



Countries: CANADA, COLOMBIA, UNITED STATES, PUERTO RICO
Availability: ISIS, FleetISIS
Major System: ENGINES
Current Language: English
Other Languages: NONE
Viewed: 11291

Document ID: IK1200739
Revision: 12
Created: 3/16/2012
Last Modified: 6/9/2014
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Coding Information

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Title: EGR Valve Diagnostics

Applies To: 2010 Emissions MaxxForce 11 & 13 Liter Engines, N13 SCR Engine, MaxxForce 15

CHANGE LOG

DO NOT delete the Change Log.

Updated : 06/06/2014 Added MaxxForce 15L information.
 05/16/2014 : Changed EGR Valve Pigtail Part Number. 03/27/2014 : Adjusted Title 03/21/2014 - Added diagnostic step to 27-4, added EGR Valve Generation Identification steps, added change log, updated part number. 04/11/2014 Added N13 SCR Part number and warning to not interchange with 2010 MaxxForce 11/13 EGR Valve. Adjusted Diagnostics to reflect N13 SCR Engine. Moved Health Report Requirement statement to warranty section of the article.

Description

- ECM shows an active or inactive SPN 27 FMI 7 or SPN 27 FMI 4
- Check for any Open MIN's, AFC's, and Managed Repairs Prior to starting this document.

NOTE:

If NO EGR Valve Faults are present DO NOT replace the EGR Valve no repairs are required for the EGR system.

Symptoms

- Check Engine Light On
- EGR Valve Component / Circuit Fault Code

Possible Diagnostic Trouble Codes

SPN	FMI	MODULE	DESCRIPTION
27	7	ECM	EGRP does not agree with Commanded Position
27	4	ECM	EGRP Signal Out of Range Low

Parts Information

- MaxxForce 11/13 : 7092735C93 (5010696C92 if 7092735C93 is not available) KIT, EGR VALVE
- MaxxForce 11/13 : If Necessary : Assembled Harness Repair Kit Part Number : 3017846C91(includes ECT1 connector discard ECT1 connector if not needed) / Harness Tape : 7096462C1 : Qty 1 (If not on hand)
- Harness Installation Kit Instructions Click [Here](#)

- N13 SCR Engine : EGR Valve : 2512163C92 (Pigtail Attached to the EGR valve)(Do Not Interchange with MaxxForce 11/13 Non-SCR Engine)
- MaxxForce 15 : EGR Valve : 3008008C92 ; EGR Valve Gaskets : 3006736C2 x 2 (if needed)

Resolution

NOTE:

- If faults 27-4 (Table 1) and 27-7 (Table 2) are both present you will need to diagnose the 27-4 fault first.
- If NO EGR Valve Faults are present DO NOT replace the EGR Valve no repairs are required for the EGR system.

Diagnostic Steps when Fault 27-4 is present:

Diagnostic Steps (Table 1)	YES	NO
1. Check Service Portal and see if the vehicle qualifies for Managed Repair : 2010 Emissions MF11/13 EGR Valve Inspection Guidelines . Does the vehicle qualify for the managed repair? (If N13 SCR Engine, or MaxxForce 15 go to step 4)	Follow Managed Repair : 2010 Emissions MF11/13 EGR Valve Inspection Guidelines	Continue to Step 2
2. Verify Generation of EGR Valve : Is it an Old Generation EGR Valve? (See Serial Number Identification process Below)	Replace the EGR Valve	Continue to Step 3
3. Check the vehicle build date • Was the vehicle built BEFORE 07/01/2012?	Replace the EGR Valve wiring pigtail with PN : 3017846C91 . Apply dielectric grease on the new terminals.	Continue to Step 4
4. Clear all faults with EST. 5. Run EGR Valve Actuator Test in ServiceMaxx. • Did the Actuator test pass?	Release the vehicle to the customer	Replace EGR Valve

Diagnostic Steps when Fault 27-7 is present:

Diagnostic Steps (Table 2)	YES	NO
1. Check Service Portal and see if the vehicle qualifies for Managed Repair 2010 Emissions MF11/13 EGR Valve Inspection Guidelines . Does the vehicle qualify for the managed repair? (N13 SCR Engine, or MaxxForce 15 go to Step 2)	Follow Managed Repair : 2010 Emissions MF11/13 EGR Valve Inspection Guidelines	Continue to Step 2
2. Clear all faults with EST. 3. Run EGR Valve Actuator Test in ServiceMaxx. • Does Fault 27-7 return?	Replace the EGR Valve • If the vehicle was built BEFORE 07/01/2012 (Disregard this information for N13 SCR Engine, and MaxxForce 15) you will also need to replace the EGR Valve wiring pigtail with splice kit PN : 3017846C91. Apply dielectric grease on the new terminals.	Release the vehicle to the customer

Serial Number Identification Process shown below:



The generation of the valve can be identified by the serial number (the 6 digit code highlighted in the red box in the picture above) if it starts with 1 it is considered to be an old valve (On 2010 Emissions MF11/13 only. NOT SCR equipped vehicles). If the serial number starts with a 2 it is a newer generation valve.

Note : If it starts with a 0 and has part number 5010697R1 stamped on it the EGR Valve is a New Generation. If it starts with a 0 and has part number 3008449C1 as illustrated above then it is an Old Generation EGR Valve.

Warranty Claim Submission

- **Requirement :** Include the Serial Number of the failed and new EGR Valve in the subsequent warranty claim "CCC" and the "Failed Serial #" fields (See Photo Below).
- **Requirement :** Be sure the replacement EGR Valve Serial # starts with a 2 (Serial Number location shown below. **Disregard for N13 SCR Engine, and MaxxForce 15**
- **Requirement :** Use PocketMaxx or an EZ-Tech to generate a Health Report which is now required for warranty reimbursement per [WPL13-009G](#). The Health Report will include DTC's and will link you to the Fault Code Action Plan.



Labor Times and Warranty Information For EGR Valve Replacement :

- Group Description: 12000
- Noun Description: 893
- **Standard Repair Time:**

Time	SRT	Chassis Model	Engine Model
2.8	N12-6893U	7600	MaxxForce 11/13
2.8	Q12-6893U	8600	MaxxForce 11/13

2.9	R12-6893U	ProStar	MaxxForce 11/13
2.5	R12-6893O	ProStar	MaxxForce 15
2.8	T12-6893U	5000	MaxxForce 11/13
2.5	S12-6893O	LoneStar	MaxxForce 15
2.5	TC12-6893	CAT CT660	MaxxForce 15
3.8	TC12-6893U	CAT CT660	MaxxForce 11/13

Labor Times For EGR Valve Actuator Test :

<u>Time</u>	<u>SRT</u>	<u>Chassis Model</u>	<u>Engine Model</u>
<u>0.3</u>	<u>T-Time</u>	<u>All</u>	<u>All</u>

Labor Times For EGR Valve Pigtail Replacement :

Time	SRT	Chassis Model	Engine Model
0.2	A08-2001A	All	All

Labor Time For Engine Cover Removal and Installation (Use only if EGR Valve Pigtail is repaired, not for use on EGR Valve Replacement)

Time	SRT	Chassis Model	Engine Model
0.8	A16-7555A	ProStar	MaxxForce 11/13
0.8	T- Time	All	MaxxForce 11/13

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Feedback Information

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	U00SMO2	You received the following feedback From: U00SMO2 - Steve Olejniczak Email Address: steve.olejniczak@navistar.com Job Classification: SE006, Service Foreman Dealer: NAVISTAR-TSC SPRINGFIELD Feedback: The click here for the harness installation instructions does not work	7/1/2014 8:20:05 AM