



# **NORBAR STATIC TORQUE METER**

**OPERATORS HANDBOOK (PART NO. 34075)**

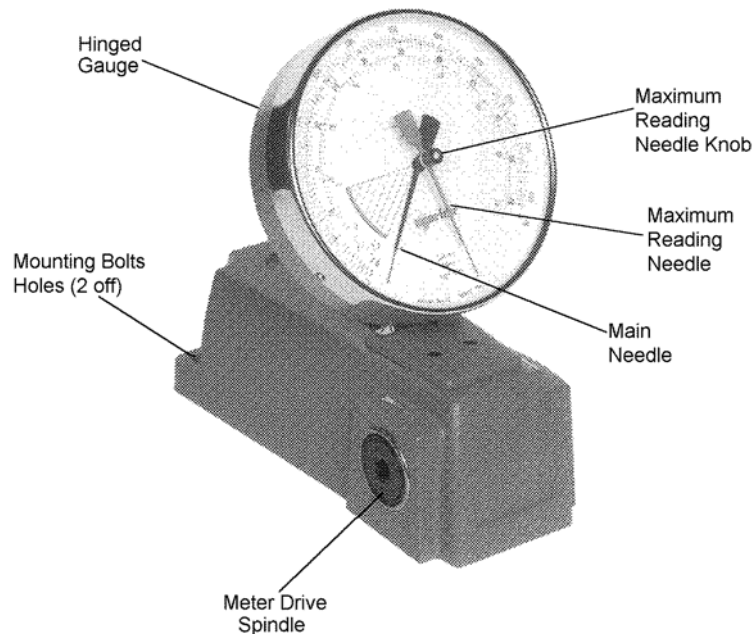
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**THIS OPERATORS HANDBOOK COVERS THE FOLLOWING  
 STATIC TORQUE METER MODEL NUMBERS**

<u>PART NO.</u>	<u>DESCRIPTION</u>
21020	Model 60 2.5-60 N.m, 2.5-46 lbf.ft, 25-625 Kgf.cm
21020.INS	Model 60.INS 2.5-60 N.m, 30-550 lbf.in, 25-625 Kgf.cm
21021	Model 125 5-125 N.m, 5-92 lbf.ft, 50-1250 Kgf.cm
21022	Model 250 10-250 N.m, 10-184 lbf.ft, 1-25 Kgf.m
21023	Model 500 25-500 N.m, 20-370 lbf.ft, 2.5-50 Kgf.m
21024	Model 1000 50-1000 N.m, 40-750 lbf.ft, 5-100 Kgf.m
21025	Model 2000 100-2000 N.m, 80-1500 lbf.ft, 10-200 Kgf.m
21026	Model 4000 200-4000 N.m, 160-3000 lbf.ft, 20-400 Kgf.m

## OPERATING INSTRUCTIONS



Norbar Static Torque Meters must be rigidly mounted on either a vertical or horizontal surface using 1/2" (M12) bolts. The gauge face angle is adjustable to enable it to be positioned at 90° to the operator's line of sight to prevent parallax error.

Splined square drive adapters are supplied to accommodate different sizes of torque wrench square drives. These adapters fit into the double ended meter drive spindle. (Left side for right handed operation and vice versa.)

It is recommended that all STM's are re-calibrated and re-certified at 12 monthly intervals.

Norbar Static Torque Meters are not suitable for testing impact power tools and serious damage will result if this is attempted.

## TESTING CLICK AND SLIPPING TYPE TORQUE WRENCHES \_\_\_\_\_

Select the appropriate splined adaptor to suit the square drive of the torque wrench to be tested. Insert this into the correct side of the meter drive spindle and fit the wrench into the adaptor ensuring that the wrench handle is approximately horizontal.

Using the knob in the centre of the dial face rotate the maximum reading needle clockwise until it is beyond the maximum reading of the gauge.

Apply hand pressure perpendicularly to the centre of the torque wrench handle slowly and smoothly until the wrench clicks or slips and note the meter reading.

**WARNING: THE MAXIMUM READING NEEDLE MUST NOT BE USED WHEN TESTING CLICK AND SLIPPING TYPE TORQUE WRENCHES.**

Care must be taken to ensure that the meter is not overloaded as this will cause serious damage to the gauge mechanism.

## DIAL AND BENDING BEAM TORQUE WRENCHES \_\_\_\_\_

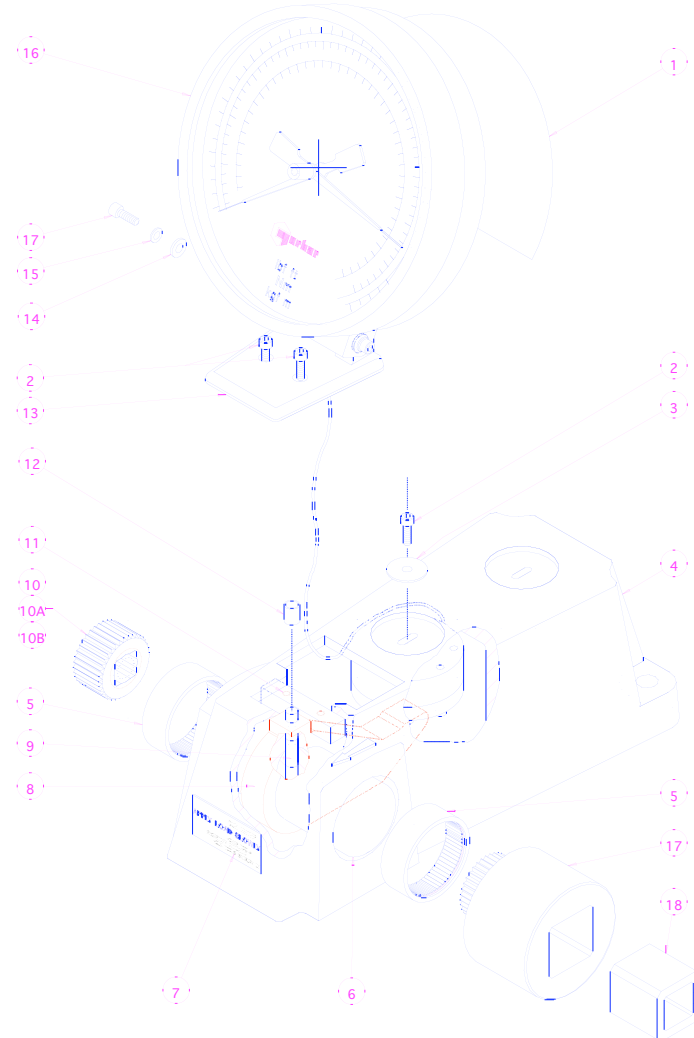
Select the appropriate splined adaptor to suit the square drive of the torque wrench to be tested. Insert this into the correct side of the meter drive spindle and fit the wrench into the adaptor ensuring that the wrench handle is approximately horizontal.

Using the knob in the centre of the gauge face rotate the maximum reading needle anti-clockwise until it rests against the needle at the zero position.

When the figure has been noted the maximum reading needle can be returned to the zero for the next reading.

Care must be taken to ensure that the meter is not overloaded as this will cause serious damage to the gauge mechanism.

## PARTS LIST



### MODEL 60 ASSEMBLY - 21020 (BASIC KIT)

<u>ITEM NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
1	10346	LABEL FOR BACK FACE OF GAUGE	1
2	25352.16	M5 x 16mm LONG CAP SCREW	5
3	25909	1/4" ID x 1" OD WASHER	1
4	21200	HOUSING	1
5	27113	BEARING	2
6	21210	SPINDLE	1
7	10294.NOR	LABEL	1
8	21206	100mm LEVER ARM	1
9	26213	DOWEL PIN 8mm DIAx20mm LG	2
10	21112	3/8" SQ. SERRATED ADAPTOR	1
10A	21113	1/2" SQ. SERRATED ADAPTOR	1
11	21202	CLAMPING BAR	1
12	27405	BRG BUSH	1
13	21201	COVER PLATE	1
14	25908	1/4" ID x 1/2" OD WASHER	2
15	25953	M5 STANDARD WASHER - C FORM	2
16	27625	46 lbf.ft/625 kgf.cm GAUGE	1

**ALTERNATIVE PARTS FOR MODEL 60 (IN VERSION), FROM THE BASIC KIT**

<u>ITEM NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
16	27628	550 lbf.in/625 kgf.cm gauge	1

All other parts as basic kit (shown above).

**ALTERNATIVE/ADDITIONAL PARTS FOR MODEL 125, FROM THE BASIC KIT**

<u>ITEM NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
8	21208	200mm LEVER ARM	1
10B	21114	3/4" SQ. SERRATION ADAPTOR	1
16	27627	92 lbf>ft/1250 kgf.cm GAUGE	1

All other parts as basic kit (shown above).

**ALTERNATIVE/ADDITIONAL PARTS FOR MODEL 250, FROM THE BASIC KIT**

<u>ITEM NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
10B	21114	3/4" SQ. SERRATION ADAPTOR	1
16	27621	184 lbf.ft/25 kgf.m GAUGE	1

All other parts as basic kit (shown above).

**ALTERNATIVE/ADDITIONAL PARTS FOR MODEL 500, FROM THE BASIC KIT**

<u>ITEM NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
10	21114	3/4" SQ. SERRATION ADAPTOR	1
10B	21115	1" SQ. SERRATION ADAPTOR	1
16	27623	370 lbf.ft/50 kgf.m GAUGE	1

All other parts as basic kit (shown above).

**ALTERNATIVE/ADDITIONAL PARTS FOR MODEL 1000, FROM THE BASIC KIT**

<u>ITEM NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
10	21114	3/4" SQ. SERRATION ADAPTOR	1
10B	21115	1" SQ. SERRATION ADAPTOR	1
16	27617	750 lbf.ft/100 kgf.cm GAUGE	1

All other parts as basic kit (shown above).

**ALTERNATIVE/ADDITIONAL PARTS FOR MODEL 2000, FROM THE BASIC KIT**

<u>ITEM NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
10	21114	3/4" SQ. SERRATION ADAPTOR	1
10B	21115	1" SQ. SERRATION ADAPTOR	1
16	27619	1500 lbf.ft/200 kgf.cm GAUGE	1

All other parts as basic kit (shown above)

**ALTERNATIVE/ADDITIONAL PARTS FOR MODEL 4000, FROM THE BASIC KIT**

<u>ITEM NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
8	21208	200mm LEVER ARM	1
10	21114	3/4" SQ. SERRATION ADAPTOR	1
16	27629	3000 lbf.ft/400 kgf.m GAUGE	1
17	21204	1 1/2" SQ. SERRATION ADAPTOR	1
18	21214	1 1/2" - 1" SQ. ADAPTOR	1

All other parts as basic kit (shown above) - except for item 10A which is not supplied.