

LANCAIR LEGACY PRE-TEST FLIGHT INSPECTION (8-04)

OWNER _____ PHONE # _____

ADDRESS _____

N _____ SERIAL # _____ AIRCRAFT TYPE _____

DATE ___/___/___ TACH TIME _____ hrs. TOTAL TIME _____ hrs.

EMPTY WEIGHT _____ CG _____" PAINT & INTERIOR ? YES NO

ENGINE TYPE _____ PROPELLER _____

**ALL AREAS WILL BE RATED AS SATISFACTORY OR UNSATISFACTORY .
INCLUDE VALUES WHERE APPROPRIATE.**

****TO PASS: ALL ITEMS MUST BE RATED AS SATISFACTORY.**

DETAIL INSPECTION

POWERPLANT:

ENGINE RUN UP:

_____ Oil Pressure

_____ Oil Temperature

_____ Static RPM

_____ Idle RPM

_____ Idle Mixture

_____ L/H magneto drop

_____ R/H magneto drop

_____ Alternator output

_____ Suction gauge

_____ Uncowl engine and check for leaks, stains

_____ Idle fuel pressure

_____ Full power fuel pressure/flow

_____ Perform compression check: Cylinder #'s

1 ___/80 2 ___/80 3 ___/80 4 ___/80 5 ___/80 6 ___/80

ENGINE COMPARTMENT

- _____ Check magneto's for security
- _____ Check magneto pressurization components.
- _____ Check ignition harness for breaks, check cigarettes and lower springs
- _____ P-leads for breaks, frays
- _____ Check voltage regulator connections, security wiring proper installation
- _____ Check condition of alternator and starter wiring, and terminals.
- _____ Remove cabin heat shrouds. Check exhaust system for cracks, broken support springs, and leaking exhaust gaskets for proper installation.
- _____ Check cylinder baffles for cracks and proper seal. Proper installation.
- _____ Check engine mount for security, rust, chafing, condition of rubber shock bushings. Proper installation.
- _____ Check engine for loose nuts, bolts, and screws.
- _____ Check oil cooler installation for cracking, leaks, oil line routing.
- _____ Check oil cooler door for operation, security, and locking type control.
- _____ Check intake system for security and leaks.
- _____ Pressure check fuel system
- _____ Inspect fuel flow transducer installation
- _____ Check injector servo for security, and leaks..
- _____ Check crankcase breather, air/oil separator, and overboard lines for obstructions and security.
- _____ Check engine controls for security, full range of travel, chafing, cushion, and correct rod end installation. Lubricate if necessary.
 - _____ Throttle _____ Mixture _____ Prop
- _____ Check cabin heater valve, control, and cabin heat hose. (non-pressurized)
- _____ Check Gascolator/ fuel filter for proper operation, installation and leakage.
- _____ Check prop spinner and attachment for cracks and proper installation.
- _____ Check induction air filter for proper installation and assembly.
- _____ Check alternate air door and operation.
- _____ Check landing light and wiring.
- _____ Check cowling for cracks, worn out fasteners, fit and proper construction.
- _____ Check Baffling for chafing on engine Cowl.
- _____ Check engine for loose hardware and tools.

_____ Check battery: wiring, installation, vent and drain tubes for security and being open.

_____ Check oil cooler flange for cracking per: **SB34-0597**

INSTRUMENT PANEL

_____ Check pitot static system installation for security, chafing, proper installation for accurate operation, and to avoid trapping moisture.

_____ Check the vacuum system installation.

_____ Check circuit breakers, buss bars, electrical switches, solenoids, and instrument panel wiring for security, chafing, support, and proper installation.

_____ Check fuel system plumbing, fuel indication system, and vent system for damage, chafing, and security.

_____ Check a couple tubing flares for proper flaring to prevent possible failures.

_____ Check operation of cabin heat and defrost control valve.

_____ Run function check on aircraft electrical items:

_____ (L) _____ (R) _____ (T) Navigation Lights

_____ (L) _____ (R) Wing tip strobe lights

_____ Landing light

_____ Cockpit lighting

_____ Pitot heat

CABIN AND INSIDE FUSELAGE

_____ Check rudder control cables for corrosion, security, chafing, broken strands, proper routing, and installation.

_____ Check control stick swivel installation for security and freedom of movement.

_____ Check aileron and elevator control linkage for security and clearance.

_____ Check flap actuation system for security, clearance, and operation.

_____ Check gear activation system for security, clearance, and operation.

_____ Check elevator cross-over tube for security, clearance, and stop to stop movement.

_____ Check rear windows quality of installation.

_____ Check canopy for fit, door seal condition, door latch operation, door hinge security, and hinge pin installation.

_____ Check fuel selector valve for leakage, smooth operation, and security of installation, not binding.

- _____ Check electric fuel boost pump for operation, security of installation and any signs of fuel leakage.
- _____ Check cabin fresh air vents for correct operation.
- _____ Check seat belt attach points for signs of stress fractures, cracking, and proper installation.
- _____ Check front seat shoulder harness for security and proper installation.
- _____ Check trim controls for security of installation, correct operation, and proper installation.
- _____ Check AFT fuselage antenna installation for security, and proper location and routing.
- _____ Check fuselage autopilot pitch and roll servo installation. (If installed)
- _____ Check ELT battery for expiration date, and function test ELT.
- _____ Check structure of fuselage for de-laminations, de-bonds and voids

ELEVATOR AND HORIZONTAL STABILIZER

- _____ Visually inspect exterior surface of the horizontal stabilizer and elevator for; cracking, damage, proper alignment, and clearance.
- _____ Check elevator hinge installation for bolt installation, freedom of movement, and security.
- _____ Check elevator trim tab system installation and clearance from rudder.
- _____ Check elevator torque tube and elevator idler arm installation for security, bolt installation and clearances.
- _____ Check elevator torque tube to elevator actuator arm installation for security and bolt installation.
- _____ Check ¼" control clearance per:
- _____ Check elevator control horn, control stop pads installed
- _____ Check structure for de-laminations, de-bonds and voids

RUDDER AND VERTICAL STABILIZER

- _____ Visually inspect exterior of the rudder and vertical stabilizer for cracking, damage, straight part construction, and quality.
- _____ Check rudder hinge attachment bolts and nuts.
- _____ Check rudder actuator fitting and linkage for damage and correct bolt installation.
- _____ Check rudder trim tab system installation. (If installed)
- _____ Check structure for de-laminations, de-bonds and voids
- _____ Check ¼" control clearance

- _____ Check for signs of damage or cracking. Look for signs of possible fuel leak and proper fuel system instructions.
- _____ Check wing tip strobe light, and navigation lights for security of installation.
- _____ Check wing fuel tank vent system for damage, blockage, and signs of leakage
- _____ Check aileron bellcranks and wing aileron linkages for damage, bolt installation, chafing, and full range of travel.
- _____ Check aileron hinges and counterweight for security of installation and damage.
- _____ Check flap actuating linkages and flap tracks for security and damage.
- _____ Check Flap Track Travel for Bottoming in slot per:
- _____ Check pitot tube, pitot tube plumbing and wiring for security, blockage, and damage.
- _____ Check wing for damage and correct hardware installation.
- _____ Check structure for de-laminations, de-bonds and voids

WINGS, AILERONS, AND FLAPS

- _____ Check for signs of damage or cracking. Look for signs of possible fuel leak and proper fuel system instructions.
- _____ Check wing tip strobe light, and navigation lights for security of installation.
- _____ Check wing fuel tank vent system for damage, blockage, and signs of leakage.
- _____ Check aileron bellcranks and wing aileron linkages for damage, bolt installation, chafing, and full range of travel.
- _____ Check front (2) and rear (1) spar bolts and nuts.
- _____ Check aileron hinges and counterweight for security of installation and damage.
- _____ Check flap actuating linkages and flap tracks for security and damage.
- _____ Check pitot tube, pitot tube plumbing and wiring for security, blockage, and damage.
- _____ Check wing for damage and correct hardware installation.
- _____ Check speed brake for proper operation and installation.
- _____ Check structure for de-laminations, de-bonds and voids

LANDING GEAR

- _____ Check tires for excessive wear, correct inflation, and correct installation. Inspect for proper assembly.
 - _____ Nose _____ Right Main _____ Left Main
- _____ Check brakes for wear, proper installation, and plumbing.
- _____ Check strut for correct inflation, signs of fluid leakage, clearance and installation

- _____ Check landing gear doors, door hinges, and actuating linkages for damage and security of installation.
- _____ Perform gear retraction test and check for proper operation.
- _____ Perform emergency extension system test and check for proper operation.

MISCELLANEOUS

- _____ Check aircraft for correct placards and documentation.
- _____ Airworthiness certificate
- _____ Operating limitations letter
- _____ Aircraft data plate (fuselage exterior)
- _____ Registration certificate
- _____ Inspect log book entries for proper documentation.
- _____ Have owner list non-stock configurations in the aircraft records with the name and signature of the individual or company that performed them.
- _____ Radio license
- _____ Compass correction card
- _____ Minimum Equipment Required
- _____ Meets FAA requirements per Part 91.205 for standard category airworthiness certificates.

AIRCRAFT CONSTRUCTION QUALITY AND REPAIRABILITY

- _____ Perform a weight and balance check on the aircraft and proof the weight and balance records to assure proper CG envelope and appropriate operating limitation placards.
- _____ Overall workmanship of fiberglass structure and quality laminates.
- _____ Overall workmanship of metal components, sheet metal work, riveting, and assembly.
- _____ Overall workmanship of the avionics and antenna system installations.
- _____ Overall quality of the fuel and fuel vent system installation.
- _____ Overall quality of the pitot static system installation.
- _____ Overall compliance with applicable service bulletins.
- _____ Overall aircraft repairability. Removable upholstery, non-painted area such as wing rear spar, wheel wells and interior walls to aid in inspection and repair.

NON-STOCK CONFIGURATIONS

- 1. _____

2. _____

3. _____

I HAVE INSPECTED THIS AIRCRAFT AND FIND ALL ITEMS TO BE SATISFACTORY

SIGNATURE _____

PRINT NAME _____

COMPANY _____

DISTRIBUTION 1. Lancair International Inc.
 2. Inspection Facility
 3. Aircraft Owner(Original)

Revised 06-15-2004