POWER TOOL TEST FIXTURE FOR TRUCHECK™ PLUS 1000

© Norbar Torque Tools Ltd 2014
Part Number 34344 | Issue 2 | Original Instructions (English)
INTRODUCTION

The power tool test fixture acts as a repeatable bolted joint to enable the consistency of non-impact power torque tools to be measured. This manual covers a Norbar Power Tool Test Fixture (50757) and Joint Simulator Rundown Assembly (50758) that has been designed to be used in conjunction with a Norbar TruCheck™ Plus 1000 (43231) and the following range of Pneutorque® wrenches:

- PTM-52 series
- PT 72 series
- PTM-72 series
- PTME-72 series

The joint simulator uses disc-springs to control the joint rate. The springs are designed to cope with repetitive testing at rated capacity, so the performance remains consistent over the product life.

Parts Included

<table>
<thead>
<tr>
<th>Description</th>
<th>Drawing</th>
<th>Description</th>
<th>Drawing</th>
<th>Description</th>
<th>Drawing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint Simulator (50758) *</td>
<td></td>
<td>Reaction Plate Adaptor (62236)</td>
<td></td>
<td>46 A/F - ¾&quot; Drive Socket (29323)</td>
<td></td>
</tr>
<tr>
<td>Base Plate/Side Runners (62232 / 62234)</td>
<td></td>
<td>Circlip Retaining Ring (26486)</td>
<td></td>
<td>46 A/F - 1&quot; Drive Socket (29413)</td>
<td></td>
</tr>
<tr>
<td>Reaction Plate (62235)</td>
<td></td>
<td>27 A/F - 1&quot; Drive Socket (29403)</td>
<td></td>
<td>1&quot; Male - ¾&quot; Female Adaptor (29351)</td>
<td></td>
</tr>
</tbody>
</table>

* Item can be supplied separately for customers who wish to use their own reaction design.

FEATURES AND FUNCTIONS

- A consistent joint for power tool testing.
- Directly compatible with Norbar PTs (specified above) and Norbar TruCheck™ Plus 1000.
- For clockwise testing of power tools.

SET UP INSTRUCTIONS

**NOTE:** If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

1. **Base**

Secure base plate (62232) to a suitable surface using 4 x M10 socket head cap screws (minimum grade 8.8).

Ensure there is sufficient overhang to slide reaction plate onto base plate.

Torque tighten screws to a value of 45-50 N·m (33-37 lbf·ft).
2. TruCheck™

Mount the TruCheck™ Plus onto the base plate.

Set-up the instrument as specified in the TruCheck™ manual.

Ensure TruCheck™ Plus is in “dIAL” mode.

3. Power Tool Test Fixture

Position the joint simulator (50758) onto the TruCheck™ Plus instrument using the 27 A/F – 1” drive socket supplied (29403).

Slide reaction plate (62235) onto bed. If required, fit the splined reaction adaptor (62236) to reaction plate (for 52mm tools).

4. Tool

Connect up power tool as detailed in power tool manual.

WARNING: DO NOT USE IMPACT TOOLS.

Ensure torque setting on power tool is not above maximum rating for transducer.
Ensure torque setting on power tool is not above maximum rating for joint simulator.

Engage tool with reaction plate, either via splined location or blade reaction location. Secure in place using retaining ring.

Fit required drive socket(s) to fix power tool to joint simulator and reaction.

OPERATING INSTRUCTIONS

NOTE: Exceeding maximum torque will result in permanent damage to the disc-springs.

Tightening

Run tool in to joint simulator in CLOCKWISE direction.

Read torque value from measurement instrument.

Releasing

To release joint simulator rotate the hexagonal bolt in an ANTI-CLOCKWISE direction.

Reset measurement instrument as required.
SPECIFICATIONS

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Picture</th>
<th>Capacity</th>
<th>Overall Dimensions (Approx.)</th>
<th>Weight</th>
<th>Hexagonal Bolt A/F</th>
<th>Interface to transducer</th>
</tr>
</thead>
<tbody>
<tr>
<td>50758</td>
<td></td>
<td>1000 N·m (738 lbf·ft)</td>
<td>240mm x Ø70mm</td>
<td>5.5 Kg</td>
<td>46mm</td>
<td>27mm A/F to 1” Sq.</td>
</tr>
<tr>
<td>50757</td>
<td></td>
<td>1000 N·m (738 lbf·ft)</td>
<td>210 x 190 x 550</td>
<td>16.5 Kg</td>
<td>46mm</td>
<td>27mm A/F to 1” Sq.</td>
</tr>
</tbody>
</table>

Operating Temperature Range: 0°C to +50°C.
Storage Temperature Range: -20°C to +70°C.
Maximum Operating Humidity: 85% Relative Humidity @30°C.
Environment: Indoor use within a light industrial environment.

NOTE: Due to continuous improvement all specifications are subject to change without prior notice.

MAINTENANCE

NOTE: Always complete maintenance tasks on a clean work area.
Always wear suitable gloves for your protection.

Service / Repair

To service or repair the joint simulator, complete the following steps:

1. Remove joint simulator from TruCheck™ Plus.
2. Unscrew M30 hexagonal bolt (25574) in an anti-clockwise direction.

   The M30 hexagonal bolt is the item most prone to wear. It is recommended to grease this item regularly with Rocol M204 G Graphite grease or Rocol Tufgear 85. Replace hexagonal bolt when worn.
3. To access the spring(s):
   - Remove the 3 x M6 button head screws that retain the drive shaft (62230).
   - Slide out the drive shaft to reveal the disc-spring stack.
   
   **TIP:** It is important to note the orientation of the spring(s) ready for reassembly.

4. Clean spring(s) or replace with new spring(s). Grease springs with Rocol M204 G Graphite grease or Rocol Tufgear 85.

5. Replace disc-spring stack paying careful attention to arrangement.

6. Replace drive shaft and retain with 3 x M6 button head screws.

7. Grease and replace M30 hexagonal bolt.

**Cleaning**

Do not use abrasives or solvent based cleaners.

**Disposal (Recycling Considerations)**

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint Simulator Housing</td>
<td>Steel</td>
</tr>
<tr>
<td>M30 Hexagonal Bolt</td>
<td>Steel</td>
</tr>
<tr>
<td>Base Plate/Side Runners</td>
<td>Aluminium/Steel</td>
</tr>
<tr>
<td>Reaction Plate</td>
<td>Steel</td>
</tr>
<tr>
<td>Reaction Adaptor</td>
<td>Steel</td>
</tr>
<tr>
<td>Hardened Washer</td>
<td>Steel</td>
</tr>
</tbody>
</table>

For up to date disposal information, see our web site www.norbar.com.
POWER TOOL TEST FIXTURE FOR TRUCHECK™ PLUS 1000