

## No 3042 CYLINDER LEAK DOWN TESTER

### INSTRUCTIONS:

1. Turn regulator knob fully counter-clockwise (do not connect spark plug adapter hose yet).
2. Connect regulator to shop air supply (50-150 PSI). Turn regulator knob clockwise until the right hand regulator gauge reads to the middle of the area marked "set".
3. Tool is now ready to connect to the engine.
4. Allow engine to run until sufficiently warm.
5. Remove air cleaner, radiator cap (**use caution when removing radiator cap from a hot engine**) crankcase filter cap and all spark plugs.
6. Place cylinder to be tested on "Top Dead Centre" (T.D.C.) on the compression stroke. (So that exhaust and intake valves are closed.)
7. **IMPORTANT** -ensure vehicle is in park or neutral with ignition "off" and apply handbrake; and clothing Keep hand away from engine compartment, as engine rotation may occur.
8. Hand tighten adapter hose into spark plug hole and connect other end into the quick coupler on the tester.
9. Regulator gauge will now read percentage of leak down occurring in cylinder. Readings for each cylinder should be noted and compared after test.
- ~~10. The left-hand pressure gauge indicates the air pressure going into the cylinder. It is important that all cylinders be tested at the same air pressure.~~
11. Due to standard engine clearances and normal wear. no cylinder should be expected to maintain a perfect, no-leak reading. It is important that all cylinders have a relatively constant reading.

### POSSIBLE CAUSES FOR HIGH TO MODERATE CYLINDER LEAKAGE

By listening for escaping air at the carburetor intake, exhaust system, and crankcase breather, the cause of low pressure can be determined.

Air escaping from crankcase breather ,  
dipstick tube or sump plug hole

Defective rings or worn cylinder walls.

Air escaping from exhaust system

Defective exhaust valve.

Air escaping from carburetor

...Defective intake valve

Air bubbles in radiator or air escaping  
from adjacent cylinder spark plug hole Leaking head gasket, or crack in block or head

**NOTE:** The Cylinder Leak Down Tester will help pinpoint single problem areas in an engine, however should more than one problem exist this tool will only indicate the area of greatest leakage.

**WARNING:**  
**WEAR EYE PROTECTION**