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Availability: ISIS, Bus ISIS, FleetISIS
Major System: ENGINES
Current Language: English
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Coding Information

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Title: EPA 2010 & 2013 (OBD) Maxxforce DT/9/10 EGR Cooler In-Vehicle Diagnostics

Applies To: 2010 & 2013 (OBD) Maxxforce DT, 9, & 10 Engine Serial Number 3300000 and up

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Applies To: 2010 & 2013 (OBD) MaxxFoRce DT, 9 & 10 Engine Serial Number 3300000 and up

Symptoms:

1. Loss of Coolant with NO External Leaks
2. Engine Over Heat
3. Coolant in Oil
4. Hydrolocked Engine
5. Coolant in Exhaust or White Smoke

SPN	FMI	Description
110	0	Engine Coolant System above Critical Temperature
110	15	Engine Coolant System above Warning Temperature
111	1	Low Engine Coolant Level
2659	21	EGR Low Flow Rate detected

Description:

Navistar has refined the in-vehicle diagnostics for the 2010 & 2013 EPA Maxxforce DT/9/10 EGR Cooler. The purpose for this diagnostic procedure is to decrease downtime and enhance diagnostic accuracy. This in-vehicle test procedure and pressure decay specification supersede the following:

1. Procedure and Test results for [KL 20030 NAV](#)- EGR Cooler Leak Detection Kit
2. Procedure and Test results for "Engine Symptom Diagnostics: EGR Cooler"

Special Tools:

Tool Description	Tool Number	Comments	Instructions
Coolant Management Tool	KL5007NAV	Cooling system drain and vacuum fill	Link
EGR Leak Detection Kit	KL20030NAV	This document	

Test Procedure:

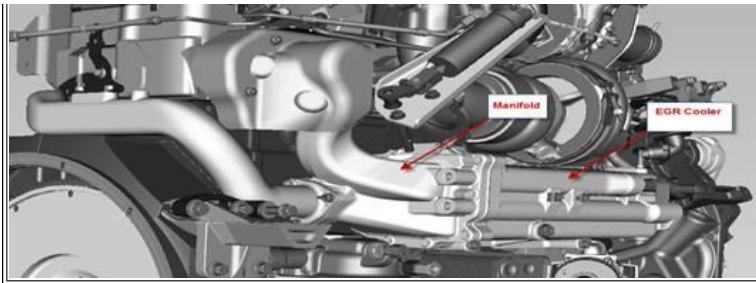


Figure #1: EGR Cooler Assembly

Initial Set-Up:

1. Chock wheels and **DISCONNECT** Battery
2. Drain Cooling System using the Coolant Management Tool: [KL5007NAV](#)
3. Remove Passenger side Inner Fender
4. Remove Alternator
5. Remove Alternator Mounting Bracket
6. Remove Coolant Supply and Coolant Return tubes from the front of the EGR Cooler
7. Use tool [KL20030NAV](#) - EGR Cooler Leak Detection Kit with the following procedure



Figure 2: KL20030NAV - EGR Cooler Leak Detection Kit



Figure 3: Deaeration Fitting Plug

Note: Do not over tighten as o-ring damage could occur and cause false positives

- A. Attach the plug (part [20020-1](#)) onto the deaeration fitting, as shown in Figure 3.

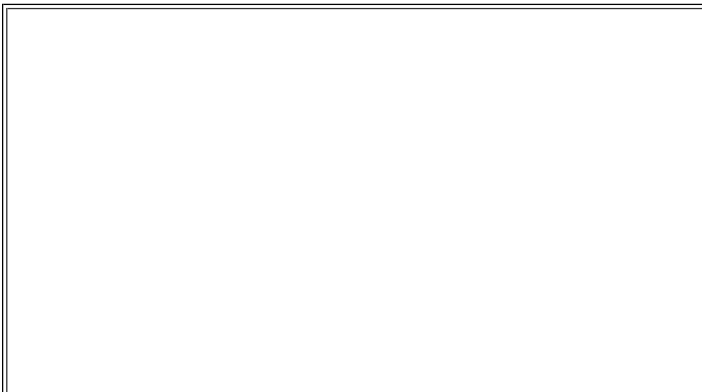




Figure 4: Coolant Port Plug

Note: Ensure the knurled knobs and bolt are tight.

B. Attach the coolant port plug assembly (part [20020-2](#)) into the coolant ports, as shown in Figure 4.



Figure 5: Air hose extension and fittings installed in chassis

C. Attach a pressure regulator with a shutoff valve to the air hose fitting. An extension hose may be necessary to reach, as shown in Figure 5. Again, be cognizant of leaks in the air hose fittings, as they will manifest as false cooler leaks.

D. Pressurize the EGR cooler to **55psi** and shut off the air valve.

E. Monitor the gauge for **10 minutes**

- Pressure drop **Greater than > 5 psi**: Failed Test. Replace the EGR Cooler per the service manual (linked below).
- Pressure drop **Less than < 5 psi**: Passed Test. **DO NOT** replace the cooler. Continue using the procedure: "Coolant Leak to Exhaust/Intake" in the diagnostic manual (linked below).

Service Parts:

Kit Description	Part Number	Quantity Required	Notes
Kit, EGR Cooler High Fin Density	1889336C97	1	

#214 O-Ring	1844447C1	2	Only for pressure test (cooler not replaced)
Kit, Exhaust Ring Seal	1889134C91	1	EGR Outlet Fey Rings

Warranty Information:**Warranty Claim Coding:**

Group:	12000 - Engine
Noun:	892 - Cooler, EGR

EGR Cooler Pressure Test SRT:

12 - EGR COOLER PRESSURE TEST, IN VEHICLE				
Hours	Code	Engine	Qualifier 1	Qualifier 2
1.4	A12-6892T-20	MAXXFORCE DT/9/10 2010 Emissions	Models, ALL	Use only when EGR Cooler is not replaced
1.5	A12-6892T-21	MAXXFORCE DT/9/10 2010 Emissions	Models, ALL	With Centrifugal Oil Filter

EGR Cooler Replacement SRT:

12 – EGR COOLER, REPLACE					
Hours	Code	Model	Engine	Qualifier 1	Qualifier 2
4.9	E12-6892T	HC Bus	MAXXFORCE DT/9/10	With 2010 Emission Engines	Engines with 245 HP and Up
4.6	E12-6892T-20	HC Bus	MAXXFORCE DT/9/10	With 2010 Emission Engines	Engines below 245 HP
4.6	G12-6892T	CE	MAXXFORCE DT/9/10	With 2010 Emission Engines	Engines below 245 HP
4.9	GY12-6892T	CE / BE	MAXXFORCE DT/9/10	With 2010 Emission Engines	Engines with 245 HP and Up
5.6	I12-6892T-20	RE	MAXXFORCE DT/9/10	With 2010 Emission Engines	2010 Emissions Level
6.7	K12-6892T	4300	MAXXFORCE DT/9/10	With 2010 Emission Engines	Engines below 245 HP
7.2	KL12-6892T	4300, 4400	MAXXFORCE DT/9/10	With 2010 Emission Engines	Engines with 245 HP and Up
4.9	M12-6892T	7300	MAXXFORCE DT/9/10	With 2010 Emission Engines	Engines below 245 HP
5.2	M12-6892T-20	7300, 7400, 7500	MAXXFORCE DT/9/10	With 2010 Emission Engines	Engines with 245 HP and Up
5.6	NH12-6892T	RE/MOTORHOME	MAXXFORCE DT/9/10	With 2010 Emission Engines	Engines below 245 HP
6	NH12-6892T-20	RE/MOTORHOME	MAXXFORCE DT/9/10	With 2010 Emission Engines	Engines with 245 HP and Up
4.6	Y12-6892T	BE	MAXXFORCE DT/9/10	With 2010 Emission Engines	Engines below 245 HP

Resources:

[2010 & 2013 MaxxForce DT, 9, and 10 Resource Center](#)
[Service Manual - PDF LINK](#)
[Diagnostic Manual - PDF LINK](#)

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