

## KEEL LOCK DOWN OPTIONS

The Long Keel Pin is the primary keel lock device used on the 2.3, 303 and Liberty. The pin is 12mm structural aluminium with a cord lanyard tied through a hole in one end. Over the years several methods of securing the pin have evolved.

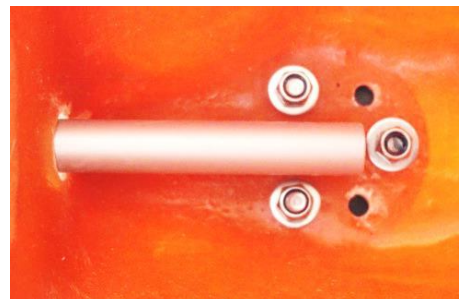
1. Push the pin all the way into the keel handle, including its cord lanyard and knot, with the knot acting like a plug. Like this the pin will be inserted over 50mm into the console and to remove it may be necessary to reach up under the console and push the pin back through the keel handle.



In 2017 we increased the pin length by 40mm and we now find that on the 303 one of the small bolts attaching the Ronstan mainsheet deadeye swivel cleat is over-length and stops the longer pin passing under the cleat so the cord and its knot cannot be stuffed inside the keel handle tube.

To fix that you can do 2 things. There are 3 M5 countersunk bolts attaching the cleat. One of those bolts is going to be on the centreline. On the Liberty it is to the front, while on the 303 it is to the back so it fouls the pin before the cord and knot are inserted. The Liberty arrangement is best so on the 303 the factory have now turned the cleat base around 180 degrees..

So the best fix on existing boats is to turn the swivel base around and drill new holes and reattach it. Or the aft central bolt can be removed and cut off to 13mm and refitted, then the fully inserted Long Pin will pass underneath it.



Above are 2 photos taken underneath the console looking up at the cleat fastenings. The photo on the right shows the Ronstan cleat swivel rotated 180 degrees so the fully inserted 430mm Long Pin passes underneath. Fully inserted means Pin followed by cord and knot, or the cork.

The photo on the left shows how far in the original 390mm long pin inserts into the console when the pin is fully inserted into the handle. This says the old pins need to be fully inserted, including the knot, as per the instruction at the top of this article.

The left picture also shows how far a new 430mm pin inserts when it is secured by duct tape or the shock cord stop. (see next page). You can also see in this photo the central aft bolt has been changed and doesn't have a washer under the nut.

There are other ways to ensure the long pin stays put as shown in the following photos. Hong Kong use a wine cork in the keel handle tube, recently in Puerto Sherry at the Para World Sailing 303 World Championships we used duct tape over the cord, taping it to the top of the keel, while on the Gold Coast in Queensland at the Australian Para Sailing Championships all the 303 were fitted with a shock cord stop with a parrel ball which is impressive so we are producing a stock of these which will be available as accessories and included with all new boats.



2. The shock cord stop is a very simple device which ensures the long pin remains inserted with about 50mm into the fibreglass console. We have seen boats lifted clear of the water when in the process of removing the keel with a C Crane, they forgot to first remove the long pin. In this situation the further the long pin inserts into the console the less damage will be caused to the console, that is how good the long pin is as a keel lock down safety device.



If you have methods and devices to secure the long pin, please send us a photo of it and we can add it to the collection.

3. Secondary lock down strap. Pictured is a secondary keel lock down strap which we are now producing. We are going to advise using this in critical situations like where we are strapping high level quads into single seaters and they will be sailing solo in fleet racing, or in violent and changeable wind conditions. There will also be occasions where the keel handle tube is damaged restricting the long pin. Well you need to fix this ASAP, but to lock down the keel in the short term the secondary lock down strap will keep the keel in place.



When fitting a 303 keel to a 2.3 to give enhanced righting moment the long pin may not fit through into the console. In this case in the past the 303 keel is lashed down as per photo below, which is a very secure device if you know how to tie bowlines and clove hitch knots, but in this situation the secondary lock down strap will work very well.

The photos below are a 303 keel in a 2.3, albeit a wide seater, and on the right is that keel with the long pin fitted and the keel lashed in place to create a very safe and very stable option.



Eventually we will have all these parts with our distributors, but if anyone needs some of these parts urgently please email [admin@hansasailing.com](mailto:admin@hansasailing.com) which what parts you need and how many.

The parts numbers for the different items are.

3501. Long Keel Pin (430mm x 12mm diameter aluminium tube)

3504. Keel handle tube - 25.4mm aluminium (for old version keels with damaged replaceable tubes).

3505. Keel lock down strap. (Secondary keel lock down device)

3506. Shock cord strop and ball. (To secure the long keel pin)