

## Section 8

### Windows and Hatches

#### Windows - L17

##### **Construction - Tough and Enduring**

Some 47 years ago in 1967, the first Leisure 17 appeared at the 11th Earls Court Boat Show. The 5 windows in the cabin, including the "panoramic" front window were formed from 4mm perspex secured in rubber seals. This was the standard method of window installation used at the time in the automobile industry.

Remarkably, some Leisure 17s still have the original perspex windows and rubber seals. Back in the 1960/70s there apparently lurked a suspicion that perspex pressed into a rubber seal might give way in heavy seas, and boat builders later moved away from this method. However two Leisure 17s have made documented, long distance, single handed, voyages and the original windows gave no cause for concern. In 1968 John Adam crossed the Atlantic and in 2012 Ramazan Culum sailed from Bodrum in Turkey, to the UK, in a 42 year old Leisure 17, including crossing Biscay in October/November.

##### **What Is The Problem?**

Although the rubber sealed windows held up well, they all eventually leaked and this widespread fault is probably why you are reading this. Some people have made temporary repairs with adhesives such as Sikaflex or Silicone, which may get you through a season or two, but in the end, the rubber seals on the windows will degrade in the sun and need to be replaced. If you are able to re-use the existing 4mm perspex window panels and intend only to renew the rubber seals, you stand a fair chance of success.

##### **Window Removal**

First remove the windows and seals by extracting the "locking" strip which you can see set into the face of the rubber seal, on the outside of the hull. Use a screwdriver and a bit of force to initially prise out the "locking" strip. Once it has started, the strip will pull out fairly readily. Once the "locking strip" is removed you can push out the perspex windows from the inside of the cabin, surprisingly easily. Have someone on hand to catch the window. You don't want to scratch it as it falls to the ground. Then remove the old rubber seal.

With masking tape or similar, mark the perspex windows, port or starboard and indicate the ends, forward or rear. When the windows are removed, you will soon see the necessity for identifying marks, since the windows are anything but flat panels! Their shape follows the curve of the hull, vertically and horizontally. The small, round windows and the front window have very idiosyncratic shapes!

If your original 4mm perspex window panels are scratched, marked and clouded by sea salt and UVA rays from the sun, you could try and restore the surface. There are many restorative products on the market as a quick Google search reveals. Also, try old fashioned Brasso which does remove sea salt that has been wind blasted onto the perspex.

##### **Replacing The Window Rubber Seals**

Replacement rubber sealing materials are obtainable from [Wilks Of Tollesbury, Essex](#)  
[Seals Direct](#) [Technical Guide to Seal Replacement](#)  
[Littleport Boat Haven](#)

The usual size of seal to order is  
WR69 Window Section 10 x 5 mm: 9 metre length  
FS72 Black Filler Strip: 9 metre length  
GT75 Glazing Tool  
Although the original perspex is 4mm, the 5mm seal size will accommodate this.  
Cost of rubber seals is around £65 (2014)



*New Window Seal Fitted*

You might be offered the choice of silver filler strip, but this is reportedly more difficult to work with. It might be prudent initially to order enough rubber seal for just one of the larger windows and see what success you have with this, before rushing on.

Carefully measure the window aperture. Add an extra 25mm to ensure a tight fit where the two ends of the seal meet in the aperture. Use a straight edge to make clean cuts, and cut the rubber at a right angle for the oval windows

Inserting the new seal into each window aperture is probably a two man job (and a serious test of a relationship). Most importantly don't attempt the job in cold weather since the seal must be as warm and as pliable as possible. On Youtube there are good video examples of how to insert the seal into the aperture and Seals Direct have [an instructional file](#).

However on the L17 you quickly realise that the thickness of the GRP on the side of the cabin and the internal lining (if fitted) is far from uniform. The cabin wall thickness around the aperture can vary by 3mm plus and this makes the job more challenging!

Having inserted the new rubber seal in the window aperture, insert the original perspex window into the seal. This is not a one man job and takes even more patience. Some tips, possibly born of despair can be found in the Forum comments below. Seals Direct sell a special tool to help ease the rubber seal around the window.

Once the window is in place, take the filler strip and push it into the groove on the outward face of the rubber seal, using the tool which the seal manufacturer provides. This action can be seen on Youtube videos and locks the perspex firmly in place. The correct tool from the supplier is well worth buying and you will be amazed how quickly this task is done, after the struggle getting the window into the seal.

If you struggle with the first window, don't be too disappointed. Brian Meerloo, Cobramold's founder, was challenged to do this job by the team who carried out the task daily. How long it took Brian he is not prepared to reveal, but it can be done, given time and patience. Be prepared for a stream of well wishers offering patent methods. Keep calm. Courtesy here could save subsequent arrest for assault.

Another suggested method is to fit the rubber seal onto the window then wrap a strong thread around the outer groove in the seal. Offer the window up to the outside of the cabin (you need two pairs of hands), with an end of the thread through the aperture into the cabin. Making sure that the window is pushed firmly onto the cabin side, pull the thread to work the inner rubber section through the aperture, and into the cabin. It's just as tricky as it sounds!

If you have successfully replaced the seals and perspex in the side windows, you now come to the front window which for many owners, proves a step too far. It's a narrow window with a tight curve and complex shape. If you have struggled to replace the front window rubber seal and perspex, keep reading, there are solutions.

### ***Replacing Original Perspex Windows***

If you think it's time for completely new windows, it's also time to sit quietly with a cup of tea and think carefully before proceeding! Buying a 4mm sheet of perspex/acrylic online is easy, just ensure that is UV treated.

[Sheet Plastics](#): [The Plastics People](#): [LIV Supplies](#):

A single sheet 1220 mm by 1220 mm (4ft square) will provide all five windows and cost around £60 (2014).

Keep in mind that the original perspex windows were hot moulded to shape in the factory before installation. Even if you have a facility to heat perspex, it's doubtful you will have a mould. Furthermore, the windows which you have removed are not flat, so cutting an exact replacement will be a challenge. You could contact a local windscreen/window replacement service and hand the job over to them. Leisure owners have done this in the past. Nowadays it's becoming harder to find a company prepared to work on small boats but it's worth a try.

Also consider that you are about to replicate 1960/1970's technology. Your new rubber seals will eventually leak again and as you are discovering, replacement is not easy!

## **Replacing the Original Windows With Later Screw Down/Bolt On Technology**

You could consider moving to the later method of window installation, used from 1975 onwards on the Leisure 17SLs and also on the Leisure 23SL and Leisure 27/29 models. In essence, this means screwing/bolting the windows to the cabin sides. The principle is to secure the window down on a neoprene rubber strip which, pressed against the cabin side, provides a waterproof seal. No adhesive (such as Sikaflex) is used on the neoprene strip and the windows can be removed later, easily.



However on the L17, the rounded shape of the cabin sides means that perspex/acrylic is not really suitable for this job. The much tougher material, polycarbonate, is required, the same stuff they use on fighter jet canopies. Polycarbonate is so tough and resilient, it is suitable for cold moulding. It will take a remarkable amount of bending and shaping whilst cold, without cracking. Furthermore you can move down to a 3mm thickness which makes shaping to the cabin sides that much easier. A disadvantage of polycarbonate is that it does mark or scratch more easily than perspex/acrylic.

Using the screw down/bolt on method of window installation, cutting new polycarbonate window panels to overlap the window aperture, is far easier than trying to cut new window panels to fit exactly inside the aperture and rubber seal. And the front window will hold no terrors! How to do this is the subject of a separate article here [Screw on Windows](#)

## **Windows - L17 SL**

The new 'wedge shape' cabin superstructure introduced in 1975 with the Leisure 17SL, featured a move away from rubber sealed windows. The cabin sides of the L17SL were flatter and the new screw down/bolt on method of attaching windows was used.



Unfortunately the windows were sometimes secured on to a sealant which eventually leaked as it expanded, contracted and dried out in the sun. This method of attachment also makes window fitting and removal a messy business.

After removing the screws or bolts, insert a thin blade gently between window and cabin side to break the sealant. Carefully prise the window away from the cabin side. For full details on replacing the windows and bedding them down on a neoprene rubber strip, please see this article [Screw on Windows](#). There are further articles on similar window replacement carried out on an [23SL](#) and [27SL](#)

## **Hatches - L17**

There are two "holes" in the cabin top of the L17. Let's deal with the smallest first, the ventilation "hatch" in the roof at the front of the cabin.

### **Ventilator**

It's a "mushroom" type ventilator and can be "opened" from above or below. "Opened" is possibly an optimistic word to use since the lid or top of the ventilator does not move very far.



Inside in the cabin, there is a (large plastic) screw. Turning the screw in one direction raises up the ventilator cap, allowing the passage of air. Turning the screw in the opposite direction lowers the ventilator cap and restricts the passage of air.

You can do the same from the outside by screwing the ventilator cap down or up.

It's pretty basic, and does work well enough, but the original ventilators contained a mix of metals, brass and stainless steel. Corrosion usually sets in when the screw has not been moved for a long time. Patience, WD40 and similar "freeing" sprays might loosen corrosion's grip and restore the ventilator to a working condition.

It might be easier to remove the ventilator entirely for any remedial work. It is held only by s/s self tapping screws on to a bed of sealant. The sealant will probably have gone solid with age and is probably a source of water ingress anyhow. The sealant can be removed by a sharp blade worked between deck and ventilator.

### **Replacement Ventilator**

However if remedial work fails, there is a ready made stainless steel replacement made by Vetus, the Porthos Model ventilator. The other models Athos and Aramis (named after the Three Musketeers?) are too big. It's available from most chandlers. [Marinestore](#) have them for under £40.

Alas the screw holes of the Vetus ventilator don't exactly line up with the existing holes in the deck, so fill in the old ones with Sikaflex and make pilot holes for the new screws. Finally lay down a nice bed of Sikaflex and gently screw down the new ventilator. Allow the Sikaflex to set overnight before screwing down tightly.

### **Main Hatch Cover**

The main hatch cover on the L17 is of curved, GRP construction with mahogany strips fixed to the outside lips/sides of the hatch.

Screwed/bolted to the inside side of the hatch, through the GRP to the mahogany strip, is a female brass runner or rail. Over this brass runner slides a stainless steel fitting.



This stainless fitting is attached by just one single bolt to the cabin side at it's front end, in such a way that the stainless fitting pivots around the bolt.

Finally at the rear of the hatch opening sits a stainless steel plate on which the hatch rests when closed.

This description of the metal fittings from one L17 owner is about as good as it gets!

*"I measured the hatch fittings. The two SS C sections are the same C section used at the stern to carry the mainsheet slider. They're 560mm long x 19mm wide x 5.5mm deep. At the cabin end there's a small plate welded carrying a bolt that goes through the cabin side to allow the SS C sections to swing up. The two brass sections screwed to the inside of the hatch are*



500mm long x 15.5mm wide x 5mm deep.

There is also a SS rest on each side of the cabin entrance for the C sections to rest on."

It looks rather Heath Robinson but it's quite ingenious! When closed, the hatch cover is held securely. It can then be pushed forward, sliding open to about 2/3 of it's length. Finally it can be pivoted upwards to leave the hatch fully open. The upwards pivot is restricted only by the position of the boom.

In time the metal parts suffer from corrosion, the screws holding the mahogany strips to the hull give way or the pivot bolt at the front similarly gives up the ghost.

The screws and the pivot bolts are fairly easy to replace but the s/s slider and brass counterpart are not.



### **Replacement Hatch Cover**

New GRP hatch covers are available from [Gerry Askham at Hurst Marine](#) for around £200. However you will need to fit the timber trims and find a source for the metal fittings.

It's surprising that the LOA have not had these metal fittings in their spare parts inventory. It would need a willing owner to remove a set of fittings and submit them so that patterns could be made, but in 2014 there are plans to remedy the situation.



### **Hatch Washboards**

Over the past 47 years, L17 owners will have made changes to the original washboards which seal the front of the cabin hatch. New washboards made from marine ply or tinted perspex adorn many L17s, but amazingly the original mahogany strips which clamp the wash boards in place are often nearly as good as new!

The mahogany retaining strips are held in place by long wood screws inserted from the cabin interior. The washboards slide between the GRP recess and the mahogany retainers.

Originally a s/s screw was then screwed from the inside through the GRP to grip the wash board or sometimes, into a hole in the washboard. It's an odd arrangement. Firstly this large screw pushes the mahogany retainers outward and away from their fixings. Secondly the screw thread in the GRP soon becomes worn and the s/s screw flops uselessly in the enlarged hole.



Far better to mount two **swan** necked bolts on the top wash boards. The bolts slide into corresponding holes drilled on each side of the companionway.



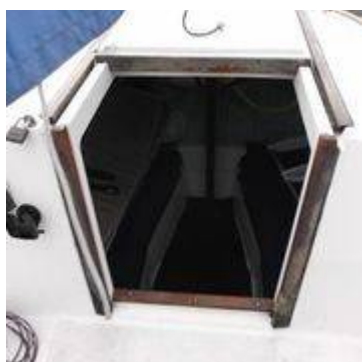
There are no "standard" wash board sizes. Each boat moulding differs slightly, and when measuring up the hatch aperture, you might find it easier to remove the mahogany retaining strips completely.

## Hatches - 17SL

### **Main Hatch and Washboards**

The main hatch and the washboards were completely redesigned when the more modern "wedge shape" cabin top was offered in 1975 in the SL version.

You can see from this photo of the replacement hatch offered by Hurst Marine for the 17SL, that it's quite different



The main hatch now pushes forward under two hardwood runners.

The arrangement for the washboards is also slightly different.

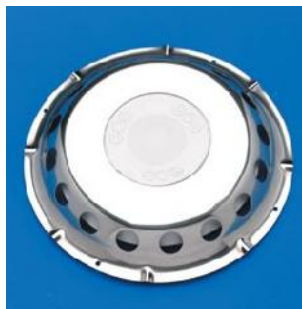
No metal fittings were used in the design of the SL hatch which has proved remarkably tough and fault free.



### **Ventilator - L17SL**

The ventilator on the later SL version is quite different as it is of the fixed, domed type. There are no moving parts but in time the internal plastic moulding does degrade, crack and leak.

If you have a puzzling leak, examine this internal moulding carefully.



## **Repair, Modifications etc**

### ***Reference Library***

[Replace Windows 23SL](#)

[Replace 27SL Windows](#)

[Window Replacement Screw-on](#)

### ***Forum Items***

[Locker Lid Seals](#)

[Main Hatch](#)

[Main Hatch Fittings](#)

[Main Hatch Fittings 2](#)

[Main Hatch Fixings](#)

[Main Hatch Leaks](#)

[Ventilation](#)

[Ventilators](#)

[Ventilators 2](#)

[Vetus Ventilators](#)

[Window Fitting](#)

[Window Redesign](#)

[Window Replacement](#)

[Window Replacement 17SL](#)

[Window Replacement 17SL 1](#)

[Window Replacement 2](#)

[Window Replacement 3](#)

[Window Seals](#)

[Window Seals 2](#)

[Window Seals 3](#)

[Window Seals 4](#)

[Window Seals 5](#)

[Window Sizes 17SL](#)

[Window Supplier](#)

[Window Suppliers](#)

[Windows Fixing](#)