

$Gumaster - {\sf Ferramentas}\ e\ {\sf T\'ecnicas}\ {\sf Inovadoras}, {\sf Lda}$

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Ferramentas Energeticamente Ecológicas em todos os sentidos NORBAR MULTIPLICADORES TORQUE

HANDTORQUE® HT3-1000

HANDTORQUE® HT3 SERIES





- 5:1 nominal torque multiplication reaction dependant. Ratio with cranked foot is 4.8:1; with straight reaction being 4.9:1
- · ±4% torque multiplication accuracy
- Small and compact design
- · Updated aesthetics with tough silver metallic powder coat
- · Supplied with 2 reaction bar styles for maximum versatility
- Quick change cranked reaction with improved flexibility allowing reaction in 8 orientations
- · Robust construction means minimal maintenance and long life
- If calibration is required, a UKAS accredited calibration certificate may be ordered (at extra cost)

2	HT3-1000
180260	HT3-1000 N·m Kit ½" input x ¾" output







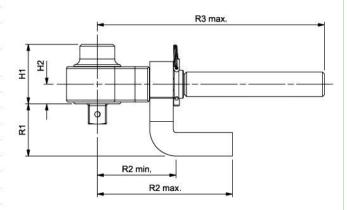
- 5:1 torque multiplication, accuracy ±4%
- Supplied with two reaction bar styles for maximum versatility
- · Robust construction means minimal maintenance and long life
- Supplied in a carry case, the Highwayman is ideal for inclusion in the heavy vehicle tool kit
- 1300 N·m version has a spare $\frac{3}{4}$ " output square included in the kit
- Multiplier head only (no reaction bars or plastic box) also available 1300 N·m version, part no. 17218 2700 N·m version, part no. 17219
- If calibration is required, a UKAS accredited calibration certificate may be ordered (at extra cost)

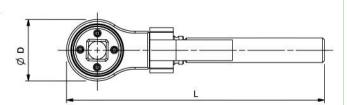
2	HT3 SERIES
17220	HT3 1300 N·m Kit ½" input x ¾" output
17221	HT3 2700 N·m Kit ¾" input x 1" output

Kits are supplied in a carrying case with a reaction bar and a reaction foot (17220 also contains a spare %" sq. dr.)

Model Part Number/s		HT3-1000	HT3-1300	HT3-2700
		180260	17220	17221
5	Nominal	5:1	5:1	5:1
Multiplication Ratio	With Cranked Reaction	4.8:1	N/A	N/A
Mult	With Straight Reaction	4.9:1	N/A	N/A
	ØD	65	108	108
	H1	63	103	100
(mm	H2	21	44	36
) suc	L	273	398	398
Dimensions (mm)	R1	55	77	85
Dim	R2 min.	83	140	140
	R2 max.	143	212	212
	R3 max.	240	344	344
Tool Weight (kg)		2.7	3.8	3.8
Reaction Weight (kg)	Cranked	0.5	1.36	1.36
	Straight	0.69	1.06	1.06







HANDTORQUE® HT4 SERIES





- · Robust construction means minimal maintenance and long life
- True 15.5:1 (3000 N·m) or 26:1 (4500 N·m) torque multiplication, accuracy ±4%
- High ratios allow the use of a small torque wrench
- Supplied in carrying case with replacement square drive
- Anti Wind-Up Ratchet fitted to allow safer and more practical operation
- Angle protractor for easy torque and angle tightening
- If calibration is required, a UKAS accredited calibration certificate may be ordered (at extra cost)

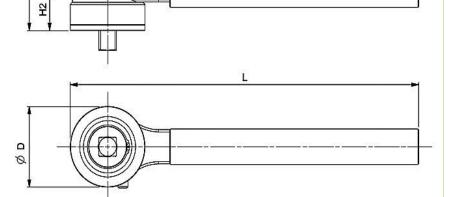
4	HT4 SERIES
17022	HT4 3000 N·m ½" in 1" out AWUR
17021	HT4 4500 N·m ½" in 1" out AWUR

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Model Part Number/s Multiplication Ratio		HT4/15.5	HT4/26
		17022	17021
		15.5:1	26:1
2	ØD	108	108
Ē	H1	131	149
sions	H2	55	55
Dimensions (mm)	L	504	504
ō	R max.	450	450
Tool Weight (kg)		6.1	7.0
Reaction Weight (kg)		1.9	1.9



R max.



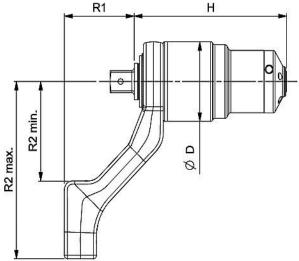
HANDTORQUE® COMPACT SERIES





Sockets not included

- Compact dimensions allow excellent access to applications and easy, safe handling
- Lightweight for torque capacity
- Supplied as standard with an aluminium reaction arm (Steel reactions for HT-52). Other options are available on request, including customised reactions
- Torque multiplication accuracy ±4%
- Robust, 48 tooth Anti Wind-Up Ratchet (AWUR) contains the forces generated during tightening for safe and easy operation
- Each multiplier is supplied with its own unique calibration certificate allowing the accurate calculation of input torque for critical applications





4	COMPACT SERIES		
180200	HT-52/4.7 1000 N·m ½" in ¾" out		
180201	HT-52/22.2 1000 N·m ¾" in ¾" out		
180202	HT-52/22.2 1000 N·m ½" in ¾" out		
180203	HT-52/22.2 1000 N·m ¾"in ¾" out AWUR		
180204	HT-52/22.2 1000 N·m ½" in ¾" out AWUR		
180205	HT-52/22.2 1000 N·m 3/8" in 1" out AWUR		
180206	HT-52/22.2 1000 N·m ½" in 1" out AWUR		
180208	HT-72/5.2 1500 N·m 1/2" in 1" out		
180209	HT-72/5.2 1000 N·m ¾" in ¾" out		
180210	HT-72/5.2 2000 N·m ¾" in 1" out		
180212	HT-72/27 2000 N·m ½" in 1" out		
180214	HT-72/27 2000 N·m ½" in 1" out AWUR		
180215	HT-92/25 4000 N·m ½" in 1" out AWUR		
180216	HT-119/25.5 7000 N·m ½" in 1½" out AWUR		



11	NOSE EXTENSIONS FOR 72 SERIES	
18349.006	6" long, SPM/SPF	
18349.009	9" long, SPM/SPF	
18349.012	12" long, SPM/SPF	
18349.015	15" long, SPM/SPF	
18349.018	18" long, SPM/SPF	
18330.50	Telescopic Nose Assembly	

The nose extensions shown above can also be used with HT-72s.

Note: Square drive fitted from existing tool. SPM = Spline Male. SPF = Spline Female.

Model		HT-52/4.7	HT-52/22.2	HT52/22.2 AWUR	HT-72/5.2	HT-72/5.2	HT-72/27	HT-72/27 AWUR	HT-92/25 AWUR	HT-119/25.5 AWUR
Part Numb	er/s	180200	180201 180202	180203 180204 180205 180206	180209 180208	180210	180212	180214	180215	180216
Multiplicati	ion Ratio	4.7:1	22.2:1	22.2:1	5.2:1	5.2:1	27:1	27:1	25:1	25.5:1
~	ØD	52	52	52	72	72	72	72	92	119
m)	н	91	116	130	140	135	137	154	190	212
sions	R1	58	58	58	67	72	72	72	87	117
Dimensions (mm)	R2 min.	71	71	71	91	91	91	91	115	151
ō	R2 max.	131	131	131	166	166	166	166	205	199
Tool Weigh	t (kg)	1.0	1.3	1.4	2.7	2.7	2.7	3.2	5.4	9.3
Reaction W	/eight (kg)	0.85	0.85	0.85	0.66	0.66	0.66	0.66	1.35	2.10

HANDTORQUE® COMPACT SERIES KITS







Multiplier & Torque Wrench Kits

For convenience, it is now possible to purchase a torque multiplier from the 'Compact Series' packaged with the appropriate torque wrench, up to 4000 N·m. This allows the operator to arrive at the bolting application with everything needed in one robust carry case. Space has also been allowed in the carry case for accessories such as sockets.

The torque multiplier is supplied with its own unique calibration certificate and the torque wrench is supplied with a Declaration of Conformance, allowing accurate calculation of input torque to the multiplier for critical applications.

- All kits include a 'SpinNor' which aids fast reaction location
- All models include an Anti Wind-up Ratchet on the multiplier

4	HT COMPACT SERIES & TORQUE WRENCH KITS
18186	HT52 1000 N·m ¾" out + NorTorque® 60 ½" Dual Scale
18192	HT72 2000 N·m 1" out + NorTorque® 100 ½" Dual Scale
18195	HT92 4000 N·m 1" out + NorTorque® 200 ½" Dual Scale
19253	½" SpinNor

HANDTORQUE® STANDARD SERIES









- Torque multiplication accuracy ±4%
- High ratios allow the use of a small torque wrench, multipliers can be used where access is limited
- Anti Wind-Up Ratchet available on models of 25:1 ratio and above
- Other reaction styles can be designed to suit specific applications
- Electronic torque transducers can be fitted for precise torque monitoring, see page 87
- Other models available up to 300,000 N·m
- If calibration is required, a UKAS accredited calibration certificate may be ordered (at extra cost) up to 6000 N·m

4	STANDARD SERIES
16010	HT 1/5 1700 N·m ½" in ¾" out
16012.HD	HT 2/5 1700 N·m ¾" in 1" out
16034.HD	HT 2/25 1700 N·m ½" in 1" out
16089.HD	HT 2/25 1700 N·m ½" in 1" out AWUR
16014	HT 5/5 3400 N·m ¾" in 1" out
16028	HT 5/25 3400 N·m ½" in 1" out
16090	HT 5/25 3400 N·m ½" in 1" out AWUR
16016	HT 6/5 3400 N·m ¾" in 1½" out
16024	HT 6/25 3400 N·m ½" in 1½"out
16092	HT 6/25 3400 N·m ½" in 1½"out AWUR
16093	HT 6/125 3400 N·m ½" in 1½"out AWUR
16067	HT 7/5 6000 N·m ¾" in 1½"out
16018	HT 7/25 6000 N·m ½" in 1½"out
16065	HT 7/25 6000 N·m ½" in 1½"out AWUR
16068	HT 7/125 6000 N·m ½" in 1½"out AWUR
16059	HT 9/25 9500 N·m ¾" in 1½" out
16070	HT 9/25 9500 N·m ¾" in 1½" out AWUR
16071	HT 9/125 9500 N·m ½" in 1½" out AWUR
16082	HT 11/25 20000 N·m ¾" in 2½" out
16049	HT 11/125 20000 N·m ½" in 2½" out AWUR
18085	HT 12/87.5 34000 N·m ¾" in 2½" out AWUR
16053	HT 13/125 47500 N·m 3/4" in 21/2" out AWUR

Other gear ratios may be available upon request.

If AWUR is not required please enquire for part number.

HT 13/125 fitted with weld prepared reaction ring as standard.

AWUR = Anti Wind Up Ratchet. See page 43

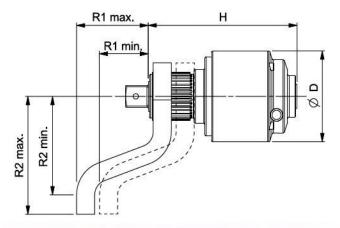
For Spares Kits for Norbar Multipliers, please see page 112.

HANDTORQUE® SMALL DIAMETER SERIES





- HandTorque® models HT30 and 60 have a higher torque output for a given gearbox diameter than the Standard Series
- Reduced diameter enables better access, particularly on pipe flanges
- · Reaction taken from high strength spline
- Reaction foot can slide on the spline to allow sockets of various lengths
- Anti Wind-Up Ratchet available on all models (except 5:1 ratios), allowing safer and more practical operation
- If calibration is required, a UKAS accredited calibration certificate may be ordered (at extra cost)





4	SMALL DIAMETER SERIES
18003	HT 30/5 3000 N·m ¾" in 1" out
18004	HT 30/15 3000 N·m ½" in 1" out AWUR
18006	HT 30/25 3000 N·m ½" in 1" out AWUR
18008	HT 60/25 6000 N·m 1/2" in 11/2" out AWUR

HT30s and 60s are supplied with a cranked reaction foot. Most small diameter gearboxes are available without AWUR. Please enquire for part numbers.

Model Part Number/s		HT 30/5	HT 30/15 AWUR	HT 30/25 AWUR	HT 60/25 AWUR
		18003	18004	18006	18008
Multiplicat	ion Ratio	5:1	15:1	25:1	25:1
	ØD	108	108	108	119
Dimensions (mm)	н	164	183	183	218
	R1 min.	60	60	60	94
ensic	R1 max.	88	88	88	119
Dim	R2 min.	117	117	117	146
	R2 max.	140	140	140	174
Tool Weight (kg)		5	7	7	10.6
Reaction Weight (kg)		2	2	2	4

UKAS ACCREDITED CALIBRATION CERTIFICATION

The part numbers shown below are for 'As Found', for new manual torque multiplying gearboxes up to the maximum capacity shown.

12	ONE DIRECTION	
HTCC2.CW	Up to 6000 N·m / 5000 lbf·ft	
12	TWO DIRECTIONS	



