## Sु MIGHELIM



DRIVE

torque

SOCKETS, ADAPTER AND EXTENSION INCLUDED TORQUE NRRENCH МТИV 210

USER GUIDE

## FUNCTIONS



1. Switchable ratchet head
2. Knurled torque scale
3. Handle
4. Lock and unlock collar
5. Sockets (1/2", $17 \mathrm{~mm}+19 \mathrm{~mm}$ )
6. Adapter (1/2")
7. Extension (1/2", 125 mm )

## TORQUE VRENCH MTV 210 <br> USER GUIDE

Thank you for purchasing the MICHELIN Torque Wrench MTW 210 with sockets, adapter and extension included.

## WARNING \& SAFETY INFORMATION!

## WARNING

Risk of flying particles!

- Never use a torque wrench to break loose fasteners.
- Never use a torque wrench as a lever bar.
- Use of a damaged torque wrenches, sockets, extensions and accessories may result in injury.
- Do not use a torque wrench as a hammer.
- A torque wrench that has not been calibrated properly may cause damage to parts or tools.
- Do not use extensions on handle as damage to torque wrench will result.
- Over tightening of fasteners may result in breakage.

Always use eye protection while using hand tools.

4
WARNING
Injury may result from electrical shock!
Handle is not insulated, do not use on live electrical or high voltage circuits.

## SPECIFICATIONS

Drive:
Torque:
Accuracy:
Length:
Weight:

1/2" (12.5 mm)
42-210 Nm
$\pm 4$ \%
460 mm
$1,400 \mathrm{~g}$

## EN

## OPERATION



The torque wrench can be used both for left-hand and right-hand threads. The ratchet head has been designed for $1 / 2^{\prime \prime}$ box nuts.

## A: UNLOCK

Make sure that you are holding the torque wrench tightly before you unlock the handle. Unlock the torque wrench by turning the locking and unlocking screw in the direction of the "unlock" arrow.

## B: ADJUST

Adjust the required torque by turning the handle. Turn the handle until the zero mark on the micrometre scale (front edge of handle) matches the longitudinal mark (scale on the tube).

Then continue to turn the handle clockwise until the required value on the micrometre scale matches the longitudinal mark on the tube.

Example: To set release torque of 114 Nm , turn the handle until the zero mark on the micrometre scale matches the longitudinal mark on the tube and the value 112. Then continue to turn the handle clockwise until the digit $2(2+112=114)$ on the micrometre scale matches the value 112 of the scale on the tube.

## C: LOCK

After you have set the necessary release torque, turn the locking and unlocking screw in the direction of the "lock" arrow to secure the setting.

## D: APPLY

Fit the required socket or the wrench attachment (extension / adapter) to the square drive. Hold the handle of the torque wrench tight to tighten the screw. Apply the torque spanner with even force until you hear and/or feel a click. Now end screw tightening. Release the set torque before next use.

## EXTENSION \& ADAPTER

Using extensions or adapters changes the effective length of the torque wrench and affects the output torque value. To calculate the new torque output of the wrench, the following formula can be used:
$B=\frac{A \times L}{L+C}$
A = torque exerted at end of adapter
$\mathrm{L}=$ distance between hand position and middle of the ratchet head
C = length of adapter or extension
$B$ = wrench scale reading


A number of variables including the length of the adapter or extension, length of the wrench and variations in hand position on the wrench will affect the accuracy of the above calculation.

## МА/ПTENANCE

- The torque wrench is a precision instrument and should be stored with care. Never throw it around, use a hammer with it or use it as lever bar.
- The torque wrench is lubricated for life and should not be oiled. The only exception is the ratchet head which may be lubricated as needed for smooth operation.
- The torque wrench is a precision measuring instrument. Calibration must be done regularly to ensure accuracy and it is the owner's responsibility. Suggested calibration period is at least every 12 months or even shorter depending on situation.
- Always store the torque wrench in the box after use to keep it protected from dirt and humidity.
- Never disassemble the torque wrench by yourself. If the torque wrench needs to be disassembled for repair, please seek assistance from a qualified tool servicing agent. Any incorrect action while disassembling the torque wrench may result in permanent damage and render the torque wrench unsafe for use.


## STANDARDS

We calibrate and certify every torque wrench in accordance with the standards DIN EN ISO 6789-1: 2017-07 and ASME B107.14M-1994 so that it complies with tolerance requirements.

| CONVERT FROM | TO | MULTIPLY BY |
| :---: | :---: | :---: |
| $\mathrm{lb} . i n$ | oz.in | 16 |
| $\mathrm{lb} . \mathrm{in}$ | $\mathrm{lb} . \mathrm{ft}$ | 0.08333 |
| $\mathrm{lb} . \mathrm{in}$ | $\mathrm{kg} . \mathrm{cm}$ | 1.1519 |
| $\mathrm{lb} . \mathrm{in}$ | Nm | 0.113 |
| $\mathrm{lb} . \mathrm{in}$ | dNm | 1.13 |
| $\mathrm{lb} . \mathrm{ft}$ | $\mathrm{kg} . \mathrm{m}$ | 0.1382 |
| $\mathrm{lb} . \mathrm{ft}$ | Nm | 1.356 |
| Nm | dNm | 10 |
| Nm | $\mathrm{kg} . \mathrm{cm}$ | 10.2 |
| Nm | $\mathrm{kg} . \mathrm{m}$ | 0.102 |
| oz.in | $\mathrm{lb} . \mathrm{in}$ | 0.0625 |
| $\mathrm{lb} . \mathrm{ft}$ | $\mathrm{lb} . \mathrm{in}$ | 12 |
| $\mathrm{~kg} . \mathrm{cm}$ | $\mathrm{lb} . \mathrm{in}$ | 0.8681 |
| $\mathrm{~kg} . \mathrm{m}$ | $\mathrm{lb} . \mathrm{in}$ | 86.81 |
| Nm | $\mathrm{lb} . \mathrm{in}$ | 8.85 |
| dNm | $\mathrm{lb} . \mathrm{in}$ | 0.885 |
| $\mathrm{~kg} . \mathrm{m}$ | $\mathrm{lb} . \mathrm{ft}$ | 7.236 |
| Nm | $\mathrm{lb} . \mathrm{ft}$ | 0.7376 |
| dNm | Nm | 0.01 |
| $\mathrm{~kg} . \mathrm{cm}$ | Nm | 0.09807 |
| $\mathrm{~kg} . \mathrm{m}$ | Nm | 9.807 |
|  |  |  |



## Customer enquiries:

We're at your service. Let us help you find a better way forward.

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