

# *LANCAIR*<sup>®</sup>

## KIT CONTENTS

IN A WORD... "IMPRESSIVE"



Your Lancair kit is one of the most complete airframe kits on the market. The composite components comprise literally the *entire exterior of the airframe*. Our components have been carefully separated into sections that greatly aid your ease of assembly. And unlike other kits that rely on aligning unsupported and difficult to hold "butt" type joints, our Lancair components have that incredibly simple and effective "matched overlap double joggle" type joint. This feature alone will quite literally save you hundreds of hours and eliminate frustration.

Control systems are complete with all necessary hardware. It is actually much easier to list what is not supplied. Basically, the off the shelf type items are left to customer choice and purchase. You will select your own engine, engine installation hardware such as throttle cables, etc., propeller, avionics, instrumentation, upholstery and paint. Our new Lancair Options Catalog contains a very complete list of such related items. These catalog items are generally the type and brand that we at Neico Aviation feel are the best suited for Lancair aircraft. And the catalog list is growing every month. The days of having to "scrounge" for materials to finish your kit plane are over at last.

***"All Lancair kit parts appear to be of uniformly excellent quality."***

Peter Lert, Air Progress Magazine

## WE DELIVER

Our shipping department keeps very busy and has acquired great expertise so no matter where you live, nearly any place in the world, we can effectively deliver what you need. We have already served several hundred customers in over **seventeen countries across five continents**.

## PURCHASE OPTIONS

There are two methods in which you can purchase your Lancair. One is complete and all at once. The other method is through our A/B Purchase Plan. This plan is described below.

## THE COMPLETE LANCAIR KIT

To save space and avoid duplication in many areas, we will list only the complete Lancair 320 kit hardware parts which are both stock items and custom machined items. The Lancair 235 list of parts is similar. All metal fabricated metal parts are fully treated with either cad plate, zinc plate, chromic anodize or electro static paint. You'll see that your Lancair kit is indeed, a *very* complete airframe kit.

\*Note that all premolded composite parts listed on both the "A" kit and "B" kit breakdown are part of all standard, complete Lancair kits.

- Main Gear Strut Weldment, Left and Right
- Main Gear Leg Casting, Left and Right
- Main Gear Over Center Link Assembly, Left and Right
- Gear Retract Cylinder-Link Attach Plates, Left and Right
- Main Gear Self-align Bracket  
with Bearings Pressed In, Left and Right
- Main Gear Aft Attach Plate  
with Bearings Pressed In, Left and Right
- Main Gear Compression Cap Castings
- Main Gear Compression Machined Spacers
- Main Gear Compression Centering Plugs
- Main Gear Compression Retainers
- Gear Over Center Safety Springs
- Nose Gear Fork
- Machined Aluminum Axle Inserts
- Nose Gear Axle
- Nose Gear Axle Nuts
- Nose Gear Air/Oleo Strut (Completely Charged)
- Nose Gear Upper Strut Weldment
- Nose Gear Drag Link Assembly
- Drag Link Cross Attach Weldment
- Attach Weldment Bushings
- 3/8" 4130 Steel Rod
- Nose Wheel with Timkin Bearings
- Nose Gear Gas Safety Extension Strut
- Gear Door Compression Springs
- All Tires and Tubes
- Main Gear Wheels
- Main Gear Hydraulic Brakes
- Brake Bleeder Valves
- Main Gear Axles
- Axle Nuts
- Axle Spacers
- Elevator Control Rod Plugs
- Wing Attach Flanged Bushings
- Wing Attach Straight Bushings
- Wing Attach Nutplates
- 7/8"x.058" Aluminum Tubing 6061-T6
- 3/8" x.058 Aluminum Tubing 6061-T6
- .250" Aluminum Rod 6061-T6
- 3.8" x .058" Aluminum Tubing 6061-T6
- 1"x2" Aluminum Extruded Angle 6061-T6
- .090" Aluminum Sheet 6061-T6
- Safe-T-Poxy II Bonding Resin
- 3M 2216 Structural Adhesive
- 1" Stippling Brushes
- 16 oz. Mixing Cups
- Chopped Cotton Flox
- Micro Balloons
- Mixing Sticks

- 1/2" Linen Grade Phenolic Sheet
- 1/4" Linen Grade Phenolic Sheet
- 7781 Style Fiberglass Cloth
- 1/2" x 24" x 96" Foam Sheets
- 1/4" x 24" x 96" Foam Sheets
- 1" x 8" x 8" High Density Foam Block
- 1/4" x 24" x 48" 5 Ply Aircraft Grade Plywood
- 24" x 36" x .023" Stainless Steel Sheet
- Fiberfax Fireproofing Insulation
- 1/4" x 3/4" x 72" Sitka Spruce
- HF6 Rod End Bearings
- Rudder Control Horn
- Vertical Stabilizer Rudder Pivots
- Rudder Pivot Bronze Bushings
- Mid Rudder Pivot
- Upper Rudder Pivot
- Aileron idler Plate, Left & Right
- BC4 Bellcrank Bearings for Aileron Idler
- Aileron Outbd Control Horn Plate, Left and Right
- BC4 Bellcrank Bearings for Aileron Control Horns
- Elevator Control Horn Materials 6061-T6
- F45-19 Rod End Bearings
- F34-14 Rod End Bearings
- F35-14 Rod End Bearings
- M34-14 Rod End Bearings
- AN490HT-16P Rod Ends
- AN490HT-11P Rod Ends
- AN490HT-8P Rod Ends
- Nylon Area/Friction Washers
- 90° Poly Flow Fittings (Brakes)
- Cam-Loc® Canopy Safety Latches
- Cam-Loc® Strikes
- Canopy Springs
- Canopy Aft Swing Bars
- Canopy Aft Swing Bar Attachment (extrusion)
- Canopy Fwd Swing Weldment
- Gear Micro Switches
- Flap Motor (Electric Linear Actuation)
- Flap Motor Limit Stop Assembly
- Flap Electrical Relays DPDT
- Flap Clevis End
- Flap Connecting Rods
- Flap Motor Bellcrank Weldment
- Flap Bellcrank Weldments, Left and Right
- 1" and 2" Aluminum U-Channel 6061-T6
- Hydraulic Cylinder Spacers
- Gear Down Lights
- Gear Transition Light
- Nose Gear Door Hydraulic Actuation Cylinder
- Nose Gear Door Sequencing Valve
- AN804 Bulkhead Tee
- AN816 Nipples
- AN818 Nuts
- AN819 Sleeves
- AN822 Elbows
- AN825 Tees
- AN826 Tees
- AN827 Cross
- AN833 Bulkhead Elbows
- AN834 Bulkhead Tee
- AN837 Bulkhead 45
- AN840 Hose Nipples
- AN912 Reducers
- AN924 Bulkhead Nut
- AN929 Caps
- BU0304-NJ Flex Line Ftgs.
- HR 303 High Pressure Hose
- Fuel Shut Off Valve
- Hydraulic Bypass Valve
- Electric Transfer Pumps, Left and Right
- Finger Strainers
- Fuel Caps
- Fuel Tank Fitting Blocks, 1/8 NPT
- Fuel Tank Fitting Blocks, 3/8 NPT
- High Pressure Hydraulic Switch
- Low Pressure Hydraulic Switch
- Hydraulic Power Pack with Reservoir and Pump
- Gear Up Electrical Relay
- Gear Down Electrical Relay
- Main Gear Hydraulic Retract Cylinders (complete)
- Nose Gear Hydraulic Retract Cylinders (complete)
- Rudder Bar Weldments
- Rudder Pedal Custom Lancair Castings
- Rudder Pedal Machined Bushings
- Rudder Bar Attachment Blocks (machined)
- Custom Lead Weights for Ailerons
- Lead Weights for Elevators
- Custom Lead Bob Weight for Elevator
- Bob Weight/Idler Arm Brackets (machined)
- Control Stick Crossover Weldment (4130 Steel)
- Control Sticks
- 5/16" x 1" x 22" Aluminum Bar 6061-T6
- 1-1/4" x .065" Aluminum Tubing 6061-T6
- 3/4" x .035" Aluminum Tubing 6061-T6
- 1/2" x .035" Aluminum Tubing 6061-T6
- 1-3/4" x .022" Aluminum Tubing 6061-T6
- 1/4" x .035 Aluminum Tubing 5052-O
- 3/8" x .035 Aluminum Tubing 5052-O
- Mil Spec MS20001-PS7200 Extruded Aluminum Hinge
- Stainless Steel Hinge Pins
- Stainless Steel Rudder Cable
- AN111 Cable Bushings
- Nicopress Sleeves
- Elevator Trim Spring
- Nylon Elevator Trim Attach Block (machined)
- 3/16" Nyla-Flow Tubing
- 1/4" Vinyl Tubing
- Canopy
- Rear Windows, Left and Right
- Engine Mount
- Construction Manual
- Blueprints
- All Pertinent Technical Bulletins
- Plus Approximately 2,000 additional small hardware items forming all attachment hardware, nuts, bolts, washers, cotter pins, machine screws, nut plates, rivets, etc., etc.



## A/B PURCHASE PLAN

The A/B Purchase Plan is designed to allow you, the builder, to spread your kit costs out during your building time. The plan essentially splits the complete Lancair kit into two similarly sized groupings. A breakdown of these groupings is shown. This plan is available with any of the

Lancair models. There is a slight overall cost increase due primarily to the handling and inventory expenses incurred with this program but you'll find that those additional costs are far less than what is found with other kit suppliers. Note that, at any time, we can only "guarantee" the "B" kit prices for six months.

### "A" KIT

#### PREMOLDED PARTS

- Right fuselage side
- Left fuselage side
- Forward deck
- Left vertical stabilizer
- Right vertical stabilizer
- Lower center wing panel
- Left upper center wing panel
- Right upper center wing panel
- Canopy frame
- Forward center spar
- Aft center spar
- Left outboard main spar
- Right outboard main spar
- Nose gear tunnel
- Fuel header tank
- Upper cowling
- Lower cowling

- Engine mount
- Main landing gear assembly
- Nose landing gear assembly
- Gear overcenter link assembly
- Wheels, brakes, tires, axles
- Canopy
- Rear windows
- Bonding kit, resin, cloth, micro, flox, cups, brushes, mixing sticks, etc.
- Bulkhead materials
- Firewall, insulation, stainless steel
- Plans
- Plus all required hardware, nuts, bolts, washers, bushings, etc., etc.

### "B" KIT

#### PREMOLDED PARTS

- Left upper outboard wing panel
- Right upper outboard wing panel
- Left lower outboard wing panel
- Right lower outboard wing panel
- Left upper flap
- Left lower flap
- Right upper flap
- Right lower flap
- Left upper aileron
- Left lower aileron
- Right upper aileron
- Right lower aileron
- Left wing tip halves
- Right wing tip halves
- Upper horizontal stabilizer
- Lower horizontal stabilizer
- Upper elevator
- Lower elevator
- Left rudder
- Right rudder
- Left & right seat pans

- Canopy mounting hardware
- Hydraulic system for landing gear
- Electrical system for landing gear
- Aileron control systems
- Elevator control systems
- Rudder control systems
- Flap control systems
- Flap electrical system
- Stick assembly
- Pitch trim system
- Fuel system to firewall
- All required installation hardware

## CRATING

For all delivered Lancair kits, there is a crating charge. The chart will list crate dimensions and weights. For kit pickups, crating can be omitted if desired, a will call charge will be applied. See the Lancair Order Form for current pricing.

### FULL KIT CRATE

Dimensions: 192" x 46" x 52"  
Weight: approximately 1,015 lbs.

### "A" KIT CRATE

Dimensions: 192" x 46" x 52"  
Weight: approximately 875 lbs.

### "B" KIT CRATE

Dimensions: 96" x 48" x 12"  
Weight: approximately 325 lbs.



# COSTS TO COMPLETE YOUR LANCAIR

As can be expected due to personal preferences, additional costs to complete your Lancair will vary greatly. Factors such as new vs. used engine, type of propeller, new vs. used or rebuilt instruments, avionics, etc., all weigh heavily in cost estimates. The following are possible cost projections. Shipping costs are not included in the projections.

## LANCAIR 235

These costs are considered to be minimums without having to scrounge. It will reflect a mixed grouping of new and good used equipment and a used engine with reasonable service life remaining.

Kit cost . . . . .	\$16,950.00
Engine . . . . .	\$ 3,500.00
Propeller . . . . .	\$ 875.00
(fixed pitch with extension & spinner)	
Basic Instruments . . . . .	\$ 800.00
Radio Nav/Com . . . . .	\$ 975.00
Engine Accessories . . . . .	\$ 700.00
Electrical System . . . . .	\$ 500.00
Paint/Interior . . . . .	\$ 600.00
Approximate Cost	<u>\$24,900.00</u>

## LANCAIR 320

This first list will reflect a "minimal" expensed Lancair 320. It will reflect a mixed grouping of new and good used equipment and a used engine with reasonable service life remaining.

Kit cost . . . . .	\$18,500.00
Engine . . . . .	\$ 4,500.00
Propeller . . . . .	\$ 900.00
(fixed pitch with extension & spinner)	
Basic instruments . . . . .	\$ 800.00
Radio Nav/Com . . . . .	\$ 975.00
Engine Accessories . . . . .	\$ 700.00
Electrical System . . . . .	\$ 500.00
Paint/Interior . . . . .	\$ 600.00
Approximate Total . . . . .	<u>\$27,475.00</u>

## LANCAIR 320

This second list will represent a more complete, full IFR equipped aircraft with constant speed propeller, and more elaborate instrumentation. It also includes a few options that are commonly added to Lancair orders such as high temperature, honeycomb bulkhead panels, and hydraulic main gear door closures.

Kit cost . . . . .	\$18,500.00
Engine *(mid-time) . . . . .	\$ 4,500.00
Propeller (rebuilt) . . . . .	\$ 3,000.00
(constant speed with governor)	
Instrumentation (New) . . . . .	\$ 2,900.00
Avionics (New IFR) . . . . .	\$ 5,000.00
Engine Accessories . . . . .	\$ 1,100.00
Electrical System . . . . .	\$ 600.00
Lighting (with strobes) . . . . .	\$ 550.00
Airframe accessories . . . . .	\$ 1,200.00
Paint . . . . .	\$ 1,000.00
Interior . . . . .	<u>\$ 600.00</u>
Total	<u>\$38,950.00</u>

\*Note: A fully rebuilt, zero time engine will add approximately \$3,500 to the cost.

As shown, total costs can vary greatly. The variables are really a function of how much you care to spend, whether you purchase new or used equipment and how much shopping around you are willing to do. The second example of the Lancair 320 represents very little shopping around and is a reflection of merely ordering new equipment from convenient and fast delivery sources. Can costs go higher? Of course. We have many Lancairs flying with absolutely *deluxe* IFR instrumentation including items such as stormscope, full axis auto pilot, full English leather interiors, etc., etc. Can costs be lower? Yes, that is also possible if you choose to really shop around for all items. We do tend to see that most of our customers prefer the ease and speed of single source shopping for items to complete their Lancair quickly and efficiently. For that reason we are constantly adding more and more of these items to our growing catalog of options. And we generally are able to offer them at prices which are a little less than you'd find at other places.

## WHY A KIT PLANE

When you've completed your Lancair, you'll be rewarded with many advantages. The alternative is of course the used production plane market. Initial costs can be similar. But, that market is quickly becoming one of rusting, rotting, corroding and fatiguing airframes. And those same airframes can be incredibly costly to maintain.

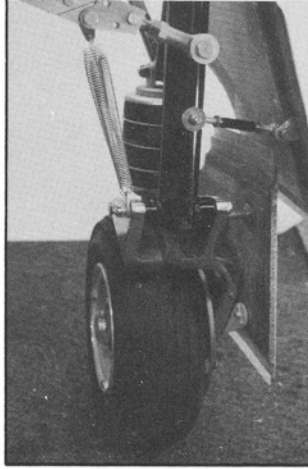
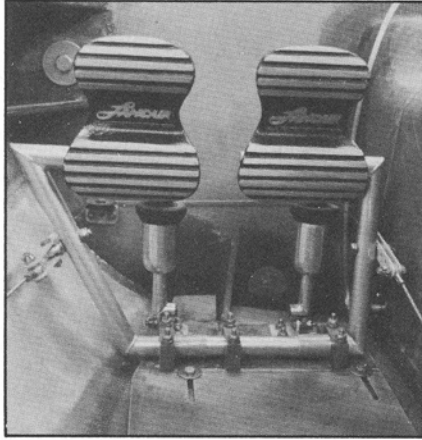
When you purchase an older used plane, the actual purchase price of the plane is *just the beginning*. Airframe part replacements, annuals, general maintenance, insurance, fuel and overall operating costs can be overwhelming.

With a high performance Lancair, maintenance costs are extremely low, fuel and operating costs are equally low and you'll perform *your own* annuals thus saving even more.

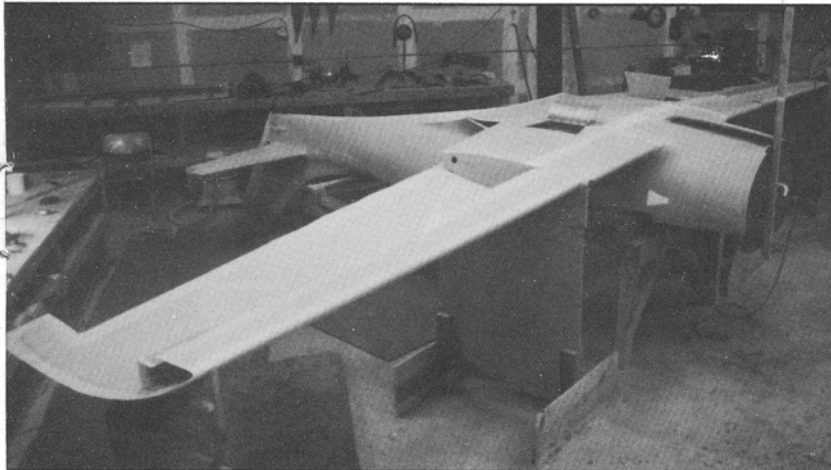
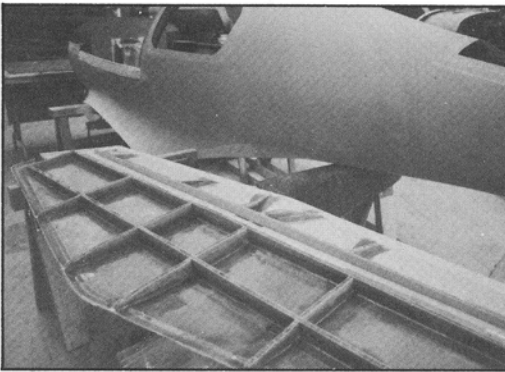
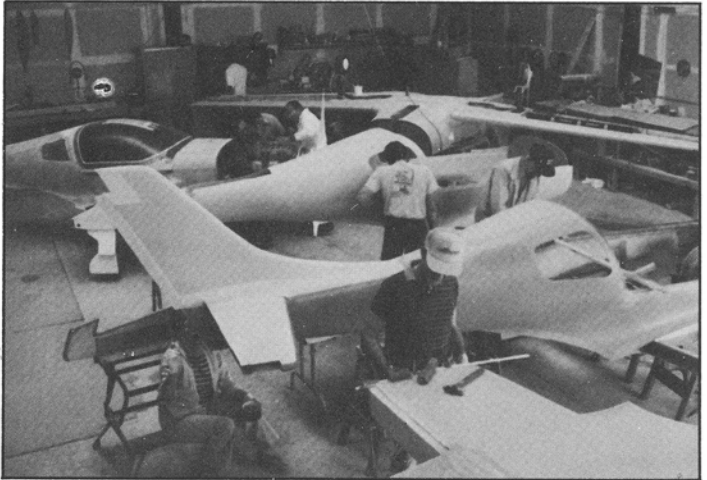
And, of course, performance speaks for itself with Lancair's Ferrari-like handling qualities not found in *any* production aircraft regardless of price.

Also, the fraternity of friends you'll be making is rarely discussed yet tremendously rewarding. There is an indescribable sense of comraderie between all pilots who have actually built their own planes. And that unexpected reward greets each one of our fellow Lancair flyers.

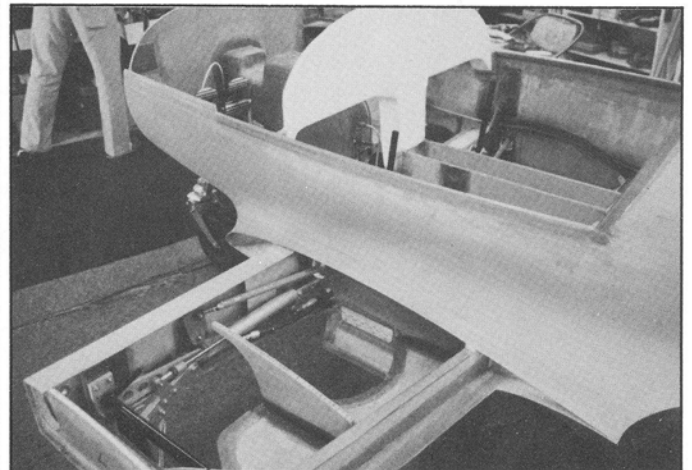
Adjustable rudder pedals



Fully machined landing gear.  
Bolt together and install.

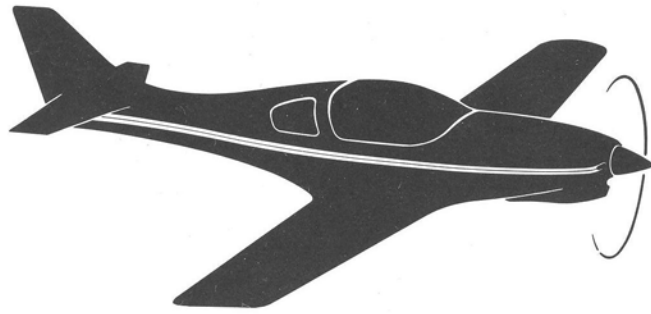


Wing assembly requires  
only two cradles.



Total accessibility is Lanfair's unique  
feature. Making systems installation easy.





**LANCAIR<sup>®</sup>**



**NEICO AVIATION INC.**

403 S. Ojai St., Santa Paula, CA 93060 (805) 933-2747 Fax 805-933-2093

©1988 Neico Aviation Inc.