EGR Leak Detection Kit

NAVISTAR®

KL20040NAV

Operating Instructions

MaxxForce® 7, 2010 Emissions Model Year

K-Line® Special Service Tools

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Introduction:

This manual contains information to help you to learn about the safe and proper use of the KL20040NAV EGR Leak Detection Kit. K-Line® Industries, Inc cannot anticipate all conceivable or unique situations. The instructions and warnings included in this manual are not necessarily all-inclusive. You must make sure all conditions and procedures do not jeopardize your personal safety.

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Safety Precautions:

Before using the KL20040NAV EGR Leak Detection Kit read, understand, and follow the safety precautions and operating instructions outlined in this manual. This equipment must be operated by qualified personnel.

Personal Protection/ Important Information

⚠ WARNING

To avoid personal injury, carefully read and understand all instructions before attempting to operate any equipment or tools. Do not operate or work on a machine unless you read and understand the instructions and warnings in this and all other applicable manuals.

To avoid eye injury, always wear protective glasses to guard against possible flying particles and/or debris. If contact with eyes occurs, flush eyes with cold water for 30 minutes.

T**o avoid personal injury, always wear protective gloves.** If antifreeze/coolant comes in contact with skin, thoroughly was area with soap and water.

Hazard Avoidance

⚠ WARNING

To avoid personal injury, allow engine to cool completely. Hot antifreeze/coolant can burn skin.

To avoid inhaling mist or hot vapors, use this product in a well ventilated area. If inhaled, move to fresh air and call a physician. If swallowed, drink two glasses of water; induce vomiting; and call a physician.

To avoid personal injury or death, shift transmission to park or neutral, set parking brake and block wheels before doing diagnostic or service procedures.

Objective:

This tool kit is designed to perform leak tests on the EGR Cooler. The tests use air pressure while the operator looks for leaks in the form of bubbles in a can of water.

Application:

Market Name	Emissions Model	Unique Application (Optional)
MaxxForce® 7	Emissions Model Year 2010	Gen Set

Contents:

Part #	Description	Qty
KL20040-1	Single Hole Seal - Air Inlet	1
KL20040-2	Flange End Seal - Leak Detection	1
KL20040-3	End Seal	1
KL20040-4	End Seal	1
KL20040-5	Small Port Plug	1

KL20040-1
Single Hole Seal
Air Inlet

KL20040-2
Flange End Seal
Leak Detection

KL20040-3
End Seal

KL20040-4
End Seal

KL20040-5
Small Port Plug

General Use and Instructions:

CAUTION: *This tool kit uses compressed air at high pressures. Use EXTREME CAUTION during testing. For your safety, make sure ALL FITTINGS ARE TIGHT and DO NOT stand in front of fittings while under pressure.*

WARNING: *Safety glasses must be worn when using ship air.*

Before Proceeding:

Clean all sealing surfaces on the EGR Cooler. This will insure proper sealing of all the tools, and will eliminate any error in the procedure.

NOTE: *To reduce the chance of damaging the EGR cooler, set the Pressure Regulator (KL20020-13) to 45 psi before connecting it to the system and beginning the test.*

Tool Installation

2010 V8 EGR Cooler shown with all tools installed with a container of water to watch for bubbles.

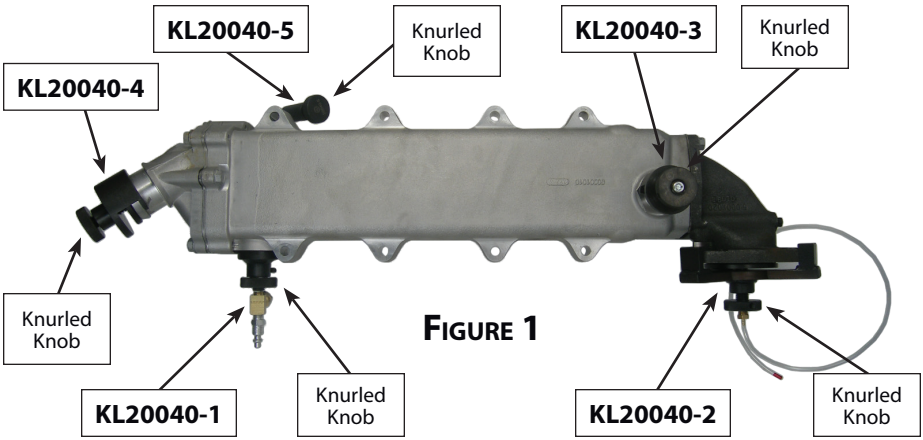

Figure 1

KL20040-1:

1. Before installing, back the knurled knob out several turns to ensure that there is enough clearance to properly install the tool.
2. Line the tool up with the proper holes, and tighten the knurled screw down into the threaded hole.
3. Tighten the knurled knob in order to compress the o-ring and seal against the inside of the pipe. Hand tight is sufficient; do not over tighten the knob as damage to the rubber seal and the pipe could result.

KL20040-3, KL20040-4, KL20040-5:

1. Before installing the tool, back the knurled knob out several turns to ensure that there is enough clearance to properly install the quick connect.
2. Slide the tool onto the pipe. The lower part of the tool will hook onto the outside of the pipe.
3. Turn the knurled knob slowly; making sure that the center of the tool aligns with the center of the pipe.
4. Tighten the knurled knob down until the rubber o-ring contacts the pipe and seals. Hand tight is sufficient; do not over tighten the knob as damage to the rubber seal and the pipe could result.

KL20040-2:

1. Before installing the tool, back the knurled knob out several turns to ensure that there is enough clearance to properly install the tool over the flange.
2. Set the tool over the flange, inserting the flange into the opening in the tool.
3. Turn the tool clockwise, sliding the flange into the slots, until the flange contacts the stops inside the tool.
4. When the tool is fully rotated clockwise over the flange, the knurled knob can be tightened until the rubber seal contacts the flange. Hand tight is sufficient; do not over tighten the knob as damage to the rubber seal and the pipe could result.

KL20020-13:

1. Connect a pressurized air line to the regulator assembly, and verify that the air pressure is being properly regulated to 45 psi. If it is not, use the regulator's adjustment knob to adjust the pressure to 45 psi.

Pressurize the System

NOTE: *The air poppet in KL20040-1 is set to 50 PSI to prevent damage to the cooler and for safety in the case of over pressurization.* **The compressed air line that is connected to this system must be regulated to 45 PSI.**

1. Connect the KL20020-13 to the KL20040-1, which is installed on the cooler.
2. Check for leaks by placing the end of the hose from the KL20040-2 into a container of water to a depth of .375" which is marked with red dye on the hose. The system must remain pressurized and the operator should look for air bubbles to come from the end of the hose. The bubbles indicate a leak, and a very small leak may take up to **5 minutes** to appear. This is the maximum time that would be required of the operator to watch for air bubbles to be sure there are no leaks in the cooler.

NOTE: *Be sure to record if the EGR cooler passed or failed the leak test.*

Disassembly

1. Disconnect the compressed air line from the KL20040-1.
2. Remove all tools from the cooler and clean any oil and dirt from it. Refer to installation instructions if needed and reverse them for removal.
3. Replace the tools in the storage case for protection.

NOTES

For product information or
to purchase replacement parts
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