

LANCAIR ES Model Guide

The LANCAIR ES is a single-engine piston aircraft. The documents supplied are builder's manual chapters and a service bulletin, so this guide is mainly for people buying a kit-built example. The documents describe a Continental IO-550N installation, Cleveland wheels and brakes, electric flaps and a fuel-injected fuel system. No performance or weight figures are given.

KEY TAKEAWAYS

- Check the build records: the ES comes from a builder's manual, so the quality of the owner's work matters.
- Service bulletin on the fastbuild fuselage firewall: mandatory compliance for one firewall style. Confirm which style you have.
- Cleveland wheels and brakes are standard. The main gear is all metal, and the wings can come off without removing it.
- Full flaps reduce the stall speed by approximately 12 mph, per the manual.

LANDING GEAR AND BRAKES

The all-metal main gear is designed so the wings can be removed without removing the gear. Wheels are set to 0.5° toe-in. Serial numbers on the gear-leg receptacles, gear legs and axle mounts must match; if they don't, the manual says to contact the factory. Main tires are 6.00 x 6. Condor tires are inflated to 60 psi and McCreary tires to 40 psi.

ENGINE AND FUEL SYSTEM

The firewall-forward chapter covers the Continental IO-550N, with baffling, exhaust, engine controls, oil system, propeller and cowling. Fuel runs from the wing tanks to a floor-mounted selector between the seats, then to an electric pump behind the firewall. From there it goes to a gascolator and an engine-driven pump, and unused fuel returns to the wing tanks. Fuel lines changed from 3/8 in to 1/2 in, and older kits may still have 3/8 in hoses.

FLAPS

The slotted flaps are driven by a 12V electric motor through a torque tube, with travel set by micro switches. The torque tube is supported by four bearing blocks. Check the flap travel setting and the condition of the bearing blocks, pushrods and motor.

SPECIFICATIONS

Engine Model	Continental IO-550N
Main Tire Size	6.00 x 6
Brake Type	Cleveland
Flap Motor Voltage	12V

SAFETY NOTES

- Service bulletin: engine-mount firewall reinforcements are required on one firewall style, with mandatory compliance. Confirm it was done.
- Verify that the gear-leg, receptacle and axle-mount serial numbers match.
- Inspect the fuel system for kinks and chafing, and for the older 3/8 in hose sizes.