

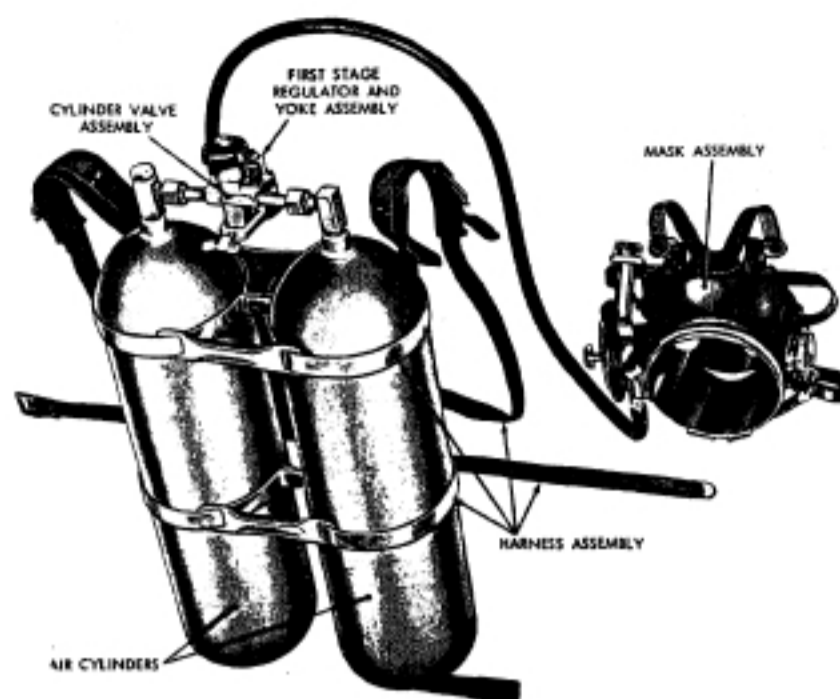
pins). We installed the -006 (AN6227-1) "O" ring on the stem shaft and screwed the stem into the regulator body until its tip contacted the poppet lightly. We then backed the stem out CCW a degree or two (Note: CCW denotes counter clockwise and CW to be clockwise in rotation of the stem and knob). We slid the reserve knob onto the stem noting that the body stop pin was on the correct side of the knob's "two" pins to allow CW rotation. We then rotated the knob CW until the stop pins and/or the stem bottomed. Finally, we tightened the two set screws with the 1/16" Allen wrench and then rotated the knob back to its CCW stop and noted a gap of approximately .054" between the body and the knob. To check if this is correct you should be able to rotate the knob slightly CW before you feel pressure starting to unseat the poppet. If you do not have this free play you will breathe down your reserve pressure. Now with the knob fully CCW the detent spring tip should drop into the left setscrew hole as you tighten its two mounting screws. Add the nipple coupling(s) with a -010 (AN6227-5) "O" ring and tighten using your tank's valve as a tool. Install the pipe thread type fittings with pipe tape and you have a first stage ready to test and set to its 100 P.S.I. intermediate pressure. We followed the manual and set all three of our regulators at the same time.

The Hydro-Paks used storage tank style on/off valves with two leather-packing rings on the stem and a nylon washer under the burst disc. The military single tanks used the standard U.S. Divers' "K" valve and the twins used Scott's rare "Navy" manifold with a spring-loaded reserve built in. Cleaning and assembling followed our normal practice and the Scott manual.

Scott's standard tank is a 48.3 Cu. Ft. bottle (at 1800 P.S.I.) with a round bottom while the twin used two standard elliptical bottom scuba bottles of 61.3 Cu. Ft. (at 2150 P.S.I.). Both Navy units used the standard scuba bottles but the twin's were mounted with the special twin reserve valve on top.

We had our bottles hydrostatic tested but strayed from authenticity in that our twin bottles were from Scott's aviation products. The bottles are the same, dimensionally, but require reducer bushings for the 1/2" Scott Hydro-Pak valves. We painted our tanks (and backpacks) Scott's gray-green color and added the...*Scott*...logo in safety yellow (under the tank band on the single tank lungs) and stenciled in red:

**FILL WITH AIR ONLY 2150 P.S.I. (or 1800 P.S.I.)  
KEEP VALVE CLOSED EXCEPT WHEN USING**



*Rare U.S. Navy twin Hydro-Pak*

aviation oxygen bottle stainless steel bands are used. They bolt the tanks together and to an aluminum standoff riveted to the backplate's center. The backplate curves back at the bottom providing tabs that clamp to the regulator coupling nipples.

On the single tank band is a neat silk-screened logo, in yellow, featuring a winged circle with a diver in the center. Scuba Workshop is attempting to recreate this logo both as an original screen and as a decal for other restorers.

We assailed our upholstery guru, Dave Gade, for help with color matching the dyes and in stitching up new webbing for our units. The civilian webbing is OSHA safety green, the military (twin only) is in olive drab while the prototype and early units used natural cotton webbing (off white).

Scott's place in diving history has not been adequately documented. That Scott was the first U.S. company to design and produce a complete scuba for the recreational sports market can be argued only after firmer dates for production of the Divair and Desco's Dolphin full-face mask unit can be found. Certainly the Dolphin's Jack Browne mask was developed many years before the Scott, but which company first combined all their products into a usable open-circuit scuba and sold it to the public is still to be determined. For now we can trace the development of each Hydro-Pak detail from Scott's early work in aviation to the Air-Pak and then to the Hydro-Pak and thus document that Scott copied only Scott.

Unfortunately for Scott Aviation, being first does not always equate with profits and in fact Scott lost money on the Hydro-Pak from the very start. With sales of \$290,000 the first year, Scott lost \$25,000. Even with sales increasing to \$400,000 and then \$750,000 over the next two years respectively, Scott was not to see a profit. As we have mentioned earlier the Scott sold for nearly \$100 more than contemporary models and that may have been a contributing factor.

*More information on this article can be found on our home page link at [www.hds.org](http://www.hds.org).*