

HydroStream

VIRAGE TURBO

Lots and lots of get up with more than enough go.



HydroStream's Virage Turbo measures a compact 18 feet down the centerline with a 90-inch beam and weighs 1350 pounds ready to run.

HydroStream has always had a bent for the unusual and this year's eye-watering 18-foot Virage Turbo test boat is certainly no exception.

Ironically, HydroStream advertises the new Virage as its most sincere effort ever to break into the mainstream of performance runabouts.

"We designed the Virage not for top speed but for the buyer who wants to look fast and still have a boat that does everything well," says HydroStream president Howard Pipkorn. "We feel even a first-time buyer could drive this boat at speeds close to 65 mph and feel completely safe. There's no oscillation, no kiting and it doesn't take a magician on the trim button to make it go. We think the Virage is one of the safest and sanest tunnel-style boats we've ever built."

Maybe so Howard, but the combination of the Virage, the 150 Yamaha Pro

outboard and Land & Sea's revolutionary variable pitch propeller proved a setup that still has the staff talking. What started as a conservative approach to go-fast boating turned into the most wicked accelerating boat we've driven in the 20 year history of our Performance Trials. Read on, HydroStream, Yamaha and Land & Sea are about to redefine the definition of high-performance boating.

PERFORMANCE

The HydroStream Virage Turbo measures a compact 18 feet down the centerline with a 90-inch beam. Out of the mold the bare hull weighs 950 pounds. With 150 Yamaha Pro and full running gear the turnkey package tips the scales at 1350 pounds.

The running surface is a Mod VP-style tunnel with side sponsons that are

as deep as the center pod. The center pod has a slight V with a keel pad for added stability. In addition, there are steps, or relieved areas, in the sponsons to provide additional lift and top speed.

The Virage's ZT bottom design is actually the latest refinement in HydroStream's ongoing R&D program.

HydroStream broke into the air-entrainment market in the early 1980s with a bottom design it labeled the XT. The running surface featured low displacement sponsons that rode out of the water to reduce wetted surface at high speed.

The XT met with marginal success because of too much oscillation with big power. Next was the YT design, which had slightly deeper sponsons for added stability. The state-of-the-art ZT bottom design used on our test boat is actually a wide-body version of the YT. The dimen-

sions of the running surfaces are identical, the only difference is the sponson chines are angled out more generously to provide more wetted surface and even more stability.

HydroStream developed the ZT bottom design to accommodate roomier bowriders and more spacious family runabouts. In addition, the ZT bottom design is used on HydroStream's Hooker series of bass fishing boats because it's so stable.

Concerned that a completely safe-and-sane approach might be a little too tame for HydroStream's ultra high performance image, Pipkorn couldn't help but pepper our test boat's performance curve with Land & Sea's new variable pitch prop.

High performance boaters from Florida to California are faced with the same decision companies such as HydroStream have to make prior to any test session: Do you pick a wheel that sweetens the top-end at the expense of low-end torque, or sacrifice a mile or two upstairs in favor of better all-around pulling power?

Land & Sea's new variable pitch prop gives boaters the best of both worlds. Without delving into a high-tech discussion of hydrodynamic physics, the Land & Sea prop uses centrifugal forces, engine torque, multi-angle blade faces and a small cam system in the hub to "shift" the prop under given loads.

The prop, which retails for less than \$500, offers consumers a wide range of possibilities and can be adjusted to fit



The Virage Turbo has a Formuling steering wheel with an anodized center cap standard.

your needs with nothing more than an Allen wrench.

The concept of a variable pitch propeller is nothing new, engine manufacturers were playing with "shiftable" props way back in the 1960s. The problem then was most boats were only capable of top speeds in the 35- to 40-mph range. Consequently, the shift was hardly noticeable and deemed ineffective.

With its new design, Land & Sea can offer boaters everything from a 32-inch prop all the way down to a 24-inch prop . . . and do it with just one wheel. The company recommends nothing more than a 2:1 "downshift" ratio. In other words, through cam adjustments you can make a prop that has a 32-inch pitch at high speed and a 16-inch pitch on the low end.

Just to prove a point, Land & Sea set our test boat prop to run at 26 inches at high speed and 9½ inches (yes, 9½ inches) on the bottom end.

Frankly, we've never driven a boat like the HydroStream Virage Turbo. From a dead stop the 18-footer needed just about a second to rocket on plane. Midrange torque was awesome as the boat accelerated from zero to 60 in under 10 seconds. Furthermore, the move from 40 to 60 when the prop "shifted" took less than three seconds.

At full throttle the Virage ran a rather tame 63 mph, but you'd have no problem putting six or seven boat lengths on a 70 mph competitor in a two mile sprint . . . the difference in acceleration is that great.

Truth to tell, the combination used on



The running surface is a Mod VP-style tunnel featuring HydroStream's ZT design for greater stability and more wetted surface.

Hydrostream

VIRAGE TURBO

our test Virage bordered on hazardous. Coupled with gusty winds and moderate swells, the midrange torque curve was so strong the boat could "wheelie" over backwards at speeds under 50 mph.

HydroStream claims the Virage is rock steady at high speed but even with a conservative trim setting, we had to contend with a noticeable amount of oscillation from 55 mph on. The problem never got so severe we had to throttle back, but the ride wasn't as stable as we're used to in most air-entrapment hulls. Whether or not the handling problems can be attributed to the variable pitch prop is undetermined.

In moderate water, the HydroStream Virage Turbo stands up well. The hull skips gingerly over wind chop but, because of its compact centerline length, is headed for trouble in swells.

"Heretofore when you talked about high performance boating the sole criterion was top speed. Not anymore. If it's thrills you're after, you'll get more oohs and aahs from 40 to 60 mph in this boat than you would in one of HydroStream's 90-mph wander machines.

"Land & Sea certainly deserves credit for an engineering marvel. The variable pitch prop is not a gimmick. Trust me, this hummer works and is a forerunner for prop technology in the future. Maintenance is easy . . . you can adjust the prop on the beach in less than 60 seconds and change a blade in less time than it takes to remove the prop nut. The possibilities are endless.

"Despite some very impressive acceleration numbers, the final verdict on our test combination is it just doesn't add up for recreational boaters. I've no complaint with the boat, the engine or the prop—they just don't work together and should be considered a real problem in the hands of the uninitiated. The boat is dynamite on a straight line but there's so much steering wheel torque I gave up trying to get it through the slalom course after our 20 mph passby. After 10 minutes my arms were exhausted from fighting the steering wheel torque."

—Bob Nordskog

WORKMANSHIP

HydroStream's lamination schedule includes a combination of chop, mat, cloth and unidirectional fibers. The company uses coremat between its laminates and the bottom is reinforced with end-grain balsa core.

HydroStream offers three graphic

patterns on the Virage, with the multi-color pattern used on our test boat the most popular by far to date. HydroStream includes four gelcoat colors standard with additional hues available on request. Actually, the hull has a five-color gel if you include the jet black hue used on the high rake windscreen.

Understandably, HydroStream keeps deck hardware to a minimum. There are no cleats, bow rails or navigation lights. The rub rail is an aluminum extrusion with a black rubber insert that blends neatly with the hull contour. It was surprisingly straight considering the demanding dips and curves in the design.

HydroStream was one of the first builders on the high performance outboard scene and its rigging experience is very evident. The oil tank and battery are neatly installed and properly supported. Wisely, the Virage is fitted with a foot throttle for hands-on operation at high speed.

"Access to minor services is good, however, the battery is tough to reach unless you disconnect the oil tank. HydroStream has moved its upholstery department inhouse and the stitch work is outstanding. All wood components are properly sealed and the attention to detail is excellent. My list of complaints include exposed seams in the cockpit carpet, a very small fuel tank and some shoddy chopper gun workmanship under the deck. In addition, the wiring

The Virage and Yamaha will pull a skier up in a blink, but the driver can't see him.

behind the dash wasn't up to snuff with snap-on connectors and wood screws as terminal posts for grounds."

—Bob Teague

SKIING

As a ski machine, the HydroStream Virage Turbo is without equal downstairs. Skiers should consider Land & Sea's variable pitch prop standard equipment, no matter what boat you're thinking about buying. Test skier Lucky Lowe was underway at the blink of an eye. We've no doubt that the Yamaha 150 Pro would've pulled as many skiers as we could tie ropes on the pylon.

Even though the Virage was one of the smallest boats at this year's Trials, it tracked well in hard slalom cuts. The wake is predictable with some turbulence and irregularity in the slip stream caused by the Mod VP-style bottom configuration.

Boarding and debarking are difficult, as is monitoring the skier from within the cockpit. The boat's low profile and elevated engine height block the skier from view directly behind the boat.

"Test skier Lucky Lowe admitted that no direct-drive tournament boat he's ever skied behind comes close to matching the Virage's low-end pulling power. The boat is so awesome on the low end, it would be too much for teaching beginning skiers. The wake is better than most Mod VP-style offerings with the major



shortcoming being an almost impossible route getting on and off the boat."

—Wade Worley

INTERIOR

In years past the mere mention of an 18-foot HydroStream meant cramped quarters and no storage space. Not any more. For its size, the Virage Turbo had one of the most practical interior arrangements at the Trials.

The cockpit only measures 58 X 72, but the high back bucket seats create a feeling of spaciousness. Storage space abounds. There's room for carry-ons in the gunnels, under the deck, in a carpeted bow compartment and in a 74 X 12 in-floor ski locker. There's also a teak glove box on the dash and limited space under the back seat.

Hydrostream's instrument cluster appears rather barren at first glance. There's no cause for concern, however, because Yamaha gets the water temperature, trim, tach, speedometer, oil level, fuel and voltage meters all in two gauges thanks to the marvel of LCD technology.

"HydroStream has done a marvelous job with the Virage's interior design. The mini cabin is big enough for afternoon naps with a 34-inch wide pad that measures 6'3" in length. Embroidered logos on the seat backs are a classy touch. Furthermore, the stereo speakers are mounted in the seat bases which provide a "cabinet" of sorts and should greatly enhance the sound quality. Hydrostream gets high marks for its storage capacity, forward sleeping compartment and flat floor. Without question, this is the most practical interior I've ever seen in a sub 20-foot air-entrapment hull."

—Dick DeBartolo

SUMMARY

"The Hydrostream Virage Turbo is a contrast in styles that shows just how crucial setup can be in a high-performance boat. Tone down the variable pitch prop to the manufacturer's suggested specifications and forgo the transom jack and you've got a 18-footer that runs in the low 60s with arm wrenching torque. The key questions left unanswered in the area of performance are, What's it going to take to eliminate the horrendous steering wheel torque, and were the minor handling bugaboos we experienced at WOT a byproduct of the setup or a shortcoming in the design? While it is true we wouldn't recommend our setup for everyday boating, it sure makes interesting reading and shows just what can be done."

—Randy Scott

Performance DATA

HULL SPECIFICATIONS:

| | |
|------------------------|--------------|
| Model | Virage Turbo |
| Bottom configuration | Tunnel-V |
| Deadrise at transom | N/A |
| Length | 18' |
| Beam | 90" |
| Hull weight as tested | 1350 pounds |
| Base retail price | \$9,022 |
| Retail price as tested | \$19,851 |

STANDARD EQUIPMENT: Dual mechanical steering, drink holders, locking glovebox, running lights with custom switch panel, Formulating steering wheel with color anodized center cap, custom pleated upholstery with side pads, cabin mattress, light and headliner, multicolor "Turbo" gelcoat graphics, battery hold-down kit, side cockpit storage ports with gunnel dams, forward locking storage cabinet, digital-tune AM/FM cassette stereo, in-floor ski storage locker, bilge pump, 24-gallon aluminum fuel tank, anodized aluminum grab handle.

OPTIONAL EQUIPMENT ON TEST BOAT:

Upgrade stereo (\$275), upgrade pre-rig package (\$520), removable ski-tow bar (\$215), trim switch (\$27), 1989 Yamaha Pro-V 150 outboard motor (\$8,492), Land & Sea Hydro-Electric Transom (\$600), Land & Sea Torque-Shift propeller (\$500), mooring cover (\$200).

OTHER OPTIONAL EQUIPMENT: Pre-rig package (\$325).

INSTRUMENTATION ON TEST BOAT:

Speedometer, tachometer, oil level, trim, water pressure, voltmeter, clock, tripme-

ter, warning indicator for water temperature, fuel level and voltage.

COLOR OPTIONS: Customer choice.

ENGINE AND PROPULSION SPECIFICATIONS:

| | |
|---------------------------|-----------------------------|
| Make/model | Yamaha Pro-V 150 |
| Cylinder type | V-6 |
| Cubic inch displacement | 158 |
| Maximum horsepower at rpm | 150 at 5500 |
| Prop size | 14" to 14 1/2" X 10" to 26" |
| Prop material | Stainless steel |
| Prop type | Land & Sea |

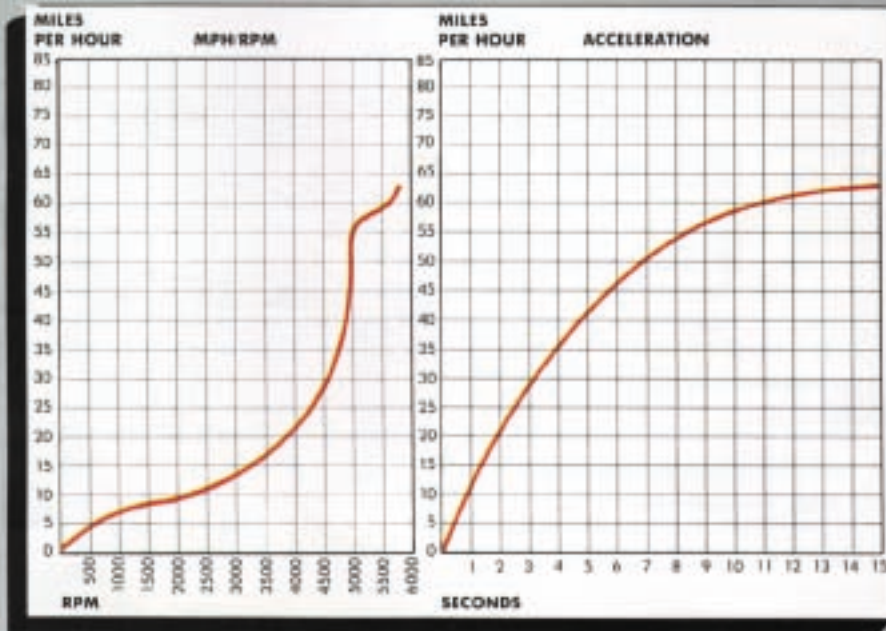
MEASURED PERFORMANCE:

| | |
|------------------------------------|--------------|
| Top speed, calibrated speedometer | 63 mph |
| Top speed, stock speedometer | 63 mph |
| Top speed, radar | 60 mph |
| Maximum rpm, calibrated tachometer | 5800 |
| Maximum rpm, stock tachometer | 5800 |
| Time to reach plane | 1.06 seconds |
| Minimum planing speed | 14 mph |
| Distance to stop from 35 mph | 165 feet |
| Decibel reading, 35 mph at 50 feet | 78 db(A) |

ADDRESS OF HULL

MANUFACTURER:

Hydrostream—Pipkorn, Ltd.
2211 West County Road "D"
New Brighton, MN 55113



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