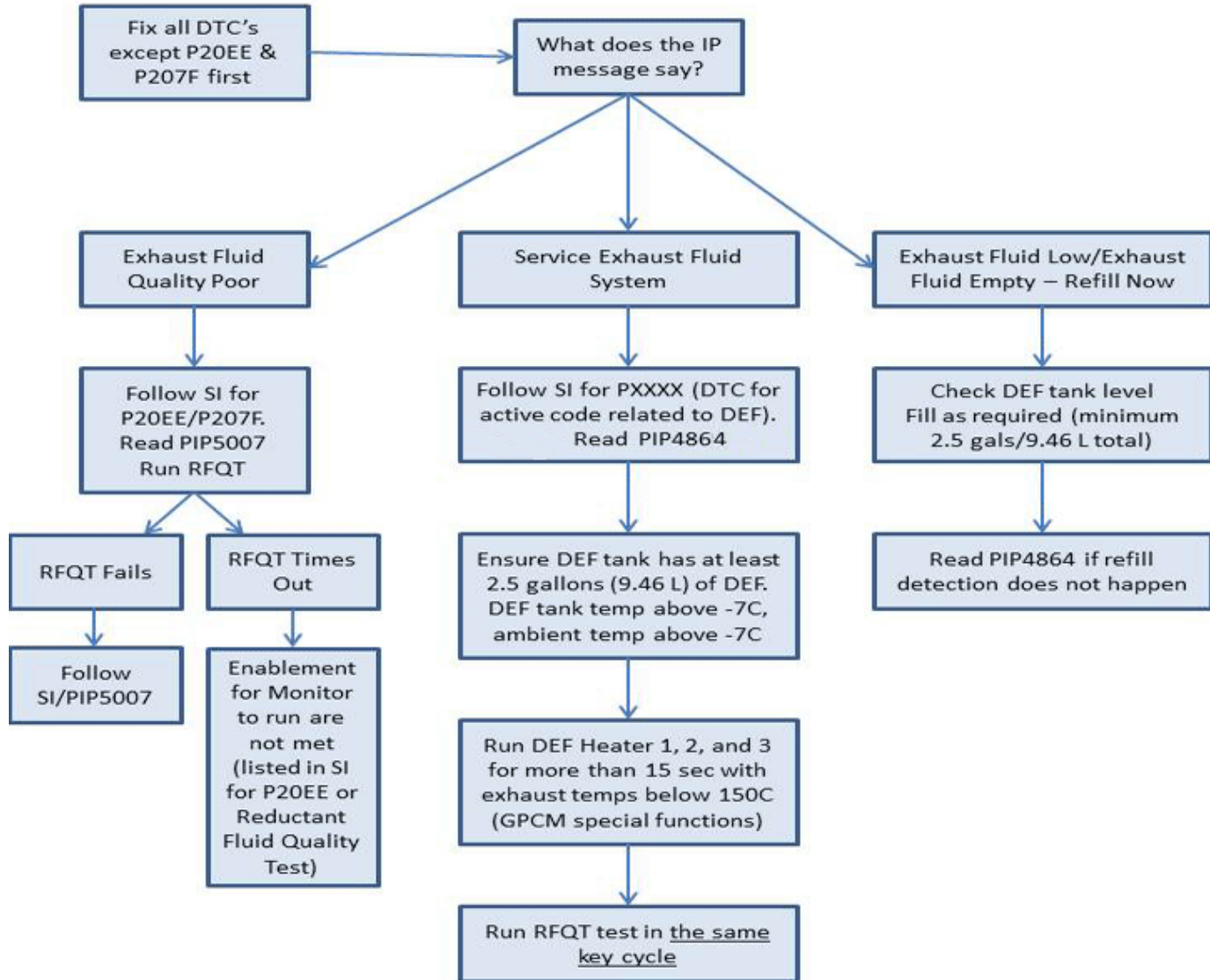
Bucket 3: P2049, P20E8, P20E9, P2200, P2205, P229E, P22A3

Bucket 4: P208B

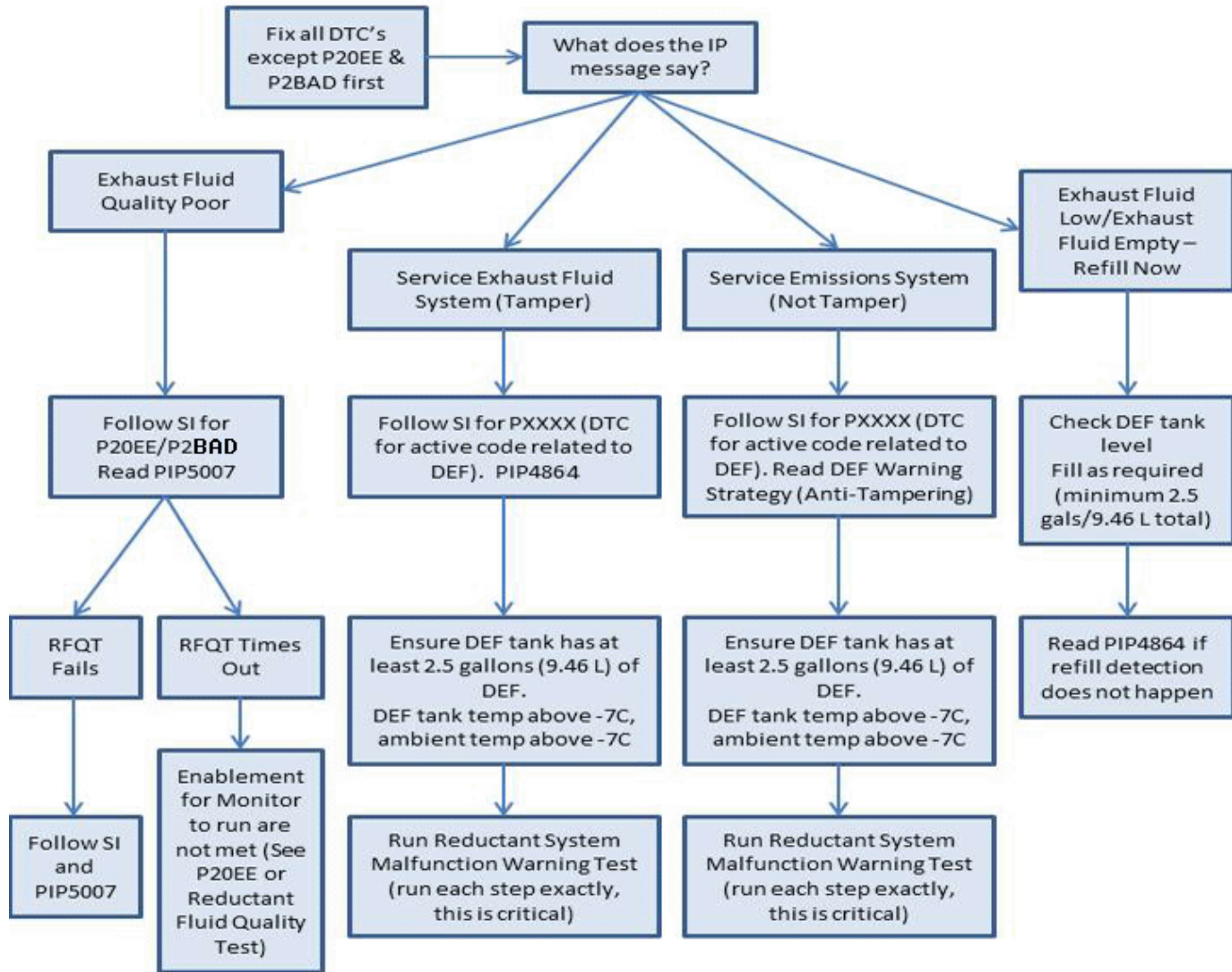
Bucket 5: P20A1

The following charts may be helpful in turning off DIC messages.

2011 DIC Chart



2012-2015 DIC Chart



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Warranty Information

For vehicles repaired under warranty, use the published Labor Operation for the actual cause and use straight time for diagnosis.

