

# Glastar/Sportsman Parts Cross Reference Sheet

## **Control surfaces:**

Ailerons and Rudder are all identical between Glastar and Sportsman.  
Elevator is a direct replacement, but newer design has bottom mounted trim servo.

**Horizontal stabilizer:** Identical

**Stabilizer attach bracket:** Identical

**Rudder hinge weldment and upper hinge fittings:** Identical up to 2022 Kits  
New Rudder yoke and fuselage attach fittings are not compatible to old rudder yoke and fuselage attach fittings

**Flaps:** No compatibility. *Note: Sportsman flap tracks and flaps can be retrofitted to the Glastar wing. Much easier to do if the upper wing skins aren't in place yet.*

**Wings:** Sportsman wings can be installed on a Glastar, but they will be heavier and reduce the Glastar useful load by an estimated 80 lbs.

**Note:** *the aft spar connection to the fuselage cage is slightly different. The aft spar doublers are thicker on the Sportsman. May not fit in the pivot weldment. Requires the use of the Sportsman pivot weldment.*

## **Wing Spars:**

Not compatible. The raw spar extrusions are the same, so a Glastar owner could build Glastar spars from them.

**Note:** *The major differences are with the spar (root) doublers inboard and the doublers at the strut beam location (mid span).*

**Wing ribs:** compatible (main and nose)

**Cove ribs:** Not compatible

**Hat section stiffeners:** Compatible

**Aileron bellcranks and brackets:** Compatible

**Flap bellcranks and brackets:** The brackets are compatible, but the bellcrank assembly is different.

**Fuel tanks:** Compatible except for sending units. The size is the same. Sportsman fuel tanks use 5-hole sending unit (Stewart-Warner). Glastar fuel tanks used a 4-hole sending unit pattern. It will be a fairly easy retrofit to install Sportsman tanks in a Glastar.

**Strut beams:** Strut beams and spar attach brackets are compatible.

**Lift struts:** Lift struts between Glastar and 2350 GW Sportsman are compatible. *Not so for the 2500 GW (carbon) Sportsman which uses a larger lift strut and upper fittings.*

**Wing tips:** Compatible, Sportsman has cut out for wing tip landing lights.

**Wing skins (main):** Not Compatible. Sportsman wing skins are thicker material.

**Wing leading edge skins:** Compatible with low gross weight Sportsman only.

**Stabilizer and elevator tips:** Compatible

**Rudder tip:** Compatible

**Rudder base fairing:** Compatible

**Tail-cone:** Not Compatible. Not Available.

**Hatch covers:** Not Compatible, *but with some cutting and work, the Sportsman hatch covers could be modified to work on the Glastar.*

**Wing control cables:** Compatible with modifications. The Sportsman cage is 1.0" taller than the Glastar. As a result, the total cable lengths from the wing bellcranks to the control stick is 1.0" shorter on the Glastar. So, flap and aileron control cables will need to be compared. The cable may be up to 1" longer in the fuselage on the Sportsman.

The aileron crossover cables are compatible between Glastar and Sportsman. In order for the Sportsman flap cables and aileron cables to work on a Glastar: the cable attachment at the flap handle is nicopressed. So not a problem. The aileron cable length could be shortened at the bellcranks in the wing. *So, with an understanding of the difference, the cables can be used on the Glastar .*

**Wing pulley brackets:** Compatible

**Wing Cove skins:** Compatible

**Ailerons:** Compatible (same overall size and hinge brackets on the wings) however, Sportsman ailerons use a trim tab on the RH aileron and a slightly larger servo tab on the LH aileron.

Glastar owners retrofitting a Sportsman LH aileron will need to install the servo tab plus the pushrod assy plus the attach tab that rivets to the aileron hinge bracket. For retrofitting the RH aileron, (if skin is notched) the Glastar owner will need to purchase the trim tab plus Mac trim servo plus pushrod.

**Main Landing gear:** Not Compatible. Glastar gear sockets are slightly smaller in diameter. Langair can fabricate Glastar struts.

**Note:** *if Glastar owners convert to 6:00 x 6 wheels and tires, the Sportsman axle nuts, sleeves, spacers and brake flange attach brackets are all compatible. In other words, the axle-end of Glastar and Sportsman main gear struts are the same diameter.*

**Nose strut:** Not Compatible

**Fuselage:** Not Compatible.

**Windows:** Main door, windshield, and aft copilot side are compatible. Skylight, and baggage door window compatible with modification.

**Doors:** Compatible with slight modification.

The door seal flange on the Glastar needs to be widened in three places where the door latch pins engage bushings buried in the fuselage. There are loaner molds upstairs in parts inventory shelves for this purpose. Sportsman doors would need to be purchased with all parts for latching mechanisms plus the three plastic bushings to be bonded in the fuselage.

**Cage:** Not compatible

**Engine mount:** Compatible

**Cowling:** Compatible

**Firewall Assy:** Compatible with blank.

**Note:** *this does not account for variations in firewall pass through drilling.*

**Control sticks and weldment Assy:** Compatible

**Flap handle weldment:** Compatible

**Seat and seat rail weldments:** Compatible

**Seat pans:** Compatible

**Rudder pedal weldments:** Compatible

**Aileron pushrods:** Compatible

**Flap pushrods:** Not compatible. Sportsman pushrods are longer.

**Instrument Panel:** Compatible

**Glare shield:** Compatible

**Top Deck:** Not compatible

**Note:** *top deck can be compatible if the Glastar owner replaces the hatch covers to match the Sportsman top deck.*

**Elevator bellcrank (in tailcone):** Compatible

**Elevator and rudder cables:** Compatible if Sportsman cables are shortened and ends swaged to Glastar length

**Tailwheel steering cables:** Compatible

**T3 Suspension system:** Must be ordered specific to the Glastar or Sportsman. Tail cone shapes are different. (Glastar is smaller bottom radius)

**B.A.S. Tail-pull handle:** Must be ordered Glastar or Sportsman specific. (Sportsman is wider in tail cone area)

**Vertical fin spar:** Compatible

**Fuselage bulkheads:** Not compatible

**Floorboards (fwd):** Compatible

**Forward control tunnel cover:** Not compatible.

**Note:** *Sportsman cover is in two pieces. It could be trimmed narrower for Glastar use.*

**Control cable cover:** *Overhead horizontal cover behind seats will work on the Glastar. Vertical cable covers are compatible as well.*

**Seat cushions:** *Compatible.*

**Note:** *seat backs on Glastar's were shorter than sportsman, so sportsman seat back cushions may not work.*