

**Purging air and releasing stored energy
of a hydraulic component**

Date: July 07, 2022
Bulletin Name: MISC-TSIB-075-A
Model: ALL
Model Year: Atlantic, Contender, Pacific
Front Loaders 2003 - 2019
AutoReach, M/MMA, Zero Radius, Meridian
2011 - 2019 and Meridian 2020 - current

Purpose:

The following information describes how to purge air and release stored hydraulic energy from a hydraulic system. All manual override features are intended for emergency use, not for continuous-duty operation.

Notice:

- This bulletin should be read and understood in its entirety before performing this procedure.
- All procedures outlined in the bulletin must be performed by skilled service personnel. Refer to the product service manual for descriptions of maintenance procedures.

SAFETY NOTICE
Perform your company's Lockout/Tagout procedure. If your company does not have a Lockout/Tagout procedure, follow OSHA 1910.147 and 1910.146 Confined Space as appropriate.

SAFETY NOTICE
Use appropriate Personal Protective Equipment (PPE) as required by your company.

Tool Required (Customer to Provide Own):

- 9 mm wrench
- Crane, hoist, or jib
- Chain (rated to lift the weight of the part being changed)

Procedure for Meridian Front Loader Model 78 and Zero Radius Side Loader Model 48:

1. If possible, function the specific cylinder to be changed until the cylinder is collapsed all the way down.
2. Perform your company's Lockout/Tagout procedure. If your company does not have a Lockout/Tagout procedure, follow OSHA 1910.147 and 1910.146 Confined Space as appropriate.
3. Locate the override bolt on the specific section of the valve body that will be worked on (Figure 1 shows an example of one override bolt). **NOTE:** There is an override per function on the valve body.
4. Install the 9 mm wrench on the override bolt. The wrench will act as a lever to control the spool.
5. Move the wrench back and forth to release the energy on the specific function that controls the cylinder(s) needed to be changed.

Usually, the energy releasing is audible and can also be felt through the wrench.

6. Once the energy is released, secure the hydraulic cylinder with appropriate strapping (such as a chain), hoist, jib, or crane. (The weight of the object needs to be known in order to select the appropriate strapping and hoisting.)
7. Continue with the steps to replace the cylinder.

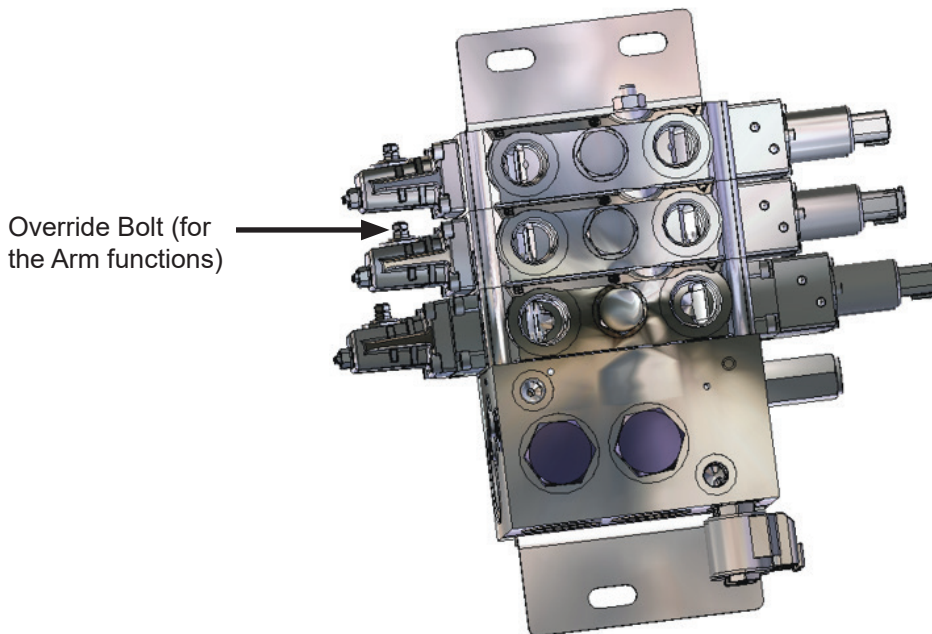


Figure 1

Procedure for Meridian Front Loader Model 78 Top Door Option:

There is no manual override on the top door option. To release stored energy,

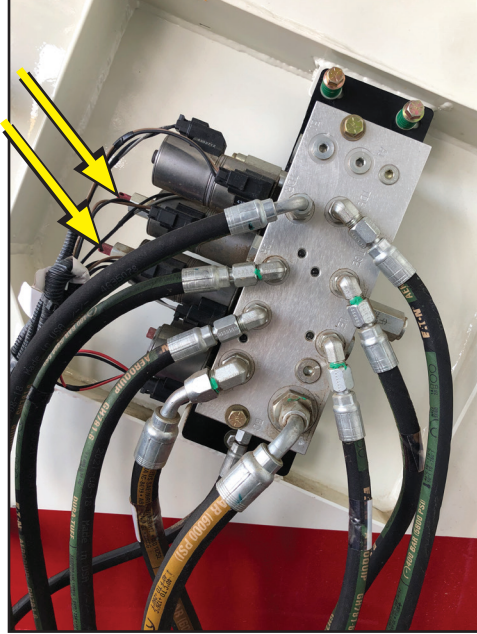
1. First position the top door mid-travel (off the cylinder stops). This will prevent oil trapped at the end of stroke.
2. Shut down the truck and perform your company's Lockout/Tagout procedure. If your company does not have a Lockout/Tagout procedure, follow OSHA 1910.147 and 1910.146 Confined Space as appropriate.
3. De-energize all other functions.
4. Use a wrench to slowly loosen the two hydraulic top door lines at the valve to release trapped oil.

Manual Override Options for Meridian Front Loader Model 78

On Meridian Front Loaders 2020 to current, the valve overrides are located as shown in Figure 1.



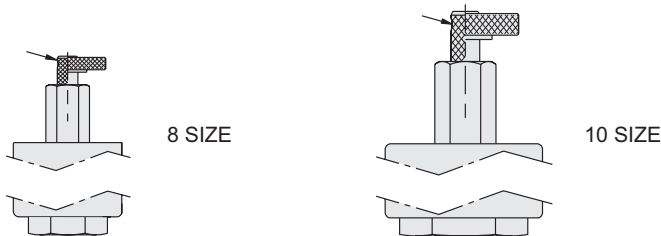
This side view shows the valve overrides (red buttons at the end of the cartridge).



This straight-on view shows location of the valve overrides (red buttons at the end of the cartridge).

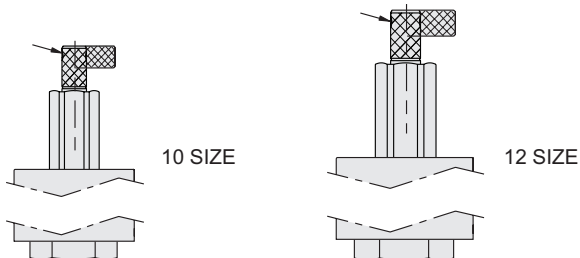
Manual override option for three-position push/pull type solenoid valves

To override, push the button to activate the coil #2 (S2) function, or pull the knob to activate the coil #1 (S1) function.



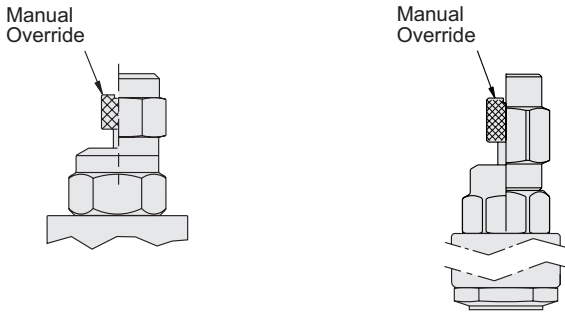
Manual override option for three-position HyPerformance™ solenoid valves, detented

To override, from neutral push knob down slightly, rotate 90° counterclockwise and pull to activate coil #1 (S1) function. Rotate an additional 90° counterclockwise to engage detent.



Manual override options for PV and ZL proportional valves

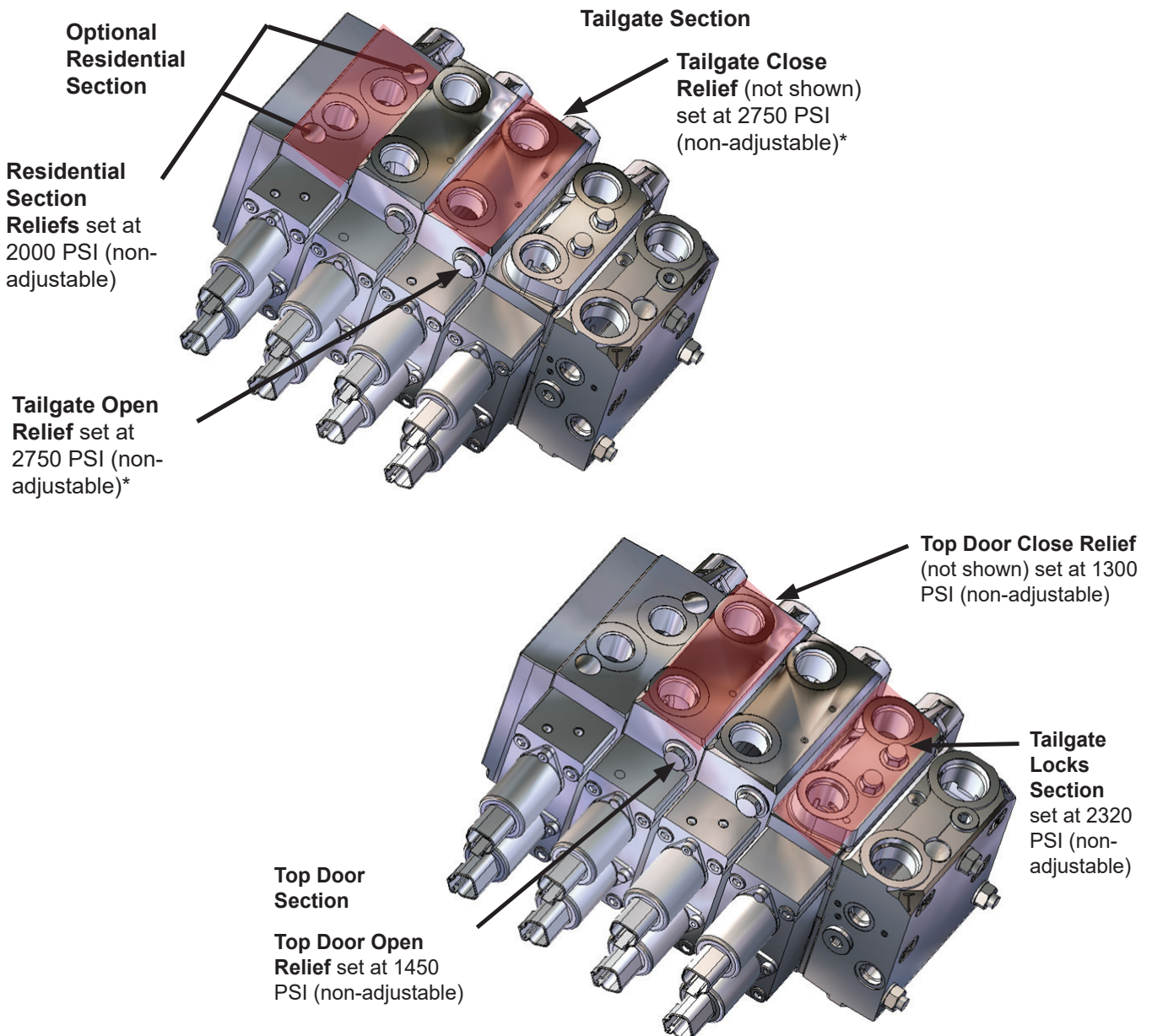
Rotate the knob counterclockwise to activate override function.



Meridian Units 2017 to 2020: Tailgate/Top Door/Optional Residential Section Valve

(with Residential section McNeilus PN 1532082 or without Residential section McNeilus PN 1532083)

This older valve body has the same override bolt as shown in Figure 1, and the technician can use a 9mm wrench on the override bolt to shift the spool on the valve body to release any energy in the lines.



Procedure for 2003 to present Atlantic Front Loader Model 29, Contender Front Loader Model 87, Pacific Front Loader Model 85 as well as AutoReach Side Loader Model 49:

1. Turn the engine off.
2. Turn the ignition key on.
3. Select Pump On.
4. Move the joystick or select the function on keypad or rocker switch to release the energy.
5. Once the energy is released, secure the hydraulic cylinder with appropriate strapping (such as a chain), hoist, jib, or crane. (The weight of the object needs to be known in order to select the appropriate strapping and hoisting.)
6. Perform your company's Lockout/Tagout procedure. If your company does not have a Lockout/Tagout procedure, follow OSHA 1910.147 and 1910.146 Confined Space as appropriate.

Procedure for Manual or Manual Automated Side Loaders Models 42 or 44:

To release the energy on the packer function:

1. Turn the engine off.
2. Turn the ignition key on.
3. Select Pump On.
4. Move the joystick or select the function on keypad or rocker switch to release the energy.
5. Once the energy is released, secure the hydraulic cylinder with appropriate strapping (such as a chain), hoist, jib, or crane. (The weight of the object needs to be known in order to select the appropriate strapping and hoisting.)
6. Perform your company's Lockout/Tagout procedure. If your company does not have a Lockout/Tagout procedure, follow OSHA 1910.147 and 1910.146 Confined Space as appropriate.

To release the energy on the arm function:

1. If possible, function the specific cylinder to be changed until the cylinder is collapsed all the way down.
2. Perform your company's Lockout/Tagout procedure. If your company does not have a Lockout/Tagout procedure, follow OSHA 1910.147 and 1910.146 Confined Space as appropriate.
3. Locate the override bolt on the P70 valve body.
4. Install the 9 mm wrench on the override bolt. The wrench will act as a lever to control the spool.
5. Move the wrench back and forth to release the energy on the specific function that controls the cylinder(s) needed to be changed.

Usually, the energy releasing is audible and can also be felt through the wrench.

6. Once the energy is released, secure the hydraulic cylinder with appropriate strapping (such as a chain), hoist, jib, or crane. (The weight of the object needs to be known in order to select the appropriate strapping and hoisting.)
7. Continue with the steps to replace the cylinder.



(888) 686-7278

www.streetsmartparts.com