

Handline Nozzle

Nozzle and Ball Shutoff

Seat Adjustment and Replacement Instructions

These instructions are intended to be used with Elkhart Brass Field Service Kits (FSKs) for the corresponding handline nozzles or shutoffs.

Tools Needed:

- Straight/Slotted Screwdriver
- 3/32" Allen Wrench
- Catch Cup for Ball Bearings
- Red Loctite 262 or equivalent
- Dow Corning #7 silicone grease or equivalent
- Seat Wrench
 - 1" or 1.5" Shutoff:
P/N 71251000
 - 1.75", 2", or 2.5" Shutoff:
P/N 71252000



NOTE: You can view videos of the following repair instructions on the Elkhart Brass Product Support YouTube channel: www.youtube.com/user/ElkhartBrassSupport

SEAT ADJUSTMENT

1. Put the bale handle in the forward CLOSED position, and remove the slotted Set Screw in the base adapter or swivel.
2. Drain ball bearings from the Swivel Base (QTY: 1" = 23; 1.5" = 32; 2.5" = 52) into catch cup.
3. Remove the Swivel Base from the Base Adapter.
4. Locate the Allen-head Set Screw that secures the Base Adapter to the shut-off body, and remove using the 3/32" Allen wrench.
5. Remove Base Adapter from the nozzle body by turning it counterclockwise with a strap wrench.
6. Check Base Adapter O-Ring for cuts, gouges, or any other damage and replace if damaged.
7. With the bale handle in the CLOSED position, insert the Seat Wrench over the valve ball to adjust the seat position. There are notches on the seat that the Seat Wrench blades will engage.
 - To tighten seat, turn counterclockwise. To loosen seat, turn clockwise. Ensure the seat has a snug fit and is not too tight or too loose. Too loose and nozzle will leak. Too tight and the ball will damage the seat. Wet the seat and ball with water, and then open and close the shutoff a couple of times to check the seat tightness.
8. After adjustments are made, lubricate the O-Rings with silicone grease and reinstall all components in reverse order:
 - Base adapter > Body Set Screw > Swivel Base > Ball Bearings > Slotted Set Screw
 - Ensure the bottom of the slotted Set Screw is flush with base adapter depth. If it is too deep the ball bearings will be too tight to rotate. Too shallow, the ball bearings will bind and get caught on the set screw hole. Once set screw is snug, rotate swivel to feel tightness.

SEAT REPLACEMENT – SQUARE DRIVE ACTUATORS

1. Follow steps 1-5 from the Seat Adjustment section to fully remove the Base Adapter. Then position the bale handle back and in the OPEN position.
2. Unscrew the Pivot Bolt and Actuator Shaft Screw that hold the bale handle onto the nozzle body.
3. Replace Pivot Bolt & Pivot Bolt O-Ring with new parts from FSK.
4. Remove the valve ball from the shutoff body, and check for damage. Replace if damaged.
 - Note the orientation of the valve ball as it will need to be re-installed in the same way.
5. Remove the bale handle Actuator Shaft by driving it through the inside of the shutoff body. Once removed replace the Actuator Shaft & Actuator Shaft O-Ring with new parts from FSK.
 - NOTE: The bale handle will fall free once the actuator shaft is removed. Make sure to note the correct orientation of the bale handle as it will need to be re-assembled in the same way.
6. Using a Seat Wrench, remove the seat by turning counterclockwise.
7. Lubricate and install new seat O-Ring with silicone base grease, and install new seat into nozzle body by turning clockwise with a Seat Wrench. Take care to not damage the nylon threads of the seat by cross threading it.
 - Screw the seat in far enough to expose a few threads of the shutoff body.
8. Position the bale handle in the CLOSED position, with the square cutout over the round hole in the nozzle body, and the round cutout over the threaded hole in the nozzle body.
9. Lubricate and install the new Actuator Shaft O-Ring, and install the new Actuator Shaft through the inside of the nozzle body into the square in the bale handle. The Actuator Shaft drive blade should be perpendicular to the waterway.
10. Rotate the bale handle to the OPEN position, orient the flat face of the valve ball toward the bale handle, and re-insert the valve ball into the shutoff body by aligning the groove in the valve ball with the drive blade of the Actuator Shaft. This ensures the flat face of the valve ball is positioned toward the seat when the bale is in the CLOSED position.
11. Install the new Pivot Bolt through the hole in the bale handle into the shutoff body and valve ball. Secure with red Loctite 262 or equivalent. Tighten until snug.
12. Install new Actuator Shaft Screw. Secure with red Loctite 262 or equivalent. Tighten until snug.
13. Follow steps 6-8 from the Seat Adjustment section to finish assembling the nozzle.

SEAT REPLACEMENT – OLD STYLE ROUND DRIVE ACTUATORS

1. Follow steps 1-5 from the Seat Adjustment section to fully remove the Base Adapter. Then position the bale handle back and in the OPEN position.
2. Unscrew the Pivot Bolt and Actuator Shaft Screw that hold the bale handle onto the nozzle body.
3. Replace Pivot Bolt & Pivot Bolt O-Ring with new parts from FSK.
4. Remove the valve ball from the shutoff body, and check for damage. Replace if damaged.
 - Note the orientation of the valve ball as it will need to be re-installed in the same way.
5. Remove the bale handle Actuator Shaft by driving it through the inside of the shutoff body. Replace the O-Ring with new O-Ring from FSK.
 - NOTE: The bale handle and Drive Pin will fall free once the actuator shaft is removed. Make sure to note the correct orientation of the bale handle as it will need to be re-assembled in the same way.
6. Using a Seat Wrench, remove the seat by turning counterclockwise.
7. Lubricate and install new seat O-Ring with silicone base grease, and install new seat into nozzle body by turning clockwise with a Seat Wrench. Take care to not damage the nylon threads of the seat by cross threading it.
 - Screw the seat in far enough to expose a few threads of the shutoff body.
8. Position the bale handle in the OPEN position.
9. Lubricate and install the new Actuator Shaft O-Ring, and re-install the Actuator Shaft through the inside of the nozzle body. The Actuator Shaft drive blade should in line with to the waterway.
10. With the bale handle in the OPEN position, orient the flat face of the valve ball toward the bale handle, and re-insert the valve ball into the shutoff body by aligning the groove in the valve ball with the drive blade of the Actuator Shaft. This ensures the flat face of the valve ball is positioned toward the seat when the bale is in the CLOSED position.
11. Install the new Pivot Bolt & O-Ring through the hole in the bale handle into the shutoff body and valve ball. Secure using red Loctite 262 or equivalent. Tighten until snug.
12. Align the grooves in the bale handle and Actuator Shaft and install the new drive pin.
13. Install the new Actuator Shaft Screw onto the Actuator Shaft using red Loctite 262 or equivalent. Tighten until snug.
14. Follow steps 6-8 from the Seat Adjustment section to finish assembling the nozzle.