

MSK-110

COMPACT HYDRAULIC CRIMPING MACHINE

Hydraulic Jack Replacement Guide

OPERATION MANUAL



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IMPORTANT NOTES

Thank you for purchasing from Materials Technology International Corporation. This manual contains important operation and safety information prepared for those intending on operating and utilizing the equipment. The prospective user is responsible for carefully reading and understanding the contents of this manual prior to operating the equipment.

MTI reserves the right to update or upgrade the product without informing customers of the data change(s) in this manual. Please visit www.mtixtl.com frequently for the latest information and manual.

GENERAL WARNINGS

MTI will not be responsible for equipment damage, accidents leading to minor or fatal injuries, and etc. caused by the user's negligence or lack of knowledge. Always read the manual fully beforehand and exercise the best judgment when handling the equipment.

⚠ TO AVOID PHYSICAL INJURIES:

- Do not put this equipment near flammable or explosive environments and substances.
- Do not place the instrument too close to the wall or obstruct the air vents. Keep the instrument at least 1 meter in distance from the wall to get enough clearance for safe operations.
- Always operate the equipment in the company of others and do not operate it alone so that accidents can be addressed quickly.

WARRANTY

MTI Corporation provides one year limited warranty for equipment (consumable accessories and parts not covered) from date the product is shipped out. Any defective part(s) will be replaced free of charge during the warranty period. However, the warranty does NOT cover any equipment damage caused by misuse or negligence. After expiration of warranty, MTI will continue to provide technical support and spare parts at a reasonable cost.

HYDRAULIC JACK REPLACEMENT

OPERATION PROCEDURES

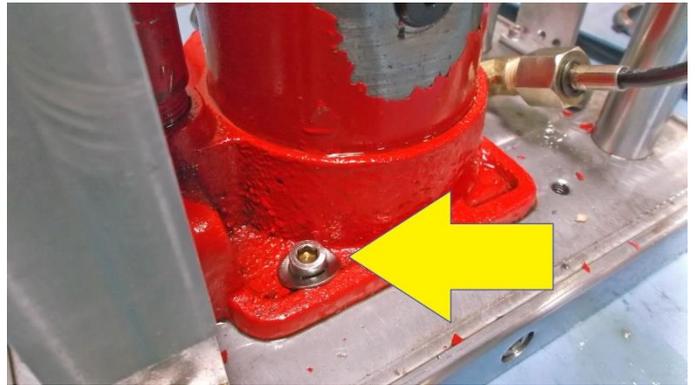
When it is no longer functional, the hydraulic jack of the MSK-110 will need to be replaced for maintaining the integrity of the crimping / de-crimping functions of the machine. Please follow the instructions and reference photos below to remove the original jack followed by jack replacement and re-assembly of the instrument.

Jack Removal

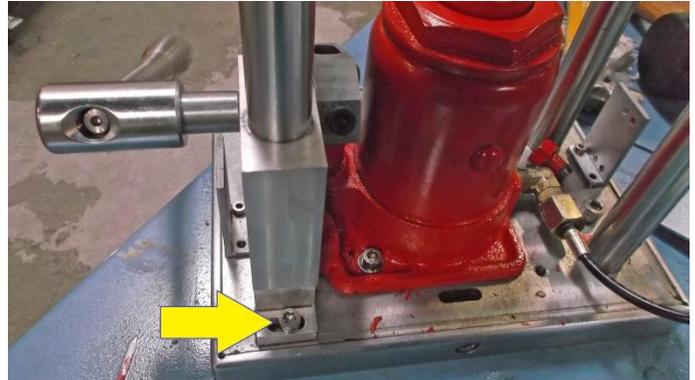
- 1) Remove the top platen, upper base plate and side panels so that the hydraulic jack is revealed.



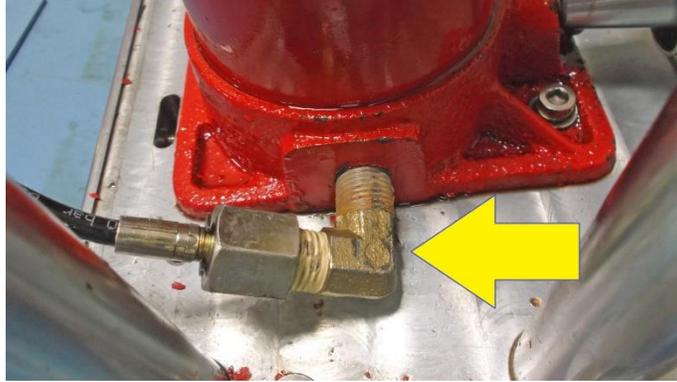
- 2) Remove the hex screws holding the jack so that it can be removed from the base.



- 3) Remove the pin holding jack's pump lever to the rocking arm and the hex screw on the back.



- 4) Then remove the cord of pressure gauge from the jack by removing the threaded adapter.

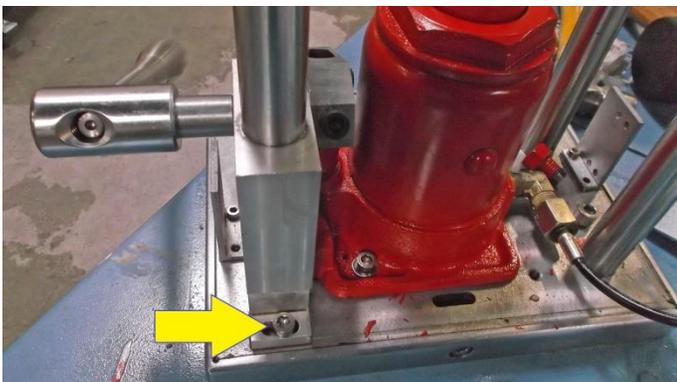


Jack Installation

- 1) With the original jack removed, install a new jack and secure it to the base of the machine by fastening the two hex screws.



- 2) Mirroring the jack removal process above, perform the installation of the pressure gauge cord, and secure the jack's pump lever to the rocking arm.



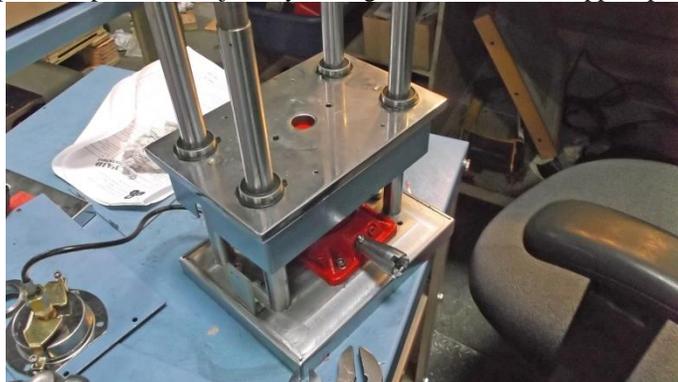
- 3) Next, we will take the pressure locking adapter off of the original jack and place it on the new jack.



- 4) Position the front plate with the pressure gauge cord snaked around the support pillars as shown in pictures below.



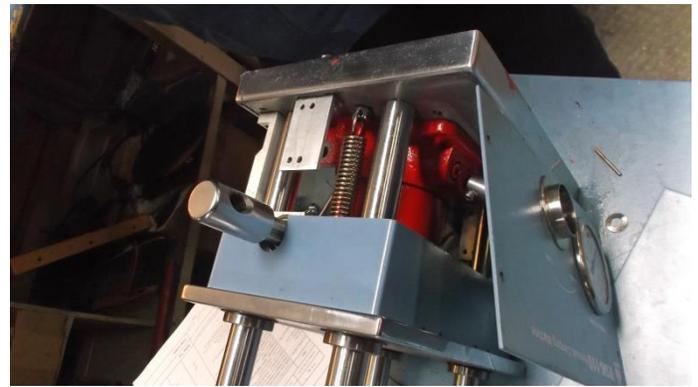
- 5) Next we will place the upper base plate on the jack by sliding it down the four support pillars.



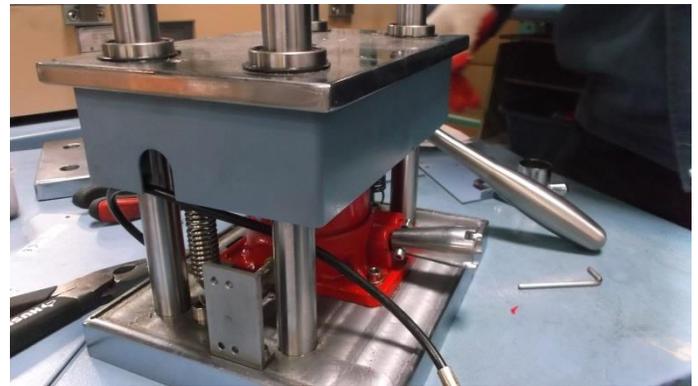
- 6) Using a pair of pliers, pull the spring down so that its hook latches onto the eye of the base anchor.



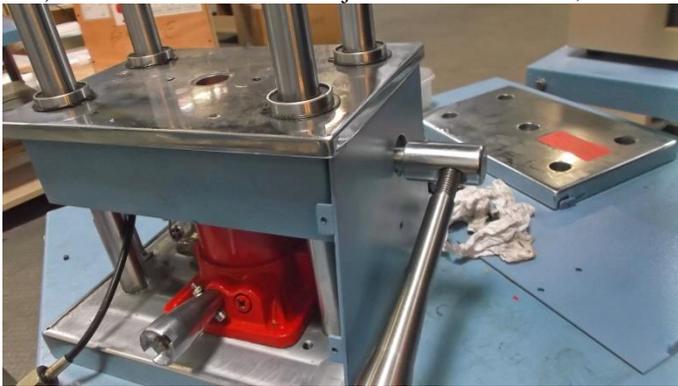
- 7) Repeat the same procedure in step 5 for the other side.



- 8) At this point, verify the function of the new jack by locking the pressure locking adapter and rock the arm on the side to see if the upper base plate will rise with the jack. Then turn the pressure locking adapter in the reverse direction to release the pressure and see if the upper base plate will come down.



- 9) Once the function of the jack has been verified, install the side plates on both sides of the machine.



10) Then install the front and back plates to conceal all the internal parts.



11) Install the top cover plate (use a rubber mallet to get it fixed into the pillars on if needed) and fasten the hex screws to secure it in place.



12) Fix the pressure locking knob onto the adapter by fastening the hex screw.



13) Finish the installation by setting up the needed die set and perform an alignment test to ensure they can crimp / de-crimp properly.



EQUIPMENT MAINTENANCE & TROUBLESHOOTING

MAINTENANCE AND EQUIPMENT CARE

- In order to prevent the electrolyte from being spill out off the cell case and corroding the crimping die, please do not overfill the cell cases with electrolyte. Please wash off any electrolyte that gets on the die sets after operation.
- The built-in hydraulic pump is not designed for holding high pressure for long durations. Please do not hold the pressure after assembling a coin cell case, otherwise the components inside the crimping machine could possibly be damaged.
- Do NOT press the crimping die with no cell casing loaded.
- 500~600 PSI (<math><50\text{kg/cm}^2</math>) pressure will be enough for sealing the coin cell, please do not over press when the pressure reaches this level.
- In order to extend the life span of sealing O-ring inside, please gently push/lift the compression handle.
- Periodically inspect the fastening screws around the crimping die and make sure they are well tightened
- Do not lay the machine down or upside down to prevent oil leaks.
- Please tighten the valve fully after releasing the pressure if transporting the machine in long distances is needed.
- Please lubricant support rods regularly.

TROUBLESHOOTING RESOURCES

- Visit MTI web site link: WWW.MTIXTL.COM for additional information about the instrument
- Contact us by Tel: [510-525-3070](tel:510-525-3070) or email: info@mtixtl.com