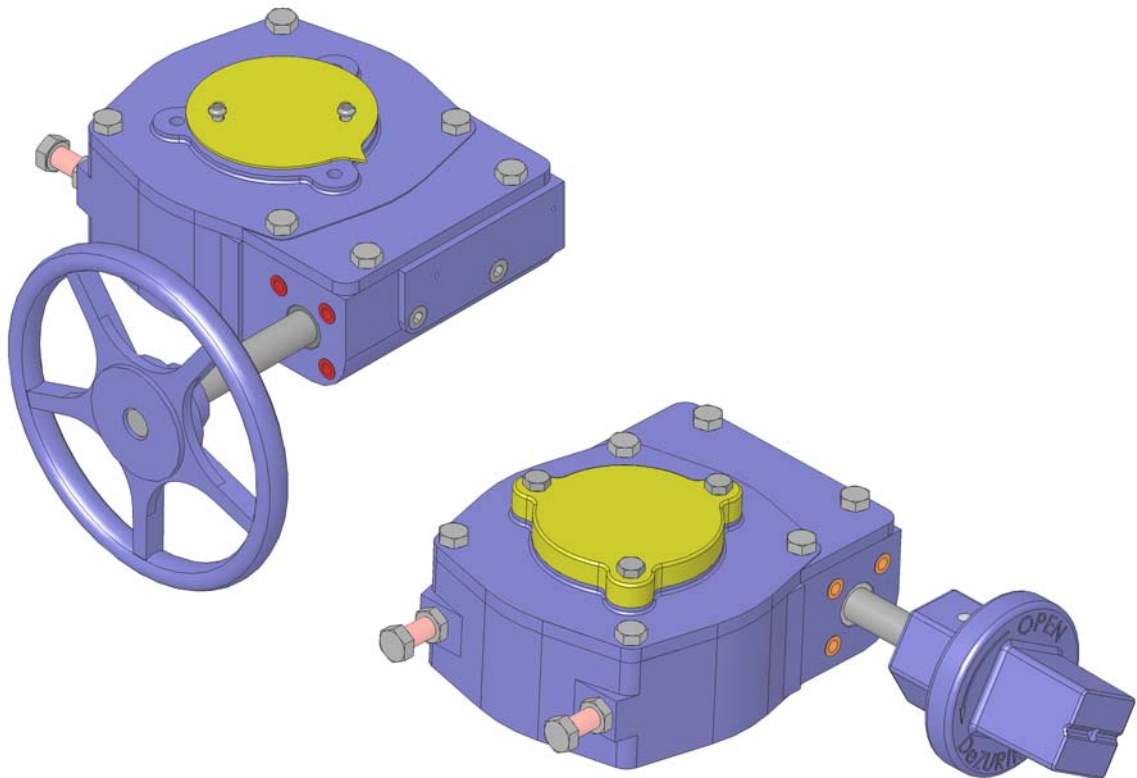




FIELD INSTRUCTIONS REPLACING INPUT SHAFTS ON MANUAL G-SERIES ACTUATOR



Instruction **D10473**
March 2009

DeZURIK

Field Instructions Replacing Input Shafts on Manual G-Series Actuator

Instructions

These instructions provide information about Manual G-Series Actuators. They are for use by personnel who are responsible for installation, operation and maintenance of Manual G-Series Actuators.

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, which have been removed from service with suitable protection for any potential pipeline material in the valve.

Inspection

Your actuator parts have 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

Recommended spare parts are listed on the assembly drawing. These parts should be stocked to minimize downtime.

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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Parts Identification

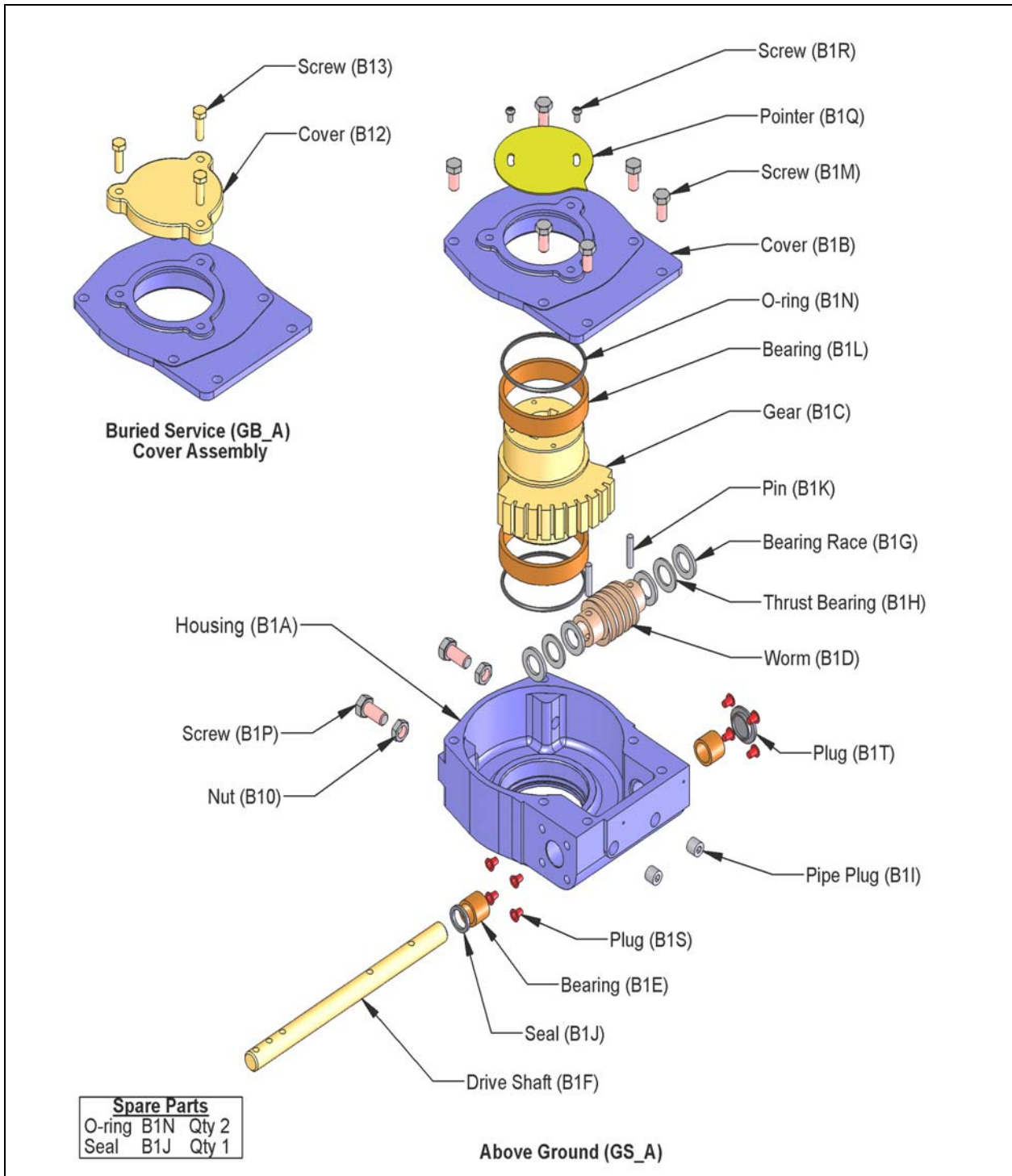


Figure 1— Actuator Parts Identification

Actuator Disassembly

The following procedure can be preformed without removing the actuator from the valve.



WARNING!

Flow in the pipeline with the actuator removed or disassembled can slam the valve closed causing personal injury and damage the flow system. Shut down the flow in the pipeline before removing or servicing the actuator.

1. Discontinue flow and relieve pipeline pressure.
-



WARNING!

If the actuator is mounted on an Eccentric Plug valve which is mounted in a vertical pipeline, or mounted in a horizontal pipeline with the plug stem horizontal, there is a chance that gravity will cause the plug to swing to a lower position in the valve body when the actuator is removed or serviced.

To avoid this hazard, rotate the plug to the lowest position before removing or servicing the actuator.

2. Close the valve or (for Eccentric Plug valves, rotate the plug to the lowest position in the valve body).
3. **Above Ground Service (GS_A) actuator only** - Note the position of the pointer (B1Q), then remove the screws (B1R) and pointer.
4. Remove the screws (B1M) and cover (B1B).
5. Note the position of the gear (B1C) in the housing (B1A), then slide the gear (B1C) out of the housing.
6. Remove the two pipe plugs (B1I) from the housing (B1A).
7. Rotate the drive shaft (B1F) until the pins (B1K) line up with the pipe plug holes in the housing (B1A).
8. Drive both pins (B1K) thru the worm (B1D) and drive shaft (B1F).
9. Slide the drive shaft (B1F) out of the housing (B1A).
10. Remove old gasket sealant from the top of the housing (B1A) and bottom of the cover (B1B).

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Actuator Assembly

1. Slide the drive shaft (B1F) into the housing (B1A) and thru bearing race (B1G), thrust bearing (B1H), bearing race (B1G), worm (B1D), bearing race (B1G), thrust bearing (B1H) and bearing race (B1G).
2. Rotate the drive shaft (B1F) until the pin holes in the drive shaft and the worm (B1D) line up.
3. Drive the two pins (B1K) thru the worm (B1D) and drive shaft (B1F).
4. Apply removable thread sealant to the threads of pipe plugs (B1I) and install the pipe plugs flush or below the surface of the housing (B1A).
5. Grease the bearing (B1L) in the housing (B1A) and slide the gear (B1C) into the bearing in the position noted in Step 5 of the ACTUATOR DISASSEMBLY section.
6. Apply a liberal amount of Lithium based grease such as Shell Alvania EP2 or Mobilux EP2 to the gear (B1C), bearings (B1L) and worm (B1D).
7. Insert the drive key into the valve plug/gear (B1C) keyway.
8. Apply a light film of grease to o-ring (B1N) in the cover (B1B).
9. Apply a bead of silicone sealant DOW RTV-732 (1055515) or similar to the housing (B1A) or cover (B1B) mating surface. Grease the bearing (B1L) in the cover, slide the cover onto the gear (B1C) and fasten with screws (B1M) to the housing.
10. **Above Ground Service (GS_A) actuator only** - Fasten the pointer (B1Q) to the gear (B1C) with the two screws (B1R) in the position noted in Step 4. of the ACTUATOR DISASSEMBLY section.
11. Check the closed position stop setting and readjust if necessary as described in the “STOP ADJUSTMENT” section of standard instruction manual.
12. Pipeline flow may now be restored.