Introduction

Much has been written and many detailed instructions given regarding the removal of the famous Atalanta Keels. Now that many of our boats are reaching their Golden Anniversary, I am sure that more owners, will find when keel removal is contemplated, whether by desire or necessity, there is resistance from six very obstinate residents. I refer, not to those well bred crew members who slide gracefully from their well greased housings to nestle affectionately in the hands of their loving Skippers, but to those surly corroded beasts who cling tenaciously to their rusty pitted lairs, displaying only a clean gleaming thread to lull us into the mistaken belief that they are performing their duties properly.

I am sure that there are many among us who religiously tighten and slacken the nuts according to instructions, but receive little if any benefit for their efforts. Having acquired 'HIRAN' in1983, I joined the latter ranks and the removal of those bolts had to be achieved. I followed religiously, in actions but certainly not verbally, the instructions given in 'Donovan on Keels', a must for those contemplating this action, but there was not a millimeter of movement. Then, fortunately for me, the AGM and Dinner intervened and the Hon. Sec. George Parker, sat me next to the redoubtable Mr Donovan, from whom I learned many secrets regarding the construction of Atalantas, the treatment of metals and much encouragement in my efforts. Before we sat down I met briefly Paul Harris (A71) and Fred Boothman (A60) *(both are no longer owners),* whom had both struggled with bolts (further contact took place during 1984). Fred's bolts required many evenings of constant beatings with a sledge hammer, but Paul's residents seemed to be closer related to mine and more serious measures had to be adopted.

I list the various methods used and hope these may be of assistance to owners who are suffering the same problems.

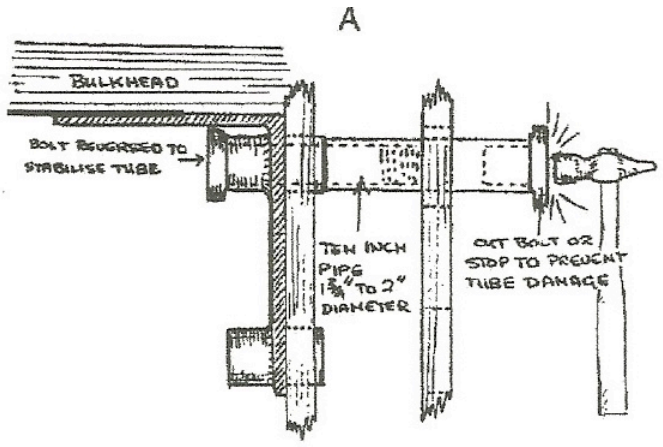
Releasing Agent and Brute Force

First, a hole about 1/8" diameter was drilled into the tubes in the position that will later have a grease nipple inserted. Then releasing fluid was introduced to soak for as long as possible, topping up if required. Contrary to the instructions in Donovan on Keels, the tops of the keel boxes in the forward cabin were removed and releasing fluid was sprayed and sprinkled as near to the bolts and inner clamping plate as possible (only the top bolt is visible).

I removed the clamping nuts from the bolts, as the following actions will certainly damage them. I must also mention that if you have reached this desperate stage, you will probably have to replace the bolts and clamping plates, also the backing plate if you have one. As the sledge hammer (14lbs) had not produced results, I hired a Kango hammer (No 501 which fits between the bolts and can be switched to hammer only, but measure the distance before hiring or borrowing). I found it was best to use only the drill holder as it did not slip off the bolt head. The hammer can be placed in the required position and rested on a platform. I used a small car tire and various pieces of wood to wedge it at the correct height. Constant application of releasing fluid and a small torch to look down the holes drilled in the tubes, so you can see the first movement (hopefully) as you operate the hammer.
According to your success or not, further holes can be drilled along the tubes. Keep them in a straight line and include one or two at the junction of the tube and plate, at an angle to get releasing fluid into the tube where it goes through the keel box. More fluid, more Kango if there is no success! Then with a small cold chisel I split the tube between the drilled holes and levered the

tube open! *(With the wisdom of time, I only advise this extra drilling and splitting if you are desperate, repair of the Brackets is costly).*

My advice is not to split the tube holding the main Pivot Bolt, as in the experience of both Paul and myself, if they resist the hammer and sledge it is quicker and less costly to cut these lower Bolts. They are accessible from below. Obtain a machine saw blade (the tungsten tipped are cheaper and less liable to shatter) and fashion a handle long enough to easily allow you to use two hands. With the Keel propped up securely *(rememberthat it weights 4801bs)* and a long screwdriver or wedge hammered between the inside keel clamp and the keel as far forward as possible, insert the saw blade and commence to cut. Depending on your comfort, strength, stamina and whatever time the pub opens or closes; the job should take between 1% to 3 hours for each bolt I refuse to divulge the time I took! The lowering of the keels has been covered many times. I fortunately had the use of a hoist, described in D. on Keels, by kind permission of Mr Partridge (A184), which for a single-handed operation was invaluable. It is highly probable, depending on the damage made to the keel brackets, that removal and renovation of the brackets might be necessary. The problem here is the corrosion on the tubes, which go through the keel box, meaning that they are larger on the inside of the Box. By inserting a 3/8" screwdriver or similar instrument through the Bolt access ports and hammered between the tubes and the wood (a long and arduous job), you can remove some of the corrosion. Then use a ten inch length of pipe between PA" to 2" diameter, inserting one of the old bolts (cleaned of course) through the tube in the reverse fashion to stabilize the pipe, with one of the cut bolts as a stop in the end of the tube that you will be striking (as illustrated — A).



Then, after removing all the bolts holding the Brackets to the Keel Boxes and Bulkhead, use liberal amounts of White Spirit to soften the white lead that seals the plate to the Keel Box. Hit the pipe sharply and constantly on the top bolt tube. This should move the bracket away from the Keel Box. Allow more white spirit to soak and then by alternating the pipe to each tube, you should start to get some movement. You may have to use a wedge of some sort to start separation and although it will damage the Keel Box slightly, this can be repaired with filler before replacement. There is almost sure to be further damage as the tubes are withdrawn from the box unless you decide to chisel the wood away from around the tubes inside the box. Either way, renovation will be needed. Hiran (A95) did not have a backing plate neither did Paul Harris' A71, so I decided to make one as the 3/8" bolts holding the bracket had caused extensive damage as they were removed and the inside of the keel box needed much repair.

While I am around I will be happy to discuss the advice given. Colin Twyford A95
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Note by Hon. Ed. George Parker. 6 months of soaking, heating, hitting and jacking split the tube as described. Even then, it still needed simultaneous wedging, heating and a 5 ton hydraulic jack to shift the last bolt! They ***all move eventually,)***