

Warner Aerocraft, Inc.



SpaceWalker ... Revolution ... Sportster

Warner Aerocraft Company

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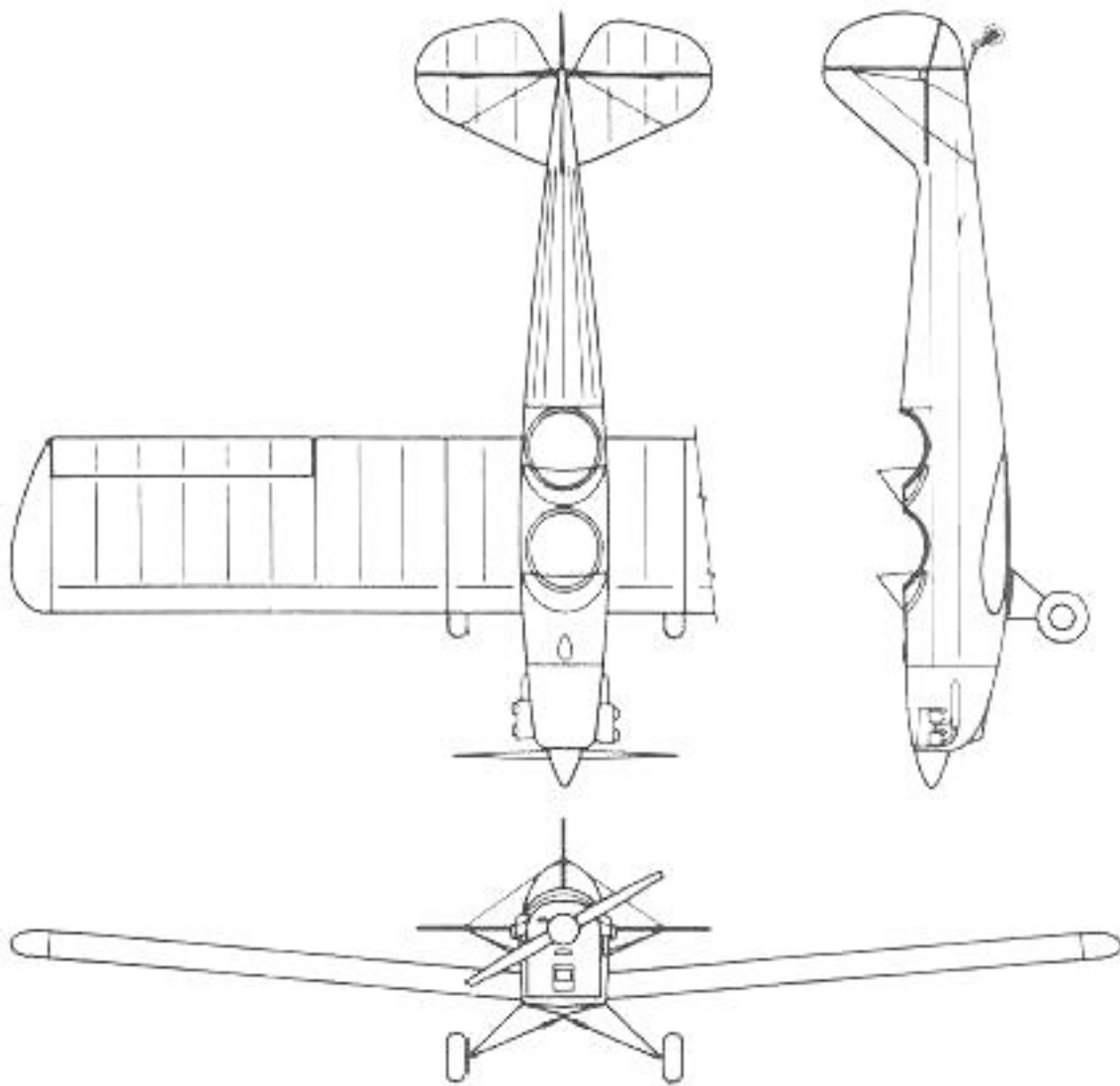
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INFO PACKAGE

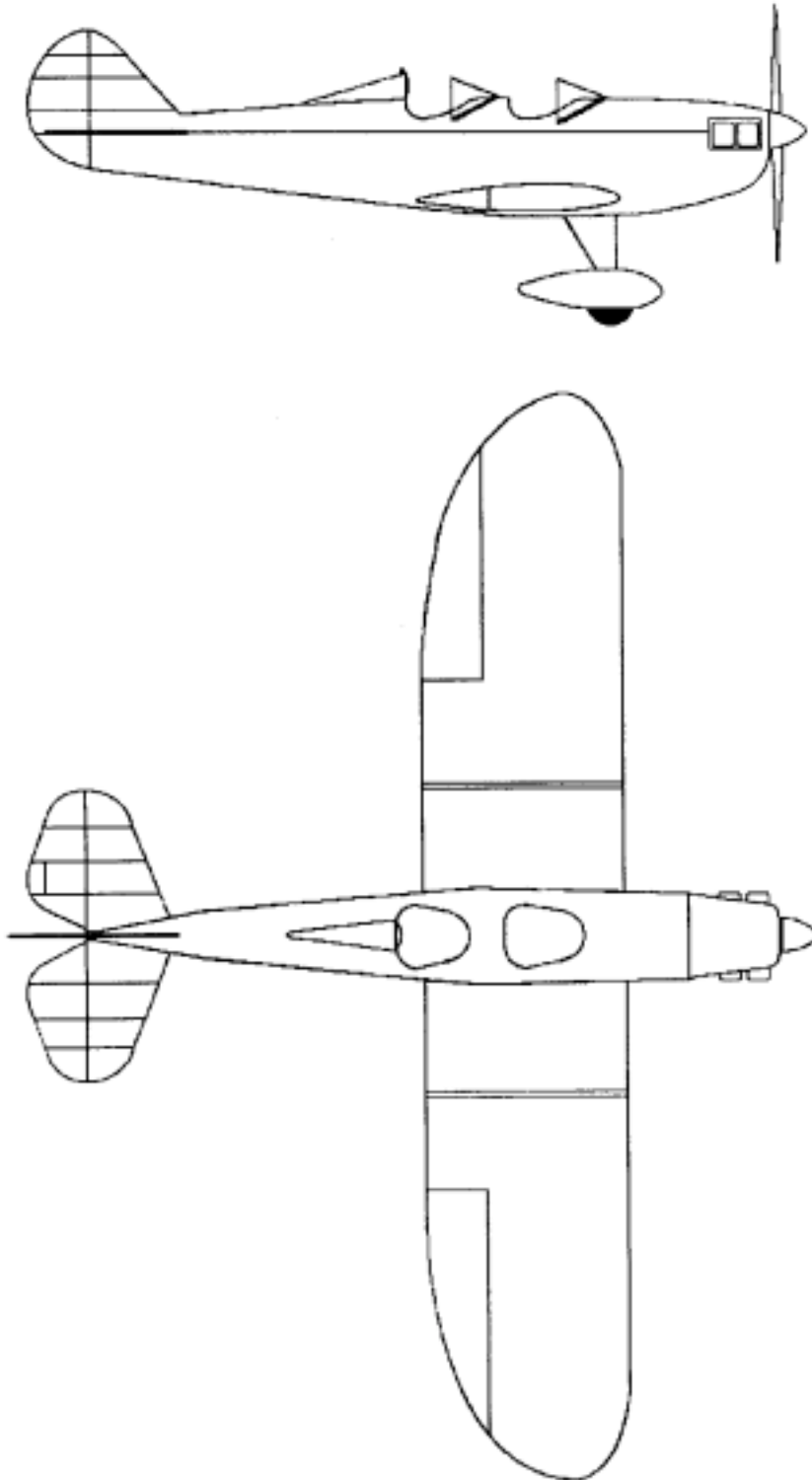
Shown below is the Warner Revolution II and SpaceWalker II Aircraft.

The nostalgic look of a 1930 type aircraft has been recreated here in a modern aeroplane that is affordable to build and fly. All of us at Warner Aircraft are pilots who love to fly. We are dedicated to helping as many people as possible build their own flying machine so that they too can experience the fun we have with ours.



Shown Below Is The "Sportster" Our Newest Design.

Many people wanted the look of elliptical wings and others wanted a wider longer fuselage that has increased luggage room and can carry heavier, taller people. The new but nostalgic looking Sportster has been designed to fit the bill perfectly. If you've yearned to fly a 1930 racer, this plane is for you!



Specifications	Revolution II	Sportster
Length	19' 9"	21'4"
Height	65"	66"
Fuselage Width	27"	29"
Empty Weight	800 LBS.	850 LBS
Gross Weight	1400 LBS.	1500 LBS.
Wing Span	28'	26'
Wing Area	126 SQ. FT.	112 SQ. FT.
Wing Cord	4.5'	4.5'
Aspect Ratio	6.22	5.68
Power Loading(gross)	11.66 LB/HP	11.66 LB/HP
Rated H.P.	85 to 150 HP	85 to 160 HP
Max Speed Sea level	120 MPH	130 MPH
Normal Cruise	110 MPH	120 MPH
VNE	140 MPH	150 MPH
Stall Speed	42 MPH	45 Mph
Rate of Climb	1200 FPM	1175 FPM
Take off run	325'	350'
Landing roll	350'	350'
Prop ground clearance	18"	18"
Roll rate	45 DEG/SEC	45 DEG/SEC
Stress	+5-3 G (ultimate)	+6,-4g (ultimate)

Note: The numbers given are for the factory Revolution II and Sportster areocraft with a 125 HP Lycoming engine.



Airframe: Conventional steel tube fuselage covered in your choice of fabric. Factory MIG or TIG (optional) welded.

Wings: A conventional wood I-beam spar that has been boxed in for durability.



Wood ribs with 4130 steel truss attachments between the front and rear spar. The wing is covered in the fabric of your choice. The wing leading edge is 2mm plywood for a clean straight line. The trailing edge of the revolution is aluminum, pre-bent into the correct shape. The wing consists of three pieces, the two outer sections and the center section. The ailerons are constructed similar to the wing with the exception that only 1 spar is used. A 1 mm plywood leading edge is used as well as the aluminum trailing edge on the revolution.

Towable: The outer wing panels are readily detachable from the airframe and the center section stays as part of the fuselage. In this configuration the aeroplane is easily towed by a car, either on a trailer or with a special hook that allows towing the aeroplane on its main gear.

Landing gear: Taildragger, Non-retractable main and tail wheel. Landing shock is absorbed by springs in the landing gear and is built to absorb a lot of abuse. Grass field operations are a breeze with this landing gear.

Brakes: Cleveland disk with dual pedals. Independent left and right side systems.



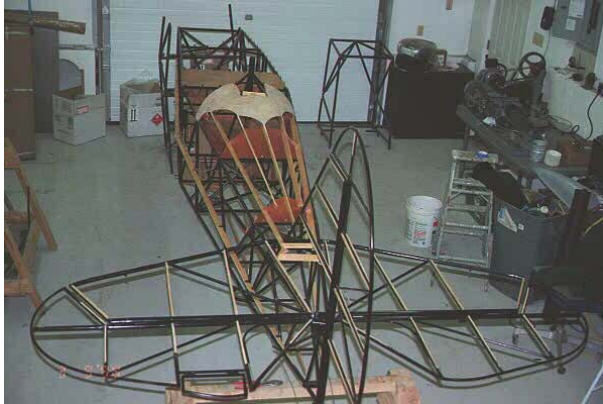
Power plant: We supply motor mounts for Continental and Lycoming engine installations. Engines from 85 to 150 HP are approved for use on the aeroplane. Our factory aeroplane uses a Lycoming O-290D, 125 HP and a metal Sensich propeller. A number of builders are working on a Subaru installation and also the Upside down Menasco engine. At 100mph we are at 50% power, and burn about 5 gallons per hour of auto fuel. We cruise in style for \$6 per hour of fuel.

Seating: Two in tandem. .. the Revolution aircraft fits people up to about 6' (without modification) and will carry aloft two 220 lb. people and full fuel. The Sportster will fit people up to 6'5" and 250 lb. each, other modified variations are possible.



Additional Features: Cockpit elevator trim. Plenty of head room! Simple entry and exit.

High Quality Materials And Construction: Chrome Moly 4130 aircraft tubing and plate stock is used through out the airframe. The structural integrity of a steel cage. Aircraft grade spruce is used in the wing spars; the extremely strong wing spar will end the concern of any pilot examining structural integrity.



The Warner Aircraft is one of the strongest and most structurally sound aeroplanes flying today. The aeroplane uses the same type of construction that is used on Piper Cubs, Maules, Champs, and other classic aeroplanes which are still going strong after 50 years of service.

The Tail Assembly: Wire braced for the strongest possible structure at the lowest possible weight. The tail itself is made from 4130 steel tube which is MIG or optionally TIG welded for exceptional strength. Flying cables (optional flying wires) are used to transfer the flying load to the fuselage.

Smooth Controls: The ailerons are push pull tube activated with rod end bearings used throughout. The rudder and elevator use aircraft cable and run over pulleys to the tail surfaces. The control column itself has delron bearings for smooth precise control response.



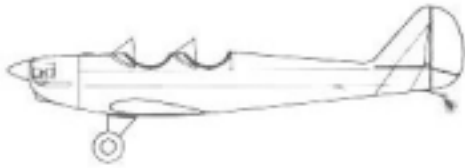
Fiberglass: The wing tips (on the Revolution) and cowling are fiberglass parts. They are made in our molds and greatly simplify the construction process. Our parts are the easiest way to complete your project without the incredibly messy job of working with fiberglass.

Operating Hours: The factory aeroplane has over 500 hours on it, combined with the 125 or so other aircraft flying have a rough estimate well over 12,000 hours of flying time.

Factory Inventory of Parts:

Warner Aircraft stocks for immediate delivery spruce spars, fuselages, fiberglass parts and many other long lead items. We are committed to deliver your parts on time and with excellent workmanship.

Cruise Speed: Greater cruising speeds are possible, but the size of the earth does not warrant greater speeds. -Igor Sikorsky in 1934

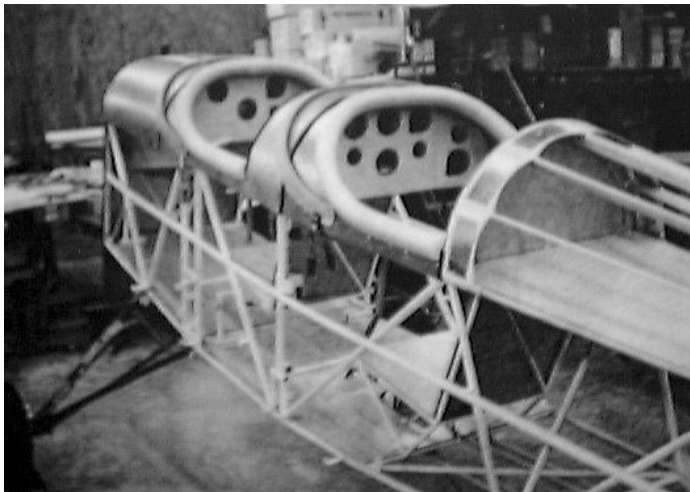


Engines: At first glance it might appear that the ideal situation would be to start your new airplane off with a new or zero-time engine. It seems a good idea until you begin to detail your first flight and you are faced with conflicting requirements. It's a good idea to ground run a new airplane and engine combination at takeoff, cruise, and descent attitudes, and to run each tank dry in the cruise attitude in order to check for fuel flow characteristics and for unusable fuel quantities. You should also taxi test the airplane for ground handling characteristics, and conduct high-speed runway taxi tests to get an initial feel for control sensitivity, and to uncover excessive out-of-trim or out-of-rig conditions.

On the other hand, the first few minutes of an engine's life are critical to its longevity. Most over-haulers recommend minimum ground run time (5-10 minutes) prior to the first flight and some go so far as to recommend towing the airplane to the runway to further minimize ground time. Some suggest a low-power first flight until the rings are seated (chrome rings on steel cylinders). Others insist on running at above 75% power for the first 10 hours or so (I prefer and have had good results with the first method; there is something about running a brand new engine flat out that bothers me. You should probably use whichever method will give you the most warranty protection). In any event, the requirements for initial test of a new airframe and those of a new engine are in conflict.



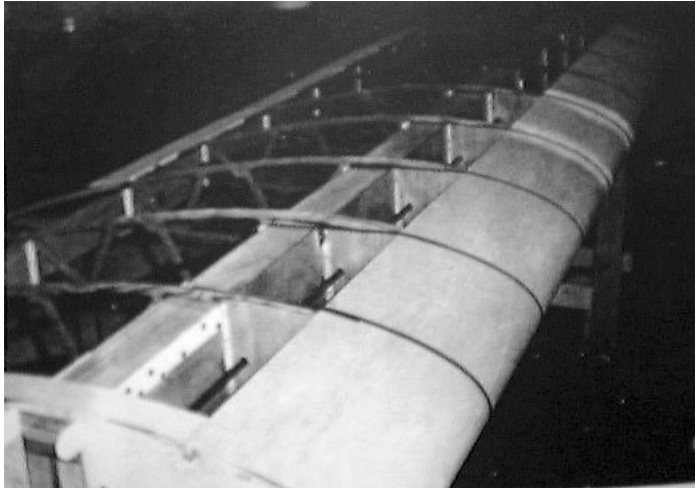
Shown here is the completed fuselage assembly ready for covering. The fuselage is a fully welded 4130 steel tube structure and is shown here with all the attachment brackets and fittings in place. All the control rods and tubes are located under the floorboards, this leaves a clean cockpit layout with a great appearance.



There is lots of room for instrumentation front and rear. Pilot and passenger sit deep into the fuselage with air flow well over the head. Note the large baggage area behind the rear cockpit accessible by a door behind the pilots head. Deck and side stringers are made of Spruce.



Hidden under all these feed bags is the main spar. Load tested to 5 G's showed no sign of failure.



Notice the outer wing panel showing the combination box and I-beam spar. The rear spar is solid Spruce and the ribs are routed from marine plywood. Note the aileron push-rod in front of the spar. The leading edge is 1.5MM Birch aircraft plywood.



Here you can see the outer wing panel to center section attachment. Note the drag and torsion members that give the wing its rigidity. Panel can be easily removed in about 10 minutes for transporting by removing 6 bolts and the aileron push tube attachment bolt.



Here is a view of the aileron belcrank in the outer wing panel. All the movement works with spherical ball rod ends. The controls are smooth and positive.

Your First Flight:

Ground handling characteristics:

When Taxing you feel more like a nose dragger than a tail dragger due to the positive steering from the steer able tail wheel. If you want to do a 180, slow to a walk, just hit one brake, one rudder and round you go. No more maneuvering problems if you get stuck down a blocked taxiway. The brakes are effective but not grabby or noisy. There is little danger of using too much brake as the pressure you must apply to get in trouble is quite high.

Takeoff characteristics: You can take off with the nose down (my favorite, best visibility) or three point. To take off with the nose down apply full power evenly, get the stick forward, get up some speed, gradually put back pressure on the stick, your flying! The takeoff takes approximately 7 seconds. Crab into the crosswind and climb out at 80 mph. With 15 KTS pure crosswind I would pay attention but I wouldn't be worried about it. There are no flaps to worry about on take off, real simple.

Climb management: I usually arrive at 1000' AGL in 30 seconds, level out and reduce power to 2100 rpm. Climb rate is best at 80 MPH, dropping the nose every once in a while to check for traffic ahead. Temperatures and pressures remain easily in the green even during those 95 degree F Florida summers.

Cruise parameters: At 2100 RPM we burn 5 gal per hour and get about 100 MPH. Very little trim changes are needed with speed changes, engine temperatures run real cool and pressures are normal through out the performance envelope.

Descent procedures: No special requirements to prevent shock cooling, typical power settings and expected descent rates.

Slow flight characteristics: No flaps to manage, stall is just a mush, no sharp break.

Landing pattern procedures: Approach at any speed, final approach 70 MPH, crosswind techniques are normal, use power at touchdown if you get too slow, touchdown speeds about 50 MPH, flare techniques and landing attitude are normal.

Landing rollout procedures: Wheel or three point landings are easy. Rudder and elevator have just the right authority for a confident rollout.

Features of the Warner Line of Aerocraft.

The open cockpit design reminiscent of the 1930's puts you back when flying was fun. Unencumbered by air traffic control, VOR's, GPS... You had the trusty (if you bang on it) compass and altimeter. Who needs those fancy gizmo's.

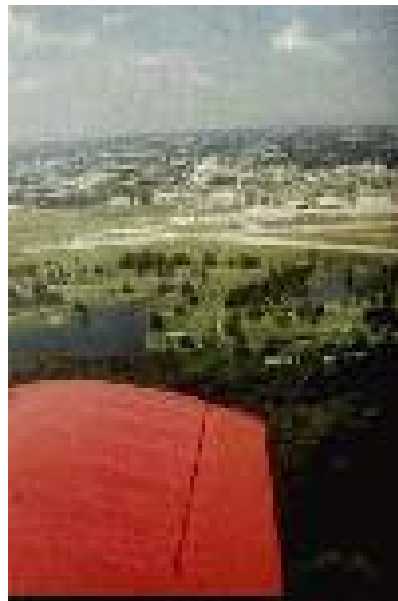
There's a short grass strip with a little restaurant for lunch! Too high on final no problem; she slips great and down you go. The short take off and short landing capability invites you down to every little airstrip you find along the way. The main gear just makes your landing feel great. The aeroplane rolls out straight, with no desire to ground loop. It's the easiest to land tail dragger I've ever flown, you think to yourself then you tell the folks who watched your landing that you've got so much experience, its like driving a car now.

Near the beach your friend lands his seaplane in the water to go for a little swim. You follow him down and pull it back into a 43mph stall into the water behind him. You get out somewhat dazed at the short landing to see your airplane sinking into the waves and remember... its not a seaplane and is only rated for one water landing, no takeoffs. Well you lived to fly another day because of the slow stall speed.

Another day, the open air washes past you, you smell the flowers, the fields. Maybe buzz a cow or two maybe not if the farmer is watching. The high rate of climb gets you out of there in a hurry when you see the farmer with his shotgun.



Sitting in the rear fuselage you have a good view forward, only missing a small amount of view to the lower front where the wing is mounted. No problem, the aeroplane begs to roll from side to side so you can take in the whole view.



Kit Price List for the Revolution / SpaceWalker

We have found that homebuilders want flexibility in purchasing their kit aeroplane projects. You can build this aeroplane from just the plans; you can purchase one of three different kits; or you can purchase individual sub-assemblies. We will even sell individual fittings or parts, whatever you need!

Kit Choices

"Best Buy Kit" includes the plans, all steel weldments tack welded in our factory jig, tabs included but not attached, fiberglass wing tips and cowl. - \$ 7,995.

Options to "Best Buy Kit"

- Spruce spar stock cut to working sizes, now includes the aileron spars.-\$ 999.00
- Pre-made spars.- \$ 1995.00
- Pre-made spars and all wing ribs.- \$ 2595.00
- Warner factory 4130 steel fittings machined.- \$ 749.00
- Wind shields and fuel tank.- \$ 749.00
- All parts fully welded and tabs installed.- \$1,195.00

"Save Time Kit" includes the plans, all steel weldments tack welded, tabs included but not attached, fiberglass wing tips and cowl, spruce spar stock cut to working sizes, all wing ribs, Warner factory 4130 steel fittings, wind shields and fuel tank. -\$ 10,695.

Options to "Save Time Kit"

- All parts fully welded and tabs installed - \$ 1,195.00
- Pre-made spars-\$ 1,116.00
- Pre-made spars and all wing ribs - \$ 1716.00

"Fast Build Kit" includes the plans, all weldments fully welded with tabs attached, fiberglass wing tips and cowl, Warner factory 4130 steel fittings machined, firewall, bulkheads, spinner, windshields, and fuel tank, pre-made spars and wing ribs, all stringers, aluminum parts, precut wood parts, wheels brakes tires and tubes, nuts, bolts and other assorted hardware (does not include engine, instruments, or covering supplies)- \$ 17,995.

Options to "Fast Build Kit"

- Primed welded parts (using Dupont Vary Prime) - \$ 450.00

Prices, Materials, and Designs subject to change without notice.

Subassembly Price List for the Revolution / SpaceWalker

We really want to get you in the air. So if a kit is not your style, and you chose not to purchase one of our Three kits previously listed, we offer the following sub-assemblies for sale.

Fuselage Assembly

The Fuselage Assembly is delivered pre-welded ready to clean up, prime and paint. All fittings and attachments are included. Bolt on the tail groups, the landing gear and you're way ahead!

\$5,750

Empennage / Tail Group

The rudder, elevators, and fixed vertical tail surface are delivered pre-welded ready to clean up, prime and paint. All flywires, fittings and attachments are included. Bolt on the tail groups to the fuselage and cover with fabric.

\$1,295

Landing Gear Group

This group consists of the landing gear truss assemblies, the gear legs, the shock assemblies, the axles are delivered pre-welded ready to clean up, prime and paint.

\$ 749

Rudder Pedal Group

Included are 4 rudder pedals, pre-welded with rudder cable links, and bushings.

\$ 149

Control Group

The torque tube assembly is pre-welded, ready to install with delron bearings. The control sticks, trim handle and knobs also included.

\$495

Brake Assembly

2 master cylinders, heel brake pedals, backer plates machined, and required push rods.

\$350

Motor Mount

A pre-welded motor mount made for either a Lycoming or Continental engine.

\$495

Fuel System

Pre-welded aluminum fuel tank, vented cap with cover.

\$555

Kit Price List for the Sportster

A new option for the tall pilot. This aircraft accommodates 6'4" pilots with ease. New airfoil shape. Stretched fuselage for more stability, greater strength. Mild aerobatics approved. Looks even more like a 1930's racer!

Two Different Kit Choices!

"Sportser Kit" Includes the plans, all steel weldments tack welded in our factory jigs, tabs included but not attached, Warner factory built 4130 fittings, all fiberglass (head rest and cowl) center main and outer main wing spars (pre-made!) , wing ribs, windshields, fuel tank, and tail spring all for just **\$13,495 !!** *The above will not include nuts, bolts ,other wood products, wires or cables, aluminum or aluminum parts, rivets, wheels, brakes, tires, tubes, spinner, covering or instruments.*

"Fast Build Sportster Kit" Includes the plans, all weldments fully welded with tabs attached, fiberglass head rest and cowl, Warner factory 4130 steel fittings machined, firewall, bulkheads, spinner, windshields, and fuel tank, pre-made spars and wing ribs, all stringers, aluminum parts, precut wood parts, wheels, brakes, tires and tubes, nuts, bolts and other assorted hardware will included everything except covering, engine, and instruments. All this for just **19,995 !!**

Order without wheels and brakes and save \$1,000.00

Order without hardware nut, bolts and etc. save \$1,000.00

Kit Options

Spruce spar stock, cut to working sizes \$ 1,279.00
Pre-made spars \$ 2,995.00
Pre-made wing ribs \$ 595.00
Warner Factory 4130 steel fittings \$ 749.00
Windshields and Fuel tank \$ 749.00
All parts fully welded and tabs installed \$1,195.00
Upgrade Welding to TIG \$ 1,500.00
Primed welded parts (using Dupont Vary Prime) \$ 499.00
Sportster wing upgrade \$ 995.00
Sportster Fuse upgrade \$ 995.00
Spinner \$ 175.00
Wheel Pants \$ 175.00
Head Rest \$ 48.50
Roll Bar \$ 225.00
Wheels and Brakes Credit \$ (1,000.00)
Nuts bolts and Hardware Credit \$ (1,000.00)
Eyebrow Kit (for Lycoming engine) \$ 195.00

Shirts \$ 20.00

Hats \$ 10.00

Revolution Plans \$295.00

Info Pack \$9.95

Sportster Video \$12.95

Prices, Materials, and Designs subject to change without notice. MasterCard, Visa Accepted.

Feel free to call, write, or email us with your order or questions.

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