KASHON EQUIPMENT

Trusted For Bolting And Jacking

Instruction Sheet

Hydraulic Torque Wrench

TAIZHOU KASHON POWER EQUIPMENT CO., LTD.

1. NOTICE

KASHON MXTA Series Square Drive Hydraulic Torque Wrenches are designed for installing and removing threaded fasteners requiring precise high torque during bolt makeup and maximum torque during bolt breakout.

KASHON is not responsible for customer modification of tools for applications on which KASHON was not consulted. Any warranty claims or liabilities claims against KASHON become invalid in the following situations:

a) If any unauthorized parts or accessories are used with any KASHON Tool Products.

b) If any KASHON Tools is obtained, purchased, rented, used or serviced from an unauthorized KASHON distributor, representative or reseller. c) Not following the KASHON MXTA manuals guidelines and procedures.

*Please contact KASHON directly to verify

2. WARNING

IMPORTANT SAFETY INFORMATION ENCLOSED. READ THIS MANUAL BEFORE OPERATING TOOL.

IT IS THE RESPONSIBILITY OF THE EMPLOYER OR DISTRIBUTOR TO PLACE THE INFORMATION IN THIS MANUAL INTO THE HANDS OF THE OPERATOR.

FAILURE TO OBSERVE THE FOLLOWING WARNINGS COULD RESULT IN INJURY:

2.1 PLACING TOOL IN SERVICE

- This tool will function using an air or electric powered hydraulic pump. Adhere to the pump safety requirements and follow instructions when connecting the pump to the tool.
- Use only equipment rated for the same pressure and torque.
- Use only a hydraulic pump capable of generating 10,000 psi(681 bar) maximum pressure with this tool.
- Use only twin line hydraulic hose rated for 10,000 psi (681 bar) pressure with this tool.
- Do not interchange the male and female swivel inlets on the tool or the connections on one end of the hose.

Reversing the inlets will reverse the power stroke cycle and may damage the tool.

- Do not use damaged, frayed or deteriorated hoses and fittings. Make certain there are no cracks, splits or leaks in the hoses.
- Use the quick connect system to attach the hoses to the tool and pump. Make certain the spring-loaded retaining rings are fully engaged to prevent the connectors from disengaging under pressure.
- When connecting hoses that have not been preloaded with hydraulic oil, make certain the pump reservoir is not drained of oil during start-up.
- Do not remove any labels. Replace any damaged label.

2.2 USING THE TOOL

- Do not handle pressurized hoses. Escaping oil under pressure can penetrate the skin, causing serious injury. If oil is injected under the skin, see a doctor immediately.
- Never pressurize uncoupled couplers. Only use hydraulic equipment in a coupled system.
- Always wear eye protection when operating or performing maintenance on this tool.
- Always wear head and hand protection and protective clothing when operating this tool.

3. CALIBRATION

KASHON Tools requires tools to be calibrated every 6 months.

Calibration however may depend on each individual user’s requirements.

5. TROUBLESHOOTING GUIDE

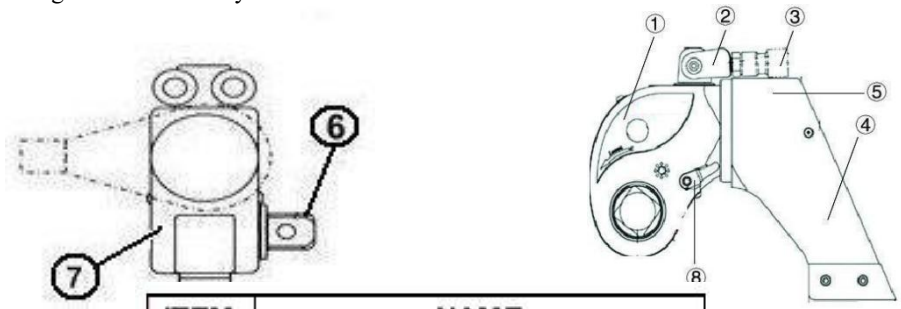
The following information is intended as an aid in determining if a problem exists. For repair service, contact the Authorized KASHON Service Center in your area.

FAILURE	REASON	SOLUTION
Piston not advance or retract	Couplers are not securely attached to tool or pump	Check the coupler connections and make certain that they are connected
	Coupler is defective	Replace any defective coupler
	Defective remote control unit	Replace the button and/or control pendent
	Dirt in the direction-control valve of the pump unit	Disassemble the pump and clean the direction-control valve
Piston not retract	Hose connections reversed	Make certain the advance on the pump is connected to the advance on the tool and retract on the pump is connected to the retract on the tool
	Retract hose not connected	Connect the retract hose securely
	Retract pin and/or spring broken	Replace the broken pin and/or spring
Cylinder not build up pressure	Piston seal and/or End Plug seal leaking coupler is defective	Replace any defective o-ring Replace any defective Coupler
Square drive not turn	Greaser or dirt build up in the teeth of the ratchet and segment pawl	Disassemble the Ratchet and clean the grease or dirt out of the teeth
	Worn or broken teeth on Ratchet and/or Segment pawl	Replace any worn or damaged parts
Pump not build up pressure	Defective relief valve	Inspect, adjust or replace the relief valve
	Electric power source is too low	Make certain the amperage, voltage and any extension, all size comply with the pump manual requirements
	Defective gauge	Replace the gauge
	Low oil level	Check and fill the pump reservoir
	Clogged filter	Inspect, clean and /or replace the pump filter
Pressure reading erratic	Defective Gauge	Replace the Gauge

4. OPERATING DIRECTIONS FOR USE

4.1 MXTA PART DESCRIPTION

The material of MXTA Hydraulic Torque Wrenches are Aluminium-Titanium alloy and super high strength alloy steel for increased strength, intensity and durability of the tool. High repeatability, a precise design is with accuracy ±3%.



ITEM	NAME
①	BODY
②	320⁰ ×175⁰ SWIVELJOINT
③	QUICK COUPLING
④	FIXING HOOK
⑤	360⁰ SWIVEL REACTIONARM
⑥	SQUARE DRIVE
⑦	DRIVE RETAINER
⑧	QUICK RELEASE ARM

4.2 CONNECTING THE TOOL

The wrench and power pump are connected by a 700 BAR operating pressure, twin-line hose assembly.
Each end of the hose will have one male and one female connector.
Assure proper interconnection between pump and wrench.

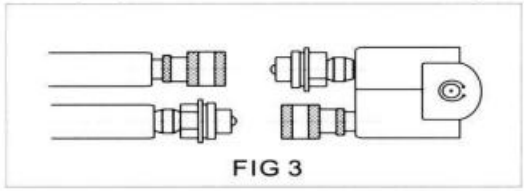
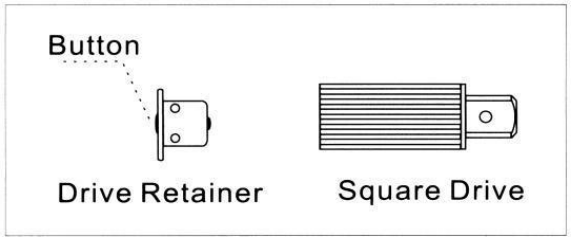


FIG 3

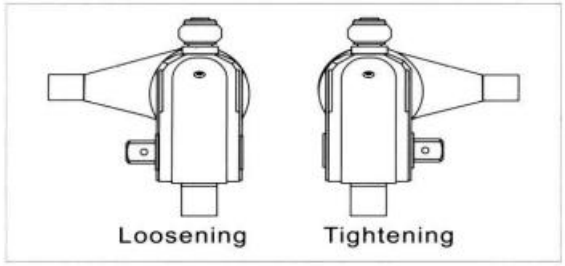
Insure the connectors are fully engaged and screwed snugly and completely together.

4.3 DRIVE DIRECTION CHANGE

To remove the square, disengage the drive retainer assembly by depressing the center round button and gently pulling on the square end of the square drive. The square drive will slide easily out.



To insert the drive in the tool, place the drive in the desired direction, engage drive and bushing splines, then twist drive and bushing until ratchet spline can be engaged. Push drive through ratchet. Depress drive retainer button, engage retainer with drive and release button to lock.



Right is tight.
Left is loose.

4.4 SETTING THE REACTION ARM

All KASHON hydraulic torque wrenches are equipped with a reaction arm. These reaction arms are employed to absorb and counteract forces created as the unit operates. The reaction arm should extend in the same direction of the square drive; however, slight adjustments may be made to suit your particular application. The function of a reaction:
Device is to hold the tool in position against the forces generated to tighten or loosen bolts or nuts. Hydraulic wrenches generate tremendous force. The reaction arm can be positioned in numerous places within a 360° circle. However, for the arm to be correctly positioned, it must be set within a 90° quadrant of that circle.
That quadrant is the area located between the protruding square drive and the bottom of the housing away from the swivel inlets. It will always be toward the lower half of the housing and on one side of the housing when tightening and the other side when loosening.

4.5 SETTING THE TORQUE

After determining the desired torque, use the torque calibration charts to determine the pressure that is necessary to achieve that torque.
4.5.1. Connect the tool to the power supply and turn the pump on, with the tools placed on the ground.
4.5.2. Depress the advance remote control button causing the pressure to be shown on the gauge.
4.5.3. Adjust the pressure by first loosening the nut that locks the pressure adjustment handle and then rotate the handle clockwise to increase the pressure and counter clockwise to decrease the pressure. When decreasing pressure, always lower the pressure below the desired point and then bring the pressure gauge back up to the desired pressure.
4.5.4. When the desired pressure is reached, re-tighten the lock nut and cycle the tool again to confirm that the desired pressure setting has been obtained.

4.6 OPERATING THE WRENCH

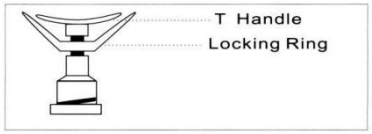


FIG 6

4.6.1. Place the square drive in the socket, insert the socket retainer ring and pin, and place the socket to the nut. Make certain the square drive and socket are the correct size for the nut and that the socket fully engages the nut.
4.6.2. Position the reaction arm against an adjacent nut, flange or solid system component.
Make certain that there is clearance for the hoses and swivel couplings. Do not allow the tool to react against the hoses, or swivel couplings. When reacting directly off the tool body with reaction arm removed.
Do not react off the exposed end plug spigot.
4.6.3. After having turned the pump on and presetting the pressure for the correct torque, depress the remote control advance button to advance the piston assembly.
4.6.4. When the wrench is started, the reaction surface of the wrench or reaction arm will move against the contact point and the nut will begin to turn. Once the piston reaches the end of its stroke depress the remote control return button to retract the piston.
4.6.5. Continue this cycling operation of advance and retract until the nut is no longer turning and the pump gauge reaches the preset pressure. The piston rod will retract when the retract button is pressed and under normal conditions, an audible “click” will be heard as the tool resets itself.
4.6.6. Continue to cycle the tool until it “stalls” and the preset psi/torque has been attained.
4.6.7. Once the nut stops rotating, cycle the tool one last time to achieve total torque

4.7 CAUTION

During the operation, if the tool locks on to the nut, press advance button on remote and build pressure-continue to press down on remote while pushing down on the reaction pawl-release remote while continuing to push down on reaction pawl, then the tool will the released from the nut.