

Acumen Aluminum Hydraulic Jack

Seal Kit Installation: 150T, 165T & 200T

Instructions

Carefully read all instructions before disassembly and assembly.

1. Proper Personal Protective Equipment (PPE) required during disassembly and assembly.
2. Clean AL Jack assembly of all foreign debris prior to disassembly.
3. Ensure piston is completely retracted or near flush to top plate of jack prior to disassembly.
4. Place AL Jack assembly on its side.
5. Loosen plug on top of piston with 1/4" allen wrench, do not remove.
6. Use 5/16" allen wrench to break bolts lose the top cover, do not remove. If needed use a cheater.
7. Place AL Jack assembly right side up.
8. Remove all 12, cap screw from top cover
9. Remove top cover
10. Remove all 12 springs
11. Put the top cover back on with QTY – 4, 3/8" x 2-1/2" protective bolts and washers. Hand tight to bottom of threads. Use every third hole.
12. Remove plug on top of piston. Tightly hold plug, so spring does not eject.
**Prior to removing the plug, ensure piston is fully retracted or near flush with top plate of hydraulic jack.*
13. Remove spring.
14. Remove valve pin.
**Optional: Stick a 1/8" clean rod down plug hole and grab valve pin.*
15. Attached Polyurethane Tubing, 1/4" OD x 1/8" ID x 1', Blue and connectors to the plug hole on top of piston.
16. Attach lose end of tubing with connector or hold firmly to air gun.
17. Slowly pressure up until piston dislodges.
**Warning: PPE required to protect against high pressure air escape.*
**Note: When piston dislodges, AL Jack assembly will jump and make loud pop.*
18. Remove protective bolts and top cover.
19. Remove piston.
20. Remove both old o-rings and back-up rings.
21. Remove quick connect/valve assembly, and internal plunger. Requires a 1-1/8" size end wrench.
22. Drain existing fluid then clean and dry all internals of the 3 main components, and parts.
23. Replace new o-ring on valve.
24. Place piston upside down on clean surface.
25. Install new inner and outer back-up rings with black mark facing up, while piston is upside down.
26. Install new inner and outer o-rings on top of back-up rings while piston is upside down.
27. Inspect seals for proper fit
**Note: If back-up rings are exposed to heat and humidity for extended periods they will increase in diameter and improperly fit. If necessary store back-up rings in freezer up to 48 hours prior to use to remove excess moisture.*
28. Lubricate inner and outer seals with clean hydraulic oil before piston installation.
29. Apply thin coat of clean hydraulic fluid to inner and outer seal surfaces inside outer housing.

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30. Line up the plug hole on piston with the quick connect hole outer housing.
**When aligned correctly piston will drop slightly to the beginning of seal surface.*
31. Place towel over piston.
32. Use a board and rubber mallet to properly start piston into seal area. Use caution and keep piston even to avoid permanent damage.
33. After piston is started in seal surface, Piston should be able to be completely seated by hand with less than 200 lbs. of force.
34. Reinstall clean valve pin.
35. Reinstall clean valve spring.
36. Wrap plug with Teflon tape (two wraps).
37. Plug should be flush or slightly below piston and snug.
38. Clean and replace all 12 springs.
39. Install top cover so that springs, alignment pin in outer housing and holes in top cover mate.
40. Install and tighten all 12 cap screws evenly.
41. Install plunger with large diameter end first.
42. Install quick connect/valve assembly, tighten firmly using a 1-1/8" end wrench.
43. Inspect for piston and top cover clearance.
**Note: This can be achieved by sliding a piece of paper between the gap and moved freely all the way around.*
44. Place AL Jack assembly upside down on table.
45. Place 1-1/8" end wrench under one side of piston so valve assembly slightly higher on one side.
46. Connect hydraulic hose and completely extend piston for purging.
47. Leave piston extended for 2-3 minutes to allow air to escape.
48. Release pressure on pump and allow piston to completely retract and to ensure all air is purged.

WARRANTY:

GUARANTEED FOR MECHANICAL DEFECT AND WORKMANSHIP.

TOOL IS SPECIFICALLY DESIGNED TO PULL VALVE SEATS AND IS NOT INTENDED TO BE USED FOR ANY OTHER PURPOSE.

TOOL TO BE REGULARLY CLEANED OF DIRT AND GRIME TO ENSURE PROPER FUNCTION WHILE OPERATING.