

First Steps to Outboard Hot-rodding

BY JOHN TIGER JR.

In today's high-speed boating world, it may seem as if all the hot outboard boats go out the dealers' doors ready to hit ultrahigh speeds. The reality is still that many leave the yard as a basic package, simply because the "go fast" options can easily raise the sticker price beyond the reach of the average American hot-rodder. What would be the first "baby steps" to take in order to create a (relatively) safe go-fast package from a bare-bones hull? Many Outboard Tech readers are at that stage, and this project is aimed their way!

A WILLING GUINEA PIG

Last season, my local outboard hot-rodding contingent welcomed newcomer Jason Trackey to the water. Jason's first foray into outboarding is a well-preserved '86 HydroStream 18-foot Valero YT hull

with a stock 175-hp Mercury outboard. His purchase was as typical as they come; the boat and engine combo was owned previously by someone obviously not interested in gaining that elusive last mile per hour. Indeed, this rig was as stock as a Sunday-driven Rambler when Jason dropped it on my shop's doorstep.

Trackey's new ride performed admirably for one so ill-equipped to go fast; initial test runs gave radar speeds in the 60- to 68-mph range, spinning a 23-inch-pitch Quicksilver propeller at 5,600 rpm. With two aboard, speed dropped to the low 50s. The engine was completely stock, with no gearcase or powerhead modifications at all. The boat would provide a great training platform for Jason, as its Mod V-type hull sponsors would give some sta-

(Below) The older '86 HydroStream needed a top-end punch-up; the basics were just what it needed for a wake-up call.

bility, while still providing some of the traits that vee-bottom boats can offer. About the only safety items this rig had onboard were dual-cable steering, an engine water-pressure gauge and an ignition kill switch. However, the Ride-Guide dual cables were about to give up the ghost, succumbing to that common malady of inner-core rust and hardened grease.

RIGHT FROM SCRATCH

I'm a stickler for safety, believing fully in the old adage, "You can't win a race if you can't drive the boat." With that in mind, the project will concentrate on first making the boat safer to drive at speed, and then adding a few goodies to bump its top end.

Since the boat was almost undriveable with the old Ride-Guide steering, the first order was to remove the stiff steering system and replace it with a completely new unit. Teleflex's No-Feedback dual-cable system has been touted as excellent for high-speed applications. This system is considerably less expensive than most others currently available; since Trackey was on a budget (he'd pigeonholed approximately \$2,000 for this job), we elected to give it a try.

This part of the job was easy; removing the old system took about half an hour and a little elbow grease. The Teleflex NFB, ordered from Overton's Marine, cost just under \$200 and was installed in a little over an hour. This system uses only one rack-and-pinion that drives the two cables. It is admittedly not as smooth as a new Ride-Guide system. After adjusting as





Teleflex NFB steering was the first step to regain control.



Pulling the old steering cables was the toughest part of the job.



Bob's foot throttle and slide plate gave added driver security.

much cable slack as possible out at the engine end, I had my doubts about Jason's ability to control the boat and keep it from walking from sponsor to sponsor when trimmed out. The system tends to bind up if all slack is adjusted out, but it gets a bit too loose if the engine's cable adjuster is rotated to allow for smooth steering movement at the helm. We'd have to wait and see how it would work out on the water. A new Teleflex steering wheel (\$30) was installed along with a set of Bob's Ma-

chine Shop steering-wheel-mounted trim buttons. These buttons (\$30) are a pretty simple affair, with just two small machine screws needed to mount the button housing to the steering wheel and three connectors to splice the wires to the existing power-trim wiring harness. The coiled wire cord hangs neatly beneath the dash, wrapping around the steering column during tight turns.

Now that Jason's trim meter could remain on the steering wheel, he needed a foot throttle to complete the safety pic-

ture at the helm. We again opened the Bob's catalog and ordered his tried-and-true Marine Foot Throttle, along with the optional slide-mounting plate (Jason wanted to be able to adjust the throttle back and forth for drivers of different heights). The throttle and plate totaled \$105, and a new, longer throttle cable was needed, at a cost of \$30. This unit's installation required careful placement so as not to go through the hull with the screws; to save on installation labor, Jason elected to



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throttle with his left foot instead of his right. This allowed a simple through-floor attachment (as opposed to glassing a special mounting block to the hull on the right side). The Bob's slide plate gives six different mounting positions.

To help keep chine-walking to a minimum, we installed a set of Bob's Machine Shop solid lower engine mounts (cost: \$85) on the Merc 175. In keeping with Jason's budget, we elected to retain the stock upper mounts due to the cost of removing and reinstalling the powerhead (necessary to access the uppers). The solid levers do most of the work of keeping the gearcase stable anyway. Installing the mounts was a simple job, involving removing the lower mount covers, the mount retainers and then



Bob's trim buttons were mounted on the right spoke.

the two large long bolts that hold the mounts in place. These bolts must be cut off with a hacksaw, or else the entire center section must be removed. The trick then is to simply install a new set of bolts backwards as the mounts are installed. Use a layer of waterproof grease on the area where the mounts contact the center section. Be sure to use original Mercury mount bolts, and apply red Lo-Tite to all threads.

At the transom, the battery installation was less than sanitary, so a Rex Marine bait aluminum battery tray was ordered to keep it right-side-up during rough water runs. This hefty unit added \$55 to the tab. The fuel tank had come loose from its mounts, so it too had to be reattached.

HIGH-PERF TOUCHES

The gearcase was removed and shipped off to Bob's for a "Bigfoot" low-water-pick-up nose cone and torque tab installation, which would enable the engine to be jacked higher on the transom and retain water



Proper transom sealant is necessary to ensure a long life for the wood core inside.



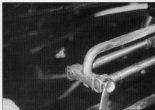
The Teletex rack-and-pinion unit was a snap to assemble.



Using an engine hoist, the Merc was removed and then reinstalled with the jack plate.



The sparkdown jack switch was dash-mounted in the existing hole.



At the engine end, all steering bolts were checked and rechecked.



The Teletflex steering wheel was a good-looking unit for the price.

pressure, while still maintaining good steering control. There's no better high-performance deal than a Bob's gearcase job; the combined cost of the cone and step torque-tab installation by Bob's professionals was \$365, and that included the hefty UPS shipping fees to get it to Florida and back. The unit was gone for about a week, and when we opened Bob's special gearcase shipping box, we were dutifully impressed by the workmanship. This cone has repeatedly proven to be the fastest available in test after test, so it was clearly the best choice for this rig.

Since we were already spending a lot of money at Bob's, I made sure to use his Hydro-Jack electrohydraulic transom lift. This lift has been on the market in the same basic form since the early 1980s, and it is a proven unit. Recent improvements include Bob's new in-house-manufactured lift cylinder and extruded, machined side-rail assemblies. This jack is unique in that it not only sets the motor back six inches, it also provides for a slight amount of lift (not counting the six inches of ram travel) to account for the transom angle of most boats. This makes the starting point of that six inches of travel at least as high as the original transom height; many jacks have no built-in lift, making the starting point for up/down travel at a point below the transom top. The entire unit only weighs 37 pounds (without the lift motor, which is mounted inside the boat) and cost Jason a cool \$725, including UPS. Mounting the pump and lift motor assembly in the tight rear quarters of the HydroStream proved tough, and we had to glass a half-inch-thick plywood mounting pad into the left-rear corner of the transom to facilitate it. The end result, however, was a structure that was solid and secure. The hydraulic hoses were routed out to the jack, and the



Solid lower mounts keep the gearcase stable at high speeds.

simple three-wire harness was routed to the dash. We installed the up/down switch in the boat's existing switch panel. Mounting the jack required the use of a shop-origie hoist and Mercury flyhead lifting ring. While the motor was lifted up and away from the transom, the jack was installed using Life-Caulk sealant on the stainless grade-5 bolts.

Reinstalling the motor and gearcase was the final step; after test-running the

jack plate, we installed the last high-back accessory: a new 14 1/2" x 28" Mazco RE three-blade over-hub propeller (\$625 with shipping). This prop has proven itself on many similar HydroStreams, so it was an easy selection.

HOW IT'S BURNING!

At the river with the new equipment installed, the Stream really came alive. All comments on page 58

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ter a few hours of getting used to the altered setup, Jason was experimenting with jack height to find the best top speed. A few days of testing and driving notated top speeds in the 83- to 84-mph range at 6,300 rpm. Adding a passenger dropped top end to an even 80. Net gains, for the \$2,270 spent on parts, was a substantial 16 mph. Obviously, we saved a bunch on labor costs by doing the job ourselves; figure at least another \$400 to \$600 if wrenchin' isn't your forte.

Acceleration was still quite strong, with



Low-water pickups on Bob's Bigfoot nose come allow for extremely high transom heights.



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the jack all the way down, the big Maeco prop still has enough punch to plane Jason and three passengers. Midrange punch is surprisingly good, considering that the engine is still just a stock 175. The Teleflex NFB steering proved its value, as the boat is quite easy to drive at all speeds. Torque is effectively filtered by the helm, it's a pleasure to drive at cruise speeds and not have to wrestle the engine.

Even though his budget was blown by \$270, Jason's a happy guy. His HydroStream is now a legit lake contender, and his total investment is still well below ten grand. The results of these easy-to-accomplish bolt-ons are impressive, as the boat is an entirely new experience for Jason to get used to all over again. It's easy to see that by simply raising the gearcase out of the water, setting the engine back so it can more easily lift the hull, switching props to one more suited to the speeds desired and adding the necessary safety items needed to maintain control, this little

boat's performance is highly improved. It looks now like he'll need a new speedometer, as he can easily peg his 60-mph Medallion unit!

Plans for the future include moving be-



The stock Merc winds at 6,300-plus, happily, all day long.

yond the basics a bit, into some mild bolt-on engine modifications to try and chase that 90-mph mark. Jason's aim is to retain the reliability and oil-injection convenience of his stock Merc, while still maximizing top-end performance. His HydroStream appears to be well on the way to accomplishing that goal. ■

SOURCES:

Bob's Machine Shop
1501 33rd Street SE
Ruskin, FL 33570
(800) 996-0400

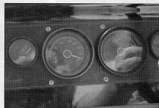
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Extended skeg torque tab helps keep excessive steering torque to a minimum; together with the NFB steering and nose cone, it made driving the HydroStream trouble-free.



Here's the proof! The speedo indicated 79 mph with two aboard!



Running attitude at speed is just about as good as it gets.