

# VACTOR®

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## SERVICE BULLETIN

**Subject:** Safety Recall - Aeroquip One Inch  
Rodder Hose Fittings

**DATE:** 10/02/2009  
**NUMBER:** SB-238

TO: All Dealer Principals, Service Managers, Parts Managers and Regional Managers

### INTENT:

A safety recall is in effect for the replacement of any Aeroquip 1-inch rodder hose ends and menders sold as service parts or used in hose assemblies.

### UNITS TO SERVICE:

#### Units

Units shipped with suspect fittings loose or installed on hoses. See serial number list on page 3.

#### Service Parts

The following fittings and hose assemblies purchased between April 1, 2009 through September 25, 2009 in dealer inventory or sold to customers.

#### Hose assemblies which could contain suspect fittings:

- See page 4 for lot codes
- 43569-30 • 400' x 2500psi
- 43569E-30 • 800' x 2500psi
- 43570-30 • 500' x 2500psi
- 43571-30 • 600' x 2500psi
- 46113C-30 • 600' x 3000psi

#### Fittings:

- 43605-30 • Swage
- 46142-30 • Mender

#### Swage kit:

43605-30 and 46142-30 fittings included with kit.

The fittings are marked as shown in the photos.

### WARRANTY COVERAGE:

1. Identify and remove all parts in inventory from stock.
2. Order new fittings to replace stock, and to replace suspect fittings used on hose assemblies; either in stock, or in use by customers.

### NOTICE



Follow recommended safety practices while performing all work. Refer to the Vector/Guzzler Safety Manual for additional information.

This manual is available at: [www.vector.com](http://www.vector.com)

#### PARTS AVAILABILITY: In stock

3. Submit Warranty claims for stock parts replacement, and for replacement fittings used on hose assemblies. When submitting your claim:
  - a. Select Claim Type as "Parts"
  - b. Select "Sewer Cleaner" as the "Equipment Item Number"
  - c. Enter the Part Number
    - i. 43605-30 (Hose End)
    - ii. 46142-30 (mender)
  - d. Select August 1, 2009 as the Date of Installation, Date of Failure, and Date of Repair.
  - e. To Create the Fault Code, select: WATER -> HOSE REEL -> RODDER HOSE
  - f. For "Fault Found", select PART RECALL
  - g. For "Caused By", select SUPPLIER DEFECT



## WARRANTY COVERAGE continued

- h. If submitting for labor to replace fittings on a hose assembly, create the Labor Code by selecting: WATER -> HOSE REEL -> RODDER HOSE -> then the appropriate labor action
  - i. If replacing both end fittings or a mender within a hose assembly, select REMOVE & REPLACE. 3 hours will be allowed as Standard Repair Time.
  - ii. If replacing only the outer end, select REPLACE 1 HOSE END. 45 Minutes is allowed as Standard Repair Time.
  - i. If travel is required to re-fit a hose assembly, you may submit for actual travel time, up to a maximum of 3 hours per round trip. Reimbursement rate will be at the standard ESG rate for travel reimbursement.
4. All parts claimed must be segregated and identified in accordance with the ESG Service, Parts, and Warranty Policy Manual. All Parts must be retained as they must be returned to the Supplier for accountability. This Service Bulletin includes a Part Return Form for that purpose. Please retain this form, as it will be needed when we request return of the parts.

### SPECIAL TOOLS:

NA

### PARTS REQUIRED:

| Part No. | Qty. | Description    |
|----------|------|----------------|
| 43605-30 | -    | PIPE SWAGE 1"  |
| 46142-30 | -    | HOSE MENDER 1" |
| 66286-30 | -    | SWAGE KIT 1"   |

**Units shipped with suspect fittings installed on hoses.**

| <b>Units to Service</b><br><b>Serial No.</b>                                             |
|------------------------------------------------------------------------------------------|
| <b>Unit received replacement hose assembly with suspect fittings installed on hoses.</b> |
| 04-11V-9158                                                                              |
| <b>Units shipped with loose fittings for field repair</b>                                |
| 09-06V-11791                                                                             |
| 09-06V-11792                                                                             |
| 09-07V-11827                                                                             |
| 09-05V-11754                                                                             |
| 09-06V-11795                                                                             |
| 09-07V-11828                                                                             |
| 09-07V-11829                                                                             |
| 09-07V-11830                                                                             |
| 09-07V-11831                                                                             |
| 09-07V-11832                                                                             |
| 09-06V-11793                                                                             |
| 09-06V-11794                                                                             |
| <b>Unit shipped as a kit without chassis and suspect fittings installed on hoses.</b>    |
| 09-04T-1602                                                                              |

| <b>Units to Service</b><br><b>Serial No.</b> |
|----------------------------------------------|
| 07-09V-10696                                 |
| 09-04V-11701                                 |
| 09-04V-11705                                 |
| 09-04V-11709                                 |
| 09-04V-11710                                 |
| 09-04V-11713                                 |
| 09-04V-11714                                 |
| 09-04V-11715                                 |
| 09-04V-11716                                 |
| 09-04V-11717                                 |
| 09-04V-11719                                 |
| 09-04V-11720                                 |
| 09-04V-11722                                 |
| 09-04V-11723                                 |
| 09-04V-11726                                 |
| 09-04V-11727                                 |
| 09-04V-11731                                 |
| 09-04V-11732                                 |
| 09-04V-11739                                 |
| 09-04V-11742                                 |
| 09-04V-11744                                 |
| 09-05T-1604                                  |
| 09-05V-11743                                 |
| 09-05V-11749                                 |
| 09-05V-11750                                 |
| 09-05V-11753                                 |
| 09-05V-11754                                 |
| 09-05V-11761                                 |
| 09-05V-11762                                 |
| 09-05V-11764                                 |
| 09-05V-11765                                 |
| 09-05V-11767                                 |
| 09-05V-11770                                 |
| 09-05V-11773                                 |

| <b>Units to Service</b><br><b>Serial No.</b> |
|----------------------------------------------|
| 09-05V-11775                                 |
| 09-05V-11782                                 |
| 09-05V-11783                                 |
| 09-05V-11784                                 |
| 09-06T-1608                                  |
| 09-06T-1611                                  |
| 09-06T-1613                                  |
| 09-06T-1614                                  |
| 09-06V-11772                                 |
| 09-06V-11797                                 |
| 09-06V-11798                                 |
| 09-06V-11800                                 |
| 09-06V-11804                                 |
| 09-06V-11805                                 |
| 09-06V-11808                                 |
| 09-06V-11810                                 |
| 09-06V-11811                                 |
| 09-06V-11815                                 |
| 09-06V-11817                                 |
| 09-06V-11819                                 |
| 09-06V-11820                                 |
| 09-06V-11825                                 |
| 09-07T-1622                                  |
| 09-07V-11821                                 |
| 09-07V-11835                                 |
| 09-07V-11836                                 |
| 09-07V-11840                                 |
| 09-07V-11841                                 |
| 09-07V-11842                                 |
| 09-07V-11843                                 |
| 09-07V-11845                                 |
| 09-07V-11854                                 |
| 09-08T-1624                                  |
| 09-08T-1625                                  |

| <b>Units to Service</b><br><b>Serial No.</b> |
|----------------------------------------------|
| 09-08T-1626                                  |
| 09-08T-1628                                  |
| 09-08V-11856                                 |
| 09-08V-11857                                 |
| 09-08V-11859                                 |
| 09-08V-11860                                 |
| 09-08V-11872                                 |
| 09-08V-11873                                 |
| 09-08V-11874                                 |
| 09-08V-11875                                 |
| 09-08V-11876                                 |
| 09-09T-1630                                  |
| 09-09T-1631                                  |
| 09-09T-1632                                  |
| 09-09T-1633                                  |
| 09-09V-11877                                 |
| 09-09V-11878                                 |
| 09-09V-11879                                 |
| 09-09V-11880                                 |
| 09-09V-11883                                 |
| 09-09V-11885                                 |
| 09-09V-11886                                 |
| 09-09V-11887                                 |
| 09-09V-11888                                 |
| 09-09V-11890                                 |
| 09-09V-11891                                 |
| 09-09V-11893                                 |
| 09-09V-11894                                 |
| 09-09V-11895                                 |
| 09-09V-11898                                 |
| 09-10V-11899                                 |
| 09-10V-11902                                 |
| 09-10V-11905                                 |

| Units to Service                  |
|-----------------------------------|
| Serial No.                        |
| <b>Hose with suspect fittings</b> |
| MSX4524498                        |
| MSX4525766                        |
| MSX4526106                        |
| MSX4526394                        |
| MSX4527177                        |
| MSX4527178                        |
| MSX4527343                        |
| MSX4527475                        |
| MSX4527956                        |
| MSX4527957                        |
| MSX4528345                        |
| MSX4528346                        |
| MSX4528512                        |
| MSX4528602                        |
| MSX4528795                        |
| MSX4529263                        |
| MSX4529609                        |
| MSX4530545                        |
| MSX4530546                        |
| MSX4531027                        |
| MSX4531028                        |
| MSX4531212                        |
| MSX4531366                        |
| MSX4531575                        |
| MSX4531950                        |
| MSX4531951                        |
| MSX4532186                        |
| MSX4532282                        |
| MSX4532283                        |
| MSX4532864                        |
| MSX4533232                        |
| MSX4533308                        |
| MSX4533503                        |
| MSX4533525                        |
| MSX4533557                        |

All one inch hoses have a lot code on the printed *lay-line*. Use this number if the hose is not on the factory spool.

If the hose is still on the factory spool, the lot code can also be found on the hose tag and label. The hose tag and label will not be preceded with MSX.

This applies to these hoses:

- 43569-30 • 400' x 2500psi
- 43569E-30 • 800' x 2500psi
- 43570-30 • 500' x 2500psi
- 43571-30 • 600' x 2500psi
- 46113C-30 • 600' x 3000psi



## PROCEDURE

*Refer to attached pages that details hose repair.*

### Units with hose installed

1. Order the required number of replacement fittings.
2. If the unit only shipped with loose fittings per the list, proceed to step 10.
3. Cut off the available hose end.
4. Swage on replacement fitting.
5. Uncoil the hose to a spool in order to access the other end of the hose.
6. Cut off the hose end
7. Swage on replacement fitting.
8. Reinstall the hose.
9. Test the hose per the attached procedure.

### Hose assemblies in dealer inventory

1. Order the required number of replacement fittings.
2. Cut off the available hose end.
3. Swage on replacement fitting.
4. Uncoil the hose to a spool in order to access the other end of the hose.
5. Cut off the hose end
6. Swage on replacement fitting.
7. Reinstall the hose.
8. Test the hose per the attached procedure.

### Parts in dealer inventory

1. Quarantine all suspect loose fittings for return, including all stock fittings that were mixed in with the suspect fittings.
2. Order the required number of replacement fittings.

### Service parts sold to customers

1. Quarantine all suspect loose fittings for return, including all stock fittings that were mixed in with the suspect fittings.
2. Order the required number of replacement fittings.

### Hose assemblies sold to customers

1. Order the required number of replacement fittings.
2. Cut off the available hose end.
3. Swage on replacement fitting.
4. Uncoil the hose to a spool in order to access the other end of the hose.
5. Cut off the hose end
6. Swage on replacement fitting.
7. Reinstall the hose.
8. Test the hose per the attached procedure.

## Rodder Hose Fitting Recall

Date: \_\_\_\_\_

Serial Number: \_\_\_\_\_ Customer Name: \_\_\_\_\_

Comments: \_\_\_\_\_

### Fittings returned for replacement

|                 | Qty. Loose | Qty Cut-off |
|-----------------|------------|-------------|
| End 43605-30    | _____      | _____       |
| Mender 46142-30 | _____      | _____       |

### From:

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State / Province: \_\_\_\_\_

Zip Code: \_\_\_\_\_ Country: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_ Fax: (\_\_\_\_) \_\_\_\_\_ E-mail: \_\_\_\_\_

### Return fittings for replacement to

#### **Aeroquip, LLC**

Attn: Charlie Davis – Product Reliability

1225 W. Main St.

Van Wert, OH 45891

### Identify your return shipment with:

RMA # VW-R217151.xx

Recall # VW-09-0011

Retain a copy for your records.



**! WARNING**



**Do not operate jet-rodder with damaged rodder hose or rodder hose that is not authorized by Vactor Mfg., Inc.**

Serious injury or death can result from rodder hose or fittings failing.

Frequently inspect hoses and fittings. Install fittings properly.

Vactor Mfg., Inc. accepts no responsibility for this equipment while operated with any other hose than that hose furnished by Vactor Mfg., Inc.

**! WARNING**



**Loose hose/nozzle**

Serious injury or death can result from high pressure water or impact from hose/nozzle.

Use rigid nozzle support/guard of proper length.

Refer to SAFETY section in manual for details.



1800152

## NOTICE OF LIABILITY DISCLAIMER

Vactor Mfg., Inc. neither manufactures nor assumes liability for the High Pressure Rodding Hose. Vactor Mfg., Inc. does not guarantee this hose beyond the manufacturer's warranties, which are printed on the hose. All hose liability claims will be referred to the hose manufacturer.

The customer assumes any risk when using this hose. All hose must be used in accordance with standard accepted practices and replaced or repaired when damaged or worn.

## NOTICE

**Always use matching color coded hose and tools when swaging rodder hose.**

**Each manufacturer of hose, liners, fittings, gauges, tooling and assembly equipment has its own coloring coding system, which is not compatible or interchangeable with other systems.**

- a. **The color of the inner liner, inspection gauges, fittings and assembly tooling must be the same. If any item color does not match, do not repair the hose.**
- b. **If there is any water present in the reinforcement layer, do not repair the hose using that hose end.**
- c. **If there is any sign of separation of the tube from the fabric reinforcement or the reinforcement from the outer cover, do not repair the hose using that hose end.**
- d. **Using the inspection gauge, measure the entire circumference of the hose end. If any portion of the hose has excessive wear or incorrect wall thickness, do not repair the hose using the hose end.**

**! Warning** Aeroquip fitting tolerances are engineered to match Aeroquip hose tolerances. The use of Aeroquip fittings on hose supplied by other manufacturers and/or the use of Aeroquip hose with fittings supplied by other manufacturers may result in the production of unreliable and unsafe hose assemblies and is neither recommended nor authorized by Aeroquip.

Failure to follow Aeroquip process and product instructions and limitations could lead to premature hose assembly failures resulting in property damage, serious injury or death.

The user must exercise extreme care when operating any Aeroquip assembly equipment with powered moving components. Safety

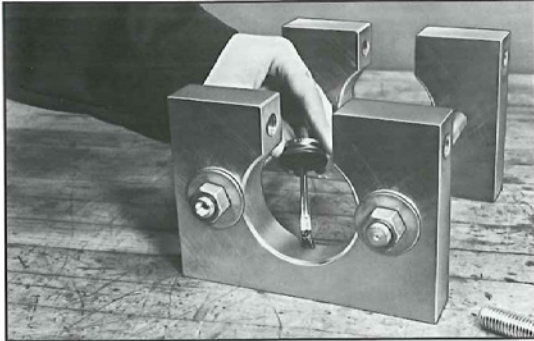
glasses must be worn at all times when using any Aeroquip assembly equipment.

Read and understand the owners and operators manual before attempting to operate any equipment.

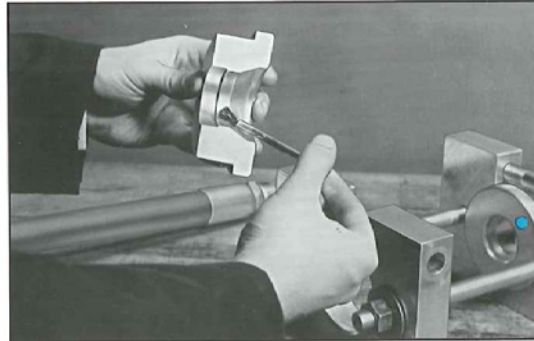
*Aeroquip hereby disclaims any obligation or liability (including incidental and consequential damages) arising from breach of contract, warranty, or tort (under negligence or strict liability theories) should Aeroquip hose, fittings or assembly equipment be used with the hose, fittings or assembly equipment supplied by another manufacturer or in the event that product instructions for each specified hose assembly are not followed.*

## Assembly Instructions for Swage Male Pipe Fitting Using the FT1284 Swage Assembly Tool

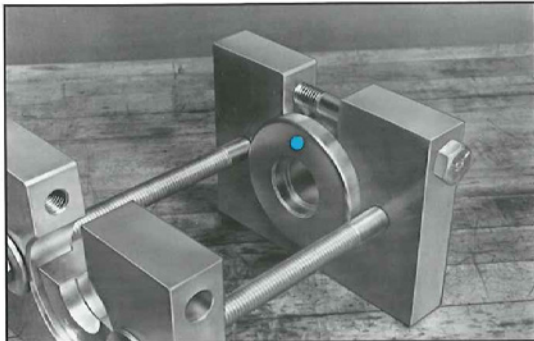
**CAUTION:** Use of hose, inspection gauges, fittings and swage dies from different manufacturers will result in a hose of reduced performance. Hose burst or fitting separation may occur and could result in damage to the equipment or personal injury.



**Step 1**  
Lubricate the die cavity with Aeroquip 222070 hose assembly lube.



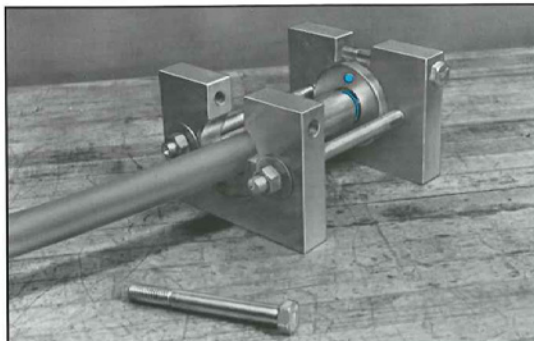
**Step 2**  
Lubricate the inside of the die.



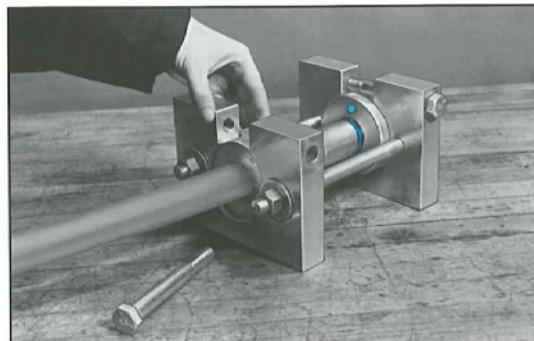
**Step 3**  
Place the bottom half of the die in assembly tool. Place pusher in assembly tool as shown.



**Step 4**  
Cut hose square using FT1258 bench-mounted cut off tool. Using the bottom edge of the fitting part number as a reference for the length of hose to be inserted into the socket, mark the hose with a china marker to indicate the insertion length.

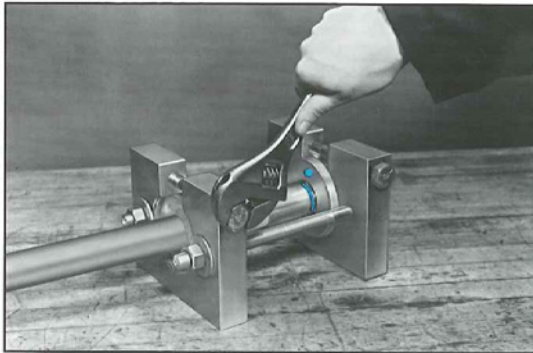


**Step 5**  
Insert hose until the back edge of the socket aligns with the mark on the hose. Place the preassembled hose assembly through the top slot into the assembly tool.

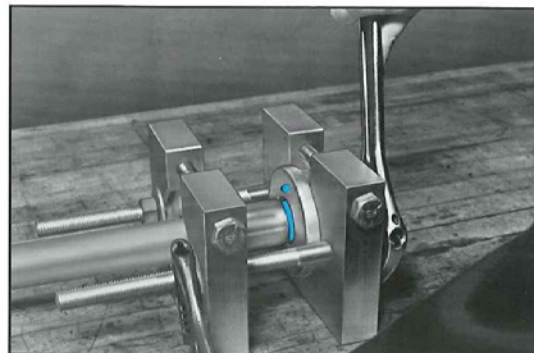


**Step 6**  
Place the top half of the die in the assembly tool.

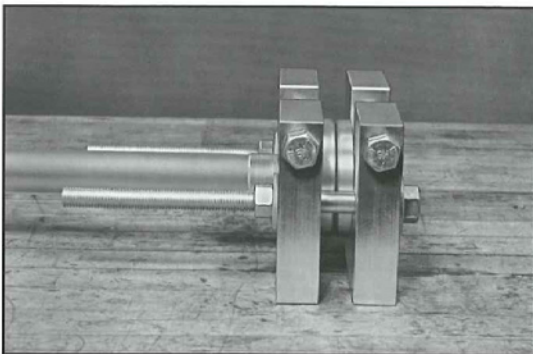




**Step 7**  
Insert 2 retaining bolts to firmly secure the dies.



**Step 8**  
Begin the swaging process by tightening the draw bolts uniformly in an alternating fashion.



**Step 9**  
Swaging process is completed when the dies and pusher faces meet. Open the draw bolts until the dies are free. Pry the die halves off the fittings.



**Step 10**  
Inspect the hose assembly to ensure:

- that there is no hose movement in the fitting.
- the insertion mark on the hose (from step 4) is still located at the bottom of the socket.

The hose assembly is now complete and ready for service (see **In Service Inspection** below).

## In Service Inspection

Hose assemblies in service should be frequently inspected for the following conditions:

1. Hose movement in the fitting.
  2. Damaged cover exposing the fabric reinforcement.
  3. Cover blisters or bubbles.
  4. Hose kinking or collapse.
  5. Fittings cutting into hose at edge of connection.
- Repair or replace the hose if any of these conditions are present.

## Sewer Cleaning Hose and Swage Mender Inspection

High pressure water is utilized in sewer cleaning applications. The cleaning nozzle is connected to the pump on the vehicle with a length of sewer cleaning hose. From time to time, this hose may be damaged in service. When damage occurs, the hose may be repaired (mended) utilizing the instructions on pages 9 through 10.

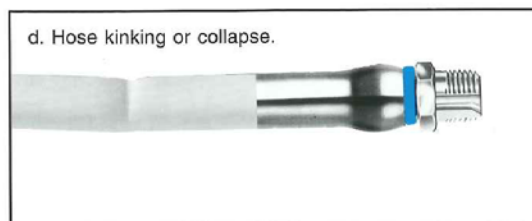
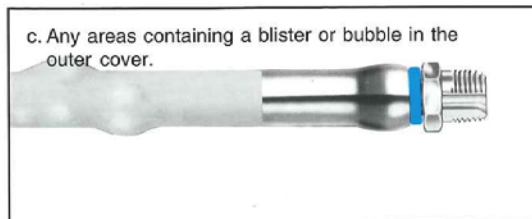
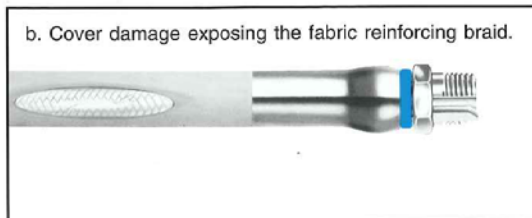
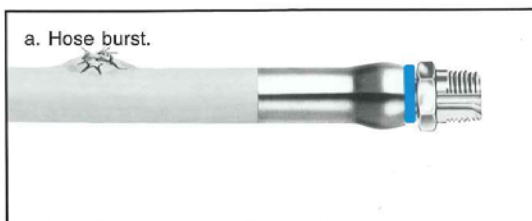
**WARNING:** Hose, fittings and assembly equipment differ from manufacturer to manufacturer and are not interchangeable. Consequently, each manufacturer color codes the hose tube\*, inspection gauges, fittings and assembly tooling for ease of identification and use with their product.

Failure to properly inspect, repair or test the hose assembly before returning it to service may cause hose assembly failure which may result in damage to equipment or personal injury. The following instructions *must* be followed.

\*WEMI refers to the "inner liner," Aeroquip refers to the liner as "the tube".

### Inspection

1. Unreel the hose assembly and disconnect the hose from both the storage reel and the nozzle. Carefully inspect the hose for evidence of damage. **The following hose conditions will require repair:**



2. Determine the total number of areas requiring repair plus the number of mender fittings already in the hose. A 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 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 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 liner. The color must be the same as the inspection gauges, fittings, and assembly tooling. If all these items are not the same color, the hose end(s) should not be mended until the correct color-coded fittings and tooling are obtained.
  - d. With the manufacturer's color coded inspection gauge, measure the wall thickness around the entire circumference\*. If any portion of the hose circumference exhibits excessive wear as determined by this inspection, the hose end(s) should not be mended.
6. As noted, if any of the conditions contained in item 5 are not satisfactory, hose end(s) shall not be mended. On any unsatisfactory end, cut off an additional four to five feet of hose. This section of hose is to be discarded and the inspection noted in item 5 is to be repeated on the new end(s). If the hose fails to meet this second inspection, the entire length should be discarded.
7. Proceed only to the assembly instructions in the next section if both ends of the hose have been inspected and successfully met the criteria of this section.

\*WEMI refers to the "inner liner," Aeroquip refers to the liner as "the tube".

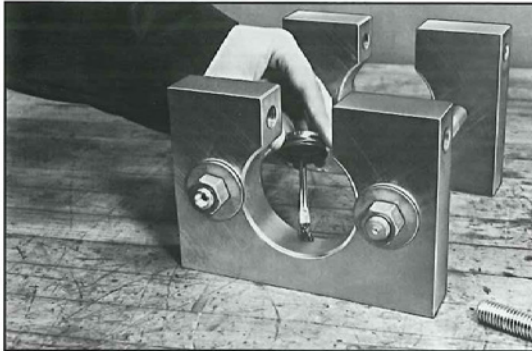
\*\*See page 4 for more information on kit FF10257.



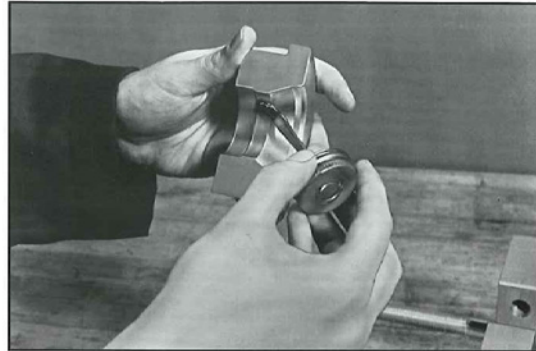


## Assembly Instructions for Swage Mender Fitting Using the FT1284 Swage Assemble Tool

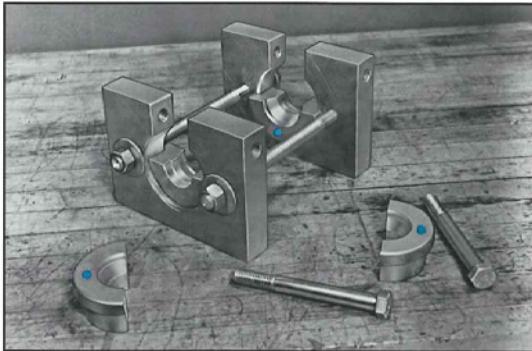
**CAUTION:** Use of hose, inspection gauges, fittings and swage dies from different manufacturers will result in a hose of reduced performance. Hose burst or fitting separation may occur and could result in damage to the equipment or personal injury.



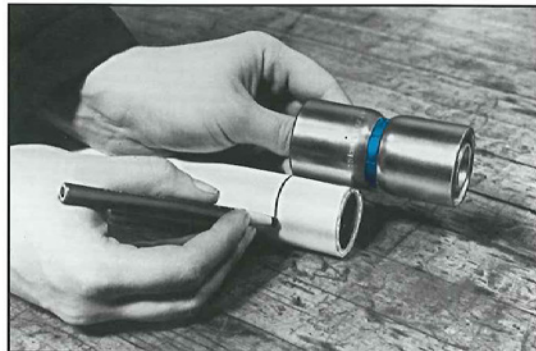
**Step 1**  
Lubricate die cavities with Aeroquip 222070 hose assembly lube.



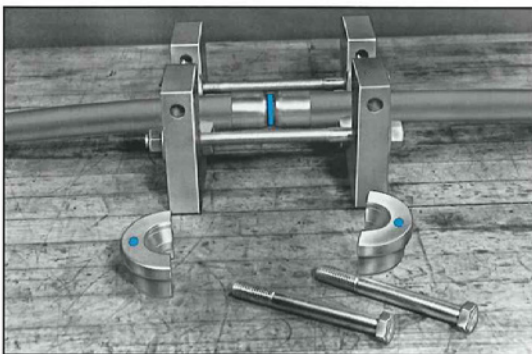
**Step 2**  
Lubricate the inside of each die.



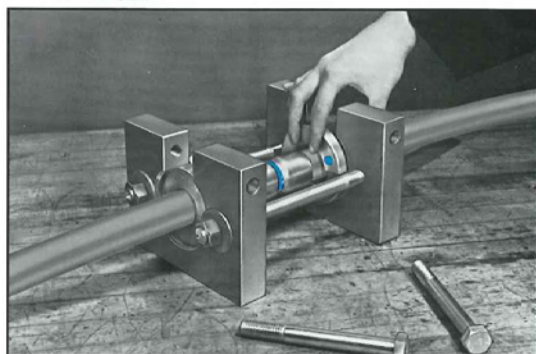
**Step 3**  
Place the bottom halves of the dies in the assembly tool.



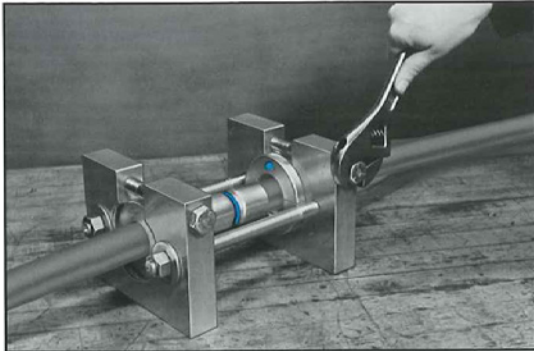
**Step 4**  
Cut hose square using the Aeroquip FT1258 bench-mounted cut off tool. Using the bottom edge of the fitting part number as a reference for the length of hose to be inserted into the socket, mark the hose with a china marker to indicate the insertion length.



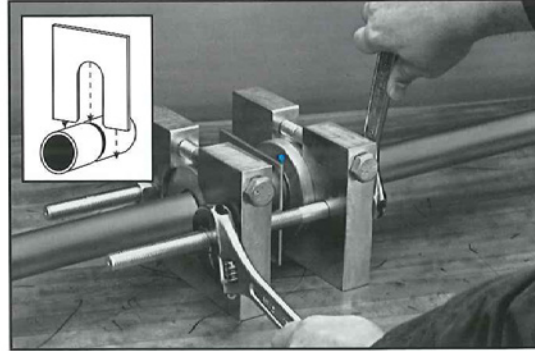
**Step 5**  
Insert hose until the back edge of the socket aligns with the mark on the hose. Place the preassembled hose assembly through the top slot into the assembly tool.



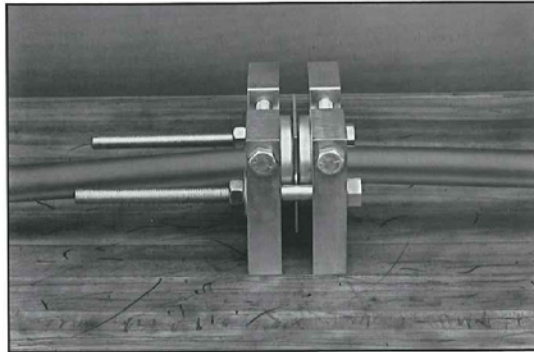
**Step 6**  
Place the top half of the dies in the assembly tool.



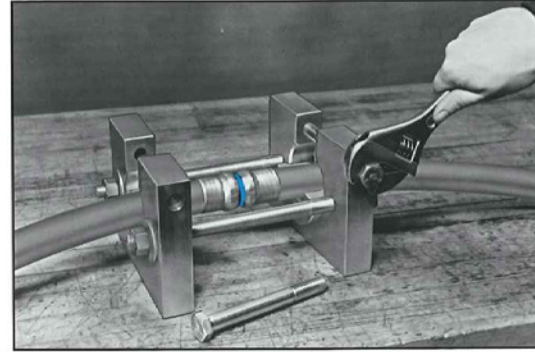
**Step 7**  
Insert 2 retaining bolts to firmly secure the dies.



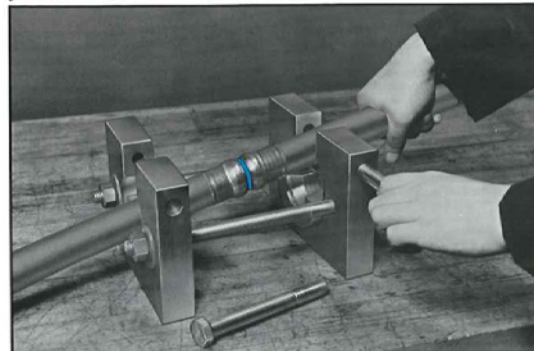
**Step 8**  
Begin the swaging process by inserting the yoke into the center groove of the mender and then tighten the draw bolts uniformly, in an alternating fashion, while keeping the fitting centered between the jaws.



**Step 9**  
Swaging process is complete when the die faces meet the yoke.



**Step 10**  
Open the draw bolts until the dies are free. Remove the yoke, then pry the die halves off the fitting.



**Step 11**  
Remove the retaining bolts from the die plates and remove the completed hose assembly.

Inspect the hose assembly to ensure:

- that there is no hose movement in the fitting
- the insertion mark on the hose (from step 4) is still located at the bottom of the socket.

The hose assembly is now complete and ready for service (see **In Service Inspection** at the right).

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## In Service Inspection

Hose assemblies in service should be frequently inspected for the following conditions:

1. Hose movement in the fitting.
  2. Damaged cover exposing the fabric reinforcement.
  3. Cover blisters or bubbles.
  4. Hose kinking or collapse.
  5. Fittings cutting into hose at edge of connection.
- Repair or replace the hose if any of these conditions are present.

Additional information from the Vactor manual.

When the swaging assembly is complete, use the following chart to check the coupling for proper Length X and Diameter.

### Testing

After completing the assembly, pressure test the entire hose.

1. On one end, install a block and bleed valve compatible with the pressure rating of the hose.
2. Remove all air from the hose as follows:
  - Raise open end of hose and fill with water
  - Operate bleed valve until all air has escaped and only water is being released
  - Ensure hose is completely full of water
3. Connect open end of hose to a test pump capable of supplying water pressure at the maximum pressure rating of the hose.
4. Apply maximum pressure to the hose for at least five minutes
5. Bleed off pressure on hose.
6. Inspect hose carefully for any of the following conditions:
  - Water leakage
  - Loose hose fittings
  - Blisters or bulges under cover

When hose has successfully completed the pressure test, it is safe to use. Connect and wind hose on hose reel.



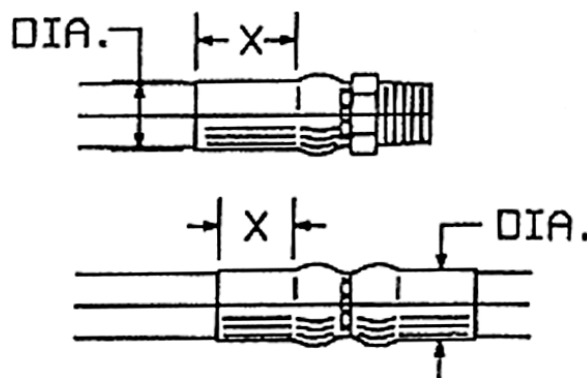
### Hose And Fitting Failures

Failure to properly inspect, test, and repair the rodder hose assembly may result in rupture or leaks of hoses or fittings, causing serious personal injury, death, or damage to unit.



To avoid dangerous leaks or ruptures,

- Properly inspect hose for wear or damage. Repair or replace damaged areas or replace the entire hose assembly. Do not mend damaged hose ends.
- Always use fittings, gauges, hoses and tools with matching color codes, and fittings with pressure ratings equal to or higher than the hose requirements.
- Complete all inspection, repair, and testing procedures before operating unit.
- Place hose in an area clear of all personnel and equipment and completely bleed off hose pressure before pressure testing.



Length and Diameter

| HOSE TYPE | MALE PIPE | MENDER | DIES* | PUSHER | LENGTH X- MIN. | DIAMETER+/- .015 |
|-----------|-----------|--------|-------|--------|----------------|------------------|
| ¾"        | 45268A    | 45267A | 45269 | 45270  | 1.109"         | 1.172"           |
| 1"        | 43605     | 46142  | 44172 | 44174  | 1.156"         | 1.445"           |
| 1 ¼"      | 44107     | 44153  | 44173 | 44175  |                |                  |

### Rodder hose field test pressure

Field Test Pressure = (Rated Max. Operating Pressure) + (25% (.25) Rate Max. Operating Pressure)

Rated Max. Operating Pressure

2000  
2500  
3000  
5000

Field Test Pressure

2500  
3125  
3750  
6250