



WESTSAIL 32 STANDING RIGGING

On the Westsail 32 there have been a number of failures of the boomkin stay fittings that have caused extensive rigging repairs to be needed. In more than one case, the entire mast, rig, sails, etc. went overboard and was lost. The early Westsail 32's had a wooden crosspiece on the boomkin, with a U bolt to hold the backstay. This piece must be carefully checked for rot and cracking that could let the U bolt pull out.

Westsail then made a stainless crosspiece with a 2" web. Some of this type have bent under heavy loads, but we have not heard of any failures. The current boomkin cross piece design has a 4" vertical web, with a reinforcing bar below the backstay ear. These boomkin crosspieces are available if you need to replace yours.

A major problem point is the boomkin stay tang bolted to the hull. The early boats had a 1" wide tang, with a 1/2" hole for the pin on the stay, leaving less than 1/4" of metal around the hole. The condition of the metal around the hole is not readily visible for inspection because it is covered with the toggle end of the stay. Being in and out of the water, and flexed with loads, the end of this tang can develop unseen cracks and hole elongation. The failure of this tang has caused the loss of the entire rig on more than one instance. The turnbuckle on the stay should be loosened, the pin on the toggle end pulled out, and the end of the tang carefully inspected for fractures at every haul out.

After 1975, the width of the tang was increased to 1-1/4" wide, giving enough cross section area around the hole to prevent elongation. New 1-1/2" wide tangs are available, as well as new wire stays with swaged ends. The new 1-1/2" tangs fit in the same holes as the old ones, and are easily replaced. You must still check for cracking and corrosion, including the toggle strap on the end of the stay.

The condition of the swage to the wire should be checked for hairline cracks on the swage. We use 9/32" 1 x 19 Sailbryte wire as it is more corrosion resistant than the 304 grade normally used.

The other stay that should be checked at least once a year is the bobstay, primarily the end down at the waterline. The toggle strap or fork also corrodes, and hairline cracks develop on the swaged fitting. A replacement bobstay is available of Sailbryte wire with new fittings swaged on both ends. The whisker stays and hull tangs for the bowsprit rarely seem to have any problems, but they should be checked in any event as a precaution.

Keep a zinc attached to the bobstay hull fitting to protect against electrolysis in the event it is underwater.



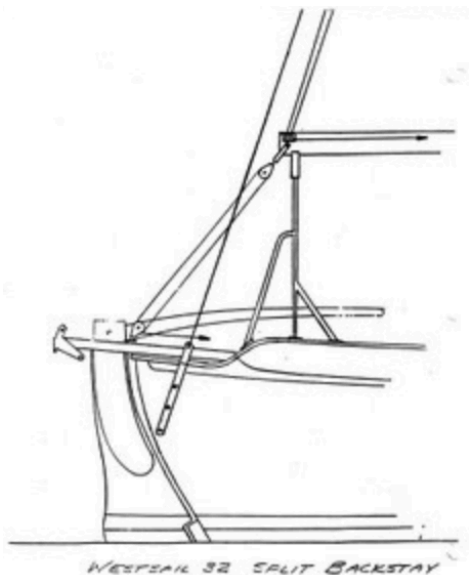
Replacement standing rigging is available from Westsail Parts at very competitive prices. After 8 to 10 years the lower end swage fittings may develop hairline cracks, or broken strands. This is a sign that the rigging should be replaced. Most W-32's had 9/32" wire, with marine eyes at both ends. If you can exactly measure each wire from eye to eye, new rigging with identical swaged eyes can be supplied. If you cannot measure the wire, or as an alternative on a new installation, wire is available with a marine eye swaged on the upper end, and the wire left long with and extra 2 feet with a bare lower end. A Sta-lok fitting is available to install yourself after marking the location of the turnbuckle on the lower end. Also new turnbuckles are available from Westsail Parts Co. with a chrome bronze open center body. The threaded ends are forged stainless steel with strap toggle ends. If you need to replace only parts of your turnbuckles, the center bodies, or the right or left hand threaded toggle ends, they are available too.

Westsail 32 Split Backstays w/chain plates on hull

There have been a number of owners that wish to do away with the boomkin, and use split backstays bolted to the hull on either side. This can be done, and we have the parts available as a set. The chainplates are bolted to the hull just outside of the boomkin, with a filler wedge piece of wood to hold them outside of the rubrail and caprail. The backstay is cut about 6' up, a Sta-Lok eye attached to it, and the turnbuckle and a triangular plate installed on the backstay. Two legs come down to attach to the chainplates on the hull. Approximately 12" to 14" must be cut off the boom for it to clear the new backstay position. You will need to shorten the foot of the mainsail to about 15'. It will not affect the sailing speed of the boat, and will help alleviate some weather helm. If you wish to retain the boomkin for a wind vane, locate the chainplates just outboard of the boomkin, or about 21" to 22" from the stern. The farther forward you go, the more tiller travel you will have, but the more you will have to cut off the boom to clear the backstay. We have tried to find the optimum position to have good tiller travel, yet still have the end of the boom land on the gallows frame. There is a complete description of the step by step instructions for making this conversion. Be sure to read them and understand the steps so that the job will go easily. The chainplates will be attached with the top hole just above the caprail, and angled to match the backstay. Initially only one hole with a carriage bolt will secure the chainplates to the hull. Teak wedges are provided to match the gap between the chainplate and the hull under the rubrail. The two short backstay legs will be attached to the chainplates, and the upper ends to the triangular plate. Above this plate will be the existing turnbuckle, and a supplied Sta-Lok cone to attach to the backstay after it is cut to fit. Once the backstay is attached, and snugged up, the chainplates can be aligned with the backstay, and the other holes drilled, the chainplates bolted to the hull, and the backstay tightened up. Then you will need to raise the boom with the topping lift and mark the boom for cutoff to clear the backstay and yet still rest on the gallows. Depending on the clearance you need, and the location of the gallows and boom hardware, you can make the cut on either end of the boom. To minimize the cutting of the foot of an existing mainsail, use an outhaul car that is reversed, with the sail clew attachment pin aft, and the pulley forward. This will give a few more inches of sail foot length. Your sailmaker should be able to locate one of these for you.

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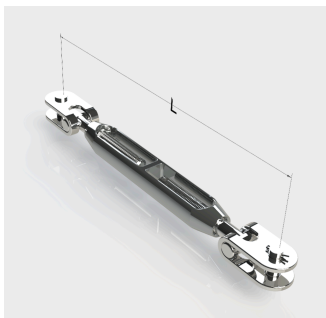
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Replacement Turnbuckles

New industry standard turnbuckles are available from Westsail Parts, with either a bronze finish or a chrome bronze finish open center body. In either case, the threaded ends are stainless steel with a forged tee, and a strap toggle end, with clevis pin. If you need to replace only parts of your turnbuckles, the center bodies, or the right or left hand threaded toggle ends are available. The left hand thread is normally attached to the chainplate, and the right hand thread to the wire. A right hand thread turns clockwise to screw it in. A left hand thread turns counter-clockwise to screw it in. On many of the Westsail boats a stainless steel center body was used that was made by a local manufacturer in Southern California. These turnbuckles have a round center body with a hex area in the center, and long open slots on both ends of the center body. There has been a problem with these bodies, in that the slots were machined very close to the ends of the body, and many have cracked from the slot to the end of the body due to crevice corrosion of the stainless steel. If you have this type of turnbuckle on the boat, keep a very careful check on the condition of the barrels, or better yet, replace the barrels.

Many of the boats also had Navtec turnbuckles. These have a center thread, rather than a center body, and the ends are barrels with internal threads, and toggle ends. The center thread has a stainless steel square part in the middle, between the left and right hand threads. Some were made with an all stainless steel center thread, and Navtec has had many failures of these turnbuckles, due to corrosion of the thread where it meets the stainless square part in the joint between the left and right hand threads. If you have this design turnbuckle, and the center threads are bronze, then they are usually fine. If however, the threads are stainless, they are subject to failure, and should be replaced with a bronze center thread.



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Some standing rigging parts that are available:

- Boomkin crosspiece (2" x 4" web SS) with fasteners
- 1-1/2" boomkin stay tangs with fasteners
- 1-1/2 bowsprit stay tangs with fasteners
- 1/2" x 6" SS staysail eyebolt with washer and nut
- Boomkin stay wires with swaged end fittings - 9/32" Sailbryte stainless wire with marine eye to toggle end - should be 33-1/2" or specify length and end fittings
- Bobstay wire with swaged end fittings - 3/8" Sailbryte stainless steel wire with marine eye to toggle end, should be 8'5" or specify length
- Bowsprit whisker wires with swaged end fittings - 3/16" Sailbryte stainless steel wire with marine eye to toggle end, should be 11'3" or specify length
- Standing rigging set - headstay, backstay, forestay, 2 upper shrouds, 4 lower shrouds - 9/32" US made stainless wire with marine eye swaged both ends - specify exact length of each wire from eye to eye
- Add on for two insulators swaged on backstay wire for SSB radio
- Standing rigging set with marine eyes swaged upper end only and other end bare
- Sta-Lok eye 9/32" 1x19 wire size with 1/2" pin hole
- 3/8" chrome bronze open barrel turnbuckle with SS toggle ends
- 1/2" chrome bronze open barrel turnbuckle with SS toggle ends
- 5/8" chrome bronze open barrel turnbuckle with SS toggle ends
- Turnbuckle barrel only - 1/2" chrome bronze open body
- Turnbuckle stainless steel toggle end with clevis pin - 1/2", specify left or right hand thread
- Split backstay hardware - 2 chainplates with fasteners, teak wedges, triangle plate, 2 backstay wire legs with fittings swaged on, Sta-Lok eye fitting for end of backstay wire, and installation instructions

Some **pricing examples below are for reference only**, please email or call for an exact quote, There are a lot of variables on what's right for your boat and a lot of price fluctuation on costs these days.

Examples for a W32:

Bobstay - 3/8" - ME in toggle jaw/threaded swage stud end - \$338

Whisker Stays 3/16" - ME in toggle jaw/threaded swage stud end - \$97.15ea

Boomkin Stays - 9/32" - ME in toggle jaw/threaded swage stud end - \$152.15ea

3/8" Chrome Bronze open barrel turnbuckle with SS toggle ends for bow whiskers - \$79.75ea.

1/2" C B open barrel turnbuckle with SS toggle ends for mast and boomkin whiskers - \$125.35ea.

5/8" C B open barrel turnbuckle with SS toggle ends for bobstay - \$214.15ea.

Sta-Lok Eye, 9/32" x 1/2" Pin - \$72.92ea.

Full set of Standing rigging for W32 - 9/32" wire standing rigging set with swaged eye on upper end, other end bare for Sta-Lok (Forestay/Staysail Stay/Backstay/4 lower shrouds/2 upper shrouds provided with 2' extra all ends - \$1486

Email or call for an exact quote - randy@westsailparts.com 415 254 7296

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