

# **SPECIAL HYDRAULIC WRENCH CALIBRATION FIXTURE**



## SPECIFICATIONS

| Part Number | Dimensions                     | Weight<br>(Excluding Transducer) | Maximum Torque                                |
|-------------|--------------------------------|----------------------------------|---|
| 80030       | H 286 mm x L 710 mm x W 380 mm | 140 kg                           | Small TD = 7,000 N·m<br>Large TD = 50,000 N·m |

## MAINTENANCE

### Cleaning

Keep the tool in a clean condition to aid safety. Do not use abrasives or solvent based cleaners.

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# PART NUMBERS COVERED BY THIS MANUAL

| Part Number | To Fit Transducers                         | Drive Square | Maximum Torque |
|-------------|--|--------------|----------------|
| 80030       | 50703, 50704, 50599<br>50630, 50699, 50791 | 1 ½"         | 7,000 N·m      |
|             | 50776, 50777, 50797<br>50799, 50798, 50781 | 2 ½"         | 50,000 N·m     |

## INTRODUCTION

This manual covers the setup and use of the Norbar hydraulic tool test system (Part No. 80030). The calibration fixture is designed to be used with the correct Norbar calibrated static transducer to test Inline ratcheting hydraulic torque wrenches.

## SAFETY

**IMPORTANT: DO NOT OPERATE THE SYSTEM BEFORE READING THESE INSTRUCTIONS. FAILURE TO DO SO MAY RESULT IN PERSONAL INJURY OR DAMAGE TO THE TOOL UNDER TEST.**

Isolate the tool from all energy sources before changing or adjusting the drive square or socket.



There is a risk of crushing between the reaction bar and work piece.

Keep hands away from reaction bar.

Keep hands away from tool output.

Keep loose clothing, hair, etc. from being caught in any rotating part of the tool.

Use only sockets and adaptors which are in good condition and are intended for use with power tools.

Read operating instructions for hydraulic tool.

Read operating instructions for transducer and measurement instrument.

# FITTING INSTRUCTIONS

## Securing the Fixture to a Solid Surface

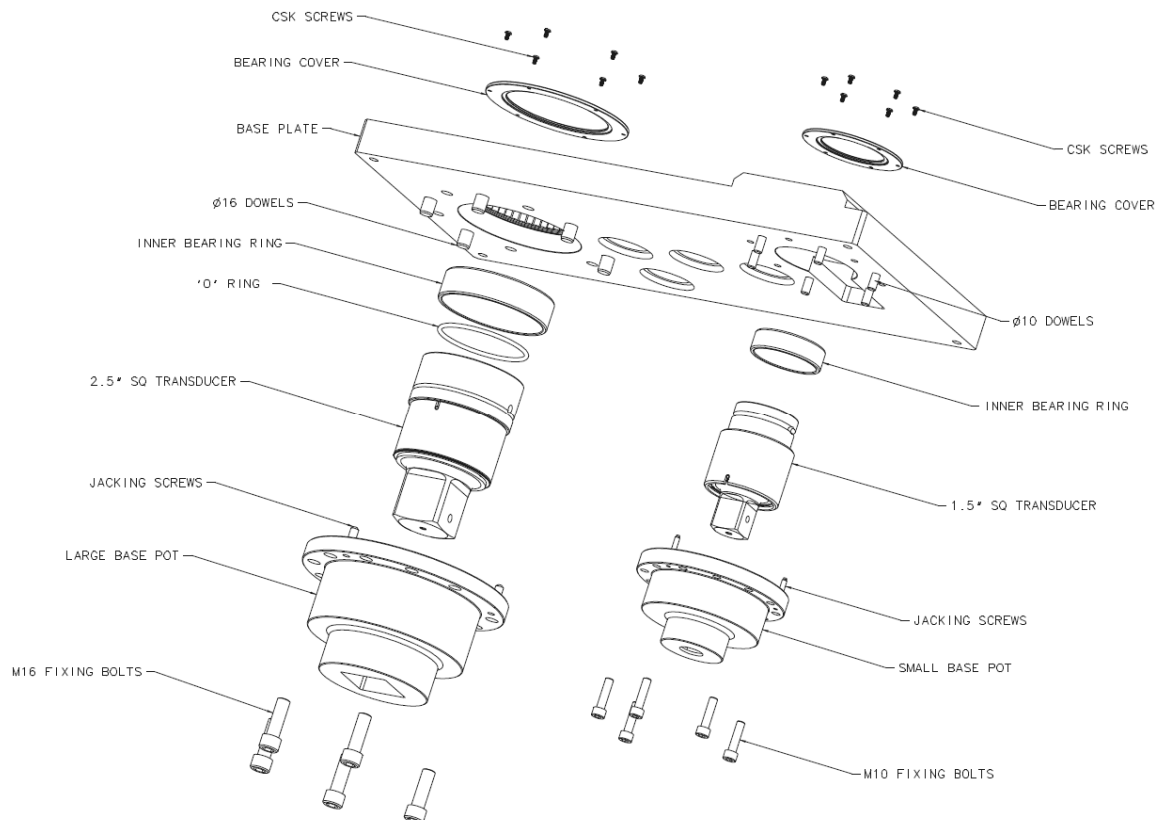
The fixture should be securely fastened to a solid bench of sufficient strength to withstand the weight of the fixture. Approximate weight without the transducers is 140 kg. The bench should have a large enough cut-out to allow clearance for the base pots and access for cables. Provision should be made to machine 4 holes into the bench to accommodate M10 bolts.

**TIP:** Use the fixture as a guide to correctly position the holes.

## Fitting the Transducer

Either fit transducers before the fixture is seated onto a suitable bench assembling the transducers upside down or assemble from underneath the bench if access allows.

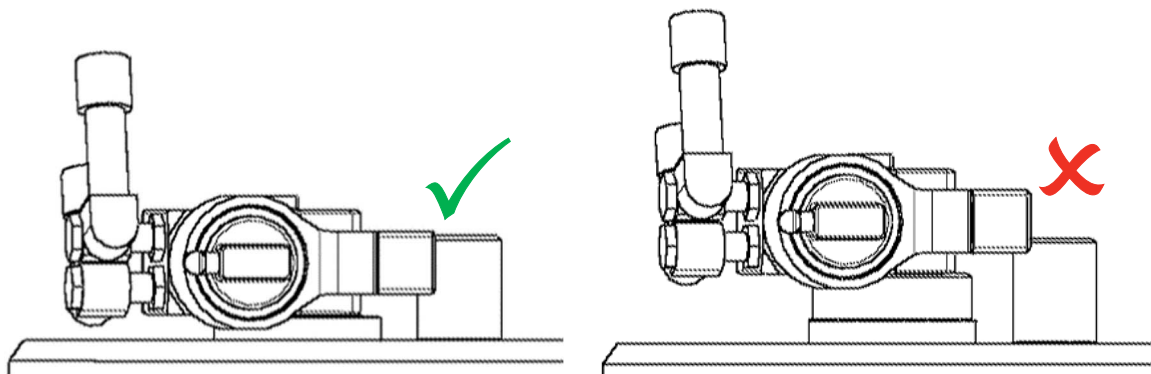
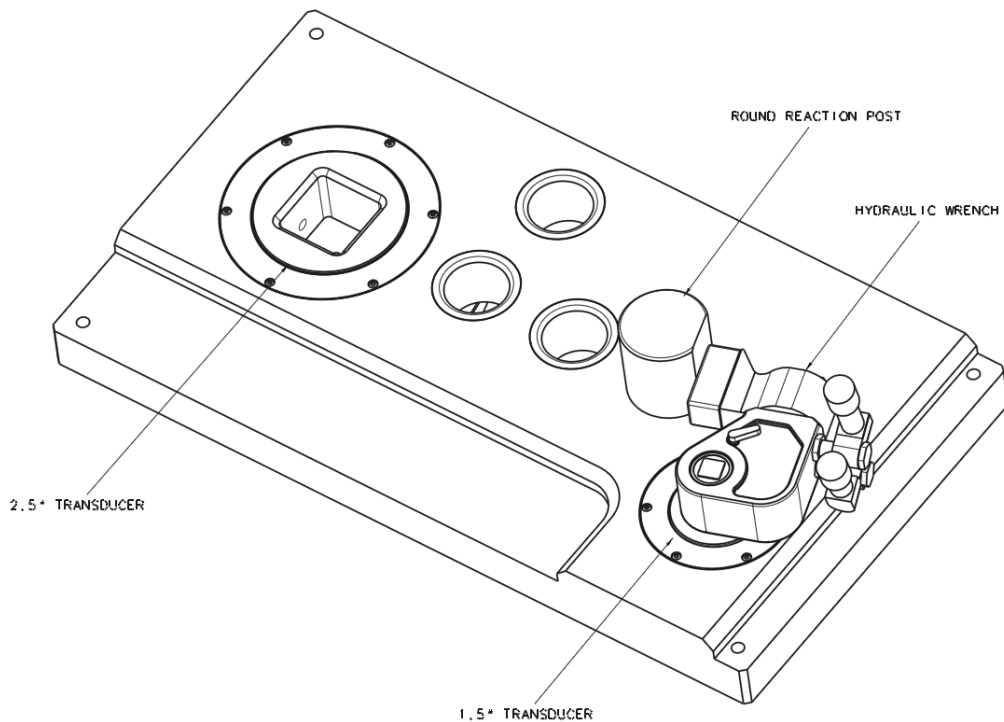
1. Remove the bearing cover by undoing the 6 countersink screws. (CSK)
2. Remove inner bearing ring and 'O' ring if applicable.
3. Remove the bolts securing the base plate to the base pot. Then screw down the jacking screws to lift the base pots away from the dowels.
4. Once the base pot is removed, the transducer needs to be placed into the female square in the base of the fixture. Select the correct transducer to match the fixture. (See previous table).
5. Make sure the electrical connector socket is in line with the side hole and if applicable (large transducer only) place the 'O' ring onto the transducer.
6. Drop the inner bearing ring and 'O' ring (if applicable) onto the transducer and replace the base pot back onto the base plate. Tighten up the bolts securing the base plate to the base pot. Depending on fixture size M16 bolts tighten to 325 N·m and M10 bolts tighten to 72 N·m.
7. Fit the bearing cover back into the reaction plate.
8. Plug the electrical lead into the socket of the transducer through the side hole.



# OPERATING INSTRUCTIONS

The fixture should be securely fastened to a solid bench of sufficient strength to withstand the weight of the fixture. Push the reaction post into the required hole centre position. Use only the fixture that is designed to match the maximum torque of the Hydraulic wrench. Only use one reaction post at a time. Never use with a larger capacity wrench than the fixture is designed to operate at. Keep all body parts away from reaction posts when operating. Keep the hydraulic wrench as close to the reaction plate as possible.

Once the hydraulic wrench is set in the fixture, operate the wrench to the required torque and take the reading from the display device.



**IMPORTANT:** ALWAYS REACT AS CLOSE TO BASE AS POSSIBLE. DON'T REACT AT TIP OF REACTION POST.



**WARNING:** KEEP HANDS CLEAR OF THE REACTION BAR.



**WARNING:** REFER TO OPERATORS HANDBOOK FOR THE USE OF HYDRAULIC TOOL.

**NORBAR TORQUE TOOLS LTD**

Wildmere Road, Banbury,  
Oxfordshire, OX16 3JU  
UNITED KINGDOM  
Tel + 44 (0)1295 270333  
Email [enquiry@norbar.com](mailto:enquiry@norbar.com)

**NORBAR TORQUE TOOLS PTE LTD**

194 Pandan Loop  
#07-20 Pantech Business Hub  
SINGAPORE 128383  
Tel + 65 6841 1371  
Email [enquires@norbar.sg](mailto:enquires@norbar.sg)

**NORBAR TORQUE TOOLS**

45–47 Raglan Avenue, Edwardstown,  
SA 5039  
AUSTRALIA  
Tel + 61 (0)8 8292 9777  
Email [norbar@norbar.com.au](mailto:norbar@norbar.com.au)

**NORBAR TORQUE TOOLS (SHANGHAI) LTD**

91 Building-7F, No.1122 North Qinzhou Rd,  
Xuhui District, Shanghai  
CHINA 201103  
Tel + 86 21 6145 0368  
Email [sales@norbar.com.cn](mailto:sales@norbar.com.cn)

**NORBAR TORQUE TOOLS INC**

36400 Biltmore Place, Willoughby,  
Ohio, 44094  
USA  
Tel + 1 866 667 2279  
Email [inquiry@norbar.us](mailto:inquiry@norbar.us)

**NORBAR TORQUE TOOLS INDIA PVT. LTD**

Plot No A-168, Khairne Industrial Area,  
Thane Belapur Road, Mahape,  
Navi Mumbai – 400 709  
INDIA  
Tel + 91 22 2778 8480  
Email [enquiry@norbar.in](mailto:enquiry@norbar.in)

**[www.norbar.com](http://www.norbar.com)**