

Date: August 25, 2017

ECRN 2017-0778 REV A

Priority Status:

X	Mandatory modification (s)
	Safety Related

Read and Fully understand this Technical Communications Bulletin before beginning. Follow instructions completely. If you should have any questions or concerns regarding this Technical Communications Bulletin, please contact your area Regional Product Support Representative or your local Snorkel Product Support Department.

This procedure affects all ATB60 and AB60J machines manufactured from 1990 to current. The purpose for this bulletin is to inspect for corrosion, cracks or abnormal wear on the lower lift cylinder pin. This bulletin also contains the proper procedure to remove and reinstall any pin showing abnormalities.

The Lower lift cylinder pin will need to be inspected every 90 days or 150 hours whichever comes first and it is mandatory to replace every 8 years, beginning from the time the machine was manufactured. The machines build date can be found on the serial placard (see fig. A).

If any cracks, grooves or pitting are found during this inspection, the machine must be removed from service and the defective pin will need to be replaced immediately.

Parts Required:

- 0180620 1 PIN 2.00 13.62 GRIP
- 2500040 2 BRG 2.00ID 2.25OD 1.5
- 9980012 1 .041 DIA SS SAFETY WIRE 1# CAN

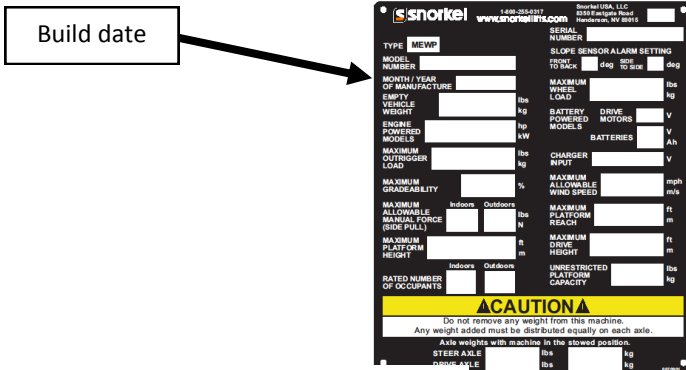


Fig. A

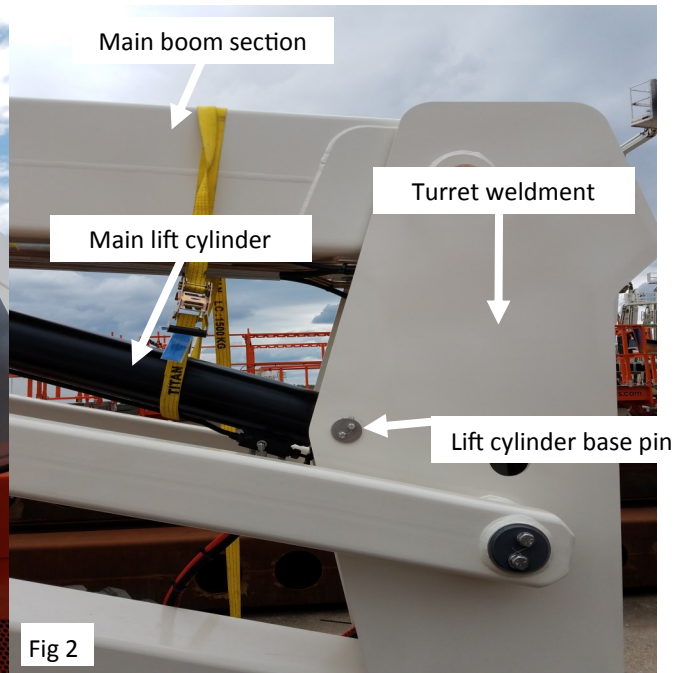
Tools Required :

- 0182552 — CYLINDER MEASUREMENT PLATE, 2 x 4 BOARD, 1/2 IN SOCKET WRENCH, SIDE CUTTERS, HAMMER, DRIFT

PIN INSPECTION

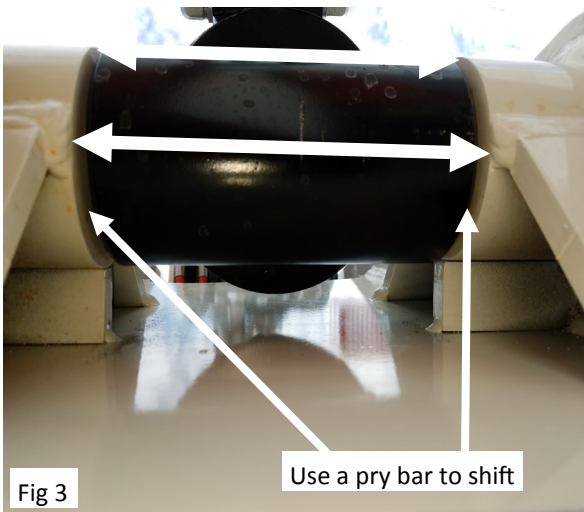
Start with the boom in the fully stowed position, from the ground controls elevate the main boom up two feet (see fig 1).

Place a ratchet strap over the main boom section and position it under the base end of the lift cylinder, tighten the strap just enough to hold the cylinder in place (see fig 2).

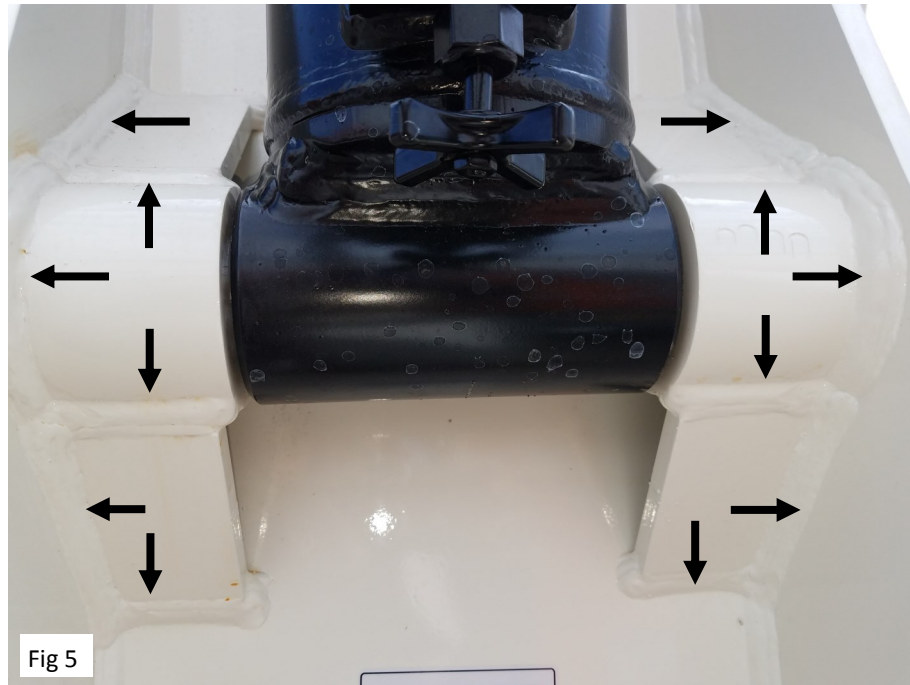


Visually inspect the base end of the lift cylinder, verify that the bosses line up from one side to the other, **NOTE:** This may be achieved by using a straight edge across the cylinder boss. The cylinder boss will need to be shifted side to side to visually inspect the pin for abnormal wear (a pry bar may be used to shift the cylinder across the pin) (see fig 3).

Please refer to (fig 4) for reference purposes, if your machine shows these signs of wear, **REMOVE** the machine immediately from service for repair.



Visually inspect around each gusset weld as well as the welds around the bosses, verify there are no signs of cracks, grooves or pitting (see fig 5).



Using 0182552 supplied in kit as a depth guide tool, insert fully between the base end of the lift cylinder and the riser turret wall (see fig 6-7). Be sure you are able to freely slide the tool across the full length of the cylinder boss, it should slide without any obstruction. **NOTE:** There may be a difference in tolerance from side to side as this is normal.

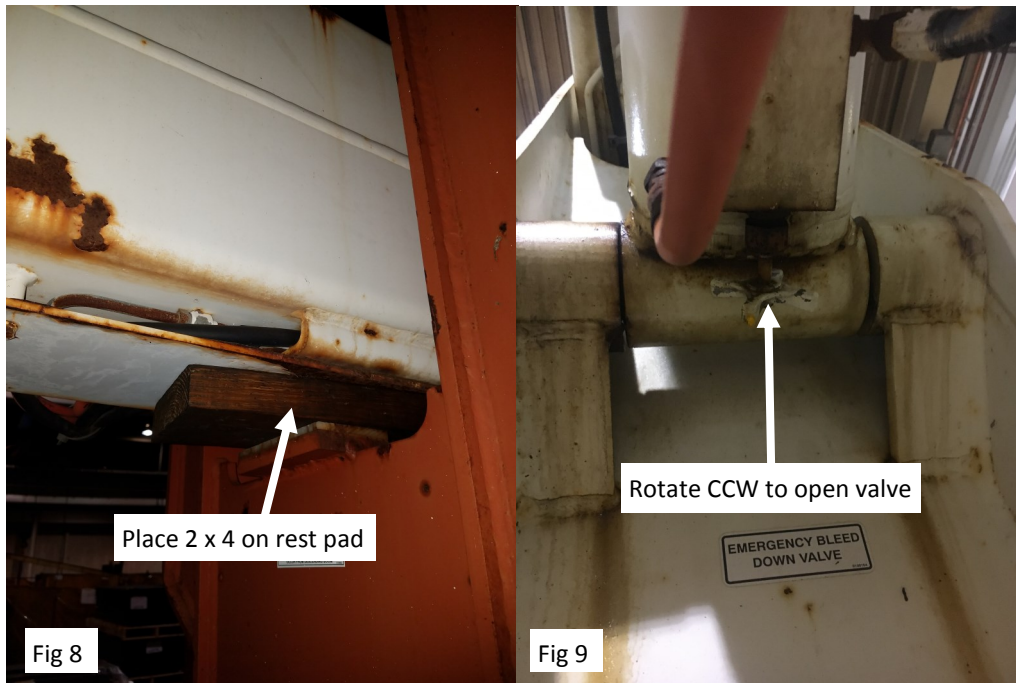
If there are no signs of abnormalities, then the inspection process is complete. If there are obvious defects in the boss and gusset area the machine needs to be removed from service and the welds will need repaired immediately. If you cannot insert the tool behind the cylinder, the machine needs to be removed from service and the pin will need to be removed for further inspection.



PIN REPLACEMENT

Place a 2 x 4 board on the main boom cradle rest pad, and lower the boom down onto the board (see fig 8).

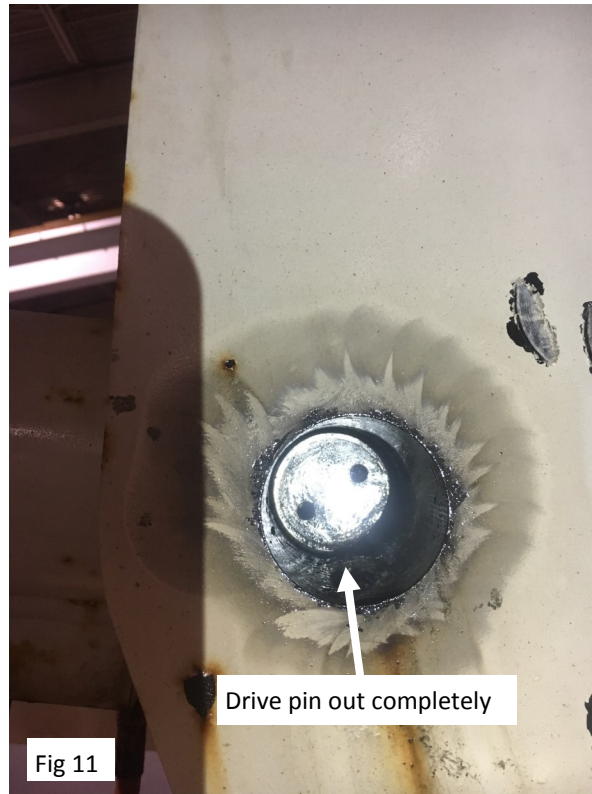
Once the boom is resting on the board, locate the emergency bleed down valve located on the base end of the lift cylinder(see fig 9). Rotate the valve ccw to relieve the pressure off of the cylinder.



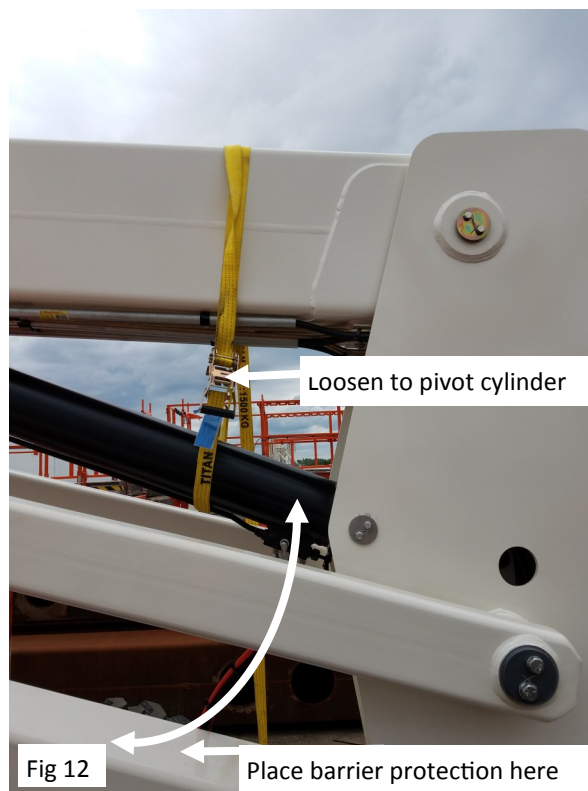
Remove tie wire from both bolts securing the pin cap to the pin using a pair of side-cutters. Using a 1/2 in socket wrench remove both bolts from pin, set hardware and pin cap to the side as they will be reused (see fig 10).



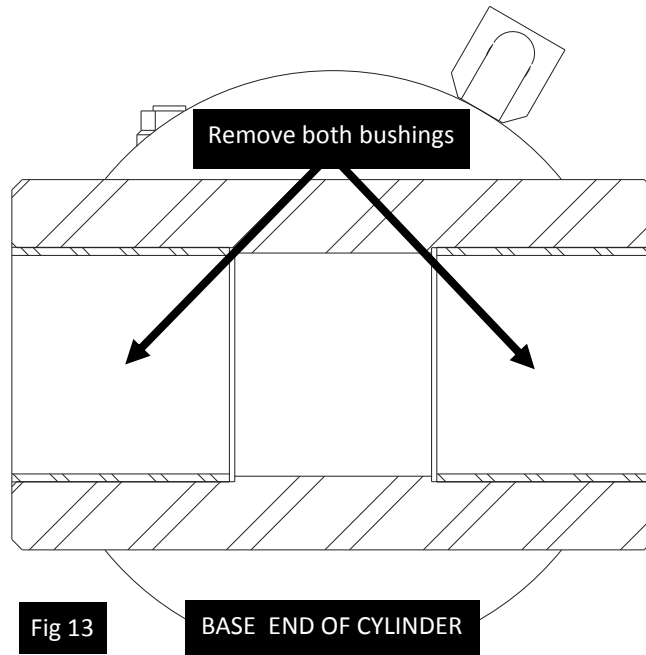
Using a hammer and drift, slowly drive the pin out, have someone hold the pin as it exits as it may fall and damage the machine (see fig. 11)



Once the pin has been removed, the cylinder will need to be carefully lowered to access both bushings located in the base end of the cylinder. Place a barrier protection below the cylinder and loosen the ratchet strap to lower the cylinder down onto the Riser boom section (see fig. 12).



Once the cylinder has been lowered enough to access both bushings, remove and discard each bushing located in the cylinder boss (see fig 13). Using a shop rag, clean cylinder boss area enough to install new bushings. Once the area has been cleaned drive a 2500040—Bearing into each side of the lift cylinder boss. Once installed use a shop rag to clean the bore area on both sides of the riser weldment to make the installation of the new cylinder pin less problematic (see fig. 14). **Note:** If a lapping wheel is used, **DO NOT** remove any of the base material, only loose rust, grease, dirt or debris.



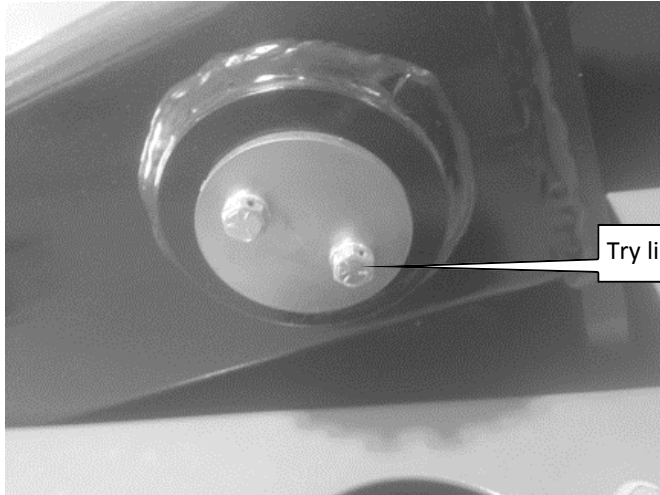
Once both sides have been cleaned and are free of debris, tighten the ratchet strap back up enough to raise the lift cylinder back into place and re-align the cylinder boss with the riser weldment bore (see fig. 15).

Locate the new 0180620 - cylinder pin, apply a liberal amount of anti-seize to the pin before inserting it into the riser weldment. Using a hammer and drift, drive the pin in until fully inserted through the cylinder base and into the other side of the riser weldment. **Note:** Slight up or down adjustments may need to be made to the lift cylinder to achieve the proper alignment.



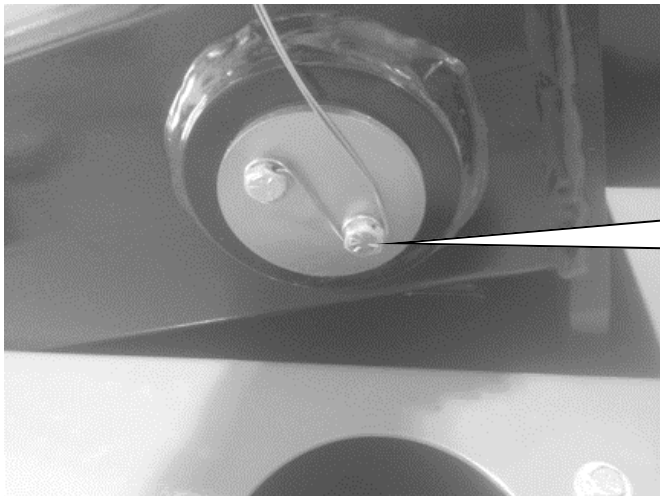
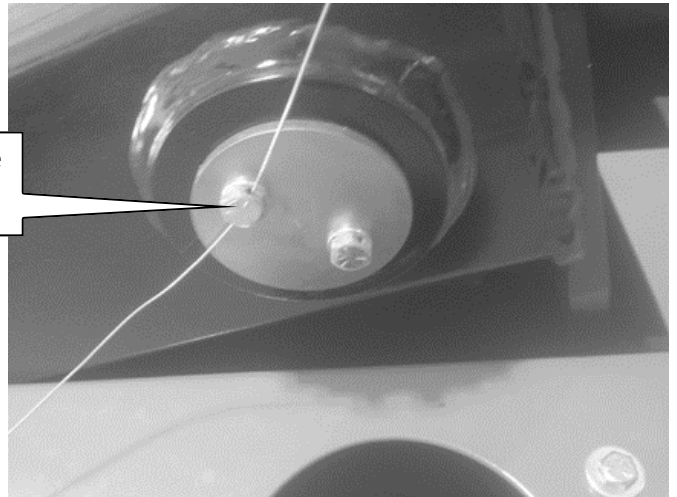
Once the pin has been fully inserted, reinstall the pin cap using the existing hardware previously removed. A new piece of safety tie wire Snorkel part number 9980012 will need to be installed on the pin bolts.

SAFETY TIE WIRE INSTRUCTIONS

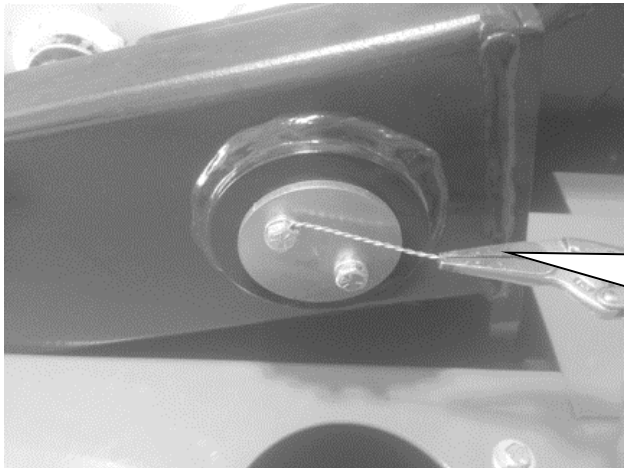


Try lining holes up parallel, ensuring both are tight

Using about 18" of wire, insert wire half way through bolt 1



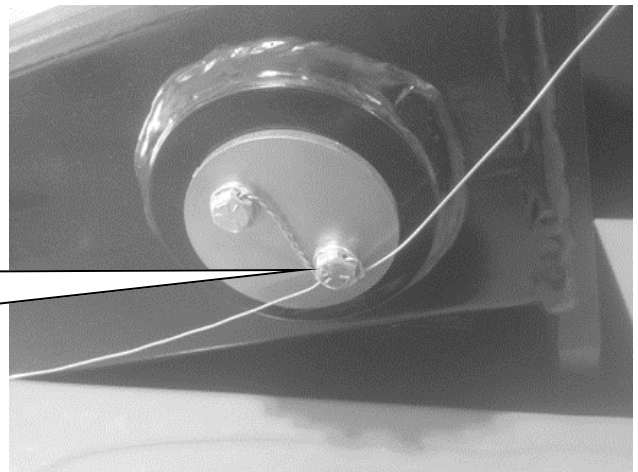
Wrap wire as shown for measurement purpose.
Clamp pliers on both wires where hole is on bolt 2.



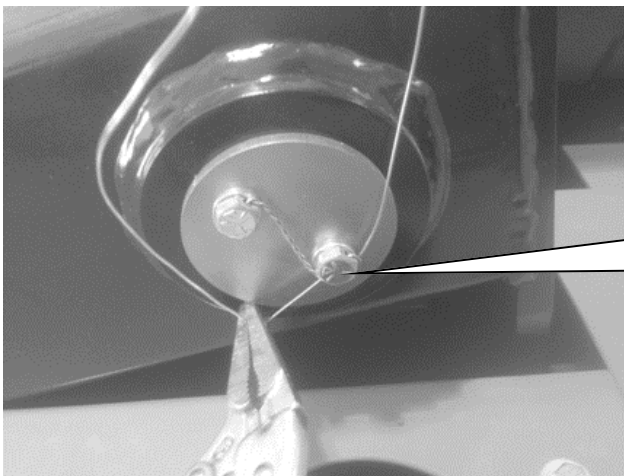
Straighten wires, spin wires in a clockwise manner until wire is tight on bolt 1

CAUTION:

Do Not Over Tighten Wire As It Will Break.

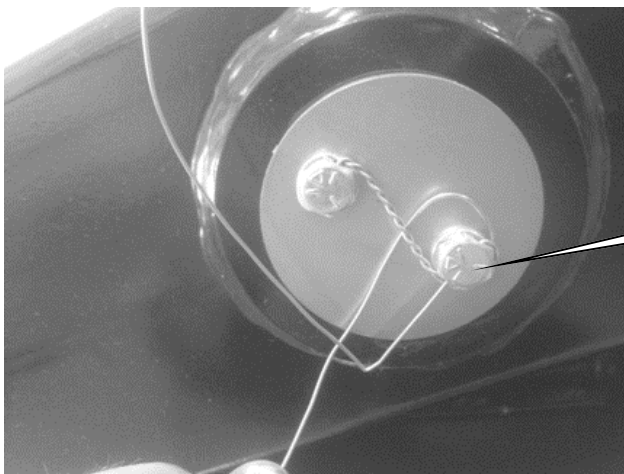


Wrap wire back around (as done in step 3) insert one strand through hole in bolt 2

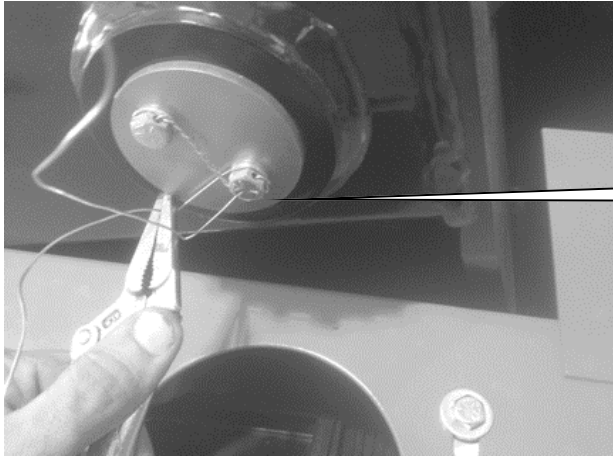


Using the edge of the pin cap for easy leverage slightly

Pull until wire is tight between bolt 1 and bolt 2

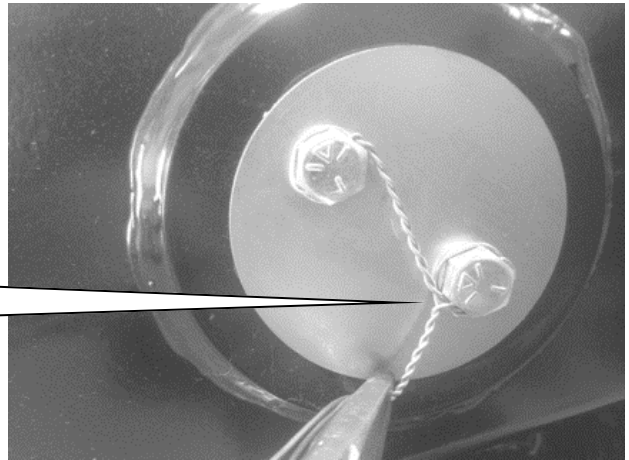


Loop second strand behind twisted wires

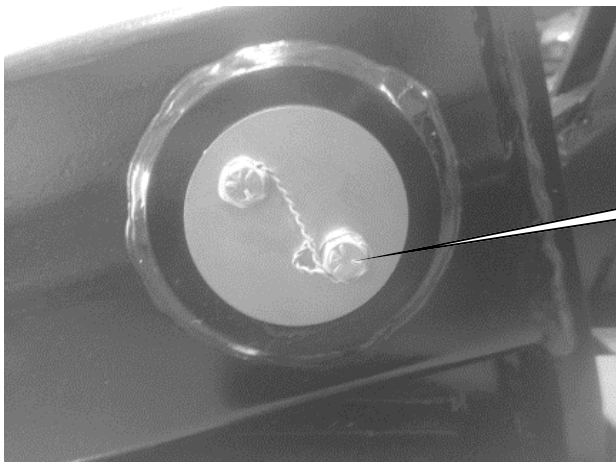


Use pin cap to pull tight around bolt 2

Clamp wires together and spin in a counter clockwise manner until tight against bolt 2



Trim excess wire and turn edge in to prevent snags.



Once the hardware has been secured, fully rotate the manual bleed down valve CW to close. Remove the ratchet strap and 2x4, the machine can be placed back into service.

This completes this procedure



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Date: August 25, 2017

After the inspection or the pin replacement have been completed please fill out the form below and check appropriate box verifying that one or both have been completed. Please return by e-mail, fax or mail to the above address indicating the above has been completed.

Fax: 785-989-3075

e-mailed address: service@snorkellifts.com

TSB 17.002

Machine Serial Number

Company Name

Address

City, State, Zip Code

Phone No.

Name (print)

Name (signature)

Date

This is to confirm the inspection
was completed.

This is to confirm the pin replace-
ment was completed.



For Further Information in North and South America

Contact the Snorkel Service Department at:

Phone: 1-800-255-0317 or 1-785-989-3091

Fax: 1-785-989-3075

Or contact the Snorkel Service Department via email at:

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