Service Manual

Model 51000
Wyr-Loc Cylinder
Inspection/Servicing

Tools required for servicing the wyr-loc cylinder:

A complete special tool servicing kit or the individual special tools may be purchased directly from Cessna.

Cessna Special Tool Servicing Kit 51100-900
which consists of one each of the following special tools:

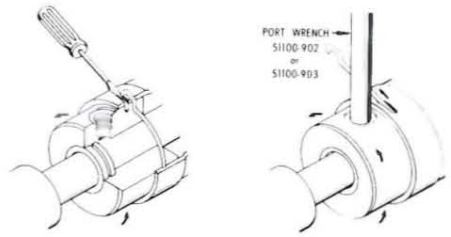
51100-901	Piston Spanner Wrench
51100-902	9/16 - 18 UNF - 3/8 NPTF Port Wrench
51100-903	3/4 - 16 UNF - 1/2 NPTF Port Wrench

Additional Equipment Required:

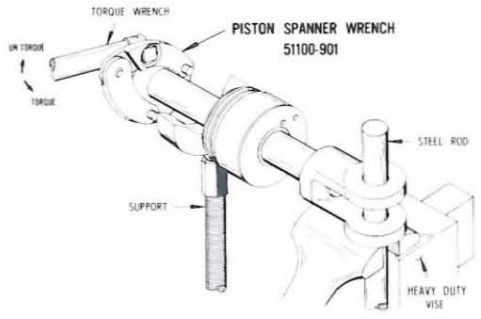
Heavy duty vise
1" diameter steel rod 8" long or 1-1/4" diameter rod 8" long
3/4" drive torque wrench (700 ft. lb. maximum)
Automotive type ring compressor or smooth surface hose clamp to fit O.D. of piston
O-ring hook tool

DISASSEMBLY

1. Drain oil from cylinder and plug all ports. Thoroughly clean outside of cylinder.
2. Clamp barrel of cylinder in vise near head end.
   Note: Scribe line across barrel and bearing to assure proper reassembly.
3. Remove lock ring (5) on bearing end (6) by lifting up on lock ring at the slot with a screwdriver while rotating the bearing. The bearing can be rotated by installing the proper size port wrench in work port in bearing. (A strap wrench or pipe wrench may be used if special port wrench is not available).
   Note: Be sure tab on end of lock ring is in hole in bearing prior to rotating the bearing.



4. Pull out on rod assembly (2) until piston (12) touches bearing (6), then pull on rod (2) until back up washer (7) and o-ring (8) are exposed under slot in barrel. Use an o-ring hook tool to pull out on o-ring and back up washer through slot. Cut both items and pull out through slot in barrel.
5. Remove piston assembly from barrel.



6. Clamp the appropriate size 8" long steel rod (same diameter as pin hole in clevis) in a heavy duty vise in a vertical position and slide clevis end of cylinder rod over steel rod.
7. Rest piston rod on an appropriate support to keep rod from moving while loosening piston.
8. Use spanner wrench and 3/4" socket drive to loosen piston from rod.
   Note: It is only necessary to remove the piston from the rod to properly service the seals in the cylinder. Occasionally the clevis may loosen from the rod before the piston. In the event the clevis should loosen first, use the spanner wrench to retorque the piston and clevis to the rod to the proper torque as noted in the torque chart. Retorque the piston till it moves on the rod. Once again use the spanner wrench to remove the piston from the rod, the piston will now loosen before the clevis loosens.
9. Remove bearing (6) from rod (2).
10. Remove lock ring (5) from head end (14) of cylinder using the same procedure as described when removing the bearing from the barrel. Cut and remove back up washer (7) and o-ring (8) then remove head end (14) from barrel.
11. Remove all o-rings, slipper ring, back up washers, u-cup seal and wiper seal from parts.

INSPECTION

The o-rings, slipper ring, back up washers, u-cup seal, wiper seal and lock rings need not be inspected as they are included in the seal repair kit available for these cylinders and should be replaced as new items.

1. Remove all nicks and burrs from all parts with emery cloth.
2. Inspect I.D. of barrel for scoring and excessive wear.
3. Inspect rod for dents, scratches, scoring or pitting.
4. Inspect O.D. of piston for scoring.