

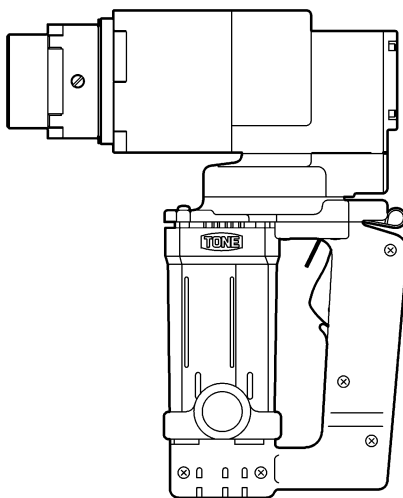
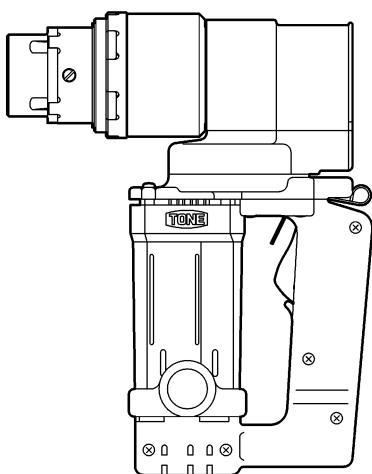
TONE SHEAR WRENCH

INSTRUCTION MANUAL **No.2507**

**TO BE
PRESERVED**

MODEL

MTS-80L / HTS-110L



⚠ CAUTION

Read and fully understand all the instructions before use.
Keep this manual in designated place for easy and quick reference.
The models mentioned on this manual are designed for use outside Japan.
Warranty shall be void if above mentioned models are use in Japan.

TONE CO., LTD.

PREFACE

Thank you for purchasing **SHEAR WRENCH** .

- Upon receipt, check and confirm the following:
 - Check any transport damages.
 - Check for any loose or lost screws and bolts.
 - Check the model as per order.
 - Check all the accessories are contained.

If any problems are found, contact your distributor.

- Read this instruction manual carefully before use.
Full understanding of manual is essential to prevent personal injury or malfunction.
- Keep this manual in a bag attached to the back of metal case lid for easy and quick reference.
- If manual or warning label is lost or becomes illegible, or if additional manual is required, contact your distributor.

If you have any questions about the products or the contents of this instruction manual, contact your distributor.

- This manual is only applicable to outside Japan.

SAFETY INSTRUCTION

This manual specifies three (3) basic safety instructions:



- Instructions are classified by degree of risk and described as follows:

	Danger is used to indicate threatening dangerous or unsafe practices which could immediately result in severe personal injury or death in the worst case.
	Warning is used to indicate hazardous or unsafe practices which could result in severe personal injury or death in the worst occasion.
	Caution is used to indicate hazardous or unsafe practices which could result in personal injury or product or property damage.

Even if the risk is classified as  , risk could become more serious result depending on conditions. Make sure to follow all instructions when using.

TABLE OF CONTENTS

1. APPLICATION	4
2.  PRECAUTIONS FOR USE	4
3. PART NAME	11
4. FEATURES	12
5. BEFORE USE	13
6. OPERATING PROCEDURE	14
7. CHANGING SOCKET	17
8. INSPECTION & MAINTENANCE	20
9. SPECIFICATIONS	22
10. AFTERSALES SERVICE	22

1. APPLICATION

- **SHEAR WRENCH** is an electric tool for tightening Tension Control Bolt/Nut/Washer assemblies.

2. PRECAUTIONS FOR USE

- To prevent accidents, personal injury and etc, read and follow all instructions listed below.

DANGER

- Beware of electric shock when operating at high place.
 - Failure to follow this instruction may result in fall down accidents.

WARNING

● Beware of electric shock.

- ☐ Never use the wrench under rainy or snowy condition.
- ☐ Never touch the plug with wet hands.

Failure to follow this instruction may result in electric shock, fire or electric leakage.

● Electric cord must be regularly inspected.

- ☐ Stop using the wrench if there is a problem with the electric cord.
- ☐ Contact your distributor for repair.

Failure to follow this instruction may result in electric shock or electric leakage.

● Never use the wrench around the place where gasoline, gas, thinner, benzene, etc., are stored.

- ☐ Do not use the wrench around flammable substances to avoid the accidental fire caused by the spark out of the electric motor.

● Beware of fall down accidents when working at a high place.

- ☐ Wear safety belt
- ☐ Provide safety net or canvas as safe guarding against falling items.
- ☐ Confirm that no one is underneath the working site before operation.
- ☐ Stop operation when physically or mentally tired.

Failure to follow these instructions may result in fall down accidents.

● Avoid overloading.

- ☐ Use the wrench and its accessories within the rated specifications.
Overloaded wrench and its accessories may result in malfunction of the wrenches, accidents or personal injury.

WARNING

● Properly install sockets as described in this manual.

- Incomplete installation may result in accidents and personal injury.
See “CHANGING SOCKETS” on page 17~19.

● Avoid accidental Starting.

- Ensure that the switch is in the off-position before plugging into power source.
- Never carrying the wrench with your fingers on the switch when the plug is connected to power source.

● Disconnect the plug from the power source when:

- Not in use.
- Changing accessories.
- Inspection and maintenance.
- Or other danger is foreseen.

Failure to follow these instructions may result in accidental starting and personal injury.

● Do not disassemble or modify the wrench.

- Disassembly or modification made by unauthorized personnel may result in malfunction or personal injury.
- Disassembly & Re-assembly work is permitted for the following expendables: Inner Socket, Outer Socket, Set Screws, Inner Socket Spring, Ejector Pin, Ejector Spring and Carbon Brushes.

● Store the wrench in the metal case and keep it at the designated place when not in use.

- Store wrench in lockable dry location to keep any unauthorized personnel away.

Failure to follow this instruction may result in malfunction or accidents.

WARNING

- **Immediately stop using the wrench and disconnect the plug when unusual sound, vibration or smell is detected.**

- Contact your distributor immediately.

Failure to follow this instruction may result in serious injury.

- **Contact your distributor for repair service.**

- Repair work should only be carried out by a qualified serviceman.
- Repair work done by an inexperienced person may cause accidents, injury or malfunction.

- **Check the following items before operation.**

- Check for any deformation, crack or damage on the wrench body, sockets, electric cord, plug and etc.
- Do not use the wrench if any problem are found on items listed above.
- Make sure that socket assembly is correctly installed on the wrench.
- Make sure that set screws are securely fastened. Loose installation may result in accidents and personal injury.

- **Use appropriate power source as indicated on the rating plate.**

Failure to follow this instruction may result in fire or burn accidents.

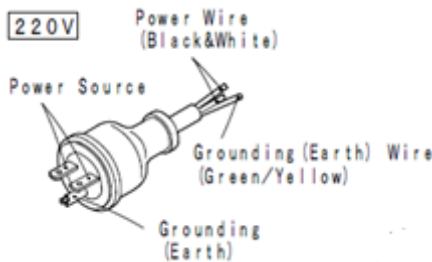
- **Immediately check the wrench when it is dropped down or banged.**

- Check for deformation, crack, damage and other abnormality. Stop using the wrench if any abnormality is found.

Continued use of fault wrench may result in accidents and personal injury.

WARNING

- Check if leakage breaker is available together with earth connection.
 - Recommended leakage breaker: Rating capacity at 15mA and acting time below 0.1sec
- Grounding (Earth Connection) is always required.
 - Supplied tool has no double insulation structure, hence tool must be earthed.
- Do not connect grounding (earth) lead to gas pipe
- If extension cable is used, apply those with earth and 3-P cable.
 - One cable must be adapted as earth cord and must be connected to the earth terminal on the tool.
 - 2 core cable without earth cord might cause electric shock.



CAUTION

● **Keep work area clean.**

- ☐ Cluttered areas and benches invite accidents.

● **Keep children away.**

- ☐ Do not let children touch the wrench and electric cord.
- ☐ All visitors should be kept away from work area.

● **Secure work area.**

- ☐ Keep body stance balanced and firmed.
- ☐ Never wrap the electric cord around something.
- ☐ Keep work area well lit.

● **Use suitable model for each application.**

- ☐ Do not use wrench beyond its rated specifications.
- ☐ Do not use wrench for purpose not intended.

● **Dress properly.**

- ☐ Always wear gloves and non-skid footwear when operating outdoor.
- ☐ Always wear safety helmet.

● **Use genuine accessories or attachments manufactured by TONE CO., LTD.**

● **Do not connect multiple plugs to a single outlet by using multiple outlet adaptors.**

- ☐ Over current may cause fire, accidents or malfunction.

● **Do not abuse the electric cord.**

- ☐ Never use the electric cord for carrying, pulling, or unplugging the power.
- ☐ Keep the electric cord away from heat, oil, sharp edges or moving parts.

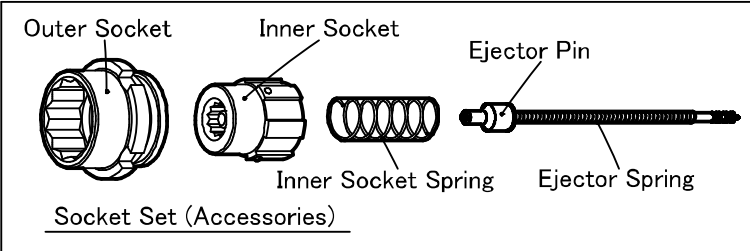
CAUTION

- **Keep electric motor well ventilated.**
 - Do not put any foreign materials into the vent.
 - Do not block exhaust vent.
- **Maintain wrench.**
 - Keep wrench handle clean, dry and free of oil or grease.
- **Provide leakage breaker as a shock guard for each wrench.**
- **When applying extension cord, select shorter extension units than specified below depending on the cross section.**

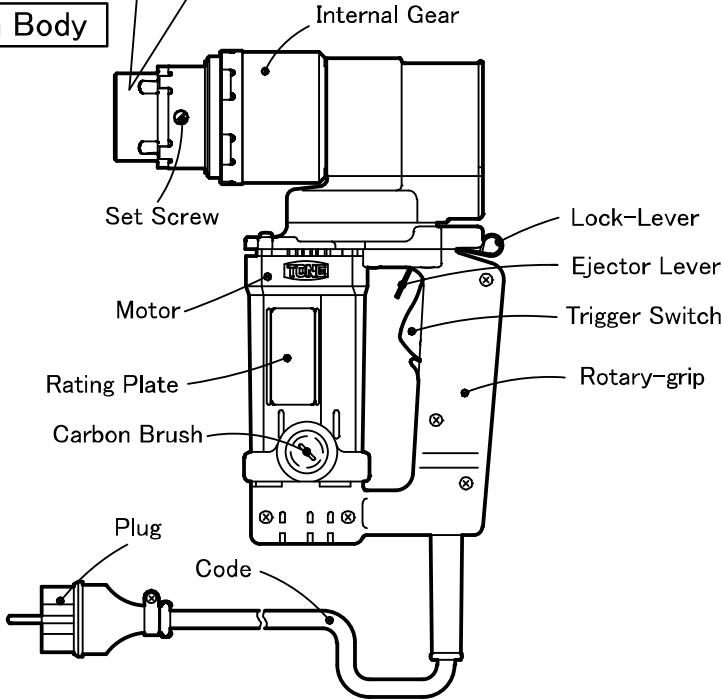
Nominal conducting cable cross section		Max. Length
		220V
H07RN-F	1.25mm ²	20m
	2.0mm ²	40m
	3.5mm ²	60m

- Using extension cord more than Maximum Length may result in malfunction or breakdown due to performance drop of the wrench.
- **Use attached connector when using extension cord.**
- **Observe local laws and rules concerning noise level.**

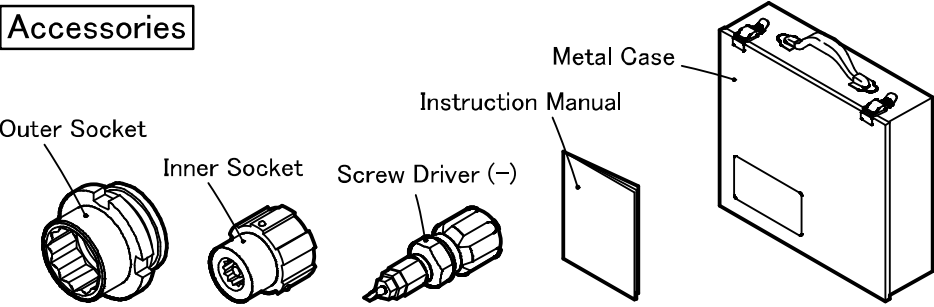
3. PART NAME



Main Body



Accessories



MODEL	ACCESSORIES
MTS-80L HTS-110L	Inner Socket Outer Socket Inner Socket Spring Ejector Pin Ejector Spring Screwdriver (-) Connector(Only 220V) Instruction Manual

● **Contact your distributor for other available sockets and accessories.**

4. FEATURES

- Anti-defacement Mechanism Inner Socket.
 - Interchangeable with existing M and H-type Sockets.
 - M-type for MTS-80L
 - H-type for HTS-110L
 - Rotary-Grip Mechanism index at 0, 90, 180 & 270 degrees.
Ideal for narrow or odd workplaces.

5. BEFORE USE

WARNING

● **Check followings before connecting the plug into power source.**

- ☐ Accidental starting invites personal injury.

1. Check for any deformation, crack or damage on wrench body, socket, electric cord, etc.

Do not use wrench if any problem is found on items listed above.

2. Make sure to use commercial power supply.

Use appropriate power source as indicated on the rating plate.

3. Make sure that socket assembly is correctly installed on the wrench.

4. Make sure that set screws are securely fastened.

Loose installation may result in accidents and personal injury.

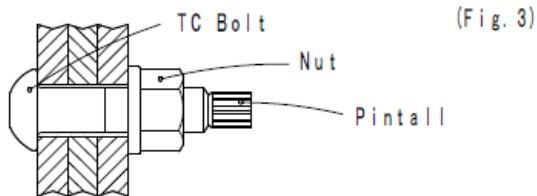
See “CHANGING SOCKETS” on page 17.

6. OPERATING PROCEDURE

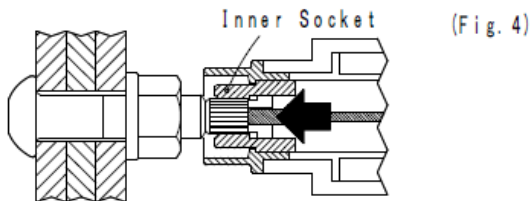
6.1 Tightening method

CAUTION

- Snug tight using snug tightening wrench like **TONE® SNUG MASTER** is required before using SHEAR WRENCH.

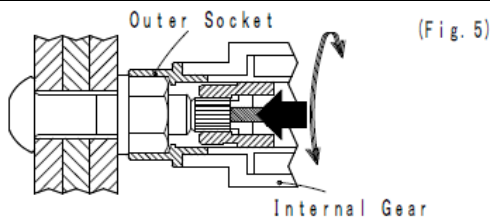


(1) Slide Inner Socket over the bolt pintail (Fig 4).

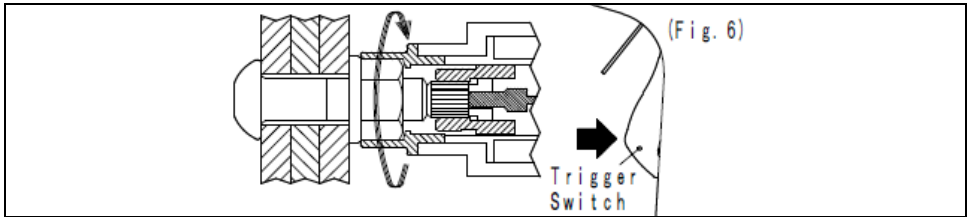


(2) Slide Outer Socket over the nut (Fig 5).

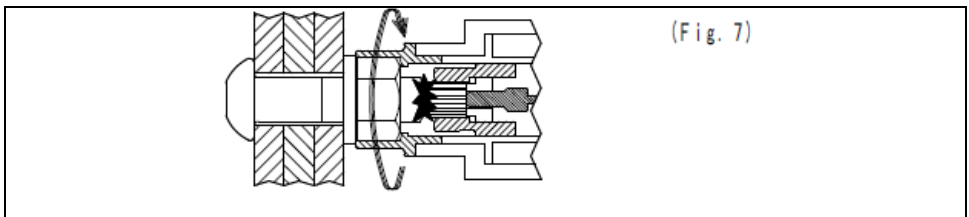
- Slightly turn Internal Gear when slide over is difficult.
- Outer Socket can not be engaged on the nut when Anti defacement mechanism of the Inner Socket detects improper Inner Socket engagement. In such case, back to step (1) and slide the Inner Socket over the bolt pintail completely.



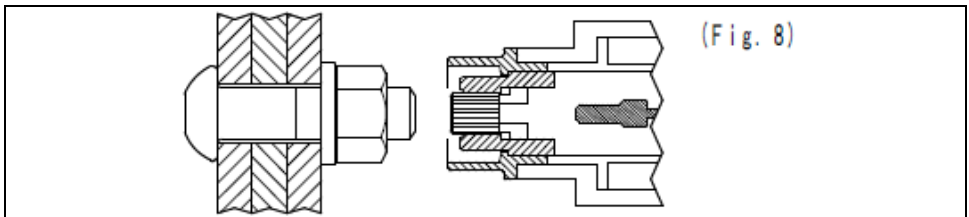
(3) Squeeze trigger switch to start tightening (Fig 6).



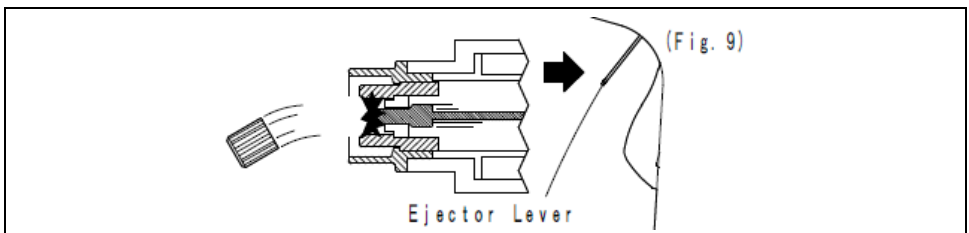
(4) Rotating speed gradually shows down as the tightening proceeds, then bolt pintail shears off when designated torque is reached (Fig 7).



(5) When tightening is completed, remove wrench from bolt/nut assembly. Sheared-off bolt pintail remains in Inner Socket (Fig 8).



(6) Pull Ejector Lever to eject bolt pintail (Fig 9).
Keep pintail in designated bag.



WARNING

● Keep others a safe distance from work area.

- Do not throw pintail away. Collect pintail in designate bag during operation.

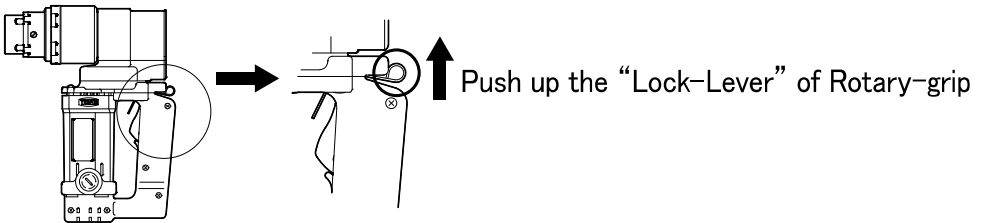
Failure to follow this instruction may result in accidents and personal injury.

● Do not insert bolts or nuts while the motor is running.

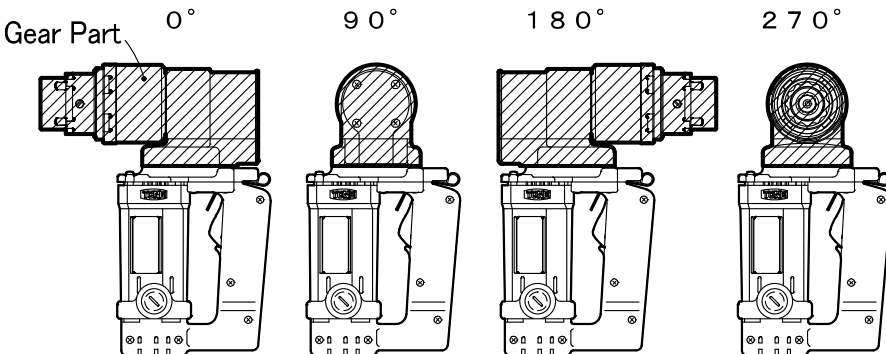
- Doing so may cause improper tightening and serious injury.

2. Method of adjusting indexable grip

(1) Push up Lock-Lever.



(2) Grip angle can be indexed every 90 degrees.



(3) Release the Lock-Lever to fix the gear part. Make sure the gear part does not rotate.

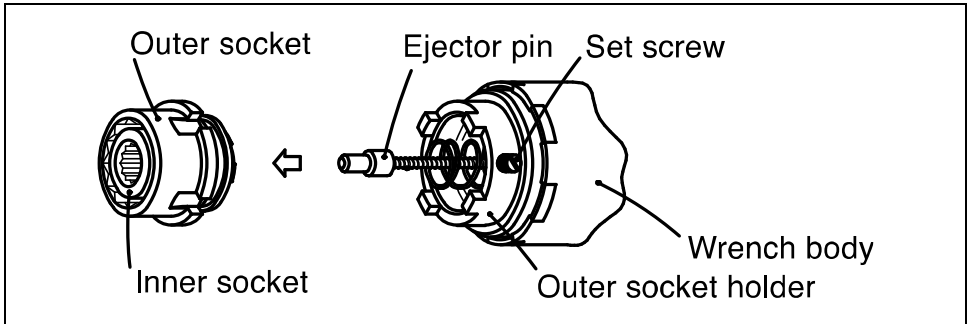
7. CHANGING SOCKETS

WARNING

- **Release ejector pin by pulling ejector lever before changing sockets.**

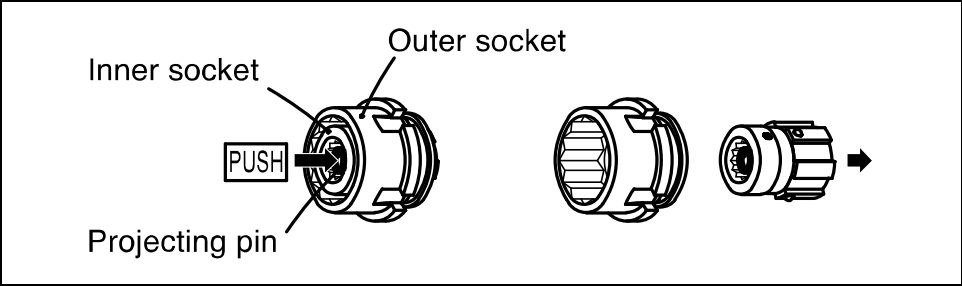
Accidental ejector pin release invites blindness or injury.

- (3) Remove inner & outer socket assembly from wrench by unscrewing set screws (Fig 10). Do not remove set screws completely from outer socket holder.

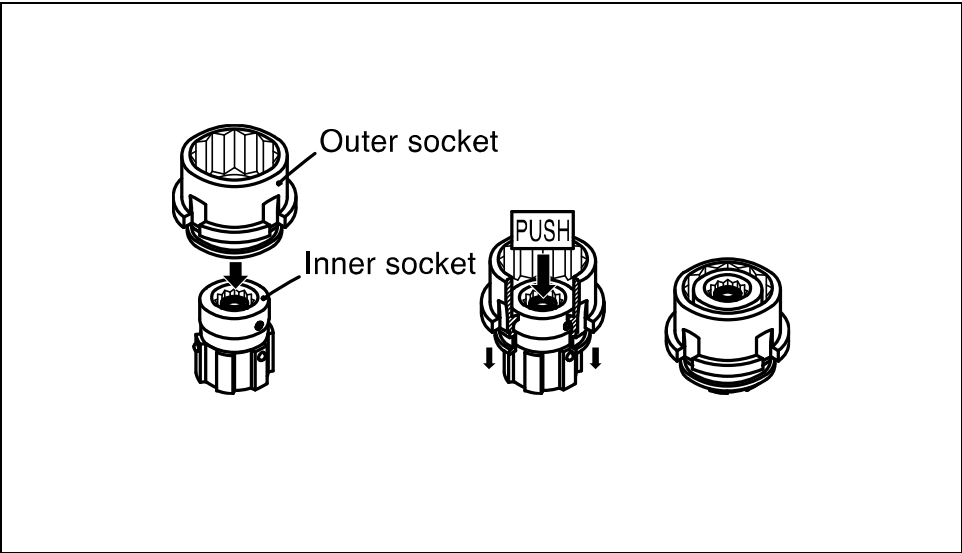


- (4) Prepare outer and inner-sockets of the right sizes suitable for the size of bolt to be tightened.
- ...Example : Use our standard socket for 3/4" to 3/4" bolts.

- (5) To separate Inner-Socket from Outer-Socket, push Projecting-Pin with attached screw driver or Pintail of TC Bolt.



- (4) Assembly Outer and Inner-Sockets.
Place the Inner-Socket first and put the Outer-Socket upon it. Install attached screw driver or Pintail of the same size shear bolt into Inner-Socket. Now Outer-Socket and Inner Socket are put together.

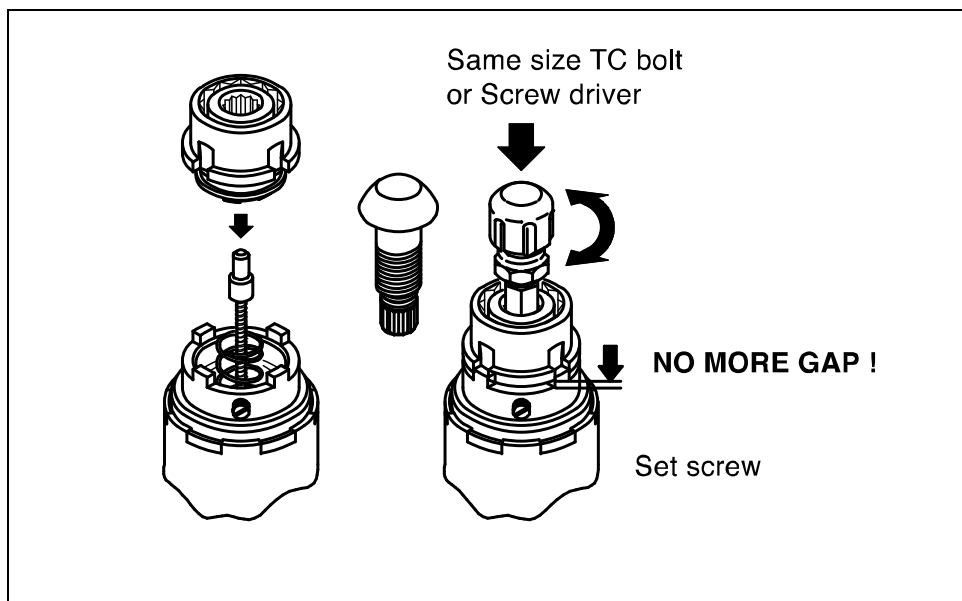


- (6) Install a set of Outer and Inner-Sockets into Outer-Socket-Holder of main body so that convex/ concave of Outer-Socket and Outer-Socket-Holder mutually fit.

There may be the case that the gap between Outer-Socket and main body prevents complete connection.

In such case insert attached screw driver or Pintail of same size TC bolt into Inner-Socket, make minute adjustment turning to and install Inner and then Outer-Sockets.

Confirm that there are no more gaps, and tighten set screws securely.



WARNING

- There should be no gap between the socket assembly and the wrench.

The gap invites accidents or breakage of the sockets or the wrench body.

8. INSPECTION & MAINTENANCE

WARNING

- **Disconnect plug from power source before inspection and maintenance.**
- Accidental starting invites serious injury.

- (1) Clean dust and debris from the sockets periodically.
- (2) Use only a damp cloth to clean your wrench and sockets since certain cleaning agents and solvents are harmful to those parts. Some of these include: benzene, thinner, gasoline and etc.
- (3) Never put solvents into the exhaust vent.
- (4) Store wrench in the metal case after operation and keep it dry.
- (5) Ejector pin must be regularly inspected and replaced when it wears down. Sheared bolt pintail will not be ejected from inner socket with worn ejector pin.

WARNING

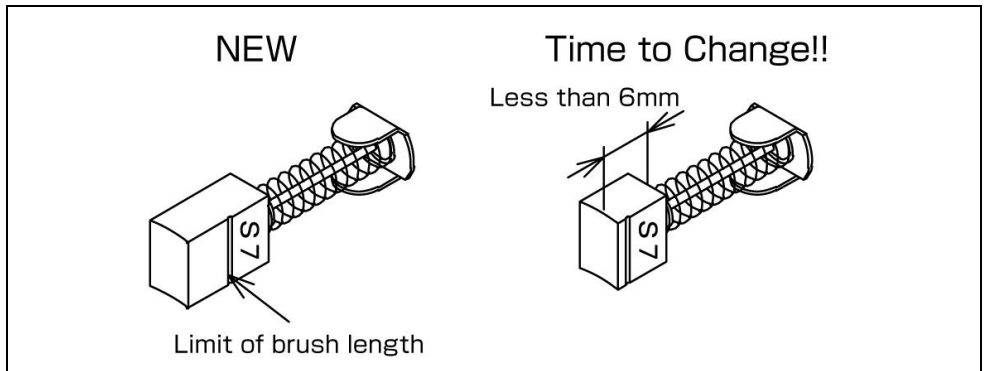
- **Replace the inner socket when sheared bolt pintail comes off the inner socket without pulling the ejector lever.**
- There is a risk of unexpected bolt pintail ejection when inner drive of the inner socket is worn down. The inner socket must be immediately replaced.

Failure to follow this instruction may result in serious accidents and injury.

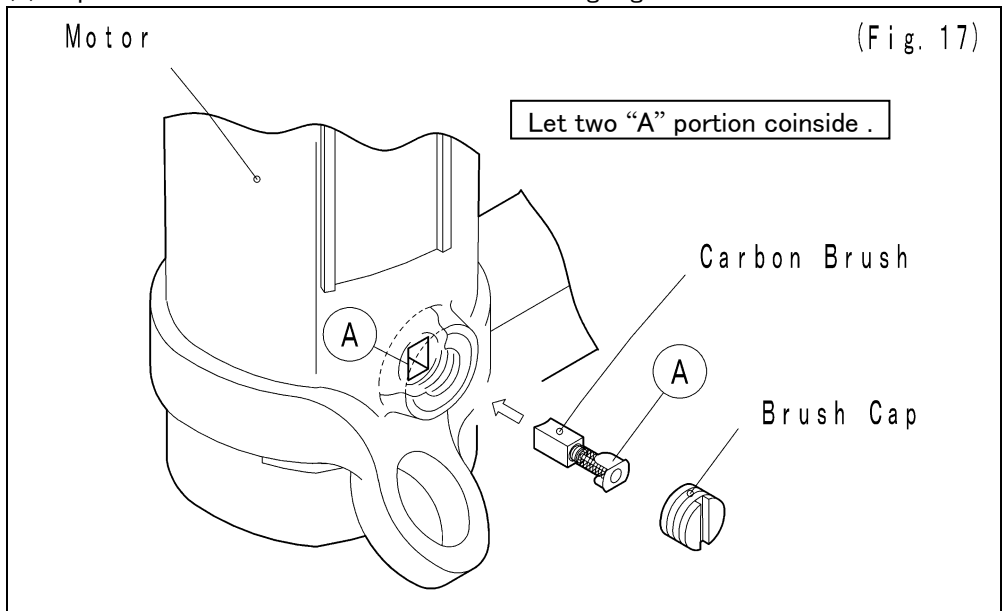
(6) Carbon brush must be regularly inspected and replaced with the new genuine carbon brush when brush length becomes less than 6mm (Fig 16).

*Carbon brushes are placed in two positions.

*Indicate the wrench model when carbon brushes are needed because carbon brush differs from model to model.



(7) Replace carbon brush as shown in the following Fig 14.



(8) Overhaul must be carried out every 6 months or 30,000 tightening, whichever comes first. Contact your distributor for overhaul.

9. SPECIFICATIONS

Model		MTS-80L	HTS-110L
Frequency		50-60 Hz	50-60 Hz
Voltage (Single Phase)		220 V	220 V
Max Current		7.5 A	7.5 A
Rated Power		1550 W	1550 W
Rated Max Torque		800 N·m	1250 N·m
Rated No-load Speed		19 min ⁻¹ (rpm)	10 min ⁻¹ (rpm)
Adaptable Bolt	S10T	M22、M20、M16	M24、M22、M20、M16
External dimensions	gear	φ 75mm	φ 85mm
	L × H × W	218 × 277 × 84mm	239 × 292 × 84mm
Weight (Main Body)		5.6 kg	7.4 kg

10. AFTER SALES SERVICE

- Follow the instruction manual and the warning label on the wrench and accessories for your safety.
- Contact your distributor for available services.
- Provide model, serial number, date of purchase and details of failure when contacting your distributor.

CAUTION

- Do not use wrench when malfunction, deficiency in wrenches' performance, personal injury or property loss is foreseen.

If possible, prepare backup wrenches beforehand.

TONE TONE CO., LTD.



6-25, KOTOBUKICHO, KAWACHINAGANO-SHI,
OSAKA 586-0026, JAPAN

Web Site: <https://www.tonetool.co.jp>

e-mail: overseas@tonetool.co.jp

● Specifications and the design are subject to change without notice. ●



IMKA043