

S III - REBUILD - PART 4 - UNDER THE FLOOR.

The part of the boat under the floor is very important. There are two box section girders and some wooden floor beams that are fibreglassed onto the skin of the bottom of the boat. If these are sound and the fibreglass has not delaminated from the metal, wood or the bottom of the boat then you are fortunate and apart from a good clean and paint you can proceed with other things. The laminations of the bunk sides and bulkheads to the bottom of the boat should also be sound, but they are of much less importance to the strength of the boat.

If, as is often the case, particularly if the boat has been left for any length of time with water in it, the girders are badly corroded, then they should be replaced.

The purpose of the girders is to give the bottom of the boat, and in particular the bilge keels, the rigidity they need when sailing hard and especially when the boat takes the ground. Without these girders the keels vibrate alarmingly when sailing and they will "hog" when the boat takes the ground and even when it just stands on the trailer. Just for information "hogging" is when the keel or keels of a boat distort the bottom of the boat by trying to push up into the bottom. I mention this to stress the importance of these girders because to replace them is a major task.

If the bunk sides are rotten, remove them and their framework and have some new girders welded up like the old ones. Chop out the old ones and reglass the new ones in place. To do the job with the bunk frame and sides in position you will have to make vertical slots down through the bunk sides and framework to get the old girders out and the new ones in place. The wooden floor beams are usually sound. It should only be necessary to re-laminate them on to the hull bottom.

You must ensure that these wooden beams and the floor of the boat are absolutely DRY before you do any laminating otherwise it will be a waste of time!

I have seen one or two S III's where these metal girders are solid. This suggests an alternative method of replacement with solid square or rectangular section plated and bolted in the floor space. This way it is much easier to get the girders in position without destroying too much of the bunk structure.

To get comparative rigidity to a welded box section you will need 6mm mild steel plate either side of your solid section and three 12mm bolts on each side of the boat centreline. They must be a good fit in the plates and through the steel section.

When you are satisfied with the under floor situation just have a good look back under the cockpit floor. Here is the bottom part of the rudder tube, where it is glassed into the hull. If there are any rust streaks at all on the part where it is glassed in, the rudder tube will certainly have to be renewed.

That will be the subject of the next article.