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Coding Information

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Title: MaxxForce 7 Engine Oil System Flushing Procedure

Applies To: All MaxxForce 7 Engines

CHANGE LOG

07/22/2015 - Updated article with new procedure and to reflect the new iKNOW article structure.
10/16/2014 - Article was re-published due to requests in Case Files.

DESCRIPTION

This document will guide the user through an oil system flushing procedure used to remove contaminants in the lubrication system. Note that this document assumes the root cause of the contamination has already been determined and corrected.

SYMPTOMS

Potential Diagnostic Trouble Codes & Dashboard Indicator Lights:

2007-2009 MaxxForce 7

DTC/Light	SPN/Light	Description
DTC 2323 FMI 1	SPN 111 FMI 1	ECL below Warning / Critical Level
DTC 2321 FMI 0	SPN 110 FMI 0	Engine Coolant System above Critical Temperature
DTC 2322 FMI 7	SPN 110 FMI 7	Engine Coolant System above Warning Temperature
DTC 2313 FMI 1	SPN 100 FMI 1	EOP below warning level
DTC 2314 FMI 7	SPN 100 FMI 7	EOP below critical level

2010-2013 MaxxForce 7

SPN/Light	Description
SPN 111 FMI 1	ECL below Warning / Critical Level
SPN 110 FMI 0	Engine Coolant System above Critical Temperature
SPN 110 FMI 15	Engine Coolant System above Warning Temperature
SPN 110 FMI 16	Engine Coolant System Above OBD Maximum Temperature
SPN 110 FMI 17	Engine Coolant System below OBD monitoring temperature

SPN 110 FMI 18	Engine Coolant System below closed loop minimum temperature
SPN 100 FMI 1	Engine Oil System below Critical Pressure
SPN 100 FMI 18	Engine Oil System below Warning Pressure

Customer Observations or Concerns:

- WEL
- MIL
- Coolant loss
- Coolant consumption
- Coolant in the oil
- Engine over-heat
- Low oil pressure

SPECIAL TOOLS / SOFTWARE

Tool Description	Tool Number	Comments	Instructions
EZ-TECH OR POCKETMAXX			

SERVICE PARTS INFORMATION

Kit Description	Part Number	Quantity Required	Notes
Oil	Obtain Locally	Durastar/IC Bus/Monaco - 20 qts US Terrastar - 22 qts US	2010-2014 MaxxForce 7 Lube capacity ONLY
Oil	Obtain Locally	All Models - 18 qts US	2007-2009 MaxxForce 7
Standard Transmission Fluid	Obtain Locally	All Models - 5 qts US	Flushing agent (Alternatively can use local flushing agents such as <i>SeaFoam</i>)
Oil Filter Kit	1899332C91	2	Parts Catalog (2010 - 2014 MaxxForce 7)
Oil Filter Element Kit	1840752C91	2	Parts Catalog (2007 - 2009 MaxxForce 7)

DIAGNOSTIC STEPS

None - This article is being created with the assumption that the root cause of oil contamination has already been resolved.

REPAIR STEPS

1. Drain the oil out and install a new oil filter
2. Add 13 qts of new oil (All models and engines)
3. Add 5 qts of standard transmission fluid (ATF)
4. Start the unit and let it idle up to operating temperature
5. Set engine speed to 1200RPM for 15 minutes
6. Shut down engine and immediately drain oil and remove the oil filter
7. If necessary re-inspect for sludge (Note: This procedure may need to be run more than once depending on the severity of sludge build up)
8. Once complete add proper quantity of new oil and replace the oil filter

Note: On the 2010-2014 MaxxForce 7 measuring crankcase pressure will be required due to the possibility of a plugged breather due to sludge contamination. Please see the proper diagnostic manual for the procedure and specifications.

WARRANTY INFORMATION

Warranty Claim Coding:

Note: Please code for warranty the root cause of the oil contamination.

Group:	12000 - Engine
Noun:	051 - Crankcase

Standard Repair Times:

Step	Description	Engine	SRT	Hours
OIL PAN AND/OR GASKET REPLACE	See manual for proper coding	All	MANUAL	2.2
CRANKCASE BREATHER HOUSING ASSEMBLY, REPLACE	See manual for proper coding	EPA10 MF7	MANUAL	0.6
ENGINE OIL AND FILTER, CHANGE	Claim twice for flushing	All	A12-1889A	0.4
OIL SYSTEM, FLUSH	Time for flushing	All	T-TIME	0.3
CRANKCASE PRESSURE TEST	Crankcase pressure	EPA10 MF7	MANUAL	0.2

OTHER RESOURCES

[Master Service Information Site](#)

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