

Back from Abandoned

Rebuilding the title and restoring a derelict, hurricane-damaged Chris-Craft Commander 27 are worth the grime and the grunt work.

Text and photographs by Reuel B. Parker

Even by Hurricane Alley standards, 2004 and 2005 were particularly devastating for Riverside Marina. The large commercial boatyard in Fort Pierce, Florida, is on the Indian River, a long, narrow saltwater lagoon protected from the Atlantic Ocean only by low, narrow barrier islands. During major storms, wind and waves wreak havoc on the low-lying waterfront, and storm surges cause extensive flooding.

First in 2004 came what are referred to there as “the twins.” Frances arrived on September 5, packing 105-mph (169-kmh) winds, followed by Jeanne, on September 26, with 120-mph (193-kmh) winds. Nearly all the boats in the water at Riverside were destroyed, as well as many hauled out in the yard. The local city marina was also destroyed, most boats sunk, floating docks smashed up, and boats piled on

top of each other against the shoreline. Then, in October 2005 (the same record-breaking hurricane season that produced Katrina and Rita), Hurricane Wilma came ashore with 105-mph winds, and Riverside, still recovering from the twins, was nearly demolished again.

Just before the storms, hundreds of people tried desperately to have their boats hauled out. Riverside’s crew was so overwhelmed that in many instances no records were kept of what was hauled, or to whom it belonged. Many boat owners neglected to pay storage fees and simply abandoned their property. This problem was exacerbated by the necessity of hauling dozens more boats damaged by the hurricanes and also, by and large, abandoned by their owners; and insurance companies had boats hauled that

became involved in prolonged legal entanglements as well.

Years went by. Riverside was storing dozens of boats, taking up acres of valuable space, from which no revenue was earned. In desperation, the yard attempted to contact absentee owners, either to collect unpaid storage fees, or to gain possession of the derelicts. With legal ownership, the boats could be sold, salvaged, or scrapped; without it, a derelict cannot even be scrapped. For obvious reasons, the state doesn’t make it easy to obtain titles on abandoned boats.

In addition to new construction, I have performed two major sailboat restorations (see “A Story of Priorities,” *WoodenBoat* No. 65) for a New York City client, Tony Bianco, who is an old and close friend. He told me he no longer had a boat to keep in

Above—The rebuilt 1965-vintage 27' (8.2m) Chris-Craft Commander JB had been abandoned at the Riverside Marina in Fort Pierce, Florida, following the devastating hurricane seasons of 2004 and 2005. The boat and her title were completely rebuilt by the author for a client, who will keep her at a slip in City Island, New York.

his slip in City Island; he was looking for a good candidate. Many years ago, perhaps in 1981, he said his most pleasant memories of “messing about in boats” involved his first one—a modest lapstrake Owens 24 (7.3m) cabin cruiser. With that in mind, I started the search.

The Boat

Of the many abandoned boats in Riverside, where I have a shop and office, I had my eye on a 1965 Chris-Craft Commander 27 (8.2m). There were numerous other possible candidates for restoration, but the Commander 27 had a single engine, was structurally sound, had an aftermarket bowsprit and perimeter rails, and all of her sliding glass windows. She had a V-berth forward, a full galley, a dinette-style settee, a separate head compartment, and all running gear including shaft, prop, and rudder. She even had her ship’s bell, and her steering still worked. Aside from that, she was a basket case.

Chris-Craft produced several models of the Commander 27, but others had twin engines and flying bridges, making them more complex. I liked this model because her hull was reduced in beam below the topsides, essentially forming a full-length spray rail and reducing wetted surface. Another positive feature is that while the hull has deep V-sections forward, the deadrise decreases markedly approaching the transom, at which point the V-sections exhibit moderate convex curvature and little deadrise. That tells me the hull will be less “horsepower-absorbing” than many other powerboat hull-forms. She will be more fuel-efficient, faster for a given engine size, and relatively dry running (producing less spray).

This boat was also a good choice because she had registration numbers, and, searching through the incredible mess of her interior, I found a decade-old copy of her state registration. I then approached one of the boatyard owners (Timmy Concannon, with whom I often work) to initiate the weeks-long process of obtaining a rebuilt title.

Even before a title could be obtained, we moved the Commander



For more details, see “Rebuilding Titles” at ProBoat.com.



Above—The Commander as found in Florida. The boat was in sound structural condition, had the advantage of a simple single-engine configuration, and a relatively efficient, dry-running hullform. **Below**—Much of the wood interior had been ruined by rodents and water intrusion.

over to my shop, and I started cleaning, sorting out priorities, and deciding whether the project was even viable.

The engine was obviously hopeless. Someone had removed its cover and left it exposed to the elements for years. The interior had been infested by rats and palmetto bugs. The acrylic front cabin windows were cracked, fogged, and leaking badly. The bimini top was ruined, as were the side curtains and cockpit cover. All plumbing and electric components were ruined. Nearly all original deck hardware was severely corroded. The marine toilet was beyond rebuild, as were all appliances. The mattresses for the V-berth were horrid, but oddly the settee cushions were serviceable, though filthy. The bulkheads and cabinetry were largely intact but needed extensive renovation. The entire boat was plastered with American flag decals.

What finally convinced me to take on the project were the hull, deck, and cabin structures. The Commander was a 1965 model—built at a time when Chris-Craft was just making the transition from wood to fiberglass (1964 saw the introduction of “styled in fiberglass” Commanders). Her hull had been hand-laid in a female mold, with lots of roving exposed on the inside. It was absolutely solid. The decks, cabin, and cockpit well were a mix of fiberglass, plywood, and mahogany in fair condition. The interior was



all wood except the molded-fiberglass lavatory sink, which was in good condition under the dirt. All doors and drawers were ruined. The galley countertop and settee table were covered with scarred, chipped, and delaminating plastic.

I can probably be accused of blind optimism for undertaking the project, but something about the old girl spoke to me, and I dove right in.

I hired a young woman to help me with the cleanup, but she bailed after two weeks. The biggest mess was in the bilges: Like most old boats, the Commander had a common bilge. Fifty years of oil, grease, wastewater, and garbage had disseminated throughout the hull, and at some point flooding had coated the cabin sole and the bottom 4” (10.2cm) of the cabinetry with the sludge. Wearing heavy-duty gloves and dispensing powerful chemical solvents and degreasers, we scraped it off in globs. The cabin sole was greasy, broken, and beyond repair.

Restore or Replace

My approach became to save everything I could and replace everything else. The bulkheads, for example, were *mostly* structurally sound, so I patched, cleaned, sanded, and painted them with white epoxy paint (Sherwin-Williams Tile Clad II). They had deteriorated too far to allow refinishing with varnish, with the exception of the head compartment. Some solid mahogany interior components (drawer faces, trim, fiddle rails, baseboard, hatch coamings) responded to deep sanding, clear epoxy sealer, and polyurethane varnish. I also made many new trim pieces, replacing some, and adding others where I felt they were needed.

The cockpit was a disaster. The mahogany plywood side panels were rotten, the helm station ruined, all controls, gauges, and switches beyond saving (except the aftermarket steering), and the plywood cabin door was delaminating. But the worst thing was that the previous owner had attempted to cover the damage under a coating of the most obnoxious two-part treatment it has ever been my misfortune to encounter: It seems the first component was a sticky white base, onto which turquoise flecks were sprayed. I couldn't remove this with a heat gun, as it softened the gelcoat beneath, or grind it off, as it clogged the paper. I had to use chemical strippers.

After patching several rotten areas, I laminated over the main bulkhead with new $\frac{1}{4}$ " (6mm) mahogany plywood, replaced the door and hatch cover, replaced the side panels, and built a new helm station identical to the original, in solid mahogany and mahogany plywood. The cockpit well was mostly sound, with two failed fiberglass-mat patches on each side, covering rotten plywood. The well deck in the starboard forward corner had settled, and I jacked it up and refastened it.

After removing the engine, I rebuilt the cockpit well supports and cut away the rotten engine beds, which were the wrong configuration for the new engine. (In the single-screw Commander 27s, Chris-Craft installed GMC 327-cu-in-displacement engines on old-style motor mounts requiring high engine beds.) I epoxy-glued and lag-bolted new engine beds in place, tying them to the original fiberglass



Left—The aging gas engine in the abandoned boat was spent. **Right**—The oily bilge under the engine had to be thoroughly cleaned, the high engine beds cut away, and new lower beds lagged and epoxied to the original fiberglass stringers to accommodate the new engine.



stringers with fiberglass biaxial tape and epoxy.

The inside of the hull had never been painted, so raw fiberglass roving was exposed throughout. After cleaning it, I applied two coats of white epoxy paint everywhere accessible. I like white bilges because when you drop a small part, you can see it easily, and white also reflects light inside cabinets and storage compartments, aiding overall visibility.

Engine and Engine room

From Riverside, I bought a rebuilt GMC 305 (5-liter) V-8 gasoline engine, with a BorgWarner 1:1 transmission, for \$1,000. I removed the original propeller and shaft and sent them out to Blair Propeller (Stuart, Florida) to be inspected, cleaned, and balanced, and straightened if necessary. I asked the shop to repitch the prop for the new transmission (the Paragon transmission I removed had a 1.5:1 gear ratio); they called ChrisParts.com (Bradenton, Florida) on my behalf to ask if this would work and were told the transmission *had* to have the original gear ratio of 1.5:1, putting me in the market for a new transmission. Riverside had a clean

ZF Hurth HSW-450 hydraulic transmission with a 1.5:1 ratio, which I purchased for \$500 plus the unusable BorgWarner. I installed the new transmission on the rebuilt motor, noting with concern that the Hurth gear had a 7° down-angle and vertically offset drive, essentially raising the motor higher in the engine room but aligning it horizontally on the beds.

Because the original engine hatch cover was missing, I built a new insulated foam-core plywood hatch, which didn't quite clear the higher motor position. Luckily, with slight modifications, the new motor and transmission mounts fit the new engine beds. I had to raise the hatch $\frac{3}{8}$ " (9.5mm), so I installed a heavy-duty neoprene rubber gasket around the hatch perimeter. To match the raised hatch, I used $\frac{3}{8}$ " plywood to cover the cockpit well, which solved



The boat was repowered with a rebuilt GMC 305 (5-liter) V-8 and a ZF Hurth HSW-450 transmission. Note the refinished hull interior. It's easy to spot dropped parts or fluid leaks in a white bilge.

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Above—The severely corroded original chromed vent covers were replaced with off-the-shelf stainless models.

Right—The tidy installation of the new Buck Algonquin stuffing box replaced an undersized original.

the problem of the bad patches on each side. I covered the new cockpit deck with 4-oz (136-g/m²) Xynole polyester fabric and epoxy, and painted it to match the decks.

Other problems in the engine room included the steel cylindrical fuel tank, installed right up against the transom, as was typical in older manufactured powerboats. The throat from the deck fill had rusted out; and the tank, full of 50 years of rust, debris, and water, had to come out. I also replaced the cockpit and deck scuppers, their hoses, and the rusted-out 4"-diameter (10.2cm) aft vent pipes. I replaced the severely corroded cowl vents above the pipes with stainless steel ones.

When the Commander had been repowered (this was the engine I removed), the exhaust system had been downsized to 2½" (64mm). The new engine required 3" (76mm) exhausts, as had the original 327, so I cut out and replaced the through-hulls in the transom. I purchased new mufflers, hoses, and clamps at the same time.

The original fiberglass shaftlog and stuffing box were undersized, in my opinion, and the shaft had worn a hole in the bottom of the log. I laminated fiberglass tape and epoxy around the log to increase its diameter and strengthen it, and to allow a new, larger-size Buck Algonquin stuffing box to be installed.

From Fuel Tank and Cutless Bearing to Seacocks

From a local marine liquidator, I purchased a new plastic 74-gal (280-l) fuel tank, with fuel gauge sending unit installed. The new tank, about 20

gal (76 l) larger than the original one, shifts the center of gravity of the fuel several feet forward, which should make it easier for the hull to come up on a plane. I installed an overflow warning whistle in the vent hose. Then I cleaned up and relocated the fuel filter, installing a new cartridge; and I replaced all hoses in the boat, double-clamping propane, seacock, stuffing box, and exhaust hoses.

I installed new battery boxes to starboard, and reinstalled the head holding tank to port on new plywood shelves. For batteries, I purchased four 6V deep-cycle golf-cart batteries, series-wired in pairs, with a new battery switch.

I modified the main bulkhead between the engine room and cabin, extending it to the hull and making it watertight, effectively dividing the bilge into two separate compartments. Never again will greasy, oily water—or

gas fumes—disseminate through the living quarters of this boat. I am a strong believer in the safety that watertight bulkheads provide. I installed two submersible Rule bilge pumps—in the engine room and under the V-berth—with caged float switches, wired to three-position switches protected by a 15-amp circuit breaker.

One project in particular vividly demonstrated the potential for hidden costs in such a resurrection. I elected to replace the old Cutless bearing, which turned into a nightmare; the extremely thin metal-shell bearing was solidly seized in the strut. With an oxy-acetylene torch I heated and expanded the strut housing, but the bearing would not break free. I borrowed the boatyard's hydraulic bearing press, but all it did was crumple the end of the bearing. In desperation, I used a Sawzall to make lengthwise cuts in the bearing shell, taking care not to damage the strut, and I destroyed three old screwdrivers trying to pry the shell away from the strut.

It took many hours to finally remove the old bearing and install the new one, with help from two yard workers. Labor and materials for this *one* project exceeded \$750.

To further complicate things, there was not a single seacock installed on any of the through-hull fittings, and there were no hose barbs installed. Evidently Chris-Craft had installed all hoses *directly* onto pipe threads, a questionable practice I had never seen before. The four drains for the cockpit well and side decks were badly deteriorated household-grade 1¼"



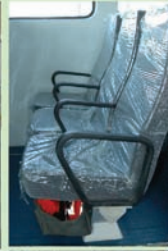
Left—A new 74-gal (280-l) plastic fuel tank replaced the corroded original steel cylindrical model, adding 20 gal (70 l) to the fuel capacity and shifting its center of gravity several feet forward. **Right**—One of the toughest, most time-consuming jobs was removing the old Cutless bearing, which had seized in the strut. It had to be largely cut away, with great care not to damage the strut.

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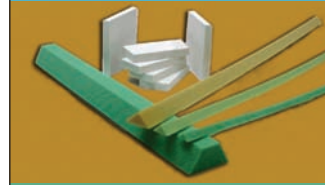
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(32mm) sink drains, with hoses clamped directly over the threads. I had to replace these with the same type fittings, with all new hoses. I installed bronze seacocks and hose barbs for the engine raw-water and marine-toilet intakes. The original bronze through-hull fittings were good, and I reused them (I suspect this boat came from the Great Lakes: fresh water). All other through-hulls were above the vessel's waterline, and I fitted marine-grade plastic hose barbs to the through-hulls where possible (some through-hulls were fiberglass, molded directly into the hull). I removed, cleaned, and reinstalled the OEM stainless steel water deflectors located beneath through-hulls that exited the hull in the chine flat just above the boot top.

Before installing the rebuilt engine, we test-ran it on the ground. Discovering that the fuel pump had to be replaced, I decided to upgrade the ignition system with a Mallory electronic distributor kit. We welded a plug in a rust hole in one of the wet-exhaust manifolds. The engine came

with a Holley carburetor, not really suited to marine application, and I replaced it with a rebuilt USCG-approved Rochester Quadrajets. I also installed an in-line fuel-pressure regulator, an overflow hose between fuel pump and carburetor, and a flame-arrestor air cleaner.

Rewiring and New Parts

The electrical wiring was a mess. I stripped out almost all of it, necessitating removal of the automotive-style

cloth headliner. I retained the existing wires to the bow running lights, noting the surprisingly high quality of the wire: plastic-jacketed, stranded #12 copper boat cable. I replaced the damaged pole-type steaming light and the missing stern light. I also changed the 12V polarity to the conventional color—Chris-Craft, in 1965, had designated white as ground; I made it black. I installed Blue Seas electrical panels, circuit breakers, and main fuse, and rewired the entire boat. In addition, I installed a hard-wired Guest battery charger and a 12VDC-to-120VAC 600-watt true-sine-wave inverter. Next, I put in a 30-amp twist-lock shore-power receptacle and provided a 50'



All the electrical wiring on board was replaced, and a modern electrical panel installed, as well as a 600-watt true-sine-wave inverter.

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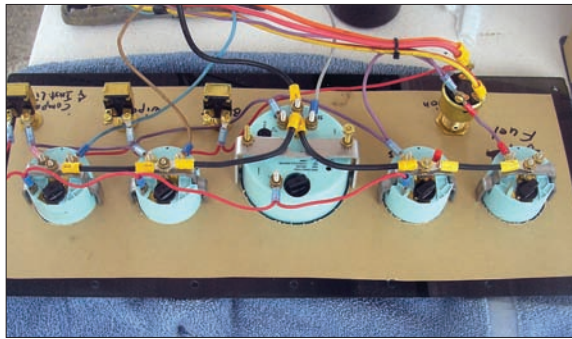
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Right—The back of the new instrument panel at the helm shows all new gauges for the rebuilt engine. **Far right**—Cut from a sheet of dark-smoked acrylic, the panel is clean and serviceable.



(15m) shore-power cord. Four new 120V duplex outlets with GFI protection completed the electrical system. The new AC panel came with a main-disconnect circuit breaker and reverse-polarity indicator.

More new parts were required, including gauges for the rebuilt engine: tachometer, oil pressure, voltmeter, water temperature, and fuel. I installed a new ignition switch and pull-type switches (to match the originals) for compass/instrument lights, windshield wiper, and bilge blower. I bought a new Ritchie compass identical to the old one, a new windshield

wiper assembly, and a new depth-sounder. I made my new panel from dark-smoked acrylic sheet, and upgraded the wiring harness that came with the rebuilt engine. I rewired the existing aftermarket bilge blower and was surprised that it worked. The only components I retained were for steering, all of which had been previously replaced and were in good condition. I tightened the rudder stuffing box, which was in good condition.

My client wanted only a handheld VHF radio; I purchased one from Port Supply along with a commissioning

kit, which included three adult life vests (personal flotation devices, or PFDs), a throwable life cushion (Type-IV PFD), a signal horn, and a flare gun with flares. I installed new controls for the throttle and transmission, a manual choke for the carburetor, and all new cables. I made Sunbrella covers for the instrument panel and the propane bottle, secured with a bungee cord in a protected

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Right—These forward-facing acrylic cabin windows were replaced, and the mahogany and aluminum trim and finish elements either rebuilt or replaced. New smoked-acrylic windows were bedded in urethane compound.



Above—The cabin overhead was largely rebuilt; gaps between the coach-roof beams and the ill-fitting plywood above were filled with thickened epoxy. The finished headliner is painted plywood trimmed with varnished mahogany.

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corner of the cockpit. I purchased a larger-than-original bimini top and modified it to fit.

The Cabin

The Commander came from the factory with a built-in front-loading refrigerator, which took hours, and some blood, to remove. I replaced it with an efficient 12V air-cooled Isotherm unit of similar dimensions. I added extra insulation and cut venting apertures through all bulkheads adjacent to the refrigerator compressor to allow air circulation and cooling; the original compressor had been in the engineroom.

After removing all plastic laminates from the galley and saloon table, I laminated mahogany veneer over the table and galley countertop. I also replaced the corroded, broken hardware to secure the table.

Since rainwater leaks had rotted the original V-berth platform in places, I rebuilt it, painting all surfaces, including the hull, with white epoxy paint. And then came what epitomized bad taste in the 1960s—orange shag carpeting. Chris-Craft had applied it above the platform and behind the settee in lieu of ceiling planking. My helper and I tried everything to remove it, to no avail. I settled for cutting and tearing it off in strips, so that I could epoxy-glue curved wooden “false frames” directly to the hull, over which I applied 5/16" x 2 1/2" (8mm x 64mm) poplar ceiling planking, sealed with clear epoxy.

The cabin-front acrylic windows were beyond repair, and the mahogany surrounding them was rotten. I



Far left—A new Par-Max 12V water pump and filter installed in the engine room is the heart of the boat's onboard freshwater system. It draws from a new 30-gal (113-l) tank installed under the aft dinette bench, **left**.

removed all components (a mixture of mahogany and aluminum), and rebuilt them, installing new dark-smoked acrylic windows. I bedded all components in Bostik 920 urethane compound. The solid mahogany above the sliding-glass cabin windows was also rotten, as were the cabin-side engineroom vent frames. These I replaced with Wolmanized pine; I painted the vent frames black to match the originals.

I removed all mahogany interior trim from around the cabin headliner, sanded it, sealed it, and applied three coats of polyurethane high-gloss varnish. I removed the damaged window tracks and sliding-glass windows, then scraped and cleaned the windows, and replaced their plastic tracks with new ones. When I removed the old headliner, I was surprised to see what a shabby job Chris-Craft had done when building the coach roof.

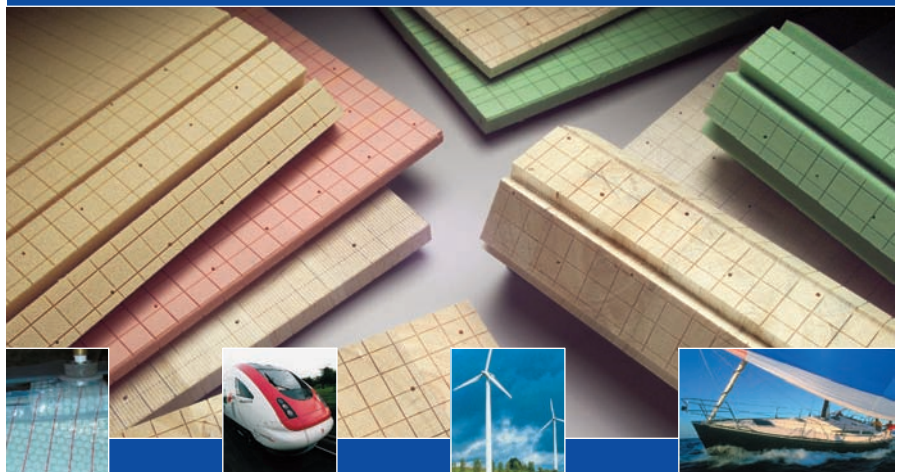
Next came filling the gaps between the sawn mahogany coach roof beams and the plywood above with thick epoxy glue. It is interesting to note that all plywood employed in the boat as an underlayment to fiberglass was unsealed and unpainted, and it had held up well, whereas the sealed-and-varnished plywood exposed to the elements had rotted in places.

For a new headliner, I cut and fit $\frac{3}{16}$ " (5mm) plywood, pre-painting it with white epoxy. After pneumatically stapling it in place, I reinstalled the refinished mahogany trim pieces. I made and fastened $\frac{3}{8}$ " x $1\frac{1}{2}$ " (9mm x 38mm) varnished mahogany strips (false beams) directly under each hidden coach roof beam. The insurance company mandated that I install a combination smoke-detector/CO alarm, so I bought a unit with a long-life lithium battery and attached it to the overhead away from the galley.

Whatever freshwater system had existed in the Commander was long

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Left—The molded fiberglass lavatory sink in the head compartment was one of the few salvageable elements from the original interior. The mahogany bulkheads were also saved and refinished. **Right**—The new galley includes new gas cooktop, shelves, racks, lighting, a black composite sink (covered with a cutting board), a new refrigerator, and a veneered counter with inlaid ceramic tiles.

gone, so I installed a 30-gal (113-l) plastic water tank under the aft dinette bench, with new deck fill and vent. I ran new ½" (13mm) chlorinated

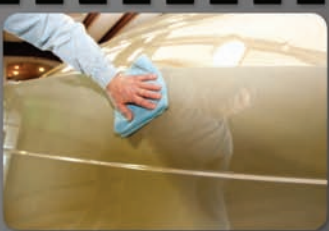


polyvinyl chloride (CPVC) water pipes to the engine room, where I installed a demand-type Par-Max 12V water pump, filter, and accumulator. (I

always try to locate freshwater pumps where the noise they make will not be too intrusive to the saloon, yet audible enough to know if the pump



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The Duratec products used on this pattern were 707-061 EZ Sanding Primer and 1904-045 Vinyl Ester Topcoat.



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runs dry.) I installed new faucets in the head and galley.

In the head compartment, I removed all hardware, sanded and refinished the mahogany bulkheads and trim, and reinstalled the hardware. The new marine toilet is a Par Jabsco, plumbed directly into the 25-gal (95-l) holding tank in the engineroom (no Y-valve). I reused the existing deck pumpout fitting, and installed new odor-resistant hoses.

I chose a Pegasus black composite sink for the new galley, with a synthetic cutting board fitted into the top. The new propane range is a French ENO stainless steel model with safety shutoff valves. A previous owner had covered the cabinets behind the countertop with adhesive plastic film, and I spent several hours with a heat gun peeling it off. I sanded the cabinet interiors, painted them with white epoxy, and made new sliding doors from smoked acrylic sheet. I added a teak combination dish, cup, paper-towel holder, and spice rack on the bulkhead adjacent to the head. I installed new back-to-back 12V

On deck, the covering boards and coach roof were shot through with holes from extraneous hardware.

Those were filled with thickened epoxy before being finished with polyurethane Imron for the deck and Awlgrip for the covering boards.



lights—one for the head and one for the galley—replacing the existing ones. Because I had laminated mahogany veneer over the

new plywood counter underlayment, I inlaid an area of ceramic tile behind the stove for placing hot items.

I replaced all doors (companionway, head, cabinets) with 3/4" (18mm) mahogany two-sided plywood, with rabbeted edges, epoxy sealed and polyurethane varnished. I replaced all door hardware with Perko products.

I rebuilt the cabin sole, eliminating all plumbing and wiring that had

previously run under it, using teak and holly 1/4" plywood laminated over a 1/2"-plywood (12mm) underlayment. I reused the original mahogany baseboard, having sanded, epoxy-sealed and varnished it, and added new trim pieces around the raised dinette. I built new removable mahogany companionway steps, providing access to the head seacock and to the front of the engine.



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Left—The repaired and faired topsides were primed with a high-build primer followed by Awlgrip 545 gray epoxy. **Right**—The top-side finish paint is Nauticoat. Following that, the stainless rubrails, forward rails and pulpit, and aluminum trim were reinstalled.

The Exterior

The hull, covering boards, cabin sides, and coach roof were in good condition but riddled with holes from hardware, antennae, and side-curtain fasteners, etc. I removed all extraneous hardware and fittings, filled the holes with thickened epoxy putty, sanded, primed, and painted all exterior surfaces with polyurethane (Nauticoat for the hull and cabin

sides, industrial Imron for the decks, and Awlgrip for the covering boards, dashboard and coach roof). Primers were Awlgrip Awl-Quick high-build primer, followed by Awlgrip 545 gray epoxy.

For the final touches, I had removed all metal trim early in the restoration, and burnished it with Scotch-Brite pads. After repainting the hull, I reinstalled the stainless steel rubrails and

reinstalled all the aluminum trim after repainting the coach roof and cockpit. I replaced the trim fasteners with stainless steel oval-head screws.

Relaunching

It was now time to try out the boat on the water. On January 13, 2015, we launched the Commander at Riverside Marina (see sidebar “Getting It Right,” on the facing page). The engine started

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Getting It Right

On her first trial run, in February 2015, after restoration, the 1965 Chris-Craft Commander 27 (8.2m) *JB* pulled hard to port at any speed above a fast idle, and her rebuilt GMC 305 V-8 engine would not exceed 3,000 rpm.

From those symptoms, it was clear that the existing propeller had been incorrectly cut down from a larger size, without decreasing blade area. I called ChrisParts.com (Bradenton, Florida) to learn correct propeller size, and was told that the original prop would have been a right-hand 15" (381mm) three-blade, with 15" of pitch for a 210-hp motor. Looking through the yard's collection of derelict boats, I found an old twin-screw Chris-Craft that had a likely candidate prop, which I pulled. After it was cleaned, it showed manufacturer's stamps identifying it as a 15/17, which had been correctly cut down to about 14½" diameter (356mm).

With me for the trial run was Timmy Concannon, part owner of Riverside Marina (the large commercial boat-yard in Fort Pierce, Florida), who is the yard's chief mechanic, and the best powerboat driver around. He agreed that this prop was a likely replacement, as he believed the GMC 305 V-8 I installed had as much or more horsepower than the original-equipment 327. Concannon estimated that the 305, with Rochester Quadrajet carburetor, 3" (76mm) dual exhausts, and



The end of *JB*'s successful delivery cruise, from Florida to New York.

Mallory electronic ignition, could develop as much as 240 hp (180 kW) at 4,200 rpm.

The rudder had a piece of bronze flat-bar bolted to the aft end of its *right* side, extending above and below the stock rudder, which Concannon believed was the previous owner's mistake, perhaps to improve steering in reverse. I researched rudder problems online, and agreed with Concannon that the flat-bar had been installed on the wrong side of the rudder. We hauled *JB* out on a Sunday, when she could hang in the slings for a couple of hours. After changing props, I removed the flat-bar,

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beveled its *exposed* leading edge, cut off the protruding top portion, and reinstalled it on the *left* side of the rudder.

After relaunching *JB* for another trial run, the boat still pulled to port but less so. We immediately hauled out again. I removed the flat-bar and ground a 4° bevel on the leading edge *interfacing* the rudder—essentially making a trim tab. We relaunched again, and the boat tracked perfectly straight. At any speed I could let go of the steering wheel, and the boat ran true.

We brought *JB* up on a plane, increased the throttle to where we could actually hear the second pair of barrels open on the Rochester Quadrajet, and then slowed down gradually to look for the “sweet spot,” where the boat ran fast on a plane but without the second barrels open. Concannon could hear this easily, while I barely could. We were looking for optimized performance, combining the best fuel economy with the best speed. It seemed to work out to

2,600 rpm at about 14 knots. All this confirmed my speculation about the superior hull design of the single-screw Commander 27.

I then opened the throttle to the stops, and the rpm came up to 4,150, with a full speed of about 25 knots. Concannon pronounced that to be *perfect*, and told me he “would love to own this boat,” a boat that had been left for dead in the back of his boatyard for nearly a decade.

On April 9, 2015, owner Tony Bianco and I departed Riverside in Florida to deliver *JB* to her new home in City Island, Bronx, New York. In the canal between Albemarle Sound and Chesapeake Bay, I ran into a submerged tree and severely damaged the prop, strut, and rudder. We limped in to Atlantic Yacht Basin, a boatyard famous for quality work at Great Bridge, Virginia, for repairs.

The yard manager, James Taylor, assigned Bobby Janzen, an excellent mechanic, to work with us on repairs. AYB is not a do-it-yourself yard, but Taylor graciously allowed us to work

inside the hull in conjunction with Janzen, who would work on the outside.

I called ChrisParts.com and located a new strut, rudder, and rudder port/packing gland, cast in bronze from the original Chris-Craft molds. They sent the components overnight. They don't sell propellers, but Janzen called a friend, who had a brand-new 15/16 RH prop in stock and sent that overnight also. I estimated that the additional inch (25mm) of pitch over the original-equipment 15/15 prop would be correct for the (supposedly) increased power of our rebuilt/modified GMC 305 over the original-equipment GMC 327.

Fortunately, Bianco had insured *JB* before we left Florida, with a \$1,500 deductible policy. The AYB yard bill, including all parts and labor, totaled \$4,236.08, which I felt was extremely reasonable. The silver lining in this dark cloud was that for \$1,500, *JB* ended up with all new underwater components.

While *JB* was hauled out, I adjusted the big transom-mounted trim tabs down about 7° to flatten

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her running angle when planing. I did this with Janzen's supervision, and because Concannon had also suggested it.

We re-launched *JB* and found that she ran better than ever, cruising at a flatter angle, with no steering problems despite now having no rudder trim tab. We found that she cruised most efficiently at between 2,500 rpm and 2,900 rpm, making speeds of between 13 and 16 knots. In rough water (20-knot winds and 3/0.9m seas), it paid to run faster, at 3,200 rpm with a speed of 18 knots. With the throttle wide open, *JB* went 25.25 knots at 4,400 rpm—perfect!

Average fuel consumption for the delivery was about 5.22 gal (19.71 l) per hour—roughly half of what the manufacturer's tech data indicated it could have been. The key to good economy is to run at that "sweet spot"—where average speed and fuel consumption achieve a good marriage.

—Reuel B. Parker

easily after pumping fuel from the new tank, and idled smoothly at 750 rpm after warming up. We moved the Commander to her slip, and just as we were starting to back in, the transmission failed. We removed the filter, which was clogged, and replaced it and the fluid, which solved the problem.

I detected a very minor leak at one of the trim tab fasteners, but did not detect any leaks from either the prop shaft or rudder stuffing boxes. With battery boxes and full water tank to starboard, the vessel listed to that side, and also trimmed bow-down about 1/2", even with the new gas tank three-quarters full. To compensate for this, I installed 100 lbs (45 kg) of lead trimballast in the engine compartment to port, and relegated fuel- and water-jug storage to the port side of the cockpit.

The owner sent me the New York registration, and I put the numbers and stickers on the hull, along with her "City Island" hailing port and her new name, *JB* (Tony named her after his father, whose nickname was J.B.). He found chrome-plated Chris-Craft

nameplates, and I installed them in their original locations.

Total materials and yard costs came to \$23,938.05, including launchings, haulouts, and hydraulic trailer moves to and from my shop. My labor hours came to 763.5, and yard-help labor came to 51 hours, for a grand total of 814.5 hours. Figured at an average rate of \$45/hour, labor cost \$36,652.50. Therefore the total cost of the restoration was \$60,590.55. Additional costs were related to commissioning and delivering the Commander to her new home in New York City.

JB is virtually a brand-new 1965 Chris-Craft, built into her original shell. It's a little like owning a restored 1965 Corvette. **PBB**

About the Author: Reuel B. Parker is a yacht designer, shipwright, author, and cruising sailor. He divides his time between Maine, South Florida, and the Bahamas. He does business as Parker Marine Enterprises, and is a frequent contributor to Professional BoatBuilder. You can read his blog at www.woodenboat.com/wbiskey-plank.

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