

Landing Gear Main Strut Servicing

The Republic Seabee Owner's Manual addresses this procedure but I felt a little clarification was in order. You don't need a mechanic to do this or a sign off. Consider it like adding oil to the engine, it's just a servicing item.

First, get the required tools together:

- Fresh 5606 Hydraulic fluid with filler bottle
- Schrader valve removal tool (available at most auto parts stores)
- 3/4" open end wrench
- Aluminum washer - AN960PD-816 - under Schrader valve (if required)
- New Oring - MS28775-014 - if required
- Nitrogen bottle >200 psi
- Ruler to measure strut extension
- A rag

You may want to put a rag down on the floor aft of the main tire to get any spillage. You shouldn't get any but if you have a really nice floor, it will help. Okay, here goes...



Remove the Schrader valve cap



Remove all the air from the strut

Use the pointy end of something to depress the Schrader valve. Some fluid may come out so get the rag ready.



Remove Schrader valve



Strut fully collapsed



3/4" open end wrench, remove Schrader valve housing



Check O-ring and aluminum washer

If the oring and/or the aluminum washer are damaged, change them.



Fill strut completely



Reinstall Schrader valve housing and Schrader valve

Tighten the Schrader valve housing "pretty" tight as this is the seal against leakage. If leakage is noticed after filling the strut, you can tighten it some more.



Fill the strut with Nitrogen



Check strut extension is within limits

The top of the inside of the strut has a standpipe that traps some "air" so extension can take place. Set the nitrogen regulator to >200 psi. Have a buddy grab the outboard trailing edge at the rear spar and lift to extend the strut. It may take a few times to get the strut extension right. Rock it up and down a bit.

The book says 5" to 6-1/2"±1/4" extension depending on the weight of the Seabee. Somewhere in the middle will probably be a good start.

Note: If you can, use Nitrogen as this doesn't attract water nor is there any in it. Air will work but if there is any moisture in the air it will condense inside the strut tube. You know what happens then...corrosion. It may take a few years but it WILL corrode.

When the strut is within limits, put the Schrader valve cap on tight. Contrary to popular belief the Schrader valve does NOT keep the Nitrogen in. The yellow cap does. There should be a rubber seal inside the cap. If it's missing, get a new cap.



TA DA! Done.