



WZ 100 APPENDIX A

Steel ISO Metric Threaded Fasteners Torque/Clamping Force Performance

Recommended Testing Technique Using Manual Torque Wrenches to Determine Torque Performance Characteristics of Steel Hexagon Fasteners

A1. SCOPE.

This appendix describes a recommended method for measuring the torque and performance characteristics of fasteners, employing a manual torque wrench or other slow speed drive technique. It is intended primarily for product quality assessment. For referee purposes an automatic electronic sensing device shall be used (See Clause 6).

A2. APPARATUS.

A.2.1 Hand torque wrenches of a size suitable for the range of test torque values anticipated. Accuracy and range shall be as specified in Clause 6.1

A.2.2 Clamping force test fixture to hold the test fastener and test washer, and to measure the clamping force produced by tightening the fastener to be tested. (A strain gauge load cell is preferred, but a hydraulic cell is acceptable.) A suitable fixture is shown in Figure A1. Accuracy shall be as specified in Clause 6.2.

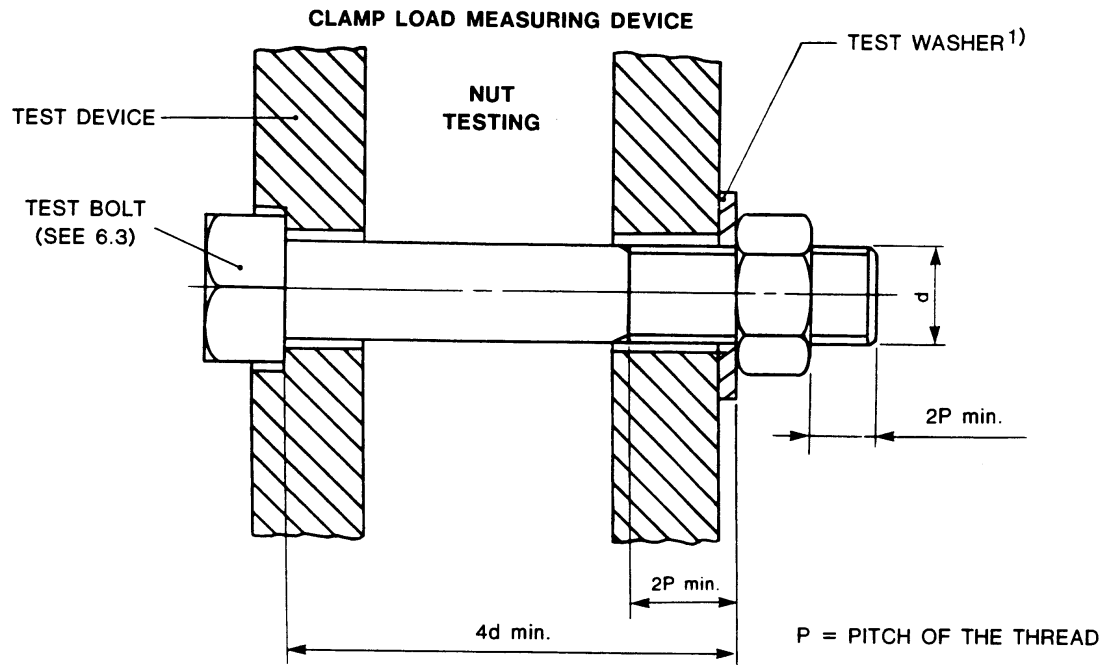
A3. TEST PROCEDURE.

The test method to determine torque/clamping force performance is specified in Clause 6.

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Figure A1. Plan of a test fixture - Clamp load measuring device



1) THE WASHER MUST BE PREVENTED FROM TURNING.

