

Aging Aircraft Renter's Checklist

Because most pilots rent the aircraft they fly, we want to provide some practical advice and tips for renting aging aircraft from a maintenance viewpoint.

In some cases, an aircraft's outward appearance is an indication of the owner/operator's attention (or lack thereof) to its maintenance and upkeep. But appearances can be deceiving: Superficial signs of neglect don't necessarily mean that an aircraft isn't safe and well maintained. Likewise, a shiny paint job doesn't necessarily equate to proper care and maintenance.

Before you rent an aircraft, here are a few steps to take:

- Ask to see the maintenance logbooks. Reviewing the logbooks with someone who is knowledgeable about the specific make and model can be beneficial, but it may not be practical in the rental environment. Look for FAA Form 337s (Report of Major Repair or Alteration) and note AD compliance, the status of service bulletins and letters, and gaps in inspection dates. Also watch out for repairs that might suggest damage, such as spot painting, gear or prop replacement, engine teardown, sheet metal replacement, etc.
- Ask the owner/operator about the flight environment the aircraft has been (or still is) exposed to. Here are some examples that were covered in the course:
 - Flight instruction. Unfortunately, student pilots (and even some veteran pilots) don't always handle aircraft very gently. Training aircraft are known for taking abuse day after day, which will result in the accumulation of fatigue.
 - Parachute jumping. Excessive daily use, repeated climbs and descents, high and low altitude exposure, and rapid changes in weight can exacerbate the accumulation of fatigue.
 - Mountain flying. Exposure to unimproved airstrips, heavy loading, winds, and often-turbulent conditions can add stress and fatigue to the aircraft's frame and landing gear components.
 - Pipeline patrol. Pipeline patrol requires low altitude flying and frequent exposure to updrafts and turbulence. This can place added stress and fatigue on the aircraft.
 - Seaplanes. It almost goes without saying, but continuous exposure to water -- especially salt water -- can quickly lead to corrosion if the aircraft is left unattended. Seaplanes should be washed often.
- Determine how many hours per year the aircraft was flown. Was it generally active or inactive? A low-time aircraft might have the potential for more corrosion if it was seldom used, whereas a high-time aircraft may have less corrosion, but the accumulation of more fatigue.
- Find out how the aircraft was stored. As discussed in the course, storing an aircraft outdoors exposes it to the elements, and not all hangars provide an equal amount of protection.
- Learn where the aircraft was located throughout its life. Remember, different regional climates can have different effects on the aging of an aircraft.
- Refer to Act 5 of the course for aging issues commonly encountered in specific makes and models. For additional information, contact a mechanic and the appropriate type club.
- Report any problems you find during the preflight -- broken lights or missing documents, for example--to the owner or operator.
- During the flight, monitor the engine gauges and listen for unusual sounds. Document any problems and follow up with the owner or operator.