



WOODSON EXPRESS

Type 2-A Three Place

\$3500.00

Equipped With 260 H. P. Salmson

\$8200.00

Equipped With 200 H.P. Wright J-4

Woodson Engineering Co.

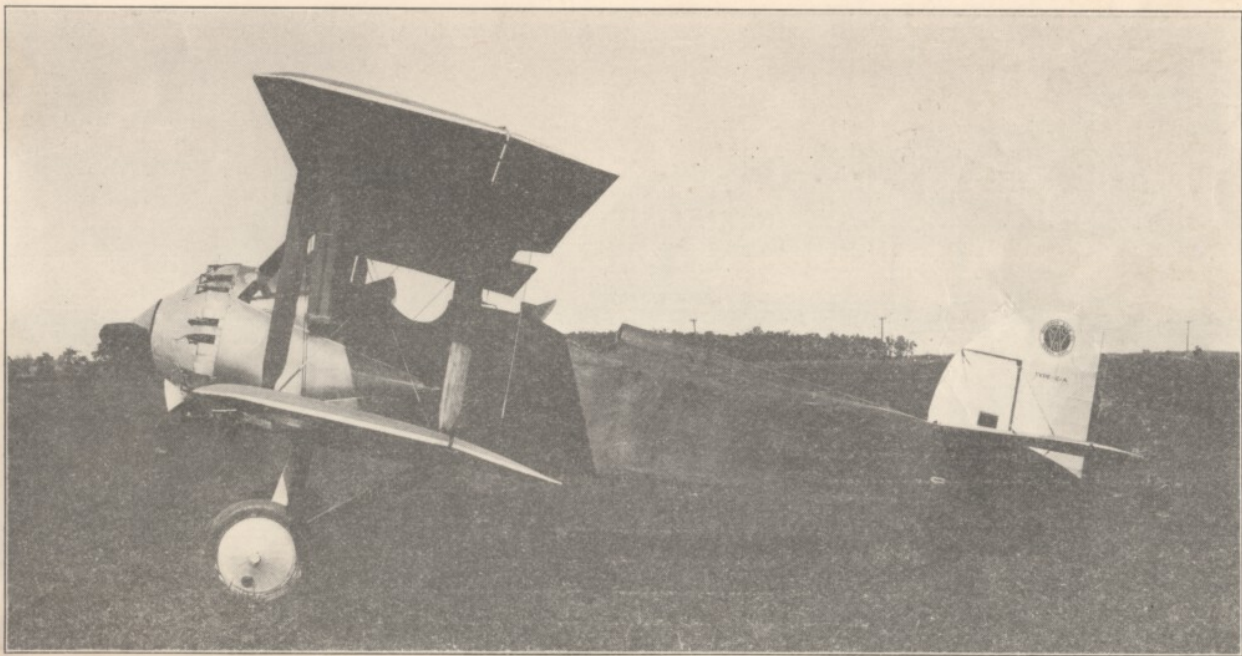
BRYAN, OHIO

FORWARD

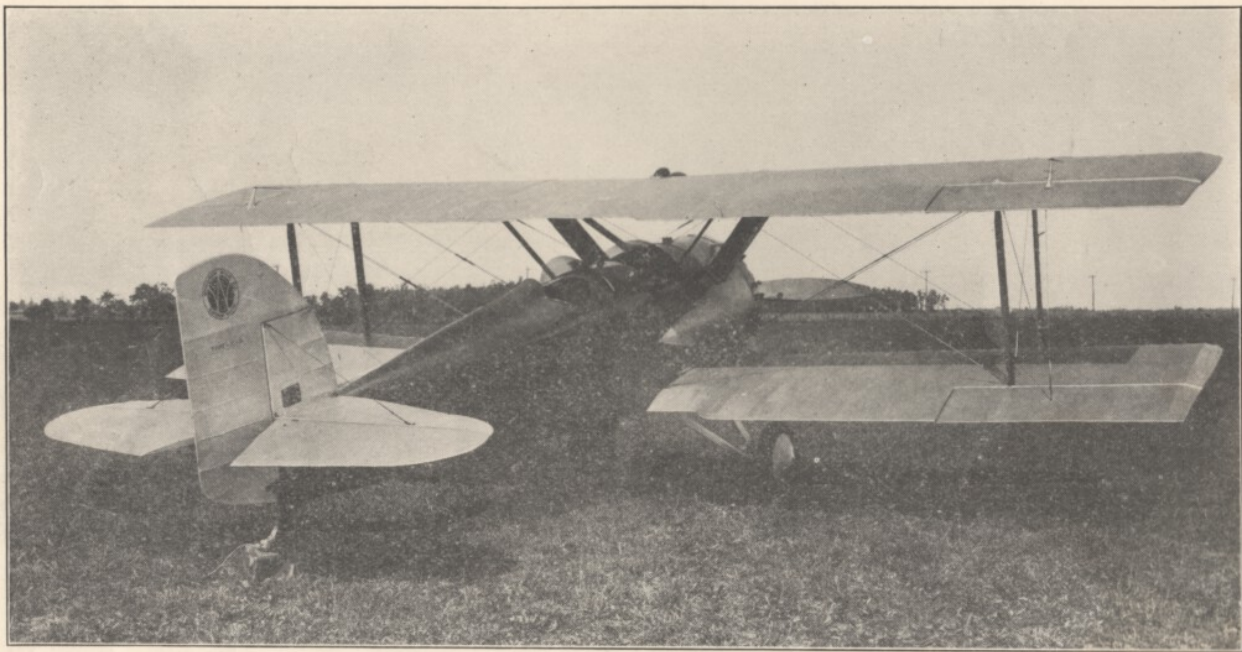
Today with Aircraft forming new links of transportation, the demand is for more POWER, SPEED, better PERFORMANCE and above all SIMPLICITY of design and STRENGTH. Realizing the demand for this type plane the Woodson Engineering Company was formed to develop a plane that would be suitable, and after two years of strenuous efforts with the best engineering skill in the country we have succeeded.

The WOODSON EXPRESS Type 2-A has all these added features, and is without question one of the best performing commercial planes on the market today and at a very popular price. This plane was designed principally for fast transportation of mail, express, news, pictures, taxi service, skywriting etc.

This plane was tested by Art Smith whose reputation as a pilot is unsurpassed, having been in the flying game since 1909 and during this time has tested hundreds of planes and for this reason we secured his services, therefore, the design, characteristics and performance of this plane carries his approval.



This model is equipped with folding seats in the front cockpit which allows a large cargo space if needed. There are also doors in the floor for mapping.



Some of the noteworthy features embodied in this plane are, its quick maneuver ability and take off, low landing speed and has full control at stalling speed.



This plane has a safety factor of 8 throughout and will withstand the roughest treatment, insuring safety.

CONSTRUCTIONAL DETAILS

MAIN PLANES

THE main cellule is made up of two upper wings which are mounted together at the center and is supported with four cabane struts at thirty degree angle. The lower wings are attached to the fuselage. Both wings are braced with a single bay of struts, double flying wires and single landing wires. Ailerons are placed on all four wings. All control wires are inside which adds to the neatness. Inter bracing is of extra heavy double steel rods. A strong veneer sidewalk eighteen inches wide extends the entire chord of the wing.

FUSELAGE

THE fuselage is constructed of spruce throughout, and is covered with $\frac{1}{8}$ inch three ply birch veneer glued with water proof glue and screwed to the structure. This type of construction has been in use for the past eight years in the U. S. Air Mail Service and has proven very reliable, will stand up under all kinds of weather and it is almost impossible to crack it. The cockpits are very large and roomy and are upholstered in rich blue leather. The pilot has excellent visibility, controls are placed in easy reach and in the most convenient place. The dash is finished mahogany and is equipped with all modern navigation instruments.

EMPENNAGE

THE empennage is constructed entirely of spruce and veneer with metal horns on the rudder and elevators. The control wires are all inside the fuselage. The stabilizer and vertical fin are adjustable from the ground. The rudder is balanced and is large enough to be very effective on the ground when taxiing.

CHASSIS

THE landing gear is constructed of steel tubing, streamlined with balsa wood and is strong enough to withstand very rough treatment. It is designed to use elastic cord wrapped in such a manner that a new one can be wrapped with ease in a very few moments. The tail skid is of the leaf spring type with a changeable shoe, we find that this type skid is the most efficient as it eliminates tail skid troubles entirely. 750x125 mm. wheels are used.

FINISH

THE finish is a combination of aluminum, navy blue and natural wood, all surfaces being treated with four coats of clear and one coat of aluminum pigmented dope and two coats of valspar varnish. All fittings are lacquered navy blue. The fuselage is finished natural with four coats of clear shelac and two coats of valspar varnish. This combination makes a very beautiful job.

POWER PLANT

THE motor used in type 2-A is the 260 H. P. Salmson nine cylinder water cooled radical which is a French motor. It was the most reliable motor used during the war. It is ball bearing throughout and with proper care will run five hundred hours without an overhaul, which is something to be considered in the cost of operation. We have three hundred of these motors and enough spares to service two thousand which will be distributed to our dealers throughout the United States so our buyers will not have to worry about securing spare parts for the motor.

PERFORMANCE

Maximum speed full load.....	148 M. P. H.	<i>Rate of Climb, Full Load</i>
Minimum speed.....	40 M. P. H.	1,000 ft. 0 min. 25 sec.
Service ceiling.....	18,000 ft.	2,000 ft. 1 min. 0 sec.
Absolute ceiling.....	20,000 ft.	5,000 ft. 3 min. 15 sec.
Space required to take off.....	150 ft.	10,000 ft. 10 min. 0 sec.

This performance was taken from actual tests, and not calculated on paper and is absolutely guaranteed by us. This plane actually attained a speed of 151.44 M. P. H. over a measured course and was landed at 34 M. P. H. and it took off in 75 feet with full load of gasoline and one passenger on a test. It has been put through every stunt possible with any plane.

SPECIFICATIONS

Length overall.....	23 ft. 3 in.	Angle of plane resting on ground....	18 degrees
Height overall.....	9 ft. 2 in.	Span of stabilizer.....	10 ft.
Span upper wing.....	29 ft. 6 in.	Area of wings including ailerons....	311 sq. ft.
Span lower wing.....	29 ft. 6 in.	Area of ailerons.....	33 sq. ft.
Chord both wings.....	5 ft. 6 in.	Area of stabalizer.....	14.3 sq. ft.
Gap at fuselage.....	6 ft. 0 in.	Area of elevators.....	19.4 sq. ft.
Gap at wing tip.....	5 ft. 1 in.	Area of rudder.....	10 sq. ft.
Stagger.....	none	Track of wheels.....	6 ft.
Angle of incidence.....	3 degrees	Wing loading.....	10.4 lbs. per sq. ft.
Sweep back.....	none	Power loading.....	12.3 lbs. per H. P.
Dihedral upper wing.....	none	Gas capacity.....	80 gallons
Dihedral lower wing.....	3 degrees	Oil capacity.....	8 gallons
Propeller clearance.....	12 inches	Cruising Range.....	450 miles

Weight empty.....	1420 lbs.
Fuel.....	680 lbs.
Pilot.....	180 lbs.
Pay load.....	600 lbs.
Total weight full load.....	3280 lbs.

*We Design and Build Any Kind of an Airplane or Any
Thing for an Airplane That You Wish*

SPECIAL WORK

We make a specialty of motor installations, covering, steel tube landing gears for Jennies, Canucks, Standards and other ships, radiators any style or shape, cowling, spinning, stampings, designing and building of special airplanes such as light planes with motor cycle engines, etc. We also do repair work, rebuilding of any type plane. If you have any kind of special work that you want done or a ship to rebuild send us the data and let us quote you a price on it. You will find we can do it cheaper.

We will also take your old ship in on one of our new ones and allow you a good price for it. Let us know what you have and the condition of it.

WRITE FOR CATALOGUE (A) FOR AIRCRAFT SUPPLIES

Send Us Your Specifications and Give Us a Trial. Satisfaction Guaranteed, Reasonable Charges

OUR MOTTO
*Better Aircraft
and Fair Prices*