



How to Repair High-Pressure Swivel, 3/8", 90 Degree Using Kit #12610

These instructions will demonstrate how to assemble a 90 Degree, 3/8" High-Pressure Swivel with kit #12610

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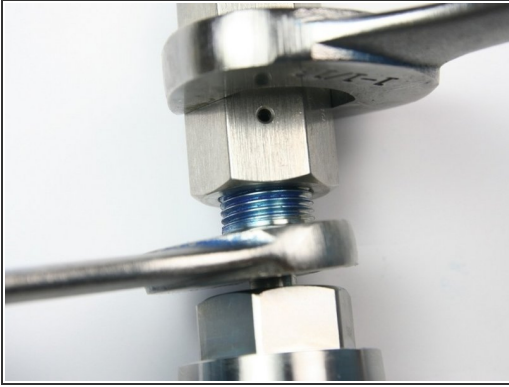
TOOLS:

- .450" gauge pin (1)
- .575" gauge pin (1)
- Arbor Press (1)
- 1-1/8" wrench (1)
- Large Adjustable Wrench (1)
- 13/16" wrench (1)

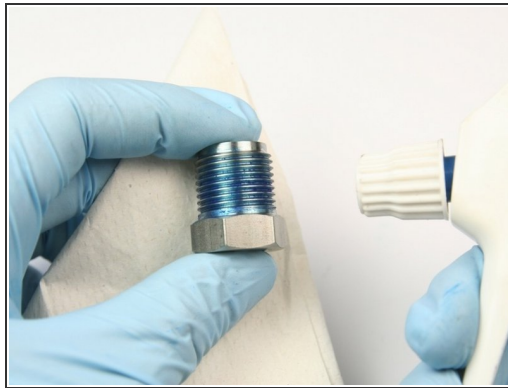
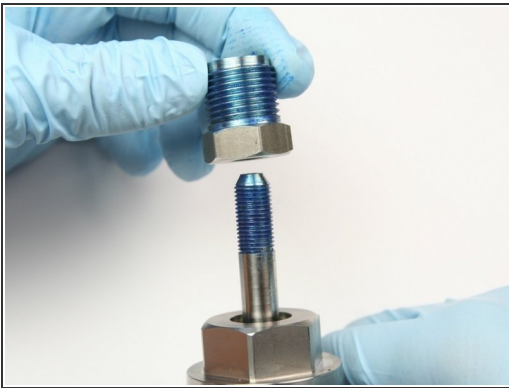


PARTS:

- 3/8" Minor Swivel Rebuild Kit #12610 (1)
- O-ring #12662-009 (included in kit) (1)
- O-ring #11679-025 (included in kit) (1)
- O-ring #11679-128 (included in kit) (1)
- O-ring #11679-016 (included in kit) (1)
- 3/8" High-Pressure Swivel Seal #13862 (included in kit) (1)
- 3/8" High-Pressure Swivel Bearing Back-up #13861 (included in kit) (1)
- Thrust Bearing, #12181 (included in kit) (1)
- Thrust Washer #12182 (included in kit) (2)
- Metal Cased Wiper, 3/8" Shaft #13881 (included in kit) (1)
- High-Vacuum Grease #11447 (included in kit) (1)
- 3/8" High-Pressure Swivel Shaft #13860 (1)
- 3/8" High-Pressure Swivel Seal Housing #13863 (1)
- 3/8" High-Pressure Swivel Bearing Housing #13864 (1)
- 3/8" High-Pressure Front Swivel Bushing #13882 (1)
- O-ring Lube #13969 (1)
- Blue Goop #11111 (1)
- Lithium Grease (1)

Step 1 — How to Repair High-Pressure Swivel, 3/8", 90 Degree Using Kit #12610

- Loosen the high-pressure gland nut from the coupler with a 1-1/8" and 13/16" wrench.
- Unthread the high-pressure gland from the coupler.
- Unthread the collet from the swivel shaft.

Step 2

- Remove the high-pressure gland from the swivel shaft.
- Clean the high-pressure gland and the collet of all Blue Goop.
- Loosen the high-pressure gland from the seal half of the swivel housing with a 13/16" wrench.

Step 3



- Unthread the high-pressure gland from the seal half of the swivel housing.
- Clean the high-pressure gland of all Blue Goop.
- Loosen the bearing half from the seal half of the swivel housing with an adjustable wrench and a 1-1/8" wrench.

Step 4



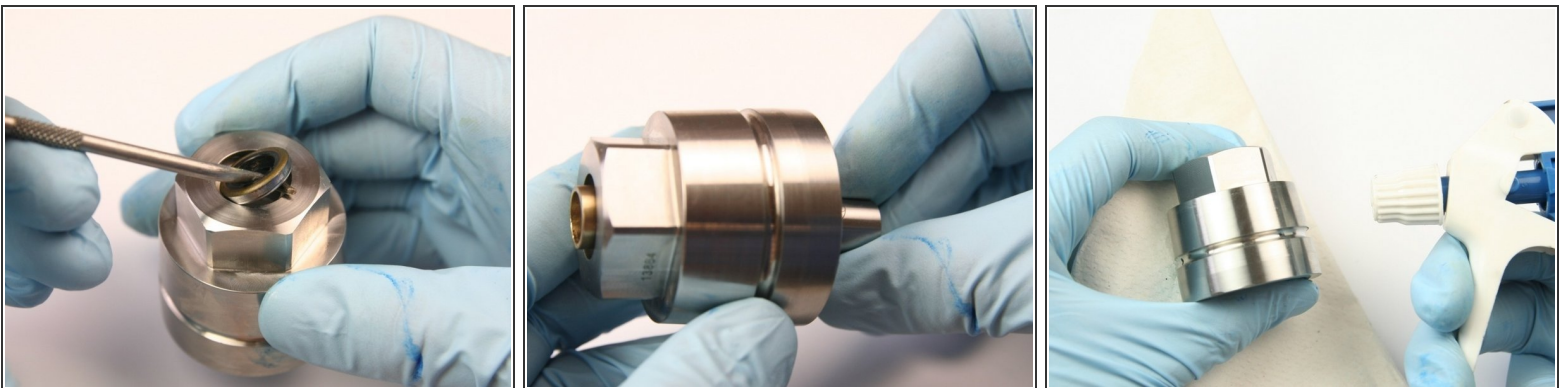
- Unthread the bearing half from the seal half of the swivel housing.
- Pull the swivel shaft out of the back-up bearing.
- Remove the thrust bearing and the thrust washers from the swivel shaft.

Step 5



- Remove the O-ring from the groove of the swivel shaft.
- Clean the swivel shaft of all lithium grease and Blue Goop with isopropyl alcohol or similar cleaning agent.
- Remove the O-ring from the outside groove of the bearing half of the swivel housing.

Step 6



- Remove the metal capped wiper from the cavity of the bearing half of the swivel housing with a pick.
⚠ Do not scratch or damage the bearing half of the swivel housing with the pick.
- Use a .450" gauge pin to press the swivel bearing out of the bearing half of the swivel housing.
- Clean the bearing half of the swivel housing with isopropyl alcohol or a similar cleaning agent.

Step 7



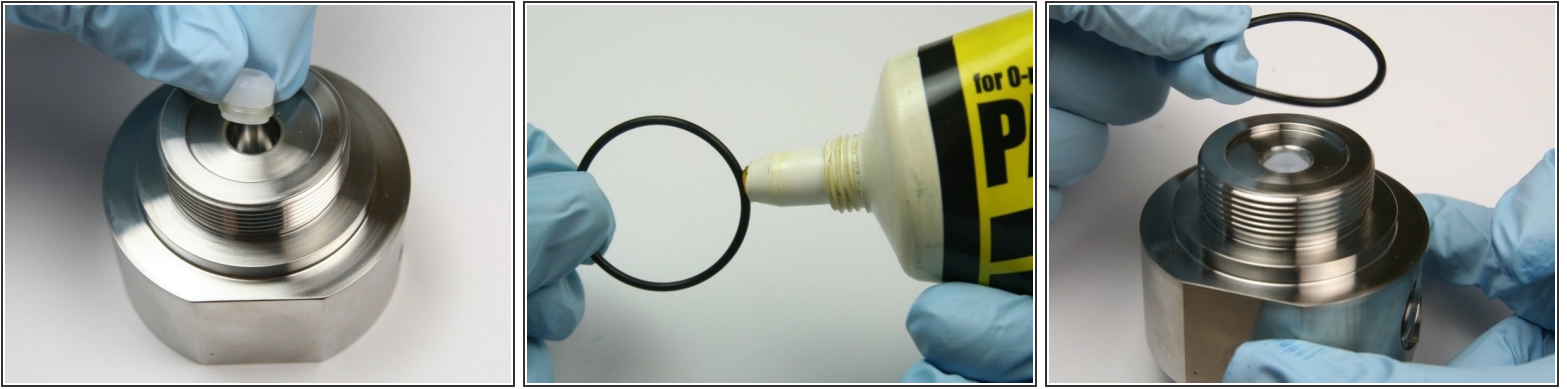
- Remove the bearing back-up from the seal half of the swivel housing.
 - Remove the O-ring from the seal half of the swivel housing.
 - Use a pick to remove the high-pressure seal inside the seal half of the swivel housing.
- ⚠ Do not scratch or damage the ID of the seal half of the swivel housing with the pick.**

Step 8



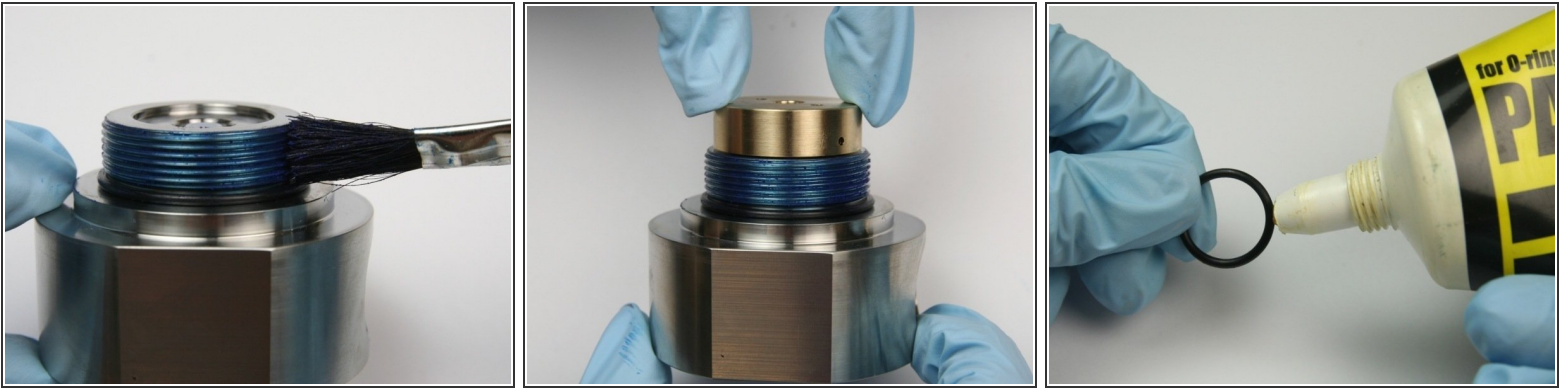
- Clean the seal half of the swivel housing of all blue goop with isopropyl alcohol or a similar cleaning agent.
- Apply a layer of high vacuum grease into the cavity of the seal half of the swivel housing.
- Apply a layer of high vacuum grease to the high-pressure seal.

Step 9



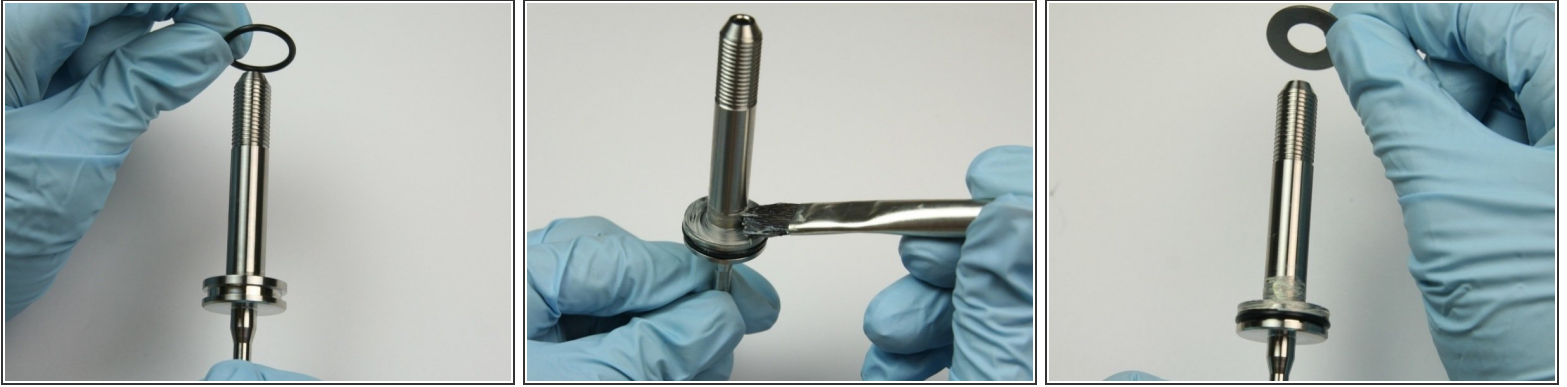
- Put the high-pressure seal (O-ring side first) into the cavity of the seal half of the swivel housing.
- Apply a layer of O-ring lube to the medium sized O-ring.
- Put the O-ring onto the threads of the seal half of the swivel housing and push to the base of the seal half.

Step 10



- Apply blue goop to the external threads on the seal half of the swivel housing.
- Put the new back-up bearing (with cupped side down) on top of the seal half of the swivel housing.
- Apply O-ring lube to the smallest O-ring.

Step 11



- Put the smallest O-ring onto the swivel shaft groove.
- Apply a layer of lithium grease to the base of the swivel shaft.
- Slide the first thrust washer onto the swivel shaft.

Step 12



- Apply a layer of lithium grease to the top of the thrust washer.
- Slide the thrust bearing onto the swivel shaft.
- Apply a layer of lithium grease to the top of the thrust bearing.

Step 13



- Slide the second thrust washer onto the swivel shaft.
- Apply a layer of lithium grease to the top of the second thrust washer.
- Apply a layer of high vacuum grease to the non-threaded side of the swivel shaft.

Step 14



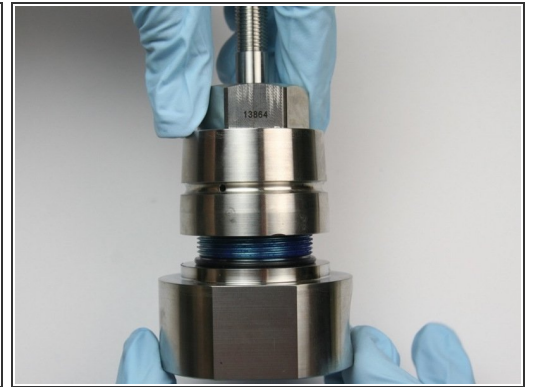
- Put the short end of the swivel shaft into the back-up bearing.
- Put the swivel bearing into the cavity of the bearing half of the swivel housing.
- Press the swivel bearing down into the cavity using a .575" gauge pin (if necessary, also use an arbor press).

Step 15



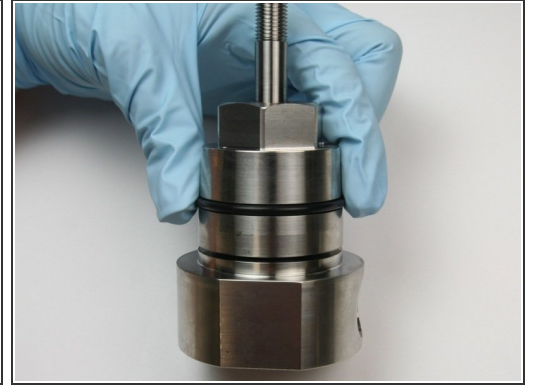
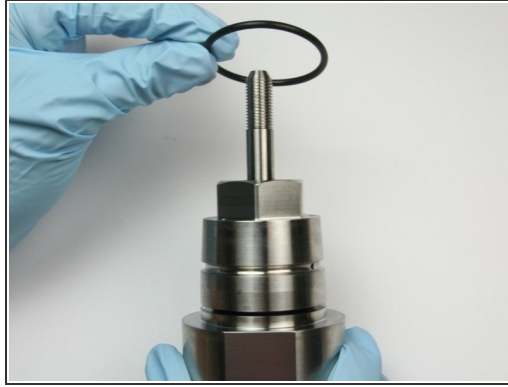
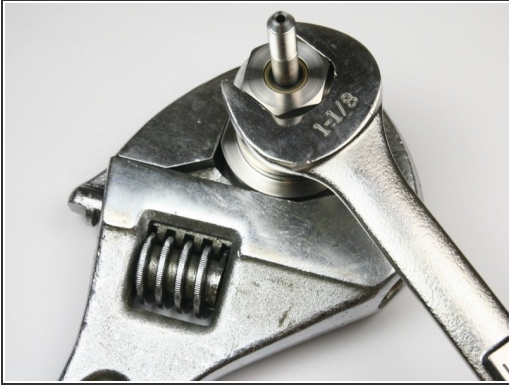
- Make sure the swivel bearing is flush with the top of the cavity.
- Using an arbor press, press the metal cased wiper into the cavity of the bearing half of the swivel housing (with the rubber-side down).
- Using a .575" gauge pin, press wiper down with an arbor press until wiper bottoms out

Step 16



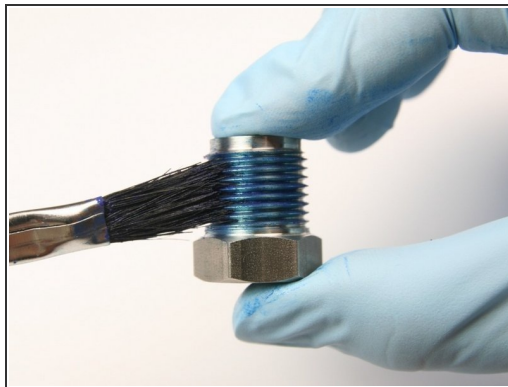
- Make sure the wiper sits just below the top of the cavity.
- Put the seal half into the bearing half of the swivel housing.
- Thread the bearing half onto the seal half of the swivel housing.

Step 17



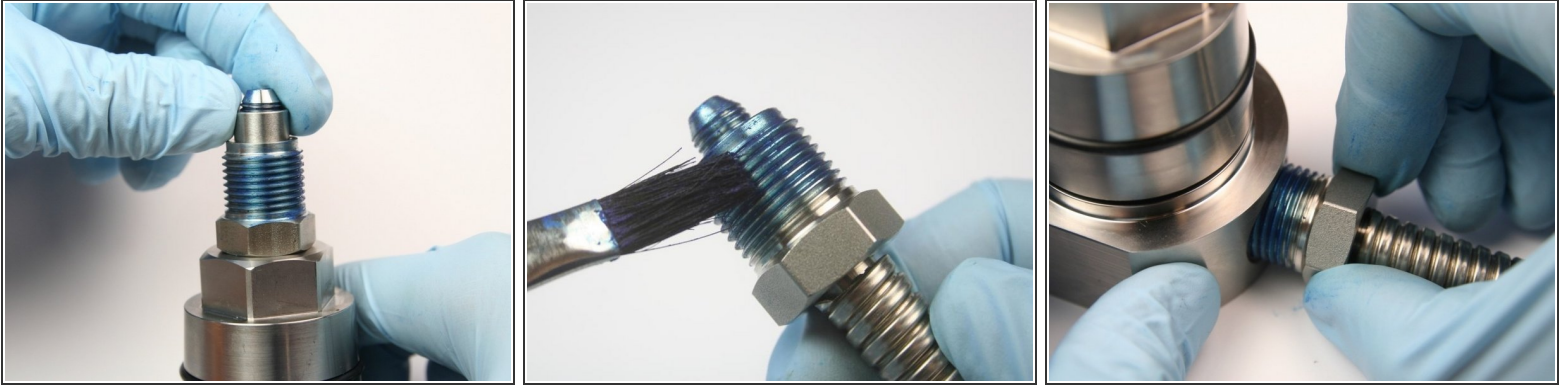
- Tighten the bearing half of the swivel housing using a 1-1/8" wrench and a large adjustable wrench on the seal half of the swivel housing.
- Roll the dust protecting O-ring over the bearing half of the assembly.
- Roll the dust protecting O-ring until it rests in the cavity of the swivel housing so it is covering the two small holes.

Step 18



- Apply Blue Goop to the threads of the swivel shaft.
- Apply Blue Goop to the high-pressure gland threads.
- Put the high-pressure gland onto the swivel shaft with the threads up.

Step 19



- Thread the 3/8" collet onto the swivel shaft.
- Apply Blue Goop to the threads of the high-pressure gland nut.
- Thread the high-pressure gland nut into the swivel housing.

Step 20



- Tighten the high-pressure gland into the swivel housing with a 13/16" wrench.