

Spinner For Sale

I have the following Continental 0-200 parts with 80 hrs TT for sale. SAE#1 pattern for 3/8" bolts.

Spinner bulkhead plate- A/C Spruce part number 10102	\$20
Spinner- A/C Spruce part number 10101	\$35
Acorn fairing- A/C Spruce part number 10104	\$15
All of the above	\$50

You do need the interior bulkhead (A/C Spruce part 10103) to complete the assembly.

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Happy New Year

Pay Attention to Details

Carl Denk - (OH) After a recent flight, I moved the propeller to a horizontal position and heard a light swish of air, that wasn't usually there. I suspected a valve leak, and anticipated some future work to minimize damage. While trying to pinpoint what cylinder it was, I noticed air breezing across my finger as I moved the prop. It wasn't very long before I identified a crack on the head at the top of the cylinder, between fins. The crack was less than an inch long. If these cracks are left to continue, the cylinder head separates from the cylinder resulting many times in a engine fire.

The moral to the story: Pay attention to the smallest details. How many of you, EVERY time you walk up to your automobile, look for leaking liquids, low tires, or nails in the tires? How much force does it require to move your plane into its parking space (where the surface condition and slope is always the same)? If it is more than usual, maybe the tire pressure is low or you may be dragging brakes.

Canopy Gas Spring

Jim Voss - (Russia) If you are still holding your canopy open when you taxi on windy days or if you worry about your canopy coming open in flight, you need to install a gas spring to hold your canopy firmly open but also firmly closed. I installed my canopy gas spring when I built my Long-EZ but it would be an easy modification to a completed aircraft.

I purchased a Gas Spring Corporation unit, FEN-127-P1-45, from Aircraft Spruce. The geometry shown in the drawing is for this spring which has a fully extended length of 9-5/8 inches. This correct length spring holds the canopy firmly in the open position and pushes the canopy down, so it remains closed, when in the closed position. My gas spring is just over center when the canopy is almost closed so it pushes the canopy firmly closed, but doesn't slam shut.

If you use a different gas spring, you will have to figure out the geometry yourself. I did my sophisticated engineering design analysis by making a wooden mock-up of the gas spring out of two sticks held together by a bolt with wing nut. I cut a slot in one of the sticks so the total length was variable from the shortest that the gas spring could be to the longest that the gas spring could be. This allowed me to find the proper attach point for the spring on the roll over structure and on the aluminum angle canopy cross brace. The easiest thing would be to use the A/C Spruce gas spring so you can use my dimensions which have worked well for several years.

Fabricate the roll over structure's aluminum bracket attach point, the aluminum angle that replaces the arrow stock canopy stay and the aluminum bar that reinforces the attach point on the aluminum angle. The aluminum angle should be long enough to extend into the canopy rails about one inch on each side to assure secure anchoring. Make the attachment holes in the bracket and bar appropriate for the size of the bolts on the

ends of the gas spring.

Cut out the fiberglass arrow stock canopy stay and replace it with the aluminum angle. Flox it into place. Be sure to get it oriented correctly and allow clearance for the roll over structure and seat back as shown in the drawing. Drill the gas spring attachment hole in the aluminum angle at the exact location shown in the drawing with respect to the canopy hinge (or per your geometry if you changed things).

Attach the aluminum reinforcing bar to the aluminum angle with two flush rivets so the attachment holes match. This strengthens the attachment point.

Install a hard point where the bracket goes on the roll over structure. Make it like the original plans hard point with a plywood insert and several layers of BID glass on top. Attach the bracket as shown in the original plans. If you use different parts or dimensions, this is where you will have to use the mock-up gas spring to get the geometry right before attaching the bracket permanently to the roll over structure. This might be worth doing in any case, just to be sure the geometry all is correct.

Then attach one end of the gas spring to the crossbar and attach the other end to the aluminum bracket that goes on the roll over structure.

The canopy should open to about 90 degrees and should close easily with the gas spring exerting a force downward to hold the canopy closed. The cross stay aluminum may flex a little as you open or close the canopy but it is strong enough.

So, there is no more need to taxi with your arm up on the canopy rail and no more worries about the canopy opening on takeoff.

ED: An other big advantage is all the standard canopy closing mechanism is moved out the way of the back seater's knees. Jim may have never ridden in back and ripped open a knee on that stock Brock part's sharp edge.