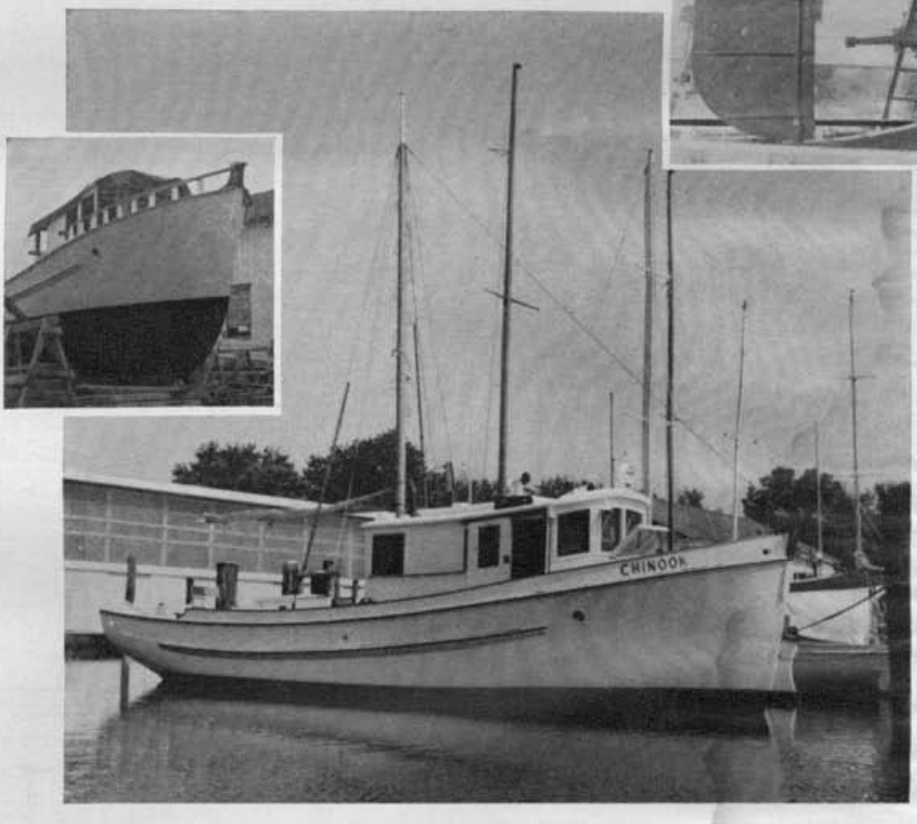
THE BUILDING OF THE CHINOOK

by Jim Emmett

A superb achievement in the art of boatbuilding which shows what skill, patience and determination can do



Step by step Chinook takes form and Jim Emmett's dream comes true

ANOTHER of those character boats will be the first impression of Chinook. Certainly, she's no weekend craft. But she does have a number of features that would make her a good retirement boat for an active couple. As it is, though, she was intended for a special purpose—to suit our way of life, also our setup for building.

Too, Chinook is the Emmett's step-down from sail, replacing our schooner Heart's Desire. We wanted a boat that would be even more suitable for living aboard the year round as well as for extensive cruising. She must be cheap to operate, and easy and economical to maintain. Speed we don't need. Nor are we too interested in comfort, at least not in the plush sort as afforded by the modern power cruiser. We did want a boat that would be decently cool in hot weather. And, as important, that could be kept snugly warm in such cold weather as we encounter, going south late in the fall and during winters in northern Florida. She had to be husky, not only sea kindly, but suitable for tying up at not always the best docks in out-of-the-way places. While a plainly finished boat was indicated, we intended to build well, using good materials.

Our first problem, naturally, was to find a design that would best fulfill these requirements. Bill Garden solved that by sending us, along with other plans, some for his smaller salmon trollers. Chinook is basically one of his thirty-eight-footers, a man-and-wife boat I believe they are called in their home waters, those of our West Coast and of British Columbia and southern Alaska. In fact, the only departure made from the stock plans was to use the fish hold aft to work in extra living accommodations. Then, we have a diesel—a JN600 Cummins—instead of the gas engine shown. The construction specifications, though, we followed exactly.

Any commercial type craft can be deceiving from the building standpoint: its size can fool you. Although only thirty-eight feet long and with a rather narrow beam of eleven feet, Chinook, with her five foot draft, is a lot of boat. But in comparison a forty-two-footer of this type, which we first considered, would have involved half as much again labor and cost.

One remark that's often made is that Chinook sleeps but two persons. Actually, we can accommodate another couple in the deckhouse, but our usual comeback is that almost all our friends are folk with boats of their own. We do have an unusual amount of storage space for all sorts of things. Also what is a must, to my mind, for a sizeable boat that is used seriously, is a real engine room. Naturally, we could have had more cabin space simply by enlarging the after cabin and possibly connecting it to the deckhouse, as is often done with yachts of this workboat type. In our case, though, we wanted plenty of deck space both for handling the boat about docks and for outside living.

General Features

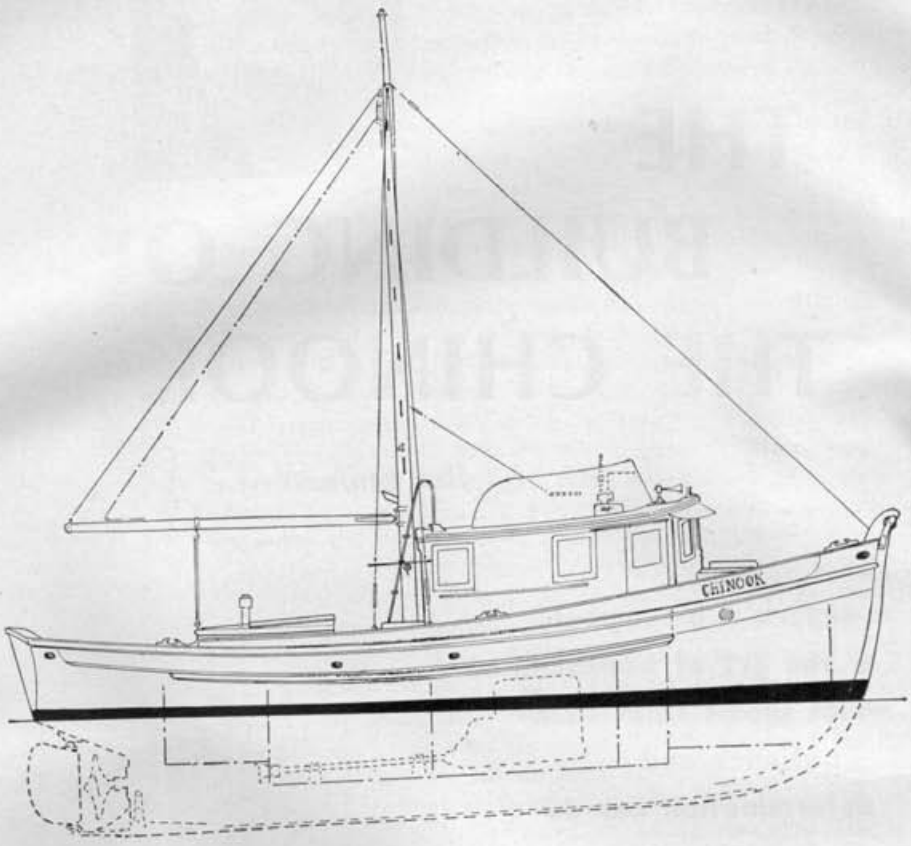
But let's see how Chinook actually stacks up on such counts. Afterward I'll explain how she was built.

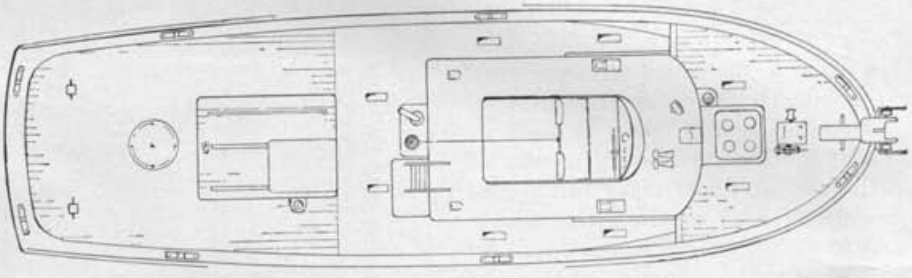
My sketch plans No. 1 and No. 2 show the general features. Notice that the sheer is unbroken, except for the chock rail. The latter, which is 11 inches high up forward, gives one a sense of security when working on the raised section of the deck there. Aft of the break in the deck, which is at the forward end of the deckhouse, the waist, capped by the rail, is 2 feet high amidships. With the 2-foot wide passageway either side the deckhouse, one has the feeling of being in the boat rather than merely on it. The bow has considerable flare forward as indicated by the fullness of the deck. The transom is, I think, good looking.

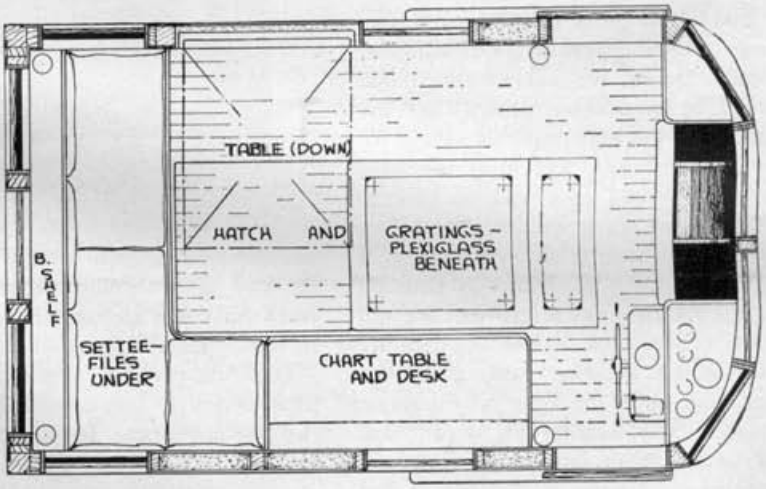
The topsides are perfectly protected, by a full-length heavy upper guard and a still heavier lower one centrally. All are of greenheart, through bolted and shod with 1½-inch bronze half-oval. Docking, even under adverse conditions, is simplified if you don't have to be careful of your topsides.

Forward, the heavy bronze casting capping the stemhead has two large

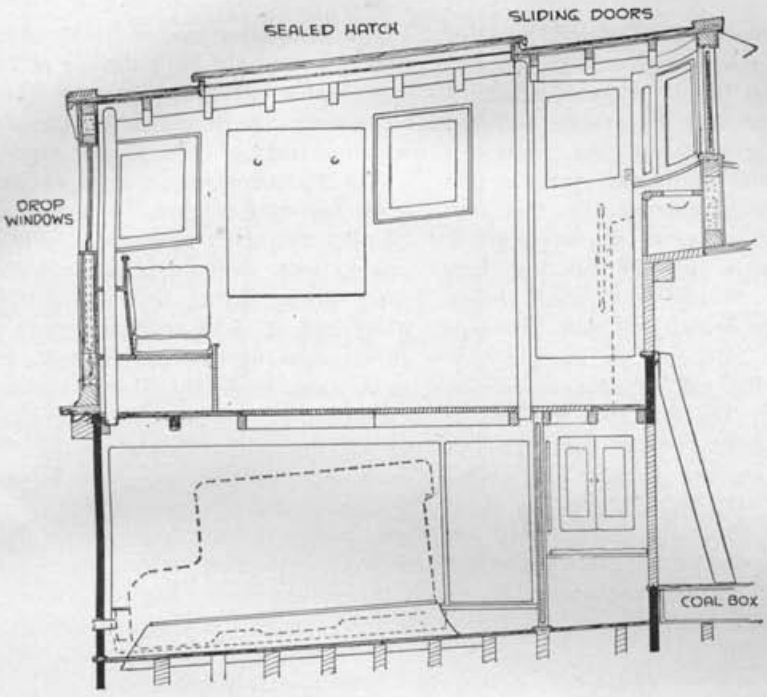
PLAN DRAWING OF THE CHINOOK



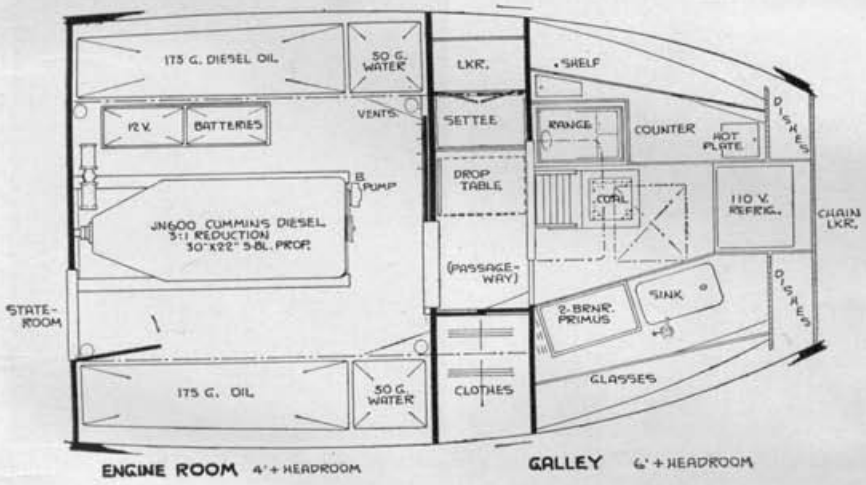




The deckhouse plan shows the steering station, commodious settee and files under bookshelf, and efficient work surfaces



Below decks the galley is forward of the engine room, the stateroom and head aft. The plans show ingenious use of space for lockers and storage



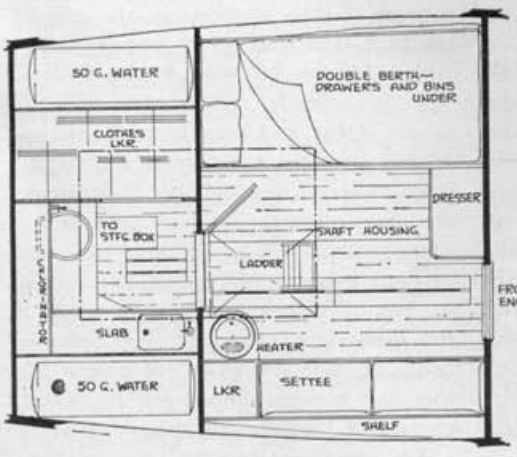
sheaves. And the stout greenheart Jonesport type cleat is not only bolted but tied into the inside stem below by means of eye bolts and a turnbuckle. Backing it is a lovely old Willis two-speed windlass, all bronze, even the gears. It feeds the ⅜-inch chain direct to the chainlocker below, meaning that one doesn't have to handle the chain in getting the service anchor out or in. Of the three anchors carried—30 and 60 pound Simpson-Lawrence CQR's and a 120 pound Herreshoff—either of the first two can be left dangling, from the stemhead fitting without marring the stem or planking.

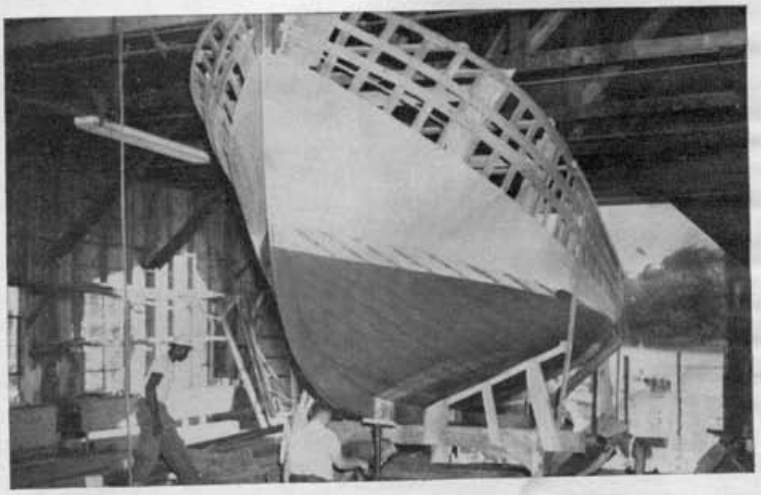
Anchors Rigged for Easy Handling

The chocks atop the railcaps are oversize, cast from patterns in keeping with the boat's character. And the four hawseholes each side are big enough so that a bowline or other knot in a dockline can be passed through. There's a choice, either side, of four heavy cavils, through bolted to the frameheads, for making lines fast. Plus, of course, the pair of high bitts aft. The boat can be worked about docks with a single line led through a central hawsehole. If I seem to dwell unduly on the provisions made for handling anchors and docklines it's because anchoring and docking are, if you're not rigged right for it, difficult for a man and wife crew handling a big or heavy boat.

The mast, which is stepped on deck in a bronze socket, is, of course, a must feature. Its main job, in our case, is to take the riding sail. These high-bowed boats with deckhouse forward

Hydraulic jacks helped move Chinook, on travois, to clear shop door





often need the bit of canvas set aft to avoid yawing about when anchored. Too, there's the steadying effect of the sail when running in a beam sea. Then, when anchored or at a dock, the boom acts as a ridge pole for taking a large two-part awning, sheltering the trunk cabin and after deck. Fitted with a heavy nylon zipper, only the forward half may be used if desired. Or to scandalize the awning, against a squall, it's a simple job to remove the two cross slats and tie the corner and edge lanyards down to the rail tent fashion. Ike Manchester did a lovely job on this, also on the heavy dacron riding sail.

The steps up the mast are, for a power boat or motor sailer, an improvement over ratlines, which are difficult to keep in place especially on stainless steel shrouds. They are ½-inch rod bent roughly U-shape with ends buried in the wood and brazed-on shoulders screw fastened. There are a pair of spreader lights large enough to serve as deck floodlights, and a mast winch for handling the wire topping lift in using the boom to hoist the dinghy aboard. The standing rigging is ⅜-inch stainless.

SLIP-PROOF DECK

As the deck plan shows, the forward deck has a high hatch, which when opened ventilates the galley. It has four prism type S/L deck lights, and other rectangular shaped ones are let in alongside and aft of the deckhouse. The forward deck is 1-inch teak over 1-inch cedar with tarred felt in compound between. The after deck the same. But Dexolium was used over 2-inch cedar for alongside and astern of the deckhouse. It's slip-proof, even more so than teak, and isn't stained by oil in refueling. The waterways themselves are 2½-inch cedar, scooped out or hollowed to provide a gutter about the deck proper, as aboard our previous schooner. The advantage of such shaping is that water has no chance of lodging about the frameheads holding the waist. These members are particularly susceptible to rot. To further guard against it the frameheads are greenheart, wedged and lead flashed, and there is a continuous scupper or drain slot in addition to the freeing port.

The 22-inch bronze manhole aft, picked up secondhand, permits access to the lazarette, which is large enough to accommodate shelves and bins for paint and other rough storage. To port of the mast the dry exhaust is carried through the deck by a water-jacketed fitting. The discharge line from this has its outlet and control valve so that a hose can be connected so that with the engine going, we can wash down. The muffler is long and slim, especially made of Monel; the stack heavy bronze pipe discharging aloft. This type exhaust is not only in keeping with the boat but has its advantages over a wet one. The line from the engine to the water-jacketed through-deck fitting is similarly cooled. The muffler and stack are "hot." There is a stainless shield about the muffler itself but neither the muffler nor stack get as hot as you'd think, mainly because of the cooling effect of the initial water-jacketing.

The deckhouse top is 2-inch cedar with calked seams. So is the top of the trunk cabin aft. Kept painted white we've never had trouble with such construction leaking. Or if a seam should leak it is a simple matter to recalk and refill. Indeed there are few seams on Chinook that can't be gotten at with a calking iron. While it is a comparatively simple matter to build a tight wood hull, it is very difficult to have an all-wood upperworks that will remain tight, especially in hot weather.

In handling the boat from the deckhouse, the old fashioned drop windows are a great convenience. In bad weather a side window can be lowered just enough to leave a slot to peer through. Lowering into copper pits with outside drains and with outside sealing strips these windows are truly watertight.

Elizabeth drove all plugs, did seam filling and painting, and pitched the bilge after caulking

Provision is made for a steering station aloft with a ladder aft of the deckhouse leading to it. Steering vision from the wheel and controls inside the deckhouse is excellent but we have been used to being outside aboard sailboats and we do want to have the choice. The outside station will be built about the 3 by 6-foot engine removal hatch in the deckhouse top. The rounded forward section, housing the steering and other controls, will be built as a unit and permanently secured to the housetop just ahead of the hatch. The side wings, and the sides of the hatch, will be removable. A wire handhold will angle down from the mast to a simple cross bench with a pair of clamp-on seats.

Steering is by means of ⅜-inch cables led from the 18-inch bronze quadrant (another good used buy), through 6-inch sheaves to the chain on the Edson heavy duty steerer, fitted with a 24-inch S/L plain bronze wheel. The home-made rudder indicator is simple. Gear and throttle controls are Morse. And the tachometer and other instruments as supplied for the engine are the electric type. The 7-inch deckhouse compass is let in flush forward of the wheelbox. One windshield wiper is Autolite's new heavy duty model, the other hand operated. As modern boats go our array of equipment of this sort is very simple, but for what there is we wanted the best.

The remaining sketches show what's

Chinook rightly needs another ton of ballast. Here she's shown with all tanks full

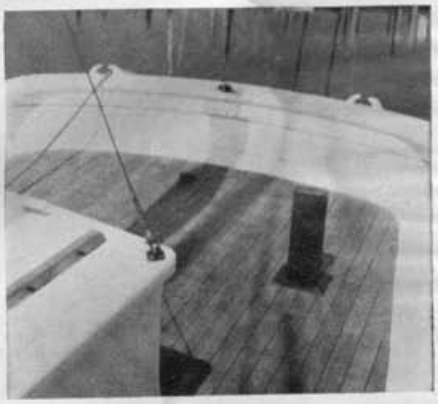
below decks. The deckhouse, Nos. 3 and 4, has an L-shaped settee with leather padded backs. My 'filing section' is underneath. Alongside is a desk which, with the top section down, makes a chart table. Charts being used stow within this hinged top, and another holder is let flush in the opposite wall. With the desk's top down the mess of papers inside are out of sight. Also, the Formica-covered top makes a handy serving table when using the hinged dining table which, when up, is flush in the port-side wall. An easily attached extension is added when needed. The thick walls of the deckhouse, with about three inches of inside space, made it possible to have such things house flush. Where not so used the space is insulated.

Forward is the steering station, alongside the wide companionway leading below. A hatch and two gratings in the deck or floor, along with the overhead hatch, permit lifting out the engine, if necessary. The gratings, which let light below, have plexiglas trays beneath as dust catchers. Inside decks here and throughout are teak. So is all lower joiner work and built-in stuff. Here in the deckhouse with the teak finished with rubbed varnish, surfaces from the window up in off-white cabin enamel, the effect seems just right for a boat of this sort—modern looking, still not too fancy. With the four corner drop type windows aft, all making for cross ventilation, the deckhouse is cool. The doors are, of course, the sliding type. With Teflon used where their top and bottom edges work in the bronze gutters, they open and close easily.

Sketch 5: the galley—also the engine room. We had to do a lot of explaining about the galley being below. Wouldn't it be handier in the deckhouse? Possibly, but there would not have been room for much else. For ordinary or weekend vacation use a galley can be very compact and concealed when not in use. Or the ideal arrangement, in any case—if the deckhouse size permits—is to have the galley a separate compartment there, closed off, say by sliding doors. But on any boat that's lived aboard the galley is likely to double for other purposes. The mate does her bit of washing and ironing and pressing, also occasional canning and preserving. And, particularly in cool weather with the coal range going, roasting or long cooking means that the galley is used well before or between mealtimes. Then, a deckhouse galley must be kept neat. Dishes must be washed and it must be tidied up immediately after eating. Not that any galley should be always messy, but there are times when it's nice to "wash up later." With us the contrast is often noticeable with another couple aboard for dinner. The table in the deckhouse can be cleared and all stowed below out of sight until after company has left.

The coal range, a Porthole's Constant Cooker, bought in excellent used condition, is not only our cooking stove in cool weather, but heats the deckhouse even when it's really cold. In fact, we originally had a small heater there but even in the past hard winter, spent on the Chesapeake, it was used so seldom that we took it off. A couple of shakings and fillings of hard coal every twenty-four hours is all the fueling attention that the range requires. And the fire can be brought from a dormant state to hot cooking heat in a matter of minutes. The monel body is so well insulated that only the cooking top and the lower stack get really hot. And the heat from these surfaces escapes through the wide companionway to warm the deckhouse. That is, the galley itself is not made uncomfortably hot. And, of course, there's the large hatch overhead, which takes in most of the floor space, further increasing the six-feet plus headroom, that can be jarred open, if need be. Naturally,

continued on page 58



30 lb. CQR anchor with 60 lb. CQR on chain to starboard. Note teak decks, greenheart cleat and bitts, ventilation slot in after rail

CHINOOK *continued from page 23*

the range is a perfect cooker and baker, and can be used when running in rough water.

Opposite, in a pit so it can be concealed by a stainless steel tray, is a two-burner Shipmate Primus. Also, there's an electric hot plate for using shore current set flush in the port-side countertop. The sink is oversize. Fresh water for the galley is in two stainless tanks in the engine room. The electric refrigerator is small and is usable only with dockside 110 volt current. Otherwise, we rely on the ice chest on deck. However, the galley space was purposely made large so that our arrangement could be changed, if some better way of solving the ice problem comes up. There's more than enough storage space for dishes, utensils, canned foods, etc.; and fuel bunkers, one for coal and another for charcoal briquettes, below the floor. For passing things up from the galley and for clearing off the table we use a teak tray that's large enough so that a single loading suffices.

Immediately aft of the galley, below the deckhouse, is an alcove or space with a locker for outdoor clothing to one side the passageway, a settee-fronted locker on the other. Although we ordinarily eat in the deckhouse, there is a drop table that's handy when underway. Mornings, we usually get going first, then the mate gets breakfast and we take our turns at the wheel and eating. The same for the evening meal: when running we generally eat underway to be all cleared up by the time we dock or anchor. This breaks the monotony of day-long runs and leaves us free to either gam or go ashore once we're in.

This passageway to the engine room and aft can be closed off by a sliding door. The tanks line the sides of the engine room, the two water tanks mentioned and two for fuel. Above the latter are removable trays for tools, spares, etcetera. And fronting the port tank a rack for excess charts.

The fuel tanks are steel. Each has its drain sump and outlet controlled by Kerotest valves. Both are connected by Aeroquip hose to the common line leading through a Sudbury water stripper to the big fuel strainer on the engine itself. We figure that we have better than a thousand mile fuel supply. Since the Cummins is a four cycle type we operate on around a gallon and a half of cheap No. 2 diesel oil per hour. Too, our 350-gallon tank capacity permits buying at bulk station prices. The boat is slow—around 8 knots—but the running cost is very low. In our service, involving better than 5,000 miles of running per year, the first cost of the Cummins seemed justified. As I see this, one soon forgets the initial expenditures and the low cost of operation gained encourages using the boat more. Where it's the opposite, a low first cost but high per-hour bills, you're tempted or forced to economize.

The starboard engine room passageway is entirely clear with brass handrails protecting against the hot engine. In the opposite or dead end passageway are the pair of Bowers batteries, which are used only for starting (12 volts). Also the lighter ones for the very simple 12 volt lighting system. Incidentally, the S/L swinging lamps in the deckhouse and stateroom are convertible—have their oil burners which can be used in place of their electrified ones—and the galley has its oil lamp in gimbals in addition to its 12 volt light and a fluorescent type for 110. This gives us a three-way choice—the boat's 12 volt, shore current, or kerosene as a standby.

The JN-600 Cummins is conservatively rated, at around 100 horsepower, for its over 400 cubic inches piston displacement. It turns a 30 by 22 inch five-blade Michigan propeller with 2-inch shaft through a 3:1 Capitol reduction and reverse gear. The engine is bolted over special rubber-like pads to ½ x 3-inch full length steel plates which are in turn lagscrewed to the oak

beds. The choice of holes, a dozen or more, permitted using those convenient to drill for. Beneath is a full length pan for keeping oil drippings out of the bilge. Everything about the engine can be reached for servicing or working on and there are the removable hatches if needed. Neither the size of the engine nor its weight (close to a ton and a half installed) was in our case a disadvantage. In fact, we needed the weight to help get the boat down to her lines. About three tons of inside ballast, some of it in the form of sash weights embedded in the pitch sealing the bilge, the balance in lead pigs, were required. The load of fuel in the tanks has its effect, of course, but because of their placement their being full or otherwise doesn't alter the fore and aft trim. While the ventilating ducts supply plenty of air and the overhead is insulated, we generally run with the bulkhead doors open.

The stateroom and toilet room (sketch 6) have their headroom only under the trunk cabin. But the large access hatch affords good ventilation. The settee to starboard has good sitting headroom under the deck beams. The double berth opposite has drawers and bins beneath, but not as much storage space as there might be supposed since these boats have a long run to the bottom aft. This necessitated raising the toilet room floor a step but with the height of the house allowing for this.

The little heating stove will, with a few briquettes, warm the cabin and also handles coal nicely.

Plenty of hanging space for clothes, shelves for shoes and even a place to carry a traveling bag or two are another must where one carries all his posessions. "Store clothes" are your big problem and mildew can be your enemy against keeping them presentable. In our case, the large clothes locker is well ventilated, and our way of heating helps. We've found too that a heavy boat with thick planking and decks is remarkably dry and mildew free whereas a light one must be actually insulated to avoid dampness and consequent mildewing of clothing and gear. The 200 gallons of water lasts us three weeks, without any stinting: this for bathing, cooking and such washing of clothes as isn't done at laundromats. Of course, we could make our supply last longer, but over the years, with different boats having their different size tanks and whether facilities for obtaining water were good or poor, our per week consumption has remained about the same.

The toilet is a Wilcox-Crittenden Skipper, a diaphragm type, and the nicest working and cleanest of the many makes or models we've had for shipmates. There is a chlorinating unit concealed on a shelf above for just in case. Ordinarily, we bypass it but the hookup permits quick changing over.

To reach this point—the actual building of the boat—involved considering planning, the making of certain sacrifices, and a lot of hard work as is always the case where any sizeable boat is owner-built, or even semi-amateur built as in the case of Chinook.

With the plans bought and our schooner sold, our first step was to acquire a houseboat for living aboard for the duration of the project. This, aside from providing cheap living, permitted us to be convenient to the building. I won't bore you with a step-by-step description of what followed for the building was necessarily a long drawn out job, taking around three years of plugging during which I did my writing mornings and devoted afternoons, usually until dark, to the work. However, much in connection with the project should be helpful to anyone considering building under generally similar conditions.

The first job was to build a proper laying down platform, a 20-foot by 40-foot one. We used ½-inch waterproof plywood, fastening it to 2-inch by 4-inch framing parts with 1-inch bronze screws. The idea was to be able to re-use both the plywood and screws later. Since we'd need a tool shed of some sort we

even made the platform in 8 foot by 8 foot sections, all framed so that they could be set up and bolted together prefab fashion for its walls. For the time being, they were secured to levelled 2 by 6's secured atop driven posts. Then with the plywood sealed and painted white we had an ideal lay-down floor.

We spent enough time on the laying down to do it right. Then full size templates were made of all backbone members. Next, all the molds. Finally, the transom framework was built as a unit, ready for setting up to be planked. White cedar was used, screw fastened, for the molds, the idea being to not only to have molds that would remain true but to be able to salvage the screws and the best of the cedar for other uses.

Old friends, the Hartge Yacht Yard at Galesville, Maryland, were good enough to allow us to use their large shop for the building of the hull, then a dock space apart from their main docks for our working from there on. The arrangement, aside from the usual dockage fees, called for our hiring any labor through them and similarly buying all our requirements on a cost-plus basis. For the most part I did the hunting up and ordering of things, which were bought through their account. The whole thing not only made the boat possible but worked out perfectly from our standpoint, and I hope that it was satisfactory from theirs.

White cedar, for the planking, subdecks and houses, was bought by driving down to lower North Carolina. Hard or Southern yellow pine, very resinous, for the long and heavy backbone members had previously been ordered from Condon's in New York. Later, we bought the balance of our pine of this grade from our cedar mill, whose Charles DuBose went to considerable trouble to cull us out the best. For both this and the cedar we bought double our estimated requirements, figuring on using the best of it and possibly reselling any left. Actually, we had very little left over for although both are excellent boat building woods, waste runs very high where sapwood and defects are avoided. Mahogany might have worked out more advantageously for planking but I would have wanted Honduras. Unfortunately, the supply of white cedar seems to be rapidly diminishing.

All fastenings, Everdur screws and bolts and rod for drifts, were bought as a single order, giving us the advantage of quantity pricing. Such other requirements as we could manage were ordered in anticipation of prices advancing. Later buying was as income permitted.

For help I had one good shipwright, Johnny Howes, who remained on the job until the partially planked hull was launched. During this five-month period I worked with him (his 40-hour weeks), keeping up with my writing after hours. Later I had Johnny calk topside seams, decks, et cetera, mostly during his weekends.

The templates helped immensely in getting out the heavy backbone members. Too, we had the use of the yard's heavy duty power tools and an extra man to help as needed. While I had a good collection of tools, including some power ones, I did buy an electric handplane. It more than paid for itself in working these heavy members, as well as being a big help with the stringers and deck framing that followed.

We set the boat up on heavy travois or skids, built for the purpose, with an eye to shifting the boat over and onto the marine railway that extended into the shop. The 2-inch bronze shaft with its outer bearing and inside stuffing box, both the flax packed type, was installed as the set up permitted. Also the bronze rudder, made by the Lunenburg Foundry. Other bronze castings, including the heavy casting taking its heel, I had cast by George Allen's foundry, Sewell, New Jersey. Such fittings, for which I made patterns, proved a particularly good buy. There must be a reason for it, but why commercial

brass in strap or other form is priced at around $1.50 per pound, whereas castings can be had, and in manganese, at half that I do not know. Greenheart, bought from a New York importer of this wood, worked so nicely for a 1½-inch wormshoe that I finally used it for all guards, false frameheads, bitts, cavils, et cetera. The wood was cheap as boat building woods go (under $300 per M) and aside from being practically immune to worms and rot, holds paint exceptionally well. Another choice for such parts and also main members was local white oak, which could be had at the time from small portable mills for around $100. However, it requires long seasoning, during which time it will check badly, running waste high. For guards and where otherwise exposed, it will continue to check and to hold paint poorly. From the lasting standpoint such oak as one can get nowadays makes such a poor showing that I dislike to use it.

I did, of course, use white oak for the bent frames. However, I noticed that the mill cut into several large logs before finding one that would yield the required straight grained and otherwise suitable stock. Here, too, I bought double what would ordinarily be required, anticipating a certain amount of discarding and breakages. Rather than put in the frames in straight strips we spiled for them. The shapes, more or less flat-S shaped, especially for the end frames, then stand perfectly perpendicular instead of tending to cant. Accordingly the planking hugs the entire face, not just the edge. Also this facilitates the putting in of bulkheads and knees.

We used plenty of heavy ribbands about the molds and notched the heels of the frames into the deadwood. The actual putting in of the frames was comparatively easy. Of course, we had a good steam box fed by an oil-fired steam jenny. Also Johnny and I had two husky helpers to tread and coax the hot frames in turn into position, plus plenty of clamps to hold them until set for spiking to the ribbands. I believe that a day and a half sufficed for the lot.

Putting in the floor timbers followed. Then the engine beds. And with the rabbeting for the planking done, we were ready to close her in.

Planking was slow work. However hard the two of us tried we could seldom beat more than a complete strake each side in a day's time. We did work carefully, though, trying for fits that would have been tight without caulking. Three screws were used per frame, put in with a power screwdriver but all checked with a hand brace. No. 14 screws were used: 12's just didn't have enough head for the soft cedar. I got out the planks while Johnny fastened them although we helped each other as we went along. Selecting the plank from the pile of stock dressed out and laying out the shape from the spiling board, all the while avoiding sap and defects, took time. Knots were all drilled out and plugged (using an old tapered drill for that purpose), and later for the turn of the bilge inside faces hollowed to suit. This latter required thicker stock to allow for the final dressing. The mate followed up by gluing in the plugs which, in cedar, are difficult to drive properly. What with it all we would have been better off using mahogany.

Although the entire backbone had been treated with Cuprinol as assembled the mate followed up by treating frames, floors, planking, and so on as put in. Aside from the preservative effect it prevented checking in the hot summer weather. With three of four lower strakes of planking on and their seams calked, pitch was poured in to cover the keelson. In planking down we left the two top strakes off to make it possible to bolt in the deck framing and its stringers. The final dressing of the otherwise completed hull was a mean job even with the help of a power sander.

Moving the hull onto the railway's

carriage and freeing it from the travois was uneventful but worrisome. But after her christening with a bottle of Island rum, Chinook was waterborne. And although we knew all too well that the project was but a third completed, we felt we had a boat.

Our facilities for the balance of the work consisted of a berth off to one edge of the yard where we immediately erected a shop, using parts of the laying down platform. Aside from the usual hand tools and small power tools, I had a fairly heavy band saw, bought for the purpose, also a combination jointer and edge saw loaned by a friend. When through I turned over to him the saw in exchange for the use of the other: a fair enough deal for us both. Then, of course, we had access to the yard's heavier saws and planers and the help of their top mechanic and engine man later on.

The finishing up, ranging from the deck framing and actual decking through the building up of the waist and rails and erecting of the deckhouse and after cabin to finishing up the interior, started out as hard slugging, but with the size and weight of parts gradually decreasing. Done in the open, much of it in winter weather, and with the necessity of keeping work covered by tarps, made one realize that, had covered wet storage been available at the time the extra cost of it would have been more than saved. However, even as it was, the boat was handier to work on afloat at her dock than would have been the case had she been left in the building shed until completed.

How many hours, or days or even months, were put in on the job? And what did it cost? We kept no track of either the time or the money spent. But likely that old rule of double what one originally figured on would hold good for both. We do know that the results are all that we'd hoped for which is recompense enough for what she cost in sweat and cash.

Ψ Ψ Ψ

Inland Waterway Guide

The 1962 Southern edition of the Inland Waterway Guide has just been published. It gives all the information needed from Norfolk, Virginia, south to Florida and on west to New Orleans.

Inside the 282 page book is a wealth of new information about many towns and cities, new navigational data, and a new series of mileage tables. In addition, the new Southern Edition has a feature story covering a cruise through the fabled Outer Banks of North Carolina. This is wonderful fishing territory, sparsely settled and still insulated from the hustle of the rest of the world.

In the descriptions of marinas, boatyards and other places in which to tie up, information is now provided on the availability of ice, bottled gas and launderettes—as well as the days of the week and time of day that fuel pumps are open.

The Inland Waterway Guide, sells for $1.50 and may be purchased from The Rudder book department.

L. W. Ferdinand Co., Darworth Combine

Two old companies in the marine field have joined forces. The L. W. Ferdinand Company of Newton Lower Falls, Massachusetts, and Darworth Incorporated of Simsbury, Connecticut, are now doing business as one company.

The Massachusetts firm, founded in 1873, is best known for its marine glues and Polyseamseal, a white plastic caulking compound for use on cracks and seams in wood, metal, tile, glass or plastics.

Darworth is the manufacturer of Cuprinol, a wood preservative first introduced to boat owners in 1908. With these old favorites, plus an extensive line of companion products, the new organization becomes a leading supplier to the marine industry with headquarters in Simsbury.