

Dear Mr Fellman,

With reference to our previous contact, please find hereafter the requested offer.

STORCH HS equipped with Jabiru 2200, basic configuration

General specifications:

Storch is an two seater ultralight three-axis aircraft.

His tall aerodynamic efficiency allows short take-off and landing runs, rapid climbs and fast cruises with modest fuel consumptions.

Peculiarity of this design is the elevated confort in flight, for which pilot and passenger can enjoy for the very excellent visibility, the available space and the low noise level inside the cabin.

To strengthen the high value of this project, the aircraft is very easy to fly with a optimum control at low speed and a easy operate aircraft life.

Wing:

It is a rectangular plant type with counterwind bracing.

Used profile is laminar type with full span ailerons separate from the wing (Junker type) instead the traditional and independent flap and aileron.

These particular configurations allow a wide interval of low resistance due to the control of the wake of the wing practiced by the depression of the profiles.

The wing is full composite and the internal structure is in resined fiber and glued with structural resins.

The ailerons and the flaps, have been realized in fiber glass and carbon rivetted to a tubular spar in light alloy or in full composite while the attacks and the hinges are fixed directly on the matrix fiber.

Every aileron is hinged on the support fixed to the wing and the movement is directly braked and balanced by counterweights that also prevent the primer of flutters events.

Every wing is fixed to the fuselage through two bolts in special steel that are fixed to a tubular strut, called wing-mount, which take place at the top of the cockpit.

Every wing is lower counterbraced with an uppercut of good aerodynamic penetration connected to the mount by a support on the main landing gear strut.

On the root of each wing, in correspondance of the leading edge, take place a fuel tank made in fiber-glass.

Fuselage:

The fuselage is made by a hull in fiber of glass with a self-carrying structure strengthened by four rims that they guarantee rigidity of it.

The main rim of strength crosses the whole cabin and on it, flight loads acting on the tail boom are supported.

Tail boom pipe is made with aluminium alloy, of the same type used for the wing spar, and has been fixed to the fuselage through rivets.

The front zone of the cockpit is delimited by the firewall, in fiberglass and stainless steel sheet, on which is bound the engine mount.

Cockpit roof is crossed by a structure in steel pipes welded which make the system of connection between the two wings.

In the lower part of the cockpit, in a zone particularly strengthened, the frame for the main landing gear strut is bolted.

Two entry doors, with opening of the type similar to “wing of gull”, have a frame in composite fiber and are dressed with transparent material.

These are hinged in the upper side and are provided with dynamic air in-box with closing system for the ventilation of the cabin.

Windschild, made in plastic transparent material, it's fixed to the frame through rivets and allows a very-good visibility.

Two seats are made with a steel pipe structure dressed again in dacron, every seat, adjustable, is fixed to the fuselage through belts and rapid un-locking plugs.

The safety belts, that fasten completely pilot and passenger to the seat, had been fixed directly to the structure of the fuselage through bolts.

Empennage:

Empennage are made entirely in composite material to guarantee lightness and structural rigidity.

Fin is directly locked with rivets to tail boom, and the rudder is directly hinged on it by connections directly attached with rivets to composite matrix.

Stabilator is a complete excursion type and is linked to the tail boom with a particular steel hinge designed only for this purpose. Stabilator also includes a trim on pitch axis that is directly controlled from the cockpit and that it also absolves to the function of anti-tab.

To avoid flutter events, stabilator, is provided with balancing counterweights.

In the lower area of the tail boom, take place a specially designed caudal fin.

Landing gear:

Landing gear is a fixed type tricycle. Main gear have been fixed to the fuselage through a mount realized in welded & painted steel pipes fixed to the fuselage through bolts.

Every leg is built in aluminium light alloy, type Ergal 7075, that confers a good flexibility guaranteeing, in this way, the function of shock-absorbing during take-off and landing.

The two wheels of the main gear are Aluminium alloy separable semi-rims type with sealed bearings and tires with air chamber.

The front gear is fixed to the lower fuselage frame.

It is composed by an Aluminium wheel fork fixed on a oledynamic coaxial shock-absorber.

The front wheel is directional type, with steering movement acting from rudder pedals.

The wheel is composed by a Nylon separable semi-rims type, with sealed bearings and tire with air chamber.

To reduce drag, all the wheels can be covered with farings made in fiber glass.

Flight Control:

Aircraft is controllable around three axis through two ailerons, with full opening, stabilator and a rudder for yaw control.

Ailerons are commanded by the cloche through rigid rods and levers, while the stabilator, always commanded by the cloche, it is controlled by bowden push-pull type cables.

Ailerons control, opportunely designed, allow the differential command of the same.

Moreover, they have, in the hinge points, spherical terminals that confer to the whole command a good freedom with precision in the movement.

Rudder is always controlled by pedals by bowden push-pull type cables.

Stabilator is provided with an automatic anti-tab that can be commanded by the trim.

It is fitted a mechanical flapperon system, with a manual command to three positions, that allows to modify the incidence of the ailerons in function of the dynamics of the flight.

Engine:

Jabiru 2200 with 80 HP engine.

This is a very light unit with four cylinders and four stroke, fully made in aluminium light alloy.

This engine has the advantage to have the traction of the propeller set directly on the crank-shaft (without propeller gear reduction), further to be integrally air cooled.

Performance data:

Power plant:	Jabiru 2200 80 HP
Max speed (Vne):	215 km/h (116 kts)
Stalling speed (Vs):	64 km/h (35 kts)
Cruise speed at 75% power:	160 km/h (86 kts)
Max rate of climb:	4 m/s (787 ft/min)
Glide rate:	9
“g” limit:	+4 -2
Fuel consumption at 75% power	12 lt./h
Fuel wing tanks capacity:	60 lt.

Flight instruments:

Altimeter,

Air speed,

Vertical speed,

Slip indicator

Compass,

Engine instruments:

Cylinders Head Temperature (CHT),

Exhaust Gas Temperature (EGT),

Carburettor Air Temperature Gauge,
RPM Indicator,
Hour meter,
Oil temperature Gauge,
Oil pressare Gauge,
Fuel Pressare Gauge,

The airplane is equipped with the following systems and warnings:

Air Box System,
Auxiliary Fuel Pump System,
N° 2 yellow low level fuel warning lamp,
Low Oil pressare warning light,
Generetor warning light.

OFFER

STORCH HS JABIRU, basic configuration:	€ 38.800,00
Headset ICOM HD 1002	€ 220,00
Trasponder Becker ATC 4401/175	€ 1.650,00
GPS Garmin Pilot 196	€ 950,00
Tail Strobo light	€ 283,00
Radio ICOM ICA 200	€ <u>1.304,00</u>
	€ 43.207,00

VAT: Quotation are VAT excluded,

Delivery time : 60 days,

Payment condition: 30% at the order confirmation, the balance at delivery,

Offer valid up: 30/July/2004.

With the hope of a positive definition with the sale of the plane,

Yours sincerely,

FLY SYNTHESIS

Massimo Piva