

Guide for Oil Changes and Associated Service Items

NOTE: This guide conveys Savvy's requests for oil brand, grade, additive, and oil analysis. Nothing in this guide should be construed to replace the regulatory requirements of 14 CFR Part 43.

1. Oil change

- 1.1. Savvy requests that a hot, mid-drain oil sample be obtained at every oil change and sent to Blackstone Laboratories in Indiana (<https://www.blackstone-labs.com>), and that the resulting oil reports be attached to the client's Savvy ticket. Please do not use any laboratory other than Blackstone. If you do not have a Blackstone Test Kit in stock, you may order free kits online from <https://www.blackstone-labs.com/free-test-kits.php>. In a pinch, you may capture several ounces of oil in any clean container.
- 1.2. Savvy will specify the requested oil brand and grade. As a general rule, Savvy will ask for Aeroshell W100 monograde oil for aircraft based in temperate climates, and for Phillips X/C 20W-50 multigrade oil for aircraft based in cold climates and subject to unpreheated cold starts. (Please do not use Aeroshell 15W-50.)
- 1.3. Please service the sump with the following amount of oil:
 - For engines with 8 quart sump capacity, add 7 quarts of oil (which should result in 6 quarts on the dipstick after the leak-check runup). Do not fill above 6 quarts on the dipstick.
 - For engines with 10 quart sump capacity, add 9 quarts of oil (which should result in 8 quarts on the dipstick after the leak-check runup). Do not fill above 8 quarts on the dipstick.
 - For engines with 12 quart sump capacity, add 10 quarts of oil (which should result in 9 quarts on the dipstick after the leak-check runup). Do not fill above 9 quarts on the dipstick.
- 1.4. Savvy requests that one pint of ASL CamGuard anti-scuff/anti-corrosion additive be added at each oil change, unless the aircraft owner has indicated the intention to do that himself. <https://www.aslcamguard.com>.
- 1.5. Cut open the old oil filter and inspect it for visible metal. If significant metal is found, please take high-resolution digital photos of the filter media and attach to the client's Savvy

ticket, then quarantine the media in a Ziploc bag for possible laboratory analysis. When such analysis is indicated, we will instruct you to send the media to Aviation Laboratories in Louisiana (<https://www.avlab.com>).

2. Service items

2.1. For all aircraft:

- 2.1.1. Visually inspect engine compartment for evidence of fuel leaks, oil leaks, exhaust leaks, and chafing of flexible hoses, rigid fluid lines, and wire bundles.
- 2.1.2. Check brake hydraulic reservoir fluid level.
- 2.1.3. Check tire wear and tire pressures.
- 2.1.4. Check brake pads with flashlight and mirror for adequate thickness.
- 2.1.5. Check operation of all external lighting.

2.2. For applicable aircraft:

- 2.2.1. For aircraft equipped with flooded-cell battery #1, check electrolyte level.
- 2.2.2. For aircraft with TKS anti-ice, check spinner feed tubes for chafing and proper clearance from prop spinner.
- 2.2.3. With approval, clean/gap/rotate spark plugs each 100 hours. (Please obtain written approval from Savvy first.)

3. Final steps

- 3.1. Perform engine run-up and check for leaks.
- 3.2. Post invoice and logbook entries to client's Savvy ticket prior to aircraft pickup. Savvy must review and approve the invoice before the customer is authorized to pay it. Logbook entries should be posted to the ticket in digital form, and also provided to the customer on self-adhesive stickers.

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