

# Torque Wrench

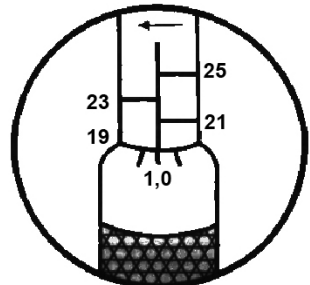
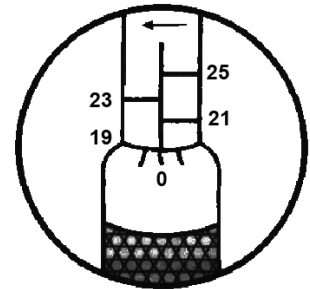


## HOW TO USE

- Balancing wrench in hand with graduations visible with the marked arrow Elementary Scale up then unlock knurled handle by turning lock nut counter clockwise.
- Set amount of torque required by turning knurled handle to read exact amount on case graduations.

## EXAMPLE: 20Nm

- Turn knurled handle until the zero graduation on the bevel edge of the knurled handle is lined up with the vertical mark on the case and is even with the 19Nm graduation.
  - Turn knurled handle clockwise until 1,0Nm graduation on the level edge of the handle is in line with the vertical line on the case.
  - Lock handle securely by turning lock nut clockwise, and now wrench is set at 20Nm which is ready to use.
- C. Install the proper socket or attachment to the square drive and apply to nut or ball and pull handle until you feel and / or hear wrench click. Release pull and wrench automatically resets for next operation.



Do not continue to pull after wrench releases. Use special care at low torque settings that will pull stop when wrench clicks.

## CAUTION

- If wrench has not been used or has been in storage for some time, operate it several times at a low torque setting which permits special internal lubricant to re-coat internal working parts.
- When wrench is not in use, keep doing adjustment at lowest torque setting.
- Do not turn handle below lowest torque setting.
- Do not continue pulling on the wrench after pre-set torque has been reached and the wrench has been released. Pressure must be taken off the handle and the wrench allowed to automatically reset itself, continuing to apply pressure after the wrench has been released, will result in damage to the part being torque by applying more than the specified amount of torque.
- Tool is rugged and designed for shop use, but is also a precision measuring instrument and should be treated as such.
- Clean wrench by wiping. Do not immerse in any type of cleaner which may affect special high pressure lube with which the wrench is packed at the factory.
- This torque wrench was calibrated and tested before leaving the factory and is accurate to  $\pm 4\%$ .
- The wrench is only suitable for measuring torque 5 to 25 Nm

This is a precision measuring instrument.

Calibration and servicing must be done regularly and is the owner responsibility.

Umrechnungstabelle / Conversion Tables								
Foot Pounds ft lbs	Kilogramm Meters kgm	Newton Meters Nm	Newton Meters Nm	Foot Pounds ft lbs	Kilogramm Meters kgm	Kilogramm Meters kgm	Newton Meters Nm	Foot Pounds ft lbs
5	0,7	6,8	10	7,4	1,0	1	9,8	7,2
10	1,4	13,6	20	14,8	2,0	2	19,6	14,5
15	2,1	20,3	30	22,1	3,1	3	29,4	21,7
20	2,8	27,1	40	29,5	4,1	4	39,2	28,9
25	3,5	33,9	50	36,9	5,1	5	49,1	36,2
30	4,1	40,7	60	44,3	6,1	6	58,9	43,4
35	4,8	47,5	70	51,7	7,1	7	68,7	50,6
40	5,5	54,2	80	59,0	8,2	8	78,5	57,8
45	6,2	61,0	90	66,4	9,2	9	88,3	65,1
50	6,9	67,8	100	73,8	10,2	10	98,1	72,3
55	7,6	74,6	110	81,2	11,2	11	107,9	79,5
60	8,3	81,4	120	88,6	12,2	12	117,7	86,8
65	9,0	88,1	130	95,9	13,3	13	127,5	94,0
70	9,7	94,9	140	103,3	14,3	14	137,3	101,2
75	10,4	101,7	150	110,7	15,3	15	147,2	108,5
80	11,0	108,5	160	118,1	16,3	16	157,0	115,7
85	11,7	115,3	170	125,5	17,3	17	166,8	122,9
90	12,4	122,0	180	132,8	18,4	18	176,6	130,1
95	13,1	128,8	190	140,2	19,4	19	186,4	137,4
100	13,8	135,6	200	147,6	20,4	20	196,2	144,6
105	14,5	142,4	210	155,0	21,4	21	206,0	151,8
110	15,2	149,2	220	162,4	22,4	22	215,8	159,1
115	15,9	155,9	230	169,7	23,5	23	225,6	166,3
120	16,6	162,7	240	177,1	24,5	24	235,4	173,5
125	17,3	169,5	250	184,5	25,5	25	245,3	180,8
130	17,9	176,3	260	191,9	26,5	26	255,1	188,0
135	18,6	183,1	270	199,3	27,5	27	264,9	195,2
140	19,3	189,8	280	206,6	28,6	28	274,7	202,4
145	20,0	196,6	290	214,0	29,6	29	284,5	209,7
150	20,7	203,4	300	221,4	30,6	30	294,3	216,9
155	21,4	210,2	310	228,8	31,6	31	304,1	224,1
160	22,1	217,0	320	236,2	32,6	32	313,9	231,4
165	22,8	223,7	330	243,5	33,7	33	323,7	238,6
170	23,5	230,5	340	250,9	34,7	34	333,5	245,8
175	24,2	237,3	350	258,3	35,7	35	343,4	253,1
180	24,8	244,1	360	265,7	36,7	36	353,2	260,3
185	25,5	250,9	370	273,1	37,7	37	363,0	267,5
190	26,2	257,6	380	280,4	38,8	38	372,8	274,7
195	26,9	264,4	390	287,8	39,8	39	382,6	282,0
200	27,6	271,2	400	295,2	40,8	40	392,4	289,2
205	28,3	278,0	410	302,6	41,8	41	402,2	296,4
210	29,0	284,8						
215	29,7	291,5						
220	30,4	298,3						
225	31,1	305,1						
230	31,7	311,9						
235	32,4	318,7						
240	33,1	325,4						
245	33,8	332,2						
250	34,5	339,0						
255	35,2	345,8						
260	35,9	352,6						
265	36,6	359,3						
270	37,3	366,1						
275	38,0	372,9						
280	38,6	379,7						
285	39,3	386,5						
290	40,0	393,2						
295	40,7	400,0						
300	41,4	406,8						

CONVERSION FORMULAS	
1 CMKG=13.887 IN-OZ	1 dNm=14.161 IN-OZ
1 CMKG= 0.8677 IN-LB	1 Nm=141.6IN-OZ
1 MKG=7.233 FT-LB	1 Nm= .73756 FT-LB
1 KpCM=1 CMKG	1 KpM=1 MKG
1KG=0.098 Nm	1 MKG=9~80665 Nm 379.68
1 FT/LB=12 INCH POUNDS	