

Tool Instruction PRESSURE PLUS MODULE

4328401R1

Tool Number: 12-999-05



0000400721

Figure 1. 12-999-05 Pressure Plus Module

Purpose

Essential tool utilized in conjunction with 12-999-01 Cylinder Performance Analyzer (CPA) Tool to test various pressures.

Application(s)

MaxxForce® 7 (EPA 10)

MaxxForce® DT, 9 & 10 (EPA 10)

MaxxForce® 11 & 13 (EPA 10)

Navistar® N9 (EPA 10)

Navistar® N10 (EPA 10)

Navistar® N13 (EPA 10)



GOVERNMENT REGULATION: Engine fluids (oil, fuel, and coolant) may be a hazard to human health and the environment. Handle all fluids and other contaminated materials (such as filters or rags) in accordance with applicable regulations. Recycle or dispose of engine fluids, filters, and other contaminated materials according to applicable regulations.



WARNING: To prevent property damage, personal injury, and / or death, read all safety instructions in the “Safety Information” section of the *Engine Service Manual* or *Engine Diagnostic Manual* .





WARNING: To prevent property damage, personal injury, and / or death, park vehicle on hard flat surface, turn the engine off, set the parking brake, and install wheel chocks to prevent the vehicle from moving in either direction.



WARNING: To prevent personal injury and / or death, always wear safe eye protection when performing vehicle maintenance.






Tool Contents

Table 1

Image	Tool Number	Qty	Description
 0000400723	12-999-05-01	1	Pressure Plus Module
 0000400725	12-999-05-02	1	Pressure Relief Valve Assembly

Tool Contents (cont.)

Table 1. (cont.)

Image	Tool Number	Qty	Description
 <p>0000400728</p>	12-999-05-03	1	MaxxForce® 7 Cap Adapter
 <p>0000400741</p>	12-999-05-04	1	MaxxForce® DT, 9 & 10, Navistar® N9 and N10 Cap Adapter
 <p>0000400727</p>	12-999-05-05	1	MaxxForce® 11 & 13, Navistar® N13 Cap Adapter
 <p>0000400726</p>	12-999-05-06	1	Tube, Crankcase Breather Adapter
 <p>0000400724</p>	12-999-05-07	1	Power Cord



Tool Contents (cont.)

Table 1. (cont.)

Image	Tool Number	Qty	Description
 <p>0000400722</p>	12-999-05-08	1	Carrying Case
 <p>0000400744</p>	12-999-05-09	1	O-Ring Kit
 <p>0000400729</p>	12-999-05-10	1	Breather Cap
 <p>0000400743</p>	12-999-05-11	1	Air Compressor Block-off Plate

Tool Contents (cont.)

Table 1. (cont.)

Image	Tool Number	Qty	Description
 0000400742	12-999-05-12	6	Block-off Plate Bolts
 0000160075	4328401R1	1	Tool Instruction

Instructions

1. Park vehicle on a flat surface.
2. Shift transmission to Park or Neutral and set parking brake.
3. Install wheel chocks.
4. Unlatch and open hood.

Instructions (cont.)

MaxxForce® 11 & 13 / Navistar® N13 Engines

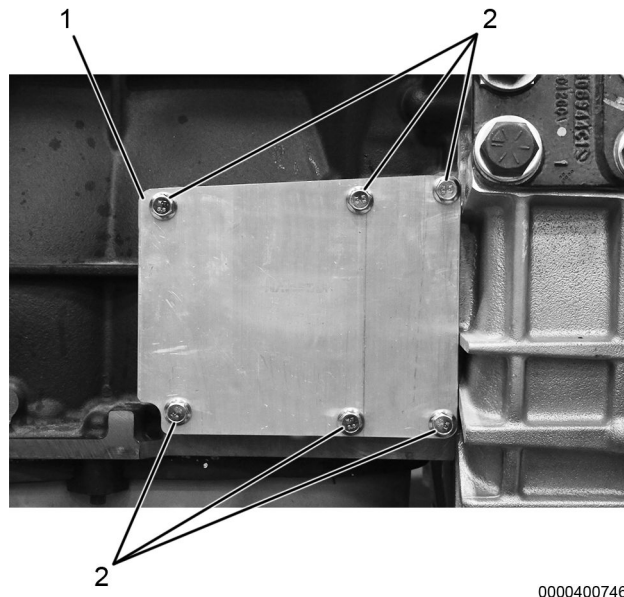


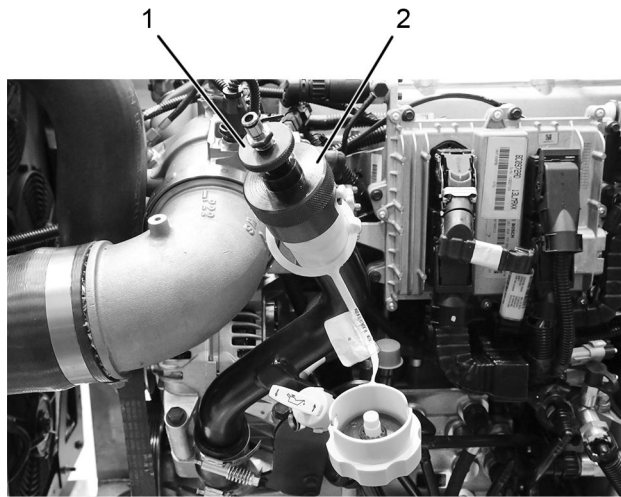
Figure 2. 12-999-05-11 Air Compressor Block-off Plate

1. Block-off plate
2. Bolt (6)

NOTE: Certain tests may require the use of the block-off plate. Refer to appropriate service / diagnostic manual, service bulletin, or equivalent for requirements.

1. **Vehicles equipped with MaxxForce® 13 or Navistar® N13 engines and Single-Cylinder Air Compressors ONLY:** Access and remove air compressor, if required. Refer to appropriate service / diagnostic manual, service bulletin, or equivalent for detailed instruction.
2. **Vehicles equipped with MaxxForce® 13 or Navistar® N13 engines and Single-Cylinder Air Compressors ONLY:** Install block-off plate (Figure 2, Item 1) using kit-supplied bolts (Figure 2, Item 2) if required. Using torque wrench, tighten bolts to 14 lb-ft (19 N•m).

Instructions (cont.)



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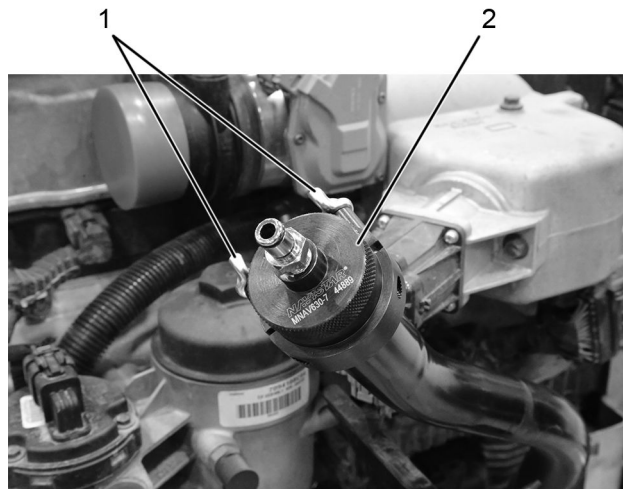
Figure 3. 12-999-05-05 Cap Adapter

1. Knurled knob
2. Adapter

3. **MaxxForce® 11 & 13 / Navistar® N13 Engines:** Remove oil fill cap.
4. **MaxxForce® 11 & 13 / Navistar® N13 Engines:** Install adapter (Figure 3, Item 2) onto oil fill tube. Tighten knurled knob (Figure 3, Item 1) securely.

Instructions (cont.)

MaxxForce® DT, 9 & 10 / Navistar® N9 & N10 Engines



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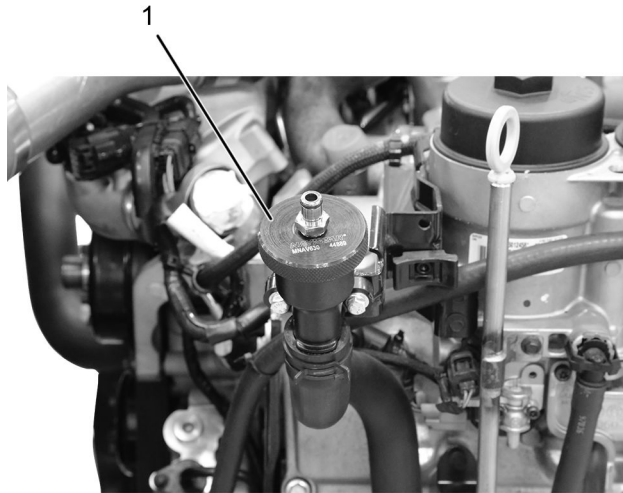
Figure 4. 12-999-05-04 Cap Adapter

1. Wingnut (2)
2. Adapter

1. Remove oil fill cap.
2. Install adapter (Figure 4, Item 2) onto oil fill tube. Tighten wingnuts (Figure 4, Item 1) securely.

Instructions (cont.)

MaxxForce® 7 Engine

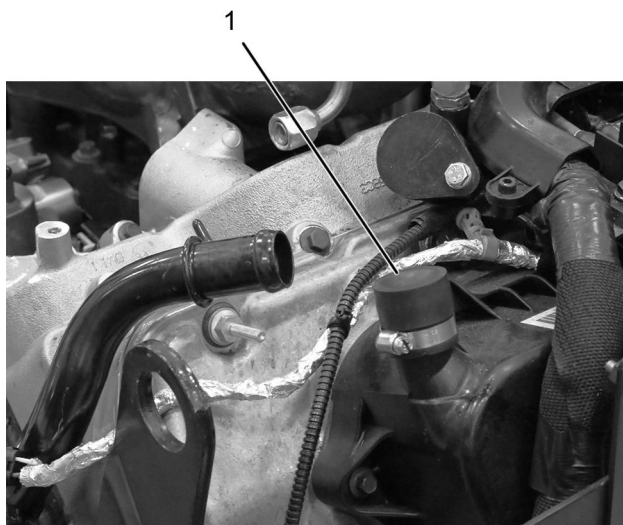


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Figure 5. 12-999-05-03 Cap Adapter

1. Adapter
1. Remove oil fill cap.
2. Install adapter (Figure 5, Item 1) onto oil fill tube. Tighten securely.

Instructions (cont.)



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Figure 6. 12-999-05-10 Breather Cap

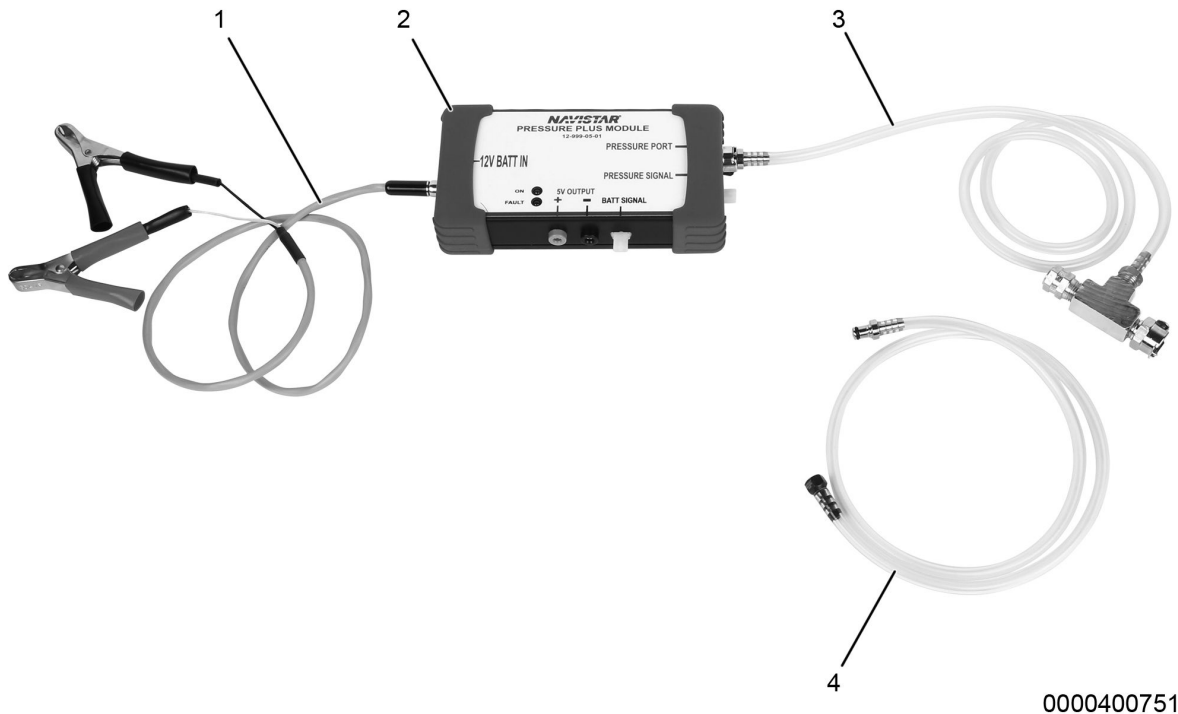
1. Cap

NOTE: Hose removed from graphic for clarity.

3. Disconnect hose at crankcase breather.
4. Install cap (Figure 6, Item 1) over crankcase breather port and tighten securely.

Instructions (cont.)

Module



0000400751

Figure 7. Module Overview

- | | | |
|--------------------------------------|--|--|
| 1. 12-999-05-07 Power Cord | 3. 12-999-05-02 Pressure Relief Valve Assembly | 4. 12-999-05-06 Tube, Crankcase Breather Adapter |
| 2. 12-999-05-01 Pressure Plus Module | | |

NOTE: Do not connect power cord to vehicle battery until instructed.

1. Connect power cord (Figure 7, Item 1) to port marked 12V BATT IN on module (Figure 7, Item 2).
2. Dependent on test procedure:
 - A. Connect valve assembly (Figure 7, Item 3) to port marked PRESSURE PORT on module.
 - B. Connect tube adapter (Figure 7, Item 4) to port marked PRESSURE PORT on module.
3. Connect valve assembly or tube adapter to cap adapter on appropriate engine.
4. Connect power cord to main vehicle battery.
5. Refer to service manual, service bulletin, or equivalent test procedure.

Instructions (cont.)

Disassembly – All Applications

1. When testing is complete, disconnect power cord from main vehicle battery.
2. Disconnect valve assembly or tube adapter from cap adapter.
3. Disconnect valve assembly or tube adapter from module.
4. Disconnect power cord from module.
5. **Vehicles equipped with MaxxForce® 7 Engines:** Remove breather cap and install crankcase breather hose.
6. **Vehicles equipped with MaxxForce® 13 or Navistar® N13 Engines, and single-cylinder air compressors ONLY:** If installed, remove block-off plate and install air compressor. Refer to appropriate service manual, service bulletin, or equivalent for detailed instruction.
7. Remove cap adapter and install oil fill cap.
8. Close hood.
9. Remove wheel chocks.

Contact Information

If you would like to order additional tools or need replacement parts, please refer to the Navistar Service Tool Catalog. If you have questions, concerns, or feedback, please contact Navistar Service Tool Support Center:

- Submit a Service Tool iKNow Case File.
- Phone: 800-365-0088 (toll free).