



DeZURIK FSDI FLOORSTAND
WITH POSITION INDICATOR
USED WITH MANUAL GEAR ACTUATORS

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DeZURIK

FSDI Floorstand with Position Indicator used with Manual Gear Actuators

Instructions

These instructions provide information about FSDI Floorstands with Position Indicator. They are for use by personnel who are responsible for installation, operation and maintenance of floorstands.

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 FSDI Floorstand 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.

Table of Contents

Description - - - - -	4
Lubrication - - - - -	4
Tools Required - - - - -	4
Installation	
(LA-Series, T-Series, MG-Series, Mastergear & Rotork) Actuators - - - - -	4
(G-Series) Actuators - - - - -	5
Pointer Adjustment - - - - -	5
Field Mounting ACC* SJ (Slip Joint) Option - - - - -	5

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Description

The FSDI Floorstand with Position Indicator can be used with most DeZURIK and purchased rotary actuators. The handwheel is mounted on a floorstand and is extended from the valve/actuator assembly to allow remote operation of hard-to-reach valves. This model has a highly visible position indicator.

Lubrication

The floorstand has been lubricated at the factory and requires no additional lubrication. If disassembled, lubricate the gears using one of these lubricants:

- Keystone Zeniplex-1 (**recommended**)
- Amoco Amolith Grease #1-EP (alternate)
- Amsoil GHD (alternate)
- Mobil Mobilux EP 1 (alternate)
- Petro-Canada Vultrex MPG EP 1 (alternate)
- Shell Alvania EP 1 (alternate)
- Texaco Multifak EP 1 (alternate)

For lubrication requirements of the valve or actuator, see the LUBRICATION sections in the Valve Instructions and the Actuator Instructions.

Tools Required

The floorstand is assembled using SAE fasteners. To service this unit you will need combination wrenches, Allen wrenches, a pin punch and a dead blow hammer.

Installation

The installation procedure depends upon which type of actuator is used.

(LA-Series, T-Series, MG-Series, Mastergear & Rotork) Actuators

When connecting the floorstand to these actuators, it is very important that the floorstand output shaft be directly above (or below) the actuator input shaft. Use a plumb bob to align the floorstand and actuator.

1. Calculate the length of pipe required, and cut the pipe furnished with the floorstand to this length.
2. Slide a coupling into the end of the extension pipe.
3. Drill a 1/4-inch-diameter hole through the pipe and coupling, then drive a 1/4-inch-diameter pin into the hole.
4. Repeat steps 2 and 3 to fasten a coupling to the other end of the pipe.
5. **For LA-Series, MG-Series, Mastergear & Rotork actuators:** Pin the coupling to the shaft. The holes have already been drilled.

For T-Series actuators: Install a key in the actuator input shaft; then set the keyed coupling on the shaft so the key engages the keyway in the coupling.

6. While holding the extension pipe straight up, lower the floorstand onto the pipe so the floorstand output shaft slides into the coupling and fasten the floorstand to the floor.
7. Drill a 1/4-inch-diameter hole through the floorstand output shaft using the holes in the coupling as guides.
8. Drive a 1/4-inch-diameter pin into the shaft to secure the coupling to the floorstand output shaft.
9. Adjust the pointer as described in the POINTER ADJUSTMENT section of these instructions.

Installation *(Continued)***(G-Series) Actuators**

1. After the valve and floorstand have been mounted in place, connect them with a piece of 7/8-inch-diameter bar stock cut to the correct length.
2. With the 7/8-inch bar stock slid into the universal couplings, drill 1/4-inch-diameter holes through the bar stock and couplings. Use the hole in the side of the coupling as a guide.
3. Drive a 1/4-inch-diameter pin into each of the holes to connect the bar stock and couplings.
4. Adjust the pointer as describe in the POINTER ADJUSTMENT section of these instructions.

Pointer Adjustment

1. Using the handwheel, close the valve.
2. Loosen the pointer set screw until the pointer turns freely.
3. Turn the pointer until it points to the word "SHUT", then tighten the setscrew.
4. Open the valve to check pointer alignment. If the OPEN position is more important in your application, it may be necessary to loosen the set screw and turn the pointer until it points to the word "OPEN." Tighten the setscrew.

Field Mounting ACC*SJ (Slip Joint) Option

Use the following procedure for mounting the ACC*SJ (Slip Joint) option to an existing FSDIR Floorstand (See Figure 1 for parts identification):

If the existing FSDIR Floorstand is attached to the valve in a pipeline, the floorstand will need to be removed from the extension. Before disassembly, close the valve, relieve the pressure and stop the flow in the pipeline.

**WARNING!**

Relieve the pressure and stop the flow in the pipeline. Pressure and/or flow with the extension or actuator removed can cause the valve to slam closed, and can cause water hammer damage to the valve and other pipeline equipment.

1. Set the floorstand assembly to the closed position.
2. Remove pointer (G11):

For floorstand without secondary gear box:

- a. Remove the set screw (G12) from the pointer (G11) and slide the pointer off the pointer shaft (G16).

For floorstand with secondary gear box:

- a. Remove the set screw (G12) from the pointer (G11) and slide the pointer off the pointer shaft (G16).
- b. Remove the screws (G40) and cover (G39) from the gear housing fab (G43).

Field Mounting ACC*SJ (Slip Joint) Option *(Continued)*

- c. Loosen set screws (G17) in both collars (G44) and slide the shaft (G29) and spur gear (G42) towards the dial (G10).
 - d. Drive the pin (G45) out of the worm gear (G41) and shaft (G16).
 - e. Remove the two nuts (G38) from the studs (G37) and slide the gear housing fab (G43) off the studs and extended shaft (G16).
3. Remove the screws (G25) from the housing (G24).
 4. Slide the handwheel, housing and bearing retainer sub-assembly off the floorstand (G3).
 5. Cut off the lower end of the shaft (G22) so the dimension from the bottom of the bearing retainer (G26) to the cut is 21.95".
 6. **.88" & 1.00" diameter extensions** require a bushing (G52) to be pressed into the coupling end of the lower slip joint (G51B) and using a ¼" drill bit, drill thru the bushing using the existing holes in the lower slip joint.
 7. Slide the coupling end of the upper slip joint (G51A) onto the lower end of the shaft (G22), using a ¼" drill bit, drill thru the shaft using the existing holes in the upper slip joint.
 8. Attach the coupling end of the upper slip joint (G51A) to the lower end of the shaft (G22) using pin (G50).
 9. Slide the handwheel, housing and bearing retainer sub-assembly onto the floorstand (G3) and attach the sub-assembly to the floorstand using screws (G25). Tighten the screws to 63 ft lbs for zinc plated bolts and 38 ft lbs for stainless steel.
 10. Replace the pointer (G11):

For floorstand without secondary gear box:

- a. Slide the pointer (G11) onto the pointer shaft (G16) and attach with set screw (G12).

For floorstand with secondary gear box:

- a. Slide the gear housing fab (G43) over the studs (G37) and extended shaft (G16). Slide the worm gear (G41) onto the extended shaft before sliding the gear housing fab completely onto the extended shaft.
 - b. Tighten two nuts (G38) onto the studs (G37) to secure the gear housing fab (G43) to the indicator housing (G24).
 - c. Pin the worm gear (G41) to the shaft (G16) with pin (G45).
 - d. Slide the shaft (G29), spur gear (G42) and collars (G44) so the spur gear is centered on the worm gear (G41) and the collars are against the inside walls of the gear housing fab (G43). Tighten the collar setscrews (G17).
 - e. Apply a heavy coat of grease to the gears.
 - f. Attach the cover (G39) to the gear housing fab (G43) with screws (G40).
 - g. Attach the pointer (G11) to the indicator shaft (G16) with set screw (G12).
11. Attach the coupling end of the lower slip joint (G51B) to the extension using pin (G50).
 12. Slide the floorstand assembly onto the lower slip joint (G51B) and attach the floorstand assembly to the floor.

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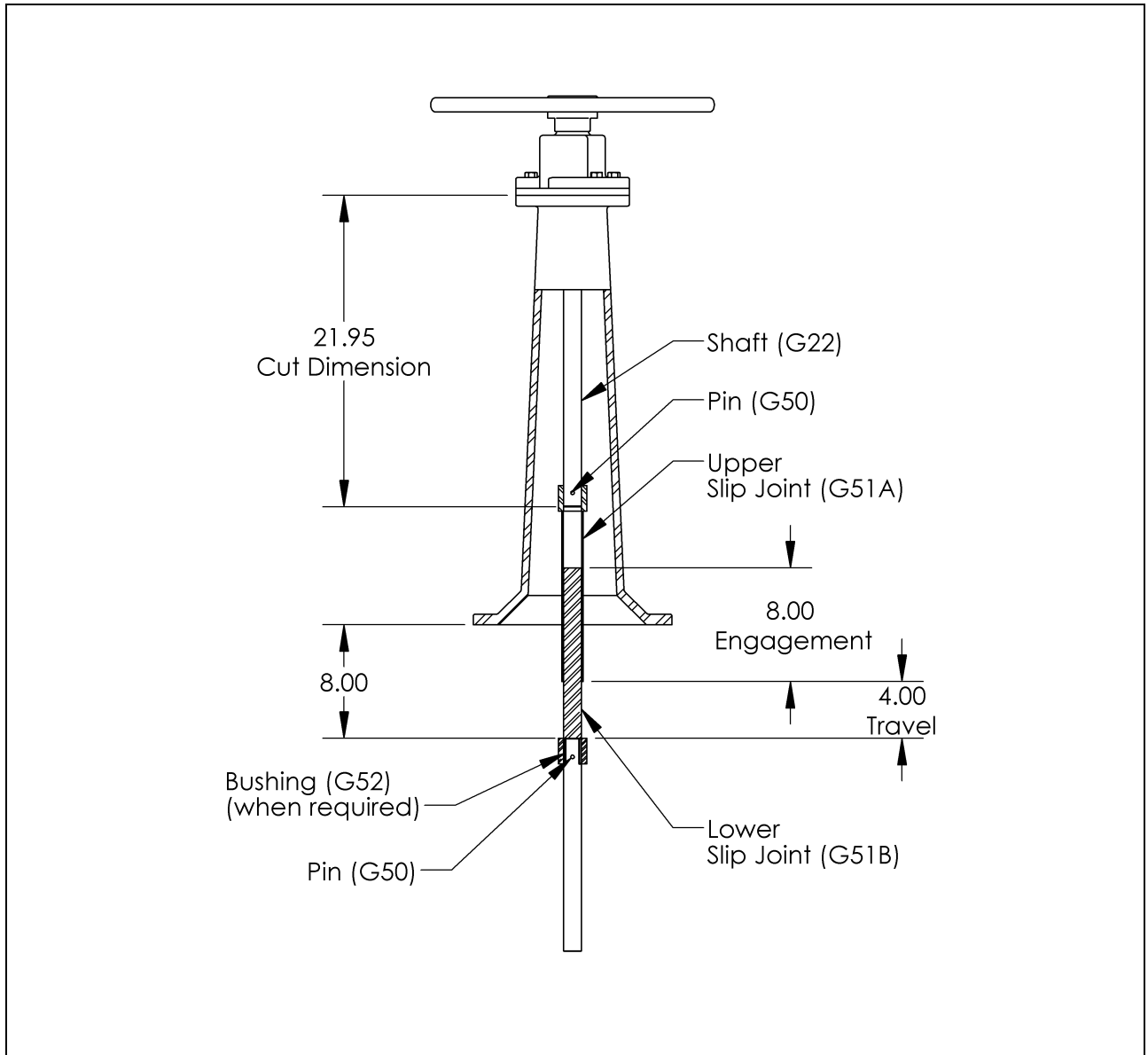


Figure 1 — ACC*SJ Slip Joint Option