LIXER TOOLS.COM
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ISO 9001:2015

7.1.5.2 Measurement traceability

When **measurement traceability** is a **requirement**, or is considered by the organization to be an essential part of **providing confidence** in the **validity of measurement results,** measuring equipment shall be:

a) calibrated or verified, or both, at specified intervals, or **prior to use**, against measurement standards traceable to **international or national measurement standards**; when no such standards exist, the basis used for calibration or verification shall be retained as documented information; (A **Lixer Calibration Tool** and **Tool Inspection Log** is ideal for this).

b) identified in order to determine their **status**; (such as a serial # or ID # and a calibration date and due date)

c) safeguarded from adjustments, damage or deterioration that would invalidate the calibration status and subsequent measurement results. The organization shall determine if the validity of previous measurement results has been adversely affected when measuring equipment is found to be unfit for its intended purpose, and shall take appropriate action as necessary.

Competence Training 7.2, 7.3

Handling Tape Measures

Tape Measures should be handled carefully. The end hook could be damaged if dropped or the blade could be bent or broken if pulled across a sharp edge. Allowing tape measures with self recoil to retract at unrestricted speed can damage the blade or end hook. Because tape measures are used at various extreme temperatures, they are subject to thermal expansion physics. Become familiar with the various markings on tape measures. Using the marks incorrectly will produce significant errors. Each user of a tape measure should be able to correctly identify the following marks found on common tape measures:

1/8" 1/16" 1/32" 1mm 1/2mm 10ths Ø ♦ II

End Hooks

Tape measures have several types of end hooks which could affect accuracy. Be familiar with push and pull accuracy of the regular tape measures. Push measurements on tape measures that have fixed end hooks or magnets attached could also cause measureable error. Also be aware of errors created by prongs, burrs, and manufacturing defects. End hook accuracy of most tape measures can easily be identified with a **Lixer Tape measure Calibration Tool**.

Fixed End Hook: some tape measures have a fixed end hook which does not move or slide. These tape measures should not be used for any push measurements.

Moveable or slideable end hooks: Most common tape measures have a moveable or slideable end hook. This allows both push and pull measurements to be accurate. It is helpful to use a **Lixer Tape Measure Calibration Tool** to verify accurate movements of the end hook.

Prong End Hooks found on reel tapes with flat blades can cause measurements to be off more than 1/16". Setting prongs properly will help eliminate this error.

Tension

Most flat blade reel type tape measures need proper tensioning. They can be easily damaged by over tensioning. No more than 1/16" of tension should be applied to the flat blade reel type tape measures per 100 ft in length.

NIST certificates provided by Lixer Tools provide useful information to insure the accuracy of your tools. Use of this information will increase accuracy and help eliminate careless errors.

I have read this material and understand better how to use and store tape measures.

Signature _____ Date _____

Printed Name _____