Service Call:

Pressure Adjustment of Power Assist Controls after Orifice Seat Removal and Replacement on the Unit

(One boom function is not working but all the others are).

Tools Required:

11/16", 1/2", 7/16” wrench
Adapter to go from fitting on orifice seat to pressure gauge
½”-12pt socket, extension and ratchet

Model(s):

5FA, 5FB, 5FC, 5HP, 5TC, 5TCX,6TC, 6EHV, 6H, RM-HL, Sidekick, Scrambler (Pre “95) & units converted to Power Assist Controls

Tech Tip Safety Rules

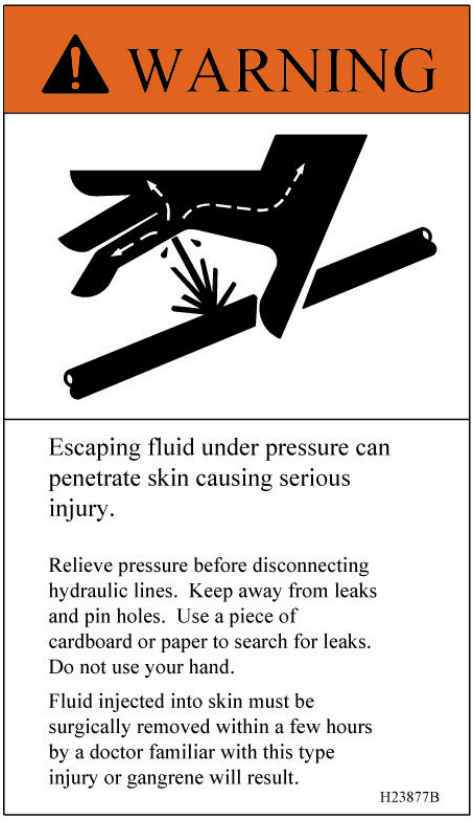
Danger

Failure to obey the instructions and safety rules in the appropriate Operator's Manual and Service Manual for your machine will result in death or serious injury. Many of the hazards identified in the operator's manual are also safety hazards when maintenance and repair procedures are performed.

Do Not Perform Maintenance Unless:

- You are trained and qualified to perform maintenance on this machine.
- You read, understand and obey:
  - manufacturer's instructions and safety rules
  - employer's safety rules and worksite regulations
  - applicable governmental regulations
- You have the appropriate tools, lifting equipment and a suitable workshop.

The information contained in this tech tip is a supplement to the service manual. Consult the appropriate service manual of your machine for safety rules and hazards.



Step 1

Start truck engine, complete procedure for engaging the PTO and pump, set your outriggers, and select for unit controls at outriggers and upper controls at the lower controls.

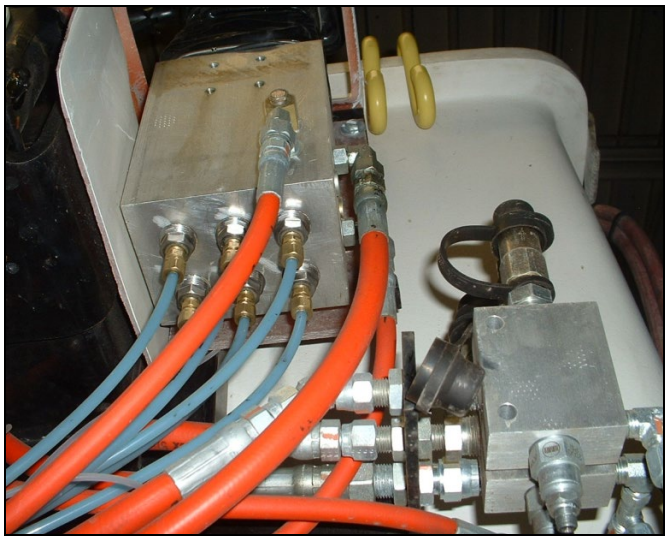
Step 2

At the upper controls identify which function is not working. You can match the control rod and piston that move of the non-working function at the top of the block to the orifice seat that is in line on the bottom of the control block.

Escaping fluid under pressure can penetrate skin causing serious injury.

Relieve pressure before disconnecting hydraulic lines. Keep away from leaks and pin holes. Use a piece of cardboard or paper to search for leaks. Do not use your hand.

Once identified shut down the unit and bleed the pressure from the control head. Disconnect the control line and remove the orifice seat from the control head.



Step 3

Remove compression fitting from old orifice seat and install into new orifice seat using Loctite 242 thread sealant. Install O-rings and backup rings onto orifice seat. Coat the new orifice seat threads with Loctite 242 sealant.

Step 4

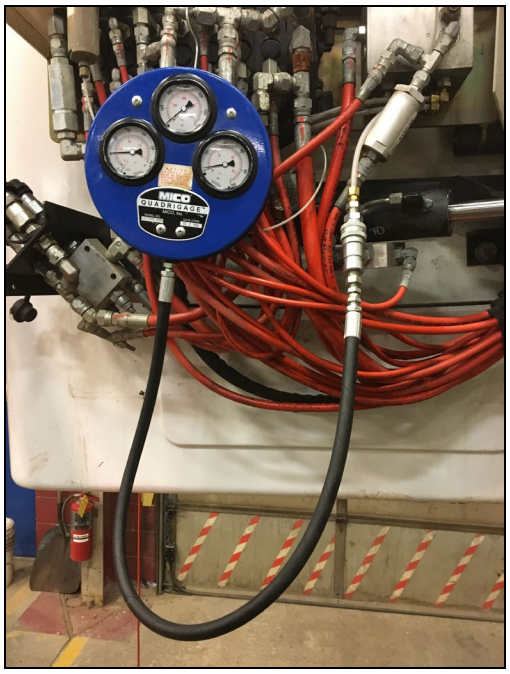
Install orifice seat three complete turns into control head.

Escaping fluid under pressure can penetrate skin causing serious injury.

Relieve pressure before disconnecting hydraulic lines. Keep away from leaks and pin holes. Use a piece of cardboard or paper to search for leaks. Do not use your hand.

Step 5

Install adapter and pressure gauge onto the orifice seat that was replaced. Start the truck and verify that the gauge is reading 0 PSI.

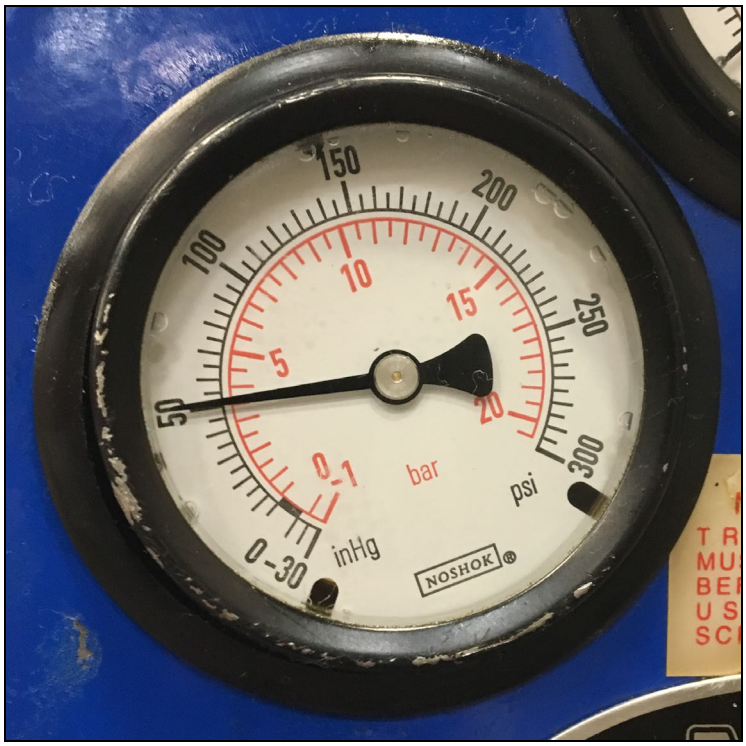


Escaping fluid under pressure can penetrate skin causing serious injury.

Relieve pressure before disconnecting hydraulic lines. Keep away from leaks and pin holes. Use a piece of cardboard or paper to search for leaks. Do not use your hand.

Step 6

Activate the upper control enable and bleed the adapter line and gauge. Once bled, the pressure gauge should read 50±10 PSI with the upper control enable on.



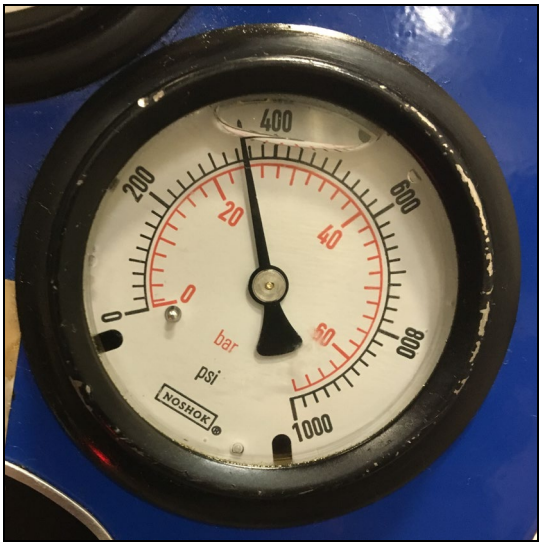
Escaping fluid under pressure can penetrate skin causing serious injury.

Relieve pressure before disconnecting hydraulic lines. Keep away from leaks and pin holes. Use a piece of cardboard or paper to search for leaks. Do not use your hand.

Step 7

With the enable still activated operate the function that corresponds with the replaced orifice seat. The gauge should read 350 ± 20 PSI at full stroke. It should also increase smoothly from 50 to 350 ± 20 PSI. If the gauge does not read 350 ± 20 PSI when the control function is fully actuated:

- Increase the pressure by turning the orifice seat in
- Decrease the pressure by turning the orifice seat out



Escaping fluid under pressure can penetrate skin causing serious injury.

Relieve pressure before disconnecting hydraulic lines. Keep away from leaks and pin holes. Use a piece of cardboard or paper to search for leaks. Do not use your hand.

Step 8

Move the control handle back to the neutral position and verify that the pressure gauge reads 50 ± 10 PSI. Release enable lever and the pressure should drop to 0 PSI. Actuate the enable lever and control handle function again for the orifice seat being tested. The attached pressure gauge should read 350 PSI ± 20 PSI when the control function is fully actuated.

Step 9

Mark the bottom of the block and the seat to give future reference that setting has been maintained.

Step 10

Remove pressure gauge and reinstall ¼” nylon tubing to compression fitting and bleed control lines following tech tip #1.

Escaping fluid under pressure can penetrate skin causing serious injury.

Relieve pressure before disconnecting hydraulic lines. Keep away from leaks and pin holes. Use a piece of cardboard or paper to search for leaks. Do not use your hand.

Step 11

Test unit for proper operation from the upper controls.