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CHRISTIE
TOTAL TORQUE SOLUTIONS

BENCH MOUNTED RUN DOWN FIXTURE
USER GUIDE

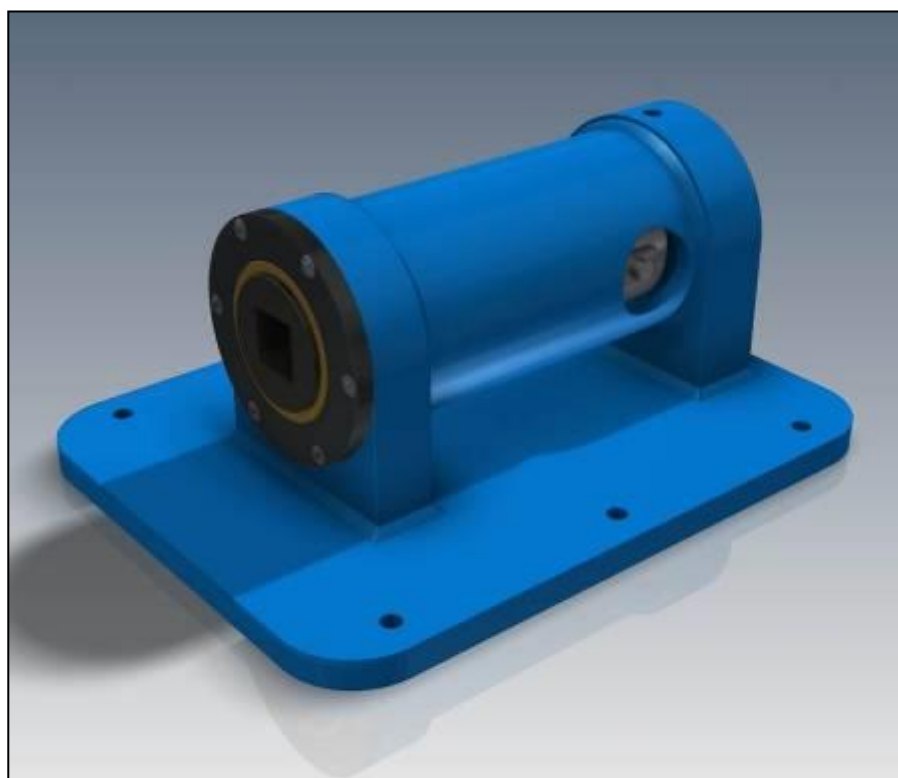


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INTRODUCTION

The Run Down Fixture is an apparatus to enable the calibration of rotary torque tools and nut runners.

The Run Down Fixture is designed to simulate the working conditions of screwed or bolted joints.

The system is supplied with a torque transducer and used in conjunction with a torque readout.

The system is not suitable for the testing or calibration of impulse wrenches or impact wrenches.

TRAINING REQUIREMENTS

Training on the correct use of the Run Down Fixture or any other W. Christie product is available. Please contact W. Christie (Industrial) Ltd for more information

GENERAL SAFETY

In use, the reaction of torque tooling under test will be taken on the reaction block. Care should be taken to prevent trapping hazard between the two. Trapping in this area can result in serious personal injury.

The Run Down Fixture must be securely fastened down prior to being used.

When using any rotary torque tools W. Christie (Industrial) Ltd recommend that operators are equipped with the following personal protective equipment (PPE):-

- Eye Protection (Safety Glasses / Goggles)
- Safety Footwear (Steel Toe Cap Boots)
- Heavy Gloves

When operating the rotary torque tool operators must not wear loose clothing, ties, jewellery etc... Long hair must be tied back to prevent entanglement with rotating parts.

Do not exceed the maximum torque rating for the Run Down Fixture this may cause permanent damage to the Torque Transducer and joint components.

RUN DOWN FIXTURE MODELS COVERED BY THIS MANUAL

Model	Input Square Drive	Torque Range (Nm)		Weight (Kg)
		Minimum	Maximum	
1000 Nm	1"	100	1000	30
2500 Nm	1" or 1-1/2"	250	2500	33
5000 Nm	1-1/2"	500	5000	33

Model	Input Square Drive	Torque Range (lbf.ft)		Weight (Kg)
		Minimum	Maximum	
1000 lbf.ft	1"	100	1000	30
2500 lbf.ft	1-1/2"	250	2500	33
5000 lbf.ft	1-1/2"	500	5000	33

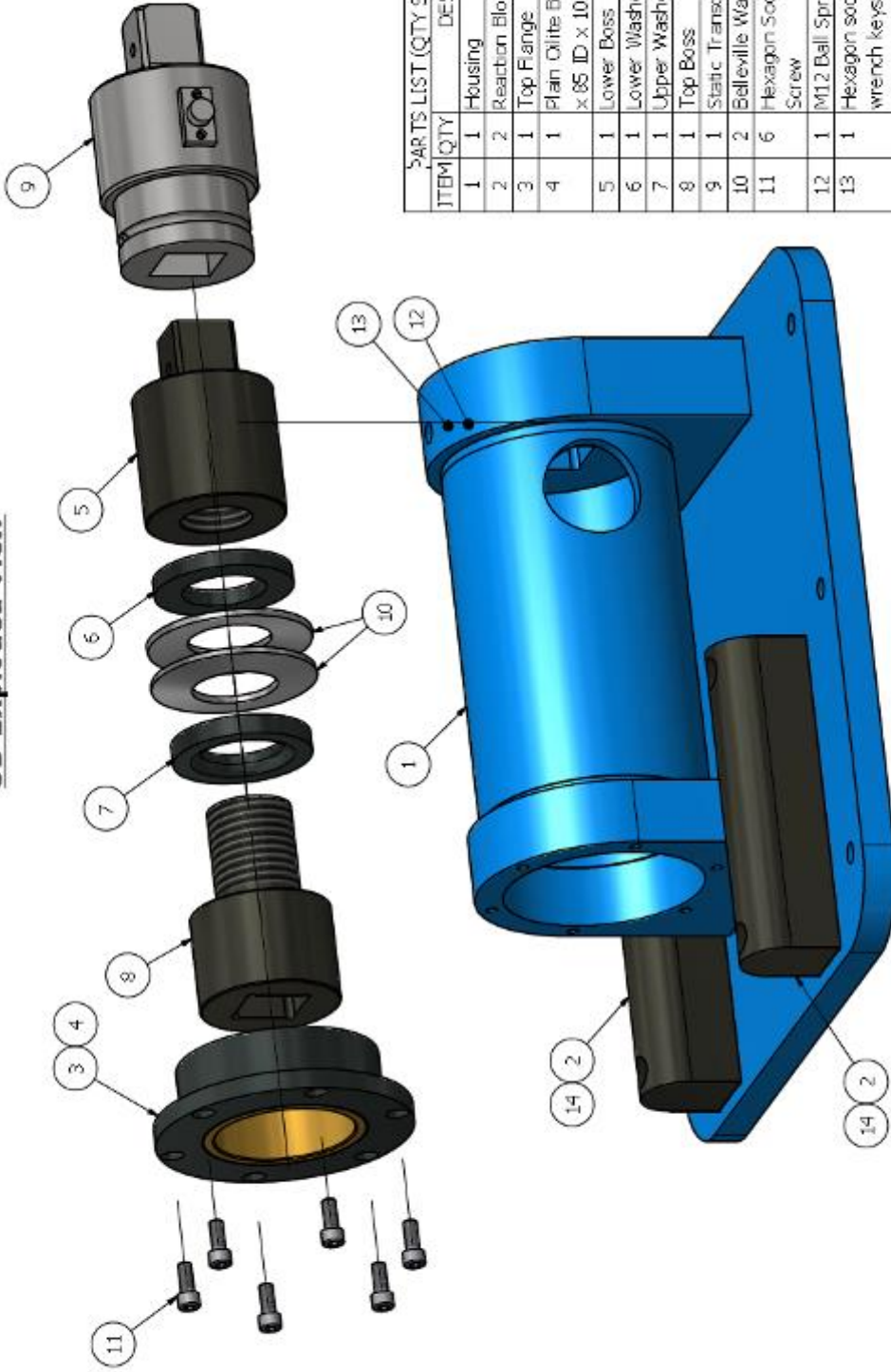
Although the torque values shown are in Nm or lbf.ft the system can be adjusted to read other units of torque.

ACCESSORIES AVAILABLE

The following accessories are available upon request and can be custom made to suit requirements. Please contact W. Christie (Industrial) Ltd for more information:-

- Calibration Table (To House Run Down Fixture)
- Square Drive Reducing Sleeves (For Input Drive)
- Square Drive to Male Hexagon Test Adaptors
- Custom Reaction Post

3D Exploded View



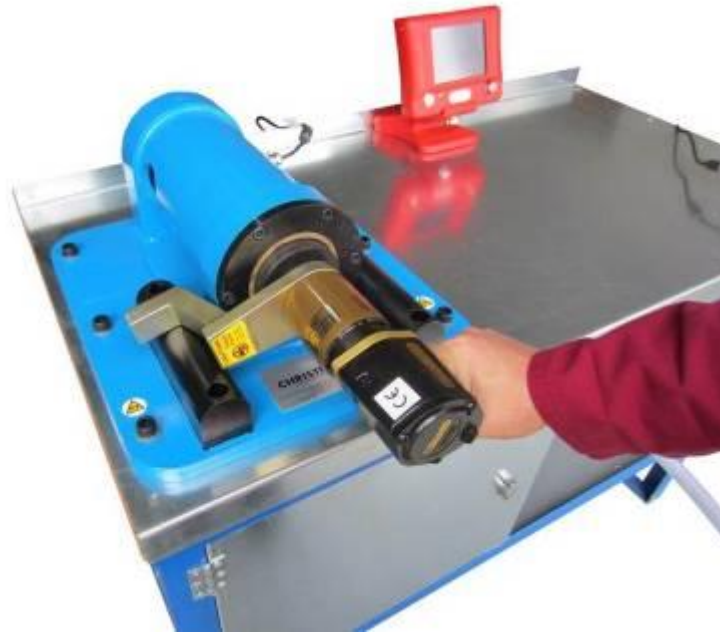
ITEM	QTY	DESCRIPTION
1	1	Housing
2	2	Reaction Block
3	1	Top Flange
4	1	Plain Clite Bush (From 100 OD x 85 ID x 100 Long) - Modified
5	1	Lower Boss
6	1	Lower Washer
7	1	Upper Washer
8	1	Top Boss
9	1	Static Transducer
10	2	Belleville Washer (Disc Spring)
11	6	Hexagon Socket Head Cap Screw
12	1	M12 Ball Spr Plunger (8 Dia Ball)
13	1	Hexagon socket screws and wrench keys, metric series- Specification for hexagon set screws with flat point
14	4	Hexagon Socket Head Cap Screw

Designed by P. Richardson	Appr'd by	Date 22/10/2018	Sheet No A3
Mfg No: WE MANUFACTURING (UK) LTD CHELTENHAM GLOSERShire, GLOU UK - W15 2JZ TEL: +44(0)1452 711111 FAX: +44(0)1452 711111 EMAIL: SALES@WEUK.COM		Horizontal Run-Down Fixture Drawing No: 3-11564-S3 Edition 1 / 1	

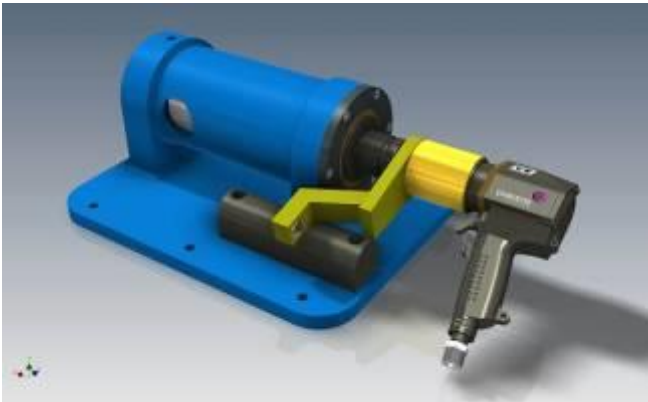
HOW IT WORKS

The tool under test drives a precision threaded test joint. Disc springs within the joint compress during tightening gradually slowing tool rotation prior to stall.

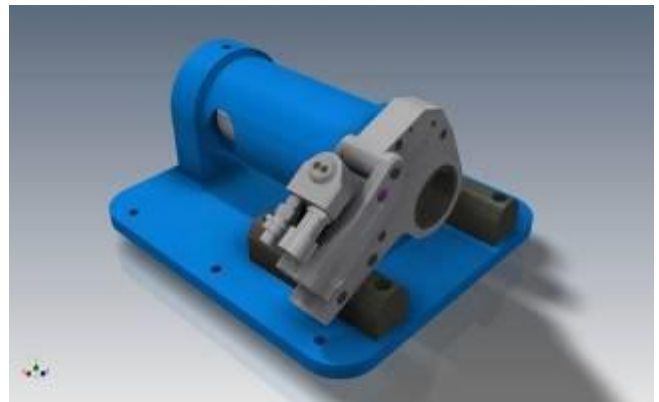
Torque is measured by an electronic torque transducer included within the fixture. Joint and transducer components are contained inside a tubular housing; this housing incorporates a reaction post to restrain the torque tool.



EXAMPLES OF CORRECT REACTION METHODS



C RAD 20 Pneumatic Torque Wrench



4 LOW Hydraulic Torque Wrench

MAINTENANCE / SERVICE INSTRUCTION – (SEE DRAWING NO. 3-11664-S3)

Recommended service interval - 3 monthly.

1. Disassemble Run Down Fixture.
2. Degrease and clean all components.
3. Examine hardened washers and disc spring washers for wear or any other damage.
4. Lubricate as above.
5. Reassemble.

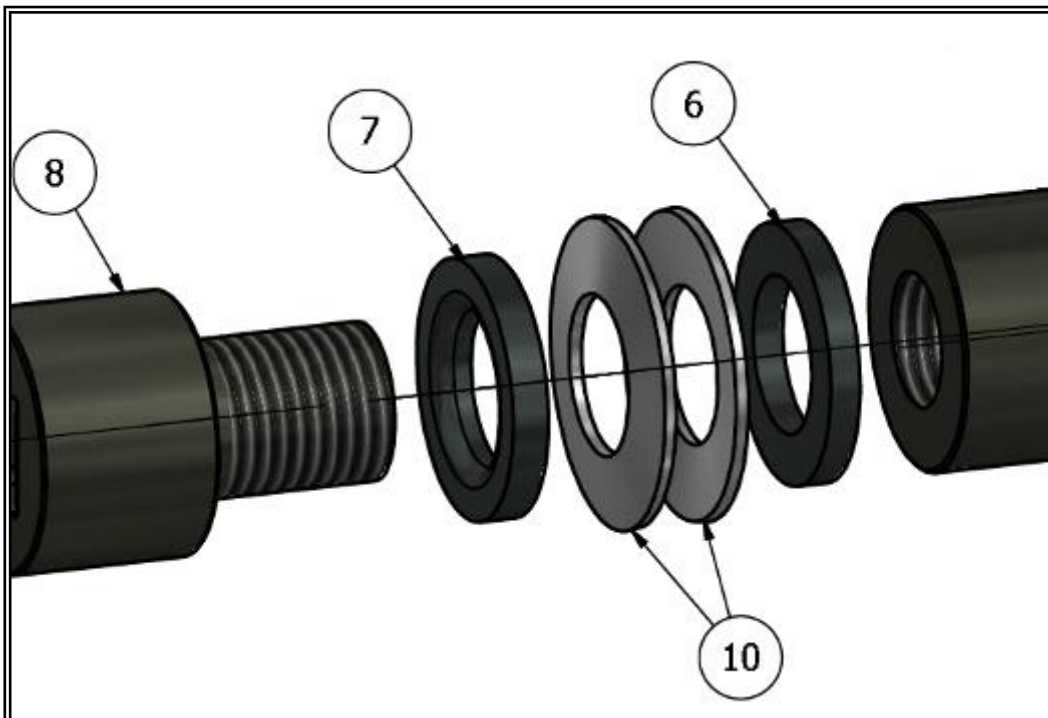
Recommended transducer recalibration interval - annually.

Following use, it is recommended that a Run Down Fixture is left in an **un-tensioned** state.

LUBRICATION

All mating faces of components 3 to 8 and also 10 are lubricated with molybdenum disulphide thread paste (see 3D exploded view on page 4).

Important:- Spacing washer item no. 7 has an internal radius and is designed to fit over the thread root radius on component item no. 8. Care should be taken not to confuse this component with washer item no. 6. If mis-fitted, washer breakage will occur.





E.C. DECLARATION OF CONFORMITY

MODELS COVERED: 1000Nm, 2500Nm, 5000Nm
1000lbf.ft, 2500lbf.ft, 5000lbf.ft

DESCRIPTION: Run Down Fixture

We hereby declare that the following machinery complies with the essential health and safety requirements of the European Machinery Directive 2006/42/EC published on the 9th June 2006

W Christie (Ind) Ltd, Meadowbank Road, Rotherham S61 2NF, United Kingdom.

This machinery has been designed and manufactured in accordance with the following transposed harmonised European Standard:-

BS EN ISO 12100-2:2003 Safety of Machinery – Technical Principles

SIGNED:

A handwritten signature in black ink, appearing to read "R. G. Askham", is written over a horizontal line.

NAME: R. G. Askham

POSITION: Senior Applications Engineer

On behalf of W Christie (Ind) Ltd



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