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1 SCOPE

A-T Controls 3RDGO-14 through 3RDGO-46A Declutchable Gear Overrides (DGO) are designed and engineered to provide a manual method of operating the 3R40 through the 3R2500 series of pneumatic actuators both spring return and double acting.

A-T Controls 3KDGO-38 through 3KDGO-1200 Declutchable Gear Overrides (DGO) are designed and engineered to provide a manual method of operating the 3K40 through the 3K1200 series of pneumatic actuators both 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 can be mounted in all four quadrants provided the handwheel does not interfere with the valve, pipeline, actuator, etc.

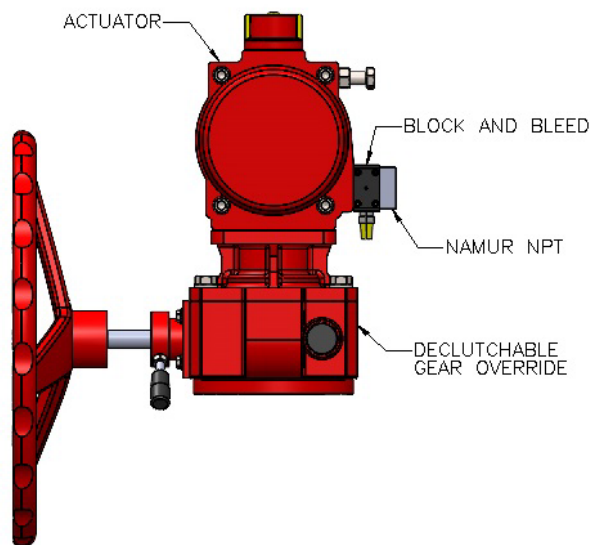


Figure 1

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. A block and bleed valve is required to exhaust the air from the actuator before the DGO can be used. A Namur solenoid can be bolted directly to the Block and Bleed Valve, or an NPT adapter plate can be attached for a remote solenoid or other device requiring NPT threads.

4. Drawing P1984 (shown on the last page of this document) shows the mounting orientation for the standard solenoids furnished by A-T Controls. Figure 2 shows the actuator with the NPT plate installed with the Block & Bleed Valve.

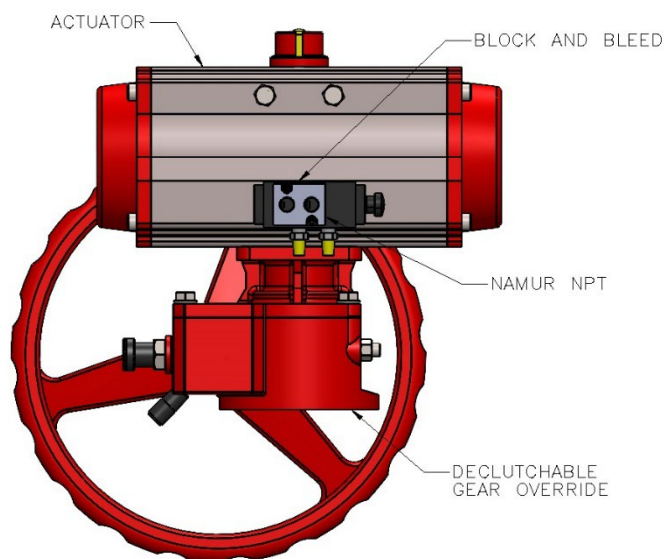


Figure 2

5. Install handwheel on shaft and secure with cap screw.
6. Reinstall all electric and pneumatic lines.
7. Verify that the stop bolts in the DGO and actuator are properly set for the open and close positions.
8. Refer to the operating instructions below to engage the manual override and check for proper operation.
9. Push the knob in on the block and bleed valve shown above in Figure 2. This is the remote (disengaged) position for the block and bleed valve.
10. Place the DGO in the remote (disengaged) operating position. This is with the lever down shown in Figure 2.
11. The unit is now ready to place into service.

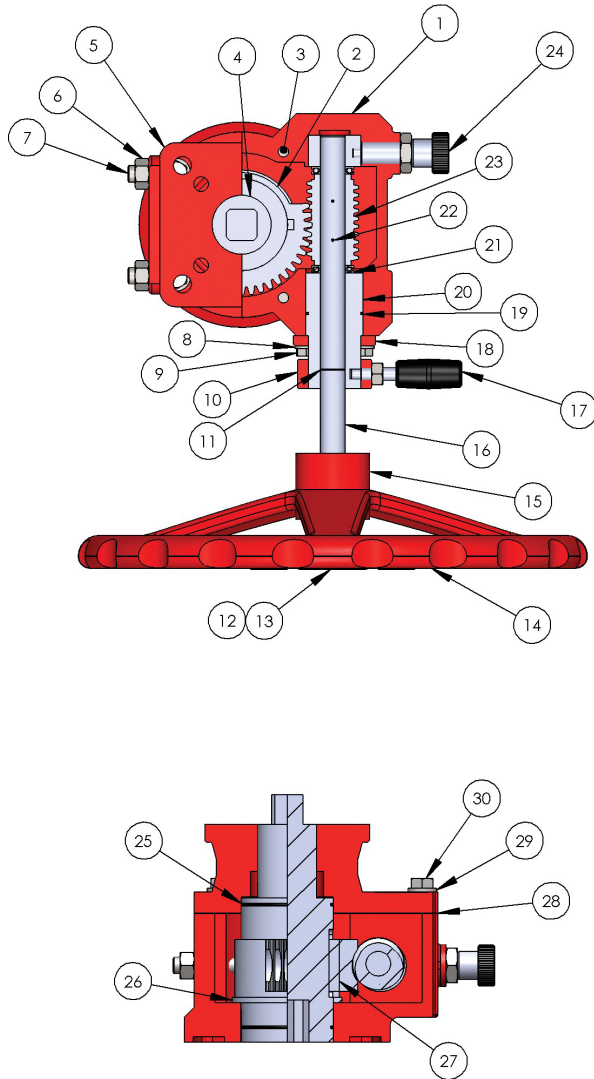
3 OPERATION

1. Pull out the knob on the block and bleed valve. 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 actuator for the manual (engaged) position.
3. When the declutch lever is fully rotated, the declutch pin will click back into position.
4. Rotate the handwheel counter-clockwise to move the actuator counter-clockwise or clockwise to move the actuator clockwise depending on the desired location.
5. To return to remote (disengaged) operation, pull on the declutch pin and rotate the declutch lever away from the actuator. Check that the declutch pin clicks back into position.
6. Push the knob in on the block and bleed valve to return to the remote operation (See Figure 2).

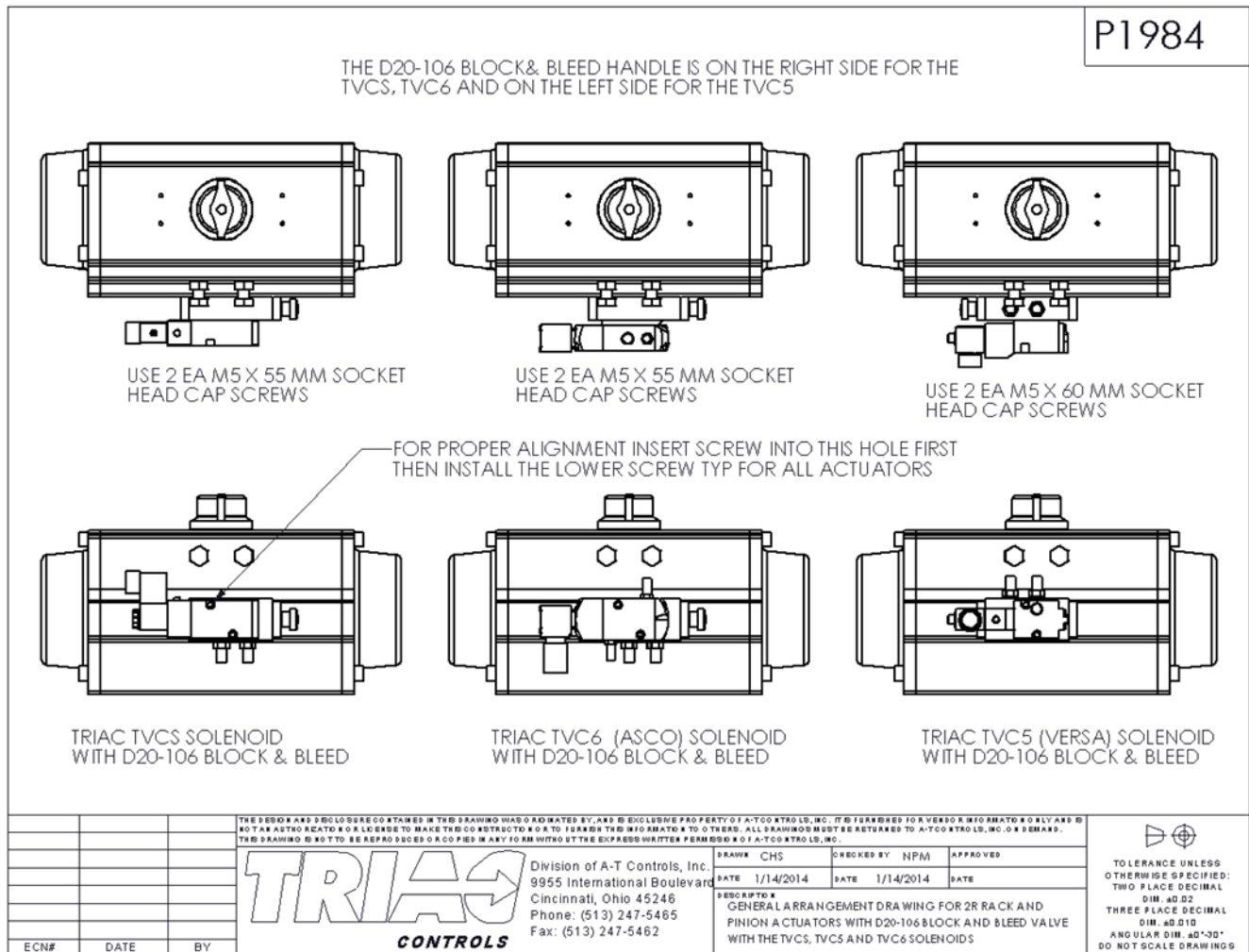
4 REPAIR PARTS AND LUBRICATION

The units are lubricated for a lifetime of normal service at the factory. There are no parts or seals that require replacement during a normal lifetime of service.

5 BILL OF MATERIALS



PART NO	DESCRIPTION	QTY	MATERIAL
1	HOUSING	1	DUCTILE IRON
2	WORM WHEEL	1	DUCTILE IRON
3	HOUSING PIN	2	CARBON STEEL
4	DRIVE COUPLER	1	CARBON STEEL
5	COVER	1	DUCTILE IRON
6	STOP BOLT NUT	2	CARBON STEEL
7	STOP BOLT	2	CARBON STEEL
8	SIDE COVER WASHER	4	CARBON STEEL
9	SIDE COVER BOLT	4	CARBON STEEL
10	POSITION ADAPTER	1	CARBON STEEL
11	WORM SHAFT O-RING	1	NBR NITRILE RUBBER
12	HAND WHEEL BOLT	1	CARBON STEEL
13	HAND WHEEL WASHER	1	CARBON STEEL
14	HAND WHEEL	1	CARBON STEEL/ DUCTILE IRON
15	WORM SHAFT KEY	1	CARBON STEEL
16	WORM SHAFT	1	CARBON STEEL
17	POSITION LEVER ASSEMBLY	1	CARBON STEEL / PLASTIC
18	SIDE COVER	1	CARBON STEEL PLATED
19	DECLUTCH CAM BUSHING O-RING	1	NBR NITRILE RUBBER
20	DECLUTCH CAM BUSHING	1	DUCTILE IRON
21	THRUST BALL BEARING	2	BEARING STEEL
22	WORM PIN	2	CARBON STEEL
23	WORM	1	CARBON STEEL
24	POSITION LOCK PIN ASSEMBLY	1 SET	CARBON STEEL/ PLASTIC
25	WORM WHEEL O-RING	2	NBR NITRILE RUBBER
26	THRUST BEARING	1	ALUMINUM BRONZE
27	COUPLING KEY	1	CARBON STEEL
28	GASKET	1	OIL PAPER
29	COVER WASHER	4	CARBON STEEL
30	COVER BOLT	4	CARBON STEEL



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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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