**Combined Cylinder PI and PIAT Test Technician In-house Training Log**

**Technicians Name: Centre Name:**

# **Explanatory notes**

Adequate training, applicable to individual Test Centre’s cylinder testing procedures, should be given. This list is a guide and should be modified as required to the individual Test Centre’s requirements. Additional training can be given, such as the use of specific instruments, if it is felt necessary. The training statements may, if required, be simplified **but IDEST expects the trainee technician to be supervised a minimum of three separate times before having a practical test signed off.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Inspection Checklist Reference**  **Number** | **Subject** | **Practical**  **Display**  **Date** | **Supervised Practical**  **Dates** | | | **Certified competent**  **by Instructors initials** |
| **1st** | **2nd** | **3rd** |
| **1** | Describe the scope of all cylinders accepted for inspection and testing and the limits of the procedures carried out before resorting to subcontracting. |  |  |  |  |  |
| **2** | Understands the organisation of the Centre and its management. |  |  |  |  |  |
| **5** | Understands why correctly calibrated and accurate equipment is needed and used. |  |  |  |  |  |
| **6.1** | Is shown and understands how and when the Test Centre booking in procedures are carried out. |  |  |  |  |  |
| **6.2** | Knows the philosophy behind the work sheets and how to complete the relevant work sheet that must include a QA check. |  |  |  |  |  |
| **6.3** | Understands and can demonstrate how to locate and complete the Centre’s procedure for issuing a cylinder test certificate. |  |  |  |  |  |
| **6.4** | Knows how to locate, and refer to, the appropriate Standards, Codes of Practice, Statutory Legislation, |  |  |  |  |  |
| **6.5** | Knows how to locate, and refer to, the appropriate cylinder manufacturer’s drawings in order to carry out inspections correctly. |  |  |  |  |  |
| **6.6** | Knows how to locate, and refer to, the appropriate valve manufacturer’s drawings in order to carry out inspections correctly. |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Inspection Checklist Reference**  **Number** | **Subject** | **Practical**  **Display**  **Date** | **Supervised Practical**  **Dates** | | | **Certified competent**  **by Instructors initials** |
| **1st** | **2nd** | **3rd** |
| **8.1** | Understands the importance of the booking-in procedure and completes the job sheet correctly |  |  |  |  |  |
| **8.1.1** | Knows all equipment used within the Centre, and understands the operating instructions for that equipment. |  |  |  |  |  |
| **8.1.2** | Follows a procedure to ensure that no stage of the inspection, test or re-assembly is omitted. |  |  |  |  |  |
| **8.2** | Understands the principles of the risk-based assessment procedure |  |  |  |  |  |
| **8.3** | Understands and can demonstrate the procedure to confirm that each cylinder is at atmospheric pressure. |  |  |  |  |  |
| **8.3.1** | Understands and can demonstrate the procedure to ensure that the contents of a cylinder with a blocked valve can be released in an appropriate and safe manner. |  |  |  |  |  |
| **8.4** | Understands and can demonstrate the method for examining the exterior of a cylinder and for assessment of any damage. |  |  |  |  |  |
| **8.4.1** | Knows the Centre’s written procedure for external cleaning and finishing. |  |  |  |  |  |
| **8.4.2** | Understands the procedures for external shot blasting |  |  |  |  |  |
| **8.5** | Understands and can demonstrate how to safely remove a valve using correct tools |  |  |  |  |  |
| **8.6** | Understands and can demonstrate how to strip and assess valves and knows where to find drawings |  |  |  |  |  |
| **8.7** | Is shown and can replicate a procedure that confirms that the valve stem threads and the cylinder neck threads are compatible and are gauged to be within tolerance before re-assembly. |  |  |  |  |  |
| **8.8** | Understands and can demonstrate how to conduct a visual inspection and what to look for |  |  |  |  |  |
| **8.8.1** | Understands and can demonstrate the procedure for the internal cleaning of a cylinder. |  |  |  |  |  |
| **8.9** | Understands and can demonstrate the safe operation of a test rig and is aware of the set up and purpose of the over pressure device Not required for inspection only centres |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Inspection Checklist Reference**  **Number** | **Subject** | **Practical**  **Display**  **Date** | **Supervised Practical**  **Dates** | | | **Certified competent**  **by Instructors initials** |
| **1st** | **2nd** | **3rd** |
| **8.10** | Is shown and can replicate the principles of the method(s) of hydraulic testing employed by the Test Centre. (Volumetric or Proof Testing) Not required for inspection only centres |  |  |  |  |  |
| **8.10.1** | If the proof testing method is used, a procedure to ensure the exterior of the cylinder is dry, is in place, and used prior to testing. Not required for inspection only centres |  |  |  |  |  |
| **8.11** | Understands and can demonstrate the methods and importance of post-test drying procedures.  Not required for inspection only centres |  |  |  |  |  |
| **8.12** | Is shown and can conduct a procedure for the cleaning, inspection and maintenance of valves |  |  |  |  |  |
| **8.13** | Understands the procedure to confirm that the internal and external condition of the cylinder is satisfactory before its valve is re-inserted. |  |  |  |  |  |
| **8.13.1** | Understands and can demonstrate the correct re-fitting of the cylinder valve and use of torque wrench |  |  |  |  |  |
| **8.13.2** | Is shown and follows the procedure for re-assembly of the valve and cylinder, its refilling and leak testing. |  |  |  |  |  |
| **8.16** | Is shown and follows the policy and procedures for any maintenance that may be carried out in the Centre. |  |  |  |  |  |
| **8.18** | Understands the procedure that ensures that **condemned cylinders** are rendered unserviceable and segregated so that their destruction can be recorded. |  |  |  |  |  |
| **8.19** | Understands the procedure that ensures that **condemned valves** are rendered unserviceable and segregated and that their destruction can be recorded. |  |  |  |  |  |
| **8.20** | Is shown and follows a procedure that absolutely prevents the return of incomplete work and/or cylinders without valves to the customer. |  |  |  |  |  |
| **8.21** | Is shown and follows the reason for and the production process for a calibration chart required in 5.2 of the check-list Not required for inspection only centres |  |  |  |  |  |
| **8.22** | Understands and can demonstrate the procedure to confirm the accuracy of following listed equipment against a calibrated master certified to national standards. |  |  |  |  |  |
| **Inspection Checklist Reference**  **Number** | **Subject** | **Practical**  **Display**  **Date** | **Supervised Practical**  **Dates** | | | **Certified competent**  **by Instructors initials** |
| **1st** | **2nd** | **3rd** |
| **8.22.1** | -Hydraulic Test Rig Master gauge.  Not required for inspection only centres |  |  |  |  |  |
| **8.22.2** | -Any Torque wrench(s) |  |  |  |  |  |
| **8.22.3** | -A Tare Balance (if retained) |  |  |  |  |  |
| **8.22.4** | -Thread Gauges |  |  |  |  |  |
| **8.23** | Is shown and follows the procedures to ensure the cylinders are correctly stamped, colour coded and labelled Labels only required for inspection centres |  |  |  |  |  |
| **8.24** | Understands and can demonstrate the procedures to ensure the regular inspection and condition recording of all equipment used, in accordance with normal workshop practice. |  |  |  |  |  |
| **8.25** | Understands the policies and procedures that discourage the sale of bare valves or cylinders without valves to persons without proper training and facilities for the correct installation of valves into cylinders |  |  |  |  |  |
| **8.26** | Understands the Centre’s customer relations policy and procedures including those for failed cylinders and or valves and the customer complaints procedures. |  |  |  |  |  |
| **8.27** | Understands Workshop safety policies |  |  |  |  |  |
| **8.28** | Understands and can demonstrate the procedure for measuring cylinder wall thickness |  |  |  |  |  |
| **8.29** | Understands and can demonstrate the procedures for the detection of stress cracks in aluminium cylinders. If this is within the Centre’s scope. |  |  |  |  |  |
| **9.0** | Understands and can locate the Centre’s procedures for the retention and filing of records, including completed job sheets, Instrument/ equipment examination and calibration certificates and the records of equipment inspection |  |  |  |  |  |
| **9.1** | Understands and undertakes  the need for regular eyesight testing every 2 years and a copy of the optician’s certificate is held in the training record file |  |  |  |  |  |

**Declaration of Satisfactory completion of In-house Training**

I certify that the above-named technician has completed the cylinder inspection and testing training programme outlined in the preceding table and has demonstrated a standard appropriate for assessment by IDEST for competency in the inspection and testing of breathing gas cylinders to the required Local, National, European, and international standards.

Trainer…………………………………….Signature………………………………Date…………………

Trainer’s Title………………………………………………….

Trainee’s Signature…………………………………………………………………Date……………….