

## Introduction...

The Tasar was designed with sliding shroud tracks. For thirty years the tracks have been stainless C-section track with chrome plated brass sliders and have worked very well. However, especially when new, they can be difficult to move when under load; so the class now allows these tracks to be replaced by Ronstan track and Re-Circulating-Ball cars. This will not make the boat go faster, but it will make the shroud cars easier to slide under load.

## Tasar Class Rules...

The fitting of RCB tracks to new and existing Tasars is a specification change governed by two class rule interpretations. (<http://www.tasar.org/tasar-office/world-tasar-updates/2009-retro-fitting-rcb-shrouds/>)

### **Interpretation 37: Retro-fitting RCB Shroud Tracks - (amended 2008-08-17)**

*ISAF has recently approved a specification change by the designer allowing new Tasars to be fitted with RCB shroud tracks and slide cars. The purpose of this Interpretation is to enable RCB shroud tracks and slide cars to be fitted to existing Tasars as a substitute for the stainless steel C section track and brass slides currently used.*

*With immediate effect a 19mm RCB system comprising the following fittings or their equivalents may be fitted to existing Tasars:- 2xRonstan RC11902 Cars, 4xRonstan RC11980 Track Ends, 1xRonstan RC1190-1.0 track, 2xClamcleat CL268AN Cleats, 4xRonstan RF1850S Shackles.*

*An under-gunwale rigid load-bearing backing plate of solid 18mm alloy or stainless bar which extends approximately 75mm past each end of the track, or equivalent.*

*Measurements: The track shall be fitted with bolts to the backing plate that shall fit into the gunwhale groove. The distance between the bow U bolt, measured as shown at deck level to the forward track end bolt hole shall be a minimum of 2125 mm and a maximum of 2135 mm (photo 1). Car travel must not exceed 140 mm.*

### **Interpretation 38: RCB Track fasteners - (amended 2009-09-14)**

*Effective immediately, 1/4" or 6mm MTS bolts must be used at the front and rear ends of RCB tracks. Other, intermediate bolts, of which there may be 1 or 2, may be either 3/16" (5mm) or 1/4" (6mm) MTS. (Posted 2009-08-07, amended 2009-09-14)*

## Introduction to the Signal Locker RCB Retro-Fit Kit...

### **1.) Overview of the job:**

Fitting RCB tracks to your Tasar is not complicated or difficult; however there are quite a number of operations and it can take several hours to complete; the instructions below take you through the job step by step. If you tend not to read instructions, then just remove the old tracks, clean up and fill the old holes, measure the position of the new forward bolt hole on each side, position and clamp the drill jig in the gutter, drill three new bolt holes and one hole for the pull-back line, seal the holes, bolt the new tracks cars and end-stops in place, and go. On the other hand you might take into consideration that most of the instructions below contain veiled references to errors I have made at one time or another. So if it helps, you could think of them as a catalogue of errors rather than a set of instructions.

## 2.) **New features of the 2019 Signal Locker RCB kit:**

- The track is standard Ronstan track, but custom cut and drilled before anodising; so there are no unanodised edges.
- Our 2010 Kit used 4 bolts in each track: two each of 6mm and 5mm. The new kit uses 3 off 6mm bolts each side. Still class-legal - but simpler.
- The new kit includes some tools that make the job easier - explained below.
- The backing rod is drilled to accept the dead end of the pull-back line.

## 3.) **Tools to make the job easier:**

**Drill-jig:** The new holes you drill through the deck need to be at 90 degrees to the deck surface both longitudinally and transversely. It's also important that the backing rods fit neatly into the gutter of the hull/deck joint. We have found this to be quite tricky - so Signal Locker now supply a drill jig (on loan) that can be used to guide the drill. We include a pre-paid envelope for its return.... because it is expensive and you won't need it again!

**Drill-Bits:** When drilling the holes, the drill chuck gets very close to the hull. If you use extra long drill bits this is not a problem. We supply the extra long drill bits because an extra long 6.2mm drill (needed for clearance on a 6mm bolt) is not very common; and the temptation would be to 'make do' with a short 6mm bit.

**Clamp:** We provide a clamp to hold the drill jig in position under the gunwhale of the boat. You clamp the jig up into the gunwhale gutter, with one arm of the clamp under the jig and the other on the deck. The 'quick-grip' clamp works really well because when the clamp is tightened the two arms automatically hold the flat of the drill jig parallel with the deck.

## 4.) **Q&A on Signal Locker RCB Kit:**

***Can I use the existing holes? I read on one Tasar site or other that this was possible.***

No. There are several reasons why this is extremely unlikely to work. Firstly you may find that your original tracks are a few mm out of position. The class rules and interpretations are now very clear regarding the correct position of the RCB tracks so you should be careful not to reproduce an error made by the builder of your boat. Secondly, we now use just 3 6mm bolts rather than the five 5mm bolts on the old C-tracks.

***Why did you use spacers in the previous kit? And why not now?***

In our original kit all the holes in the RCB track were countersunk. This meant that there was a gap between the end stops and the track; and it was possible to pull the bolts through the plastic end stop countersinks. We prevented this from happening by providing a spacer that filled the gap. With the new track lengths we no longer countersink the forward and end holes, so no longer need the spacer. Cheaper and simpler.

***Is there anything else I should know before I start this job?***

Yes. Do not rush the part where you are sliding the new car onto the new track. Because if you do, the little plastic balls will break free and run amock around the house. You will be looking for 34 of them.

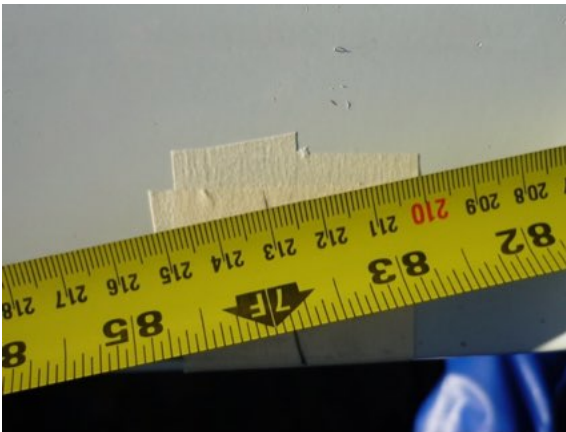


## Step 1 - Preparation

- Remove existing C-tracks and clean off all old sealant
- Clean out holes with a drill
- Fill the existing holes with resin or gel coat filler

## Step 2 - Mark the fwd bolt

- Measure 2130mm aft from the forestay U-bolt and put some masking tape on the gunwhale in the approximate position of the forward bolt hole.
- Then measure aft from the U-bolt again, holding the tape measure as shown in the photo on page 1.
- Mark an arc on the masking tape, 2130mm aft of the U-bolt as shown in photo 2.



## Step 3 - Clamp backing rod

We suggest that you drill the holes from under the gunwhale, using the drill jig provided. Please note that the aft end of the drill jig is the end with the smaller (5mm) hole; this hole is for the pull back line. To prepare the job, do the following:-

- Place the drill jig up into the gunwhale gutter of your boat, making sure that the small 5mm hole is at the back. Clamp the drill jig into the gutter loosely using the 'quick-grip' clamp, with one arm on the flat of the drill jig and the other arm on the deck. This will hold the jig face parallel to the deck surface.
- Place the long 6.2mm drill bit (not with a drill attached - just the bit itself) into the forward hole of the jig and 'eye-it-up' in relation to the 2130mm arc on the masking tape on the deck above. Move the jig forward or backward until the forward hole of the rod lines up with the arc. You can judge this by eye remarkably accurately.
- Make sure the backing rod is a snug fit into the inner edge of the gutter. There might be some 'play', and it is important that the rod sits as far inboard as possible. When that looks OK, check the fore and aft alignment of the drill bit with the arc again. Keep checking till you are completely happy. Then tighten up the clamp so that the jig is held securely.



## Step 4 - Drill off front hole

- When you are 100% happy with the front hole position of the jig, drill off the forward hole through the backing rod using a 6mm drill. Don't force the drill, and be careful not to twist or move the jig.

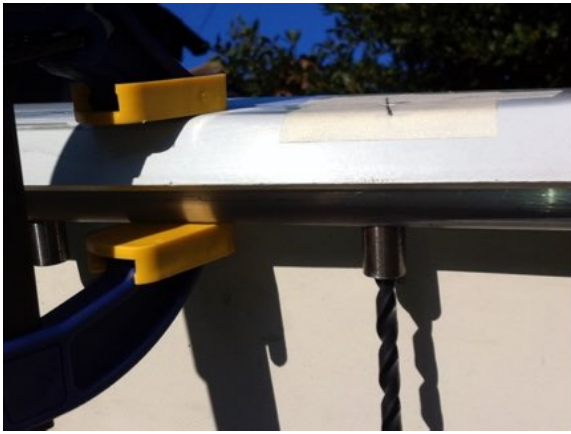
## Step 5 - Drill remaining holes

- Fit a 6mm bolt through front hole in the deck and jig: use the ordinary nut provided (ie. not a nylock), and do it up hand tight. Do not use track at this point.
- Re-clamp the jig, making sure the rod is still a snug fit into the inner edge of the gutter.
- Then drill off the remaining holes. The forward three holes should be 6.2mm. The aftermost hole should be 5mm.



## Step 6 - Seal holes

- Before sealing the holes try dry fitting an RCB track and backing rod with three 6mm bolts. This is just to make sure the holes, track and rod line up. The bolts should be a loose fit, because the holes you have drilled need to be sealed. The 5mm hole at the aft end should also line up - though this will not have a bolt; it will have a 4mm pull-back line threaded through it instead.
- Mix a small quantity of gel coat or resin and coat the inside of each hole - running something like a cocktail stick round the inside.



## Step 7 - Trial Assembly

We recommend that you use 'bear tape' to seal the track and the rod. 1mm tape for the track and 3mm tape for the rod. We provide the bear tape already applied; it has backing paper which needs to be removed - BUT NOT YET.

- Do a trial assembly of the track, the plastic end-stops and rod onto the deck using the 60mm bolts for the forward and aft bolts and the 55mm for the centre bolt (the centre bolt is shorter because it doesn't have to pass through the end stops). All of these should be just loose fitted for the time being. Don't use the nylock nuts yet - we provide 3-off ordinary nuts for this 'dry run'.
- We suggest you use two washers on each bolt: a nylon washer against the rod, and a stainless washer between the nylon washer and the nut. The nylon washer will reduce corrosion, the stainless washer will stop the nylon washer being squeezed out. Don't do the bolts up tight yet, this is just a dry run...
- Check that the bolts provided are the right length; boats differ by a few mm, so you may have to cut the ends off the bolts.
- When you are happy that everything comes together as it should, remove the bolts from the rods and tracks, then use Tef-gel to grease up the bolts. Work the Tef-gel into each bolt thread over the whole length of the bolt. This will reduce the tendency of the aluminium backing rod to corrode when in contact with the stainless bolt, and will give you a good chance of undoing the bolts in a few years time if you need to.

## Step 8 - Fit RCB Cars to the Track

- When the bolts are 'greased' push one end stop onto the track and push a bolt through to hold it in place.
- Next install the central bolt (the shorter one of the three) using some extra Tef-Gel between the countersunk head and the track.
- Then remove the backing paper from the 1mm 'bear tape' and using the forward two bolts to set the position, push the whole assembly gently through the deck.
- The next job is to slide the RCB car onto the track from the aft end. There are no words to describe how carefully you should do this.... just be sure to butt the delivery track squarely to the actual track.
- When the car is on the track, push the aft end-stop onto the track and push its bolt through end-stop and track.

## Step 9 - Fit Backing Rod

- When the dry run is complete and you are happy that everything is in its proper place, replace the nuts with nylocks.
- It is tempting to over-tighten the nuts - however we suggest you resist this by just using two fingers on the spanner. After sailing with the RCBs for a week or two you should check the tightness - which will most likely mean retightening .

## Step 10 - Fit Pull Back Kit

- Shackle the cleat to the aft end of the car bridle.
- Thread one end of the pull back line through the cleat and then through the pull back handle. Tie a knot in the end of the line to secure it in the handle.
- Thread the other end of the line downwards through the hole in the deck just aft of the RCB track. You may need to clear the hole of the bear tape before the line will go through. (Don't use a drill for this, you will probably damage the anodising).
- Tie a stopper knot in the end of the line and pull the knot upwards against the chamfered surface of the backing rod.
- Repeat process on the other side.

## Contents of kit

### ***In the standard Signal Locker RCB retro-fit kit, you will find...***

- 2 off Ronstan RCB track cars
- 2 off Ronstan RCB tracks (240mm long with 1mm bear tape fitted)
- 2 off pairs of track end stops
- 2 off pull back cleats (with shackles and fairleads)
- 2 off anodised backing rods
- 2 off 475mm x 3mm bear tape strips
- 2 off control lines
- 2 off pull back handles
- 6-off M6 x 65mm CSK A4 stainless machine screws
- 6-off M6 A4 stainless Nylock nuts
- 6-off M6 A4 stainless washers
- 6-off M6 nylon washers
- 3-off M6 nuts (for dry fitting)
- 1-off sliding arm mini-clamp
- 1-off extra long 6.2mm drill bit
- 1-off extra long 5mm drill bit
- 1 pack of Tef-Gel

On Loan:- A drill jig - and an envelope for its return...

### ***In addition you will need...***

- A tape measure, some masking tape and a pencil
- Gel-coat, resin or polyester body filler to fill the old holes in the deck
- A drill (a lightweight battery drill works best)
- A screwdriver and a spanner to fit M6 nuts