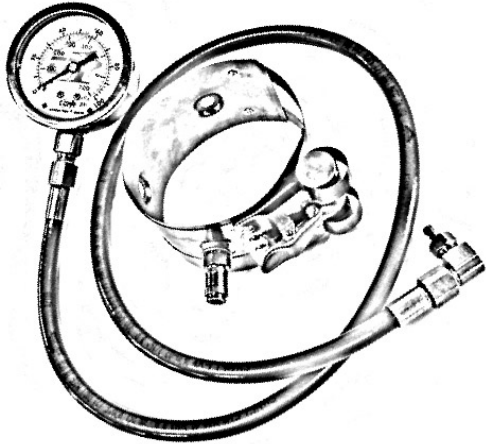




ENGINE OIL PRESSURE GAUGE OIL FILTER ACCESS TOOL P/N KT28



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Parts List

Storage Case.....	KT28BX-001
Gauge- Hose and Boot assembly.....	KT28GHB-001
Gauge.....	KT28G100-001
Hose assembly.....	KT28H001-3
Boot.....	KT28B-001
Oil Filter Access Tool.....	KT28OFAT-001
1/4' Elbow Key.....	KT28EK-001
Piercing Quick Connect Coupler.....	KT28PQCC-001
Male Connector Fitting.....	KTMCF-001
1/8-27 NPT Street Elbow 90.....	KT28SE-90
1/8-27 NPT Street Elbow 45.....	KT28SE-45
Silicone Washer.....	KT28SW-001-3
3/16-Rubber Cap.....	KT28RC-001-2
Instruction Manual.....	KT28IM-001

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ENGINE OIL PRESSURE GAUGE OIL FILTER ACCESS TOOL

Safety Information

IMPORTANT SAFETY INSTRUCTIONS

This manual contains important safety and operating instructions for the TPR1 ENGINE OIL PRESSURE GAUGE, OIL FILTER ACCESS TOOL. Refer to the information in this manual often for safe operation.

READ ALL INSTRUCTIONS

Read, understand and follow all safety messages and instructions in this manual and on the test equipment. Safety messages in this section of the manual contain a signal word, a one to three-part message and, in some instances, an icon. An icon, when present, gives a graphical description of the potential hazard.

! WARNING



RISK OF FLYING PARTICLES
* WEAR SAFETY GOGGLES, USER AND BYSTANDER.
* DO NOT EXCEED 100 PSI (700 kPa).
* BE SURE ALL CONNECTIONS ARE SECURE.
FLYING PARTICLES CAN CAUSE INJURY.

! WARNING

RISK OF SUDDEN VEHICLE MOVEMENT.
* BLOCK DRIVE WHEELS BEFORE PERFORMING OIL PRESSURE TEST.
* SET PARKING BRAKE AND PUT GEAR SELECTOR IN NEUTRAL FOR STANDARD TRANSMISSION OR PARK FOR AUTOMATIC TRANSMISSION.
* CHECK MANUFACTURERS SERVICE MANUAL FOR PROCEDURES.
A MOVING VEHICLE CAN CAUSE INJURY.

(Continued)

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Safety Information (Continued)

! WARNING



RISK OF ENTANGLEMENT.
* KEEP YOURSELF, CLOTHING AND TEST EQUIPMENT CLEAR OF MOVING PARTS.
ENTANGLEMENT IN MOVING PARTS CAN CAUSE INJURY.

! WARNING



RISK OF BURNS.
* DO NOT TOUCH HOT ENGINE COMPONENTS.
* AVOID CONTACT WITH HOT ENGINE OIL
HOT COMPONENTS CAN CAUSE INJURY.

! WARNING



GLASS LENS ON GAUGE CAN BREAK.
* DO NOT DROP OR HIT GAUGE FACE.
* DO NOT USE GAUGE IF GLASS LENS IS CRACKED OR BROKEN.
BROKEN GLASS CAN CAUSE INJURY.

! WARNING



RISK OF HIGH PRESSURE OIL SPRAY.
* DO NOT REMOVE GAUGE-HOSE ASSEMBLY WHILE ENGINE IS RUNNING.
* DO NOT REMOVE OIL FILTER ACCESS TOOL WHILE ENGINE IS RUNNING.
HIGH PRESSURE OIL SPRAY CAN CAUSE INJURY.

SAVE THESE INSTRUCTIONS

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Functional Description

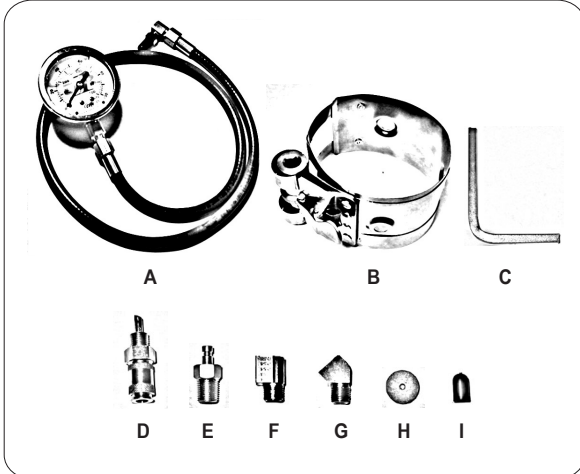


Figure 1; KT28 Engine Oil Pressure Gauge Oil Filter Access Tool

A - PRESSURE GAUGE - HOSE ASSEMBLY

Displays oil pressure of engine from 0 - 100 PSI (0 - 700 kPa).

B - OIL FILTER ACCESS TOOL

Tightens and locks around the oil filter.

C - 1/4" ELBOW KEY

Used to tighten the OIL FILTER ACCESS TOOL around the oil filter.

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Functional Description (Continued)

D - PIERCING QUICK CONNECT COUPLER

Pierces the oil filter wall. Female coupler for gauge - hose assembly.

E - MALE CONNECTOR FITTING

Connects gauge - hose assembly to piercing quick connect coupler.

F - 1/8-27 NPT STREET ELBOW 90

Enables gauge - hose assembly to hook - up in tight places that require a 90 degree elbow.

G - 1/8-27 NPT STREET ELBOW 45

Enables gauge - hose assembly to hook - up in tight places that require a 45 degree elbow.

H - SILICONE WASHER

Serves as seal between the oil filter wall and OIL FILTER ACCESS TOOL.

I - 3/16-RUBBER CAP

Use rubber cap to seal the male connector from unwanted oil leakage when storing gauge - hose assembly.

Tool Set-Up

TO OPEN OIL FILTER ACCESS TOOL

! CAUTION

POTENTIAL DAMAGE OF TOOL.

* **LOOSEN 2 SCREWS:** ON RATCHET.

* **INSERT KEY:** INTO RATCHET.

* **HOLD KEY:** THEN RELEASE THUMB PIECE.

* **ALWAYS TURN:** KEY TO OPEN TOOL.

* **NEVER SNAP TOOL OPEN:** BY RELEASING THUMB PIECE WITHOUT KEY.

* **THIS WILL DAMAGE:** THE RATCHET HOLDING CAPABILITIES OF OIL FILTER ACCESS TOOL.

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Tool Set-Up (Continued)

FIGURE 1: Is an application lists of the components included in this kit. If an adapter, (45, or 90 degree 1/8" NPT street elbow) is not required. The male connector fitting can be threaded on the end of the pressure gauge-hose assembly.

FIGURE 2: Shows the order of components when installing the piercing quick connect coupler (D) and internal star washer (C) into one of the three holes in the OIL FILTER ACCESS TOOL. Jamb nut (B) goes on the inside. DO NOT over tighten. Once secure, install silicone washer (A) over jamb nut. This serves as the seal between the oil filter wall and OIL FILTER ACCESS TOOL assembly.

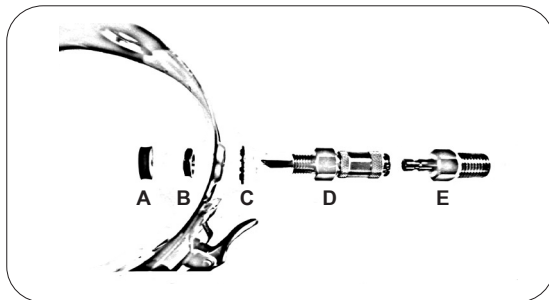


Figure 2; Piercing Quick Connect Coupler Assembly

A - SILICONE WASHER

B - JAMB NUT

C - INTERNAL STAR LOCK WASHER

D - PIERCING QUICK CONNECT COUPLER

E - MALE CONNECTOR FITTING

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Test Procedure

! WARNING

RISK OF SUDDEN VEHICLE MOVEMENT.

* **BLOCK DRIVE WHEELS BEFORE PERFORMING OIL PRESSURE TEST.**

* **SET PARKING BRAKE AND PUT GEAR SELECTOR IN NEUTRAL FOR STANDARD TRANSMISSION OR PARK FOR AUTOMATIC TRANSMISSION.**

* **CHECK MANUFACTURERS SERVICE MANUAL FOR PROCEDURES.**

A MOVING VEHICLE CAN CAUSE INJURY.

1. With the engine off, clean area on oil filter where the OIL FILTER ACCESS TOOL assembly will be installed.

2. Open the OIL FILTER ACCESS TOOL large enough to slip over the oil filter. Using the, " " elbow wrench or " " drive ratchet. Tighten the OIL FILTER ACCESS TOOL so that the coupler assembly pierces the oil filter wall. Snug up the OIL FILTER ACCESS TOOL assembly. DO NOT over tighten. Refer to FIGURE 3.



Figure 3; Oil Filter Access Tool installed with Gauge-Hose assembly

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(Continued)



Test Procedure (Continued)

3. Connect the male connector, gauge-hose assembly to the quick connect coupler on the OIL FILTER ACCESS TOOL assembly. Place the gauge-hose assembly away from the exhaust manifold, exhaust pipes, or any moving parts of the engine.

4. Start engine and check for oil leaks at the OIL FILTER ACCESS TOOL adapter connection. If there is any leakage immediately turn the engine off and correct the problem. Restart the engine and proceed with the engine oil pressure testing.

! WARNING

RISK OF HIGH PRESSURE OIL SPRAY.

* DO NOT REMOVE GAUGE-HOSE ASSEMBLY WHILE ENGINE IS RUNNING.

* DO NOT REMOVE OIL FILTER ACCESS TOOL WHILE ENGINE IS RUNNING.

HIGH PRESSURE OIL SPRAY CAN CAUSE INJURY.

*Oil pressure readings should be checked at operating engine temperatures. Refer to manufacturers service manual for accurate engine oil pressure specifications and testing procedures.

5. After completing the engine oil pressure test. Turn engine off. Remove connector, gauge-hose assembly from OIL FILTER ACCESS TOOL. Use rubber cap to seal the male connector from unwanted leakage when storing gauge-hose assembly. To remove OIL FILTER ACCESS TOOL assembly, INSERT 1/2" elbow wrench or 3/4" drive ratchet, unload the tension from the thumb-locking piece. ALWAYS TURN with elbow wrench or ratchet to open tool. NEVER SNAP TOOL OPEN by releasing thumb piece. This will DAMAGE the locking thumb piece holding-release capabilities. Remove the OIL FILTER ACCESS TOOL assembly. Remove and discard punctured oil filter. REPLACE with new one.

6. Check oil level and correct as necessary.

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Tool Maintenance

Wipe off excess oil, grease and dirt from OIL FILTER ACCESS TOOL assembly and hose-gauge assembly after every use. Visually inspect the silicone washer for damage or worn out. There are two extra silicone washers in each kit. Additional silicone washers and parts are available from TPR1. Keep all moving parts lightly oiled for years of good service.

TOOL REMEDIES

- A. Locking Thumb Piece is not holding Ratchet:
Remove pivot pin, thumb piece, and spring. Bend open spring for more tension. Reinstall components.
- B. Locking Thumb Piece is not holding Ratchet:
Remove pivot pin, thumb piece, and spring. Bend thumb piece slightly downward (locking tooth end) to change engagement angle on ratchet. Reinstall components.
- C. Pivot Pin loose:
Remove pivot pin, thumb piece, and spring. Bend pivot pin eye tabs (slightly twist). Reinstall components.
- D. Piercing Quick Connect Coupler Probe edge damaged:
Resharpener angle on probe with emery paper only.

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ENGINE OIL PRESSURE GAUGE OIL FILTER ACCESS TOOL

Limited One (1) Year Warranty

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TPR1 COMPANY WARRENTS THIS OIL PRESSURE GAUGE OIL FILTER ACCESS TOOL TO BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS FOR ONE (1) YEAR FROM THE DATE OF PURCHASE BY THE ORIGINAL COMSUMER.

TPR1 will repair or replace this gauge set if it fails to give satisfactory service due to defective workmanship or materials. Repair or replacement shall be at the election and expense of TPR1. Product must be returned to TPR1 for warranty service, unless such return is unreasonable. Proof of purchase date is required to make warranty claim.

TPR1 dose NOT provide any warranty for products subjected to abnormal use. Abnormal use includes misuse, accident, modification, unreasonable use, neglect, lack of maintenance, use in production related service, or use after tool is significantly worn.

TPR1 SHALL NOT BE LIABLE FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL COST OR DAMAGES INCURRED BY THE PURCHASER OR OTHERS (including without limitation, lost profits, revenues, anticipated sales, business opportunities, goodwill, or interruption of business and any other injury or damage). some states do not allow the exclusion or limitations of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty is your exclusive remedy and is in place of all other rights and remedies. You may have other rights which vary from state to state or country.

For further information contact:

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