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The Refit of a Classic Cheoy Lee 41

The Refit of Astraea

Site Navigation

Refit of Astraea

Here is a documentation of the work done by Svendsen's Boat Works in Alameda from November 2005 to the present. Click on each phase to see details of the work.

Phase I: November 2005 through March 2006. Mast rebuild, new rigging, recoring the foredeck, new lifelines and lifeline stanchion bases.

Phase IB: The work of Phase I continues. From April 2006 through June 2006. New bottom, new shaft, new prop, new cutlass bearing, and a new transom paint job.

Phase IB Cont. July 2006. The work continues. New B&G instruments, new bilge pump system, huge new holding tank system, and repair of previous grounding damage from the Caribbean.

Phase II: Electrica System Update, New Force 10 Stove, Bottom Rework Part Deux

Phase III: Repowering with a new Westerbeke 44; Cleaning and repainting of bilge; Installation of new Furuno NavNet2 radar, GPS, and other electronics; refinishing of cabin sole.

Phase IV: Scheduled for Summer of 2009 just prior to going cruising. This phase will include the installation of a Monitor Windvane with emergency steering, a Spectra watermaker, and (perhaps) an electric winch.

Click here to see the extensive refurbishment of her brightwork.

Refit Phase I

Refit and Restoration: Phase I

Svendsen's Boat Works, Alamdea, Ca.

November 2005 - March 2006

Mast Rebuild, Re-Rigging, New Sails, and other Safety Work

We decided that the Refit and Restoration had to be broken into phases for two reasons: 1) to make it affordable and 2) to

give us some time to sail between phases!

Phase I was to be safety items to make her as safe as possible to sail on the often challenging waters of San Francisco Bay and out into the coastal Pacific regions just outside the Bay.

We started with the surveys. The engine was in great shape, although she needed new hoses. The masts needed some work. The standing and running rigging needed replacement.

Most immediately troubling, there was a "soft" foredeck which we knew could mean trouble. The price had been dropped by the previous owner to compensate for the "unknown" factor that was causing this softness. There was obviously delamination. Rot? Only digging into the fiberglass would answer that question. It could be major.

Step one was finding a boatyard we could use and trust. Of course, with most boatyards when you turn your baby over to them the questions of "how long will it take" and "how much will it cost" are purely guesses. We felt that the most important factor in a boatyard partner was one whose work and integrity we could trust. We have been using Svendsen's in Alamdea and been delighted with the quality. The prices could be a little lower. Sigh.... but it all comes down to getting what you pay for. Astraea She looks so sad without her masts.

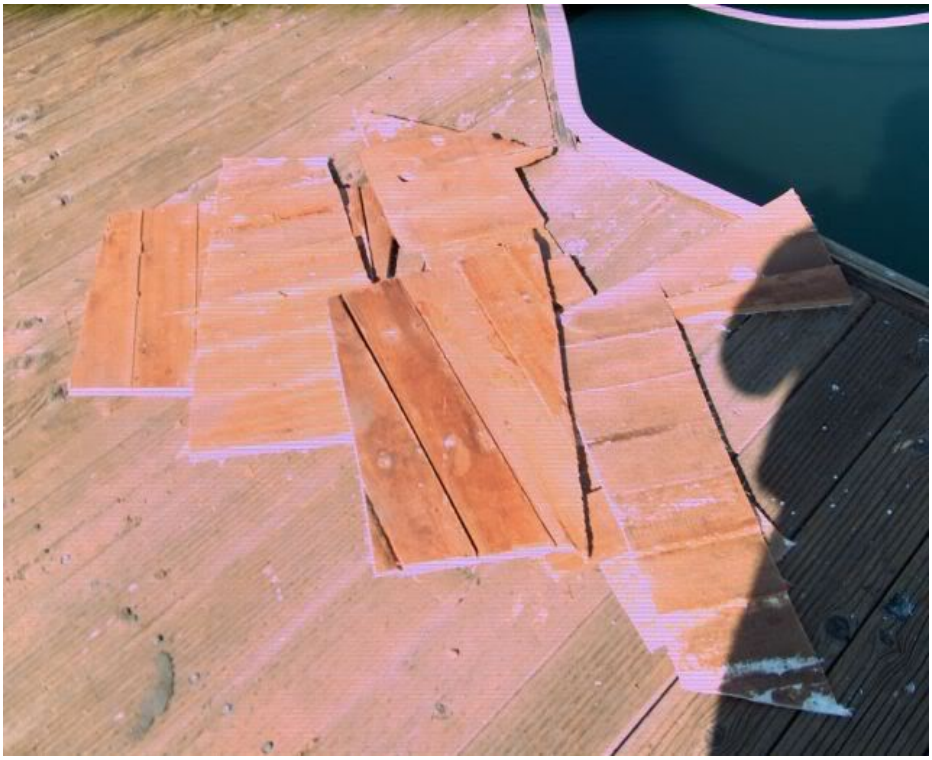
One could say that "her wings are clipped", but only for a while. She sits and waits for her masts that are now in the stripping shed. It is going to be a L-O-N-G wait. Little did we know at the time HOW LONG or HOW EXPENSIVE!

This was hard work, stripping the two masts. (Well, for the yard guys it was hard work).

The foredeck had a "soft spot". This could have been a serious problem, and the seller had lowered the price of the boat to compensate for the potential work. We took the risk of how bad this was going to be. Of course it meant tearing up the foredeck.

Rather than damage the Teak decks topside, the Svendsen's fiberglass shop came up with the idea of removing the interior layer of fiberglass. (Smart!!!). They round that the rough sawn Teak core had no water damage, no sign of water leaks, but had come delaminated from the upper and lower layers of fiberglass. The oily nature of Teak does not make it a good coring material. I am surprised Cheoy Lee used the Teak rather than some other wood such as mahogeny.

Anyway, here we see the lower fiberglass layer and the teak core removed. This looks like wood, but the Teak core is gone. What we see here is the bottom side of the upper layer of fiberglass decking. The now removed Teak had given the fiberglass a wood grain appearance. The boatyard then fabricated a new core of balsa, laminated the balsa to the upper layer of teak, and then layed a new interior layer of fiberglass. The result was a firm, stiff fore deck and a nice smooth overhead in the V-berth. Now to replace the headliner.



A stack of expensive scrap wood! Teak from the core.

Leaks around a windlass on the mizzen mast had allowed water intrusion, resulting in rot in the bottom four feet of the mizzen.

Therefore the master carpenter at Svendsen's replaced the bottom four feet of the Sitka Spruce. It was quite a job, trimming the old spar, sistering on new wood, gluing, clamping, and then planing and sanding.

The restored mizzen mast. The bottom four feet is new, but you can't tell by looking. These guys are true craftsmen!

The main and mizzen masts with their new Awlgrip were breath taking! I had originally wanted them to be varnished, but the rigging foreman at Svendsen's strongly advised against it. He said they might look good, but the maintenance would be a nightmare and they would have to be done annually. So we went with the white Awlgrip. Now I am glad we did it. They are beautiful.

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Fortunately the main mast, made of Sitka Spruce, was in perfect condition.

The old Sitka Spruce spreaders were showing some rot, so the yard custom built new ones. Nice job!!!

New running light. In fact, all the nav lights and spreader lights are new.

Main sheaves all reworked and ready to be stepped and rigged.

The main ready to step! Beautiful spar!

The mizzen goes on.

Gently moving the main back into place with an electric crane.

The main being guided toward the step.

The main mast is back in it's step and the booms go back on. Since they are protected from the sun and UV rays, we kept them natural wood. Of course she received a complete suit of new sails. We could not put old sails on this beautiful new rigging!

"That daring young man on the flying trapeze". In reality, a rigger putting on the new triadic, a wire that connects the tops of the main and mizzen masts.

The masts are back on! Astraea has her wings again. Stronger than ever and ready to fly.

The old stanchion bases all had to be replaced for safety. They had looked "OK" on the boat, just cracked in places. However we felt it best to go ahead and replace them. Fortunately the stanchion foundations were solid fiberglass and raised above the teak decks. The only problem was it took two boatyard riggers two days (four man days!!!) using impact wrenches and other heavy tools to remove the old stanchion bases. The new stanchion bases. Beautiful!!!

Before:

In Process:

After:

I had recently rammed into a concrete post at our dock and dented in the bow rail, so we had to have a new bow pulpit. Also decided to go ahead and replace the stern pulpit while we were at it. Cheoy Lee had used some sort of klugey t-joints at the connections. Svendsen's replaced them with new custom made units with welded joints. Much improvement. Here are the new ones.

Click here to continue on to Phase IB, May-Jul 2006

Click here to see the extensive refurbishment of her brightwork

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