



TRIPLE TUNNEL TERROR

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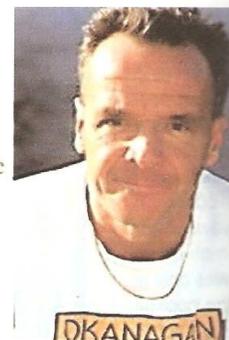


Cougar Boats' Dan Weeden, an ex-dragboat racer, is no stranger to speed. Bent over the steering wheel, his grimace is clear from our vantage point 50 feet away as he blows by our radar gun at 97 mph. Working the trim and lift, he edges ever closer to the century mark. The Merc 2.5 EFI on the transom of his 21-foot Cougar MTR howls at a 7,600-rpm shriek, winding tighter as Weeden's foot pushes the throttle through the floorboards. As he returns, a broad smile lights up his badly sunburned face as the radar gun's display reveals that he met his goal - 100.4 mph.

As the sun set over the clear Florida skies, our testing revealed exciting conclusions. Our questions? How would Cougar's hot 21-foot MTR perform with the baddest of bad from Team Black? What would the performance difference be when the same platform was hung with three different sized Merc two-strokes? Would the performance difference justify the cost of raising the power stakes? In the end, it wasn't a tough question to answer.

Someone has to do it!

Our assembled trio of Cougars showed up at Mercury's Lake X in February - a caravan of race rockets ready to run. The power arsenal consisted of a 225 Pro-Max, a 2.5 EFT, and the big daddy of 'em all, the 300 Pro-Max. Cougar President, Tom Reynolds, built three head-turning 21 foot MTR tunnels, all identical except for graphics and a few interior options. All three weighed within a few pounds of Cougar's printed bare hull weight of 720 pounds. All three were rigged meticulously with Bob's Machine Shop Hydra-Jack hydraulic setback jack plates, Gaffrig and Merc Hi-Performance gauges, and Teleflex SeaStar Pro hydraulic steering systems.



At Lake X, head Merc Hi-Perf honcho, John Litjens, and sidekick Jacquie Sheets cleared the decks for us and made us feel right at home. Merc's best stainless blades were made available, and we set about the business of testing. Cougar's merry band of hot-rodders had already spent time in central Florida breaking in the new engines, and sorting out the handling and preliminary checkups, so the task at hand was to settle on a propeller choice for all three boats and to get performance testing under way. The parameters were acceleration, top speed, fuel economy, noise level, and overall performance and handling evaluations. Weather for our two-day

session couldn't have been much better; we were blessed with comfortable 70 degree plus air temperatures, with minimal wind and humidity. Water conditions for the test ranged from flat calm to a four-inch chop, with fair-sized rollers thrown in from the Merc test boats for good measure.

Cat Attack

Our test Cougars were a sight to behold as they pulled caravan-style into Lake X's parking lot. Identical save for graphics, their appearance on the Cougar dual-axle trailers was one of exotic sex appeal; every head in the place turned despite the fact that the Merc shops were filled with heady offshore race machines of all sizes. The three cats were, like all Cougars, built and rigged impeccably. I've seen Cougars before but never really inspected on up close; Tom and his crew deserve accolades for pristine construction and meticulous component installation. I was extremely impressed, and after decades of inspecting high-perf and race boats, a boat has to really stand out to jazz me. These did more than that; the detail work and perfection in these three rigs were highly evident and showed beyond question that they're worth every penny Cougar charges to build them.

Weighing in at a 720-pound bare-hull weight, the 21-foot MTR uses Cougar's time-tested 22-degree entry at the front of the sponsons, which flattens to 12 degrees at the transom. The steep vee at the bow really makes this hull work in rough water. While the lake was relatively calm during our sessions there, we did run them through the largest Merc test boat wakes at full gallop, and they handled the rollers without acting up or getting out of hand. These are full-sized tunnel boats, not to be mistaken for flyweight jumpers. It's a pleasure to know that rough lakes and rivers won't hamper the fun. The cornering is confident as well; tight turns reveal a flat, controlled arc that can easily be tightened by simply cranking the wheel over harder. Again, nothing stupid happens. A hook can be initiated, but it requires the right set of circumstances; the trim must be high, the throttle chopped abruptly and the turn tight.

The construction is totally hand-laid, with the best in materials for a light but tough layup that will take a 100-mph pounding for years on end. Indeed, many Cougar 21 owners are well into their second decade on their original hulls, with no signs of deterioration. The hull is completely balsa-cored, with full-length kiln dried stringers. Coremat is used throughout the hull and deck for strength; a one-ounce-cloth skin coat prevents printhrough. The deck and hull are 100% bonded together around the inside for a unibody construction. A butt fit, the roughest to accomplish, is the only way Cougar attaches deck to hull because as Reynolds notes, "a shoebox fit is not as strong and hides poor mold quality under the flanges." Gelcoat is a super-hard-and-bright NPG Isothalic formulation that has built-in UV inhibitors to retard fading. Resin is AME4000, and all strakes are filled with polybond for strength. After assembly, the gelcoats are all wet-sanded, then machine-polished and finally hand-buffed. The results are stunning - the finish looks "wet" even in bright sunlight!

The boats come standard with seven colors, including a beautiful checkered flag on the decks. Gelcoat lines on all three boats were sharp and true, with no wiggles or jagged edges. The upholstery and seats are stitched and built in-house at Cougar, and the results are a true custom-designed interior that complements the 111-inches-long-by-55-inches-wide cockpit. Cougar resin-coats all wood seat frames and uses only stainless staples to attach the vinyl. The skins have five colors, carefully picked to match the seven-color gelcoat. The interior floor is both carpeted and flo-coated bare gelcoat, and the combination really goes far in showing off the ultratruck construction. The flo-coating continues under the padded rear sundeck, which makes bilge cleanup easy. The look is one of extreme high quality; if you can't tell yet that I'm impressed with these boats, then read on.

Rigging continues the theme of "only the best." All hardware is machined smooth, powdercoated to match the gelcoat and attached with stainless hardware. The Bob's Machine Shop Hydra-Jack hydraulic jack plates were through-bolted to heavy powdercoated stainless knee braces, which were in turn through-bolted to the stringers. The wiring is hardly detectable, as it's custom-routed through loom and Adel clamps, and carefully tucked up under the coamings. Not a wire or hose droops out of place, yet the harnesses are easily accessible. The twin sponson-mounted 24-gallon fuel tanks are carefully hidden behind upholstered panels that remove with just a

few bolts. Nothing is screwed in place; through bolting is Tom Reynold's religion. Even the seat bases are powdercoated and through-bolted, as is every piece of hardware installed on the boat, right down to the deck cleats and drain plug sleeve.

All three boats used Gaffrig custom gauges with Cougar logos, set in powdercoated angled bezels. The 2.5 and 300-powered boats used Merc High-Performance 10,000-rpm tachs, while the 225-powered hull used a Gaffrig tach. Tattletale speedometers added a custom touch, but we had trouble keeping the needles from loosening during the test.

Engine Exam

The three power plants came directly from Merc Hi-Perf's production line, shipped to Cougar during the winter months for rigging. Cougar sells complete packages rigged and ready from the factory, so when the three left the plant in British Columbia, they were turn-key but needed some break-in and setup time. The 300 - and 2.5 powered rigs were already sold; in fact, Burlington, Vermont, auto dealer John Dubrul was on hand to watch his new 300 powered baby get put through its paces. His initial fears were that his choice of the 300 would not be a wise one; his previous rigs, all stern-drive-powered, made the new outboard behemoth something of a mystery to him. He hoped it had the punch and top speed to satisfy his triple-digit craving. The 2.5- powered rig was also spoken for and was to be delivered to its new home in Indiana on the return trip.

Kid Brother



The 225-powered rig was the only boat without a home. As it turned out, it won't be a tough sell. This writer considers the Pro-Max one of outboarding's all-time best engines - it does all things impeccably well. With a refined fuel-injection system guided by a perfectly dialed ECU, the steel-sleeved 153-cube engine is basically a detuned 2.5 with a different injection and electrical system. As such, it offers the outboard hotrodder some of the finer things in two-stroker, like oil injection and a batter-cranking 40-amp alternator. All the rod accessories come standard, like a lightweight cowl, solid engine mounts, Sportmaster gearcase and 6,750-rpm rev limiter. The cowl design is new to the 225 this year, adapted from the menacing new look given the 300 last year. The sportmaster gearcase houses tough set of 1.87:1 gears, with a heavy-duty one-piece propshaft and offshore-style bearing carrier. Exhaust flows through the gearcase on this model, so it's relatively quiet compared to the others.

This rig was perhaps the easiest to operate around the docks, as it idled at an almost inaudible 500 rpm in gear. It shifted smoothly and got on its power band rapidly. we used a 14 1/2" x 30" Mercury Lightning ET propeller because it had the best combination of punch and top speed. With the least amount of power, this yellow-and-white cougar stormed to an 89.8-mph top end at 6,500 rpm with one aboard; adding a passenger dropped speed to 83 mph. All acceleration testing was done with two aboard, using the same driver and passenger. Pilot Bob Clarke, an avid Cougar enthusiast, was brought to drive due to his extensive 100-mph-plus seat time in his own 2.5 EFI-powered 21. Bob got the 225 to push this Cougar to 30 mph in 4.8 seconds from a dead stop; it then hit 60 in 14 seconds flat. Punching from 40 to 70 took an agonizing 17.4 seconds, indicating that these hulls need more midrange grunt than the 225 has to offer. Fuel mileage was superlative; even at 5,500 rpm and 72 mph, this runner was pulling down four mpg! Clearly, this is an efficient combination. though bob was bored (his 2.5 is ten mph faster), I enjoyed the simplicity and tractability of this rig. It handled beautifully, drove easily and never required special attention to control it.

This boat was extremely attractive. Finished in blinding yellow and white gelcoat with multicolored green, purple and black accent striping, it played off the Merc's sinister black paint and yellow



trim. The Gaffrig instruments in this package were extremely accurate. In all, this 225-powered 21 was a delightful combination. At 90 mph, it was very controllable, and it never gave a hint of trouble at any throttle setting. Decibel readings measured in the cockpit were 102 db(A) at 35 mph, and 117 db(A) at full throttle. From 50 feet away, the quiet 225 went by at a scant 80 decibels when cruising at 35, while at top speed it measured 96 db(A).

The High Revver



The 2.5-powered rig had a more conventional red-and-white finish set off with gray shades, but the subdued gelcoat striping belied the explosive, high-revving power of the 2.5 EFI bolted to the transom. We shod its sportmaster gearcase with a 14 1/2" x 28" Lightning ET wheel and spun it to 7,600 rpm at top speed of 100.4 mph. That was a tough

to repeat; average top speeds hovered in the 97-to-98-mph range. At this speed, the race-bred 2.5 was only as loud as the 225 measured in the cockpit; however, at 35 mph it was only slightly quieter at 112 db(A). From 50 feet, we measured 87 decibels at 35 mph; wide open, it screamed by at 103 db(A). A two man load slowed the 2.5 only a few mph; we measured 93.5 mph over several runs.

The standard boat-mounted high-pressure fuel pump prohibited us from taking fuel mileage readings, but if the "10% rule" is followed (a two-stroke outboard will generally burn about 10% of its rated horsepower in gallons per hour. This rig would be only slightly less efficient than the 225 powered rig.

This engine clearly had more midrange "snort", but it ventilated the prop badly compared to the 225 during initial acceleration. Zero to 30 mph was accomplished in 5.4 seconds, more than a half second slower than the 225. However, as it revved into its power band, the gallop to 60 was reduced by over a second from that of the 225 to an average 13 seconds flat. Forty to 70 was even quicker; at 12.3 seconds, it beat the 225 by an incredible five seconds.



While this engine was a rush to operate, it wasn't nearly as tractable and easy to handle as the 225. It idled roughly, jumped into gear harshly and generally was not a consumer-type engine that just anyone could drive. It acted the way it should - as a thinly disguised race engine. Using the same gearcase and 1.87:1 gearing as the 225, it has little else in the way of common parts save for the 153-cube displacement and die-cast center section. The trim system is race-style, with a heavy single-ram engine cylinder and bloat-mounted trim pump (the 225 uses a standard engine-mounted trim-ram system). The EFI layout is a tried-and-true, race-style, center-air-inlet affair, with a 7,700 rpm limited ECU. The charging system is perhaps the only drawback to this system, offering a wimpy 16-amp maximum output. A racing, aluminum lightweight flex-flywheel tops off the custom race powerhead. NiCom coated cylinders offer less friction than the 225's steel sleeves, and the unlined custom race tuner gives more free-revving top end while retaining awesome acceleration. The result is a raucous, rabid-dog demeanor, and you can't help but get excited when he 2.5 it fired up.

While the top speed was a solid ten mph faster than the 225, I found myself wondering if I wanted to hear the 2.5's racket on an all-day Cougar family cruise. In addition, the low-output alternator makes keeping the battery charged difficult (especially when idling), and the lack of oil injection really classifies the 2.5 as an outboard purist's engine more than any other. For myself, I'd love this combo. For my family, it would not be the best choice.

The New, Big Bad Brutha



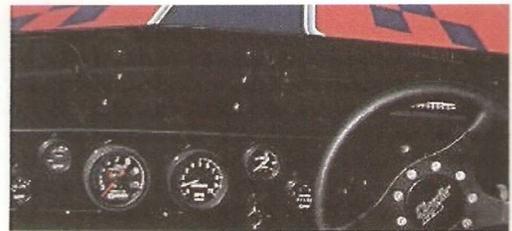
The 300 Pro-Max is a big outboard. So big, it dwarfs the others when parked next to them, even though it's still just a V-6. At 183 cubic inches, it's 30 cubes larger than the 225 and 2.5. The massive powerhead is supported by an even beefier center section, which is custom built for the 300 alone. The Merc factory provides open exhaust as standard equipment, but the 300 isn't as loud as the 2.5

because its built-in rev limiter keeps top rpm below 6,400.

It may not be as loud, but it clearly tops the 2.5 in the speed wars. Flying solo, Bob Clarke surprised us all by ripping past the gun at 105.3 mph (104.4 average). When I jumped in, speed dropped to 96.5 mph. A full five-plus mph faster than the 2.5, the 300 made it look easy as it loafed thru the radar traps at 6,200 rpm turning at 14 1/2" x 32" Mercury Lightning ET propeller. Acceleration from stop to 30 mph averaged 5.5 seconds; this was stellar considering we were turning a 32-inch-pitch wheel through 1.62:1 gears. Sixty mph came in a short 13.5 seconds, placing the 300 in the exact middle between the 225 and the 2.5. The midrange 40-70 romp was where the 300 really shined; it cranked this off in 11.2 seconds, showing the other two its brute muscle where it really counted.

Fuel mileage hit a best 3.62 mpg at 30 mph, where the big block was loafing at 3,00 rpm. From there, it dropped to the low threes until 5,500 rpm (89mph), where it started to catch big air and turn in almost 3.5 mpg at full throttle. All this and quiet too, despite the open exhaust holes in the bottom of the center section; at full throttle, it only measured 111 db(A) in the cockpit (and only 107 at 35 mph). From shore, it cruised by at 35 mph and a scant 79 decibels, while at full pedal it measured a still reasonable 95 db(A).

I had my doubts when we started; I really thought that the 300's gear ratio and 6,400 rpm limited would give us setup nightmares when trying to prop this rig. Not so; this rig was easily the fastest and in some respects the quickest of the three, and its handling was not diminished a bit by the extra 115-plus pounds the 300 carried over its little brothers. This package was a joy to operate. The 300 Pro-Max is a great engine, and its pleasure-boat features (huge 60-amp alternator, oil injection and quiet operation) make it a great choice for this boat.



What about Cost?

These boats are not for the cash-impaired. At \$34,620.00 base price, the Cougar 21 is clearly a boat for the accomplished outboard enthusiast. It's not overpriced though; 35 grand buys a boat that will easily impress the most jaded with its ultra-high level of quality construction and rigging, and outstanding performance. For that price, you get a 200 Pro-Max, a custom Cougar dual-axle tube-frame matching trailer and a standard seven-color gelcoat. The Gaffrig gauges are standard, as is the custom powdercoated hardware and matching interior.

Our rigs added \$860.00 for hydraulic Teleflex SeaStar Pro steering (in my opinion, this is a no-brainer option). Also raising the stakes was the Bob's jack plate (\$1,247.00). Again, this made operation simple and enabled us to jack the engine down for superior holeshots. The 225-powered hull added \$1,237.00 for the extra 25 horses, for a total of \$37,964.00 out the door.

Moving up to the 2.5 added \$2,259.00 to the base cost, plus another \$643.00 for a Gaffrig mechanical trim gauge (very accurate and foolproof, unlike many electric trim gauges). For the extra ten mph this engine provides, the rig hit the lake at \$39,627.00. That's only \$166.00 per mile - performance bargain. The real treat is the 300, but you'll pay for it. This option adds \$6,098.00 to the base price; this boat also had gray yachting cloth instead of a

vinyl interior for another \$280.00. For the ultimate in speed and bragging rights, you'll pay \$43,746.00

Conclusions

Spending 40 grand on an outboard lake rocket requires an uncommon zeal for two-stroke speed. In this case, the extra \$6,100.00 for the 300 Pro-Max is worth every greenback. The added performance coupled with the reliability and ease of operation make it the only logical engine choice, given the nature of this cougar hull. Why own it at all if it's not rigged to its maximum potential? True, it's a ball to run with the 225, and the 2.5 makes it a pseudorace machine. It's the 300's character, however, that really fits this boat to a T; a huge, powerful outboard for a big, rough-and-tumble tunnel boat. The refined nature of the 300 really complements the Cougar's sleek personality. It's a test drive you need to experience first hand to appreciate the thrill.