

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. Once you have gone all round the window you can pry it out gently without bending the frame. 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.

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. It should become apparent that there are screws adjacent to the joints. 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. Cut away as much of the sealant between the frame and the glass as you can with a craft knife. The frame should pull apart but if it doesn't, do not try to force it apart by inserting a screwdriver at the joint and levering. This will only damage the frame. Think about how you would clamp the frame together then reverse the process. If you have a "workmate" bench use the plastic lugs onto the inside face and wind the frame apart, or use a sash cramp with the clamps reversed and protected to force the frame apart. However do not apply so much force that you bend or damage the frame. It may help to squirt Detak between the frame and the glass. Once dismantled all parts should be thoroughly cleaned and all old sealant removed.

Label all the parts to make sure you can reassemble them in the correct order with the glass the right way round.

Reassembly.

First do a dry run without the glass to make sure that all the joints butt together and the screwholes align with the fishplates. Find a rubber seal that is a good fit or cut small pieces of rubber to hold the glass centrally in the frame whilst you pump in mastic. Use sealant on the frame joints and screwholes when you reassemble. Mask the glass with masking tape about 5 or 6mm away from the frame both inside and out and pump a suitable sealant into the joint between the frame and the glass. You may need to squeegee the sealant into the joint until it can be seen to have filled the frame. Smooth off the bead with a rounded instrument, using a drop of soapy water if the sealant is starting to cure. It is best to do the outside face first and let it cure thoroughly before putting a finishing bead on the inside. If you have used a rubber seal I still recommend that you mask up and put a bead of mastic round to prevent seepage, it is highly unlikely that the frame is engineered to such a fine tolerance that there is not a difference in thickness of the channel, especially if it has been bent to radius the corners. 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 resealed, 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 webbs 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 sealant 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 gelcoat 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. Replace the window using Scapa 3507 bedding tape or a suitable soft sealing mastic. Consult the technical department of your sealant manufacturer for the most suitable product in their range. 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