

# Gunson®

**CYLINDER LEAKAGE TESTER  
C/W LONG REACH ADAPTOR**



[www.gunson.co.uk](http://www.gunson.co.uk)

**Guarantee**

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If this product fails through faulty materials or workmanship, contact our service department direct on: **+44 (0) 1926 818186**. Normal wear & tear are excluded as are consumable items & abuse.

**PART NO 77005  
INSTRUCTIONS**

## Introduction

One of the simplest tests for checking the condition of the engine is the cylinder leakage test. Compression leakage can show damaged valves, worn rings, blown head gasket or a cracked cylinder head.

The principle is simple, a cylinder with the piston at top dead centre with both valves closed should be airtight. By injecting a measured amount of air into each cylinder and checking the rate of leakage, the condition of the sealed system can be identified. Regular compression check is worthwhile preventive maintenance.

## Fault Detection

If the cylinder does not hold, it shows the air is leaking. By simply listening to various parts of the system you should be able to identify the leaking component.

Worn rings will allow air to seep into the crankcase and out of the oil system. Burnt exhaust valves will allow air to escape through the exhaust system. Burnt inlet valve will allow air to exit through the carburetor or air filter. Cracked cylinder head/block or blown head gasket will allow air to escape through the radiator or under the cylinder head. (This is easier to identify if the radiator water level is full to the top of the filler cap. Any leakage from the combustion chamber to water system will then cause radiator to overflow).

## Contents

- 1 Dual gauged Leak Detection unit
- 2 3/16" Flexi hose (200psi) with 14/18mm adaptor
- 3 Fixed Short Connector M14 x 25mm
- 4 Fixed Long reach adaptor M14 x 220mm

## Instructions for use

- 1 Run engine until normal operating temperature is achieved (usually 10 mins) Switch OFF ignition.
- 2 Remove air cleaner, oil filter cap, radiator cap.
- 3 Remove spark plug and perform the following procedures on each spark plug port hole in sequence. Replacing after each check
- 4 Connect air supply to connector (marked IN).
- 5 Release adjuster lock and adjust air pressure regulator to give a cylinder meter gauge reading of zero.
- 6 Lock adjuster at zero.
- 7 Manually turn engine until piston is at TDC (firing stroke) on relevant cylinder.
- 8 Lock engine in this position by engaging top gear and apply handbrake.
- 9 Fit Flexi hose to cylinder to be tested, then connect to the Leak Detection Unit.
- 10 Lock engine in this position by engaging top gear and apply handbrake.
- 11 Note reading and points of air escape.
  - a. Note: If piston is not exactly at TDC the air pressure may push the piston back down. An inaccurate reading will result and vehicle may move forward if handbrake has not been applied.
- 12 Repeat procedure for all cylinders.

## In this region, cylinder bore problems are more critical than valve faults

## Precautions

- Working with air pressure can be dangerous. Always adhere to workshop guidelines and wear the appropriate clothing.
- When running the engine, make sure there is enough ventilation and extraction of exhaust gases.
- Always work with the assistance of a manufacturer's recommended workshop manual.