DeZURIK | APCO | WILLAMETTE

DeZURIK THROTTLING MANUAL OVERRIDE

FOR CYLINDER OPERATED T-SERIES ACTUATORS

Instruction D10015
June 2011

Instructions

These instructions provide information about Throttling Manual Override (TMO)s. They are for use by personnel who are responsible for installation, operation and maintenance of Throttling Manual Override (TMO)s.

Safety Messages

All safety messages in the instructions are flagged with an exclamation symbol and the word Caution, Warning or Danger. These messages indicate procedures that must be followed exactly to avoid equipment damage, personal injury or death. Safety label(s) on the product indicate hazards that can cause equipment damage, personal injury or death. If a safety label becomes difficult to see or read, or if a label has been removed, please contact DeZURIK for replacement label(s).

WARNING!

Personnel involved in the installation or maintenance of valves should be constantly alert to potential emission of pipeline material and take appropriate safety precautions. Always wear suitable protection when dealing with hazardous pipeline materials. Handle valves that have been removed from service with the assumption of pipeline material within the valve.

Inspection

Your Throttling Manual Override (TMO) has been packaged to provide protection during shipment; however, it can be damaged in transport. Carefully inspect the unit for damage upon arrival and file a claim with the carrier if damage is apparent.

Parts

Order parts from your local DeZURIK sales representative, or directly from DeZURIK. When ordering parts, please include the 7-digit part number and 4-digit revision number (example: **9999999R000**) located on the data plate attached to the valve assembly. Also include the part name, the assembly drawing number, the balloon number and the quantity stated on the assembly drawing.

DeZURIK Service

DeZURIK service personnel are available to install, maintain and repair all DeZURIK products. DeZURIK also offers customized training programs and consultation services.

For more information, contact your local DeZURIK sales representative or visit our website at www.dezurik.com.

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Description

The Throttling Manual Override is a declutchable gear accessory used for manual operation of a T-Series Cylinder Actuator on a valve. The accessory is mounted on the actuator, opposite the cylinder. Two models are offered—the TMO1 and the TMO2. The TMO2 is a high-strength version of the TMO1, and is used on larger actuator and valve sizes.

Lubrication

The unit is lubricated at the factory, and does not require further lubrication.

Operation

The Throttling Manual Override (TMO) has two modes of operation - “auto” and “manual”. In the “auto” position, the unit is disengaged and freewheeling, allowing normal operation of the valve actuator and valve. In the “manual” position the unit is engaged with the extended piston rod of the actuator, thus enabling the TMO to manually position the actuator and valve.

The TMO includes a cylinder bypass valve, piped between the two cylinder ports. (As an alternative, some positioners include an integral bypass valve.) During manual operation, the bypass valve is opened to equalize the forces on the cylinder piston.

To change from the “auto” position to the “manual” position:

1. Place the TMO lever in the “manual” position. Rotate the handwheel slightly to assure that the unit is fully engaged, and that the lever will remain firmly in position.
2. Open the cylinder bypass valve. Also, to prevent air consumption if present, the air supply to the actuator should be turned off.
3. Turn the handwheel to manually drive the valve to the desired position. Clockwise rotation opens the valve; counterclockwise rotation closes the valve.

To change from the “manual” position to the “auto” position:

1. Turn the handwheel to drive the valve to the position expected when pressure is applied to the valve actuator.
2. Close the cylinder bypass valve. Also turn on the air supply to the actuator if the air supply was previously turned off.
3. Turn the handwheel in the direction of least resistance until the actuator load is removed and the handwheel turns freely.
4. Place the TMO lever in the “auto” position.