

"Dear Lynn and Ken,

I look forward to your newsletter as I'm well into Osprey and I have incorporated many of the good ideas you have published. Keep up the good work.

I have come up with many minor changes, but one in particular may interest builders:

ELIMINATION OF LANDING GEAR ASSIST SPRINGS, (LGAS)

I decided right at the start I would not put in the LGAS. There had to be a better way. After talking to many builders the only other idea was to put the springs inboard and use pulleys to get the assist action. I discarded this idea as being too complex with the inboard area being as busy as it is.

Experience I had at work with gas springs provided the answer. The gas spring pushes instead of pulls, allowing it to fit right in a small area.

I have had the system in for one year and it has worked perfectly every time, 100's of activations.

The following drawings depict how I did it-there could be many variations-depending upon your preferences. (See Insert Page for Drawings)

The gas spring I now use pushes 135 to 140#. I have used one as light as 60# push, but it was hard to raise the gear. The present one, for me, is just right. You can experiment with various pressures to suit your particular situation.

If anybody is interested I will be at Oshkosh, around the Ospreys on Sunday, Monday and Tuesday with colored pictures of my own installation. I have also put a flush hatch on the top of the wing for gas spring replacement if necessary.

I purposely have not put dimensions on the drawings as each installation might be slightly different. The important thing is that the gas spring does not contact any of the structure during its operation, there should be no side pressure on it.

Sincerely,

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LANDING GEAR SPRINGS

The landing gear assist springs as shown in the plans have a draw back. The gear cannot be setup without the outboard wing panels attached. I was also unable to find the springs described in the plans.

A niftier system, I think, is to use a larger diameter, but shorter spring and move it to the center section. I used a hood spring from a 1965 Mustang. (\$1-each at the wrecking yard. An AMC Hornet or Gremlin spring will work as well.) I welded a clevis to the inboard retracting truss arm for one end of the spring, and another clevis to the upper outboard arm to accept a 1 3/4" ball bearing pulley. The arm on the gear rotate axle was rotated and welded 90° down. Tension on the spring was set by cable length to balance the gear at 45°.

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