Technical Service Bulletin Number
TSB170025

Technical Service Bulletin

Subject

Reading Natural Gas Fuel Pressures in INSITE™ Electronic Service Tool

Warranty Statement

The information in this document has no effect on present warranty coverage or repair practices, nor does it authorize TRP or Campaign actions.

Contents

Product Affected

- ISB6.7 G CM2180 B118
- ISL G CM2180
- ISX12 G CM2180 EJ

Issue

Inconsistent and vague fuel pressure units in INSITE™ electronic service tool are leading to unnecessary replacement of fuel system components.

Verification

- Open INSITE™ electronic service tool and connect to engine control module (ECM).
- Under “Data Monitor/Logger” tab, check units listed for “Fuel Regulator Intake Pressure”, “Fuel Regulator Outlet Pressure”, and “Barometric Air Pressure” parameters.
- If units are **not** consistent, errors can occur during fuel system troubleshooting. Related fault codes include 2568, 2722, 2723, 2724, 2725, and 2991.

Resolution

- 1 psi is equal to 2 in-hg of pressure. To convert INSITE™ electronic service tool default units:
  - psi to in-hg: multiply value by 2.
  - in-hg to psi: divide value by 2.
- All units in INSITE™ electronic service tool are in absolute pressure. To compare to mechanical gauge, subtract local atmospheric pressure.
- Local atmospheric pressure value can be found online or, if no additional fault codes are present, from “Barometric Air Pressure” parameter in INSITE™ electronic service tool.
- Default INSITE™ electronic service tool fuel and atmospheric pressure units can be found in Table 1.

Table 1, Default INSITE™ Electronic Service Tool Parameter Units	
Fuel Regulator Intake Pressure	in-hg (Absolute)
Fuel Regulator Outlet Pressure	psi (Absolute)
Barometric Air Pressure	in-hg (Absolute)

- Take following steps to make all fuel and atmospheric pressure units in INSITE™ electronic service tool consistent:
  1. Open INSITE™ electronic service tool
  2. Select “Tools” drop down menu from toolbar at top of screen
  3. Select “Options” at bottom of drop down menu
  4. Select “Units of Measure” in left hand box
  5. Select “Custom” at bottom of middle list, and select “Add” box
  6. Name your group “Uniform Natural Gas Pressure Units”, then select “+” box to left of group name on middle list to open drop down menu
  7. Find “Ambient Pressure”, “Fuel Pressure”, and “Intake Manifold Pressure” rows in “Type” (left hand) column, and verify units in “Unit” (right hand) column are consistent for all three parameters.
  8. Verify new group is selected at top of menu under “Current Units of Measure Group” when troubleshooting natural gas fuel pressure faults.
  9. Select “Apply” then “OK” to exit menu.
  10. When repair is finished, repeat these steps but select your region under “Current Units of Measure Group” to verify correct units are selected when troubleshooting other engine platforms.

Document History

Date	Details
2017-3-3	Module Created

Last Modified: 08-Mar-2017