

Service Manual

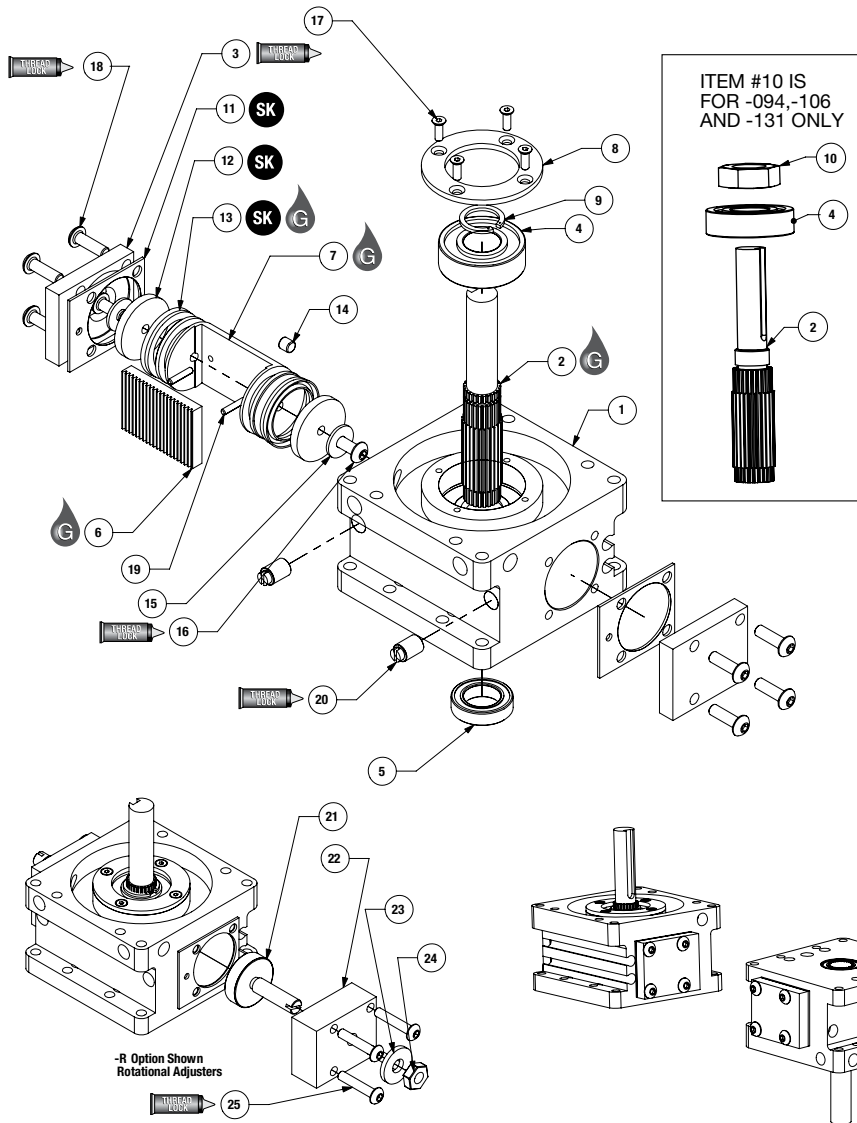
ROBOHAND | DRG Series



WARNING: This is a controlled document. It is your responsibility to deliver this information to the end user of the Destaco Robohand product. Failure to deliver this could result in your liability for injury to the user or damage to the machine. For copies of this manual, call your Customer Service Representative at 1.248.836.6700

DRG SERIES

Rotary Actuators | Maintenance and Assembly Procedure



Item	Qty	Name
01	1	Body
02	1	Pinion Shaft
03	2	End Plate
04	1	Upper Bearing
05	1	Lower Bearing
06	1	Rack
07	1	Piston
08*	1	Bearing Retainer
09*	1	Retaining Ring
10	1	Hex Nut
11	2	Gasket
12	2	Bumper
13	2	U-cup
14	1	Magnet
15	2	Bumper Washer
16	2	Bumper Screw
17	4	Retainer Screw
18	8	End Plate Screw
19	2	Roll Pin
20*	2	Fixed Orifice
21	2	Angle Adjuster
22	2	End Plate Rotational Adjuster
23	2	Seal Washer
24	2	Hex Nut
25	8	End Plate Rotational Adj. Screw

*NOTES:

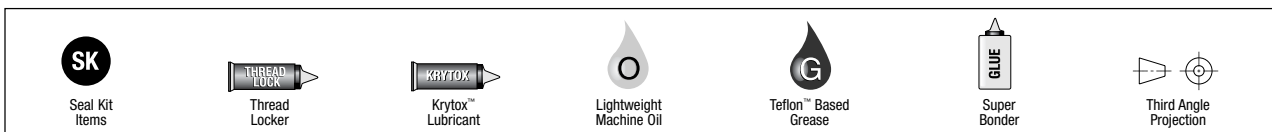
- 1) Contact the Robohand Sales Department for a complete spare parts list with order numbers and prices.
- 2) Item #09 is for size -075 only.
- 3) Item #10 is for size -094, -106 and -131 respectively.
- 4) Item #20 not in size -131

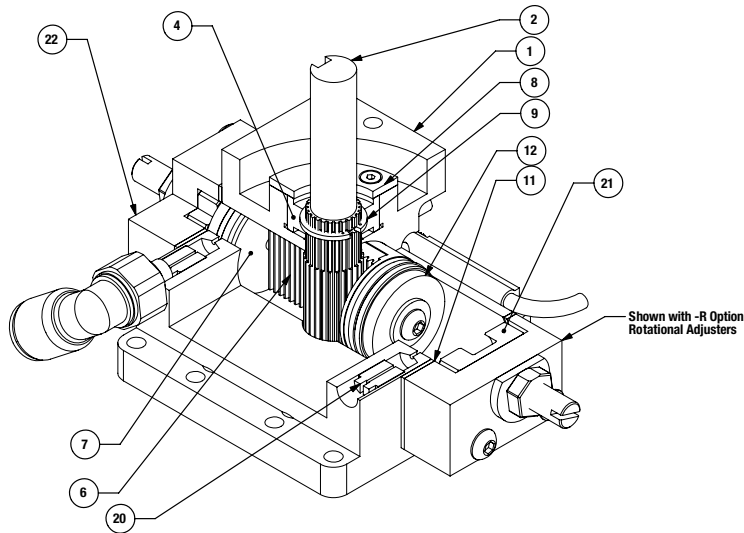
Assembly Procedure

- 1) Press the Upper Bearing #4 onto the Pinion #2.
- 2) Install the Retaining Ring#9 or Hex Nut #10 onto the Pinion #2.
- 3) Assemble the Rack #6 to the Piston #7 with Roll Pins #19.
- 4) Grease the U-Cups #13 and install them onto the Piston #7.
- 5) Press the Magnet #14 into the Piston #7.
- 6) Assemble the Bumper #12, Washers #15 and Bumper Screw #16 onto the Piston #7.
- 7) Lubricate the Body #1 bore and install the Piston Assembly into the body.
- 8) Press the Lower Bearing #5 into the Body #1.
- 9) Locate the Piston assembly so it is aligned with an outer edge of the body.
- 10) Lubricate the Pinion assembly and align the key with the same edge of the Body as the Piston and Press the Pinion into the Body.
- 11) Rotate the Pinion through the full travel and insure that the Piston is correctly located in the Body, adjust the travel of the Piston if necessary.
- 12) Grease the Gasket and install the End Plate #3 onto the Body #1.
- 13) Install the 2 Orifice #20 into the Body #1 screw them in until they bottom.
- 14) Install the Bearing Flange #8 with the 4 Flange Screws #17.

-R Option Assembly Procedure:

- 1) Screw the Angle Adjuster into the End Block Angle Adjuster.
- 2) Place the sealing washer over the threaded extension.
- 3) Screw on the Hex Nut over the Sealing Washer.
- 4) Screw the End Block onto the Body with a Gasket.





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11	2	Gasket
12	2	Bumper
20	2	Fixed Orifice
21	2	Angle Adjuster
22	2	End Plate Rotational Adjuster

***NOTES:**

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- 2) Item #09 is for size -075 only.

Warning: Removal of Orifices will void warranty.

Accessory Installation & Adjustment Instructions

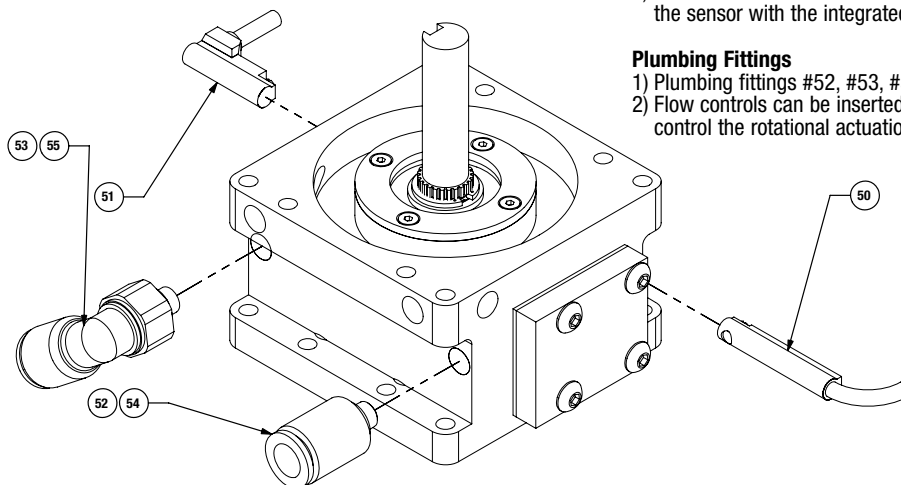
Item	Qty	Name
50	1 or 2	Magneto Resistive Sensor with Quick Disconnect (standard or short barrel)
51	1 or 2	Magneto Resistive Sensor (90° barrel) with Quick Disconnect
52	1 or 2	Fitting Push-in Straight #10-32-1/4 O.D. Tube
53	1 or 2	Fitting Push-in 90° #10-32-1/4 O.D. Tube
54	1 or 2	Fitting Push-in Straight 1/8 NPT, 1/4" O.D. Tube (-131 Only)
55	1 or 2	Fitting Push-in 90° Elbow 1/8 NPT, 1/4" O.D. Tube (-131 Only)

Magneto Resistive Sensors

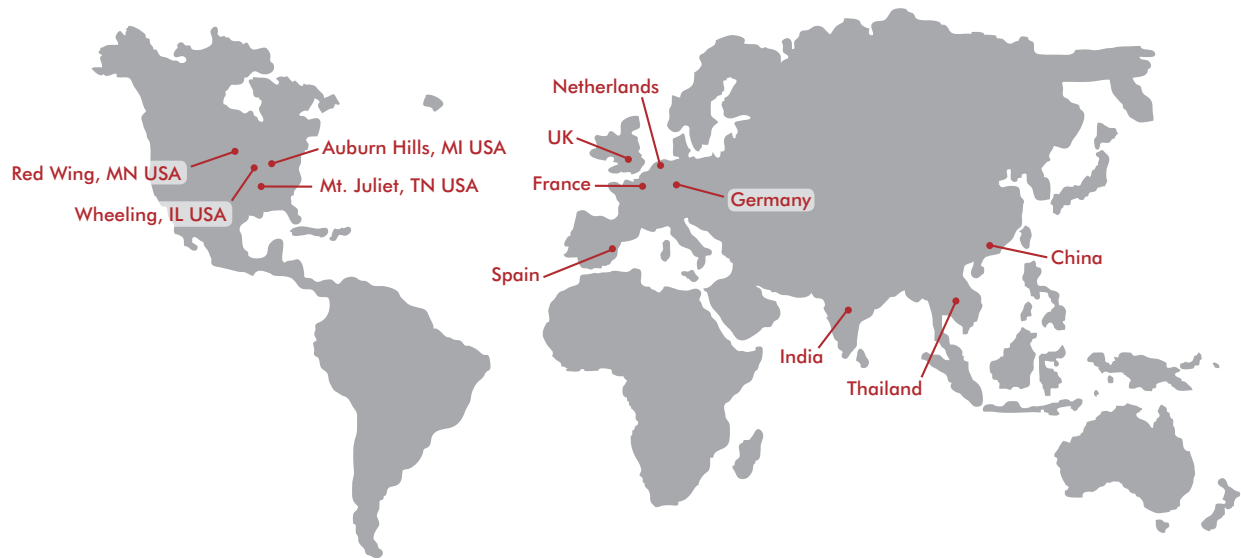
- 1) Insert sensors #50 or #51 from either end of the profile slots and set the sensor with the integrated slotted screw set.

Plumbing Fittings

- 1) Plumbing fittings #52, #53, #54, and #55 can be used in any airport
- 2) Flow controls can be inserted and used in any airport to help control the rotational actuation



Seal Kit Items	Thread Locker	Krytox™ Lubricant	Lightweight Machine Oil	Teflon™ Based Grease	Super Bonder	Third Angle Projection



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