ATD-5573A
2 Gauge Cylinder Leakage Tester
Manual

- New design incorporates a round, anodized body with permanent laser etching for a sleeker appearance
- New industrial interchange quick coupler allows use with most standard compression test adapters on the market (some adapters require removal of the valve core)
- New larger, easier to read leakage gauge has one multi-colored band for measuring low, moderate and high leakage, and a scale range from 0-100% with a redesigned gauge boot for added protection
- New larger, easier to read pressure gauge has a dual scale dial with ranges from 0-100 psi and 0-7 BAR with a redesigned gauge boot for added protection
- 2 gauge design allows for monitoring of input air-line pressure to ensure accurate testing
- Easy to use regulator allows for precise control of input air pressure
- Helps to pin-point problems indicated by a compression test or cylinder balance test
- Uses shop air to determine leakage source and the amount of leakage measured in percentage of loss
- Reducer adapter allows use of any 1/4" male quick connect plug

WARNINGS	
	Be certain that the vehicle is in “Park” or “Neutral”, and hands are clear of engine compartment, as engine rotation may occur while using this tool.
	Wear safety goggles.
	Avoid excess fuel spillage. Do not smoke or cause sparks or flame in the vicinity. Check all connections for leaks before and after testing.
	Do not touch engine components that are hot.

INSTRUCTIONS FOR CYLINDER LEAKAGE TESTER

- Pin-points problem shown by compression test or cylinder balance test.
- Uses shop air to determine leakage source and the amount of leakage measured in percentage of loss.
- The pressure gauge monitors inlet pressure to ensure accurate testing.
- Leak down gauge measures the percentage of compression leakage.

HOW IT WORKS

1. Regulated shop air is supplied to each cylinder and the gauge measures the rate of leakage.
2. Remove oil dipstick and radiator cap and disconnect one end of PCV hose. If vehicle has a carburetor, remove air cleaner and open throttle all the way. If vehicle is fuel injected, remove air cleaner or throttle body hose to listen at the throttle body.
3. To locate the source, listen at these places:
   A. Oil dipstick tube for bad rings
   B. Radiator filler for cylinder wall cracks or head gasket
   C. Adjacent spark plug hole for cylinder wall cracks or head gasket
   D. Tail pipe for exhaust valve leakage
   E. Carburetor air horn for intake valve leakage
   F. Fuel injection throttle body for intake valve leakage

HOW TO USE TESTER

IMPORTANT – Be sure that the regulator knob is turned FULLY counter-clockwise before connecting to shop air. Over-pressurized gauges are not guaranteed.

1. Run engine until it reaches operating temperature.
2. Remove car parts specified in (2) above, and disable the ignition system.
3. Remove all of the spark plugs and position the cylinder being tested to approximate top dead center on the compression stroke so both valves are closed. Rotate engine only in proper engine rotational direction. To position the cylinder correctly:
   A. Rotor points to cylinder coming up on compression.
   B. Piston is at approximately top dead center when reluctor teeth align with stationary core.
   C. A whistle that whistles on the compression stroke and stops at approximately top dead center can be quickly coupled to the cylinder hose of your tester.
4. Turn the regulator knob fully counter-clockwise. Then connect shop air 100–150 PSI to the regulator without the cylinder test hose connected. Turn regulator clockwise until the percentage gauge reads zero at the end of the yellow set band.
5. Screw the cylinder test hose into the spark plug hole and then connect the cylinder test hose to the gauge

set. The amount of leakage will now show on the gauge as a percentage loss. Locate the source of leakage if it is excessive by listening at places listed in (3) on page 1.

6. Test the rest of the cylinders and compare leakage to determine which cylinders are bad and why.

IMPORTANT

This cylinder leakage tester was designed to work with other thread size compression test adapters that are available from your local tool vendor. If using a compression test adapter in place of the cylinder test hose, the schrader valve must be removed.

HELPFUL HINTS

1. If 100% or excessive leakage shows on the percentage gauge, the cylinder may not be at approximately top dead center on the compression stroke. Check to make sure that the cylinder is correctly positioned to have valves closed. Try to position just before top dead center for uniform results.
2. Like in compression testing, it is important that all cylinders have fairly uniform readings. Differences of 15 to 30% indicate excessive leaking. Large engines tend to leak more than small ones.
3. There will always be some leakage past the rings even in a new engine.
4. The lower the pitch of the leakage sound, the greater the leakage.
5. Good listening devices are a length of hose or a mechanics' stethoscope with the probe removed.
6. Gauge readings may easily vary 10% or more when making repeat tests on the same cylinder(s). The piston position and the temperature of the engine can cause readings to vary.

REPLACEMENT PARTS

76020 M14 hose assembly
70301 M14 adaper, long thread
43141 M14 o-ring (5-pack)
41306 Industrial air coupler
71616 Regulator assembly
21009 Pressure gauge, 35 PSI (Optional)
20353 Percentage gauge, 35 PSI (Optional)
21006 Pressure gauge, 100 PSI (Included)
20354 Percentage gauge, 100 PSI (Included)
41917 Gauge Boot- red w/black overlay

* See your distributor for additional replacement parts.