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## 1 SCOPE

A-T Controls 3DGO-S09A Declutchable Gear Overrides (DGO) are designed and engineered to provide a manual method of operating the S09 pneumatic actuators with 200 and 280 pressure groups, spring return and double acting.

A-T Controls 3DGO-S09B Declutchable Gear Overrides (DGO) are designed and engineered to provide a manual method of operating the S09 pneumatic actuators with 335 and 385 pressure groups, spring return and double acting.

## 2 INSTALLATION

**WARNING: FOR YOUR SAFETY, IT IS IMPORTANT THAT BEFORE OPERATING THE 3RDGO AND 3KDGO DECLUTCHABLE GEAR OVERRIDE THAT ALL LOCKOUT AND TAGOUT PROCEDURES ARE IMPLEMENTED. PLEASE CONSULT WITH THE FACTORY IF YOU HAVE ANY QUESTIONS ON ANY OF THE PROCEDURES LISTED BELOW.**

The DGO mounts between the valve and the actuator. To install a DGO in the field, the valve must be in a safe position so the actuator can be removed. Ensure all pneumatic and electric lines are locked and tagged out to prevent any accidental movement of the actuator. For spring return actuators, the actuator should be in the failsafe position. Before mounting the DGO, ensure that the DGO is in the proper position either fully clockwise or counterclockwise to agree with the valve and actuator position. The DGO should be in the disengaged position while mounting. Refer to Figure 1 to comply with the standard mounting orientation. The gear should only be mounted to the actuator to the orientation shown in Figure 1.

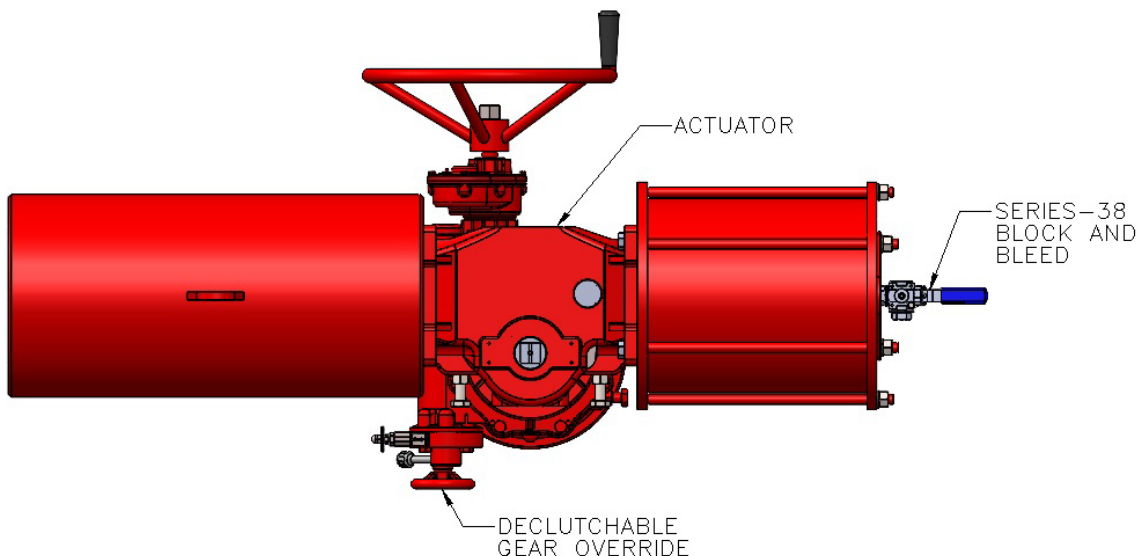
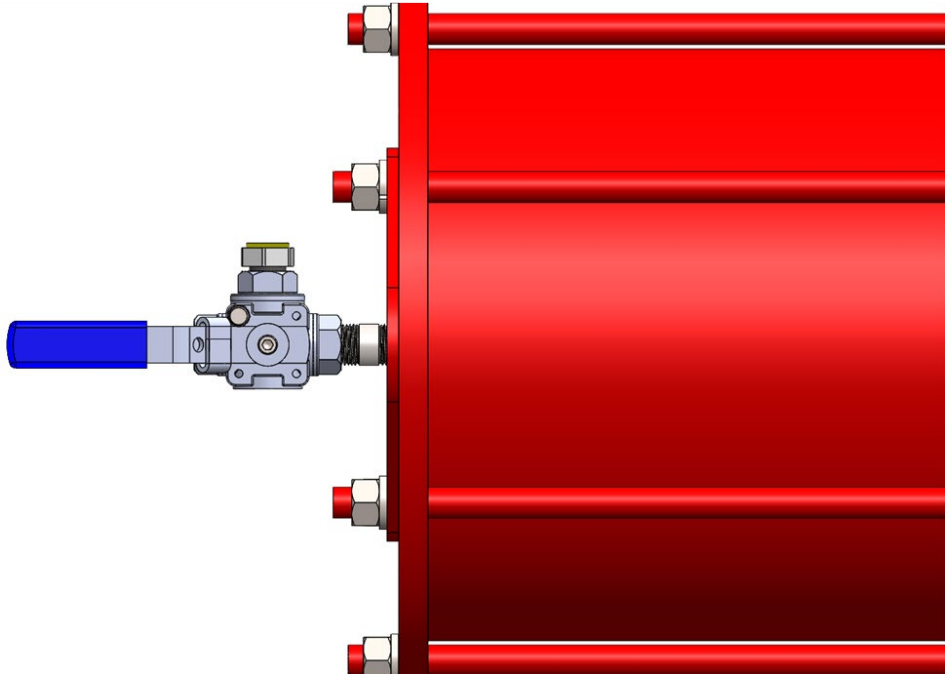
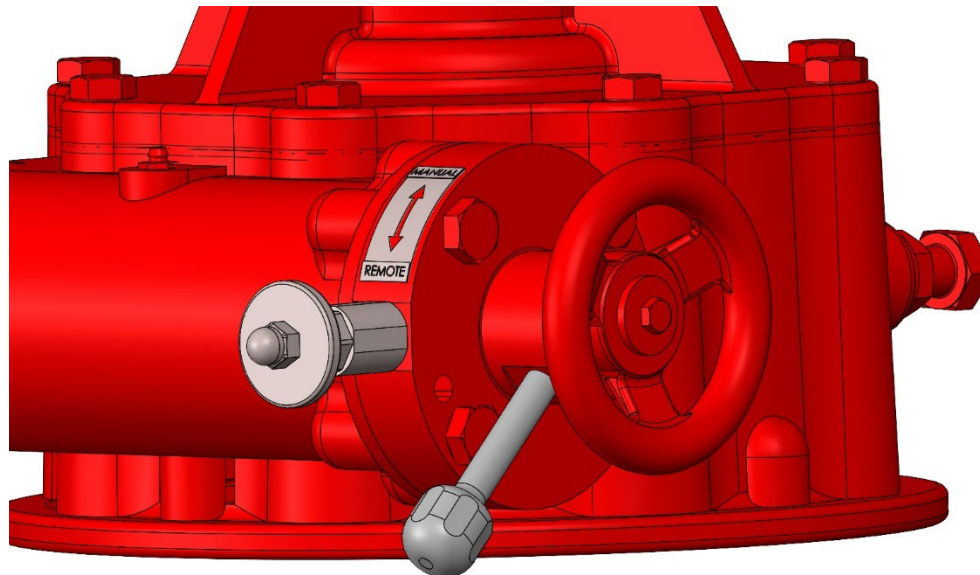


Figure 1

1. With the actuator removed from the valve, the gear will mount directly to the valve or bracket.
2. Mount the actuator to the gear and assemble with studs and nuts.
3. For spring return actuators, a Series-38 block and bleed valve configured per Figure 2 and must be installed in the end cap before any solenoids or other device.

**Figure 2**

4. For double acting actuators, a Series-38 block and bleed valve is required in both end cap ports.
5. In the position shown in Figure 2 the air supply runs straight thru the block and bleed valve. When the handle is rotated 90 degrees the air supply is closed off and any air in the actuator can bleed out thru the breather vent. This will enable the gear override to operate without having to overcome the air pressure in the cylinder.
6. Install handwheel on shaft and secure with cap screw.
7. Install the declutch lever into tapped hole on collar. Do not remove the set screw and attempt to use the second hole. The declutch lever when in the remote (disengaged) position should be below the declutch pin which is the locking pin for the declutch lever (See Figure 3). The declutch lever is taped to the handwheel for shipping purposes.

**Figure 3**

8. Reinstall all electric and pneumatic lines.
9. Verify that the stop bolts in the DGO and actuator are properly set for the open and close positions.
10. Refer to the operating instructions below to engage the manual override and check for proper operation.
11. Place the Series-38 block and bleed valve(s) in the parallel position for remote operation per Figure 2. Place the DGO in the remote (disengaged) operating position. This is with the lever down shown in Figure 2.
12. The unit is now ready to place into service.

### 3 OPERATION

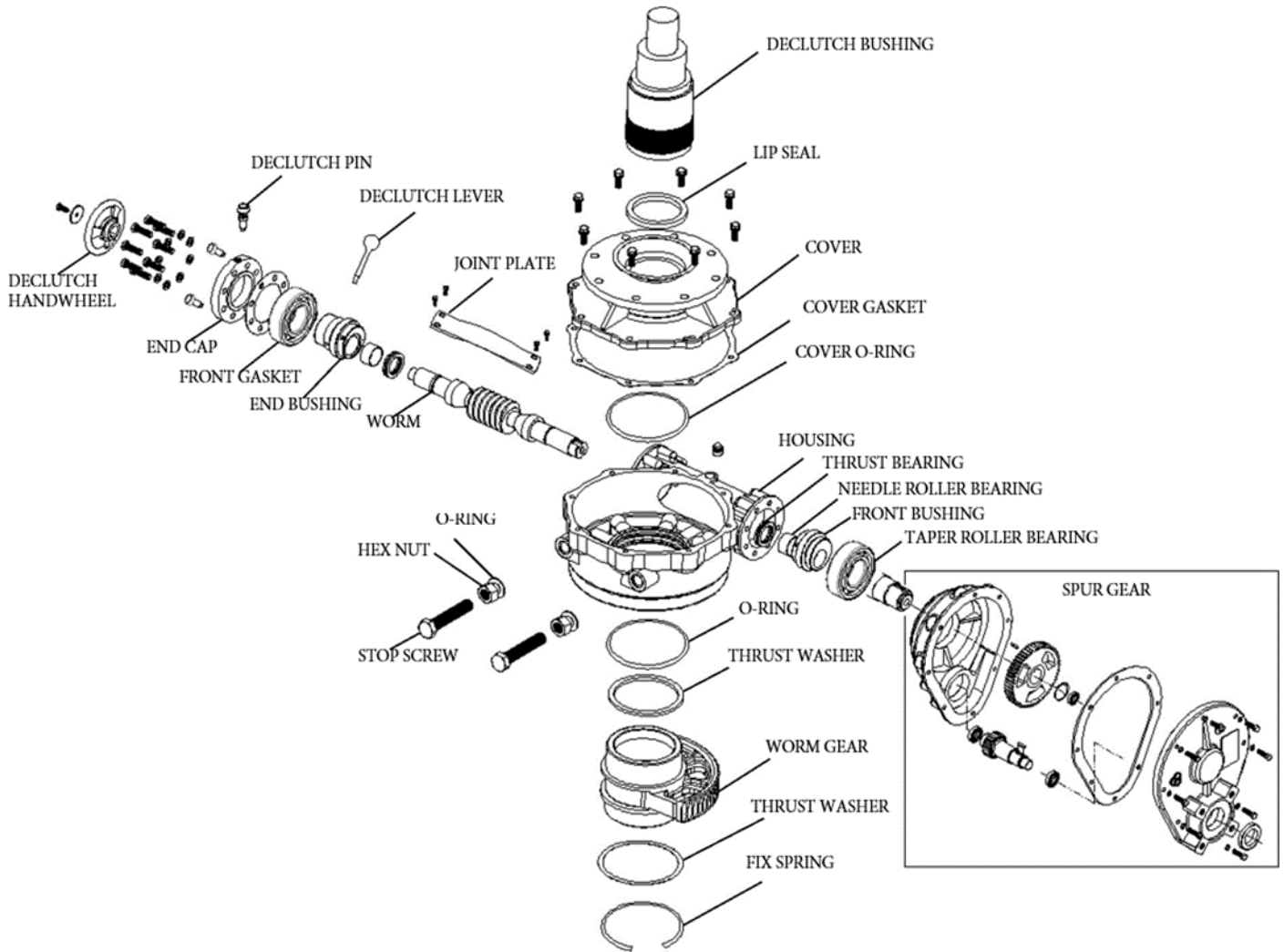
1. Turn the handle perpendicular to the pipeline on the block and bleed valve(s). This will exhaust all the air from the actuator. For a spring return actuator, this will cause the actuator to return to the failsafe position. To prevent the actuator from moving, perform step 2 before pulling the knob on the block and bleed valve
2. Pull on the declutch pin and rotate the declutch lever towards the manual (engaged) position.
3. The small handwheel can be used to help align the internal gears while moving the declutch lever. When the declutch lever is fully rotated, the declutch pin will click back into position.
4. Rotate the larger handwheel counter-clockwise to move the actuator counter-clockwise or clockwise to move the actuator clockwise depending on the desired location. The 1-1/4" hex nut in the center of the handwheel can be used to rotate the handwheel with a motor.
5. To return to remote (disengaged) operation, pull on the declutch pin and rotate the declutch lever to remote (disengaged). Check that the declutch pin clicks back into position.
6. Turn the handle parallel to the pipeline on the block and bleed valve(s) to return to the remote operation (See Figure 2 and 3).

### 4 REPAIR PARTS AND LUBRICATION

There are two grease fittings on the spur gear and one grease fitting on the center housing. The units are lubricated for a lifetime of normal service at the factory. Extremely wet or humid conditions may require additional lubrication.

There are no parts or seals that require replacement during a normal lifetime of service.

5 BILL OF MATERIALS



A-T Controls product, when properly selected, is designed to perform its intended function safely during its useful life. However, the purchaser or user of A-T Controls products should be aware that A-T Controls products might be used in numerous applications under a wide variety of industrial service conditions. Although A-T Controls can provide general guidelines, it cannot provide specific data and warnings for all possible applications. The purchaser / user must therefore assume the ultimate responsibility for the proper sizing and selection, installation, operation, and maintenance of A-T Controls products. The user should read and understand the installation operation maintenance (IOM) instructions included with the product and train its employees and contractors in the safe use of A-T Controls products in connection with the specific application.

While the information and specifications contained in this literature are believed to be accurate, they are supplied for informative purposes only. Because A-T Controls is continually improving and upgrading its product design, the specifications, dimensions and information contained in this literature are subject to change without notice. Should any question arise concerning these specifications, the purchaser/user should contact A-T Controls.

For product specifications go to <https://a-tcontrols.com/downloads/>

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