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Assembly / Disassembly Instructions HDL Series Actuator Spring Return Extend (SRE) Application (ATI Drawing No. 6042)

Assembly

1. Place spring cartridge assembly (Item 13) on a flat surface with the O- ring groove facing up.
2. Install O-ring (Item 12) in head groove with a light coat of grease.
3. Install the tie rods (Item 5) into upper head. Be sure that threads do not extend above upper head (Item 13) top surface.
4. Install cylinder tube (Item 6) on upper head. Apply a thin layer of grease to inside surface of cylinder.
5. Install wear ring (Item 8) and quad seal (Item 9) on the piston (Item 7).
6. Install O- ring (Item 10) on piston rod (Item 11).
7. Thread the piston rod (Item 11) into the piston (Item 7).
8. Apply a thin layer of grease to the piston rod (Item 11), to the entire piston (Item 7), and install piston and piston rod assembly into cylinder (Caution: care must be taken as not to cut the piston wear ring and quad seal).
9. Install O-ring (Item 4) on lower head (Item 3) with a light coat of grease.
10. Apply a thin layer of grease to the inside surface of the lower head (Item 3) including the inside of the bearing tube, and install the lower head (Item 3) on the cylinder tube (Item 6).
11. Adjust the tie rods (Item 5), if necessary, so that at least one (1) full thread of each tie rod extends past the nut (Item 2) after installing the lock washer (Item 1) and the nut (Item 2). Check that the tie rod threads are flush with upper head from Step 3. Tighten securely, then torque to recommended specs using a crisscross pattern. See Fig. 1 on the following page for Torque specs.
12. Install bearing seals (Items 14, 16 & 17) on rod bearing (Item 15).
13. Install rod bearing over piston rod (Item 11) and into lower head (Item 3).
14. Install bearing retaining ring (Item 18) into groove on lower head (Item 3).
15. Cycle actuator and check for smooth operation and leaks.



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Disassembly

1. Place spring cartridge assembly (Item 13) on a flat surface with the piston rod (Item 11) facing up.
2. Loosen tie rods (Item 5).
3. Remove lower head (Item 3) from the cylinder tube (Item 6).
4. Remove O-ring (Item 4) from the lower head (Item 3).
5. Remove bearing retaining ring (Item 18) from groove on lower head (Item 3).
6. Remove rod bearing (Item 15) from lower head (Item 3).
7. Remove bearing seals (Items 14, 16 and 17) from rod bearing (Item 15).
8. Remove piston and piston rod assembly (Items 7-11) from cylinder (Item 6).
9. Unthread the piston rod (Item 11) from the piston (Item 7).
10. Remove O-ring (Item 10) from the piston rod (Item 11).
11. Remove wear ring (Item 8) and quad seal (Item 9) from the piston (Item 7).
12. Remove tie rods (Item 5) from upper head (Item 3).
13. Remove cylinder tube (Item 6) from upper head (Item 3).
14. Remove O-ring (Item 12) from head groove (Item 3).