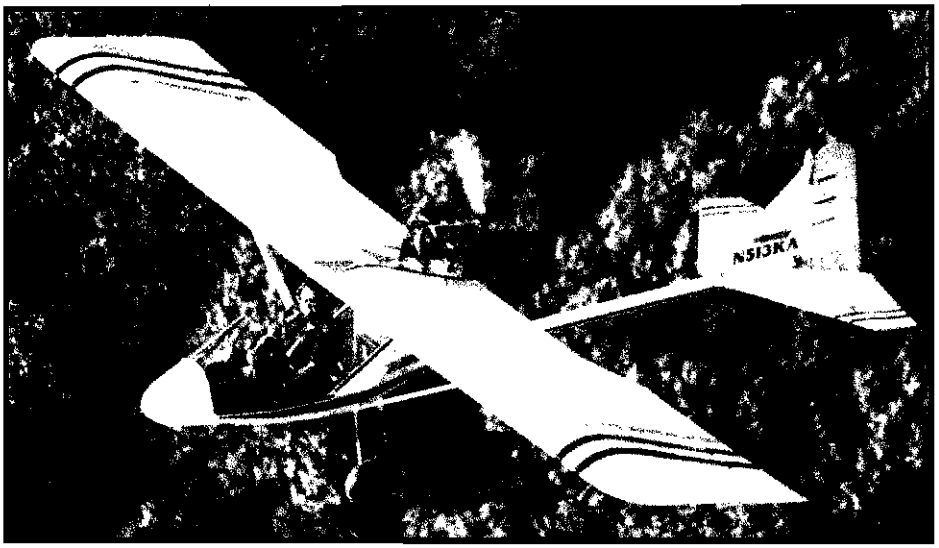
FireStar



The FireStar II is designed to carry two people and give great climb performance with the very popular Rotax 503 engine. The FireStar II was designed specifically to use the Rotax 503 since this engine has proven to be the most reliable two stroke engine that Rotax makes.

The FireStar II is an extremely versatile aircraft. Its performance is truly amazing due to its light weight, generous wing area and large diameter propeller. The numbers do not adequately convey the performance profile. It must be seen to be believed. The take-off and climb rate of the FireStar is truly astounding. No other light plane kit even comes close. This performance, combined with the good propeller ground clearance, allows for operation from many types of unimproved fields.

The standard engine for the FireStar II is the Rotax 503 equipped with a 2.58:1 gear reduction drive turning a 66 inch diameter fixed pitch propeller. This combination gives outrageous climb performance and a top speed of 80 mph.

The FireStar II may also be powered by the 40hp Rotax 447 which provides abundant power resulting in a take-off roll of about 150 feet, a 1000 feet per minute climb rate, and 70 mph top speed with one person on board.

The FireStar II, like all Kolb aircraft, utilizes traditional cable and push-pull tube controls which give a solid feel. The half-span ailerons have good roll authority at higher speeds while still being powerful enough at lower speeds to retain roll control even through a stall.

The FireStar II has gentle stall characteristics. Upon entering a stall from straight and level flight, there is some sink which precedes the stall. This will usually occur around 30 mph. Continuing into the stall, there will be a gentle break at about 27 mph and the nose will drop. The aircraft gains speed and resumes flying with a reduction of stick back pressure.

It takes very little power to maintain minimum flying speed and such flying is more enjoyable in a FireStar because engine noise and fuel consumption are at a minimum.

Optional mechanical brakes provide for sure stops so the FireStar II can be landed and stopped in very tight areas. The optional individual heel pedals allow for a tighter turning radius which improves the already excellent ground handling.

GREAT VISIBILITY

The FireStar II is a great sight-seeing aircraft and the fact is, better visibility makes for more enjoyable flying.

The pusher configuration of the FireStar II provides the vastly superior visibility that Kolb aircraft have become known for. There is 360 degree visibility from the cabin and the optional clear lexan gap seal between the wings over the cockpit lets you see straight up.

The optional full enclosure allows for comfortable flying in cooler weather and can be removed easily for real open air flying.

The rear engine eliminates exhaust fumes and reduces noise levels.

STURDY CONSTRUCTION

For strength and durability in airframe structures, aluminum and steel are superior. The heart of the FireStar II, the fuselage cage, is made from strong, factory welded, 4130 chrome-moly steel. We also use 4130 steel in all high stress areas.

FireStar wings have rigid truss ribs and a massive 5 inch aircraft aluminum wing spar all covered with Stits aircraft covering. Permanent UV protection eliminates fabric degradation.

FOLDING WINGS & TAIL

Like all Kolb aircraft, the FireStar II has folding wings and tail which allow for easy

SPECIFICATIONS

Seating	1 or 2 tandem
Wing Span	27 ft. 8 in.
Wing Area	140 sq. ft.
Folded Length	22 ft. 6 in.
Height	6 ft. 3 in.
Width Folded	5 ft. 6 in.

Height and width is based on standard wooden prop. Larger props with more blades add to the height and width of the aircraft.

Typ. Empty Weight	325 lbs.
Typ. Gross Weight	725 lbs.

Weight is approximate and may vary. Manufacturer's tolerances in tube wall thickness, engine size, and doping and painting of the aircraft are a few of the many items which may introduce weight variations.

Load Factor	+4 -2g
Fuel Capacity	5 or 10 gal.
Cruise Speed w/447	70 mph
Cruise Speed w/503	80 mph
Take-off Distance (solo/dual):	
w/447	200/250 ft.
w/503	100/200 ft.
Rate of Climb (solo/dual):	
w/447	1000/650 fpm
w/503	1200+/800 fpm

Rate of climb is based on a 175 lb. pilot.

Stall Speed	27/35
VNE	90
Std. Engine	Rotax 447/503
Build Time	Appx. 350 hrs.
Quick Build	Appx. 180 hrs.

Plus paint and upholstery

storage or trailering. The tail folds up and the wings fold back along the fuselage in about 15 minutes by one person. Everything stores right on the airframe.

AIRFRAME KITS

The EZ Build FireStar II airframe comes in two kits.

Kit 1 includes the plans and construction manual, all materials needed for building wings, tail and control surfaces, fuselage tube, welded steel parts for wings and tail, pre-built wing ribs, upper and lower wing false ribs, all required aircraft hardware, aircraft cable, turn buckles, thimbles, Nicopress sleeves, safety pins and wire.

Kit 2 includes the welded 4130 chrome-moly steel fuselage cage, 4130 steel control parts, tapered aluminum landing gear legs, axles, wheels and tires, one seat with a 4-point harness, one 5 gallon fuel tank, fuel line, filter and clamps, nylon wing center gap seal with Velcro attachments, fiberglass nose fairing and lexan windshield.

SECOND SEAT OPTION:

An additional seat, 4-point harness, and two passenger floor pans. This option can be added at any time, even after the aircraft is completed.

ENGINE PACKAGES

The Rotax 447 package includes Capacitor Discharge Ignition (CDI), single carburetor, air cleaner, "B" type gearbox (2.58:1 ratio), muffler and elbow with welded spring hooks.

The Rotax 503 package includes dual Capacitor Discharge Ignition (CDI), dual carburetors, two air cleaners, "B" type gearbox (2.58:1 ratio), oil injection tank, muffler and elbow with welded spring hooks.

NOTE: We weld the spring hooks onto the Rotax exhaust components and brackets for the 447 and 503 mufflers. If you are supplying your own Rotax engine, you are responsible for having these welded.

ENGINE ACCESSORIES:

The Rotax 447 and 503 engine accessories include a drilled engine mount plate, 4 Lord isolation engine mounts, muffler mount (welded brackets for muffler isolation mounts), muffler springs, ignition switches, throttle cables, choke cables, fork ends, cable splitters and starter pulley. The Rotax 503 also includes an oil injection cable.

The Rotax engine warranty covers the first six months of operation. All warranty work is provided by the Rotax Service Centers. If problems arise, please contact an authorized Rotax Service Center for service.

Miscellaneous details: Use the Rotax 447 or 503 with the "B" gearbox and 2-blade wood prop for economy. This is also the simplest installation. The 503 with a 68 inch diameter 2-blade IVO prop makes a nice combination. The IVO props are smooth running, easy to adjust and runs very well with the "B" gearbox. The IVO props include a 2½ inch spacer for wing trailing edge clearance. The Warp Drive prop is very tough and strong, but is also the most expensive and more difficult to adjust.

The 3-blade props are very smooth, but 2-blade props seem to have an advantage in cruise and top speed.

COVERING

Fabric covering and finish paint are NOT included in kit prices. Kolb Fabric Covering Kits are supplied by Aircraft Technical Support, Inc. Call Jim and Dondi Miller toll free at 1-877-877-3334, and visit their web site at www.poly-fiber.com or www.aircrafttechsupport.com

The Kolb Covering Kit uses the Poly-Fiber process. The Kit includes fabric, fabric tapes, fabric cement (Poly-tak), fabric coatings (Poly-Brush), solvents, special large head fabric rivets, a Rib Rivet Drilling Fixture, Poly-Fiber Manual and instructional video. All Fabric Covering Kits, with the exception of the Firefly, include Poly-Spray for ultra-violet protection.

As Kolb enthusiasts, Jim and Dondi Miller are available to help you with fabric covering and painting questions. They conduct seminars and fabric covering workshops, and operate a Fabric Covering Shop. Call them any time at 877-877-3334 for technical help! We have included their prices on our work/price sheet so you may consider all of the costs involved before purchasing your new ultralight aircraft.

THE QUICK-BUILD KIT

Even with the cost of the quick-build kit added to the kit cost, you will discover that all Kolb models are still very competitively priced.

With the quick-build kit the following structures are completed and ready for covering: both wings, both ailerons, both flaps, vertical stabilizer, both horizontal stabilizers, both elevators and the rudder.

When you order the quick-build the following operations are already complete: *Wing Alignment.* The wings are aligned to fuselage cage and attachment holes drilled. *Lift Struts.* They are assembled to the correct length. *Aileron Hinges.* They are aligned with 4 pre-drilled alignment holes for each hinge. *Empennage alignment.* Tail surfaces are aligned and temporarily attached to the fuselage tube. *Tail Wire Bracing.* The 4 bracing cables are completed with swedged ends. *Rudder and Elevator hinges.* They are aligned with 4 pre-drilled alignment holes for each hinge. *Fuselage H-Section.* It is installed and riveted.

FINALLY

We hope you choose a Kolb aircraft for your future flying adventures. You will find none better. We feel our airplanes embody many of the qualities and characteristics most desired in a fun flying aircraft. We invite you to compare our prices. You will be pleasantly surprised to discover that all these features and performance are very affordably priced.