

## **REFURBISHING FRAMED WINDOWS**

### **Removing the window from the boat.**

Remove the screws, these may be self tapping or bolted through. If they are the latter it is a two person job as someone needs to be on the inside to stop the nuts or interscrews from turning. Do not use an electric screwdriver, they have a tendency to slip off the head of the screw and will damage the frame before they stop turning. Also, if the window is fixed with interscrews the pressure you apply will unseat them. Do not lever the frame outward to remove it, if you bend the aluminium you also stretch it making it impossible to get flat again. Break the seal using a putty knife and a mallet, work round the frame along the line of the joint. Round off the corners of the putty knife with a file before you start to prevent them from digging in and damaging either the boat or the frame. Once you have gone all round the window you can pry it out gently without bending the frame. If the fitter used too much sealant you may have to go inside and cut around the window with a knife.

### **Taking the frame apart.**

First clean off all the old sealant. Do not use abrasives, you will damage the anodising. Use a solvent such as Detak and a plastic scraper. Label all the parts to make sure you can reassemble them in the correct order with the glass the right way round.

It should become apparent that there are screws adjacent to the joints in the frame. Most frames are held together with internal fishplates at the joints however if you are unlucky and have a welded frame removing the glass is much more difficult. If you have to drill out the screws you may need to make new fishplates out of aluminium bar. Assuming the frame joints are at the corners remove the screws on the top and bottom pieces of the frame, not the sides. Soak the old sealant both inside and out with Detak. With a block of wood and a mallet tap the side pieces out of the top and bottom. You should then be able to remove the top and bottom frames from the glass. Once dismantled all parts should be thoroughly cleaned and all old sealant removed. Cut away as much of the sealant in the frame as you can with a craft knife and a mortice chisel. Brush on more Detak and scrape off any remaining mastic on the metal. Thoroughly clean the frame using 0000 grade wire wool and car aluminium-wheel cleaner.

### **Re assembly.**

First do a dry run without the glass to make sure that all the joints butt together and the screw holes align with the fishplates. Find a rubber seal that is a good fit and cut small pieces of rubber as spacers to hold the glass centrally in the frame. Use sealant on the frame joints and screw holes when you reassemble. Mask the glass with masking tape about 5 or 6mm away from the frame both inside and out and the frame to the edge. On the outside of the window pump a suitable sealant (Arbosil 1096 black) into the joint between the frame and the glass. Squeegee the sealant into the joint until it has almost filled the frame on the inside. Smooth off the bead with a rounded instrument, using a drop of soapy water if the sealant is starting to cure. Let the sealant cure thoroughly at least 24 hours before putting a finishing bead of mastic on the inside. Once everything is cured, remove all the masking and any excess mastic and use a car or boat wax polish on the frames to protect them.

### **Refitting.**

Once the window has been stripped down and the glass re sealed, care must be taken (especially on larger frames) to prevent the seal between the glass and the frame from being damaged before it is refitted to the boat. Always carry the frame supported from below. Do not lift it by grasping the top edge. Before refitting the window check that there is not excessive sagging or flexing in the deck when it is walked on which will cause the frame to distort when screwed in place. If the aperture depth changes by more than a few millimetres check the deck bracing webs between the hull and the deck or any cross beams and if necessary strengthen or replace them. If they are glassed in entirely, make sure that the timber inside is sound. Offer the window up before applying bedding tape and check that the fixing holes align. If they do not, fill the holes in the hull and drill new holes. Do not force the screws in at an angle as this puts undue stress on the seal between the glass and the frame. Make sure that all old sealant is removed from the boat. A scraper that will not damage the gel coat can be made out of a scrap of Perspex 3-5mm thick about 25mm wide sharpened at 45° on a grinding wheel. Use it in conjunction with a suitable cleaning fluid or cutting compound such as Farecla G3. Fit the window using Scapa 3507 bedding tape. Do not use a two part polysulphide sealant, you may need to remove the windows again at some time. Windows are service items and need to be removed easily every ten years or so for refurbishment (or in case of damage). For more information on using bedding tapes see our factsheet: Refitting frames at [www.yachtwindows.co.uk/Pages/Downloads.html](http://www.yachtwindows.co.uk/Pages/Downloads.html)