



**RE-BUILD PROCEDURE FOR NITROGEN CYLINDER SERIES:
M250, CH250, M750, U750 and CS750**

CAUTION

THE RE-BUILDING OF NITROGEN GAS CYLINDERS SHOULD ONLY BE DONE BY PERSONNEL FORMALLY TRAINED BY THE CYLINDER MANUFACTURER'S FACTORY REPRESENTATIVE. FAILURE TO FOLLOW PROPER PROCEDURES COULD RESULT IN SERIOUS BODILY INJURY. IT IS IMPORTANT TO MAKE SURE THAT, AFTER RE-BUILD, THE NITROGEN CYLINDER IS ASSEMBLED EXACTLY AS IT WAS ORIGINALLY ENGINEERED. IF YOU ARE IN DOUBT ABOUT RE-ASSEMBLY, OR HAVE ANY QUESTIONS REGARDING THE RE-BUILD PROCEDURE, **STOP IMMEDIATELY AND CONTACT STANDFAST INDUSTRIES AT (800) 424-7602 FOR TECHNICAL ASSISTANCE.**

CAUTION:

**THIS NITROGEN GAS CYLINDER CAN BE UNDER HIGH PRESSURE.
NEVER POINT THE ROD IN ANY UNSAFE DIRECTION AND/OR
TOWARD ANY PERSON.
NEVER POSITION YOUR FACE IN DIRECT ALIGNMENT
WITH THE CHARGING PORT.**

TO BEGIN THE RE-BUILD:

We recommend the following tools be used for a successful re-build:

- Assembly Wrench (each series has an assembly wrench)
 - Charging Adapter
 - Discharge Tool
 - Heavy "Non-Marring" brass, copper or "Dead Blow" hammer (2-3lbs)
 - Red Loc-Tite or equivalent
 - Small Flat Blade Screwdriver
 - Valve Core Removal Tool
- (all available from Standfast Industries)

Step 1. Secure the gas cylinder in a vise, in a horizontal position with the sealing screw facing upward.

Step 2. Remove sealing screw from port.

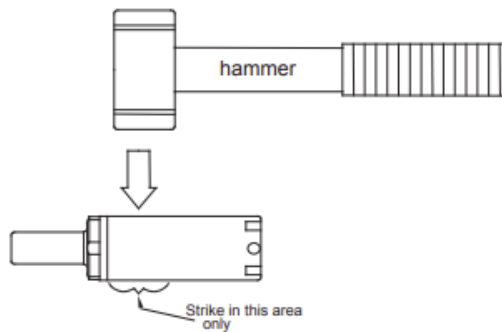
Step 3. While standing in a position that will ensure the nitrogen vents safely away from you, install the discharge tool in the port, FINGER TIGHT ONLY, to release all nitrogen from the gas cylinder.

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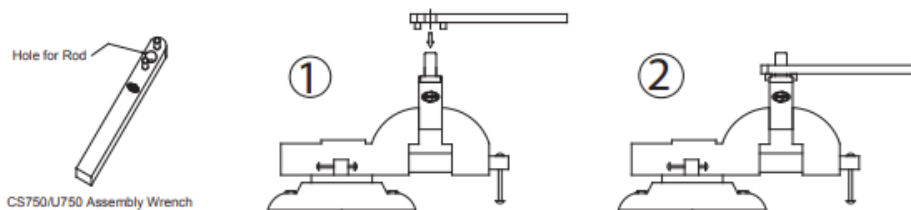
DO NOT ATTEMPT ANY FURTHER MAINTENANCE ON GAS CYLINDER UNTIL ALL NITROGEN PRESSURE IS EXHAUSTED FROM THE CYLINDER AND ROD CAN BE MANUALLY DEPRESSED INTO THE CAN.

Step 4. When rod can be depressed manually into the can, remove discharge tool to prevent damage to the charging port.

Step 5. Lay cylinder horizontally on solid, flat surface. Using brass, copper or dead blow hammer, hit the upper can area to loosen the Loc-Tite on the cartridge threads. Roll the cylinder while striking 3-4 times with the hammer (Please reference diagram below).



Step 6. After loosening the Loc-Tite with the hammer, secure the cylinder vertically in a vise with the rod end facing upward. Using the correct assembly wrench, carefully place it over the rod and engage the pins in the spanner holes to loosen the cartridge. Use a counter-clockwise motion to loosen the cartridge. There will still be a prevailing torque, so maintain a firm downward pressure on the wrench to avoid slipping and causing deformation of the spanner holes on the cartridge (Please reference diagram below). Carefully remove the cartridge from the cylinder body.



- Step 7. Remove the rod from the cartridge assembly, using Valve Core Removal Tool. Remove and discard valve core from the charging port, and thoroughly clean all remaining parts.
- Step 8. Carefully inspect the sealing surface of the rod for dents, scratches or nicks that might adversely affect cylinder performance. If any damage to the sealing surface, contact end or head end of the rod is detected, the rod **MUST BE REPLACED**.
- Step 9. Carefully inspect the can for any damage to the threads, chamfered sealing surface, sides or bottom that may adversely affect cylinder performance. Make sure that threads and surfaces are clean and free of all debris and residue, including Loc-Tite.
- Step 10. Carefully inspect the old cartridge assembly for signs of excessive wear or abuse before discarding. This type of non-typical damage may include uneven bearing wear (caused by side-loading), torn, melted swollen or extruded seals and/or wipers (caused by excessive heat, contamination or aggressive chemicals used in the application). If you find evidence of this type of damage, please contact Standfast Industries for assistance in diagnosing and correcting the situation(s) that may be causing the damage prior to re-installing the cylinders, so that we can be of assistance in extending the service life of the cylinders. Discard old cartridge.
- Step 11. Using the small bottle of lubrication provided in the re-build kit, wipe a small amount of lubrication on the top of the rod and slide it through the cartridge assembly.
- Step 12. Carefully wipe a small amount of lubrication on the "O" ring that is on the underside of the new cartridge, and then pour the remaining lubrication into the cylinder body.
- Step 13. Put two drops of Red Loc-Tite, or equivalent, on the cartridge thread and immediately screw it completely into the can.
- Step 14. Secure cylinder vertically into a vise, and torque the cartridge assembly using the same assembly wrench from Step 6. Tighten the cartridge to the following torque limits:

M/CH250: 75 ft-lbs (102Nm)
M500: 100 ft-lbs (135Nm)
M/U/CS750: 150 ft-lbs (203Nm)

- Step 15. Using the Valve Core Removal Tool, install new valve core included in re-build kit. Install correct charging adapter into the charging port, FINGER TIGHT ONLY. Pull rod out of can until it is fully extended, then charge the cylinder to desired pressure. Remove charging adapter.
- Step 16. Before re-installing the sealing screw into the charging port, replace either the nylon washer, or "O" ring, whichever is used in the cylinder series you are re-building. The replacement nylon washer or "O" ring will be included in the re-build kit.

CYLINDER RE-BUILD PROCESS HAS BEEN COMPLETED

ASSEMBLY DRAWING

