

### ERNIE HUMMEL IN THE SKIES AGAIN!

After the first two flights in my new Osprey 2 I turned up a problem in the electrical system that has really had me going daft, also every other gilhooley on the Nut Tree airport has had his mitts into the deepest depths of the blasted wiring. I just may have found the trouble yesterday (May 15th). The fuel valve item has been good for some term head scratching too.

### OSPREY 2 FUEL SELECTOR VALVES

Osprey 2's with wing fuel tanks require a selector valve or valves, usually located in the cockpit area, for control of the fuel flow from the tanks to the boost pump and engine. The valve often used is the IMPERIAL brass two way valve. Experience has shown this valve to be very unsatisfactory since with use it tends to become next to impossible to operate due to fuel residues accumulating around the rotating core. The only remedy for this problem was to remove the valve and clean and lap the moving core to provide operating clearance, or apply a \$48.00 per tube compound called FUEL LUBE. Either procedure involved a lot of time and trouble, and the lubrication route only solved the problem temporarily because the lube compound dissolved and disappeared after awhile.

The Wicks and Spruce catalogues for 1986 carry a new line of valves called WEATHER-HEAD. These valves are almost exactly the same design and dimensions as the Imperial, but feature a DELRIN-CORE. This core is produced from a synthetic material and supposedly provides a smooth action indefinitely. The cost, at present, is the same as for the old valves.

The new valve design apparently resulted from the complaints of many homebuilders and especially loud and long were the howls from the Long-eze group.

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Dear Ken and Lynn,

It's been a long time between Newsletters. Oshkosh and summer activity must have kept people away from the type-writers. Here is a quickie that might help some people. I live in a rather remote area and to find enough help to roll the fuselage and center section over is almost impossible. As a result I have done a few things a little differently. First, I foamed and finished the bottom of the hull without the center section spars in place. Then I rolled the fuselage upright and foamed the cockpit/cabin, before installing the spars. This makes it considerably easier to work around the cabin area without the center section in the way.

Instead of rolling the entire fuselage/center section upside-down to make the landing gear doors, per dwg #37, on the wing itself, I am making the doors separately. I drew a rough outline of the gear cover doors on a piece of paper and laid poly film over it. By placing it on a flat surface and pouring the foam to cover the outline and of sufficient thickness, I have two big flat sections of foam. By retracting the gear in the upright fuselage I can carve out the undercut area to clear the gear by gently pressing the foam up against the landing gear, making an impression. Carve and shape the foam to fit flush against the bottom camber of the wing with sufficient clearance for the gear. Shape the outside and glass both sides with the attachment bosses in place.

Incidentally, I had made a box section jig the exact spacing of the spars in the fuselage. I clamped the spars to this, aligning the datum, and fitted all the landing gear and spar attachment fittings while in the jig. I used the Torrington self-aligning bearings per one of the earlier newsletters.

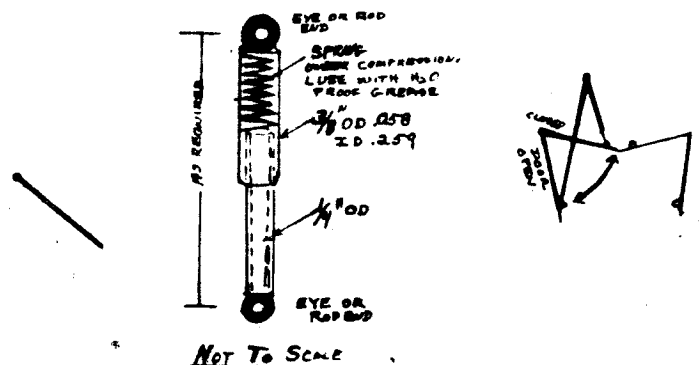
Sincerely,

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Enclosed sketch of push mechanism - used on the SeaHawk amphibian to push open nose gear doors - return of doors is done with cable attachment to retraction gear. The geometry would have to be worked out for the Osprey but the simplicity of the idea seems worthwhile, particularly for those who want to use split doors. Attachment methods could be varied to suit the builder as long as freedom of rotation and extension is maintained. The designer told me the spring he used was obtained at an ACE Hardware store.

### NOSE GEAR DOOR OPENER MECHANISM



WANTED: 50% or more completed OSPREY 2 project.  
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