NA_MACK_Vehicle_Range

NA_MACK_Vehicle_Range	LR , LEU , MRU , CHU , CXU , GU , TD

Engine family

Engine family	MP7 , MP8 , MP10

Emission Standard

Emission Standard	US17 GHG , US16 , US15 , US13 OBD , US14 GHG

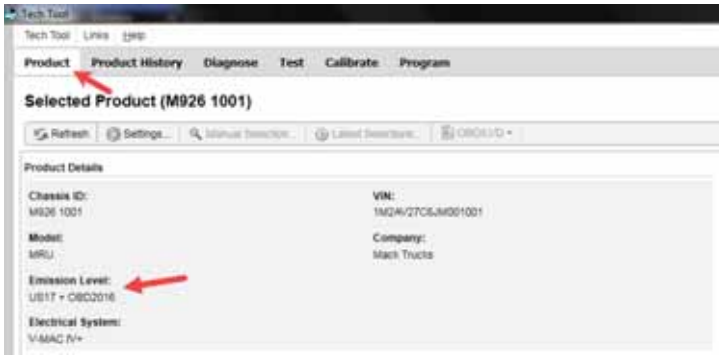
** SOLUTION **

Title (customer effect)	Mack Chassis - Diagnostic Trouble Codes (DTC) P208E And P103B Logging With Possible Derate (SCR Inducement) - US14+OBD13, US14+OBD15, US14+OBD16 Emissions And Newer, Commonly Model Years 2015 And Newer
Cause	P208E and or P103B may be generated due to the intermittent, temporary clogging of the Diesel Exhaust Fluid (DEF) dosing valve, normally at startup.
Solution	- **DO NOT RUN A SERVICE REGENERATION OR CRYSTAL SUBLIMATION TO EXIT INDUCEMENT FOR THESE CODES.** - **IF THE CHASSIS CAME IN WITH DERATE WARNINGS ACTIVE,** Proceed to section two **Prior To Programming.**

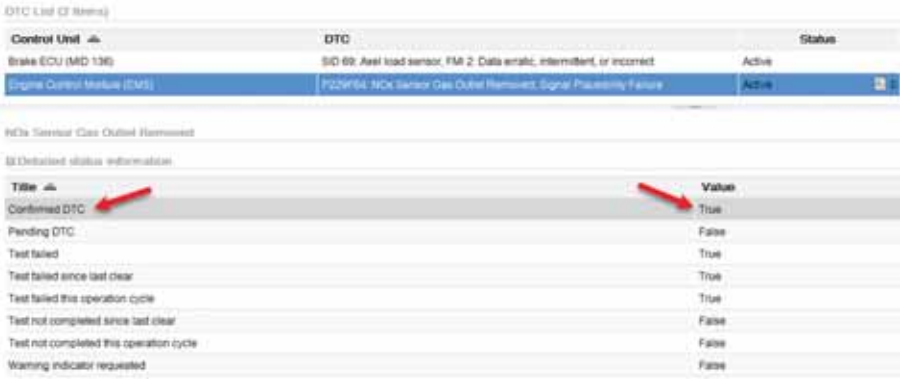
I. Software Levels

Verify the chassis emissions level

- Details can be found in the Product Details box on the Product tab in PTT as seen below:



Review the Detailed Status Information for the relevant code on the DTC Readout.



For US14+OBD13

- Refer to FSB 284-066 Engine Control Module (ECM) and Aftertreatment Control Module (ACM), Reprogramming.
  - This bulletin is current as of 17 April 2018.

For US14+OBD15:

- Software improvements have been released to address this code. Refer to the table below:

Action Required		
ECM	**Main Software**	**Action Required**
MP7 / MP8	Equal or Less Than 22741784	Update to Latest Software
MP10	Equal or Less Than 22644017	Update to Latest Software
ACM	**Main Software**	**Action Required**
MP7 / MP8 / MP10	Equal or Less Than 22741796	Update to Latest Software

For US14+OBD16

- Refer to FSB 284-065 Engine Control Module (ECM) and Aftertreatment Control Module (ACM), Reprogramming.
  - This bulletin is current as of 17 April 2018.

For All US17+OBD*

- Verify software levels are current. Update if they are not. Note that per FSB284-067, the software released for GHG17 vehicles **did not address these codes**.
- Proceed to Section II.

If software shows to be current, ensure the Confirmed DTC status is True as shown above, then proceed with diagnostics below.

II. System Tests

Premium Tech Tool (PTT) Operation number 2589-08-03-05 Aftertreatment selective catalytic reduction (SCR) system, found under Function Group 2 in the Test tab should be utilized to diagnose the problem and exit inducement in the order listed below:

1. Test A: System Pressure Build Up

- This test confirms that the DEF pump builds pressure as expected (this test can be skipped if other tests will also be performed).
- **IF PRESSURE IS NOT BUILT, DO NOT REPLACE DEF PUMP.** Follow the instructions below:
    1. Start the truck and allow it to run for 10 minutes.
    2. Shut off the truck.
    3. Rerun the test.

2. Test B: Dosing Test

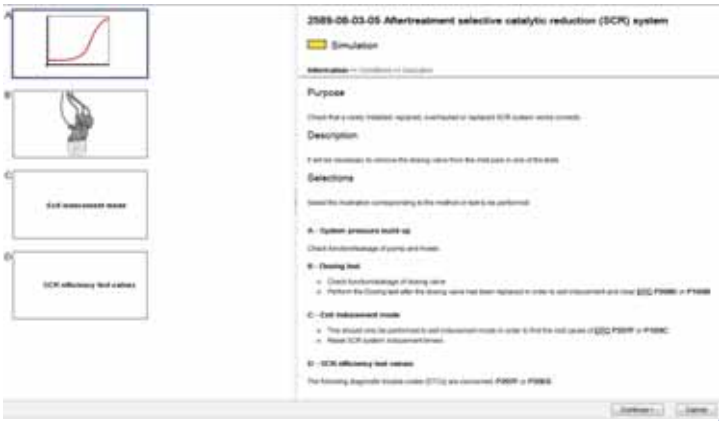
- A graduated cylinder or other appropriate container with measurement accurate within 2 milliliters (cubic centimeters) should be used to measure dosing test results.

1. Sub-Test 2, Small dosing test - 120 seconds at 25% dosing
2. Sub-Test 3, Large dosing test - 120 seconds at 100% dosing
3. Sub-Test 4, Dosing Test, Exit inducement mode - This will clear any inducement (derate) condition caused by P208E or P103B.

3. Test C: Exit Inducement Mode

- Test B, sub-test 4 mentioned in the previous section runs the diagnostic monitor on the dosing valve and verifies it is operating correctly. Test C will reset any inducement (derate) timers present.

- This test should be run as the last step before releasing vehicle back to the customer so that if the problem is not completely fixed, the driver will still have 4 hours to reach a service location before the vehicle begins going into severe derate.



Internal comments (BO) Do not recommend EECU /ACM replacements for this issue.

	Recommend GD along with this CBR. If the truck has been in multiple times for this issue, recommend thorough inspection for any clog/electrical issues.
Campaign code	FSB284-065, FSB284-066
Solution visibility	Dealer distribution

Function(s)/component(s) affected

Function affected	DEF Dosing , SCR , 1 1 0 EMS , 2 1 0 ACM , Diagnostic tool

Function Group

Function Group	254 catalytic converter; exhaust emission control equipment , 2584 Dosage Valve; Injector , 284 control system, fuel supply

Customer effect

Main customer effect	regeneration , calibration/programming/pairing/missing operation , diagnostics /methodology , efficiency/abnormal behavior , fault code/display
Fluid implicated	AdBlue
Lights/Messages on information display	 Driver's information warning pictogram

Fault code(s)

OBD 2013 Diagnostic Trouble Codes	P103B , P208E

Conditions

Vehicle operating mode	when driving , when stationary
Frequency of occurrence of problem	random

Administration

Author	RU4469V
Dealer ID	RU4469V
Last modified by	RU4469V
Creation date	20-04-2018 15:04
Date of last update	23-04-2018 19:04
Review date	15-02-2019 00:02
Status	Published