# ISM
# Tier 4
# Engine

*See the following page for engine model numbers*

# SERVICE MANUAL

**Part number 47632293**
2nd edition English
September 2014
*Replaces part number 47434944*

CASE CONSTRUCTION

MidWestTech | Case 4LDI-TA-45SL, N4LDI-TA-50SL, N843LT-F-27, N843T-F-24, N844L-F-30, N844L-F-34, N844L-F-36SL, N844LT-F-45SL ISM Tier 4 Engine Service Manual | Publication 47632293
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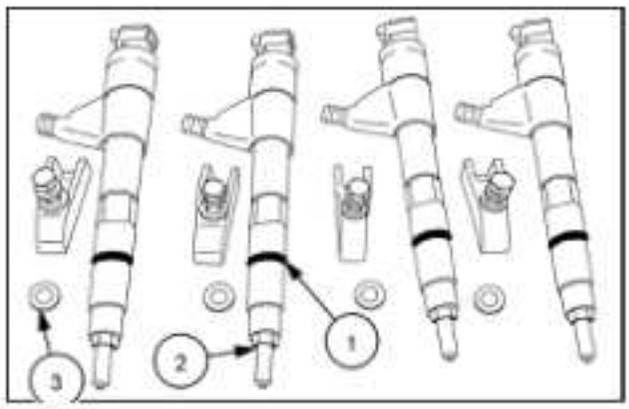


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# Fuel injectors - Install

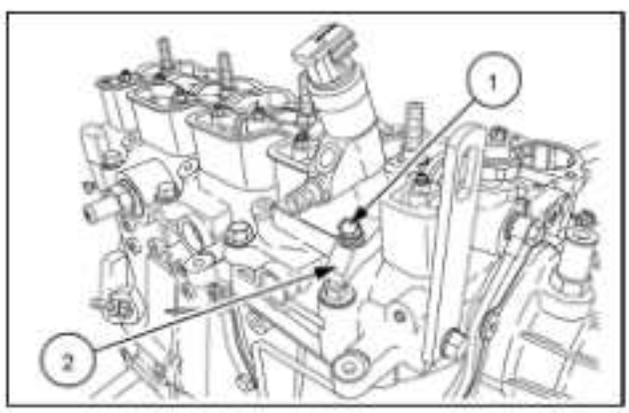
| | |
|---|---|
| N4LDI-TA-45SL<br>N4LDI-TA-50SL | |

1. Install a new O-ring **(1)** on the injector.
2. Install the seal ring **(3)** onto the tip of the injector **(2)**.



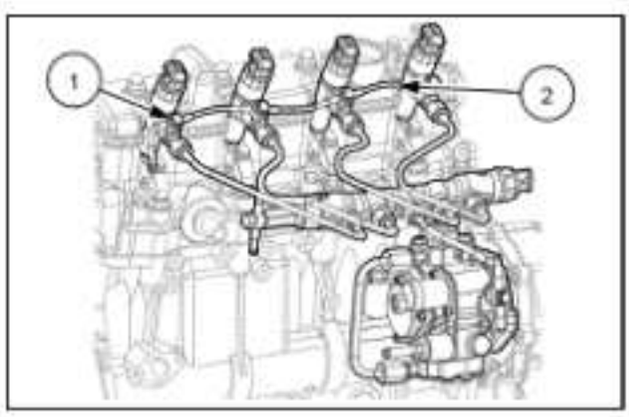

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3. Install the fuel injector in the head until the O-ring seats.
4. Install the injector clamp **(2)** and secure with retaining bolt **(1)**.
5. Torque retaining bolts **(1)** to **22.6 - 28.4 N·m** (**16.7 - 21 lb ft**).




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6. Install the fuel return line **(2)** and secure with the banjo bolts **(1)** and washers.
7. Torque banjo bolts **(1)** to **15 - 20 N·m** (**11.1 - 15 lb ft**).

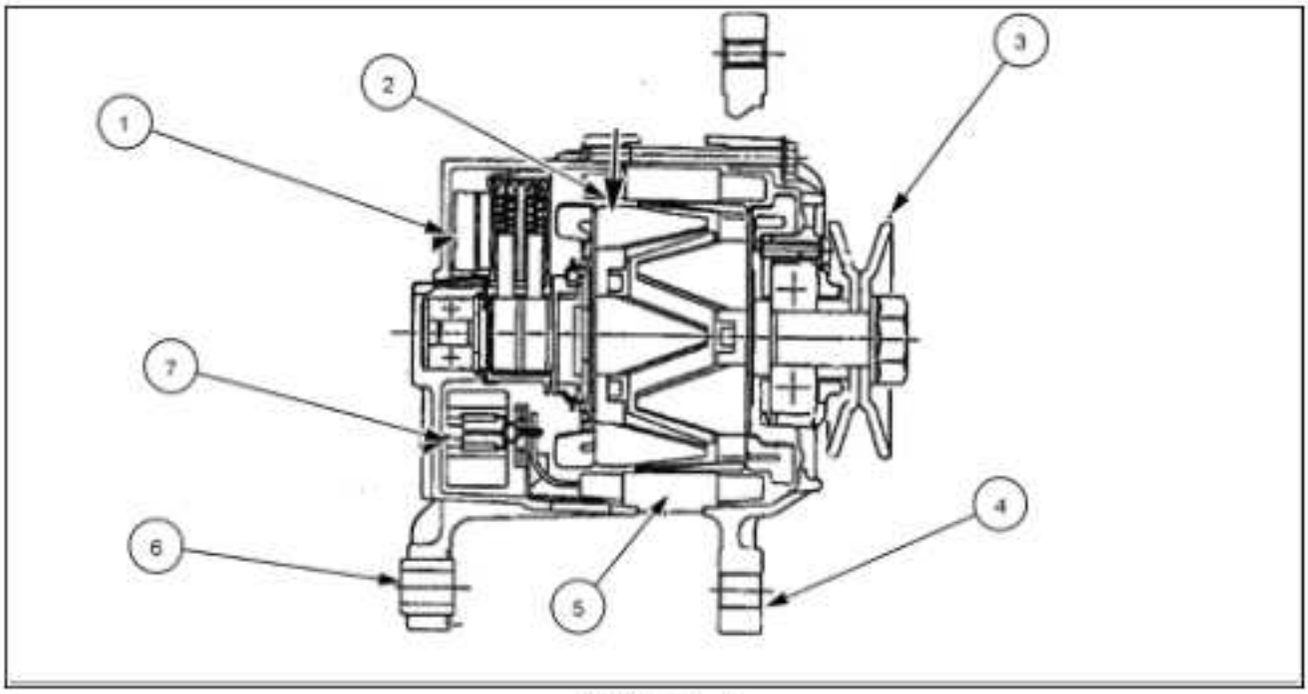



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# Alternator - Static description




T1553CHARDCR2 1

## Alternator

## Description of operation

The **40 A** output alternator is equipped with an integrated circuit (IC) regulator, meaning voltage is regulated internally and electronically within the alternator.

The principle components of the alternator are the stator **(5)** the rotor **(2)** the rectifier assembly **(7)** and the IC regulator **(1)**.

The rectifier assembly **(7)** consist of two heat sinks, one positive (+) and one negative (-) and a diode trio.

The diode trio is used as a field supply diode and is connected to terminal 'L' on the alternator.

The IC regulator **(1)** is a solid state unit and can only be serviced as an assembly.

The internal components of the alternator are housed in a two-piece frame, which is divided into a drive end (front) frame **(4)** and a rear frame **(6)**. The frame contains open slots to allow for cooling of the alternator.

The alternator is rotated in the frame by using a belt-driven pulley **(3)** which is powered off of the engine crankshaft pulley by a belt.

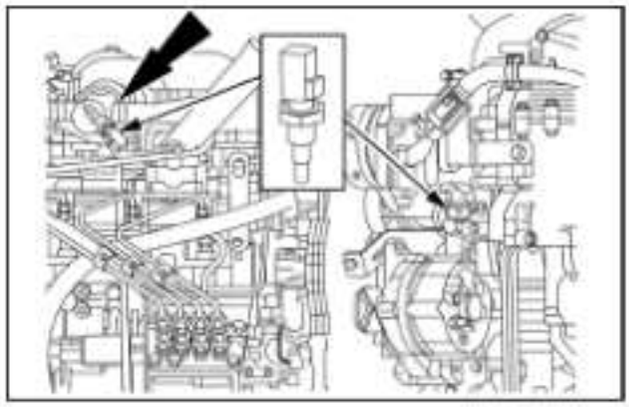


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# Inlet air temperature sensor - Inspect

| | |
|---|---|
| N843LT-F-27 | |
| N843T-F-24 | |
| N844L-F-30 | |
| N844L-F-34 | |
| N844L-F-36SL | |
| N844LT-F-45SL | |

1. Measure the resistance of the inlet air temperature sensor from pin 1 to pin 2.



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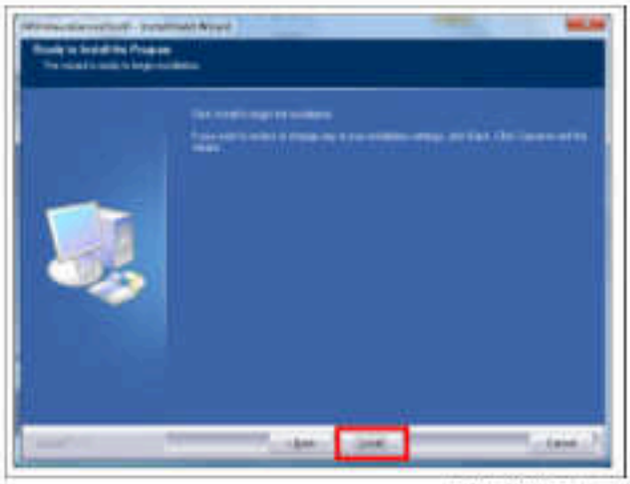
| Temperature | Voltage output |
|---|---|
| 0 °C (32 °F) | 5.74 Ω |
| 20 °C (68.0 °F) | 2.54 Ω |
| 40 °C (104.0 °F) | 1.15 Ω |
| 60 °C (140.0 °F) | 0.58 Ω |
| 80 °C (176.0 °F) | 0.31 Ω |

Tightening torque: **14.7 - 19.6 N·m (10.8 - 14.5 lb ft)**



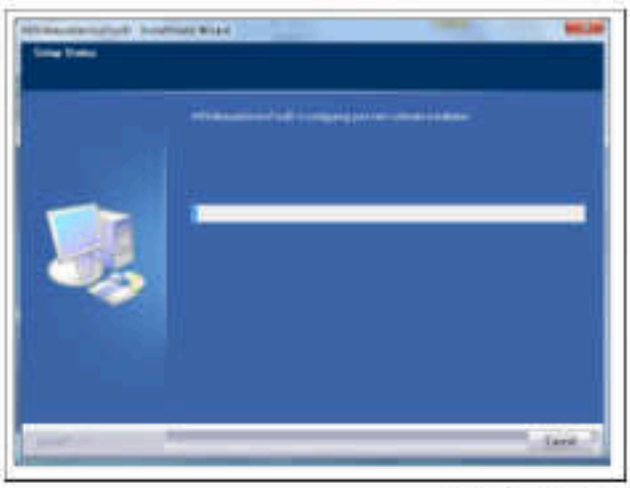
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18. Click the "Install" button.



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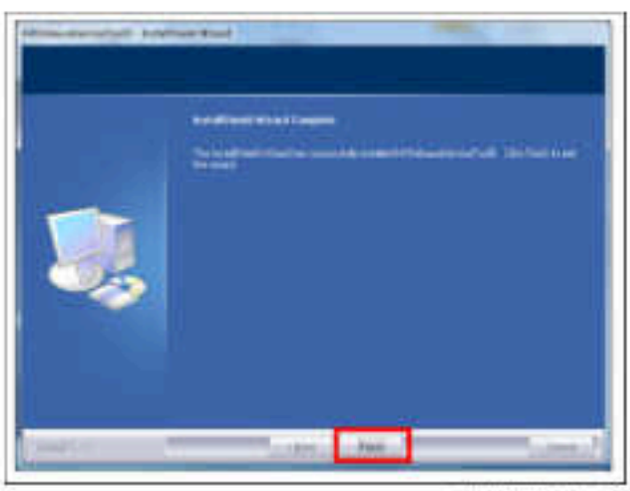
19. Installation progress is shown.



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20. Click the "Finish" button to complete the installation.

***NOTE:*** *To use the Service Tool D, you must first install the communication adapter drivers. Refer to* ***Electrical system Computer support tools - Install - Communication adapter (55.000)*** *for the proper procedure.*



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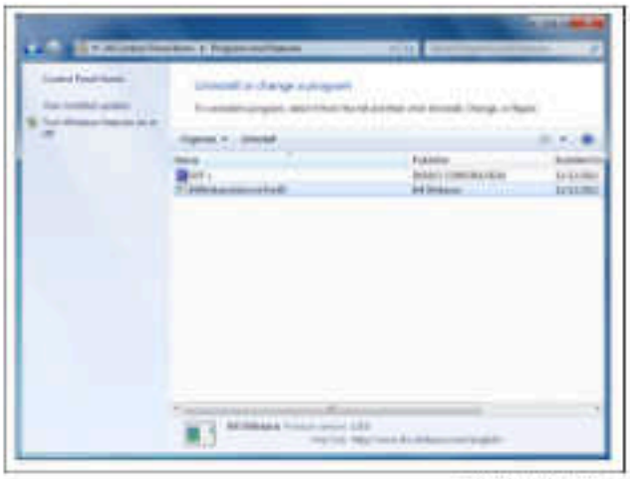


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# Electrical system Computer support tools - Remove - Service Tool D

| | |
|---|---|
| N4LDI-TA-45SL<br>N4LDI-TA-50SL | |

1. Open the "Control Panel" by clicking on "Start" > "Control Panel" or "Start" > "Settings" > "Control Panel".
2. In the "Control Panel" select "Programs and Features".
3. From the list of installed applications, select " ServiceToolID" then click on "Uninstall".



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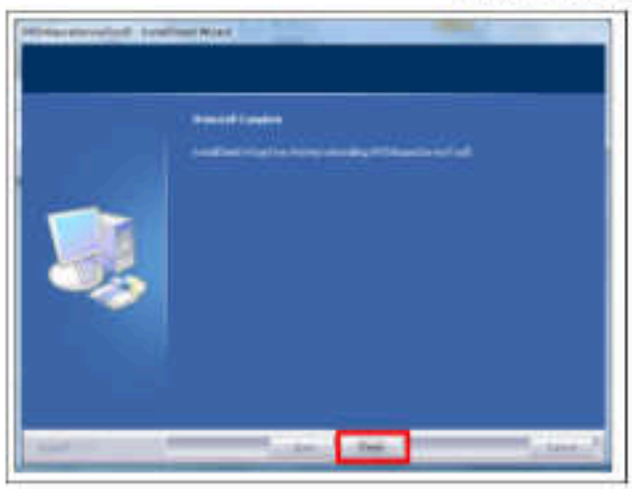
4. A message dialog box to confirm the removal of the diagnostic tool is displayed. Click on "Yes" to uninstall the program.




RAPH13SPT0023AA 2

5. When the uninstall process is complete, the following screen will be displayed.

***NOTE:*** *In some cases you may need to reboot your PC after finishing the uninstall process. If a dialog box appears to requiring your PC to reboot, proceed with the reboot process.*



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