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Paper D

Experience in Using the Service Manual on Keel Assembly Renovation by M. Donavan with Variations for an Earlier Atalanta (A-16)

The methods described by Mr. M. Donavan were followed but some differences were found due to the age of the boat. The equipment was also simplified to make it easier for amateur fabrication.

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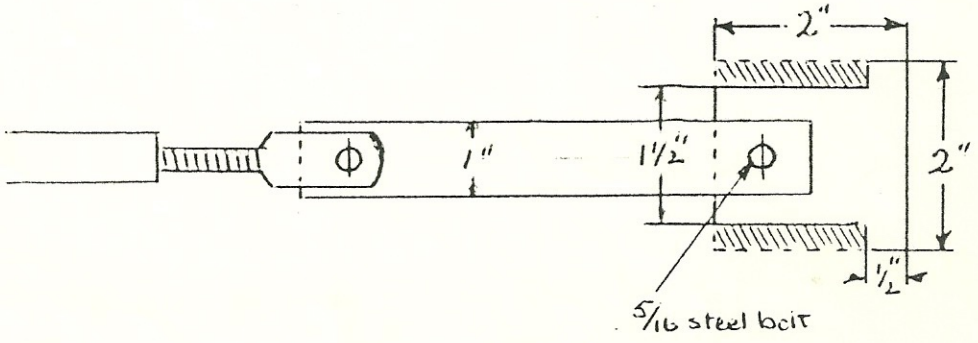
There were no $\frac{1}{8}$" thick steel plates inside the keel boxes, instead the bolts were countersunk into the wood (solid mahogany). The keel bolt tubes were not long enough to have accommodated a $\frac{1}{8}$" plate and I presume that this plate was a modification after the change to plywood boxes.

2.3 The pylon was made to the design shown but bolted together, this being easier than welding for home construction. A block and tackle was used instead of a winch. This was satisfactory but a winch would have been more convenient.

2.3(h) The jack mechanism was removed by extracting a split pin and withdrawing a $\frac{1}{2}$" diameter pivot bar. It was not necessary to remove the four bolts through the diagonal bulk head.

2.3(j) A-16 was fitted with swash boards which pivoted on the $\frac{1}{2}$" clamping bolt. When the stirrup was fully lowered, the bolt was still inside the plate box. It was designed to be removed in the fully up position by removing a circular tufnol cover on the jack box. This allowed a box spanner to be fitted to the bolt head. In practice, both bolts were badly corroded and were cut off.

4.1 Three simplified extractors were made using only a hack saw and drill.



The schematic diagram shows an extractor which was used in the same way as described in Section 4.2(d).

The material required is 1" x $\frac{1}{8}$" and 2" x $\frac{1}{8}$" mild steel strip. Cut six 2" x 2" squares and shape by cutting away the shaded areas. Bolt to one end of a 1" x $\frac{1}{8}$" strip with a 5/16" bolt. Cut the strip to length to suit available bottle screws. Fork ends can be fitted using the clevis pins, but shackles must be used for bottle screws with eyes.

5.0 The metal parts were originally galvanised and I had no idea when this was done. There was very little metal loss and I decided to re-galvanise. For guidance, the cost in 1978 at Bristol was £26 for the complete keel mounting structure, pressure plates, bolts and stirrups.

6.1 When I removed the keel mounting structure there was no felt washer at seal face 15 and the gap was negligible. I, therefore, decided that 6mm Plastazote would not compress enough and used 3mm instead.

6.2 I followed the procedure and found only one difficulty. The Plastazote tended to be squeezed outwards as the bolts were tightened. It is essential to tighten the bolts slowly and uniformly, fitting all bolts before commencing.

7.1 The stirrup clamping bolts were inserted and tightened through the holes in the jack boxes.

7.2 A-16 was previously fitted with swash boards. These were not refitted but a change was made to neoprene under-water seals. The change has been satisfactory. It is now easier to lower the plates and the cockpit floor is drier.

I would like to express my appreciation for the excellent service manual prepared by Mr. Donavan. The clear description of the work involved gave me confidence in starting such a major overhaul. Apart from the slight variations given above, I followed the techniques described with satisfactory results. There were no leaks.

L. K. Burton
Laloessa A-16