LANCAIR 320 Model Guide

LANCAIR 320 is listed as a single-engine piston aircraft from Lancair. The only detailed source available is Chapter 17 (Canopy Systems) of the Lancair International 320 assembly manual, dated 11-1-91, so this guide covers canopy design, latching and sealing. No performance, weight or year data was provided. Verify those from the aircraft's own documents.

KEY TAKEAWAYS

- Two canopy styles exist: a standard opening canopy on swing arms, and a forward hinge canopy that looks sharp but takes more work and cost.
- In-flight latching uses CamLoc safety latches that pull over center, each rated at more than 4 times the required strength.
- Kits shipped after 9-15-91 have header tanks with pockets already installed, so either canopy style can be fitted without tank modification.
- P strip seals are cheap but do not last long. Silicone rubber seals are described as the best, and the aft deck line is hardest to seal.

CANOPY STYLES

The standard canopy uses a parallelogram system: one forward pivot weldment and two aft swing arms. It rotates up and forward and is spring loaded to open easily. The forward hinge canopy is an optional kit that needs carbon fiber and possible header tank changes. Check which style a given LANCAIR 320 has.

LATCHING AND HARD POINTS

The opening mechanism is separate from the flight safety latches. The standard canopy has eight hardpoints for the swing arms and four for the latches, made from .090" aluminum. At the latch hard points all foam must be removed so the inner BID attaches directly to the aluminum. Ask how these were built and inspected.

SEALING AND WEAR ITEMS

P strip seal works along the front and sides but wears out; silicone rubber lasts better. The aft deck is a low pressure area and is hard to seal. The best method is to seal between the two roll over faces, which sit about 1/4" apart. Canopy stops should leave at least 1/2" clearance to the forward deck.

SAFETY NOTES

- Canopy balance springs are a tough pull. Do not let them snap free, because they can recoil and hit you in the face.
- Latch hard points need all foam removed against the inboard channel side for structural integrity. Have this construction checked on any LANCAIR 320.
- Open stops should keep the canopy from hitting the forward deck, even with a bouncing action. Check them and the spring adjustment before flight.

AI-aggregated guide for the LANCAIR 320 · sources: Chapter 17: Canopy Systems (#101471) · generated 2026-10-19 · Reference only, not for flight. Check the original documents before relying on this guide.