

HYDRAULIC WRENCH CALIBRATION FIXTURE



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PART NUMBERS COVERED BY THIS MANUAL

Part Number	To Fit Transducers	Drive Square	Maximum Torque
80026*	50703, 50704, 50599, 50630, 50699*	1 ½"	7,000 N·m
80022*	50776, 50777, 50778*, 50779*, 50780*, 50781, 50797, 50798, 50799	2 ½"	50,000 N·m
80023*	50782, 50783	3 ½"	80,000 N·m
80031	50703, 50704, 50599, 50630	1 ½"	7,000 N·m
80029	50776, 50777, 50781, 50797, 50798, 50799	2 ½"	50,000 N·m
80032	50782, 50783	3 ½"	80,000 N·m

* - currently obsolete part numbers

INTRODUCTION

This manual covers the setup and use of the Norbar hydraulic tool test system. The Calibration fixture is designed to be used with the correct Norbar calibrated static transducer to test inline ratching 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

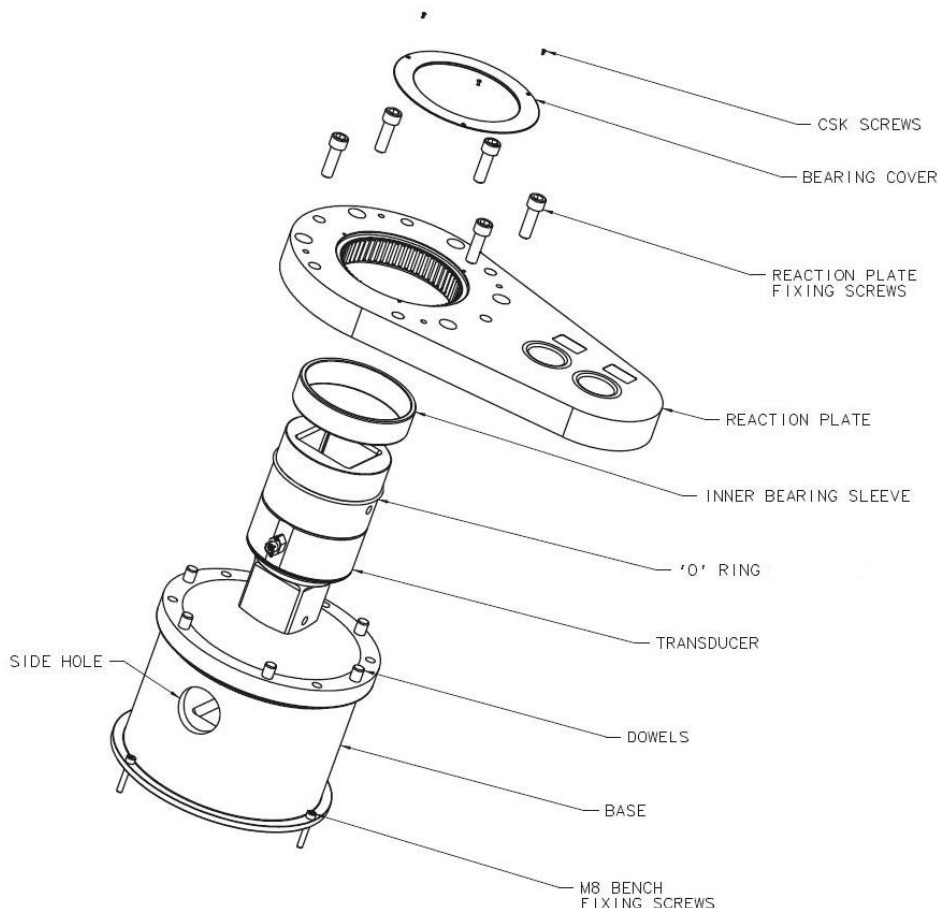
Securing the Fixture to a Solid Surface

The fixture should be securely fastened to a solid bench of sufficient strength to withstand the weight of the fixture. Provision should be made to machine 3 holes into the bench to accommodate the supplied M8 x 50 long cap head screws. Use the fixture as a guide for correctly positioning the holes. The M8 screws should be tightened against M8 nuts and washers (not supplied).

Fitting the Transducer

Once the fixture has been secured to a solid surface the static transducer needs to be fitted to the fixture.

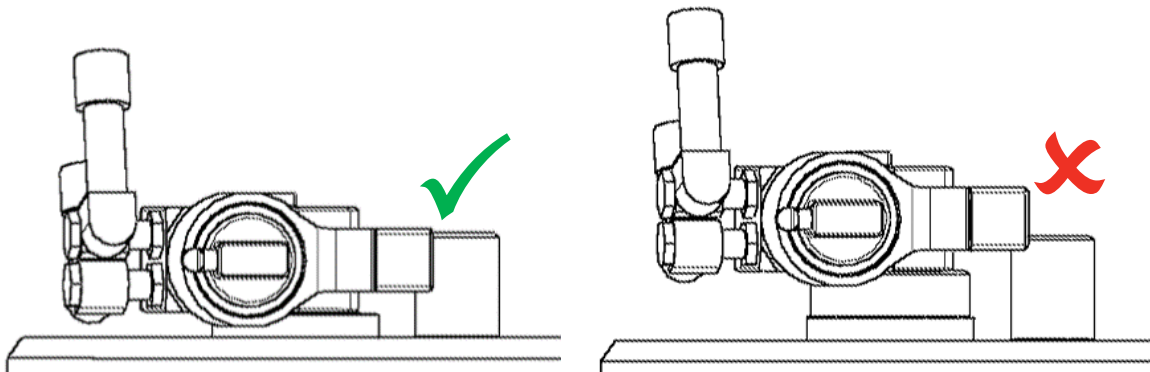
1. Remove the square and round reaction posts from the top reaction plate.
2. Remove the lifting eye bolts. Then remove the bearing cover by undoing the 3 countersink screws.
3. Remove the bolts securing the reaction plate to the base.
NOTE: For 80026, 80022 and 80023 only, screw down the jacking screws to lift the reaction top plate away from the dowels.
4. Once the reaction plate 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 place the 'o' ring if required onto the transducer.
6. Drop the inner bearing sleeve onto the transducer and replace the reaction plate back onto the base. Tighten up the bolts securing the reaction plate to the base, see specifications on page 4 for N·m values.
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 either the round or the square reaction post into the centre position of required hole. Read the maximum torque allowable for each 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, as stated on the reaction plate. 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 MANUAL FOR THE USE OF HYDRAULIC TOOL.

SPECIFICATIONS

Part Number	Dimensions	Assembly Torque Settings	Weight (Excluding Transducer)	Maximum Torque
80026*	H 202 mm x L 330 mm x W 190 mm	M10 Bolt = 72 N·m	19.0 Kg	7,000 N·m
80022*	H 259 mm x L 450 mm x W 250 mm	M12 Bolt = 122 N·m	50.0 Kg	50,000 N·m
80023*	H 362 mm x L 620 mm x W 340 mm	M16 Bolts = 325 N·m	105.0 Kg	80,000 N·m
80031	H 252 mm x L 415 mm x W 190 mm	Shoulder screw M8 = 27 N·m	21.5 Kg	7,000 N·m
80029	H 278 mm x L 450 mm x W 250 mm	Shoulder screw M10 = 56 N·m	52.0 Kg	50,000 N·m
80032	H 362 mm x L 620 mm x W 340 mm	Shoulder screw M12 = 96 N·m	109.5 Kg	80,000 N·m

* - currently obsolete part numbers

MAINTENANCE

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

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