

Thought I would pass on a few of the changes I've made while building and flying my Osprey off water. This bird weighs in at 980 lbs empty including the following equipment. ARNAV 20 Loran, King KY92 transceiver, RADIO SYSTEMS TECHNOLOGY INTERCOM 442, Narco Model 800 transceiver (back up hand held unit) air speed, altimeter, rate of climb, artificial horizon, clock, turn & bank, tach, engine hours, hydraulic landing gear control on the front panel and two canoe paddles.

The antenna and ground plane copper screen for the Loran ~~NO. 30~~ ^{NO. 300} mounted inside the hull just aft the propeller and was installed thru the top access door just aft the fuel tank. The antenna used is called "Low Profile" bent whip 8.1 inches high.

Modifications I have made to the landing gear and control system are as follows: On drawing No. 30 I changed the two control push rods from 5/8 x .065 2024 T-3 aluminum to 5/8 x .049 4130 steel. This was done after I twice had one leg of the landing gear fold up and retract, once when on jacks a jack slipped dropping the airplane about 6 inches on one side onto the tire. The second time I was coming out of the lake on a seaplane ramp which I hit going a little sideways, with the gear again collapsing. In addition to the above rods I also strengthened the AXLE (on drawing 29) by putting a solid rod in the center of the 3/4 x .049 steel tube, welding it in position while repairing the spiral torsion fracture of this tube. The walking beam axle (drawing No. 19 (9)) I changed from 7/8 x .035 to 7/8 x .065 steel and added a 1 1/8 dia. "MILWAUKEE" hydraulic cylinder attached to the upper end of the walking beam with a third also picks up the shoulder harness retracting mechanism. The hydraulic cylinder power comes from a small wobble pump mounted beside the control stick and the hydraulic oil reservoir is mounted just forward of the control stick on the floor. This system works real well and takes the heavy load off the gear extension and retraction.

All of my flying to date has been off water and has resulted in my making the following changes to eliminate water coming up the nose, over the windshield and into the upper fresh air vents and of course thru the propeller. First, I extended the spray rail forward and around the front of the nose as shown by Drawing No. 38 (8) and 5 (11) and then I also added a second upper spray rail made out of a hardware store aluminum extrusion intended for a step edging. Between these two I seem to have fixed my low speed water over the windshield problems. I also increased the right rudder travel to aid in low speed turns on the water to (21 degrees right and 16 1/2 degrees left).

My revised electrical system wiring diagram is drawing 44 (9).

Ray Shepherd
8948 N E 192nd Place
Bothell WA 98011

