

Title: Calibration Of Torque Wrench

Scope

Work Instruction for the internal calibration of torque wrenches. To be used in the absence of a manufacturers calibration instruction.

Preparation

Calibration must be carried out using Category A Master instruments as required.

Equipment required;-

1. Torque wrench analyser model TWA1000.

Method

1. All calibration results must be entered on the results sheets (see appendix A).
2. Note the lab temperature and R.H. and enter on results sheet.
3. Note the type of torque wrench and class and enter on the results sheet.
4. Determine the torque wrench settings equivalent to 20% F.S.: 60% F.S.:100% F.S. for each set of three calibration points, as applicable, and enter in "wrench setting" column.

Note: At 20% calibration point minimum settings must not be below 15lb f.ft:15Nm:180lb f.in, 2kg f.m.

5. Carry out five tests at each wrench setting and note results.

(ten tests are required for type 2, class C & F wrenches)

6. Check results are within the tolerance:

Type 1:	Class A & D $\pm 6\%$: Class B, C and E $\pm 4\%$
Type 2:	Class A & B $\pm 4\%$: Class D & E $\pm 6\%$
	Class C $\pm 4\%$: Class F $\pm 6\%$

(Note: for Class C and F torque value is arithmetic mean of the ten test readings obtained)

7. Complete the results sheet header and enter Pass / Fail.

- All records must be kept for audit purposes

References

Appendix A Calibration Results for Torque Wench

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Appendix A

Calibration Results for Torque Wrench

Model Serial No

Type Class

Date Result

Lab Temp / RH Operator

User..... Certificate No

Calibration accuracy specification is in accordance with BS EN26789 : 1994 or to the manufacturer's specifications.

Test No	Torque Wrench Setting lbf.ft	Calibration Standard Readings lbf.ft					Result
1							Pass / Fail
2							Pass / Fail
3							Pass / Fail

Test No	Torque Wrench Setting N.m	Calibration Standard Readings N.m					Result
4							Pass / Fail
5							Pass / Fail
6							Pass / Fail