START UP PROCEDURE: SERIES 1-8000 ROTARY ACTUATORS

IMPORTANT: TO AVOID DAMAGE AT START-UP, READ INSTRUCTIONS CAREFULLY!

ROTARY ACTUATORS

CAUTION: Angular velocity and deceleration of actuators are normally controlled with Port Control® valves and cushions.

At start up, the actuator cylinders are often empty or not pressurized. To prevent damage due to lack of governing media and to assure a controlled startup, the following procedure should be used.

1. After installation of actuator and auxiliary tooling (arms, jaws, fixtures, etc.), manually turn output shaft fully clockwise prior to start up. Actuator should be started up with typical work piece or load.

2. Apply pressure to rotary chamber in same direction as shaft is turned (clockwise port).

3. Apply pressure to opposite port slowly open speed control valve governing counter-clockwise direction. This will allow the actuator to rotate under control. Follow the same procedure in opposite direction. Several cycles may be needed to obtain proper speed adjustment.

4. On units with adjustable cushions, set needle adjustment for optimum effectiveness to minimize shock at end of rotation.

AIR/OIL TANDEM ROTARY ACTUATORS

1. Mount reservoir “A” vertically above actuator hydraulic section. (Approximately 12 feet of flexible tubing has been provided to allow reservoir to be mounted in convenient location.) Excess may be coiled up or cut off. Shortening of tube should take place by disconnecting tube from tank taking care that minimum amount is allowed to drain from reservoir and that tube is kept full of oil at all times. A small air bubble may form at end of tube when reassembled. This is not detrimental and will disappear during operation of actuator.

2. Provide constant air supply regulated to 20 psi to port “B” on reservoir.

3. Apply air pressure to reservoir. Next, LOOSEN (do not remove) drain plug “C”. Allow oil to drain until level reaches line E. Retighten plug securely.

4. If actuator is equipped with cushions, open needle valves marked “D” approximately 1/8 turn.

5. Follow same procedure with port control needles marked “P”.

6. Air pressure may now be applied to actuator. Take care to keep clear from any tooling attached to the actuator shaft as it may start rotating.

7. Adjust control needles to achieve proper velocities (and decelerations).

8. Bleed plug “G” must not be loosened or removed as actuator will lose oil charge.

MAINTENANCE VIDEOS

Field Maintenance Videos on filling and bleeding Air/Oil Tandem Actuators are now available. Contact your local PHD distributor call our toll free number: 1-800-624-8511.

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