HAZET-WERK

HIGHEST TECHNOLOGY IN TOOL MANUFACTURE SINCE 1868

4800-41

Cylinder Head Leakage Tester

(CO_2 leak detector)



Dear Customer,

You have made a good choice. With a HAZET Cylinder Head Leakage Tester, you have a quality tool in your hands. Directions for use are given below.

First, some general information –

Testing can be carried out at any time, whether the engine is hot or cold. As a rule, no preparation of the vehicle for a routine test is required. Nevertheless, if the engine has cooled over a prolonged period of time, fresh air will have been drawn into the cooling system, diluting any combustion gas which may be present in the air cushion.

The **HAZET 4800-41** Cylinder Head Leakage Tester permits the early, rapid and reliable detection of **leaks between the cooling system and the combustion chambers of all coolant cooled** petrol, diesel and LPG engines.

Any combustion gas which leaks into the cooling system through a defect in the cylinder head gasket, sealing faces, hairline cracks, cylinder liners or even porous parts of the cylinder head, collects in the air cushion in the radiator or header tank.

The **HAZET 4800-41** enables the air cushion to be tested for combustion gas (increased CO_2 content). Leaks **can also be detected subsequently**.

The blue detecting fluid indicates whether the in-drawn air contains an increased level of carbon dioxide by **changing colour from blue**, first to **green**, then to **yellow**. An increased CO_2 content in the cooling system indicates a leak between the combustion chamber and the cooling system, i.e. the presence of **combustion gas in the cooling system**.

The proven **'HAZET dual chamber system'** prevents erroneous diagnoses, as follows. In the first chamber, alkaline particles are absorbed while, in the second, a leak resulting in an **increased content of CO_2 gas** (combustion gas) will give rise to a **change in the colour of the fluid from blue to yellow**.

TEST PROCEDURE:

- Half-fill both chambers of the tester with reactive fluid.
- Remove the radiator cap and install a **HAZET 4800-4** special adapter or **HAZET 4800-3** universal adapter.
- Connect the tester **HAZET 4800-41**.
- Run the engine.
- After a short time, bubbles will form in both chambers.
- In the first chamber, impurities (e.g. coolant, etc.) may undergo a change of colour. The actual result, however, can only be determined from the second chamber in which the through-flowing gas alone is able to change colour.

TEST RESULTS:

- Fluid stays blue
- Fluid changes from blue to yellow (petrol engines) or from blue to green (diesel engines)

▸ No leak

▸ Leak in cylinder head gasket or cylinder head

The fluid can be restored to its original colour (blue) simply by blowing through with compressed air. It can continue to be used until it no longer reverts to its original colour.

Suggested uses:

As a routine test at every service and before replenishing antifreeze. To check repairs, e.g. after pronounced overheating of the engine as a result of a leak or defect in the water pump, V-belt, radiator hose, etc. In combination with a pressure test for externally escaping leaks (max. possible test pressure, 1 bar); this also reveals leaks which would otherwise only occur at a very high combustion pressure or when the vehicle is being driven.

Leak detector maintenance:

The non-return valve in the connector may become clogged with coolant and contamination. For cleaning purposes, wash the chambers out with white spirit and blow compressed air through the connector from below.

***) CAUTION - RISK OF SCALDING**: If the engine is hot, remove the cap slowly and allow the pressure to dissipate.

We reserve the right to alter technical specifications without notice.

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