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Title: Crankcase Pressure Test & Spec For 2004 MY Emissions DT 466/570 Engines

Applies To: 2004 MY Emissions DT 466/570 Engines ESN 2,000,001 Thru 2,999,999

CHANGE LOG

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

03/05/2015 - Initial Article Release

DESCRIPTION

This document provides the Crankcase Pressure (Blow-by) Test Procedure and Specification for acceptable Crankcase Pressure for 2004-2006 MY DT466/570 engines

SYMPTOMS

DTC/Light	Description
Not Applicable	

Customer Observations or Concerns:

- Excessive Gas Vapors/White Smoke From The Road Draft Tube
- Engine Oil Leaking From The Road Draft Tube
- Engine Oil Fill Cap/Dipstick Blows Out Of The Tube
- Engine Oil Consumption

SPECIAL TOOLS

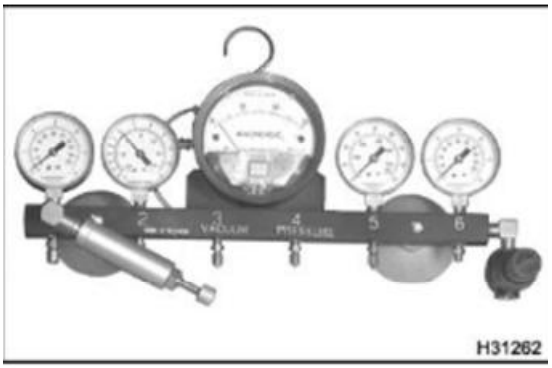
Tool Description	Tool Number	Comments	Instructions
Gauge Bar Tool	ZTSE-4409		
Crankcase Pressure Test Adapter	ZTSE-4039		
Slack Tube Manometer	ZTSE-2217A		

SERVICE PARTS INFORMATION

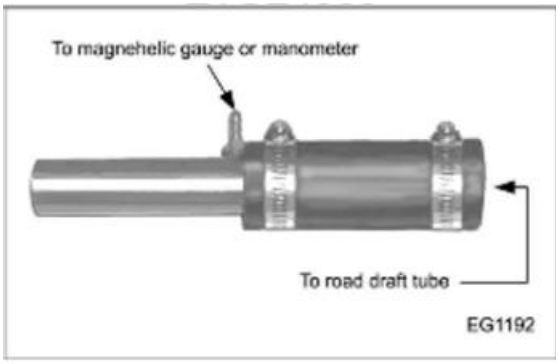
Kit Description	Part Number	Quantity Required	Notes
Not Applicable			

OVERVIEW

- Special Tools
- Diagnostic Procedure
- Specifications



ZTSE4409



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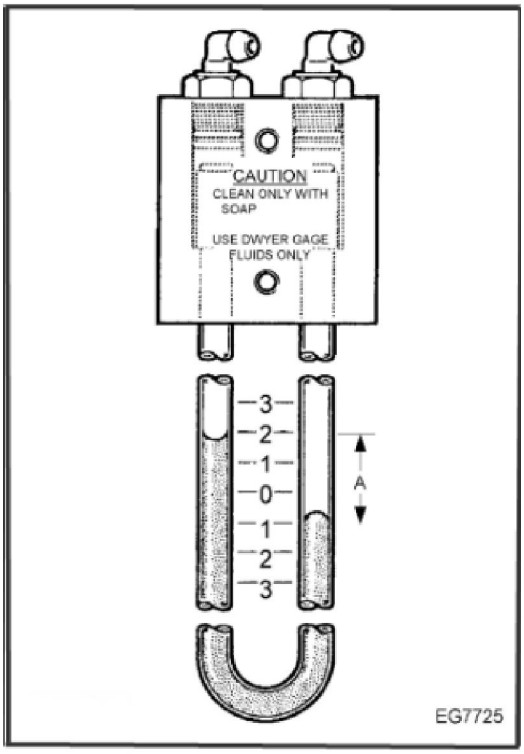


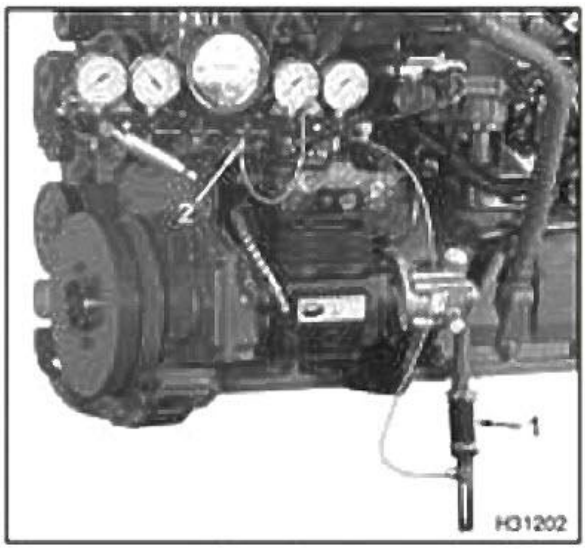
ZTSE2217A

DIAGNOSTICS

Not Applicable

REPAIR STEPS

1. Park vehicle on level ground.
2. Make sure the engine oil level is not above operating range and the oil level gauge is secure.
3. Make sure the breather tube is clean, secure and not leaking.
4. Make sure all hoses are secure and not leaking.
5. Install crankcase pressure test adapter to the road draft tube



Specification < 6" H_2O

NOTE: If the engine has a breather extension tube, the extension tube must be removed before testing.

WARNING:

To avoid serious personal injury, possible death or damage to the engine or vehicle, comply with the following:

- ***When routing test line, do not crimp the line, run the line too close to moving parts, or let the line touch hot engine surfaces.***
- ***Test line must be free of fluid – the magnehelic gauge can be damaged.***

6. Connect test line from the crankcase pressure test adapter to the magnehelic gauge on the gauge bar or to a water manometer

WARNING:

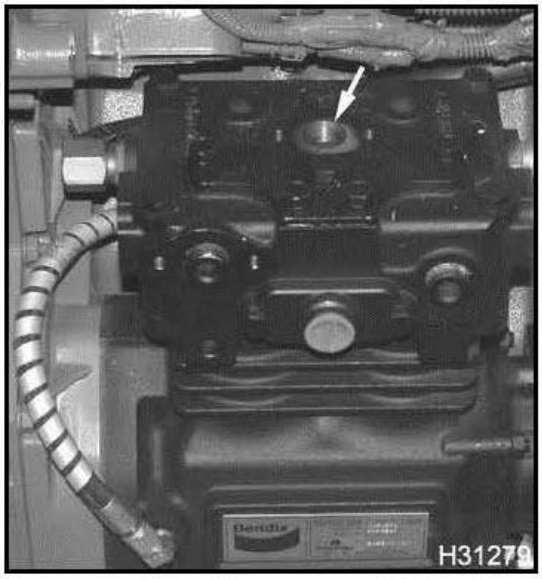
To avoid serious personal injury, possible death or damage to the engine or vehicle, comply with the following:

- ***When running the engine in the service bay, make sure the parking brake is set, the transmission is in neutral, and the wheels are blocked.***

7. Run engine to reach normal engine operating temperature 77°C (170°F) or higher before measuring crankcase pressure.

8. Run engine at high idle (no load) RPM. Allow the gauge reading to stabilize before taking pressure readings.

- **If pressure is below specification, continue Performance Diagnostics**
- **If pressure is above specification, continue with step 9.**



Discharge port

9. If engine has an air compressor, remove discharge airline and retest.

- **If pressure is below specification, repair or replace air compressor**
- **If pressure is above specification, continue with step 10**
- **Disconnect VGT (Variable Geometry Turbocharger) control module and retest**
- **If pressure is below specification, reconnect the VGT control module and retest during AMS (Air Management System) test to see if crankcase pressure increases as turbocharger demand increases**.
- **If pressure fluctuates above and below specifications, as the VGT is cycling, replace the turbocharger.**
- **If disconnecting or cycling the turbocharger does not bring pressure below specification, continue with step 11**

10. Perform RCT (relative compression test) to pin point suspect cylinders.

11. Perform injector disable test to further pin point suspect cylinders.

12. Inspect air induction for dirt ingestion.

WARRANTY INFORMATION

Warranty Claim Coding:

Group:	12000 - Engine
Noun:	053 - Crankcase

Standard Repair Time(s):

Step	Description	Chassis	Engine	SRT	Hours
Performance Diagnostics 16	Crankcase Pressure	BE/CE	DT 466/570	G12-2062H	.1
Performance Diagnostics 16	Crankcase Pressure	RE	DT 466/570	I12-2062H	.1
Performance Diagnostics 16	Crankcase Pressure	4300	DT 466/570	K12-2062H	.1
Performance Diagnostics 16	Crankcase Pressure	4400	DT 466/570	L12-2062H	.1
Performance Diagnostics 16	Crankcase Pressure	7300, 7400, 7500	DT 466/570	M12-2062H	.1
Performance Diagnostics 16	Crankcase Pressure	8500	DT 466/570	P12-2062H	.1
Performance Diagnostics 16	Add-On W/Hydraulic Brakes	4300	DT 466/570	K12-2046H-1	.1

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