Technical Information

CYLINDER VALVE MAINTENANCE T006

Guidance on Valve Maintenance at time of Cylinder Inspection

Valve removal and inspection

To comply with ISO 18119, ISO 11623 and CP11 at the time of Periodic Inspection and Testing (PIAT) 'hydro', and Periodic Inspection (PI) 'visual', the cylinder valve must be removed to examine the internal condition of the cylinder. At such time, the valve maintenance and inspection come under Sections 5.2.2, 5.2.3 and 5.2.4 of **ISO 22434 Inspection and maintenance of cylinder valves at time of periodic inspection of gas cylinders**.

Section 5.2.2 – Cleaning - covers the cleaning of a valve that needs to take place to facilitate inspection, with the valve remaining in the cylinder.

Section 5.2.3 - External examination - provides an extensive list of the defects that need to be checked also with the valve remaining in the cylinder.

Section 5.2.4 – Additional external examination – valve removed from the cylinder - list the additional defects to be checked. This involves the dismantling of all the valve components.

Advantages of complying with 5.2.4

1. Compliance with the current British, European, and Internal standards
2. Compliance with IDEST's procedures and Code of Practice CP11
3. Assurance that internal elastomers have been replaced with manufacturer's valve spares kits and the valve has been returned to an 'as new' condition
4. Providing your customers with a fully professional service
5. Non-compliance could lead to a 'failure in use'

Section 3.4.3 - defines refurbishment as "*operation involving dismantling of the valve, evaluation and re-use or replacement (if necessary) of its internal components, and reassembly to make it suitable for further service*".

Our guidance for valve servicing is, in order of preference:

1. replace the valve with new at the manufacturer's recommended interval, or when it is too old to be properly maintained
2. refurbish the valve with a full OEM service kit
3. refurbish the valve with OEM (bulk) parts
4. visually inspect non-elastomeric components (e.g. HP plug and seat etc), re-use or replace as required

In all cases elastomers and sealing parts (O-rings, copper washers etc) must be replaced with OEM parts (or identical high quality non-OEM equivalents). Use of non-OEM key parts (e.g. HP plugs and seat etc) is discouraged unless OEM endorsed, and certain they meet the original manufacturer's design intent.

Conclusion

It is therefore mandatory to service the valve completely as per Section 5.2.4 of ISO 22434.

Technical Information Sheet

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