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Title: CPA Full Load Blow-By Test (FL-BBT)

Applies To: N13 Engines (Specific ESN Range) with High Oil Consumption

CHANGE LOG

Please refer to the change log text box below for recent changes to this article:

- 06/08/2017- Structured layout
- 04/25/2017- Updated diagnostic software to Navistar Engine Diagnostics™.
- 01/04/2017- Added link to CPA Pressure+ Module diagnostics
- 11/03/2016- Added image of Pre-road test signal check (For CPA version 8 and higher)
- 09/13/2016- Added tip for checking all signals before entering roadway
- 08/18/2016- Added tips for FL-BBT
- 08/10/2016- Updates CPA download link and made changes since APR are now on iApprove and test procedure is in the diag. manual
- 08/01/2016- Revise title and added new CPA download links and instructions
- 07/18/2016- Updates CPA test instructions and software
- 07/05/2016- Added CPA 13L Full Load Blow-by Test
- 06/28/2016- Added CPA based testing
- 05/05/2016- Added emphasis for need for Navistar Engine Diagnostics™ snapshot
- 03/30/2016 - Initial Article Release

DESCRIPTION:

This document describes the process for utilizing the Full Load Blow-By Test (FL BBT)

CPA Full Load Blow-By Test (FL BBT) Applies to:

Emission Year	Engine Model	Engine Serial Number (ESN)
2013-2014	N13	126HM2Y4300000 - 4315712
2015	N13	124KM2Y4400000 - 4401769

Software Release:

Version	Change Description	Release Date
7.8.8.67	13L Full Load Blow By Launch	1/28/2016
7.1.8.88	Base Engine Analysis Module (BEAM) Launch	12/14/2015

SYMPTOM(s)/ FAULT CODE(s):

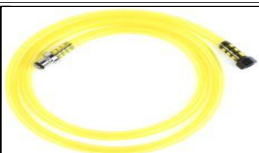
For proper diagnostics follow the appropriate engine diagnostic manual for step by step instructions

Symptom	Notes
Oil Consumption	Documented logs are the most accurate determination of oil consumption

Synthetic Fault Code	Notes
5000-SYN718-3	Frequent Regen Indicators
5000-SYN745-1	

SPECIAL TOOL(s)/ SOFTWARE:

Tools required for component removal: Refer to the appropriate engine service manual
To perform CPA FL-BBT properly, the following tools are required:

Tool Description		Tool Number	Comments
EZ-Tech			Navistar Engine Diagnostics and CPA software must be installed
RP1210 Communication Device			NavCom or Nexiq
CPA Module		OE-11178/ 12-999-01-01	
Pressure Plus Module		12-999-05-01	
E1 Breakout Harness		12-801-04	Replaces 180-Pin Breakout Box (00-00956-08) and E1/E2 Harness Overlay Kit (00-01462-00)
Pressure Plus Module Kit (HEAVY Duty)		12-999-05	Includes Air Compressor Block-Off plate (12-999-05-11) and 4 Bolts (12-999-05-12)
Big Bore Cap Adapter			
Blow-By Tube			
PPM Power Cord			

[Tools Resource Center](#)

TEST DESCRIPTION:

measures crankcase pressure while under load

Overview of Test Set-Up:



Dealer

Analysis

Test Summary

Show Results

Full Load Blow-By Test (FL BBT)

Test instructions are contained in Help

Time

Results

Results Summary

Blow-by levels or other signals require further investigation.

Please open a case file and attach all FL_BBT_.zip files for this VIN.

Test Files List

File 1

Graph Cursor Table

	Green	Yellow
IMP (psi)	29.6	7.0
Speed (RPM)	1167.1	1103.1
CCP (in.H2O)	6.7	0.7
FRP (MPa)	189.3	167.4

Test Notes

4 gallons per trip

Pre-read test signal check

File Path

C:\Users\UJ1230\Desktop\EN795463_rush truck center, chicago_18 BBT_10-11-2016-10-12 AM.mondat

Review Former Test

Save data when test starts

File Size Limit

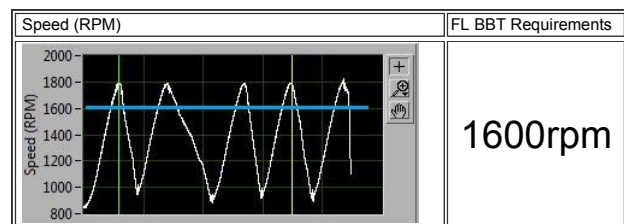
Start Test

Stop Test

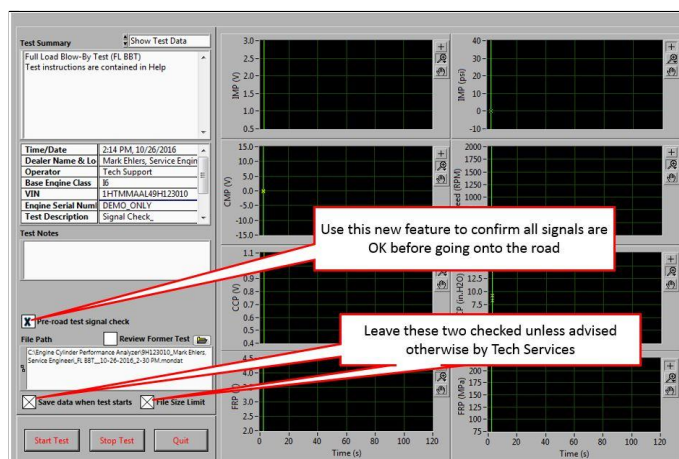
Quit

Intake Manifold Pressure (IMP)	FL BBT Requirements 28psi
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1. Message will state Full Load was NOT achieved during test
2. Under excessive oil consumption conditions: Low boost can be a result of a plugged DPF. Diagnose the aftertreatment system for possible concerns



https://evaluate.internationaldelivers.com/service_kb/DocTool/ArticleViewer.aspx?ControlID... 7/3/2017



- Part of your recording should be with the engine at idle (just a few seconds)

WARRANTY INFORMATION:

CPA Module	WAC can be issued for components listed	Navistar Engine Model	Example WAC	Related Articles
Full Load Blow-By Test (FL-BBT)	Anti-Polishing Ring (APR) Kit	2010-2016 MF 11/13L	XXXX_XX	- BB APR Kit: IK1201157 - BB APR Kit: IK1201260

All Component Replacement Requirements are temporarily covered under policy letter: [WPL2800126](#)

Reference the Warranty Resource Center for the most recent iApproval/ Warranty Authorization Code (WAC) requirements letter

Refer to the [Warranty Coding Manual](#) for Group and Noun Codes

Standard Repair Time(s):

Description	SRT Link
12 - CYLINDER PERFORMANCE ANALYZER (CPA) TOOL, DIAGNOSIS	CPA Diagnostics

Refer to the [SRT Manual](#) for Repair Times

OTHER RESOURCES

[Master Service Information Site](#)

If you cannot use the 12-801-04 13L CPA E1 ECM breakout harness then perform the CPA FL-BBT using the method- [Here](#) (NOT recommended)

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