

SPECIALIZED TORQUE WRENCH FOR LARGE SIZE WHEEL NUT MODEL TW750N2/TW1000N2

OPERATING INSTRUCTION

TW750N2/TW1000N2 **TW750N2/TW1000N2 Model**



To use this product properly and safely, please read this manual carefully before use. If you have any question about the product and its operations, please contact your nearest distributor or TOHNICHI MFG. CO., LTD.

Safety Precautions

To customers: Before using this product, please read this operating instruction carefully to use it properly. If you have any question, please contact your nearest distributor or TOHNICHI MFG. CO., LTD. This operating instruction should be stored in a safe place.




Safety Symbol



This symbol is used for drawing attention to "safety precautions". If you see this symbol in this operating instruction, attention should be paid to safety. Take preventative actions according to the description and conduct "safe operations and proper control".

Signal Words

The signal words are the headers which indicate the level of hazard that should be known for human safety in handling devices. The signal words for safety are "Danger", "Warning" and "Caution" depending on the level of hazard to human. The signal words are used with the safety symbol to indicate the following situations.

- " Danger": Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
- " Warning": Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
- " Caution": Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

**Warning**

Potential danger which may cause serious consequences

- **Do not use it for any other purpose than tightening bolts.**

This product is the torque wrench specialized in tightening wheel nuts of large vehicles (truck, bus, etc).

- **Do not use it for loosening the bolt.**

Loosening torque may apply excessive torque and cause accidents or injuries.

- **Check the handle does not have any oil or grease on it.**

It may cause your hand to slip and cause injuries.

- **Check for crack, scratch, rust on the product.**

The damage on the product may cause accidents and injuries. Conduct check and repair.

- **Do not use pipe, etc, to lengthen the handle.**

It may cause the torque wrench to break and the accuracy cannot be maintained.

**Caution**

Potential danger that poses hinderance but not serious consequences

- **Pay attention to the "ONLY" arrow mark.**

The torque wrench operates only when applying torque in the direction shown on the arrow. If you apply torque on the wrong direction, the torque wrench itself may break down and it could lead to accidents and injuries.

- **Stop tightening upon "click" sound.**

If you keep applying torque, it will be over-torque.

- **Do not use mementum or your weight, when applying torque.**

It may cause the wrench to slip and come off the bolt, which may lead to accidents and injuries.

- **Do not apply torque over specified maximum value.**

It may break itself and cause accidents and injuries.

- **Use sockets that match the bolt and nut.**

If sockets and bolt/nut are incompatible shape, it cause accidents and injuries.

- **Do not use a defected product such as one without pins or graduation, etc.**

Make sure to contact the shop of your purchase or TOHNICHI and ask for check-up and repair.

- **Do not try to modify the product.**

It may affect robustness and cause accuracy failure.

- **Do not use any other parts for repair than those specified by TOHNICHI.**

To repair the torque wrench, contact your nearest distributor or TOHNICHI and use parts specified by TOHNICHI only.


Attention on Safety

- **Make sure to set torque value before use.**

Torque is set to the minimum value at default.

- **Do not use it at the torque out of its specified torque range.**

- **Do not use it in the rain or in water.**

This product is NOT water-resistant. Take measures so water don't come inside the product.

- **Conduct calibration and daily inspection.**

Calibration and daily inspection is required. For calibration, contact your nearest distributor or TOHNICHI.

- **When working in a narrow space, watch out for your hand and elbow.**

When operating the torque wrench, be careful not to hit your hand and elbow against surroundings.

- **Do not apply oil inside the torque wrench.**

It may cause the output torque to be excessive.

- **Do not use it on unpaved ground (gravel, mud, etc).**

Output torque may be unstable, and may degrade product durability, or cause injuries.

- **After use, make sure to remove all the dirt such as dust, mud, oil, etc before storage.**

If you store it with dirt on, it may cause operation and accuracy failure.

- **If you don't use it for a long time, set it to the lowest torque value. Apply some anti-rust oil and store it in a dry place.**

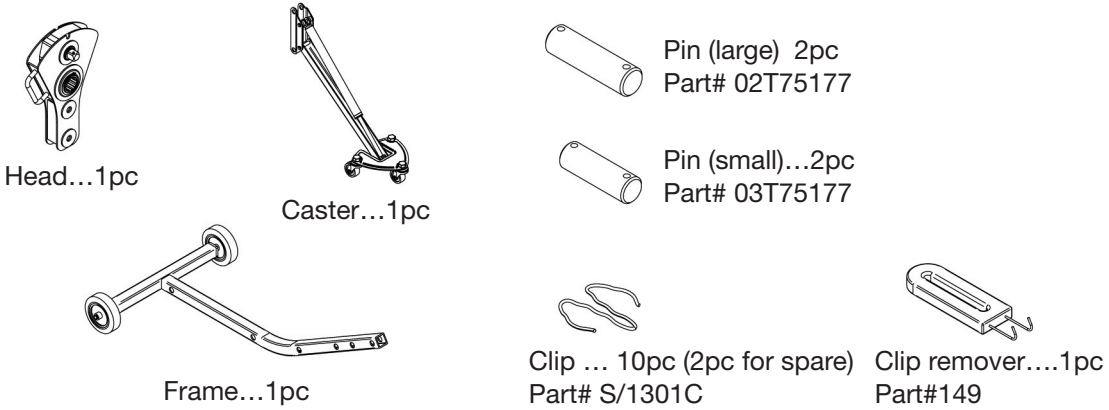
Storing in wrong conditions may degrade the product durability and accuracy.

Contents

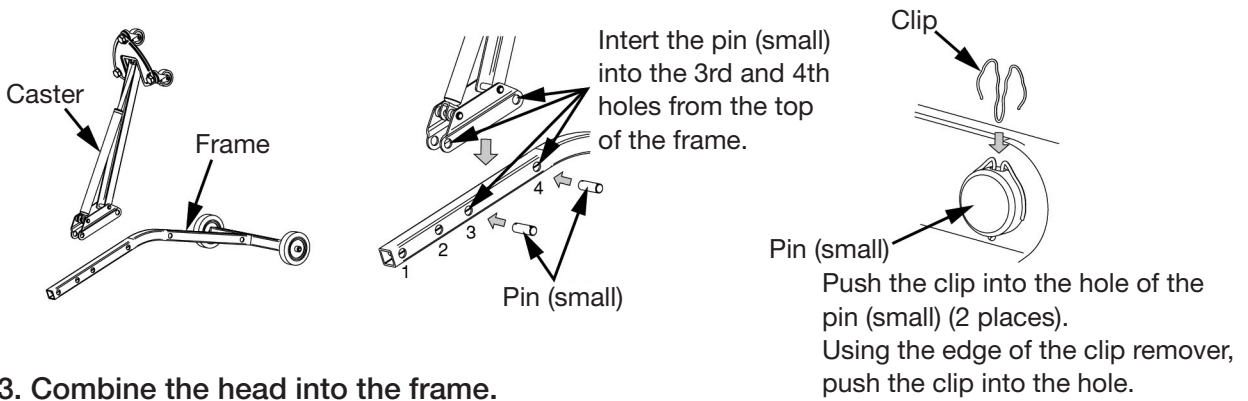
Safety Precautions	2
1. Main Body Assembling Procedures	5
2. Components and Name of Each Part	6
3. Preparation before Use	7
4. How to Use	8

1 Main Body Assembling Procedures

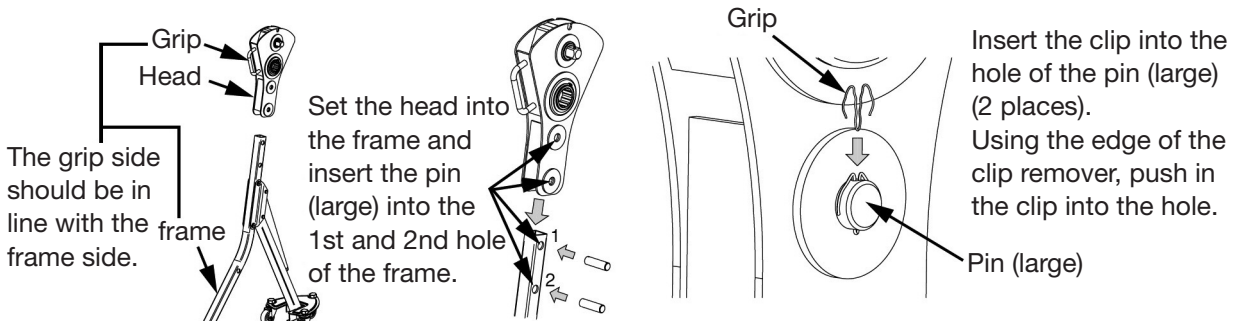
1. Check all the necessary parts are included in the package.



2. Put the caster on the frame.

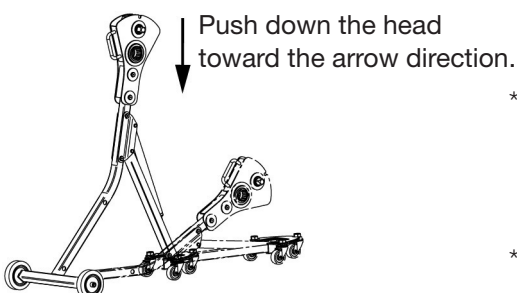


3. Combine the head into the frame.



⚠ Caution
 Make sure the grip of the head is facing the frame side (two-wheel side).
 If you put it on the wrong direction, it does not operate properly.

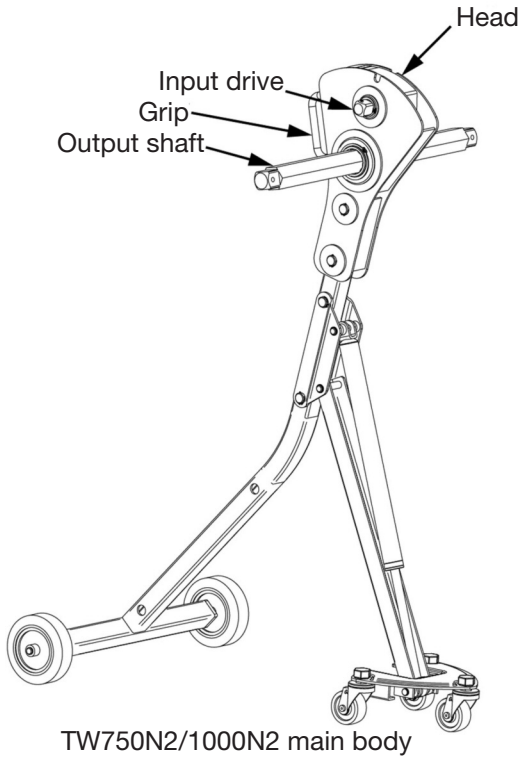
4. Move the product up and down and check the pin and the clip are securely set.



- * For disassembling procedure, refer to Chapter 2 and 3.
To remove clips, use the clip remover included in the package.
- * For calibration, contact TOHNICHI.

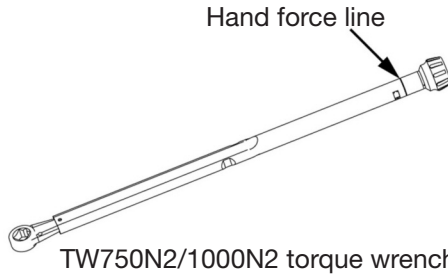
2

Components and Name of Each Part



TW750N2/1000N2 main body

- Package contents
- TW750N2/1000N2 main body (refer to the assembling procedures)
 - TW750N2/1000N2 torque wrench
 - Operating instruction

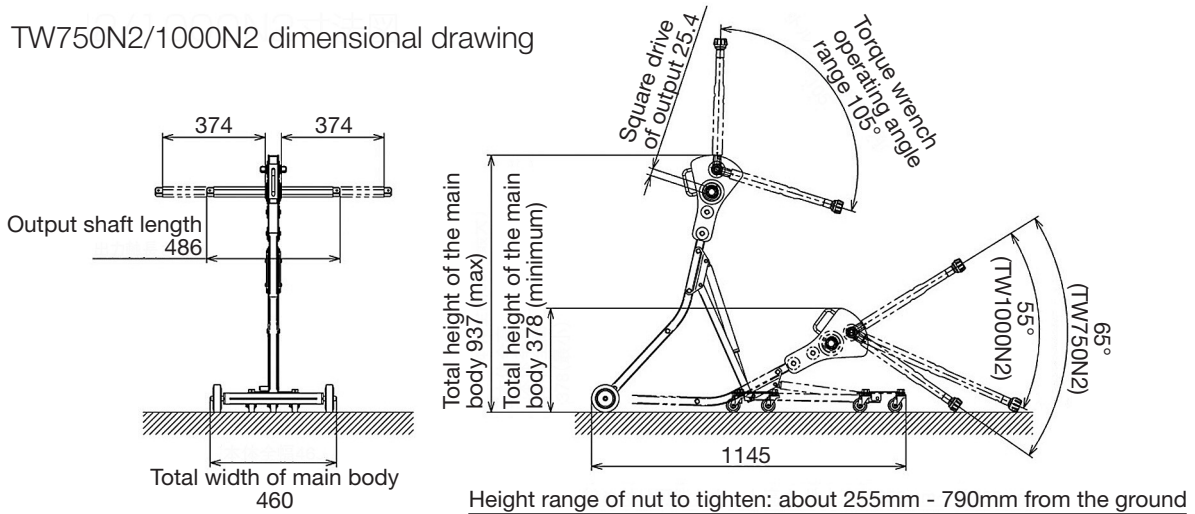


TW750N2/1000N2 torque wrench

⚠ Caution

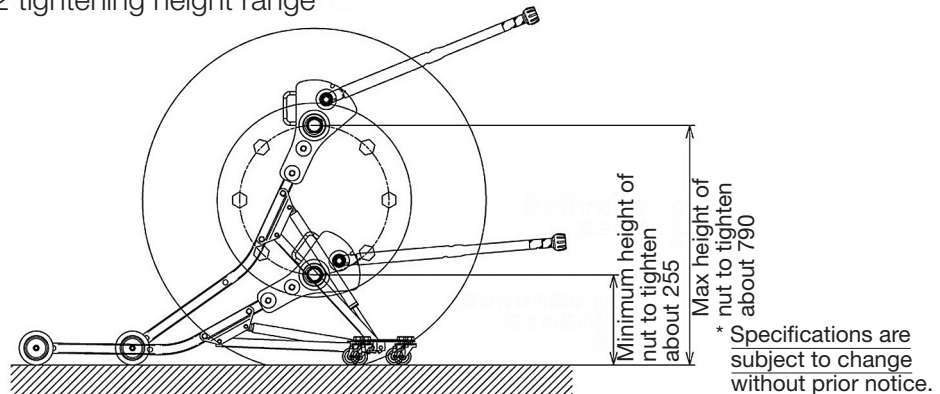
TW750N2/1000N2 main body and the torque wrench are calibrated as one set. If you combine the body and the torque wrench of different serial number, you may not get the accurate torque result.

TW750N2/1000N2 dimensional drawing



Height range of nut to tighten: about 255mm - 790mm from the ground

TW750N2/1000N2 tightening height range

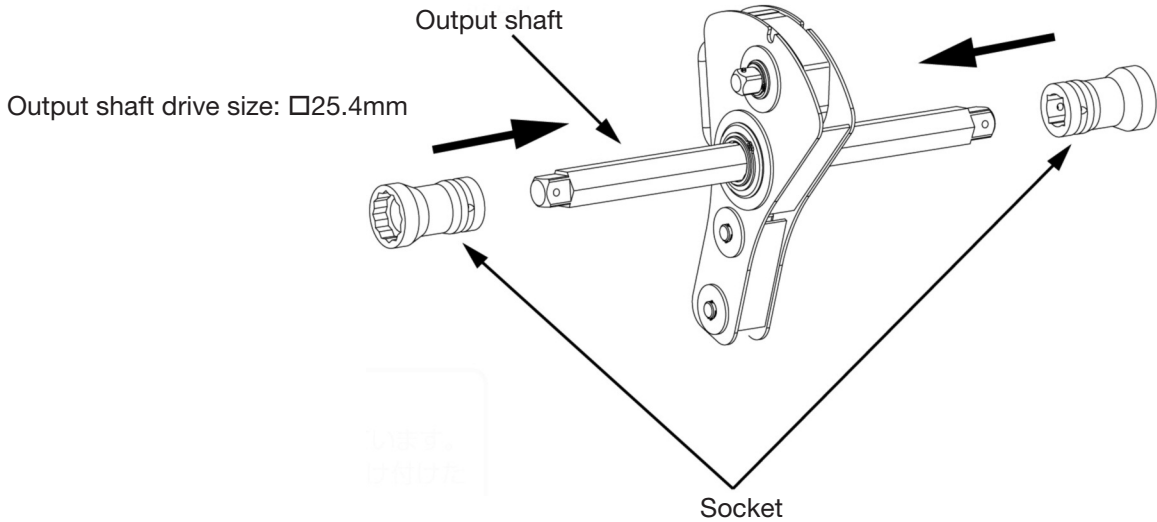


* Specifications are subject to change without prior notice.

3 Preparation before Use

Put on the sockets on both sides of the output shaft.

* Socket is not included in the set. Choose a socket that matches the bolt and nut.



⚠ Caution

Socket also prevents the output shaft from coming off the head.

If you don't put sockets on, or put only one socket on, the output shaft may come off the head and drop to the ground. It may cause injuries.

Make sure to put O-ring and pin on the socket to prevent it from coming off the output shaft accidentally.

Check the serial number on TW750N2/1000N2 main body and the serial number on the torque wrench are the same.

* Example of serial number:
123456A (6 digit number + 1 alphabet)



Serial number of TW750N2/1000N2 main body is printed here.

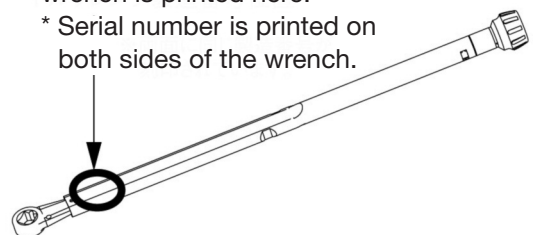
⚠ Caution

TW is calibrated as one set (mainbody + torque wrench).

If you use the main body or the torque wrench of different serial number, it may not be able to output accurate torque.

Serial number of the torque wrench is printed here.

* Serial number is printed on both sides of the wrench.



4 How to Use

• **Set the torque value.**

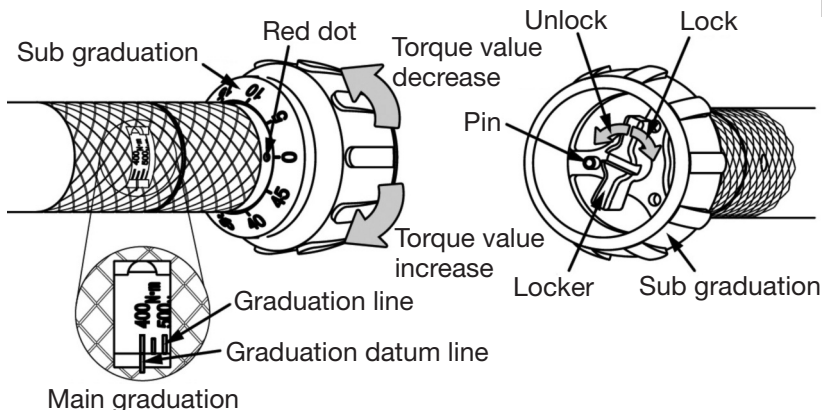
Set the torque value on the graduation of the torque wrench.

The value on the graduation is multiplied value by the gear ratio. Therefore, the torque value on the graduation should be the same as the value you wish to apply on the bolt.

You do not need to multiply the torque value by the gear ratio of the main body.

1. Loosen the locker.
2. Rotate the sub graduation and set the torque value (main graduation + sub graduation).
3. Lock the locker (clockwise).

(If the locker is hindered by the pin, relocate the pin to the appropriate position.)

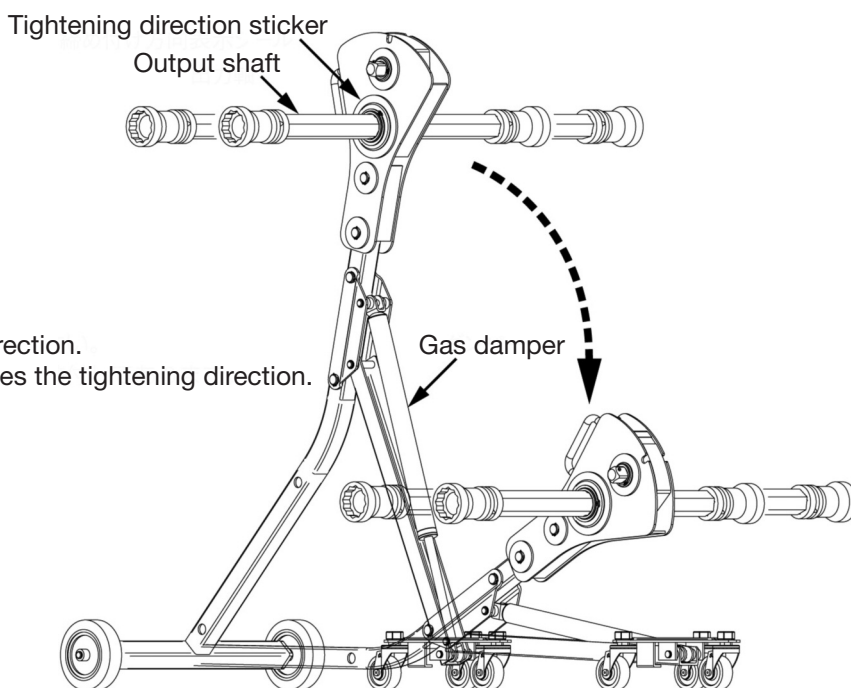


Example) Set torque value to 550N·m.

1. See the main graduation while rotating the sub graduation. When it comes close to 500N·m on the main graduation, check the value on the sub graduation. Align 0 of the sub graduation to the red dot. Now, the torque wrench is set to 500N·m.
2. See the sub graduation and rotate it clockwise until 50 is aligned to the red dot. Now, the torque wrench is set to 550N·m.

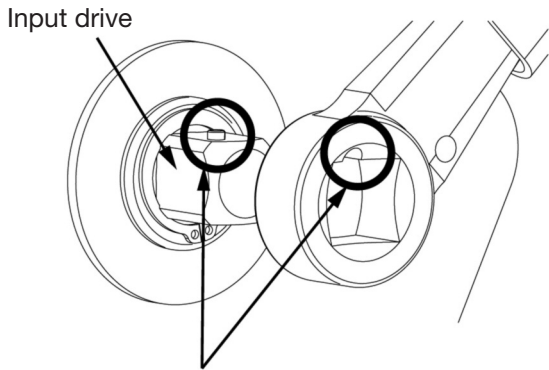
• **Set TW750N2/1000N2 main body to the bolt and the nut.**

To set the position of TW750N2/1000N2 main body, vertical position (height) can be adjusted by the gas damper and horizontal position by sliding the shaft.



* Check the tightening direction.
Attached sticker indicates the tightening direction.

- Set the torque wrench on TW750N2/1000N2 main body.



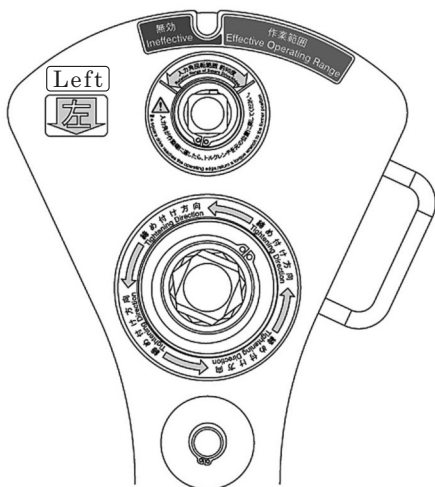
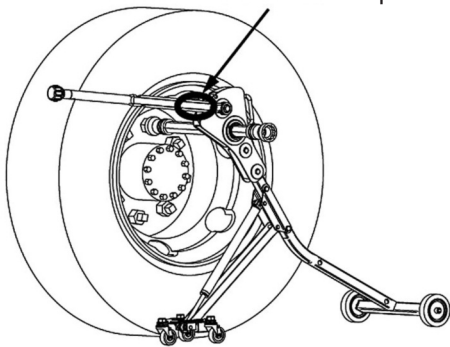
⚠ Caution

Insert the head of the torque wrench fully and securely to the input drive.
If the head is not fully inserted, the main body and the torque wrench may be damaged, which causes accidents and injuries.

Set the head of the torque wrench to the input drive.
The pin on input drive and cut part of the head are to be aligned.

When tightening CCW screw
(counter-clockwise screw)

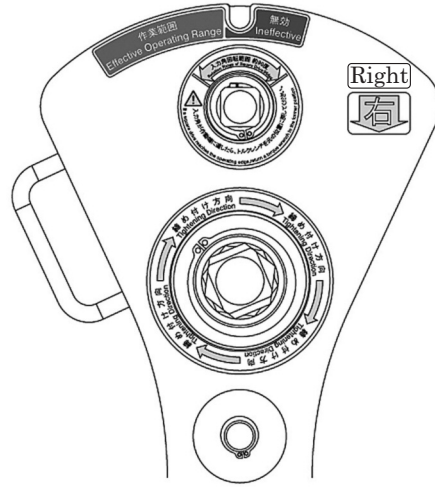
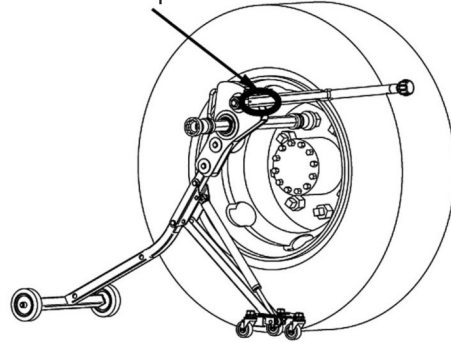
"LEFT" is printed on the tube of the torque wrench.



* Counter-clockwise screw is used in JIS hubs.

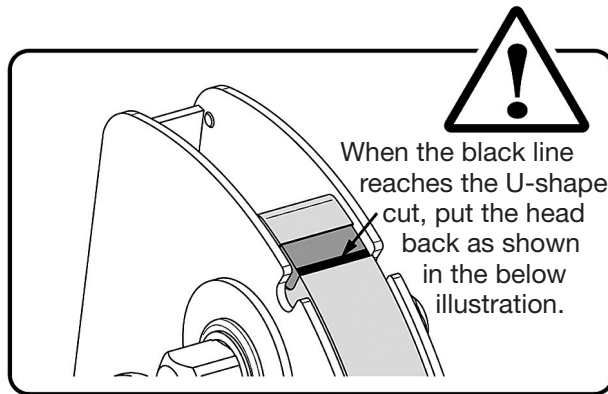
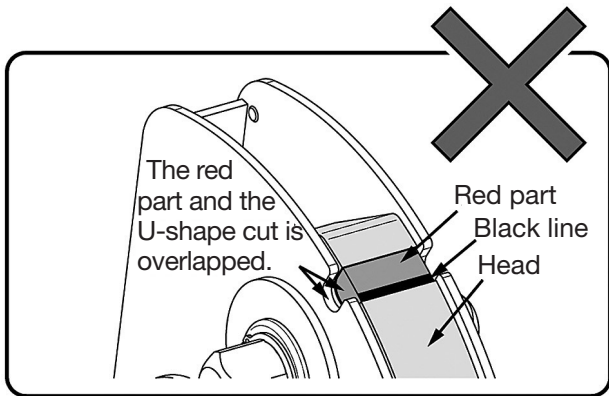
When tightening CW screw
(clockwise screw)

"RIGHT" is printed on the tube of the torque wrench.

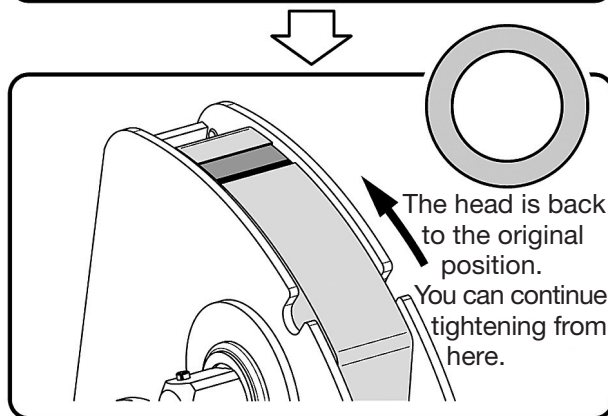


⚠ When applying torque, if the red part of the head reaches U-shape cut, it may not be able to output the accurate torque.

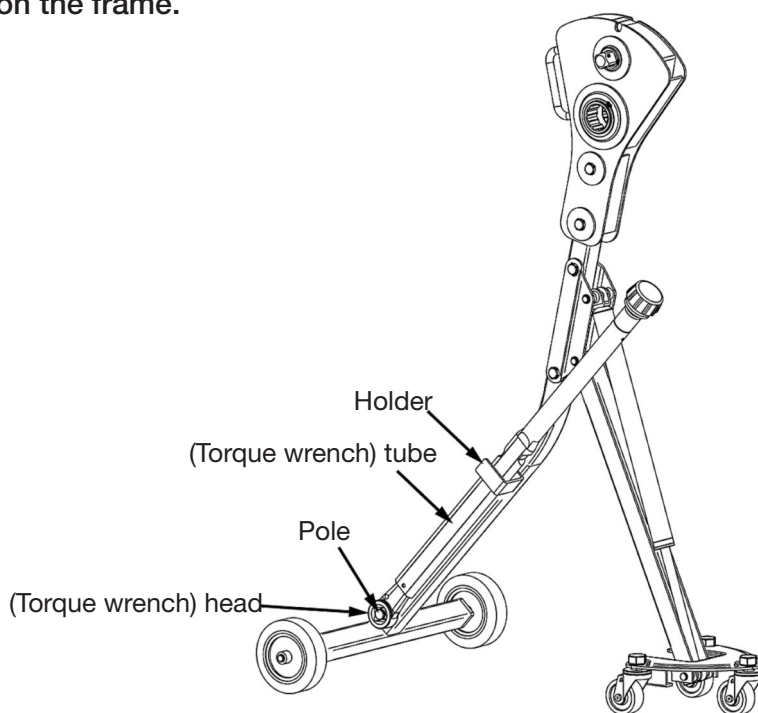
Check the red part is not overlapping with the U-shape cut when tightening.



⚠ **Caution**
 If you tighten when the multiplier is not in effect, output torque will be different from the set torque. Also, if you force to keep tightening, it may cause the product to break down.



- After use, set the head of the torque wrench into the pole on the lower part of the frame and let it hung on the holder on the frame.



Designs and specifications are subject to change without notice.



■ **TOHNICHI MFG. CO., LTD.**

TEL: +81-(0)3-3762-2455 FAX: +81-(0)3-3761-3852
2-12, Omori-kita, 2-Chome Ota-ku, Tokyo 143-0016, JAPAN
E-mail: overseas@tohnichi.co.jp
Website: <http://tohnichi.jp>

■ **N. V. TOHNICHI EUROPE S. A.**

TEL: +32-(0)16-606661 FAX: +32-(0)16-606675
Industrieweg 27 Boortmeerbeek, B-3190 Belgium
E-mail: tohnichi-europe@online.be
Website: <http://www.tohnichi.be>

■ **TOHNICHI AMERICA CORP.**

TEL: +1-(0)847-272-8480 FAX: +1-(0)847-272-8714
677 Academy Drive, Northbrook, Illinois 60062, U. S. A.
E-mail: inquiry@tohnichi.com
Website: <http://www.tohnichi.com>

■ **TOHNICHI AMERICA CORP. - Atlanta Office**

TEL: +1-(0)770-944-2734 FAX: +1-(0)770-944-2735
561 Thornton Road, Suite U, Lithia Springs, Georgia 30122

■ **TOHNICHI SHANGHAI MFG. CO., LTD.**

东仁扭矩仪器(上海)有限公司
TEL: +86-(021)3407-4008 FAX: +86-(021)3407-4135
Rm. 5 No. 99 Nong1919. Du Hui Road.
Minhang, Shanghai. P.R. China