

T34C Tech Articles & photos

By

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# Installing Genoa Tracks

*See Appendix K for enlarged Boom Conversion images*

Installing Genoa Tracks on  
the T34C



Photo 1

Genoa Track Parts



Photo 2

Laying out the Drilling  
Pattern

I think of all the points of sail, I like sailing to windward the best. I'm not sure I know why this is so; but, not only do I like windward sailing, a good beat; but, I tend, therefore, to judge a boat's abilities primarily based on her windward performance. So, when I first sailed Temujin, with her outmoded outboard Genoa track and, generally, antiquated sail handling gear, I was moderately disappointed in her windward ability. Mind you I was comparing her to my old Kirby ½ tonner and a number of other hot boats I'd been sailing; but it seemed that when I looked at the hull, keel, rudder, sailplan and design lineage I was convinced the performance could be much, much better. (I'm not the only one who's noticed this, as there are numerous entries concerning this subject in the Tartan 34C Owners Phorum.)

There are a lot of things to consider in determining what to do to improve windward performance. Some require minor adjustments; some require better sails and sail trim; and, some require carefully thought out gear and equipment changes.

In this article, we will speak only of adding inboard Genoa tracks, as this bit of upgrading will have a major effect on the ability of the boat to point, as the expression goes. (I also changed the outboard track to 12' x 1.25" SS track; but that's for another time.)

To install new inboard Genoa tracks on the deck of the Tartan 34C, there are a series of steps that will lead to a nearly failsafe installation. To be sure, the work is demanding and time consuming so it is hoped you will not have to ever do it again, because of leaks or other problems.

It is important, too, to note at this point that you must be sure your upper shrouds and lower stays are far enough inboard to permit the headsail to be sheeted inside the lifelines. If your Tartan 34C has double lowers, this may not be the case.

In addition, it is very important to decide how long the track is going to be. Do you plan on using it only for your large overlapping headsails or for all your windward sails including a heavy #5? It is wise at this juncture to consult your sail plan and to scale off your headsail inventory to determine the approximate lead angles for each sail you will want to use. This process will tell you where the track will have to go forward and aft.

Photo 1 shows the Genoa Tracks I selected for Temujin. They

Lots of Holes Required!

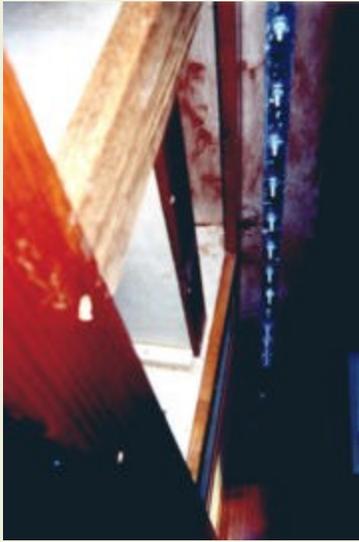


Photo 3

Installing the Aluminum  
Backing Plate



Photo 4

Covering Box and Wooden  
Deck Liner

are 11' long and run from just aft of the chainplates to nearly the winch islands at the cockpit coamings. These tracks are 1.25" wide. Moreover, they are not T tracks. They are the wide-bottom tracks used by C&C. I chose these tracks because they will permit a very wide seal of 3M-5200 sealant to keep water from running underneath.

This part gets a bit complicated. Looking underneath, it is clear that the bolts for the track will be going through Dexon. In addition, there was nothing underneath to stiffen the deck for the installation of 11' of new track with potential loads of up to 3,000 lbs. Between the forward bulkhead and the aft bulkhead there was over 6' of unsupported hull and deck. (See: Reconstruction of Interior Cabinetry, Photo 1.) Fortunately, the deck coring on Temujin is plywood and relatively stiff compared to balsa-core.

The first step, then, as a precaution, was to take away the Dexon and stiffen the underside of the deck with a 1/4" plywood replacement for the Dexon insert, using the old Dexon as a pattern. After the cabinet facades were removed, the plywood was layered with three layers of wet mat and held against the underside of the deck, using 2x4s and wedges. These stiffeners were used on both sides and aft running above the bulkhead in front of the ice-chest. (This bulkhead is relatively easy to remove.)

Once the deck was stiffened, and everything removed to permit easy access to the underside of the deck, the deck topsides were marked and drilled for the 37 bolts that would go through the Genoa track. Photo 2 shows the string of holes in the deck. Each hole was drilled with a 3/4" Forstner bit to the level of the inner layers of fiberglass. Then the hole was filled with a mixture of epoxy, epoxy micro-balloons and mat (tiger hair). This mish-mash was allowed to cure and was then sanded smooth. Then the track was laid down again and each 1/4" bolt hole was centered and then drilled through the epoxy plug, the underside of the deck and the plywood stiffening panel. The holes were then countersunk to enable extra sealant to flow around the bolts. This effort is designed to keep water both out of the boat and out of the core. Temujin's deck is plywood cored so it's critical that no water finds its way into the lay up. The epoxy plugs also double as a compression column to prevent the deck from being crushed by pointloading on the track.

Once all this is done, the track is clamped to a 1/8"x 1.5" wide aluminum backing and then the backing strip is drilled. This is so that all the holes line up perfectly before installation begins. Photo 3 shows the aluminum strip, which runs the full length of the track from underneath. It is, of course, interrupted by each bulkhead as



Photo 5  
A View of the Track after  
Completion

it runs aft. As shown, all the bolts are through and stainless pan washers and nuts are fastened down. I use long machine screws so that I can clamp them with a vise grip and tighten the bolts without having to have anyone on deck holding the screw heads. (Most all the jobs I do are designed to be done by one person.)

Photo 4 shows the wooden cover for the track and the plywood Dexon replacement liner. The plywood and the covering box are painted white, using Interlux Brightsides Hatteras White #4218. Photo 5 shows the Genoa track in place.

When you are finished this operation, you can slide the façade of the cabinetry back into place. You may have to trim the top a bit; but, if you haven't disturbed anything else you can pretty much just put it all right back.

And, it is safe to report, after some really fine windward sailing, that the new track works great, doesn't leak, and the boat sails noticeably better. Now, the next step is to replace the headsail with a new one. But, on a long beat from Mobjack Bay to Cape Charles, Temujin's windward performance proved very good indeed. That was the first real test and the boat passed with flying colors.

Lastly, if you are thinking of doing this project, you might also read the article on Reconstruction of Interior Cabinetry for the simple reason that you could tie these two projects together and only make a very big mess one time.

If your boat lacks strong windward ability this is one part of the equation that will definitely be beneficial.

## Appendix K - Boom Conversion images

