

# Installing the Product

Applies to product version - 2018  
File: Installation-25 Jan

Before you start here you should have looked at the **'Before You Install'** details.

This is designed to help you with the vast range of trailers, winch platform variations, winch posts as well as the different types of boats.

- 1 Aligning the Trailer Rollers/Slides
- 2 Moving the Winch Post
- 3 Installing the Snare
- 4 The Right Angle of the Latch to the Snare
- 5 Installing the Latch
- 6 Adjusting the Latch relative to the Snare
- 7 Trailer Sticker

For more information :- [www.boatlatch.com](http://www.boatlatch.com)

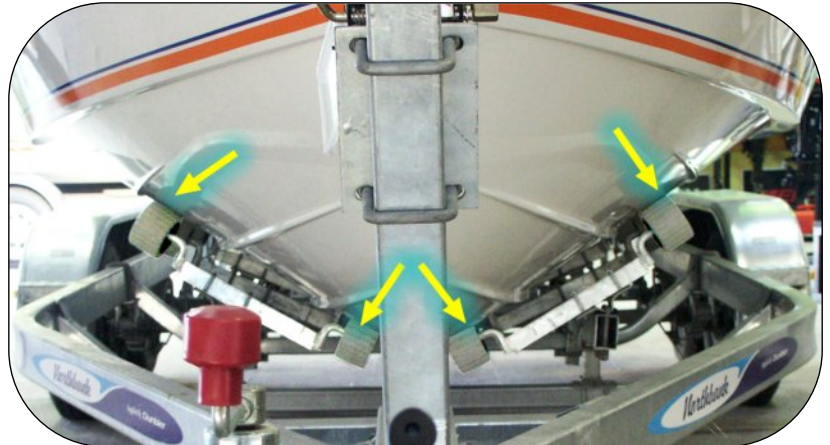
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After looking at the 'Before You Install' details you will have worked out whether you need any variations to your trailer or need to purchase the "RHS Support" or "Wedge" to get the correct mount and Snare to Latch angle.

## 1 Aligning the Trailer Rollers/Slides

An important issue even for those without an L & R™ unit. The boat moves more easily on the trailer when it is properly aligned. The concept is..... align rollers/slides so that the centreline of the boat and trailer are the same - the boat should head for the centre of the Winch reel. The end result also will be that the boat will require less force to move it on or off the trailer.



### *A Tip*

Release the winch. The bow of the boat then should be lined up with .....

- tow point
- middle of winch post
- middle of the winch drum
- middle of the roller/v-block
- middle of bow of the boat.

If not check with the tape measure and follow the procedure shown here.



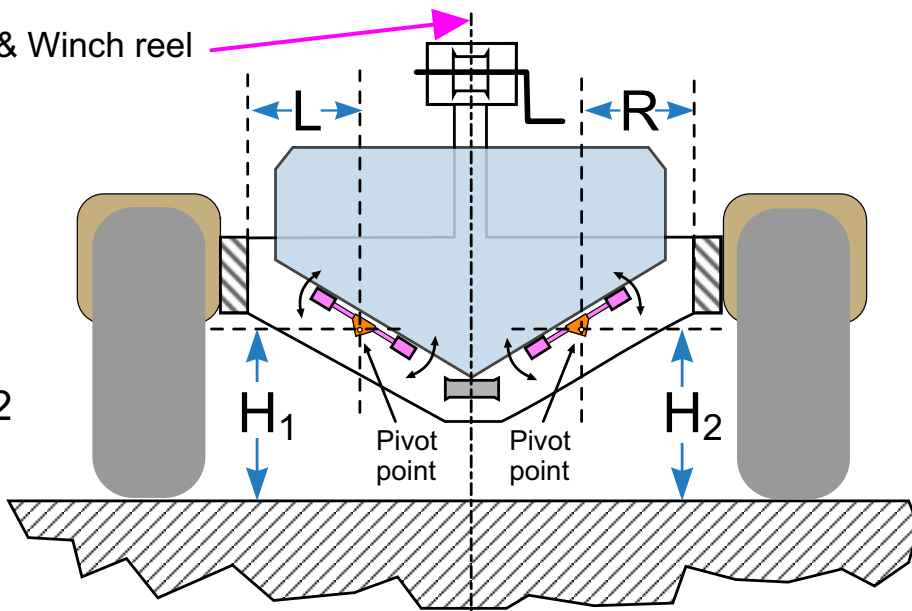
**1** Aligning the Trailer Rollers/Slides..... continued

Centre line of Trailer, Boat & Winch reel

Rule is:-

(1) L equals R

(2)  $H_1$  equals  $H_2$



**Essentially the boat needs to travel down the centreline of the trailer, with proper support from each side.**

**When this is right it will also glide far more easily on & off.**

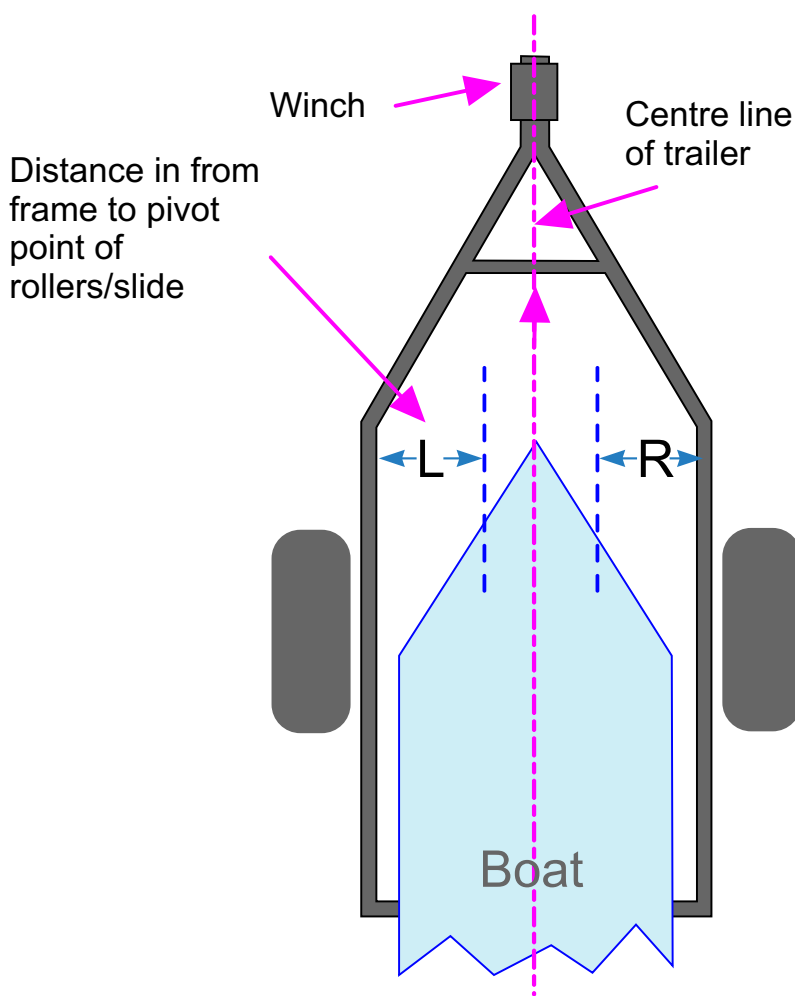
Make sure the trailer is on level ground.  
The tires should be equally inflated.

The Boat must be 'aimed' down the Centre line of Trailer.

Measure in from the trailer frame to the Pivot point on each side (L & R), and the distance from the ground up to the Pivot points (H) of the rollers/slides.

Adjust so that  $L=R$  and  $H_1 = H_2$  if needed.

As the boat moves up the trailer's centreline it should be equally supported on each side.



## 2 Moving the Winch Post



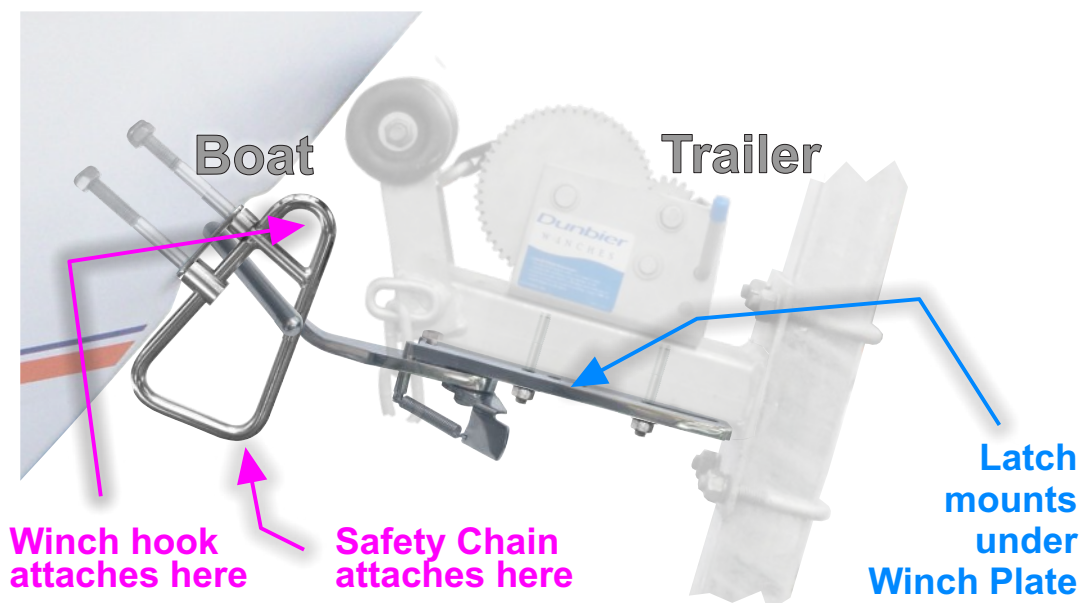
Loosen the bolts holding the winch post so you can slide it back out of the way.



This gives you plenty of room to replace the U-bolt on the hull with the Fibreglass Snare or mount the Aluminium Snare on the towing eye of an aluminium boat.

You can remove it altogether if required.

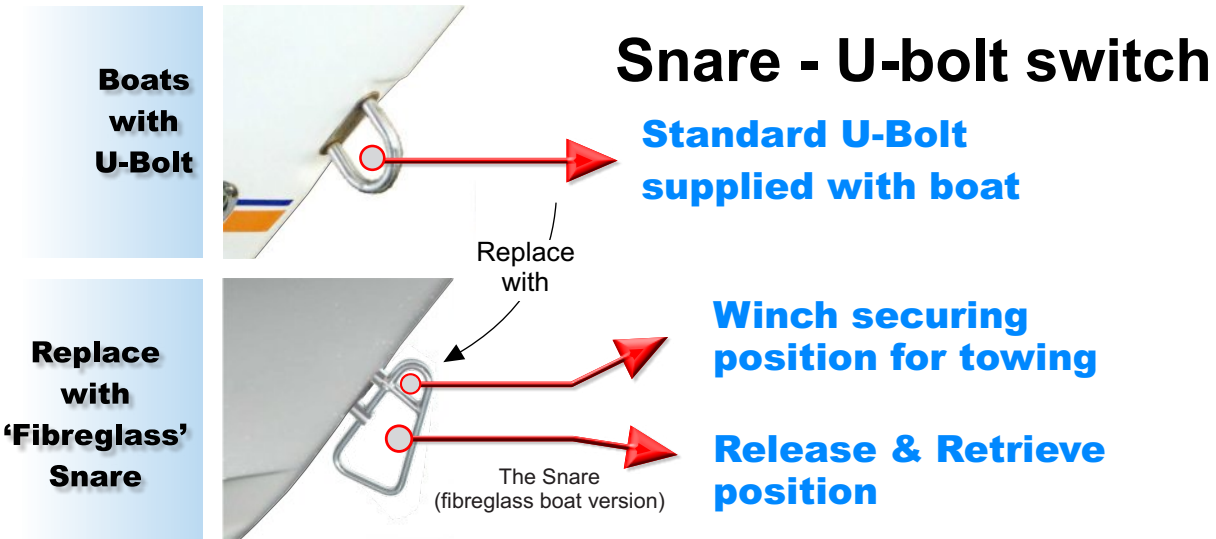
## Where things go



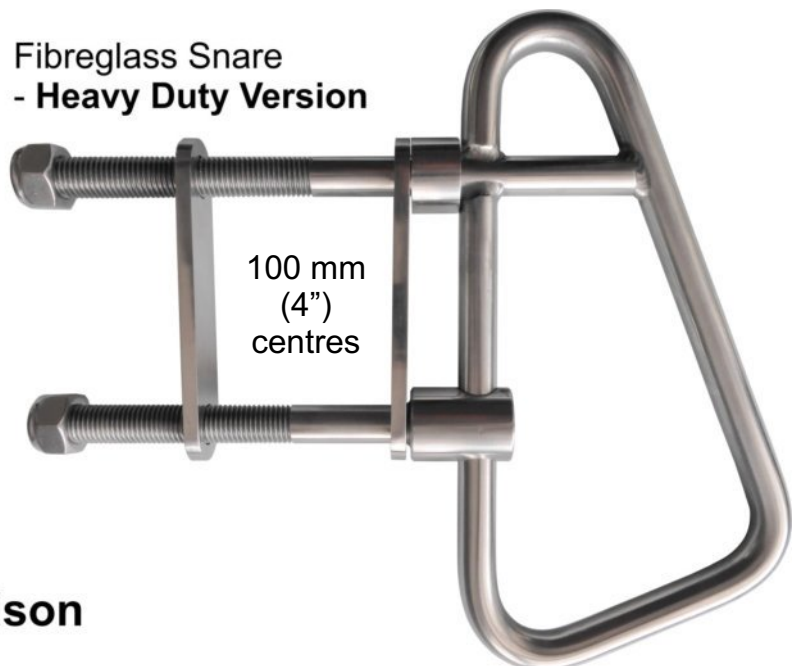
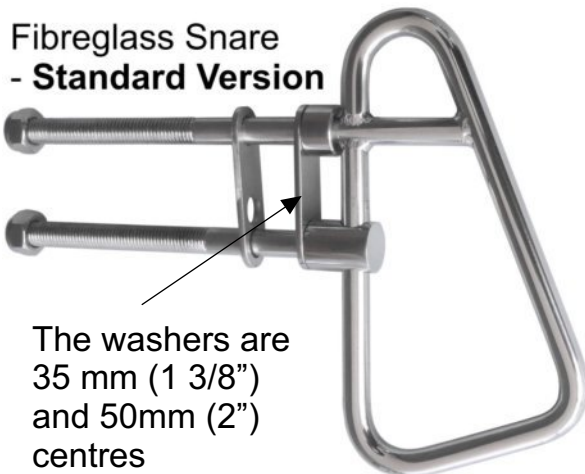
**3 Installing the Snare** The Snare needs to be fitted first.

**Snare - U-bolt**

For Fibreglass, Wood, Poly, Steel & Jet Ski boats. Product is commonly known as the 'Fibreglass Snare'). In the USA this can apply to U-bolt versions, where the U-bolt is used in place of an aluminium towing eye.



You may need to increase the size of the existing holes to suit 12mm (0.475") rod.



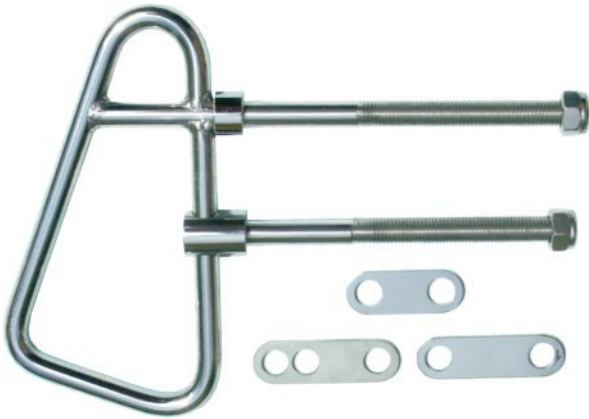
**A relative size comparison**

**Heavy Duty Snare**

The big version will go on Fibreglass boats and can be fitted on Aluminium boats as well, but you have to provide a mount for it. Consider for boats over 6.5 metres (21 ft).

### 3 Installing the Snare ..... continued

#### ● Snare - Standard U-bolt version ('fibreglass' snare)



For Fibreglass, Wood, Poly, Steel & Jet Ski boats.

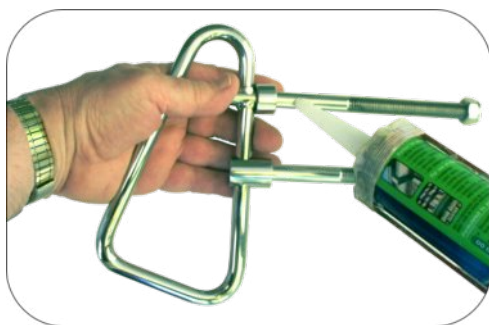
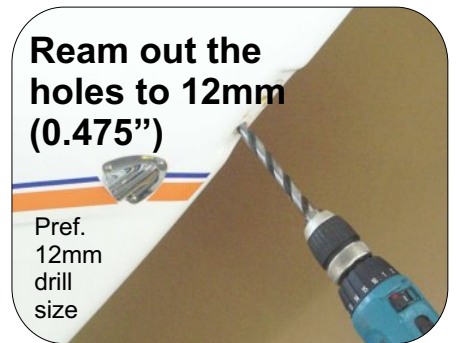
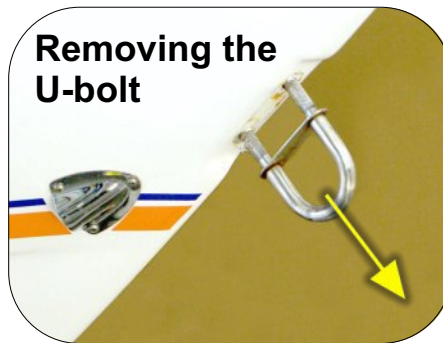
Product is commonly known as the 'Fibreglass Snare'.

Tested at 4.7 tonnes tensile strength.

Suggested max. boat size 6.5 metres (21 ft)

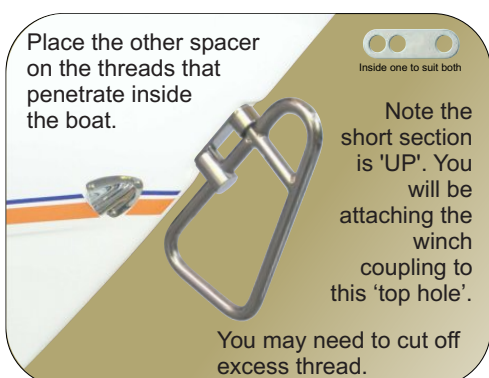
Check the bolt length you actually require, **before** installing. Measure (use existing U-bolt as a guide) and cut off **surplus** and then file the end to allow an easy nut start.

Clean off the threads and lightly grease. (stainless is prone to locking up - so be careful)



#### Marine grade silicone application

Select the right sized spacer washer. Place the polished one on the snare, and apply silicone to seal the hull when mounted.



#### Firstly install the snare - on the Fibreglass boat

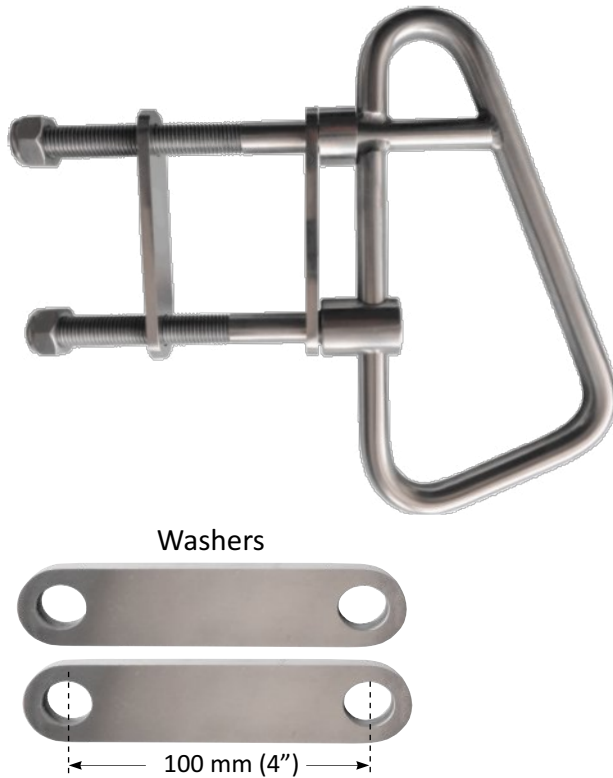
Insert the snare into the holes. Note the short section is "up". You will be attaching the winch hook to this 'top hole'.

Place the other spacer on the threads that penetrate inside the boat. Lightly grease then tighten the nylon locking nuts onto each thread.

Note stainless is notorious for locking up - always grease threads.

**3** Installing the Snare ..... continued

**Snare - HEAVY DUTY U-bolt version ('fibreglass' snare)**



Boat size 6.5 metres (21 ft) and above.  
Tested at 7.5 tonnes tensile strength.

This big version will fit on U-Bolt boats (Fibreglass and some Aluminium boats in the US).

For U-Bolt boats, remove the U-Bolt and silicone up the bottom hole.

Drill out top hole to 16mm (5/8" +) and use one of the washers as a template drill guide for the bottom hole. Measure (use existing U-bolt as a guide) and cut off **surplus** and then file the end to allow an easy nut start. Clean off the threads, and lightly grease. (Stainless is prone to locking up).

Place the one washer on the snare and apply marine grade silicone to the to the top un-threaded end of the threaded rods and a small amount to the front end of the mounting holes. Apply silicone to the back of the front washer and bow location where it mounts, to ensure a good seal.

Insert the unit, and place the other washer on the back inside the bow. Tighten, remove excess silicone and clean up the rest with mineral turps.

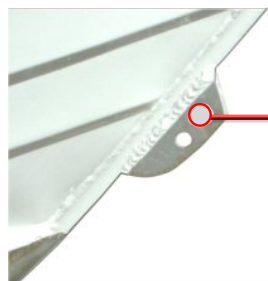


Here is an example of a Heavy Duty U-bolt Snare. A point to note here is that the Latch is mounted in this set-up with a Latch Support. It is not the standard one but reaches out to support of the front of the latch, which could bend on impact if not held firmly.

**3** Installing the Snare ..... continued

**Installing the Snare - on Towing Eye (Aluminium) boats**

**Towing Eye boat**



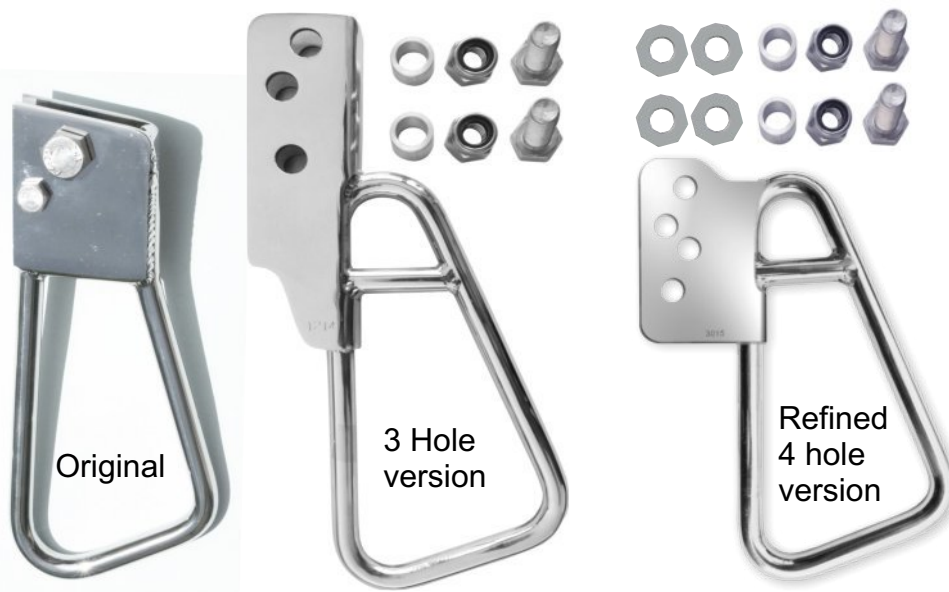
**Towing Eye version (usually aluminium boat)**

**Bolt on 'aluminium' boat snare**

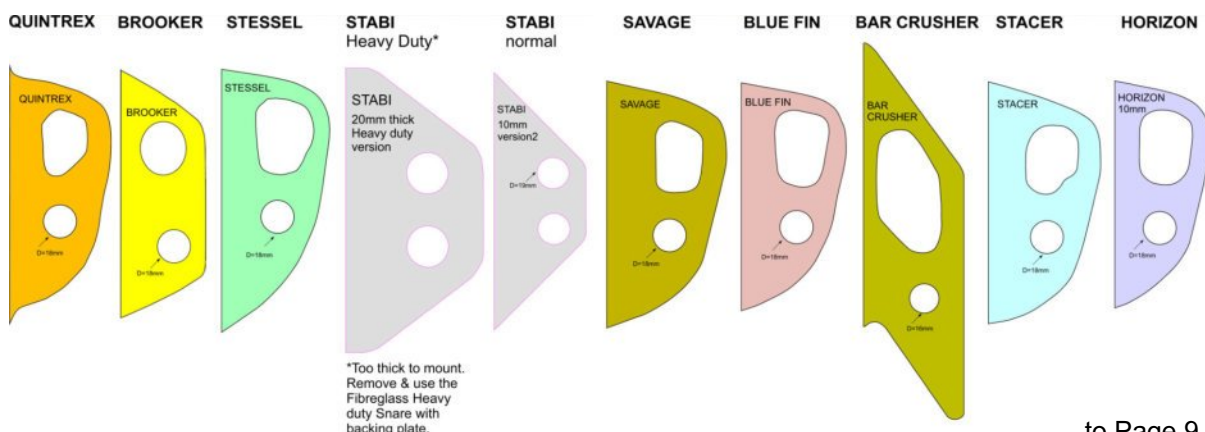


**Winch securing position for towing**  
**"Aluminium" boat Snare (towing eye snare version)**

There have been 3 different versions. The first one required a hole to be drilled in the towing eye. The next was designed to allow attachment without any hole drilling at all. This is quite difficult to achieve, as there are so many hole layouts used on various boats in the marketplace. We have yet a further version designed to cope better with a hole layout like the Stabi (normal) below.



**Some Snare Towing Eyes**

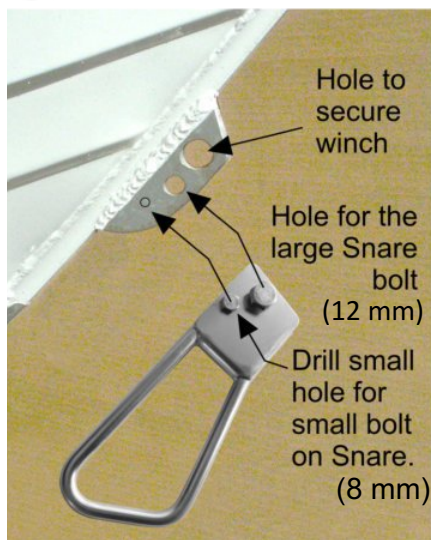


\*Too thick to mount. Remove & use the Fibreglass Heavy duty Snare with backing plate.

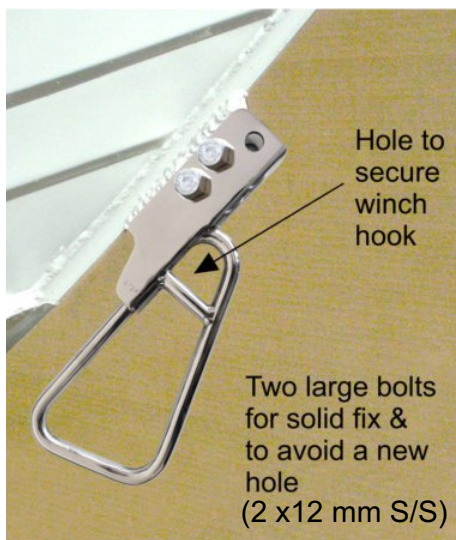


**3 Installing the Snare ..... continued**

**Installing the Snare - on Towing Eye (Aluminium) boats**



Original version



Second version (3 hole)



Refined version (4 hole)

Tested tensile strength 2.3 tonnes..... 2.8 tonnes..... 4 tonnes

**Original Version** - Fit the spacer sleeve provided by inserting it in the bottom hole of the winch bracket on the bow of the boat. Slide the Snare over the winch bracket. Note - The Aluminium Snare must sit back against the bow. Quite often it is necessary to remove some surplus welding 'bumps' which can interfere with a good fit. You may need to cut out a small triangular piece of aluminium from the bottom of the boat winch bracket to allow the 12mm round rod of the Snare to sit against the bow. If you do not mount the Snare against the bow as shown, it can possibly catch the trailer roller and also the anchor rope can get caught between the Snare and bow. Drill the second small hole through the towing eye bracket. Fit the stainless steel bolts and tighten both nuts.

**Second Version** - Two 12 mm bolts are used and there are 2 spacers that can be used to 'sleeve' the towing eye holes if needed. Note -You do not have to use these sleeves, they are there to help 'take up the slack'. Start with one in the bottom hole. If you can use one in the 'top' hole, fine. The aim is to minimise potential movement under load. Often it is necessary to remove some surplus welding 'bumps' which can interfere with a good fit.

**Refined version** has 4 possible mount holes which allows for an upper and lower position and washers to use to pack either side to clamp onto the towing eye, depending on its thickness.

To overcome the reaction between stainless steel and the aluminium, smear a coating of Duralac\* as corrosion protection. Fit the bolts and tighten nuts properly.



\*Duralac is an anti corrosive jointing compound which prevents electrolytic corrosion between dissimilar metals. Available from a number of marine component dealers.

## 3 Installing the Snare ..... continued

Installing the Snare  
- on Towing Eye (Aluminium) boats

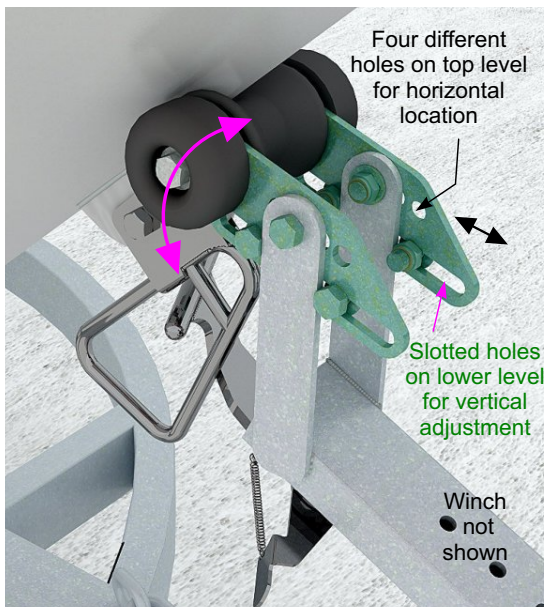
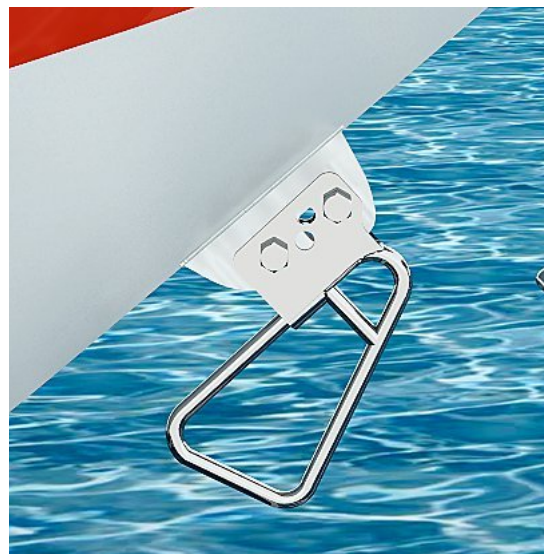
### Heavy Duty Towing Eye (Aluminium boat) Snare

For a large Towing Eye (Aluminium) boat or a very heavy duty application, Release & Retrieve Boat Latch Pty Ltd have the Heavy Duty version (see below) intended for boats over 6.5 metres (21 ft) or boats with very heavy duty end use.

This is suitable to be mounted on up to 20 mm thick towing eye plate.

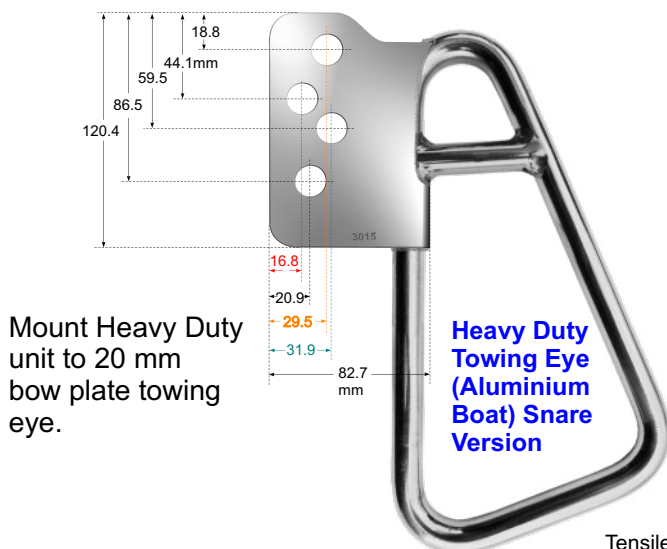
As common with Aluminium boats you may need the Roller Extender option, if the winch post is sloped too far backwards from the bow. The extender allows the roller to be easily adjusted forward.

Details of the Roller Extender option (shown at the right) are covered a few pages further on here.

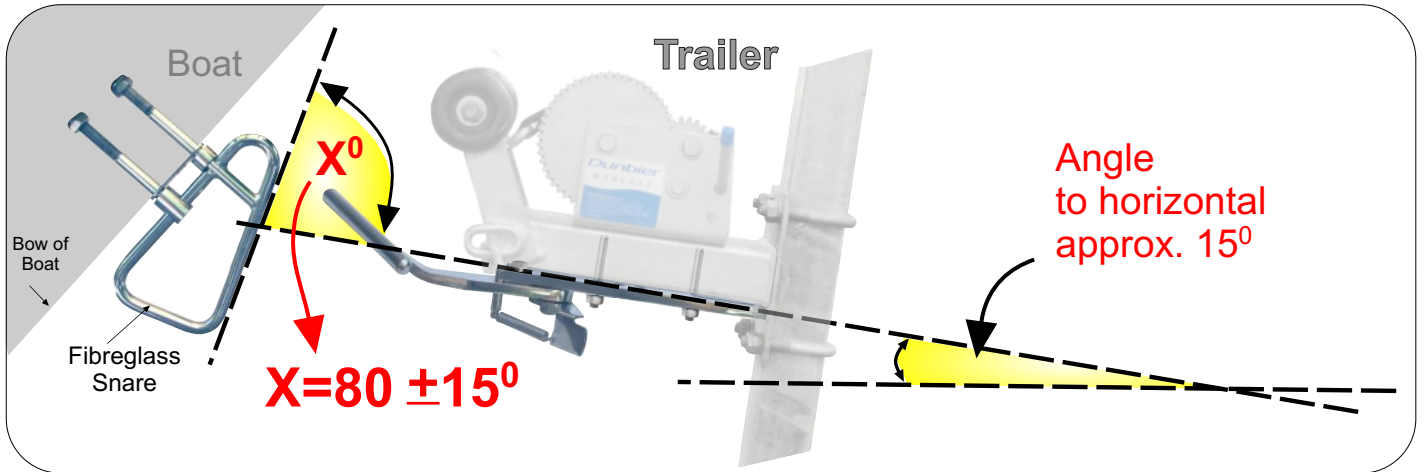


Roller Extender parts highlighted in green  
See details several pages further on

### A relative size comparison



**4 The Right Angle of the Latch to the Snare**



The key issue in getting good performance with the L & R Boat Latch is to have the correct angle where the Latch meets the Snare.

You need to roughly measure this angle. See guide... next page.

There are some odd winch plate and winch posts out there.

If the angle is not right you can adjust it using the "Wedge" or change the winch plate or the winch post to a different type. See 'Before You Install' document for more details.

**Typical examples where you may have a issue with the Snare/Latch angle**



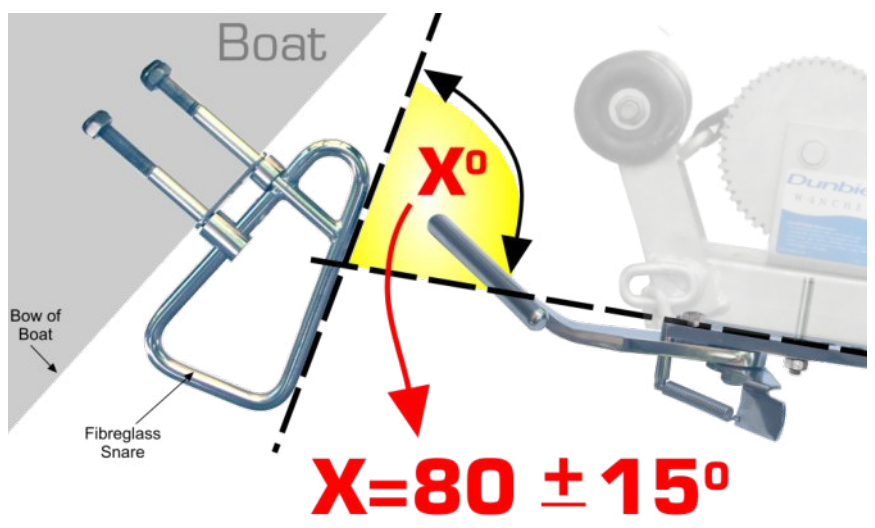
Examples where the 'Wedge' would sort out the angle problem. The ski boats are about 58 to 62° which is too low, and the 'Wedge' will bring them nicely into the right operating range.

We have a template on the next page to make it easy to sort out the angle.

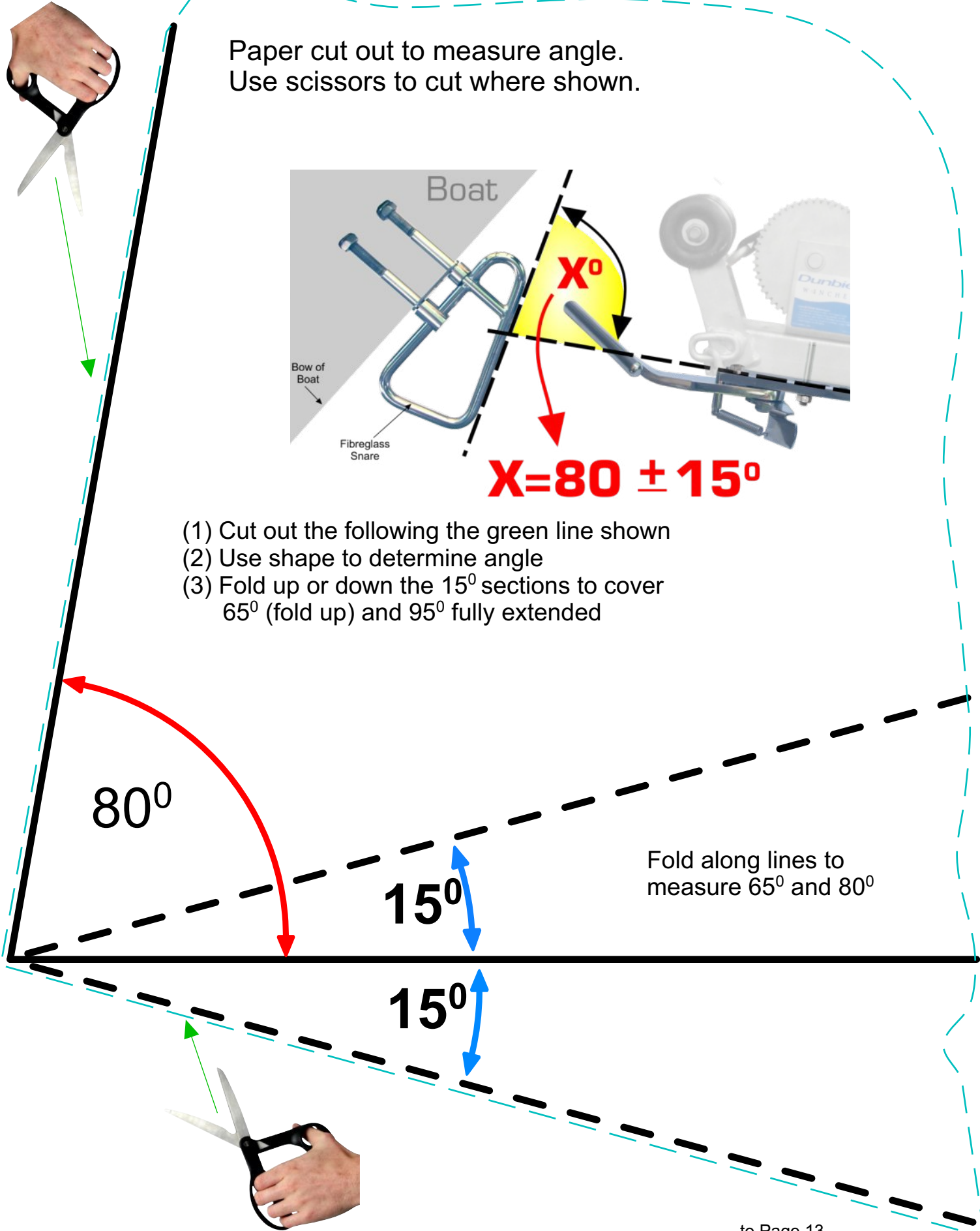
Print that page.... and cut out where shown with some scissors. Hold this up against the snare. Fold up or down the 15° increments, whether your and is OK, or whether you need to take one of the 2 options.

**4** The Right Angle of the Latch to the Snare ..... continued

Paper cut out to measure angle.  
Use scissors to cut where shown.



- (1) Cut out the following the green line shown
- (2) Use shape to determine angle
- (3) Fold up or down the  $15^\circ$  sections to cover  $65^\circ$  (fold up) and  $95^\circ$  fully extended



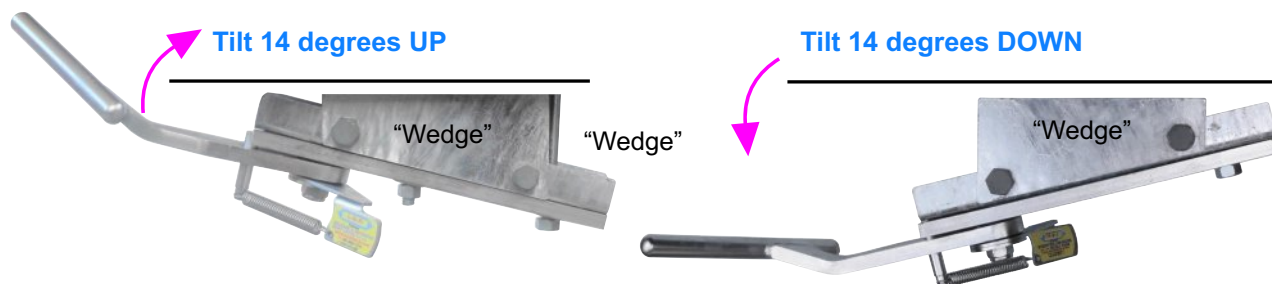
**4 The Right Angle of the Latch to the Snare ..... continued**  
**If the angles are not right there are 3 options.....**

**To Adjust Angle using Wedge Kit**



This allows you to..... adjust angle Up or Down 14°. The Latch Support part also allows you to mount the front of the Latch properly in some cases..... see under Latch installation.

This is a fast and simple way of altering the Latch angle.



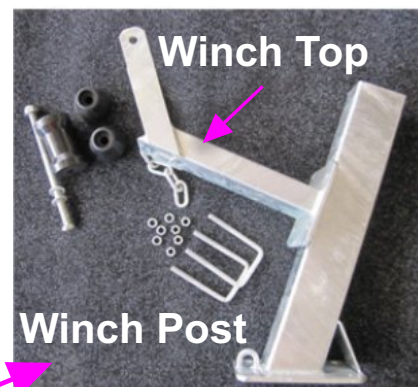
Note - a side benefit of using the ‘Wedge’ is that it can provide a support the front of the Latch.

The bolts are not supplied as there are cases where you may use 4 short bolts or 2 longer bolts to mount the Wedge plates. Depending on the winch bolt positions.

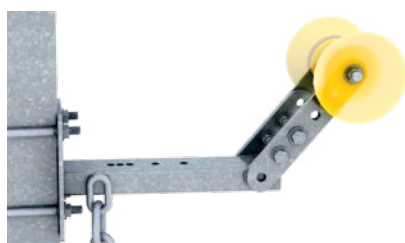
**To Adjust Angle using different Winch Post/Winch Top**

Trailer manufacturers have a range of winch posts & tops.

If you have one like this,



**Full Design details of Winch platform and Post**



We provide all the details for manufacture of a suitable units. See details under ‘Installation’ on website. The sub-heading is ‘Right Winch Post & Winch Platform’



**5 Installing the Latch**

The trailers come in a wide range of styles. A typical one is shown of the right here.

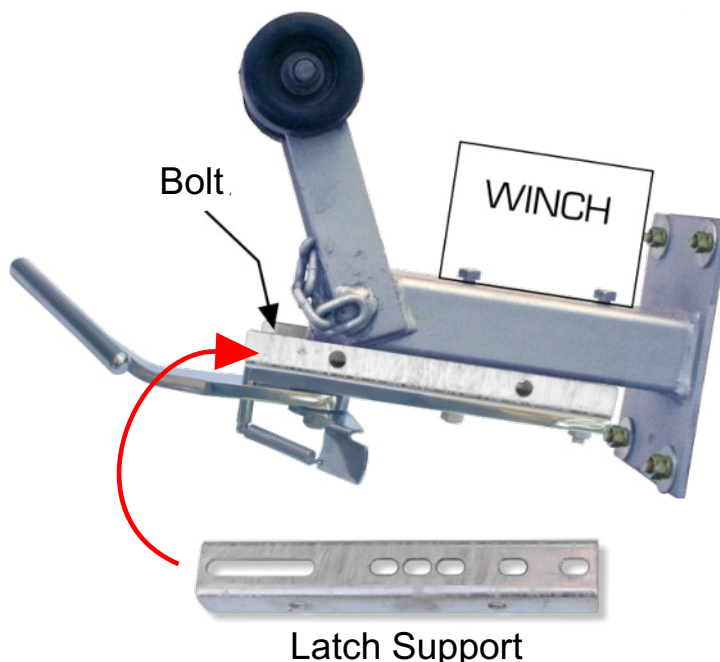
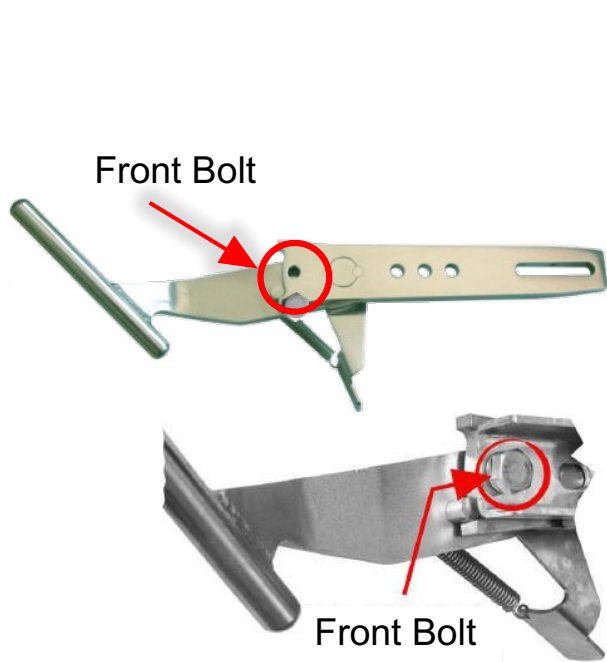
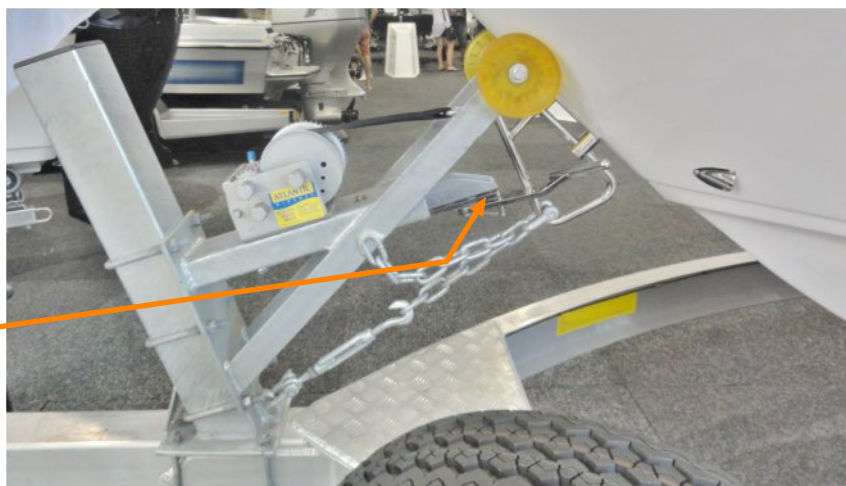
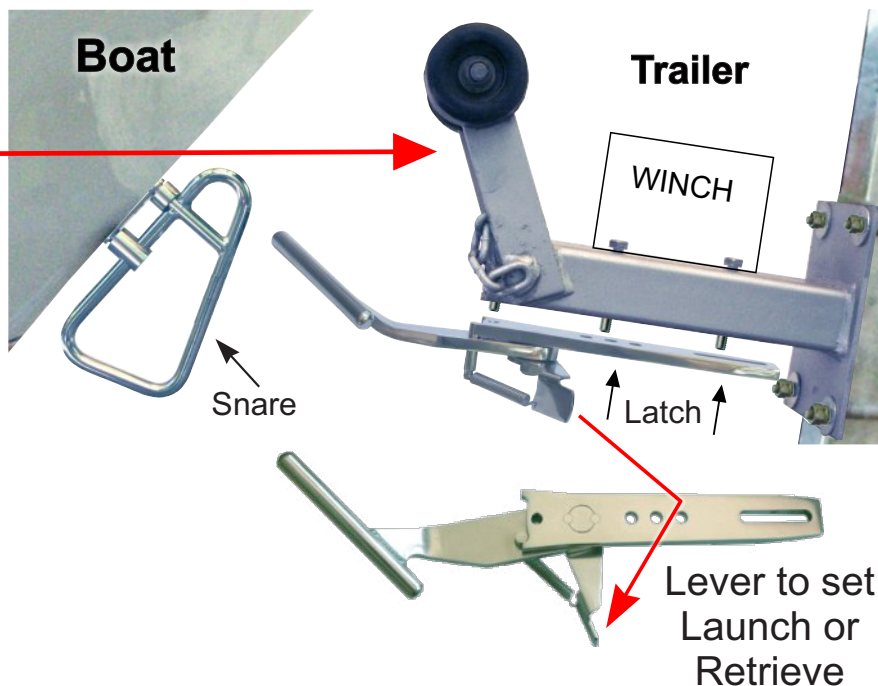
In reading 'Before you Install' this issue is raised in detail.

Latch is bolted underneath the winch platform.

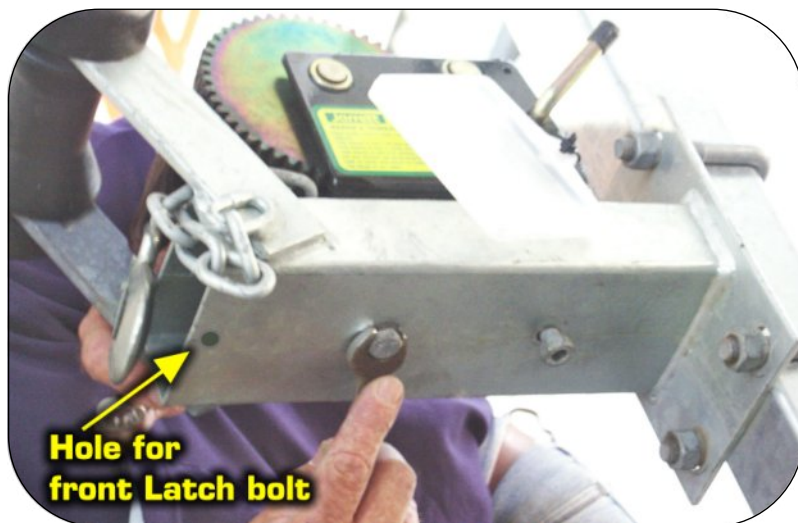
It is important that the latch is fully supported - not just hanging out in space. An impact (say with the wharf) can bend the latch Base Plate. Where there is no support we have the 'Latch Support' which is part of the 'Wedge Kit'.

Here we see a quite different style of winch post, where a Latch Support (not our standard one) has been inserted into the tube section under the winch and bolted.

This allows the **front bolt** on the Latch to be bolted to it, provided sturdy support. **Without this bolt you will void the warranty.**



**5** Installing the Latch ..... continued

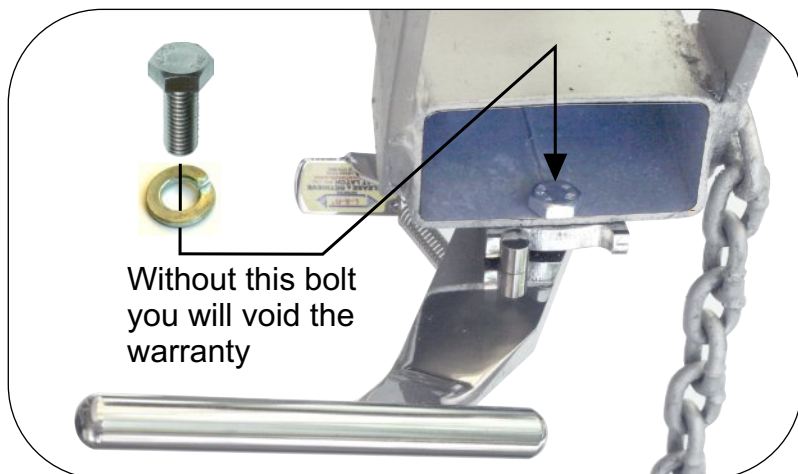


**Removing the Winch bolts & bolting on the Latch**

There are a variety of winch types out there - the one shown here is a very simple one. Some need more than 2 bolts and hi tensile ones - Check.

You will need to drill a hole for the front latch bolt.

Longer versions of the same winch bolts may be required to reach through the latch plate.

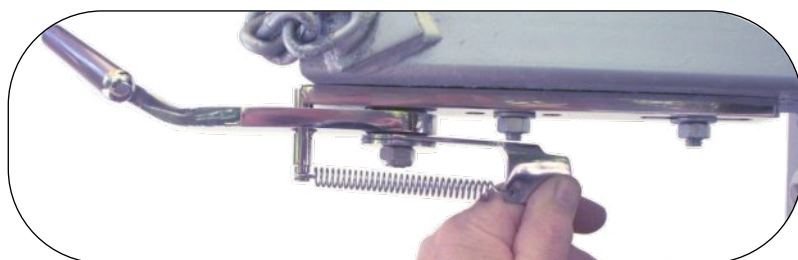


**Remember front Latch bolt**

The front of the latch must be properly held by a bolt (provided).

In the event of an extreme impact the latch base plate could be bent if not secured here.

**Without the bolt you could void the warranty.**



**Clearance for Shift Lever**

Trim bolt end if, required, so there is clearance for Shift Lever to move.

**Spring Washers for bolts**

Remember to use spring washers on bolts, and /or nylon locking nuts so they won't work loose.

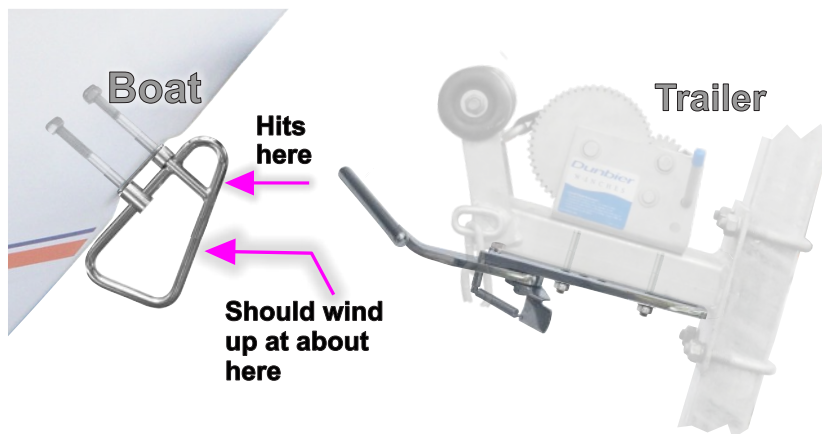


**A Top view of the Latch**

At the middle of the latch there is a choice of holes to set the latch forward or backwards on the winch base. Engage one of these and check that when the winch post is moved forward (to the final position) that the latch will properly engage with the snare. See 'finger test' below.

**6 Adjusting the Latch relative to the Snare**

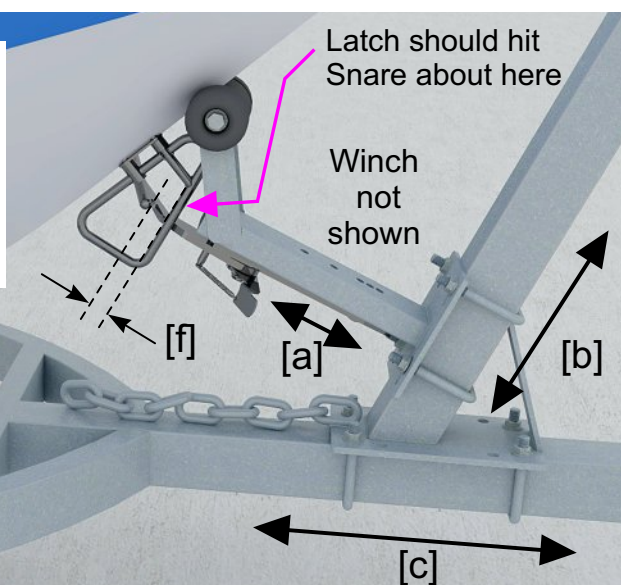
Where the latch should meet the Snare



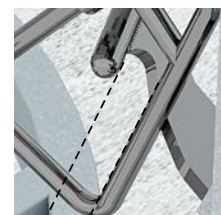
**Fibreglass Boat**

- 1 - No gap between roller & bow.
- 2 - Adjust [a], [b] & [c] so that the gap [f] between the Snare and the bar on the Latch = 1 thumb width (25 mm or 1")

Use a G-clamp to hold the Latch, under the winch plate to find the best location.

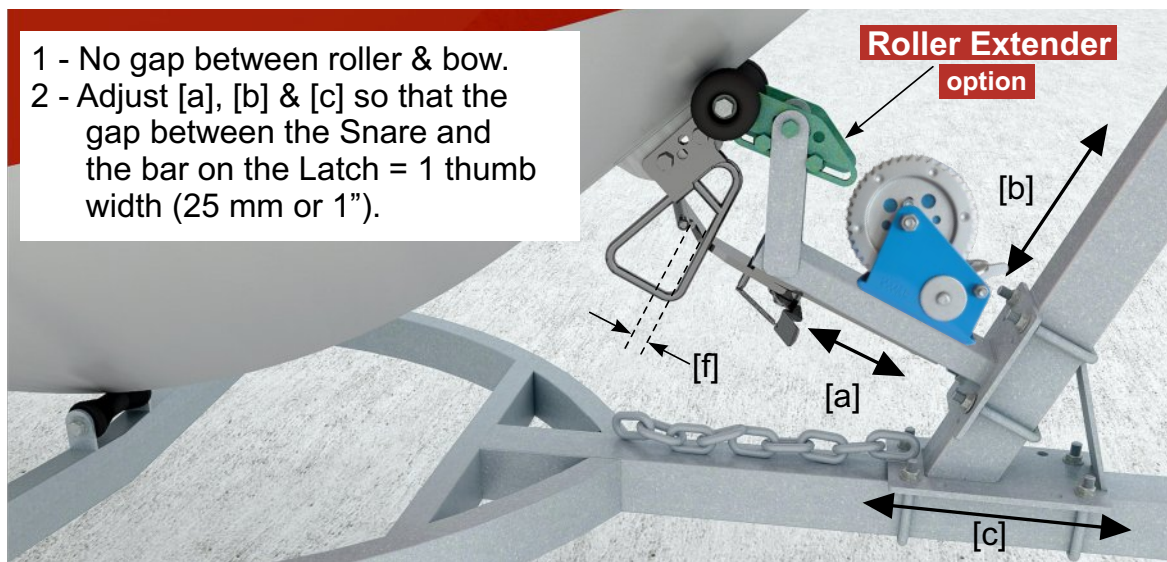


When roller/wedge is right up against the bow  
[f]=1 thumb widths (25 mm or 1")



**Towing Eye (Aluminium)**

- 1 - No gap between roller & bow.
- 2 - Adjust [a], [b] & [c] so that the gap between the Snare and the bar on the Latch = 1 thumb width (25 mm or 1").



Example - If this winch post was not as laid back, the roller would be closer to the bow and extender would not be required.



## 6 Adjusting the Latch relative to the Snare - continued

### Roller Extender - Option



#### Roller Extender - option

Used where the roller needs to be able to **project out further** to the bow. More commonly required on Towing Eye (Aluminium) boats.

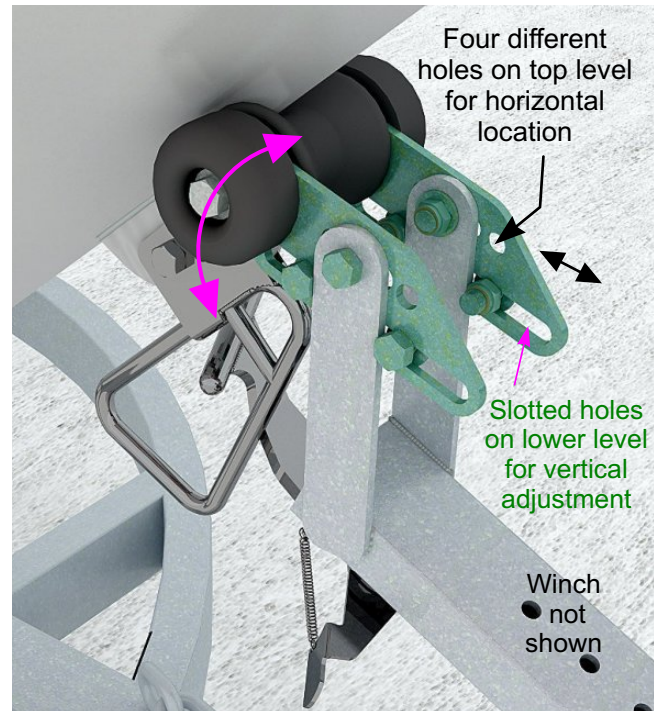
Endless variation of boats and trailers, results in the inability to get the roller in the best position sometimes.

The option needs the addition of 6 M12 galvanised bolts with washers and nylon locking nuts.

#### Adjustment ability

There are 4 adjustment horizontal positions. The bolts locate in one of these and the other pair of bolts go in slotted holes, allowing the roller/wedge to swing up/down for vertical adjustment.

The 2 lower bolts are fixed so that the bolt or nut heads are located against the vertical Roller supports of the winch platform, as shown, limiting movement.



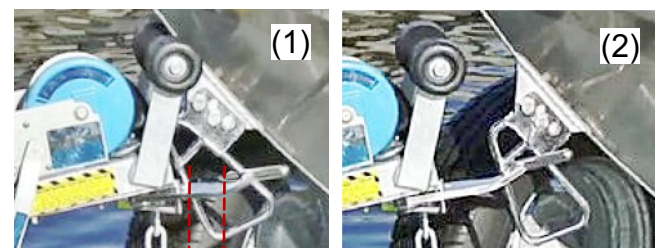
Roller Extender parts highlighted in green

#### Example

Here is an example on an Aluminium Towing Eye boat where the roller should be further forward.

In this case the snare is very close to hitting the winch platform when the roller is against the bow.

The standard finger gap [f] should be a thumb width and this is about 4 fingers.

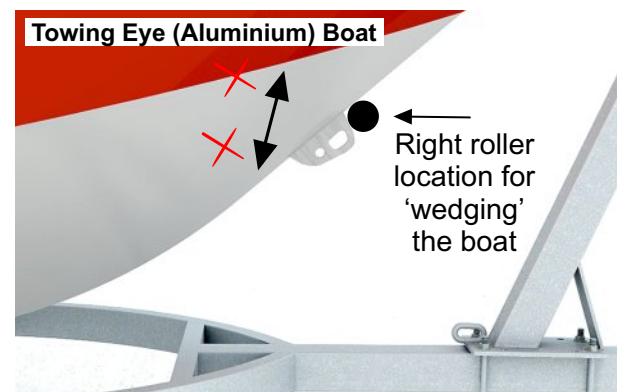
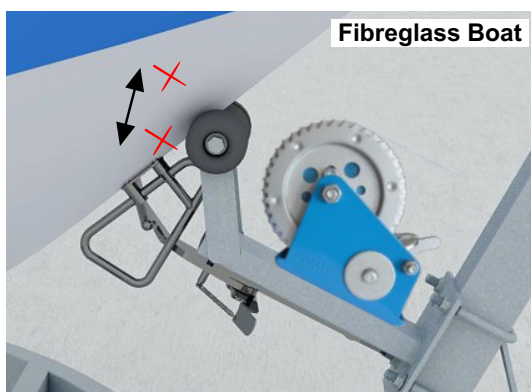


[f] → | | ←

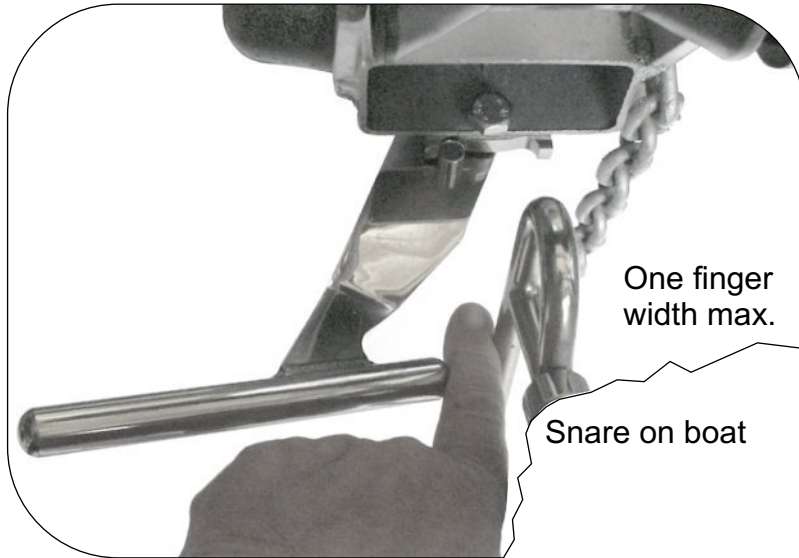
### Helping to limit boat movement on the trailer

Your boat should be securely held on the trailer, to restrict UP & DOWN movement (even though the winch is tensioned up) whilst being transported. There is a lot of weight here and you need the boat secured when moving at highway speed.

A classic way of avoiding the issue is to have the roller 'wedging' the boat, as shown here for the two different boat types.



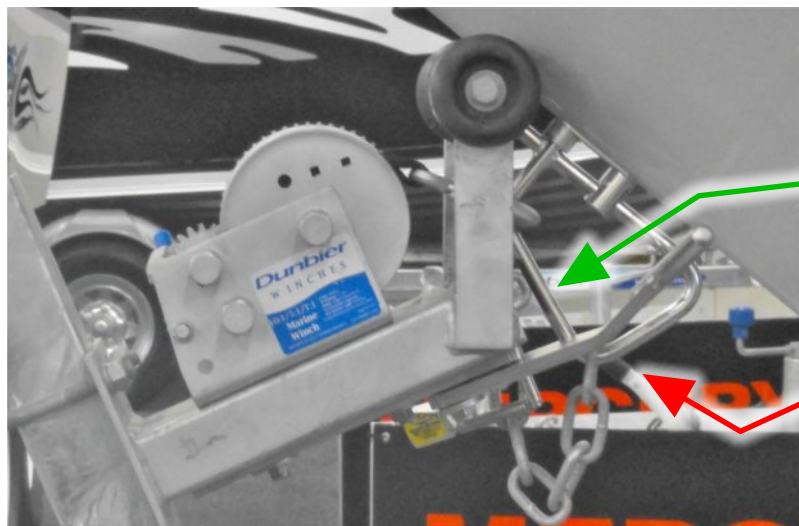
**6 Adjusting the Latch relative to the Snare ..... continued**



**'Finger' Test [2]**

The Latch should move aside to give a finger spacing as shown in the photo.

Note: the Snare, on the boat should be central - if it is not the boat may not be centrally aligned on the trailer. See Step 1.



**Latch - The Right Height**

Latch should wind about here.

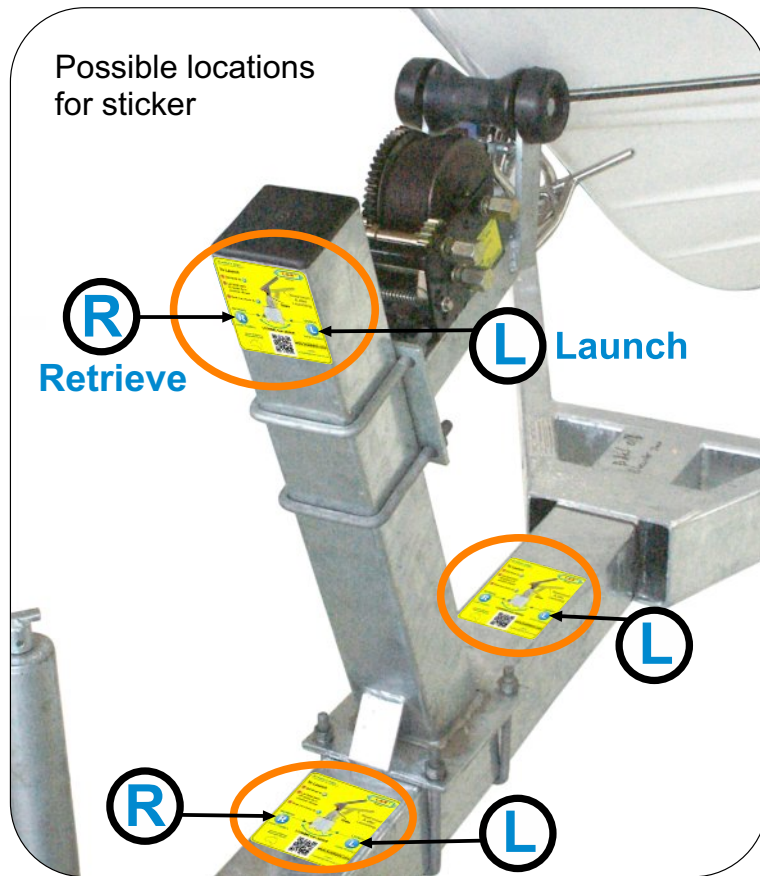
An example showing where the latch has been set too low.

**Tighten up all the nuts & bolts**



Having the correct position for the Latch, tighten all the nuts & bolts up **securely and with even tension.**

**7 Place the Sticker on the Trailer**



A special weatherproof sticker is included in the pack to place on your trailer.

The sticker is your guide to which side of the trailer you need to move the Shift Lever to in order to **launch** or **retrieve** your boat.

Three possible locations are shown on the photograph.

It is most important to remove all salt, dirt, grease, **before** fixing the sticker.

Note : The latch should be disengaged for road travel. When traversing boat ramps **NEVER rely on the latch to hold the boat to the trailer.**

Safety chains and the winch cable/straps should always be used to secure the boat to the trailer.

Do this **before** driving up to the car park, otherwise you will forget and wind up driving down the road.

**Using the Product - *Key Tips***

- **'LAUNCH'** - the boat **MUST** be **UNABLE** to float off the trailer - there is resistance from rollers/slides, & the latch is holding the front of the boat.
- **'RETRIEVE'** - have the trailer the same depth as a 'good launch'. If it is too deep (a common mistake), the approach speed will be high & the equipment may be damaged.

