

ASPAC[®] Hydraulic Swage Hose Mending Machine

Operational Manual



***Authorized by Parker Hannifin Corp, Piranha Hose Products and
Eaton Aeroquip "Everflex" Hose.
For use in the repair of Thermoplastic Sewer Cleaning Hose.**

**Sizes ¾" – 1" & 1 ¼" Size Sewer Cleaning Hose.
Available with wheels or without wheels.**

All sewer hose and repair fitting tools are manufactured to the National Solid Waste Management Association (formally WEMI) standards. To protect against PERSONAL INJURY OR DEATH, inspect and repair the sewer hose per NSWMA standards.

* When using sewer cleaning hose and mending equipment, the swage and crimp equipment, including dies and fittings, MUST be of the same manufacturer. ASPAC disclaims any responsibility for any hose assembly not produced in conformance with above specification.

***** WARNING *****



**FAILURE TO COMPLY MAY RESULT IN HOSE BURST OR COUPLING
BLOWOFF WHICH MAY LEAD TO PROPERTY DAMAGE, SERIOUS INJURY
OR DEATH!**

Thermoplastic sewer cleaning hose has been designed to meet the harsh environmental conditions found in high pressure sewer cleaning applications. The National Solid Waste Management Association (Formally WEMI) call for sewer cleaning hose standardization, for colored-coded, standardized, hose, fittings and repair equipment.

Sewer Cleaning "Thermoplastic" Hose is identified by the following:

Yellow Inner Tube is manufactured by Piranha Hose Products.

Grey or Red Inner Tube is manufactured by Parker Hannifin Company.

Blue Inner Tube is manufactured by Eaton Aeroquip "Everflex" Hose Company.

The outer cover of the hose is a standardized color for:

Orange Color: 2500 PSI Blue Color: 3000 PSI

and is manufactured by all three (3) manufactures to these standards.

Maintenance and Storage of the ASPAC Hydraulic Swage Machine

Always use and store your ASPAC Hydraulic Swage Machine in an up-right position. This will keep the hydraulic fluid in the proper location in the jack. If you lay it down it may leak hydraulic fluid and the jack will possible fail to compress properly when used. Use a ASPAC storage box or similar container. Wipe it clean after use. Do not loosen the vertical bolts. Keep this manual with the ASPAC Hydraulic Swage Machine for easy reference.

SECTION IV MAINTENANCE & STORAGE

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SECTION I

HOSE INSPECTION

- Step #6a Release the jack, loosen the bolts, with a wrench, tap out the die set and pusher plate from the machine and the Male Hose End should be secured to the hose at the location marked on the hose in Step #1.

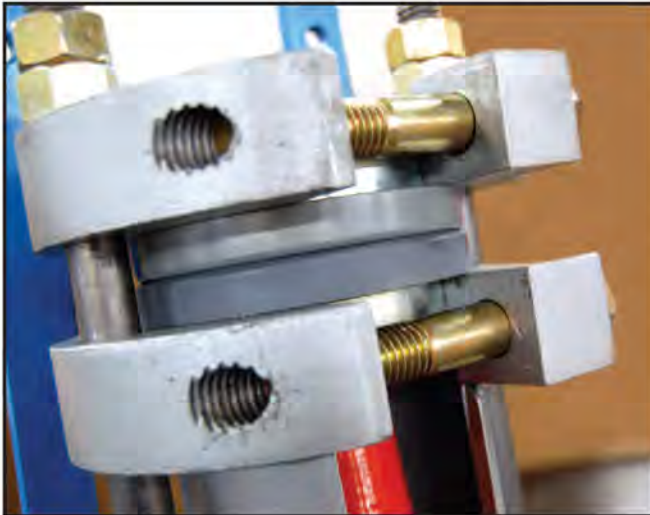


Inspect the male hose end assembly to ensure:

- a. That there is no hose movement in the male hose end.
- b. The insertion mark on the hose (Step #1a) is still located on the end of the male hose end.
- c. The hose assembly is now complete and ready for use (See In-service Inspection for details before use).



Step #5a Pump the jack with the handle provided until the dies depress completely together into the pusher plate.



Sewer Cleaning Hose Inspection

High pressure water is utilized in sewer cleaning applications. Sewer Cleaning Hose is not designed for use with anything other than water.

Upon receipt of the hose, it should be taken off the reel and inspected for any flaw or damage. **Any damage or flaw should be reported to the supplier immediately.**

From time to time, as a hose is in service, it should be inspected from one end to other end for damage that may have occurred while in use. The hose may be repaired, (mended) utilizing the instructions to follow later in this manual.

It is the recommendation of ASPAC that **a maximum of (3) Hose Menders**, be applied to any damaged hose.

Inspection:

1. Unreel the hose assembly and disconnect the hose from both the pump and storage or truck reel. Carefully inspect the hose for evidence of damage. The following are conditions that will require hose mending or end replacement.
 - a. Hose Burst – A hole in the outer jacket to the inner tube.
 - b. Cover damage exposing the braid of reinforcing fabric.
 - c. Any areas containing a blister or bubble in the outer cover
 - d. Any kinking or hose collapse.
 - e. Any leakage from the hose end.
2. Determine the total number of areas requiring repair plus the number of mending fittings already on the hose. (Note: ASPAC recommends only 3 menders) A hose mender should not be located within 50 feet of the hose end or another mender.
3. Cut out the damaged areas of the hose a distance of at least 12 inches on each side of the damaged area. Utilize a sharp knife or bench mounted cut off tool. The hose **MUST** be cut squarely.
4. Discard the damaged section of the hose.
5. Inspect both of the hose ends very carefully for any of the following conditions:
 - a. Any signs of water in the fabric reinforcement layer. If any water is present within the reinforcing layer, the hose end(s) should NOT be mended.
 - b. Any indication of incomplete bonding of the inner tube to the fabric reinforcement or the fabric reinforcement to the outer cover. The entire circumference should be inspected. If any lack of bonding is present, the hose end(s) should not be mended.
 - c. Check the color of the hose inner tube. Hose menders, male ends, dies and pusher plate should be ordered for the manufacture as stated above in this manual.

6. As noted, if any of the conditions contained in item #5 are not satisfactory, hose end(s) shall not be installed. On any unsatisfactory end, cut off an additional 4 to 5 feet of hose and discard.
7. Please note: **NEVER** repair a hose with a mender or fitting from another manufacturer. **NEVER** use Dies or a pusher plate from another manufacturer. Each hose manufacturer has differences dimensions for fittings and hose. Hose burst may occur and could result in damage to the equipment or personal injury.
8. Proceed on to the assembly instructions in the next section when all of the above criteria have been met.

Hose In-Service Inspection:

Hose assemblies in-service should be frequently inspected daily/weekly for the following conditions:

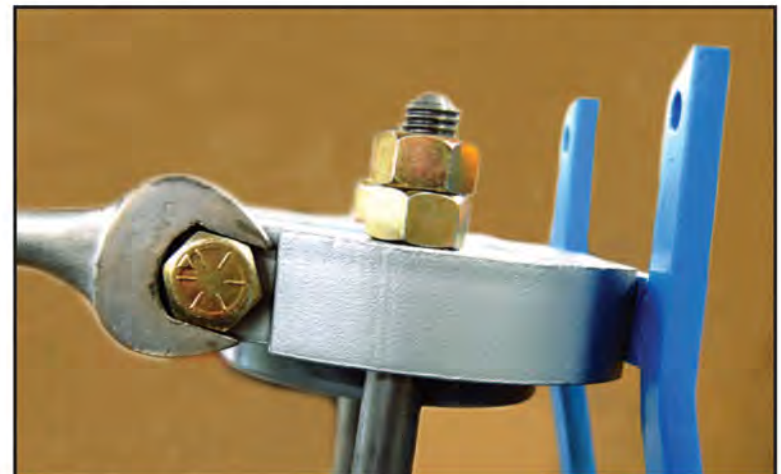
1. Hose movement on the hose end or mender.
2. Damaged cover exposing the fabric reinforcement.
3. Cover shows blisters or bubbles.
4. Hose kinking, collapse, flat spots or signs of stretching.
5. Fittings cutting into hose at the edge of connection.

Replace the hose if any of these conditions are present!

- Step #3a Slide the Male Hose End onto the end of the hose, up through the die set and up to the pusher plate with the threaded end into the pusher plate.



- Step #4a Tighten Bolts, with a wrench, to hold the die set and pusher plate in place.

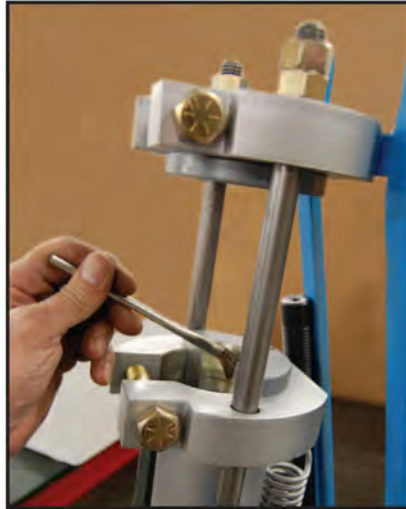


Assembly Instructions – Male Hose End

- Step #1a Cut off the old Male hose end about 12" from the old fitting. Cut it with a knife or bench mounted cut-off tool as square as possible. Use the Male Hose End as a reference and mark the hose with a marking tool (pen or sharpie) as shown.



- Step #2a Using one set of dies and the pusher plate lubricate the inside and outside of the die set and pusher plate with a biodegradable grease. Place the die set in the bottom and the pusher plate in the top of the ASPAC Hydraulic swage machine.



SECTION II ASSEMBLY INSTRUCTIONS HOSE MENDER

Assembly Instructions – Hose Mender

- Step #1 When you have identified the area of repair, be sure to cut with a knife or a bench mounted cut-off tool as square as possible the area of hose to be mended.



Use the hose mender as a reference and mark the hose with a marking tool (pen or sharpie) as shown.



SECTION III ASSEMBLY INSTRUCTIONS MALE HOSE END

Inspect the hose mender assembly to ensure:

- a. That there is no hose movement in the mender
- b. The insertion mark on the hose (Step #1) is still located on each end of the mender.
- c. The hose assembly is now complete and ready for use (See In-service Inspection for details before use).

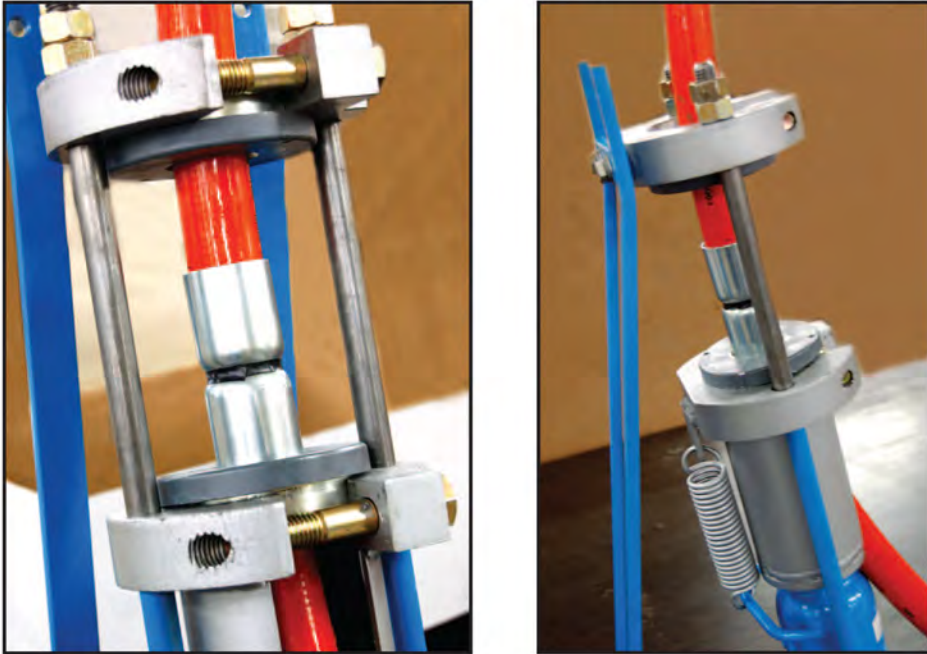


Step #2

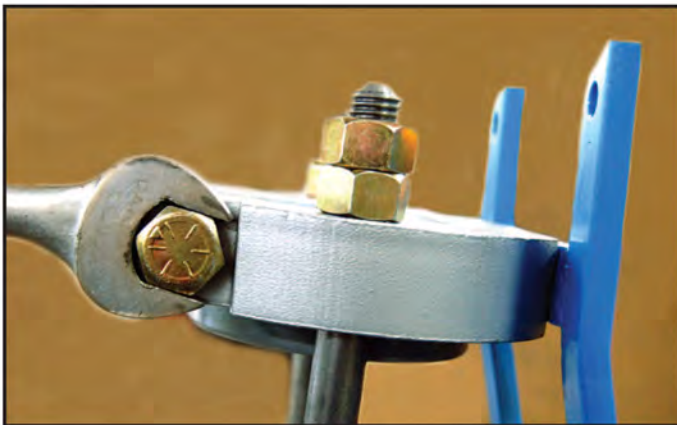
Using the correct sets of dies (2 sets needed) lubricate the inside and outside of the die sets with a biodegradable grease.



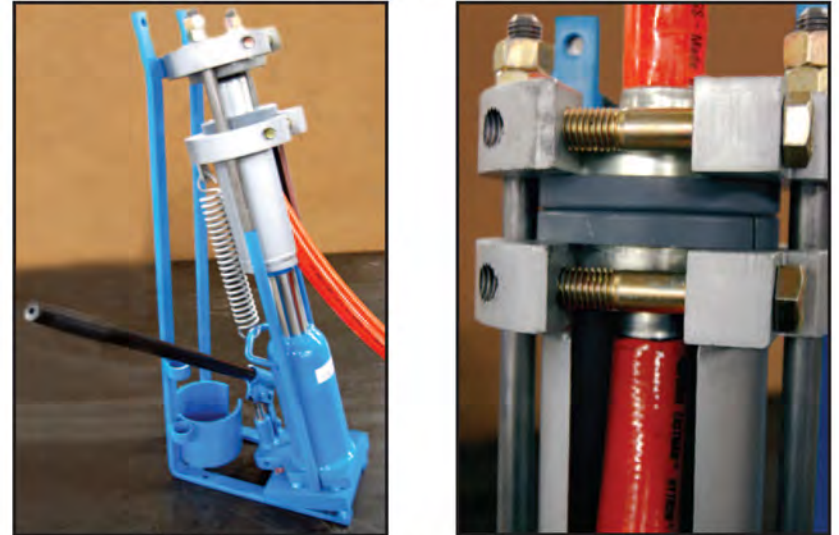
Step #3 Slide the Hose up through the bottom die set and put into the hose mender. Repeat this from the top – place hose down on the other end of the hose mender.



Step #4 Tighten the bolts, with a wrench, to hold the dies firmly in place.



Step #5 Pump the jack with the handle provided until the dies are compressed together.



Step #6 Release the jack, loosen the bolts with a wrench, tap the dies out of the machine and the hose mender should be secured to hose at the location marked on the hose in Step #1.

