

how to use...



TORQUEMETER

DIAL INDICATING WRENCHES

the TORQUEMETER is an instrument for the precise application of torque

The TORQUEMETER is a *direct vision* torque wrench in which the torque applied is clearly shown on a calibrated dial and should not be confused with the 'break' type of wrench which collapses when a predetermined torque has been applied.

Some TORQUEMETER models, in addition to the indicating dial, are fitted with a Light Signal device to give a further indication when a required value has been reached.

For consistently accurate readings a steady even pull should be applied square to the TORQUEMETER and this force must be removed as soon as the dial indicates the required torque and (if fitted) the Light Signal operates. To continue pulling may overload the component being tightened.

All TORQUEMETER models are fitted with a Slave Indicating Pointer (fig 1) which follows and records the maximum position achieved by the main indicating pointer, thereby recording any accidental overload. It is important that the Slave Indicating Pointer functions at all times (except where a Light Signal is fitted), otherwise the torque value indicated on the dial may be outside of the guaranteed accuracy of the wrench.

On Light Signal models, the Slave Indicating Pointer is set to the required torque and when the two pointers are coincident, silver plated contacts close an electric circuit operating a red light to show that the required torque has been reached.

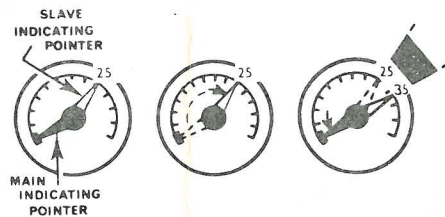


fig 1

Slave indicating Pointer follows the Main Indicating Pointer, recording overload, if any, and operating Light Signal (where fitted).

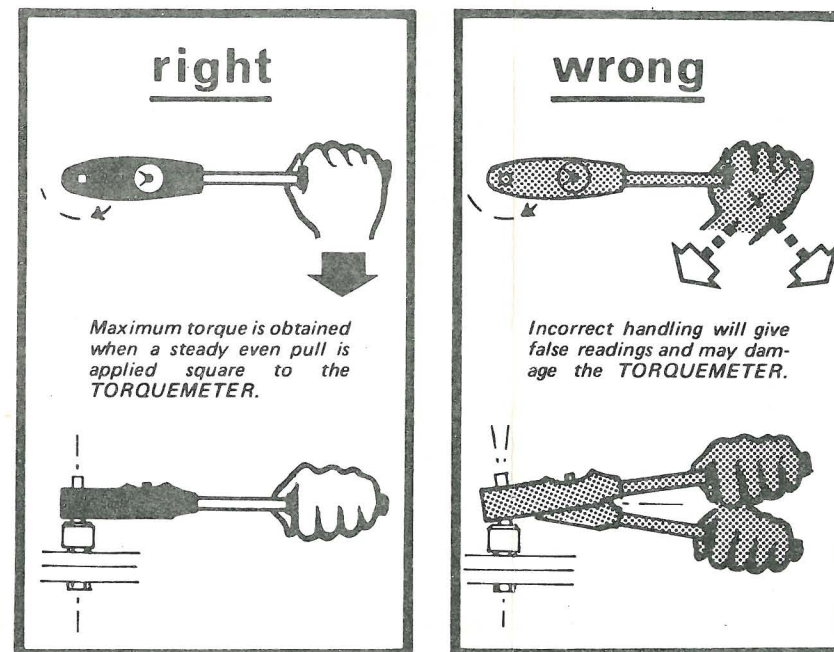
TORQUEMETERS are soundly constructed of high quality materials and pass a rigid factory test after assembly; nevertheless it is very important to use a TORQUEMETER with sufficient capacity for the job in hand, otherwise incorrect readings may result with possible damage to the recording mechanism.

For example:

| | TORQUEMETER | RANGE |
|---|-------------|---------------|
| If it is required to tighten a bolt and nut to a torque of 25lb-ft using a 3/8" or 1/2" drive socket, then any of these models, or their metric equivalents, will be within the capacity range. | A30 | (2-30) lb-ft |
| | B60 | (5-60) lb-ft |
| | B120 | (5-120) lb-ft |

NEVER use a TORQUEMETER outside of the range as shown by the highest figure on the dial.

HOW TO APPLY TORQUE



Do not use chemical solvents for cleaning the dial window

FOR LONG TROUBLE FREE SERVICE TORQUEMETERS SHOULD NOT BE SUBJECTED TO SHOCK LOADINGS OR CARELESS HANDLING

HOW TO FIND THE SAFE TORQUE FOR A BOLT

A practical and accurate method which takes into account variations in bolt design and material, is to insert a sample bolt in a clearance hole in a steel block, fit a washer and nut and tighten with a TORQUEMETER of suitable capacity until the bolt yields, that is, when the nut turns without a proportional increase in the torque applied. It is important to exert a steady even pull during this test.

Having determined the yield point, normal operating torque can be taken as 60% of this value.

Note

With high tensile bolts the Y.P. is not always clearly defined and the bolt may break at commencement of yield.

It is necessary to use a hardened washer with H.T. bolts to reduce friction and avoid false readings.

Our Technical Department is at your service to assist with all torque and related problems.

MOUNTZ, Inc. TORQUE & TOOL SPECIALISTS

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