British/European Standards
The appropriate British/European Standards for the Inspection and Testing of diving cylinders are BS EN 1968:2002 (steel) and BS EN 1802:2002 (aluminium).

These lay down the techniques and measurements to be made and also list the periods between tests.

1) Cylinders undergo a periodic visual inspection every 2½ years (PI).
2) Cylinders undergo a periodic visual inspection plus a hydraulic test every 5 years (PIAT).

1. Visual Inspection
The external and internal surfaces of the cylinder are examined for flaws/damage and the surfaces will be appropriately cleaned as necessary. The cylinder threads will be checked for form and wear as will the threads of the cylinder valve before servicing.

Some aluminium cylinders need eddy current testing of the neck area for “sustained load cracking (SLC)”.

2. Volumetric Hydraulic Test
This consists of completely filling the cylinder with water, subjecting it to the test pressure and measuring any permanent expansion that may occur. There should be NONE but up to 5% is allowed for inaccuracies in the test equipment.

After testing, the cylinder will be dried and re-assembled with its valve, which will have been serviced.

The Test Centre will stamp the shoulder of the cylinder with the unique IDEST Test Centre stamp, the year and the month of the test.

The standard also requires the Test Centre to apply a sticker indicating the year and month of the next periodic visual inspection for the cylinder.

It also requires the Test Centre to affix a label to the cylinder indicating the intended contents (e.g. Breathing Air) similar to the one below:

| Oxygen, Compressed |
| Oxygen, Compressed |

IDEST Standards
The Inspectorate for Diving Equipment Servicing and Testing (IDEST) was set up in 1985 with a view to providing an independent assessment for Test Centres to prove that they are working to the appropriate British Standards.

The checks are carried out by highly qualified and independent inspectors who check the equipment, personnel, documentation and records of the Test Centre. Those meeting the standard are given IDEST Approval and are awarded an Approval Certificate and the use of a unique IDEST Test Centre stamp.

In order to ensure that all Test Centres are working to the same standards and are interpreting them uniformly, IDEST Test Centres, and those seeking approval, all work to the IDEST Code of Practice CP11:2011.

IDEST works as the technical arm of the Scuba Industries Trade Association (SITA), with the main responsibility of Inspecting and Assessing Cylinder Test Centres and certifying Cylinder Test Technicians to National (UKAS) standards.

UKAS Accreditation
IDEST has been accredited by the United Kingdom Accreditation Service (UKAS) to Inspect, Assess and Certify Cylinder Test Technicians working in suitably equipped Test Centres.

The Accreditation by UKAS is to the standard ISO 17024 - “General Requirements for Bodies Operating a Quality System of Assessment and Certification of Persons”.

IDEST Approval

IDEST has the following aims and objectives:

- To offer a quality scheme for the inspection and approval of Cylinder Test Centres and for Cylinder Test Technicians.
- To encourage all with the responsibility for maintaining diving equipment to achieve a high standard of quality and safety.
- To inspect and approve Cylinder Test Centres in accordance with Industry standards.
- To carry out regular monitoring and re-inspection, to ensure that quality and standards are maintained.
- To carry out assessment and approval of Cylinder Test Technicians according to ISO 17024.
- To provide expert advice to IDEST Approved Test Centres and those seeking approval.
- To organise and run specialist seminars for IDEST certified Cylinder Test Technicians, as and when required.

Training and Approval
European Standards require that the inspection and test is carried out by a competent person. There is no unique legal definition of competence for cylinder testing. However, HSE considers that the following provide a suitable level of confidence in a cylinder inspectors’ competence for this task:

- appointment by the Secretary of State for Transport for the purposes of inspection of gas cylinders;
- working within the terms of an industry accredited scheme such as that operated by the Scuba Industries Trade Association (SITA) and the Inspectorate for Diving Equipment Servicing and Testing (IDEST).

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IDEST Approval

- Confirms working to British Standards
- Meets UKAS requirements for Cylinder Test Technicians
- Promotes good working practices
- Easily understood and economical to implement in the smallest workshop

For further information please contact:
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Whyteleafe, Surrey CR3 0BB
Tel: 01883 622690 www.sita.org.uk/idest

“Working towards your diving safety”

IDEST
Fully supported by the Scuba Industries Trade Association