

Care And Feeding

As with any other aircraft component, your undercarriage needs some TLC every now and then. Here are some recommendations—targeting a wheeled airplane—you can use to ensure it keeps performing as it should.

PRE-FLIGHT INSPECTION

Inspecting your undercarriage before a flight starts as you walk up to the airplane. Are all the tires inflated properly? Do you see any pools of hydraulic fluid, from either the struts or the brake lines?

Check the brake discs for corrosion (a little is okay) and for cracks. Pay attention to the brake lines, too—whether aluminum tubing or rubber hose—for signs of deterioration or cracking.

Some retractable systems use hydraulic fluid to extend and fold the gear, with a reservoir to contain the fluid. If the fluid leaks out, the gear isn't going anywhere. That's especially a problem when airborne and the gear won't come down.

PERIODIC INSPECTION

Lubricating a retractable's undercarriage is one of the things the FAA permits non-mechanics to do as preventive maintenance. Most owner's manuals include a diagram and other data on what and where to lube things.

While you're there, check the gear doors, if any, for security. Any obvious looseness means worn bushings. The best solution is to keep them lubed.

ANNUAL/100-HOUR INSPECTIONS

Retractable systems should be jacked and the gear swung a few times by a knowledgeable technician at least once a year. He/she should ensure the gear is rigged correctly, that it cycles in the allowable time and that all gear doors, if any, close and fit correctly.

The annual/100-hour inspection also is a good time to clean and re-pack wheel bearings, replace brake linings and clean up old grease and brake fluid, which can attract and retain corrosion-causing dirt.



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