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Issue No 3

Here is the third issue of Torque, bringing us to the end of another year. There have been a few test centres leave IDEST for a variety of reasons, including as a result of IDEST investigation.

On the other hand there have been several new test centres become IDEST certified bringing the current total to 114.

This has been a good nett increase in the number of centres and hopefully this will continue into 2018.

May we take this opportunity to wish all centre staff and technicians a Merry Christmas and a Happy New Year.

Oval thread gauges

It has been noticed that test centres, when purchasing new gauges, thread or pressure, and torque wrenches, they are bought without calibration certificates. Torque wrenches do sometimes come with them, but not always.

Ring gauges, in particular, have been bought without calibration certificates and on the first calibration check it has been found that the gauges are actually oval. It is not known how use of a gauge can produce ovality in one year. It is, however, better to discover this discrepancy before the gauge has been purchased.

Cuts and Gouges

If you get a cylinder, usually Aluminium, that appears to have a cut or gouge in it do not summarily dismiss it as a failure. Check it closely, measure it and compare the results to the dimensions defined in Table C1 in the Standards. These give a good indication as to what can be passed and what should fail. Gouges can sometimes occur when cylinders are held in clamps that are not fully tightened. It may be found that they fall into the **'Repair if possible'** category.

Renewal Dates

Renewal reminders are sent out three months prior to the actual renewal date, with follow up reminders at two and one month advance notification.

This allows the checking of procedures and calibration tolerances to be carried out and any discrepancies rectified before the inspector visits. Anyone who has not replied or submitted correct certification will be asked to return their IDEST stamp and will be removed from the register and website until they have been inspected.

Visual or Hydro

When a cylinder has been brought in after its "due visual date" some people say

that it is passed its visual date so it must have a Hydro. NOT TRUE.
Some years ago a statement was issued by HSE saying that common sense should prevail. IDEST concurs with this statement.

If a cylinder has missed its visual date by up to eighteen months it only needs a visual inspection, BUT will still need a hydro at its due date i.e. the anniversary of its previous hydro.

If a hydro is ever actioned before its due date then its next due date will be the anniversary of test just carried out.

Use of acids for cleaning cylinders

We put out a note previously but it would appear it needs re-issuing. Some test centres are using Alibrite and Aliglow to clean cylinders. The advice from the manufacturers is do not use either in cylinders used for breathing gases. In some instances Phosgene (WW1 gas) can be produced. When discussing it with one cylinder manufacturer they said :-

'I agree, your advice is correct. We would not support the practice of acid cleaning of cylinders by test centres or users.

If not done correctly the acid can continue to attack the grain boundaries of the alloy. Also any remaining residues left inside could cause further chemical reactions, e.g. using phosphoric acid to clean and not correctly washed can lead to creation of phosgene gas.

There are also certain markets into which we do not supply acid cleaned cylinders.

The basic, simple answer is don't do it.'

The following procedures are recommended for I.D. cleaning of aluminum cylinders.

- Moisture and grime.
- Steam clean and blow dry.

Oil, grease, lubricants

Clean with a soapy solution - one tablespoon of liquid dish washing detergent to one gallon of tap water. Rinse several times with tap water, rinse twice with demineralized or soft water, steam clean and blow dry. Complete the process without a break. Never leave cylinder freestanding with water.

Odors

Rinse thoroughly with a solution of baking soda (one cup baking soda to one gallon of tap water). Rinse with clean tap water. Then, rinse with a solution of vinegar (one half cup of household vinegar to one gallon of clean tap water). Rinse several times with fresh tap water, rinse twice with soft water. Steam clean and blow dry. Complete the process without a break. Never leave cylinder

freestanding with water.

Corrosion

Tumble the cylinder at 25 to 35 rpm for 10 minutes with a wet detergent aluminum oxide chip combination (two to three cups of aluminum oxide tumbling chips to two quarts of soft water and one teaspoon of liquid washing detergent). Rinse cylinder well with warm tap water (or soft water if the tap water is hard), steam clean and blow dry.

NOTE: Use demineralized water or make sure water is soft.

IDEST would not accept any risk that may occur due to cylinders having been cleaned with anything other than water and detergent.

ISO 18119 update

This is the extract from the mail that our Chairman, Tony Marshall, sent to all the test centres on the 7th September 2016 regarding the update on the proposed new standard ISO 18119. This is included in case you did not receive the email at the time.

IDEST today attended the annual HSE Diving meeting at their Southwark Bridge offices with many of the major representatives from most of the diving sectors.

Offshore Diving, Inshore Diving, Scottish Police Diver Training, Northumbria Police Training School, MOD (Royal Navy/Army/Special Forces/Submarine/ Adventure Training), PADI, BSAC, HSL and HSE discussed and confirmed the UK Diving Industry Committee's Risk Based Assessment of Cylinder Visual Examination Periodicity.

BS EN ISO 18119:201X will supersede the existing BS EN 1968:2002 and BS EN 1802:2002 Standards which specify a period of 2.5 years between visual inspections. This period was to be reduced to annual visuals in the new International Standard. The recreational diving sector, through the auspices of BSAC (National Governing Body), became concerned that, with little evidence to support the annual visual, a risk assessment approach would better suit all diving sectors.

There followed considerable discussion with BSI, DfT, HSE, UKAS, VCA and Asset, driven by Gavin Anthony, recently retired from QinetiQ, to get acceptance of an additional clause in the informative annex of BS EN ISO 18119:201X as shown in the Risk Assessment document.*

As soon as we have more concrete information concerning the publication of BS EN ISO 18119:201X, we shall of course let you all know.

***A copy of the Risk Assessment document is available on request to Alistair Reynolds.**

Quarterly failed cylinder return forms

One of the requests made to test centres on being certified was to send in the **Quarterly Failed Cylinder Return Forms** to the Administration Office.

The information that these forms contain has proved invaluable in the decision to produce a Risk Assessment document to be considered for the proposed ISO 18119.

The more information we receive from our test centres regarding failed cylinders the more accurate the data will be. We would appreciate your help and assistance in collating more accurate data for future discussions with the HSE and other diving sector members.

Any concerns over the divulgence of individual business information, expressed by some test centres, can be dismissed as the information and data is totally anonymous.

Help IDEST improve diving safety by committing to send in your Quarterly Failed Cylinder data. **The 3rd Quarter return is now due!**
