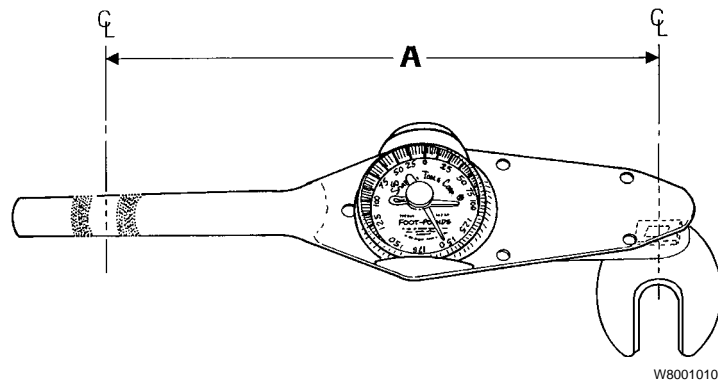


This Service Bulletin provides instruction about torque tightening using wrench extensions.

Special Tool Torque Wrench Extension

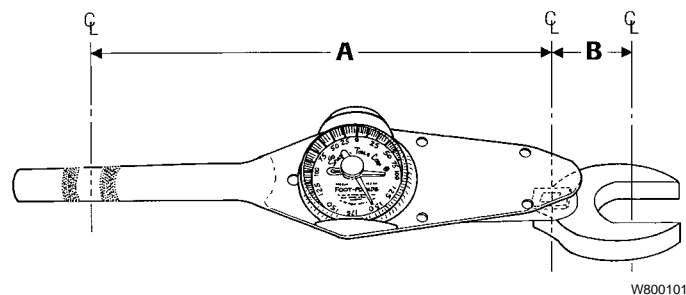
Torque Wrench Extension

Torque tightening is an important step when performing Service Procedures. The amount of torque applied with a wrench is determined by the distance from the center of the bolt or fitting to the end of the wrench. Placing an extension on the end of a torque wrench can add to the length from the bolt or fitting center to the end of the wrench, which adds to the leverage of the torque wrench and will affect the applied torque. To ensure that the torque indicated on the torque wrench is the actual applied torque, one of two methods may be used.



The simpler method is to place the open end of the wrench extension at a 90° angle to the torque wrench as shown above. This will not change the distance from the center of the bolt to the end of the wrench handle (A).

Otherwise perform the following to determine the correct torque wrench reading to apply the desired torque using an extension in the manner shown.



- 1 Measure the distance from the center of the torque wrench drive to a mark near the end of the wrench handle (A). This is the torque wrench length.
- 2 Measure the distance from the center of the wrench extension to the center of the torque wrench drive (B). This is the extension length.
- 3 Multiply the desired torque (T) by the torque wrench length (A). Then divide by the torque wrench length plus the extension length (A + B).

$T \times A / (A+B) =$ torque wrench reading (or click setting) to apply the desired torque.