



Countries: CANADA, UNITED STATES, MEXICO Document ID: IK1201134
Availability: ISIS, FleetSIS Revision: 1
Major System: ENGINES Created: 6/3/2014
Current Language: English Last Modified: 6/16/2014
Other Languages: NONE Author: Dominic Venice
Viewed: 228

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Coding Information

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Title: 2010 EPA MaxxForce® 15L HP Turbo Center Cartridge Replacement**Applies To: 2010 EPA MaxxForce® 15L**

CHANGE LOG:

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

6/4/2014 - Launch to field.
6/11/2014- Added photos and corrected spelling error
6/16/14 - Modified format

DESCRIPTION:

This article provides the service procedure for replacing the High-Pressure (HP) turbocharger center section on 2010 EPA MaxxForce®15 engines.

SPECIAL TOOL(s) or SOFTWARE:

Tool Description	Tool Number	Comments
Navistar Coolant Managment Tool	KL5007NAV	
Kit, CAC Cleaning	09-925-01	

SERVICE PART(s) INFORMATION:

Kit Description	Part Number	Quantity Required	Ordering Instructions
KIT, TURBO HP	3014694C91	1	Order from Navistar
HOSE ASSY, HP TURBO OIL SUPPLY	3008174C92	1	Order from Navistar

NOTE: A center section kit is not offered for the 15L, use a COMPLETE turbocharger assembly and simply remove the center section from the assembly. Return the old center section and the NEW turbine housing together in the box.

SERVICE PROCEDURE:



WARNING:

Park vehicle on hard flat surface, turn the engine off, set the parking brake, and block the wheels to prevent the vehicle from moving in both directions. Failure to comply may result in property damage, personal injury, and / or death.

**WARNING:**

If the vehicle must be raised, do not work under the vehicle supported only by jacks. Jacks can slip or fall over, potentially resulting in property damage, personal injury, and / or death.

**WARNING:**

Always wear safe eye protection when performing vehicle maintenance. Failure to comply may result in personal injury and / or death.

**WARNING:**

Keep flames or sparks away from vehicle and do not smoke while servicing the vehicle's batteries. Batteries expel explosive gases. Failure to comply may result in property damage, personal injury, and / or death.

**WARNING:**

Remove the ground cable from the negative terminal of the battery box before disconnecting any electrical components. Always connect the ground cable last. Failure to comply may result in property damage, personal injury, and / or death.

Removal:

1. Bring truck into shop and park on flat surface.
2. Shift transmission to Park or Neutral, set parking brake, and install wheel chocks.
3. Unlatch and open hood.
4. Using Navistar Coolant Management Tool KL5007NAV, drain coolant from system. Place suitable drain pan under truck to collect any remaining coolant throughout procedure.
5. Remove the components necessary to gain access to the High Pressure (HP) Turbocharger. See 15L Engine Service Manual.

CAUTION:

The oil supply tube must not be reused or damage to equipment will occur. If oil supply tube will not come out of the HP turbocharger due to seizure, cut the oil supply tube into two pieces and leave the tube in the HP turbocharger for ease of removal, then discard oil supply tube.

6. Remove HP turbocharger oil supply tube from engine and discard.
7. Disconnect oil return tube from HP turbocharger only and discard gasket.
8. Using a soft-blow mallet, gently tap HP turbocharger until loose from turbine housing.
9. Remove HP turbocharger Center Section from the turbine housing.
10. If HPCAC is internally contaminated with oil, clean using CAC cleaning tool 09-925-01.

Installation:

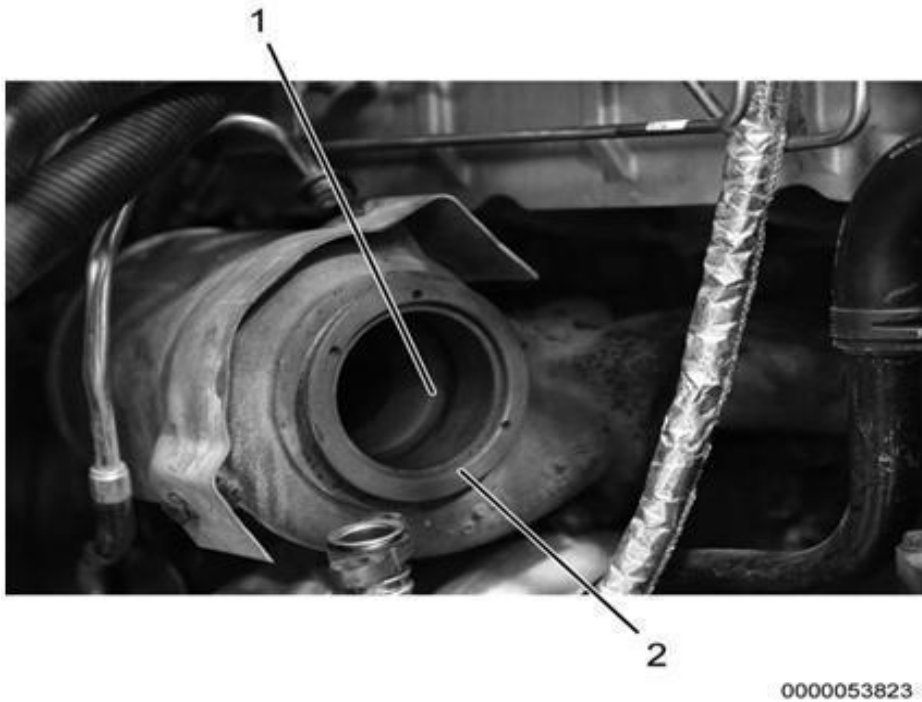


Figure 1. HP turbocharger Turbine Housing

Item 1: HP Turbocharger turbine housing

Item 2: HP Turbocharger turbine housing flange (exterior)

1. Using suitable solvent and clean emery cloth, clean inside HP turbocharger turbine housing (Figure 1, Item 1) and exterior flange (Figure 1, Item 2).

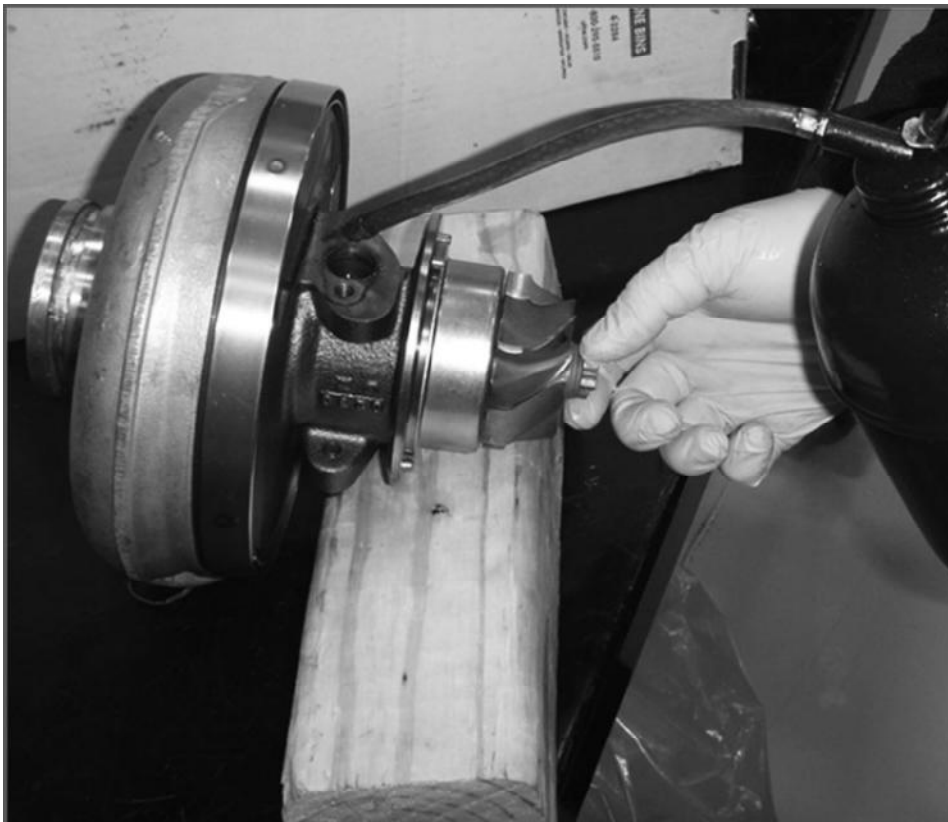


Figure 2.

NOTE:

Prime new HP turbocharger center cartridge with oil prior to installation.

2. While rotating turbocharger turbine wheel, add oil to turbocharger oil supply port until oil comes out drain port (Figure 2).
3. Install new HP turbocharger center cartridge into old turbine housing and let it rest freely. (A center section kit is not offered for the 15L, use a COMPLETE turbocharger assembly and simply remove the center section from the assembly.)
4. Align and fully seat HP turbocharger center section onto dowels.
5. Install and torque turbine housing V-band clamp to 110 lb-in (12.4 N·m).

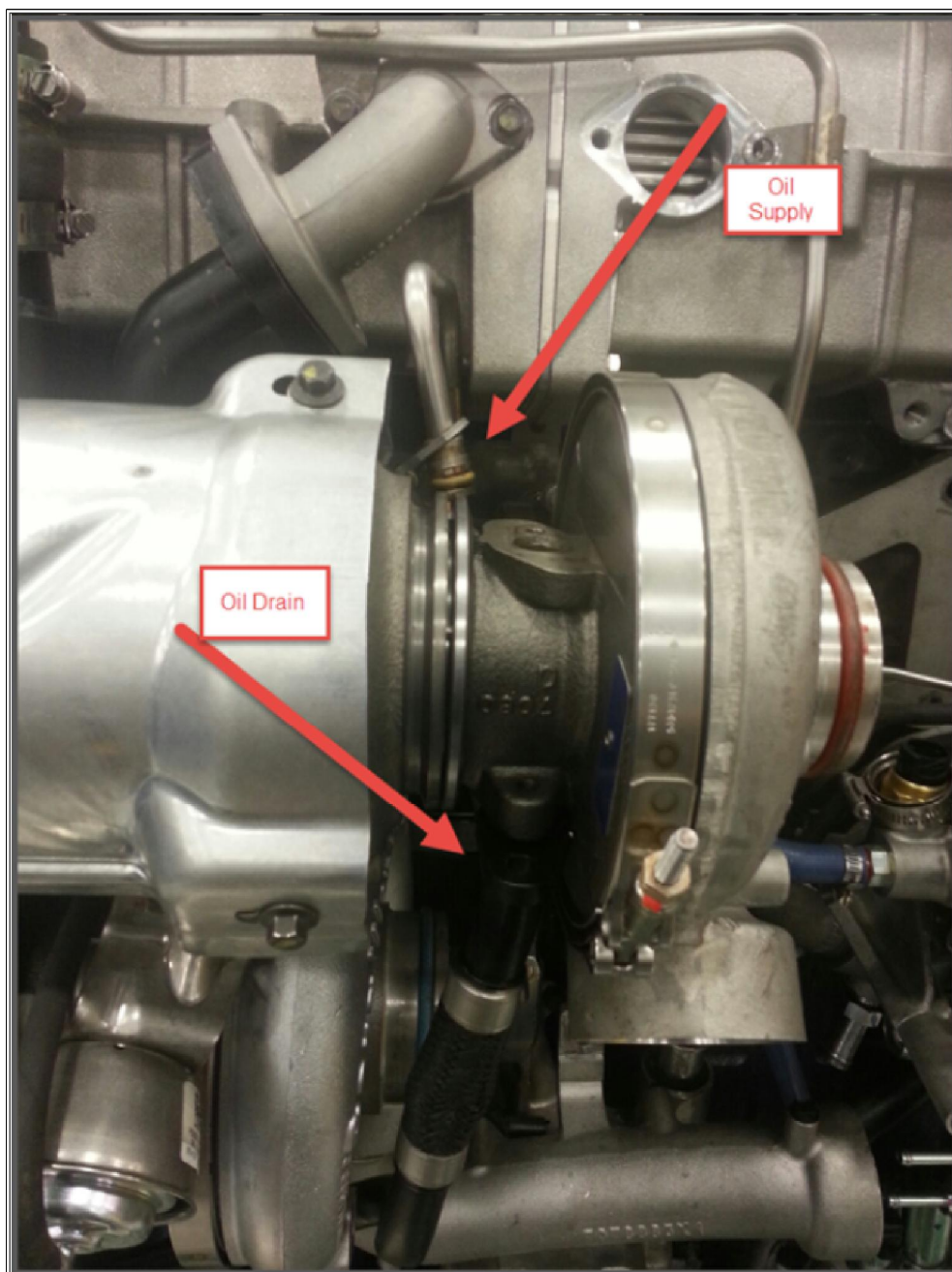


Figure 3. HP turbocharger Center Section

Oil Supply Tube
Oil Drain Tube

CAUTION:

Make sure oil supply line does not bend. Failure to do so will result in damage to HP turbocharger. Damage or distortion will require replacement of

6. Install new gasket onto oil return tube and install into HP turbocharger. (Figure 3)
7. Install new HP turbocharger oil supply tube on engine. (Figure 3)
8. Install the components that were removed to gain access to the High Pressure (HP) Turbocharger. See 15L Engine Service Manual.
9. Fill cooling system using Navistar Coolant Management Tool KL5007NAV.
10. Start vehicle to verify proper operation, no leaks, and no fault codes are present.
11. Close and latch hood.
12. Remove wheel chocks.

WARRANTY INFORMATION:

Warranty Claim Coding:

Group:	12000 - Engine
Noun:	135 - Turbo, Hi Pressure or Single

Standard Repair Time(s):

Use the MaxxForce 11/13L Engine Turbocharger Center Section SRTs for the 15L center section replacement. Official SRTs for the 15L are under development.

12 - TURBOCHARGER H.P CENTER SECTION, REPLACE				
Hours	Code	Model	Engine	Qualifier 1
2.3	N12-6135U-21	7600	MAXXFORCE 11/13	
2.3	O12-6135U-21	8600	MAXXFORCE 11/13	
2.3	R12-6135U-21	ProStar	MAXXFORCE 11/13	
2.3	S12-6135U-21	LoneStar	MAXXFORCE 11/13	
2.3	T12-6135U-21	5000	MAXXFORCE 11/13	
2.3	TC12-6135U-21	CAT CT660	MAXXFORCE 11/13	

12 - TURBOCHARGER OIL SUPPLY LINE, REPLACE						
Hours	Code	Model	Engine	Qualifier 1	Qualifier 2	Qualifier 3
0.8	R12-6869O-21	ProStar	MAXXFORCE 15			HIGH PRESSURE TURBOCHARGER
0.8	S12-6869O-21	LoneStar	MAXXFORCE 15			HIGH PRESSURE TURBOCHARGER
0.8	T12-6869O-21	5000	MAXXFORCE 15			HIGH PRESSURE TURBOCHARGER
0.8	TC12-6869O-21	CAT CT660	MAXXFORCE 15			HIGH PRESSURE TURBOCHARGER

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