

OUTBOARDS

INBOARDS

BOATSPORT

AUGUST 1953

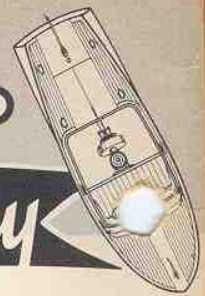
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GET READY TO BEAT
THE STARTING GUN!

IT'S OUTBOARD
SAVINGS TIME AGAIN!



MODEL BOATS..

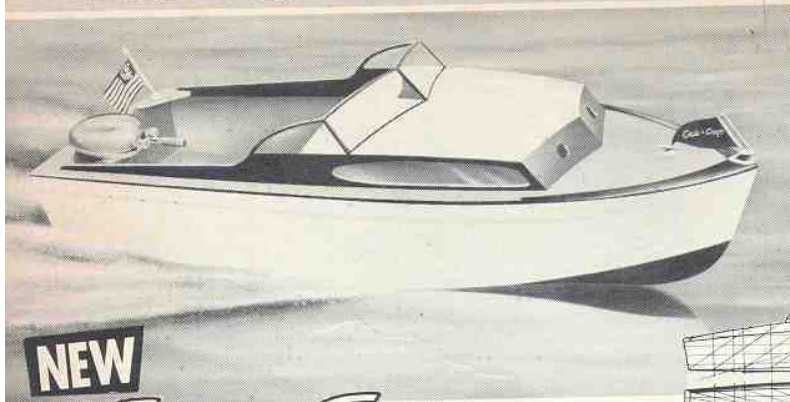


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All Scale "Chris-Crafts" are designed by the Intersecting Conical Lifting Method. Mahogany Vene construction is used throughout. All wood parts are accurately Die-Cut to shape, and need only be assemble



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Chris-Craft "OUTBOARD EXPRESS CRUISER"

For Electric Outboard & Inboard Engines
18" Long—1" Scale

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22 Foot

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19 Foot

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This Month's Cover Story

THE SOARING OUTBOARD pictured on this month's cover is one of the famed Cypress Gardens jump boats taking a little "normal" exercise on Lake Eloise.

The boat is specially designed to take the punishment of repeated jumps and was built for this activity by the Hedley Boat Company of Winter Haven. The hull was designed by E. Malcolm Pope, nationally known outboard race driver, to take the extraordinary stresses it is subjected to in its aerial cavorting.

Oak stringers are used throughout and the step, fracture point on the normal hull, is reinforced with heavy oak ribs set on twelve inch centers. Three oak runners are fitted to the bottom and extend from the transom to the bow, providing a durable riding surface for the boat as it rockets over the jump. The transom is a double thickness of 3/4 inch marine plywood bolted and glued together with Weldwood glue. It is further strengthened with a steel knee co-joining it with the keel on the inside.

The hull is constructed throughout with a combination of 1 1/4 inch brass screws and Weldwood glue, the screws placed one inch apart on the sides and bottom. To lighten the hull, a canvas deck treated with airplane dope is used to get under total weight of 250 pounds.

The motor pictured here and used on all the jumping boats is a stock Mercury 10 hp equipped with a three-bladed brass, clutch-type prop. This gives the jumper a top "water speed" of 36 miles per hour.

The daring driver is Buddy Boyle, native of Winter Haven, Florida, and a long time associate of Cypress Gardens. He is a former water skier for the Gardens and is now a member of the staff of Mercury's Research, Development and Sales Promotion Division.

Oh yes, the gal in the tree is lovely Jean Nathey, Gardens water skier and model.

The water thrills of Florida's Cypress Gardens is one of the highlight sequences of "This Is Cinerama"—the exciting, multi-dimensional motion picture entertainment which can be seen in New York, Detroit, Los Angeles, and other major cities to follow. Don't miss it! It's sensational!

If you like water skiing be sure to read the article in this issue by J. I. Herndon, entitled "With The Greatest Of Ease." Although it is easy for the expert whether he be professional or amateur, Mr. Herndon points out that even if it is a great sport for every member of the family, care should be taken that everyone wears a life jacket and keeps the speed down to the ability of the skier while he is learning. Work your speed up gradually, he says, for you can be knocked out if you hit the water the wrong way—and that's when your life jacket is really needed!

(End)

BOAT SPORT

CONTENTS

Get Ready To Beat The Starting Gun— By Hank Wieand Bowman.....	4
<i>A veteran racer offers some helpful hints on how to win races.</i>	
It's Outboard Savings Time Again!— By Richard Van Benschoten.....	8
<i>Vacation cruiser . . . Alaska boat livery . . . Safety afloat conference.</i>	
Beedle Bomb Kid—By Dean Chenowith.....	10
<i>The young holder of three National titles tells his own story in his own words.</i>	
With The Greatest Of Ease—By J. I. Herndon.....	12
<i>Skiing thrills for novice and expert alike.</i>	
World's 800 Kilogram Record Broken—By Paolo Speroni.....	14
<i>Our European correspondent gives an on-the-spot account of Mario Verga's racing triumphs this year.</i>	
Know Your Speedboat Class.....	16
<i>The third article in this important series.</i>	
Contest Winner Cops Martin "100" With Flood Story.....	18
<i>Charles V. Pinkerman receives award of Martin Motor as winner of contest announced in our December, 1952 issue.</i>	
Nova Scotia Success Story—By Blake Gilpin.....	20
<i>The rags-to-riches story of one outstanding club.</i>	
The Inside Story of Racing Fuels—Part IV—By Ted Powell.....	21
<i>A basic-theory analysis of special fuels.</i>	
To Convert Or Not To Convert.....	22
<i>A.P.B.A. and N.O.A. open door to stock motors.</i>	
It's News.....	23
<i>New products and parts.</i>	

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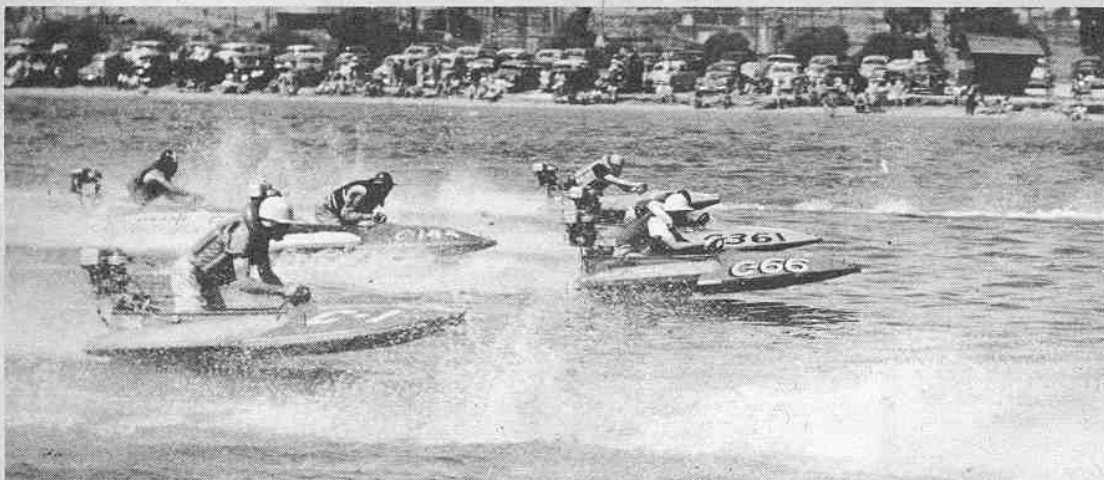
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Pre-regatta preparations help get your boat out on the course for a fast start. Here a group of West Coast Class A hydros bear down on the clock in almost perfect form just a few seconds before the gun.



GET READY TO BEAT THE STARTING GUN

By Hank Wieand Bowman

Don't Get Caught With Your Parts Down At the First Race of the Season

(Right) This driver will never hear the gun. A lot of hard pre-race shop and pit work is wasted by fancy riding before the start, or in desperate last-second sprints for the line before the gun goes off.

IF THIS IS YOUR first season in the racing game and you are readying your first outfit for competition, put aside a few nights and carefully check over the sanctioning body's rules governing boat and motor restrictions for your class. If your competition is going to be with one of the two major sanctioning bodies, A.P.B.A. or N.O.A., you must be a paid-up racing member as well as a member in good standing of a club belonging to the sanctioning group.

As a paid-up member in either of these two organizations, you will receive copies of their year books in which complete rules are outlined. If you are planning to race only with a local group—and there is much good competition conducted in this fashion—then find out

what local rules and regulations concern your boat and equipment.

SAFETY EQUIPMENT

Regardless of the sanctioning body, you will find that your boat must be equipped with a spring loaded ("dead-man" type) throttle. This is not an idle ruling but one which concerns your safety and the safety of other drivers and their equipment in any regatta. If you are tossed from your boat or flip (and during your first season you will be unique if this doesn't happen to you because it happens to the most seasoned veterans in the game) the automatic shut-off throttle may save you a blown motor and it may keep your boat from running wild and doing considerable

personal or property damage. Such throttles are available through any racing parts supplier or marine hardware outfit at prices ranging from approximately \$5 to \$15.

Next you will need an approved crash helmet. Almost all outboard and inboard sanctioning groups are a trifle lax in what they term "approved" crash helmets. You can buy a simple, heavy construction plastic helmet for as little as \$3. Wal-Mar Products Company makes an excellent plastic helmet at this price. Personally, I recommend a regular Cromwell-type crash helmet but since water isn't as hard as macadam, the plastic type will pass approval and will give you protection.

You will also need a life jacket. Re-



ardless of the minimum rules of the sanctioning group on this item, buy one with a protective collar. Collars serve two purposes. They have on occasion acted like a flak jacket around the neck and saved drivers from severe injury when flywheels disintegrate. Also, assuming the worst, if you are thrown and rendered unconscious, just floating isn't going to keep you alive, but floating with your head up and your nose and mouth out of water will. For the added two or three dollars, don't cut corners here; wear a collar. We're not trying to scare you out of the racing game; serious accidents in outboard and inboard racing are a rarity but why not be prepared for that one-in-a-thousand.

With this same preparation in mind,

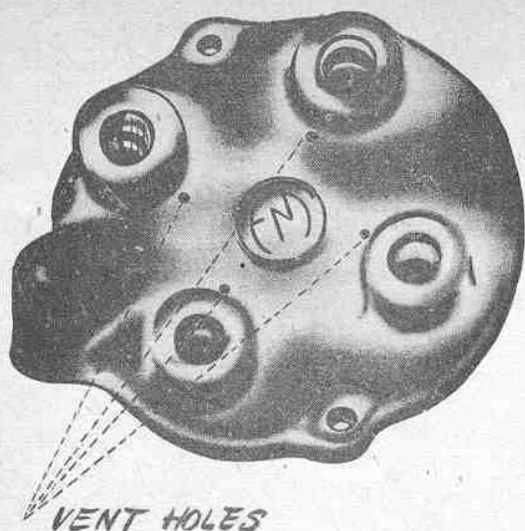
the pound or so of weight that a flywheel catcher will add to your equipment is negligible in comparison to the safety feature it offers. Flywheel disintegration, too, is a rarity but it has happened. With a catcher, the parts are deflected away from the driver. (see "It's News").

Not required by any sanctioning group but required by your knees are comfortable kneepads. If you don't buy them before your first regatta, you're sure to want them for your second. The bottom of a racing outboard gives your knees the same beating they would take kneeling in the bottom of a solid-tired Model T running at 45 mph over a railroad bed. Tile and linoleum supply houses and some of the gardening sup-

ply houses sell sponge rubber knee pads priced about \$3. Elastic basketball knee pads are also very good and purchasable at the same price range.

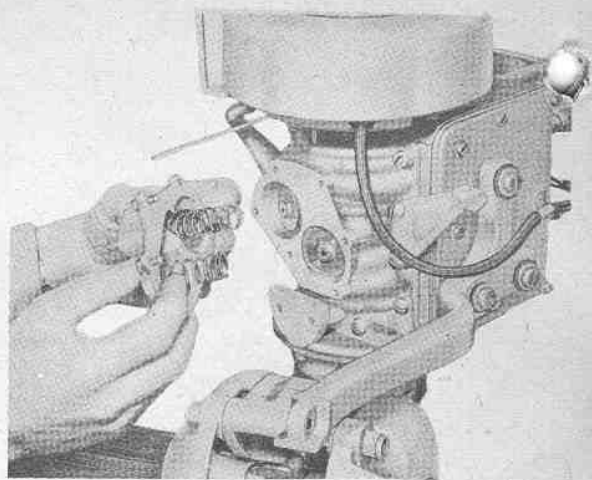
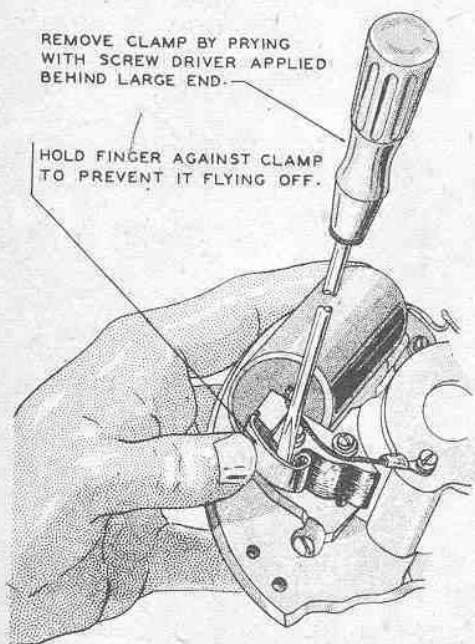
Also for the tyro, study the rules for the conduct of a regatta. Don't be afraid to ask questions from your more experienced driving acquaintances. Find out where you can test before the regatta, which way you are expected to turn coming up toward the starting line, where you can circle, which buoys are which and in what area coming up for the start it is tabooed to turn, circle and/or fish-tail. Most accidents and foul ups at the start are caused by the inexperienced driver not knowing what is expected of him. Study the rules and find out.

(See Over)



REMOVE CLAMP BY PRYING WITH SCREW DRIVER APPLIED BEHIND LARGE END.

HOLD FINGER AGAINST CLAMP TO PREVENT IT FLYING OFF.



(Above) Springs on Martin poppet valves should be checked and replaced if tension doesn't match new springs. Check valve seats for functioning.

(Left, top) Drill four $\frac{3}{8}$ " vent holes as shown in Fairbanks aircraft type magneto of Merc KG9 Thunderbolt to prevent excessive condensation. Later models have these holes already drilled.

(Left) Coils on the Mercury 10 h.p. models are removable for testing without taking off entire plate, as shown by instructions in this drawing.

GET READY TO BEAT THE STARTING GUN

(Continued from Preceding Page)

File your entry for each regatta you plan to enter well in advance. The sponsoring group needs this list for publicity.

SHOP WORK AT HOME

Now is the time to check over your equipment. I remember only too well some years ago going to a regatta and serving as pit mechanic for my wife, who was racing a hydroplane. We kept experiencing motor fade after the boat would pull out of the pits and run for about fifty yards. It was quite apparent that we were having carburetor trouble. As a relatively old hand at the sport, there was no excuse for this to have occurred other than pure sloppiness. Les Buckman of Baldwin, New York, a veteran professional Class B driver and one of the best in the business, pitched in to help pull down the carburetor and clean out the fuel lines. Buckie worked hard; he wasn't racing that day and wasn't dressed for mechanical work, es-

pecially with primitive pits that left him knee deep in the water in a good pair of slacks and sports shoes. Between us we did the necessary clean up work and got Blake out and underway for the heat. But Buckie made one comment that made a lasting impression. "This is shop work, Bowman, not pit work. *#!, when are you going to learn?"

Buckie taught me right then; and for future regattas, with an advance check-off sheet, we made sure shop work was done in the shop where it should be done and only the minimum of pit work was required once we arrived at a race.

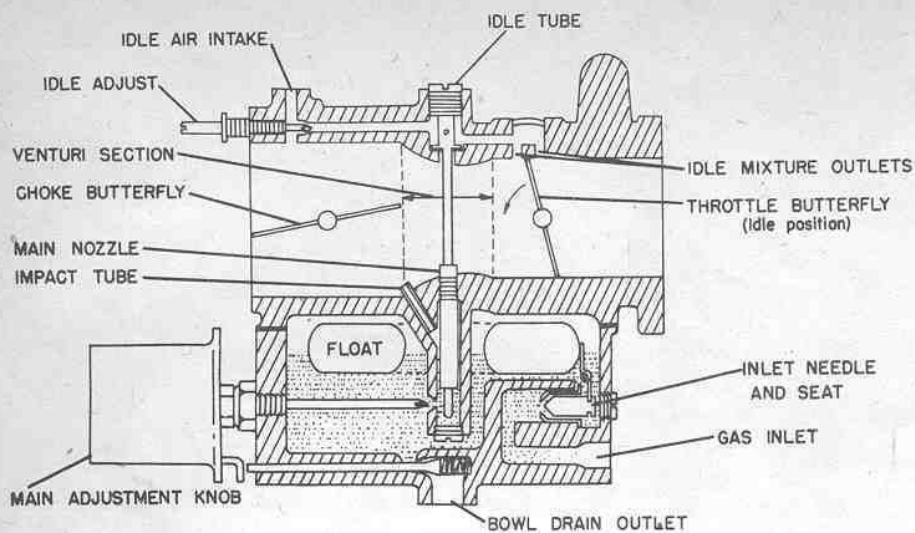
Recently one of the top veterans in outboard racing hydroplanes missed one heat entirely and was late getting out for a second heat on the Citrus Circuit in Florida just because he attempted to do shop work in the pits. He, too, had neglected the all-important job of cleaning up fuel tank, fuel lines and carburetor. So this next section should apply to the veteran as well as the newcomer.

It is assumed that engine refinements and boat and hull maintenance have already been taken care of, but you'll never be set for that first regatta without a final check-over of the engine that has laid idle during the winter months. Here are the minimum check-over items.

Start first with your fuel tank. If you have been using an alcohol blend fuel and if you plan to continue to do so, the fuel tank should be cleaned after each event. Gum and scale is bound to accumulate on the tank walls. This scale frequently is as hard and smooth as a coat of shellack, but it is also just as brittle. A few flecks sloughing off and running through your fuel line may clog your jets in a hurry. Here's a tank cleaning procedure that works well regardless of the type of fuel you use.

With tank removed from motor, or auxiliary tank removed from boat in the case of some stock outboards, fill the tank half full with hot water. Add several tablespoonsful of a strong detergent and a

(Turn to Page 24)



A cut-away view of a Tillotson MD type carburetor shows parts and can be used as handy guide for cleaning and reassembling.

(Below) While not a real racing shot, this picture of a high-jumping driver exemplifies the eager beaver Outboard Oswald who is in such a

hurry to get into a race that he fails to make pre-race check ups. He dreams of take-offs like this but usually lands back in the pits.





(Right) Dr. Edwin Hodge's family sets off on month's cruise from Holland, Mich., up to Mackinac. Albatross' 20' plywood hull was made by U.S. Molded Shapes, and is powered by Evinrude Big Twin.



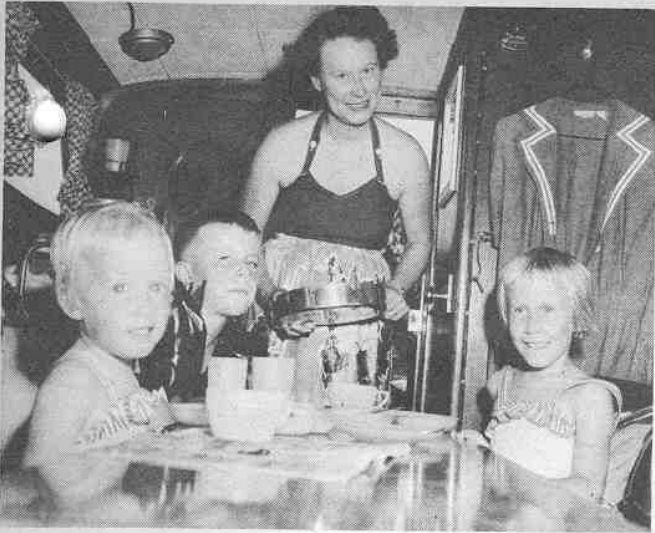
(Top) Outboard cruisers double as either day or night water homes. Powerful modern motors like Johnson Seahorse 25 shown here on Roberts 18' Weekender offer fast rides or slow trolling for fishermen. Remote controls make for easy handling and docking. (Bottom) Another view of same cruiser. This young couple typifies so many Americans who are finding weekend and vacation recreation afloat. In the clear sunshine and fresh air of open water healthful relaxation comes easily—and so do big appetites!

- Vacation Cruises
- Alaska Boat Livery
- Safety Afloat Conference

WITH VACATIONS JUST around the next bend in the river, it's no wonder outboard owners have happy smiles on their faces as they complete their summer plans. Their pocketbooks will be smiling, too, next fall, for no matter what sort of outboard vacation they take, it will represent big savings over almost any other kind you can name.

Outboarding offers many vacation choices: fishing, camping, water sports and cruising. You can take any one or lump them all together. And with the portability of all outboard boats, you can combine a motor tour with your boating activities, going to any spot you choose, limited only by the available time.

Outboard cruising is a wonderful way of getting the family outdoors together to enjoy a complete change—and isn't that what a vacation is supposed to be? A cruise can be anything from one day's long outing to a weekend of exploring, or a whole vacation period of lazy relaxation on any of America's beautiful waterways. Joint cruises are popular, either long or short, where a group of friends all have boats. The well-appointed outboard cruisers are complete homes upon the water, but the joy of cruising



Dad keeps on course, while Mary Lou, Charles and Helen eat their first meal in cabin. The easy routine of living on the cruiser was a perfect vacation change from home chores for Mrs. Hodge.



The Albatross, on its trailer, being backed down a boat ramp for launching. The portability of outboard cruisers allows their use on any waterway you can drive to, and saves on winter storage charges when boat is kept at home.

IT'S OUTBOARD SAVINGS TIME AGAIN!

OUTDOORS WITH THE OUTBOARDS

by Richard Van Benschoten

is not restricted to them alone. Day cruisers, with shelter cabins, can also be used for long trips, sleeping either aboard or ashore; and many people who enjoy camping are making extended cruises in open runabouts—though here, some sort of hood for protection against sudden bad weather is recommended. There are many fine public campsites along our vacation water routes, and in many areas there are overnight cottages conveniently near.

Take out any map—a road map will do—and see where your eye goes first. The chances are it will be some water area, a lake, a winding river, the coast line, with its sheltered bays dotted with islands. There's romance about such places. You think of quiet coves and beaches, the lapping of water along the shore. Planning a cruise is the next most fun to taking one. Imagine being in some such spot, away from everything troublesome, going where you please when you please, or staying as long as you want in some perfect place, fishing, swimming, just lazing, and eating the best food you've ever tasted—it's the fresh air that does it. Well, that's outboard cruising.

Just take a look at the Chesapeake Bay

area, for instance, connecting with the Delaware River by way of the Intra-coastal Waterway canal. There's 200 miles of straight water down to Norfolk to cruise in, with the Severn River and Annapolis, the Patuxent, the Potomac (up to Mt. Vernon and Washington) and the Rappahanock (one thing, Geo. Washington didn't throw the dollar across down near its mouth—it's three miles across there!) And over on the eastern shore of Maryland there's the Chester River, Eastern Bay, Tangier Sound, with its islands. And down through Hampton Roads, the broad James River comes in. This whole area is cruising paradise for anyone within trailering distance.

There are areas like that all over the country, some not so large, some larger. All along the Atlantic Coast there are connecting waterways between such extended cruising grounds, safe and sheltered and perfect for the smallest outboard.

You'll need maps of Kentucky, Alabama and Tennessee for this one. Start at Paducah, Ky., and follow the Tennessee River upstream, past Kentucky Dam and its 184 miles of lake, on down to the corner of Mississippi and across

Alabama, up to Chattanooga and then Knoxville, Tenn. There's 650 miles of water here, most of it lakes behind the vast system of TVA dams. No wonder it has been called the "Great Lakes of the South." There are twelve state parks and many government campsites along the way. Passage through all TVA locks is free to outboard vacationers.

Or move out to the great Pacific Northwest and study the cruising possibilities in Puget Sound. There's 150 miles of water, dotted with islands, between Olympia and the Canadian border, all of it perfect for thrilling cruises of discovery. You'll have to cruise it many times before the San Juan Islands fail to offer some new harbor to drop anchor in. And then there are the Canadian waters around Vancouver Island.

Anywhere you look along the coasts of America, up her rivers, on her landlocked lakes, there are beckoning outboard vacation waters, which now, thanks to the outboard boat and motor industry and their tremendous accomplishments of the past few years, are open to all of us. So, set your pocket-book right—set it on outboard savings time!
(Turn to Page 33)



(Above) Close-up of Dean Chenowith in "Beedle Bomb Kid," the Swift hydro, powered by a Mercury 10, that carried him to victory in two straight Class B stock hydro heats at the Oakland, Cal., Nationals.

BEEDLE BOMB KID

By Dean Chenowith

(Below) Driving "Beedle Bomb VII," Dean Chenowith, during his second year of racing in 1951, is shown leading a large field of B stock utility drivers around buoy on the Miami River at Dayton, Ohio.



Editor's note: When a high school sophomore racks up a record of fifty-four trophies, three national titles, plus a number of merchandise prizes and a fair rasher of purse money in three years time we think his story should be told. We know Dean is fifteen years old, that he weighs 125 pounds, worries a bit and lost six pounds just prior to the Nationals. We'd heard about him winning six heats in one day at Miami Shores, Ohio and later last year copping eight wins in one afternoon at Portage Lakes, Akron, Ohio, but we wanted more dope than that so we asked him a flock of

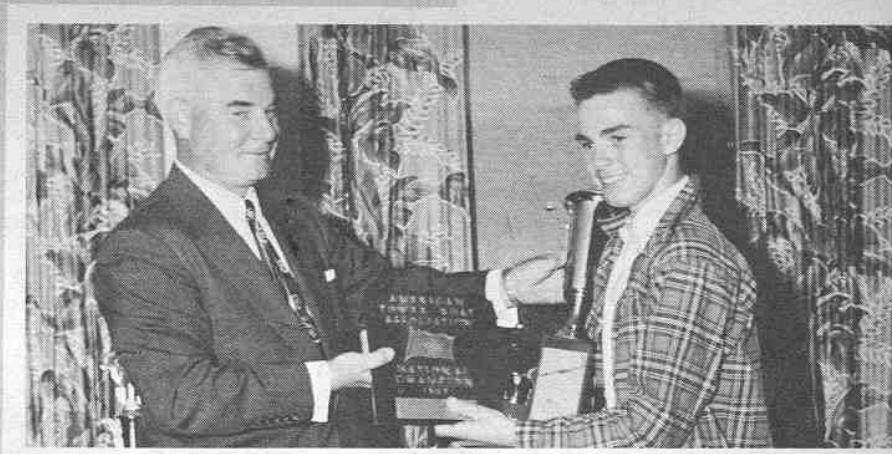
questions. When we found that the driver of "Beedle Bomb" and "Beedle Bomb Kid" not only answered the queries but did so in polished manuscript form we decided it was only fair to let him tell about his racing background in his own words—so here we are.

MY INTEREST in boat racing dates back to my very early childhood. In 1937, the year that I was born, my parents purchased a cottage at Indian Lake, Russells Point, Ohio, and because my father was interested in boats and motors, I spent many summers at In-

dian Lake and grew up in an atmosphere of boating.

When I was five Dad gave me a 1½ h.p. Evinrude Ranger and I was plenty proud to call it my own. He also bought me a life jacket, put the motor on a fishing boat, me in the life jacket and started me out on the lake alone. When I was seven Dad graduated me to a 3 h.p. and then upped me to a 5 h.p. motor on my eighth birthday. During those summer months I would race anyone I could find willing—even the patrol.

At twelve I started my racing career



Merlyn Culver, outstanding speedboat competitor for years and father of Jan Culver, 19-year-old utility outboard racing star, appears pleased in this picture, doesn't he? No wonder. He is presenting his apt pupil, Dean Chenoweth, with one of three National Championship A.P.B.A. plaques awarded the country's foremost stock outboard racing driver of 1952. Merlyn Culver is a Vice President of the American Power Boat Ass'n.



(Above) Action shot of Dean in Swift hydroplane, "Beedle Bomb Kid," as he was given the checkered flag at the end of second heat at Lake Merritt, Calif. In first five-mile heat he averaged 41.465 m.p.h.

(Below) Dean Chenoweth displays some of the trophies that he has won in his first three years of racing, in the livingroom of the Chenoweth home in Xenia, Ohio.



with a 10 h.p. Mercury motor on a Speedliner hull. With this outfit I could beat my father in his Chris Craft inboard. In the spring of 1950, Mr. M. M. Culver of Dayton, Ohio, a great boat and motor enthusiast and a Senior Vice President of the American Power Boat Association, saw me running on the lake and told my Dad he thought I would make good racing material. That summer Dad turned me over to Mr. Culver to see what he could do with me.

June 13, 1950, I entered my first race on the river at Troy, Ohio. I won a fourth place and (Turn to Page 28)



(Above) A charming quartet at Cypress Gardens puts its best foot forward in a graceful heel-and-tow routine on one ski—a hard trick to do but very easy on the eyes.



(Left) Pants are being worn a little higher this season. Trick Champ Bob Orr starts ride with jerk from dock and comes in on shallows—all this and no water on the knee!



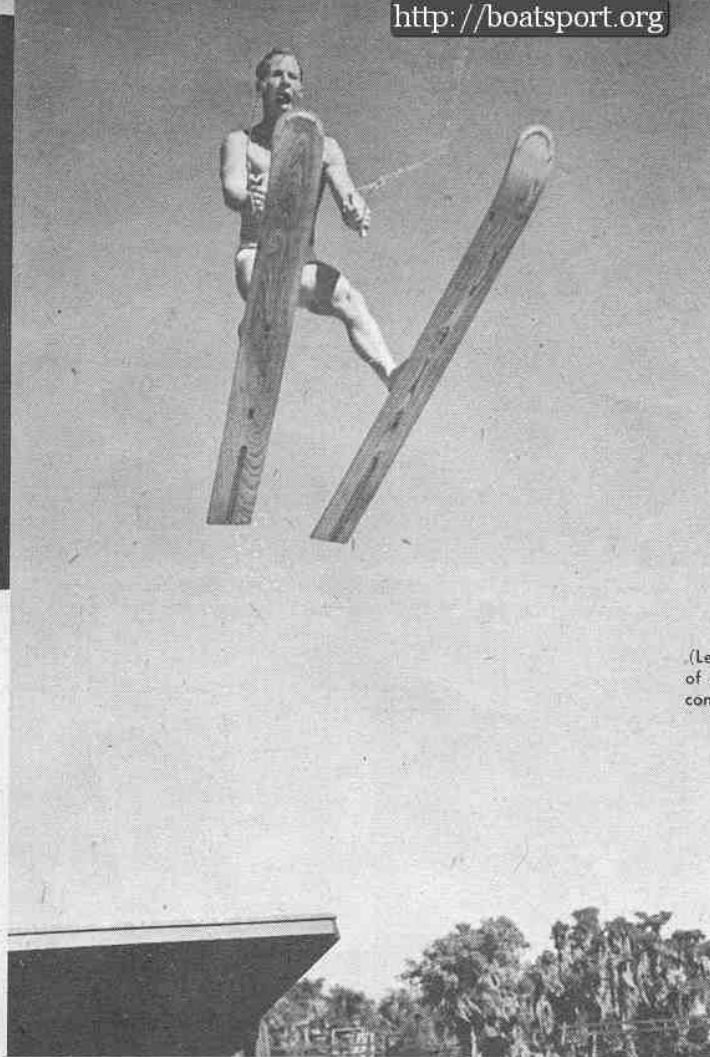
(Left, center) The author and his daughter, Gail Herndon, who was responsible for getting him interested in water skiing a few years ago. Now it is favorite family sport.



(Left, bottom) Three distinct types of water skis—and two of skiers. As a rule, shorter skis require more power to raise them out of the water and are trickier to handle.

I HAVE HELPED plan thousands of vacations in my twenty-five years with the AAA, and I think I know pretty well what the average American family wants in the way of active recreation which at the same time is safe and not too strenuous. To me, water skiing is just such a form of recreation. It's suited for every member of the family from six to sixty. And it's as safe an active sport as you can mention if you make an iron-clad family rule that no one skis without a life jacket on, and if you keep the speed down to the ability of the skier while he is learning.

Of course there are spills, and if you're going fast they can really shake you up. I've had my swimming trunks jerked off by the impact of hitting the water on a turn at high speed, but I've never been really hurt. You can be knocked out, though, if you hit the water the wrong way when you're going fast—and that's when the life jacket is really needed. But if you work the speed up gradually as you gain experience, there is nothing to worry about in spilling. And when you are ready for the full ride, there is no thrill quite like whizzing along over the water on two



(Left) Bob Cuzzens holds world's record water ski jump of 86 feet. Many experts use two-handed tow for better control. Note that rope is slack during course of jump.

AN INTERESTING NOTE to Mr. Herndon's story concerns another Michigan resident who became interested in water skiing not so very long ago. Charles R. Sligh, Jr., furniture manufacturer and recently elected president of the National Association of Manufacturers, saw his first skis at the New York World Fair in 1939 and promptly ordered a pair by mail. He kept his feet on the first try and just two years later won the National Open Water Ski Championship. That was 1941, and he held the championship until 1946, when at the age of 39 he relinquished it to Lew Withey. A year later the championship was back in the Sligh family, when son Bob took over where his dad left off. Mr. Sligh, who introduced water skiing to many parts of the country and personally perfected many of the stunts now seen at ski shows, is president of the American Water Ski Association.

Sport for All the Family From Six to Sixty . . . Thrills for Novice and Expert Alike

WITH THE GREATEST OF EASE

By J. I. Herndon

pieces of hickory at anywhere up to forty miles an hour!

My own interest in the sport began one summer, on Lake Michigan, when a neighbor and myself were asked by our ten-year-old daughters to teach them how to water ski. Children can easily learn to handle skis at speeds of around five miles an hour, and so we started in by running up and down the beach towing them through the shallow water. That was the extent of our knowledge on the subject, and besides it was a bit too much work being a pinch runner for an outboard motor. We decided to learn something ourselves before we tried any more teaching; and so, one morning, we sneaked off for a private lesson.

"I'll teach you both at the same time," the instructor said. "Adjust the skis and jump in." He handed us each a nice round handle on seventy-five feet of ¼" rope. "To bring the skis to the surface, throw your head back, get the tip of the skis just out of the water, pull your knees up under you and hold on to this tow." I felt none too secure to see the tow line tightening up soon afterwards.

"When I give her the gun, hang on,"

the instructor shouted back to us, "and then stand up as you feel yourself come up out of the water. Be sure to keep your toes pointed forward and your weight on your heels."

Both of us came up skiing, somewhat shakily, I admit, but still up! I know now that a great deal of the credit for our first success was due to the instructor's ability to catch up in the right position. Soon we were in some choppy waves, and I felt as if someone were pounding me on the bottom of my feet with a sledge hammer.

"Relax, relax!" the instructor shouted. "Get some spring in your knees." This took the shock out of the waves and made me feel almost as though I were flying.

Then, as if to prove to the group gathered on the dock that anyone could be taught to ski quickly, the instructor made another wide circle and brought us around in a big arc which was very helpful to us. Suddenly we saw our families standing on the dock! As we passed the gallery I was beginning to feel quite proud of myself. But then a wave passed over the tip of my skis and I landed on the water in what felt like a

twenty-foot dive—and a belly-flop at that!

But even this experience could not dampen my ardor for this new-found love. After that it was simply practice that we needed. Our one lesson taught us enough fundamentals to go on by ourselves and to teach the girls. Of course, they soon began to leave us behind. And my neighbor, being younger and more agile than I, also went ahead of me. Soon he was using only one ski, jumping the three foot waves of the boat, and even attempting to ski backwards.

Learning to water ski is as easy as that. Of course, if you hope to become an expert you will need more sound coaching, but to enjoy the thrill of the sport all you need is the fundamentals. And if you will watch other good skiers you can pick up many valuable pointers as you go along.

Because Lake Michigan does not get warm until August, up here you soon get in the habit of skiing with a jacket on, and before you know it you're even skiing in your regular clothes, minus shoes, of course, and with pants rolled up. Skiing without getting wet is not difficult. If you (Turn to Page 25)



Italian Ezio Selva pictured at top speed on Switzerland's Lake Lugano during second run which gave him average of 121.02 mph

in the first of three new world speed marks set within three months in the International 800 kilogram class. He held title for a month.

WORLD'S 800 KILOGRAM RECORD BROKEN TWICE IN 1953 . . .

By Paolo Speroni

Boat Sport's European Correspondent



(Right) A close-up of Verga's "Laura I" shows the portable electric starter held in place near bow by electric shock cords.

IN DECEMBER 1952, 800 kg. class champion, Italian Ezio Selva, established a new world's speed mark for the class over a measured kilometer course on Lake Lugano, Switzerland, when he averaged out 121.02 mph. His boat was a three-point hydro, designed and built by himself, powered by two B.P.M. motors mounted in tandem and connected by an elastic linkage. The motors were each 2250 cubic centimeters, making the total displacement of the two motors 274.5 cubic inches. Botta and Peuricelli of Milan designed and built the motors, while Selva personally made all modifications.

In January 1953, Mario Verga, champion of the world in the 450 kg. inboard class, with the same boat in which he

won his 450 kg. title on Lake Lugano, broke the record of his friend Selva when he rocketed his type 159 blown Alfa-Romeo-powered three-point Abbate hull to a 125.72 mph mark for the kilometer. Verga's Alfa-Romeo is a 91.5 c.i. job equipped with twin superchargers. Even for a twin supercharged engine this performance is terrific.

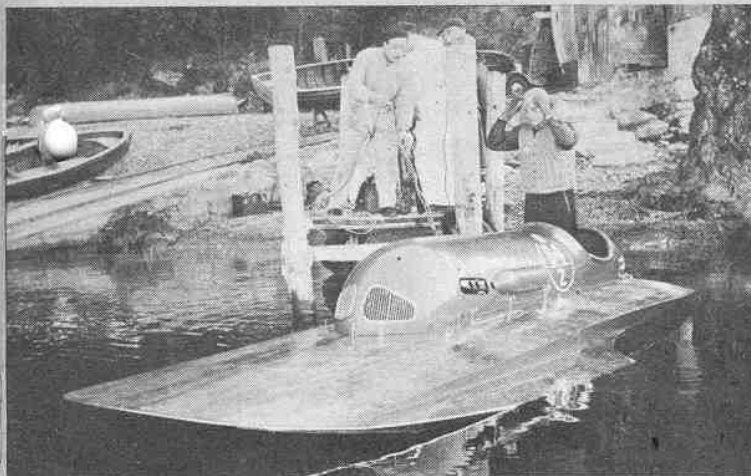
During his first trial run, Verga's rudder was broken and disaster faced him, but his skillful boat handling avoided a serious accident. In less than an hour, Verga and his mechanics had improvised repairs. It was thought by the timers that without this mishap Verga might well have turned in an even more startling time.

Thus it was no surprise to Verga's

Italian rooters when, early in February, with his beautifully streamlined hull, "Laura I," Verga, in another assault on the world's 800 kg. mark, clocked the spectacular speed of 140.76 mph.

When the performance of Verga's tiny blown Alfa-powered Abbate is compared with the boat speed mark established in the United States by Stanley Sayres and his "Slo-Mo-Shun IV," it is easy to believe that Sayres or one of America's other Gold Cuppers, with their huge Allison power plants, may well top the 200 mph mark in 1953.

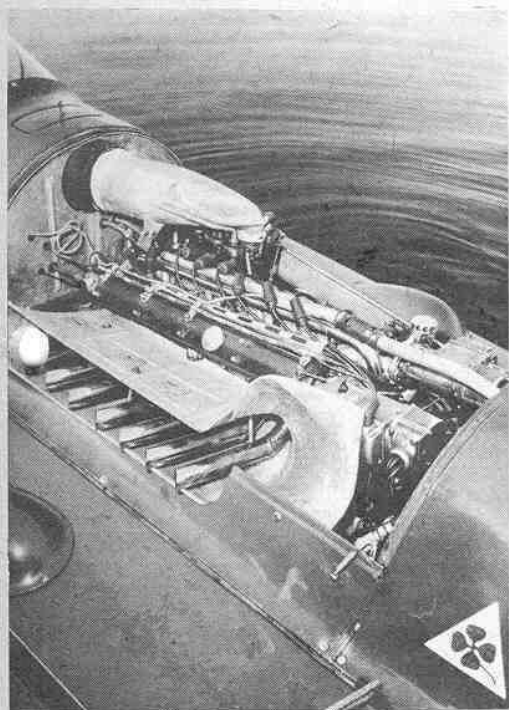
It will certainly be no surprise if Verga, Selva or one of the other fleet-running Europeans in their far lesser powered craft tops the 150 mph mark even as this report is filed. (End)



On December 18, 1952, Selva enters cockpit of the three-pointer he designed and built himself for successful attempt on world record.



Mario Verga, in his Abbate three-pointer, toasts in after breaking Selva's record, in January, with 125.72 mph world mark of his own.



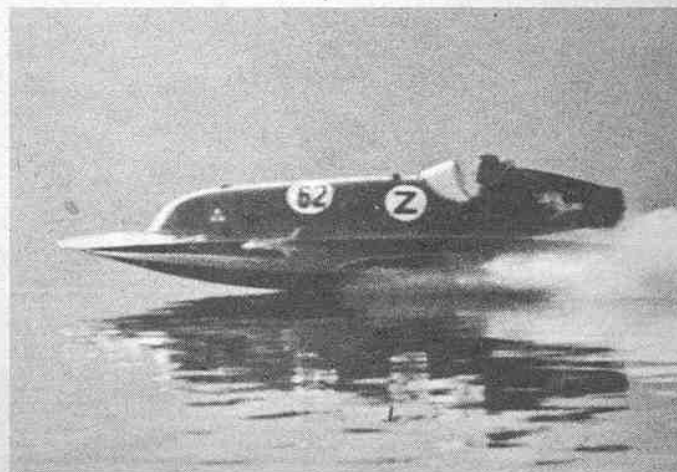
(Left, middle) Twin supercharged 91.5 c.i. Alfa-Romeo in Verga's Abbate three-pointer is 159 type that Fangio has driven to world fame in Grand Prix auto racing.

(Left) Twin tandem-mounted B.P.M. motors in Selva's brief-record-holding hydro were made by Botto and Peuricelli of Milan, Italy.

(Below) Ezio Selva, at left, the former 800 kilogram record holder, congratulates fellow-Italian Mario Verga on phenomenal new record.

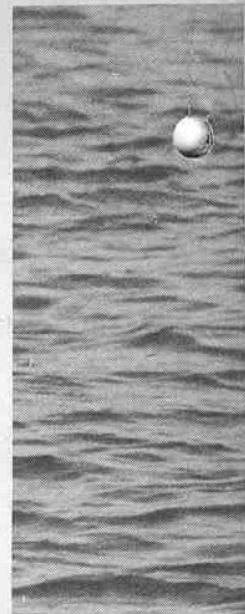


(Below) Verga, setting his second world record in two months, races past camera at spectacular speed to maintain average of 140.76 mph.



KNOW YOUR SPEEDBOAT CLASS

This month BOAT SPORT in the third article of this series covers basic class specs of the Class B Outboard Racing Hydroplane, Class J Stock Outboard Runabout and the 136 c.i. Stock Class Inboard Hydroplane . . .



CLASS B OUTBOARD RACING HYDROPLANE

TO BE ELIGIBLE to race in A.P.B.A. or N.O.A. sanctioned Class B Racing Hydroplane events drivers must be 14 years of age minimum.

Weight restrictions, A.P.B.A.: The hydroplane for this class must weigh a minimum of 100 lbs. with an overall racing weight of 265 lbs., which overall weight includes steering wheel, motor controls, permanently attached speedometer and/or tachometer, hardware as pulleys, cleats etc., permanently attached coaming pads, permanently attached knee pads or cushions. The overall weight includes overall hull weight plus driver in racing clothes but not including life preserver, crash helmet or knee pads.

Weight restrictions, N.O.A.: No mini-

mum hull weight. Overall racing weight, boat and driver, is 260 lbs. Overall weight includes boat weight with accessories as noted in previous paragraph and weight of the driver including life preserver, crash helmet, knee pads or any other paraphernalia customarily worn during the race.

Note: To qualify for legal limits of A.P.B.A., drivers just within legal limitations of N.O.A. must use weight boards in A.P.B.A. events. (see page 5 BOAT SPORT issue of February '53 for legal methods of adding weight without disturbing balance).

Motor Restrictions (applicable to both A.P.B.A. and N.O.A.): Through 1953 the standard competition motor for this class was the Johnson SR 55 or later models. For the first time in 1953 rules of both sanctioning organ-

izations permit non-racing motors to compete in Class B racing hydro class with the racing motors and permit the same modifications to stock engines and use of alcohol blend racing fuels in compliance with the existing rules of the class so that this year modified Merc 10s, Martin 200s and others may be expected in competition with the strictly-designed-for-racing motors. Motors to be eligible must be over 14 c.i. and may be as large as 20 c.i. Permissible modifications include the use of any carburetor manufactured by an American manufacturer of carburetors, except that no change in place of attachment of carburetor to the motor will be permitted. Ports may be added to the motors and material may be removed from the ports within the limits of manufacturer's (Turn to Page 26)

Hull Weight May Include Permanently Attached Hardware and Coaming Pads

2. The following table of hull dimensions shall apply:

Class	"A"	"B"	"C"	"D"	"E"
JU	18"	40"	9'	9"	12"

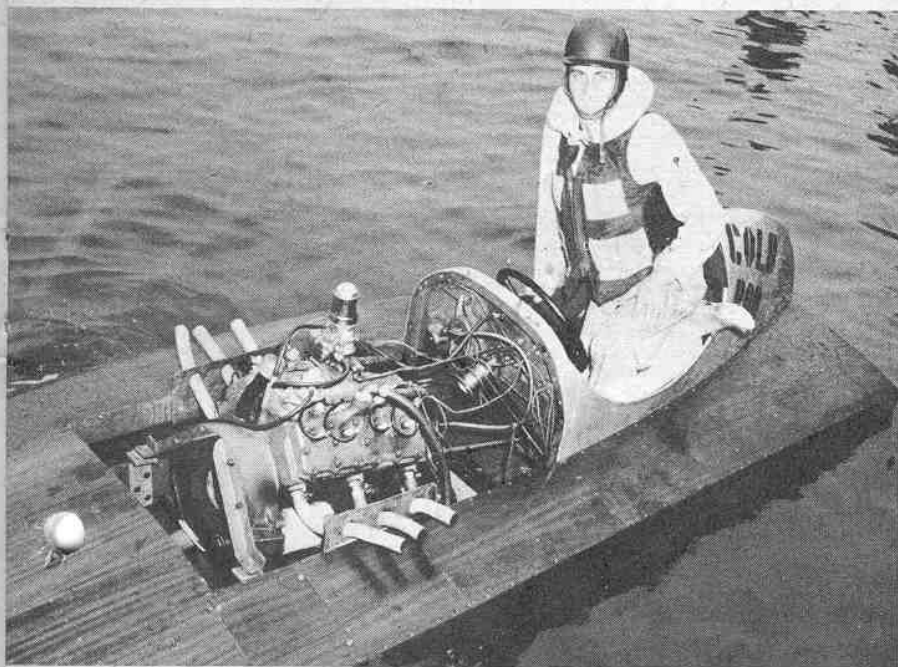


Veteran Bill Tenney set new A.P.B.A. straightaway mile record of 57.604 for Class B Outboard racing hydros—racing motors of under 20 c.i. piston displacement.

Editorial Note. Classes covered previously: in April, '53 issue, 48 c.i. Hydro and Runabout, Class B Stock Outboard Runabout, Class M Racing Hydro; in June, '53 issue, Cracker Box, Class B Stock Outboard Hydro and Class A Racing Outboard Hydro.



(Above) Fifteen-year-old Marilyn Donaldson holds mark of 22.026 for five miles in competition for Class JU runabouts—stock motors under 7.5 c.i. displacement.



(Left) Introduced as experimental class last year but approved recently for full status, the 136 c.i. inboard hydros are often powered with stock Ford V-8 60 motors.



This is the way Charley Pinkerman spent his boyhood days on the Ohio River. He is shown here (left) with two friends on a shanty-boat.



Charley's wife and their little son (now four years old) pose for a snapshot as they get ready for a day's outing in one of his boats.



(Right to left) Charles V. Pinkerman, winner of the Martin "100" contributed by Martin Motors; Don Wattrick, the Sports Director of Radio Station WXYZ in Detroit; and Harold Hersey, Editor of BOAT SPORT. The Press Picture Service took this camera shot just as Don Wattrick finished reading Mr. Pinkerman's letter telling about his most unusual experience with an outboard motor, in the Ballroom of Detroit's Hotel Statler. Mr. Pinkerman had come all the way from his home in Proctorville, Ohio, to receive the award from the Editor of BOAT SPORT. Don Wattrick broadcast the event on both his 10:15 PM local program and his Coast to Coast hookup on ABC at 11:00 PM, during a get-together of some 700 Sinclair Oil dealers from in and around Detroit. Congratulations, Charley! Here's to the Happy Outboarding you're bound to have on the Ohio River with that fine Martin Motor in years to come.

CONTEST WINNER

COPS MARTIN "100" WITH FLOOD STORY

THE WINNING LETTER IN BOAT SPORT'S MARTIN MOTOR CONTEST

Proctorville, Ohio.

Dear Sir:

The most unusual experience I have had with an outboard boat was when I ran one to keep our town in touch with the outside world in flood time. We were cut off and no way out, so I took my boat and outboard and went to work. I took people out who wished to go. Brought milk and other food in. Mail once a day and papers twice. I ran this boat for seven days and nights, going from house to house, taking food and other things to them. And on one trip took a woman out and across the flooded Ohio River at ten at night to a hospital. On one return trip I had twenty-seven cases of milk. I have made trips across the river with seventeen people in the boat. The weather was so cold that no one else would run their boats. I made no charge for my service. At one time during this flood the river was so full of logs and ice I would shear three and four pins on one trip and drift two or three miles downstream before getting a new one in.

I have run outboards since I was fourteen and done all kinds of work with them, but I believe this is my most unusual and most dangerous experience. I have pictures and news clippings of this story.

Very truly yours,
Charles V. Pinkerman



With his motor shut off (this one is a Mercury), Charley paddles in to shore. He got his first motor, a Waterwitch, when he was only fourteen.



This picture was taken in 1948. It shows Charley bringing some passengers across the Ohio River in his ferry boat during the big flood.

EVERYBODY IN Proctorville knows Charley Pinkerman. He was born there in their town. He grew up there, with his three brothers and five sisters, in a house only a few hundred feet from the Ohio River. Almost through his front yard passed the big river boats pushing their lines of barges. The slapping of their stern paddle wheels lulled him to sleep. His boyhood was spent mostly on the river, in rowboats, skiffs and a wonderful home-made shanty-boat, with a stove and all. When he was fourteen, he worked part time in the garage to earn enough money to buy his first outboard motor. From then on he really got around on the river and learned its ways and its secrets. He built his own boats, fished and cruised up and down the river, and did some stock outboard racing.

Charley Pinkerman went on through high school and now, at twenty-nine, owns and operates a three-cab taxi company. He is married and his four-year-old son is growing up in Proctorville, and learning to love the river himself. He is quite an outboarder already.

But besides remembering Charley as a typical American boy growing up in a typical American small town, with all the Tom Sawyer-Huck Finn flavor of life on one of America's great rivers, and later as a grown man and good citizen, the people of Proctorville also remember him with deep gratitude for what he has done for them and their town on many occasions and particularly what he did during one dark and awful week in early 1948.

Proctorville, Ohio, is one-hundred-and-fifty miles upriver from Cincinnati, near where Ohio, West Virginia and Kentucky come together. It is almost directly across the river from Huntington, West Virginia, where some of its seven-hundred-and-fifty people work and where most all of (Turn to Page 30)

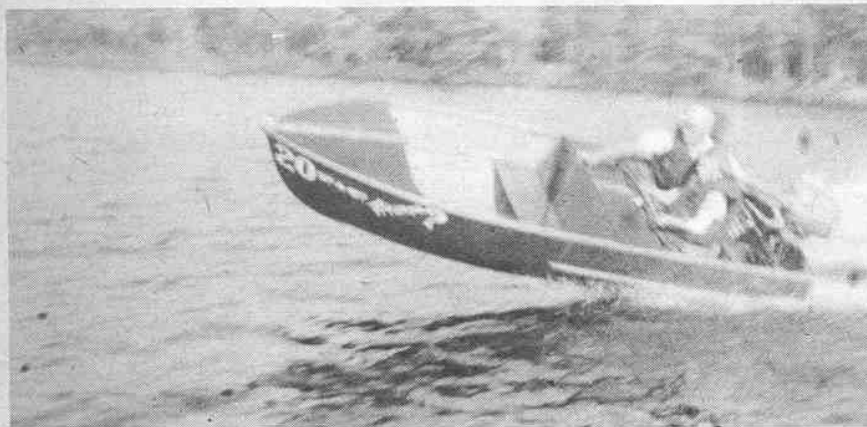


(Middle, above) Charley tells us that "This is the highest street in Proctorville going under water at flood time." Waters rose to 69 feet!

(Above) A close-up view of one of the houses in Proctorville as the Ohio overflowed its banks, April, 1948, flooding entire town of 750 people.



The Commodore of the Avon Boat Club, Windsor, Nova Scotia, Canada, C. W. Stephans, rounds the judges' buoy. He received the checkered flag for first event victory in club's history.

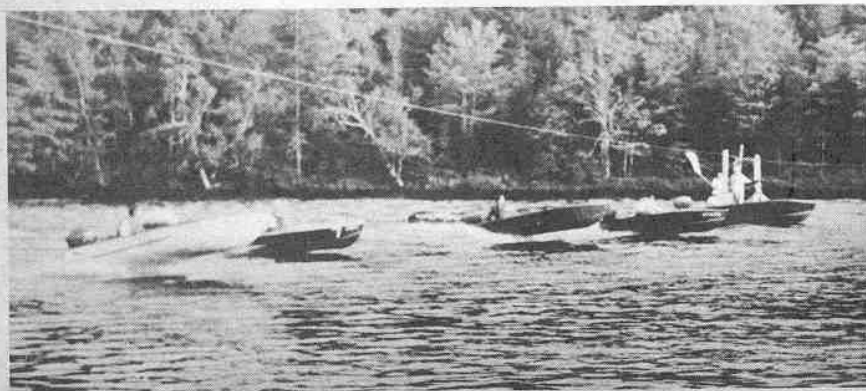


The driver of this two-passenger runabout is a ten-year-old girl. The small fry are just as rugged competitors as the adults of the Avon Boat Club. Other rider is sure holding on!



(Above) Back in mid-1951 there were less than two dozen members in the Avon Boat Club. This up-and-coming organization has grown from six to fifty boat membership in 2 years.

(Below) A group of 25 hp stock motors on 12' runabouts gets away at the starting gun in a Nova Scotia event. In his white Meteor is S. O. MacMillan, competition record holder with a 40 m.p.h. pace set with a Big Twin Evinrude. Not shown here is crowd of 6000 spectators.



NOVA SCOTIA SUCCESS STORY

By Blake Gilpin

The Rags-to-riches Story Of One
Outboarding Club, Which Proves
What Can Be Done

IN THE LAST ISSUE OF BOAT SPORT I wrote a piece on "How To Run a Regatta," in which I said that a successfully run regatta would create many new boating fans and help put speedboat racing on the map. Now we have a report from a once-small club in Nova Scotia which lets me say, I told you so!

Two years ago the Avon Boat Club of Windsor, in Hants County, Nova Scotia, Canada, was formed with the unimpressive membership roll of nine members and six boats. On May 24, 1951, at Chevie on the Avon River, these six boats staged a race meet. They had only five hundred spectators, but the six drivers worked hard and put on a good regatta, racing a course with tight corners and close competition. Their best speed mark of the day was about twenty-five miles an hour, but they had given a show!

The proof—a year and a half later on Labor Day of 1952, the Avon Boat Club held a regatta at Lily Lake, halfway between Halifax and Windsor. Fifty boats were on hand for this one, trailering in from Sydney, Halifax, Wolfville and Windsor, and six thousand spectators watched the day-long regatta which began at ten in the morning and lasted until darkness.

The Avon Boat Club has helped establish the popularity of outboard racing to such an extent that last summer they were booked as the main attraction at the Lunenburg Fisheries Exhibition as well as the Annapolis Natal Day Celebration. Their regattas have become in such demand that many towns wrote in for 1953 dates early in the winter of 1952!

The Avon Boat Club divides its racing into four classes. These are the 10 horsepower, 14 horsepower, 25 horsepower with 14' family boats and 25 horsepower on 12' boats. They follow the general rules of stock utility outboard racing as we (Turn to Page 28)



"C'mon, speed up a bit!"

THE INSIDE STORY OF RACING FUELS

BY TED POWELL

PART IV

EDITOR'S NOTE: Judging from comments and letters on the first three articles of this series, it appears that a basic-theory analysis of special fuels is called for. Hence before going into involved racing-fuel blends, it should clarify matters considerably if some five dozen physical, chemical, thermal, ignition, combustion and knock characteristics of spark-ignition piston-engine fuels are first listed and discussed. This will present racing men with a general modern survey of the complex motor fuel problem, and provide some insight into the behavior of special fuels in high performance racing engines.

CHARACTERISTICS OF SPECIAL MOTOR FUELS

WHEN DEALING WITH FUELS other than the familiar hydrocarbons, there is a good deal more to the problem than just octanes, fuel economy, volatility and purity.

The *physical properties* are the volatility or boiling point, blend boiling range, vapor pressure, evaporation rate, liquid density or specific gravity, gaseous density or S.G., freezing or melting point, liquid coefficient of thermal expansion, liquid viscosity, gaseous viscosity, gaseous diffusivity, liquid surface tension, color, refractive index, molecular weight, critical constants, molecular rotational and vibrational characteristics and molecular structure (physical).

The *chemical properties* are chemical stability (oxidation, polymerization, hydrolyzation and precipitation tendencies), corrosive impurity content, unsatisfactory fuel fraction content, water solubility, air solubility, solvent power (aniline point and nitrocellulose dilu-

tion-ratio), mechanical blending properties (blend or latent solvent power), odor, toxicity, molecular structure (chemical).

The *thermal properties* are the latent heat of evaporation, liquid specific heat, gaseous specific heat, liquid thermal conductivity, gaseous thermal conductivity, molecular structure (thermal).

The *ignition properties* are the flash point, auto-ignition point, ignition lag or delay, ignition-point depressant or "igniter" action, auto-ignition or pre-ignition characteristics, pre-ignition knock-delay factor, molecular structure (ignition).

The *combustion properties* are the compression-stroke fore-reaction or pre-reaction characteristics; pre-reaction "cold-flame" reactions; pre-combustion or pre-flame reactions; combustion lag or initial combustion delay; peak combustion, temperature, pressure and velocity; transformation velocity effect or combustion turbulence; after-ignition tendencies; combustion exhaust products; calorific content (fuel economy or

mileage); theoretical or stoichiometric (chemically correct) air-fuel ratio; optimum or maximum power A.F. ratio; combustible A.F. ratio range, molecular structure (combustion).

The *knock properties* are the toluene value, aniline equivalent, octane number ratings, octane blending numbers, special-method knock ratings, knock-delay factor, silent-knock tendencies, fuel sensitivity, engine severity factor, lead response or susceptibility, blend lead response or susceptibility, molecular structure (knock).

The brief and general remarks that follow are made on a relative all-other-things-being-equal basis and it should be borne in mind that one fuel property's effects can be swamped out by another's; by engine, induction system, ignition and drive set-up modifications and variations in race-course conditions.

PHYSICAL PROPERTIES

Fuel volatility or boiling point is largely determined by three factors: boiling point (B.P.) or boiling range, vapor pressure (V.P.) and evaporation rate. A significant point here is that the three are not necessarily directly related and two fuels with the same B.P. will not usually have the same V.P. and evaporation rate. The B.P. is the temperature point at which an individual fuel component starts to boil off. The B.P. of the isoparaffin gasoline hydrocarbon isopentane is 82°F.; benzol, 176°; methanol, 148°; ethanol, 173°; ethyl ether, 94°; divinyl ether, 83°; acetone, 133°; methyl-ethyl ketone, 175°; methyl acetate, 135°; methylal, 108°; nitrobenzol, 412°; nitro-methane, 215°; nitro-ethane, 239°; nitropropane-1, 249°; nitropropane-2, 269° and water, 212°.

In purchasing very-low-B.P. fuels as easy-starting fractions, considerable care must be exercised in their handling. These fuels include isopentane, ethyl ether and methyl-isopropyl ether. They should be stored in a cool ventilated area well below their B.P. level, and ignition sources kept far out of range of their highly ignitable fumes. Small samples in sealed-glass containers should be chilled down to refrigerator level before busting off the glass seal tip. In fact, it is advisable to cool down any container holding such volatile fuels before opening them, since some of them boil over at less than summer-air temperatures. For this reason some very volatile fuels cannot be obtained in hot-weather seasons. After opening carefully, great care must be taken to prevent any static or friction sparks from developing during routine handling operations.

Blend boiling range of a mixed fuel is the temperature range over which its lightest fractions start to boil off and the heaviest fractions finish boiling away. The percentage boiled off at various specified temperature points are plotted as a chart to produce the fuel's "distillation curve" or "boiling range characteristic." USAF specs set the boiling range of aero superfuels as follows: 10 to 40% (Turn to Page 30)

THE AMERICAN POWER BOAT ASSOCIATION and the National Outboard Association, by a ballot of their racing members, have opened the doors to competition of stock motors in the outboard racing hydroplane classes. In essence, no distinction will be made between the specially-designed-for-racing motors and the stock motors. Competitors electing to compete in the racing classes will do so with the privilege of making the same conversions or modifications to their power plants permissible in the respective racing motor classes.

In order to smooth the way for this possibility, only one class barrier had to be overcome. The present stock Class A motors are generally of 15 c.i. piston displacement, while the respective racing motors were roughly 14 c.i. Both groups have levelled the piston displacement of the class to a maximum of 15 c.i.

What this will mean to the owners of the popular Johnson KR racing A, whose motors for years have been functioning with a maximum of 14 c.i., is hard to say. At present few of the KR owners I have talked to plan to take advantage of this added approximately 8% piston displacement allowance. Most of them still feel that their KR's can dust off the 15 c.i. Martins and Mercurys.

Whether this is so or not will certainly be proved before many months have passed.

Let's take a look at the present records. The A racing hydroplane one-mile mark stands at 52.109 m.p.h. (A.P.B.A.), established by Bob Cramer with a KR Johnson. The comparable A.P.B.A. stock hydro mark is 48.42 m.p.h., set by Bill Moesly with a Mercury. A little thought concerning Moesly's mark should give some of the KR boys plenty to worry about. Remember, Moesly's record was set using tank gasoline with closed muffler and limited compression ratio. Cramer's mark, not quite four miles an hour faster, was made with a methanol blend, open muffler and non-restricted compression ratio. It is our bet that the converted A stocks can pick up a good part of that four miles an hour difference by switching to racing fuel.

For those stock motor owners who are planning to convert, don't expect any great jump in top speed with open mufflers or the addition of stacks. At high speeds under-water exhausts are already exhausting almost into the air and practically no back pressures are exerted.

Also, the conversion to alcohol blends will require considerable experimentation with
(Turn to Page 32)



One of the big questions for 1953 is whether the double opposed twin 4-60's and P-500 converted pumpers with Class C lower units will be able to hold off converted 4-in-line alternate firing Mercurys of either the Hurricane or Mark 40 models. Both outfits are expected to offer straightaway speeds in the neighborhood of 70 m.p.h. and competition should be keen.

TO CONVERT OR NOT TO CONVERT

A.P.B.A. And N.O.A. Open Door To Stock Motors
In Racing Classes

It's NEWS

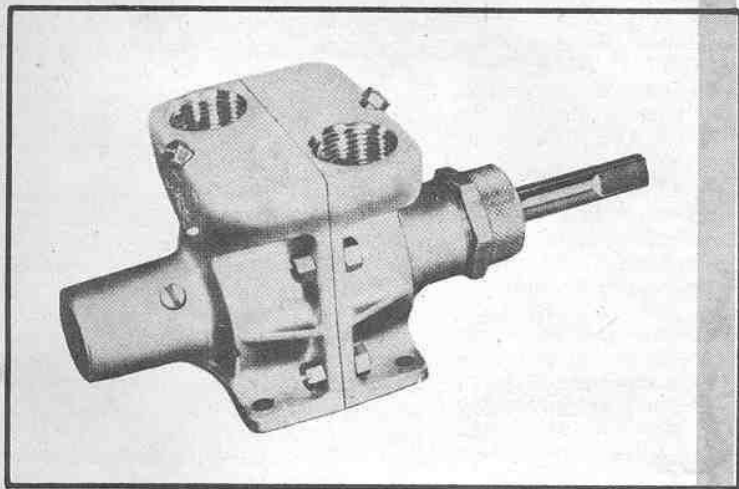


Figure 1—Corrosion resistant, gearless marine conversion pump is designed for long lasting service by I. E. Debbold Marine Supply Company.

JET PROPULSION
Kermath Manufacturing Company of Detroit and Keenan Hanley of Prospect, Ohio, have teamed up to produce a new power unit called the Hanley-Kermath Hydro-Jet, which was recently displayed at the International Amphitheater of the Chicago National Boat Show. The real secret of the Hydro-Jet is the centrifugal impeller type pump, which is attached by shafting with dual universal couplings to a piston engine. Hydro-Jets have already played an important part in filling small boat requirements for the Army, Navy and Air Force and have the asset of eliminating clutch and gearing, propeller and rudder, for the nozzle exhaust turns for steering. It also offers power brakes for, completely reversed, the Jet can stop a small 17' runabout boat in its own length. The pump and jet installation weigh 101 pounds and the present 61 horsepower piston engine weighs 400 pounds. Presently not being marketed with a speedboat audience in mind, it is quite possible that many experimental

models will be set up this year with low power high speed jet propulsion in view.

NEW LINE OF CHAMPION BOATS ANNOUNCED

Champion Boats of 1524 West 15th Street, Long Beach, California announces a complete new line of outboard and inboard hydroplanes and runabouts, ranging from the tiny complete kit Class M hydro, including bow handle, transom handles, coaming pulleys, paint and varnish for \$159 to their new line of 1953 frame kits which for a 266 c.i. hydro costs only \$190. In between is a selection of twenty other models which should fulfill almost any racer's need.

APBA CLASS JS 16' "JERSEY SPEED-SKIFF"

Seaman Sea Skiff Works of Long Branch, New Jersey, is specializing in the increasingly popular Eastern class, Jersey sea-skiff boats offer a combination of high speed runabout fast utility boat for racing and an ideal rough water boat for sport fishing. The 100

horsepower Ford V-8 marine conversion, which clocks 50 mph, will probably be favored by the speed minded. These boats are really built to take a beating from their 1 1/2" white oak stem to their lap strake 1/2" cedar planking.

RACING EXHAUST HEADERS FOR FORDS AND MERC

Many inboard hydro and runabout racers have made attempts to fabricate exhaust headers to fit their needs when pinched for space because of engine stringers and other structural members. I. E. Debbold's Marine Supply Company, 10366 Long Beach Boulevard, Lynwood, California, have come up with a set of exhaust stacks now priced at \$47.50 a pair for Ford 60s and big Ford and Merc motors. Their simple bolt-on header, already drilled and bored with a flange for attaching stacks, is equipped with a baffle to prevent bleeding of exhaust gases from one port to the other, which offsets back pressures and creates a suction that more readily scavenges exhaust. (Turn to Page 25)



Figure 2—Clean, custom-styled engine hood, is simply adaptable from fiberglass wood frame supported piece.

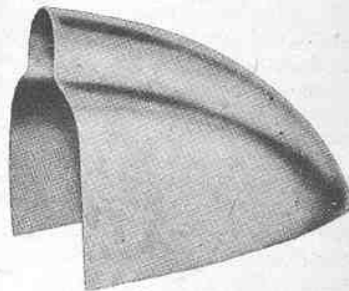


Figure 3—Doll-up and streamlining of inboard hydro can be accomplished inexpensively with the new light-weight I. E. Debbold combination tail and head rest.

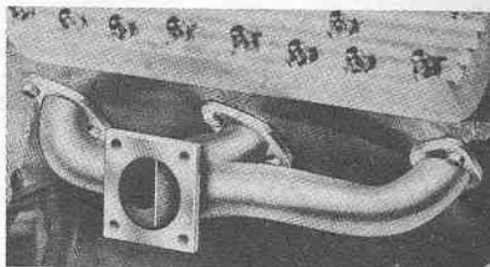


Figure 4—I. E. Debbold Marine Supply Co's custom-made exhaust header for Ford, Mercury and Ford V-8 60.

GET READY TO BEAT THE STARTING GUN (Continued from Page 6)

handful of nuts, bolts and washers. This may sound weird but it's a good method. Shake the mixture violently until your arms are so tired they're ready to fall off at the shoulders. Then flush out and no matter how clean you thought that tank was, you will be amazed at the scale that has been knocked off by the jangling mixture. Repeat the procedure a second time. If scale continues to be sloughed off, then continue your washing until the mixture runs out free of any grit or corrosive elements. Flush the tank with clean hot water. After permitting the tank to dry for a half hour or so, give it a final rinse with about a pint of benzol.

Wash out fuel lines (flexible neoprene is recommended regardless of the type of fuel used as the flexibility of the lines will absorb vibration and prevent leaks) thoroughly in a hot water and detergent solution, rinse with fresh hot water and permit to dry.

CARBURETORS

Your carburetor should be your next cleaning job. Remove any screen that may be in the carburetor and toss it away. Remember, you're going to screen fuel as you funnel it into your clean tank and there should be no need for a screen in the carburetor in the future, as it merely obstructs or slows up the flow of fuel. Blow through the jets to see that they are free of any obstructions. Flush any sediment from the carburetor bowl. If your carburetor is the type that has a cork float, replace this float and get in the habit of replacing cork floats every few races.

If you are a Martin 60 or a Scott-Atwater owner, these motors are equipped with Tillotson MD series carburetors. Three sections of this unit should be carefully blown out with a compressed air hose. You can take these parts to a local garage and borrow their air hose to do the job. A word of warning first: *don't* put an air hose to any carburetor until the entire carburetor has been disassembled as the pressurizing may collapse the lightweight hollow metal float. With carburetor removed, place the air hose at the fuel body where the fuel line connection is made and carefully blow out fuel inlet channel. The main nozzle and air bleed vent tube are cleaned after the main nozzle is removed from the upper body casting. The idling fuel channel is cleaned out by removing the idling adjustment screw.

Mercurys are equipped with Tillotson AJ series carburetors. In addition to cleaning these, check carefully to see that after reinstallation and fueling, the float level of the bowl is 11/16" below the bowl rim.

With the Scott-Atwater and Martin MD series Tillotsons, with the fuel bowl held in an upside-down position, the lowest point of the float at the free end should project 1/64" to 1/32" below the end of the fuel bowl. To reset, if this is not correct, remove the float, and carefully bend the vertical float level just

enough to attain this proper measurement. If after reinstallation and fueling, the level rises beyond the float setting point, remove the inlet needle and seat and with varnish remover on a piece of lint-free cloth, clean the seating surface. To reset, place the inlet needle in its seat, tap very lightly several times while turning the inlet needle with thumb and forefinger. If after installing, the proper float level still is not attained, a new inlet needle and seat assembly is called for.

Many Evinrude carburetors have a small spring holding down a poppet valve in the throat. For peak performance, the tension of this spring must be correct and since these vary, you should check an Evinrude manual.

For full information on your carburetor, you might well want factory manuals. Tillotson may be reached by addressing the Tillotson Manufacturing Company, Walcott Blvd., Toledo, Ohio; Vacturi type carburetors found on racing Johnson are made by R.F. Bracke and Co., 5462 Elston Ave., Chicago 30, Ill.

VALVES

Stock outboards are largely equipped with reed valves rather than rotary valves and also require a last minute check. With carburetors removed for cleaning, remove, too, the carburetor adaptor and/or intake manifold as the case may be with your particular engine and check the reed valve plate assembly. The valves should lie flat on the plate and effectively cover the ports. Don't attempt to adjust these. Reed valve assemblies are cheap and it's practically impossible to straighten or re-bend bent reeds to make them seal properly.

When inspecting the intake manifold or replacing a reed plate assembly, be sure that the manifold is free of all dirt, for foreign matter lodged under reeds can cause quick breakdown, inefficient valve action and fracture to the reeds. Always install a new set of gaskets when installing a reed assembly.

MAGNETOS

The magnets in flywheels may, through jarring, lose their magnetism. It is recommended that you have the flywheel "bumped" and recharged several times a year. Any large outboard repair shop can do this for you by inducing a new electric charge into the magneto and, with a little know-how on the bumping process, jarring the field so the poles are proper. While it is possible for you to make an electromagnet to charge flywheels at home, the charging usually only costs \$1 handled by the expert.

With the flywheel removed and recoil on stock motors taken off, the next step is to check breaker point assembly and adjust points. First check the breaker point assembly. If points don't fit properly when closed or are burned and pitted, replace them with new point assemblies. If they appear in fair condition, then with "00" sandpaper, clean up the

points, and reset for a gap of .018" to .020". Since the fiber that contacts the cam on the flywheel will in time wear, points should be cleaned and reset before every race. High speed miss in testing is usually traceable to one of two things: either points set too closely together or a faulty condenser.

Condensers also are inexpensive items and, for the racer who takes his game seriously, certainly the mag plate should be equipped with a new set of condensers every season.

Two types of breaker mechanisms are common to outboard motors. One type uses a rocker arm with one tungsten contact on one end and a cam follower on the other. The other type has a movable contact mounted on spring steel, fixed at one end with a cam follower fiber on the other. On the spring type, the spring is mounted on a moveable base and rests into a brass pivot arm. It is well to remove this section of the point assembly and, with crocus cloth, clean up the pivoting rod. Before re-assembly, place a light coating of vaseline on the rod.

When installing new points check carefully that the two tungsten contacts meet squarely. Frequently these are not manufactured too accurately and you must bend the parts slightly at time of installation. Points should be adjusted exactly 180° apart. Adjust one set to open fully at .018". Place a scribe mark on fuel tank and flywheel. Then rotate the flywheel exactly one-half turn and reset the other set.

Magneto timing of an outboard is accomplished manually by advancing the spark lever by hand. You don't "time" the spark of an outboard. However, for greatest efficiency you do time breaker setting in connection with exhaust and intake port opening and closing, which will be taken up fully in a future article.

CRANKS, HEADS AND LOWER UNITS

It is well next to check the end-play of your crank. This is done, with flywheel assembled, by lifting gently with the hands, gripping under the lower edges of the flywheel. Some end-play is required; .005" is a good standard. If you find more than approximately .010" end-play, damaging vibrations may be set up in your motor. End-play is eliminated by inserting shims at the lower and upper ends of the crank, between crank ends and bearing surface. Most serious racers replace piston rings after each racing event. This practice will also permit inspection of the block for any scores, and wrist pins for possible fractures.

Once you have established a good sealing surface between the head and the head end of the cylinder, it isn't wise to remove the studs. Uneven tension may cause warpage. It is well, however, to check these head studs with a torque wrench. The following is a recommended list for torque pounds: on

(Continued on opposite page)

FRED MATHEWS WINS THE N-1 AGAIN!



April 17, 1953

Dear Mr. Hersey:

Thank you for your nice letter of April 10th. As you requested, I am sending you a couple of pictures for publication in your magazine. Use the one you consider best.

When A.P.B.A. listed the high point awards for the year 1952 I could not understand why I was not again awarded the N-1, as I thought I had accumulated the highest number of points. I then contacted the secretary of A.P.B.A. and by return mail received a letter of apology for a mistake made by A.P.B.A. The secretary informed me my record had been mis-filed and asked what they could do to rectify it. I suggested that they print a retraction in the A.P.B.A. *Propeller*. Since the incident I have again received my membership card with the N-1 rating for the year.

As you requested, I am listing below

some of the highlights of my racing career:

- Sept. 1949—New England States Champion C-Service, Lake Winnapasaukee, Weir, New Hampshire.
- Sept. 1949—Eastern Divisional Champion C-Service, Lake Quinsegamond, Worcester, Mass.
- Aug. 1950—New York State Champion C-Service, Alexandria Bay, N. Y.
- 1950—High-point Amateur for Nation in C-Service.
- High-point winner New York Outboard Racing Association for 1947—1948—1950—1951—1952.
- Holder of Number N-1 for four years a-running.
- Aug. 1951—Eastern Divisional Champion C-Service Niagara River, Tonawanda, New York.
- Sept. 1952—Eastern Divisional Champion C-Service Red Bank, New Jersey.
- Oct. 1952—National Championships — Lake Alfred, Florida:
 - 1st Heat—1st Place
 - 2nd Heat—D.N.F.—Broken fuel line.
 - Overall—Third Place at Nationals.

Thanking you for your kind interest.

Very truly yours,
Fred Mathews
Watervliet, New York.

GET READY TO BEAT THE STARTING GUN

(Continued from opposite page)

5/16" diameter studs, use 20 lbs; on 3/8", use 36 lbs; on 7/16" use 65 to 70 lbs.

Replacement of rings and inspection of the block can be accomplished by removing the spark plugs and loosening the block at the case end.

Check over all engine bolts. Take no chances; install new bolts or Allen-head screws on the steering bar.

Finally, take down your lower unit and inspect gear teeth for excessive wear or possible fracture. A thrown gear tooth is almost certain to be tossed through the side of the torpedo, and a well-contoured torpedo represents countless hours of work. Refill the unit with a lower unit grease, hypoid oil or what-

ever your particular preference may be.

If you have not checked over your hull, it may be well to review the points covered in "Hull Care and Conditioning" in BOAT SPORT, February '53 issue. Not covered there but important, check over steering cable pulleys. See that they are properly lubricated and securely fastened to the deck or to the gunwales, lubricate bearings in your steering wheel drum and lubricate springs and bowdoin cable for your throttle.

With a fresh fuel supply and items covered in the check-off list in BOAT SPORT, February, page 17, you should be ready to beat the starting gun—but not literally! We don't want you disqualified after all this work. (End)

IT'S NEWS

(Continued from Page 23)

gases. Why experiment when this easy-to-install, already proven kit is available?

Another welcomed accessory for the hydro builder is Debbold's prefabricated lightweight fiberglass tail piece and head rest, which weighs only 4 lbs. and also a custom styled engine hood made of fiberglass weighing 9 lbs. Easy to cut down and easy to cut for carb and stack

holes, these are designed for inboard hydros from the 48 through the 266 c.i. class. (See Figures 1 to 4 on Page 23).

ECON-O-POWER RUBBER ECCENTRIC PUMPS

Lehman Manufacturing Company, 972 Broad Street, Newark 2, N. J., realizing that the water pump on most automotive engines when used for marine purposes, doesn't prime properly (and so the trend in marine engine cooling is to eliminate the bronze gear water pump),

has come up with a gear-less, simple, rugged, self-lubricating positive flow pump designed for a lifetime of service, built in three models, 3/8", 1/2" and 3/4", ranging from \$28.50 to \$38.85. Lehman specializes in complete marine conversion kits from four-cylinder Ford and Willys Jeeps through the Ford and Mercury line to and including the Lincoln V-8 152 hp 337 c.i. conversion.

OUTBOARD PARTS AND SERVICE SPECIALITY

Wiseco Piston Company, 3200 Lakeland Boulevard, Wickliffe, Ohio, specializes only in outboard racing parts and services. Of interest to the Mercury 10 drivers who plan to modify, Wiseco furnishes semi-finished racing pistons .050" over-size for both the Merc 10 and Thunderbolt, as well as 1/16" width piston rings from .005" to .020" over-size.

Evinrude Service C Speed twin owners who are modifying and want a faster unit can get the previously hard to find 1931 design lower unit housing ready for finishing and filing for \$60 from Wiseco. And finally, an item that should be standard on all racing equipment, stainless steel non-magnetic fly-wheel guards or catchers at \$7.50, are available for service and racing Johnson and Evinrude Bs and Cs. (End)

WITH THE GREATEST OF EASE

(Continued from Page 13)

edge the inside of the skis down they will part the water, giving you a dry trough to ride in. Being jerked off the dock rather than being pulled up out of the water is a pleasant and much warmer method of getting started. And most anyone can ski in on shallow water or a sand bar without getting more than his ankles wet when he loses momentum and sinks.

Water skiing, and I class aquaplaning in the same category, used to be only for those with expensive inboard runabouts. Now, the advance in outboard motors and boats brings the sport within reach of everyone. And if you don't think there's speed in those big outboards, just get behind any of the new 20 to 25 h.p. models now on the market. It'll be a thrill you'll never forget!

Naturally, the commercial skis are designed for perfect performance and are easier to pull and handle, but you can learn, if you have to, an 8"-wide boards, with an old pair of tennis shoes tacked on about 10% past dead center. In fact, with a little experience, you can ski on anything from a 2 1/2' disc of 1/4" plywood to an ordinary wooden shingle—and even barefoot, at that.

But again, remember that with more people enjoying water skiing every year, more stress must be placed on safety and common sense. Unless you're a professional and get paid for taking chances, it's wiser to always wear a life jacket, to keep your speed down to your ability, and never to cut in close around docks or other boats or skiers.

(End)

KNOW YOUR SPEEDBOAT CLASS

(Continued from Page 16)

specifications but no material may be added to existing parts. Fuel lines and cooling lines may be altered and water inlets may be located at the driver's option. Any fuel that does not exist as a gas at usual atmospheric temperature and pressure may be used and alterations in size may be made to fuel jets.

Chrome plating of cylinders is permitted and cylinders may be honed, bored or ground to .025" above standard oversize. Ball bearings may be used to replace roller bearings. Crankshafts may be beveled and balanced. Interchange of parts made by one manufacturer for those made by another is approved if the parts interchanged meet specifications, hence specially designed racing parts as replacements are acceptable.

Record speed for the class:
A.P.B.A. One-mile straightaway: 57.604 mph, established 2/14/53 at Miami, Fla., by Bill Tenney, driving a Johnson SR powered Neal boat.

Five-mile competition: 53.004 mph, established 10/13/47 at Salton Sea, Calif., by W. G. Sweitzer, driving an Elto powered Neal boat.

N.O.A. One-mile straightaway, 57.973 mph, established 9/22/52 at Lake Village, Ark., by Charles George.

A.P.B.A. CLASS JU STOCK OUTBOARD RUNABOUT AND N.O.A. CLASS J, DIVISION III STOCK OUTBOARD RUNABOUT

Note that the two sanctioning bodies have different specifications and slightly different titles for these two classes.

To be eligible to race in this smallest of the utility runabout classes drivers must be at least 12 years of age under the rules of both sanctioning groups.

Hull Specifications (applicable to both A.P.B.A. and N.O.A.): Stock outboard runabouts under the rules of both sanctioning groups require two or more athwartships (across the boat) seats. The rear seat may be optionally removable, all seats at least 10" wide on a fore and aft measurement and capable of providing a minimum of 15" of width of seat space per person for three persons.

Additional A.P.B.A. restrictions: Minimum size of forward cockpit opening shall not be less than 30" fore and aft. Securely fastened fabric cockpit cover may be used in marathon racing only.

Additional N.O.A. restrictions: Removable fabric decking or decking of any material is permissible in all types of racing at the owner's option.

Lapstrake or reverse lapstrake (planking that looks like German siding) shall have no greater depth from one plank to the next than 3/4". (Note: A.P.B.A. regulations restrict lapstrake and reverse lapstrake depth to 5/8").

Material may be removed for balancing revolving or reciprocating parts, provided minimum weights as specified by manufacturer are maintained. Both sanctioning groups provide an exception and permit no removal of material from flywheels although metal may be added to flywheels for balancing purposes.

Internal passages of powerhead may be polished provided measurements are not reduced below minimum specifications of manufacturer.

Prohibitions: No substitutions of components such as lower units, carburetors, magnetos, etc., unless furnished by the manufacturer as a replacement or modification for a particular model are permitted.

Additional A.P.B.A. specifications: Up to .020" oversize on cylinder bore dimensions will be allowed if manufacturers furnish oversize or unfinished pistons as a stock replacement part.

Additional N.O.A. specifications: Up to .025" oversize on cylinder bore dimensions will be allowed if manufacturers furnish oversize or unfinished pistons as a stock replacement part.

Allowable alterations N.O.A.: The butterfly and idling needle of the carburetor may be altered as necessary for automatic throttle to function properly.

Adaptors or over-length high speed needles will be permitted so as to enable driver to make adjustments while under way.

(Continued on opposite page)

WORLD'S FIRST kit for Model Boat Operated by RADIO CONTROL!

Sleek, Sporty,

Streamlined



Actual photo of model built from Kit B 6-M. Length 28", Beam 9 1/2".

The world's first — and naturally, it's by Sterling! This Chris-Craft beauty is specifically engineered for radio control! By installing radio equipment you have complete control and can maneuver this boat from the shore, like magic! Broad beam and removable cabin provide room for radio control — or for interior detail. Amazingly comprehensive kit. Entirely prefabricated. Mahogany used extensively. This 28" model of the famous Chris-Craft 32' Cruiser is authentic in every detail. Finest boat of its type money can buy! EASIEST TO BUILD! Most fun to own! See it at your dealer's.

KIT B 6-M

995

(less scale marine fittings)
Cast Metal Fitting Set B 6-F
... \$3.50

See These Other STERLING Models!

POWER BOATS	
Richardson Cruiser	5.95
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Chris-Craft Buccaneer.....	7.95
Century Resorter	3.25
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Sterling models
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Please send Kit No. _____
I enclose \$ _____
 Please send free catalogue.
No C.O.D. orders accepted. Add 30c to each price to cover mailing.
Name.....
Address.....
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BS-4



GAMMA GLOBULIN—



the part of blood which gives protection for a few weeks—is in very short supply.

When POLIO is around, follow these PRECAUTIONS



- 1 Keep clean
- 2 Don't get fatigued
- 3 Avoid new groups
- 4 Don't get chilled

A VACCINE



is not ready for 1953. But hope for the future is high.

THE NATIONAL FOUNDATION FOR INFANTILE PARALYSIS

KNOW YOUR SPEEDBOAT CLASS

(Continued from opposite page)

Fins may be added under both A.P.B.A. and N.O.A. regulations.

Weight restrictions, A.P.B.A.: Minimum hull weight, 75 lbs. Minimum overall weight 190 lbs. This includes hull plus driver in racing clothes but not including life jacket, helmet and knee-pads.

Weight restrictions, N.O.A.: No minimum hull weight. Overall weight 195 lbs. This weight includes boat weight with hardware and permanently attached cushions plus driver, in racing togs worn during a race, including life preserver, crash helmet and any other paraphernalia customarily worn.

Additional A.P.B.A. restrictions: Consult technical illustration. Measurements must be a minimum as follows: A—18"; B—40"; C—9"; D—9"; E—12".

Motor restrictions (applicable to A.P.B.A. and N.O.A.): Motors eligible are those with up to 12½ c.i. piston displacement designed as stock service motors, under N.O.A., and up to 7½ c.i. piston displacement under A.P.B.A. regulations.

Modifications permissible: Spray shields and protective cowlings may be removed.

Any type brackets for throttle and steering controls will be permitted. External underwater parts may be polished, provided the contour or specified measurements conform to the manufacturer's motor specification sheet.

Adaptors for spark levers will be permitted to prevent lever creepage.

Fuel: A.P.B.A. permits only motor fuel compounded of standard pump gasoline and petroleum motor oil. Use of special racing mixtures or special racing oils or additives is prohibited.

N.O.A. restricts drivers to gasoline, motor oil and to special additives containing no combustible features so that special racing oils are permitted.

Record speed for the class:

A.P.B.A. One-mile straightaway, 22.692 mph, established 7/14/51 at Devils Lake, Oregon, by Don Benson driving a Mercury powered Morris hull.

Five-mile competition, 22.026 mph, established 9/21/52 at Oakland, Calif., by Marilyn Donaldson, driving a Mercury powered Swift.

N.O.A. One-mile straightaway, 37.521 mph, established 9/28/52 at Dallas, Tex., by Buddy Lane, driving a Martin motor, hull unknown.

Three-mile competition, 33.180 mph, established 9/28/52 at Dallas, Tex., by Buddy Lane, driving a Martin motor, hull unknown.

Note: No direct comparison may be made between A.P.B.A. and N.O.A. record speeds since different cubic inch allowances exist for the classes.

136 C.I. (STOCK) CLASS

(rules established by A.P.B.A.):

This inboard racing hydroplane class, authorized on a probationary status in February of 1952 and accorded full status effect on March 1, 1953, holds

(See over)

BUILDING YOUR OWN SPEEDBOAT

Save up to 50%



SEND FOR BIG NEW 1953 CATALOG

Unusual, new and original in-board speedboat hardware at tremendous savings direct from the manufacturer.

Send 25¢ for up-to-the-minute catalog packed with values. Write today Dept. BS



I. E. DEBBOLD'S MARINE SUPPLY CO.

10366 Long Beach Bl.
Lynwood 12, California

SID-CRAFT Smashes World's BU 5-Mile Record



Jim Coulburn of Burlington, N. J., driving a stock model SID-CRAFT drove his BU outboard to new, sizzling records in Florida of 49.793 m.p.h. for the mile straightaway and 45.918 m.p.h. for the five-mile competition. Join the record breakers by ordering your SID-CRAFT now. "We 'took' the BU class in the Albany-New York Outboard Marathon! John Covals of Hasbrouck Heights, N. J., won with a Sid-Craft in BU. Bob Wahl of Rochester, N. Y., placed second with a Sid-Craft in the D's. Ronald Zuback wins National Championship at Oakland Calif. in BU.

Mail Address: Route 43
SID-CRAFT BOATS Maple Ave., Nixon, New Jersey
Shop Address: Highway 25 off Woodbridge Ave., New Brunswick, N. J.

BACK ISSUES

Because of the continuing demand we have been able to secure a few copies of the December, 1952, April and June, 1953, issues of BOAT SPORT. Sorry, but no other back issues are available any longer. Send 25c for one issue, or 75c for all three to BOAT SPORT, 215 Fourth Ave., N. Y. 3, N. Y.

With AQUA METER

America's Leading Marine Speedometer

for OUTBOARD and INBOARD boats!

CHECK YOUR SPEED—

on the course for the Class B (standard unit) event. I got off to a poor start and in trying to pass too many boats in the first turn I lost it and went under. Knowing that there were several propellers to pass over me I was a little frightened because of the buoyancy of my life jacket. I could not keep down under water long enough. I finally bobbed up and barely managed to twist my head out of the way of the final boat's lower unit. (See over)

Model shown is the newly improved "45 OUTBOARDER" with easy-to-read two-tone dial in chrome-plated brass case, 8 ft. KOROSEAL connecting tube and NYLON plastic impact tube with SAFETY SPRING TRANSDUCER. See the "45 OUTBOARDER" in your favorite marine magazine. No "throw-away" jig required. All parts prefabricated!

14 MODELS • 8 to 18' • FROM \$39
Prams—Car Tops—Skiffs—Rowboats—Cruisers
Sailing Prams—Speed Hulls—Runabouts

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3860 North Main St., Branford, Conn.
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Orillia, Ontario, Canada

KNOW YOUR SPEEDBOAT CLASS *(Continued from preceding page)*

promise of great activity. This class has been established to provide a less expensive racing class in the 136 c.i. category. The so-called 135 c.i. Class, which permits displacement up to 136, also permits full race conversion and the expense of motor installation is higher.

No restrictions on amateur or professional status is imposed but drivers and/or crew members must be at least 16 years of age.

Hull: A minimum length of 13'6" with at least one water-tight bulkhead. Although no restrictions are placed on the design of the hull, in general hulls used are three-point suspension hydroplanes with designs identical to those being used in the 135 c.i. class.

Motors: Motors must be stock automobile motors listed in the National Automobile Dealers Red Book, built in the United States and having no more than 136 c.i. of piston displacement. Generally stock Ford V-8 60s have the nod in this class.

Permissible alterations are as follows:

- (a) Modification of cooling system.
- (b) Exhaust system may be modified so exhaust passes through deck, side, transom or underwater and exhaust manifolds may be water cooled.
- (c) Copper tubing may be placed in the crankcase for oil cooling purposes and the oil pan altered to accommodate this modification.

(d) Intake and exhaust passages in block, manifolds and heads may be ground and polished to remove casting irregularities and to correct alignment of parts, providing alterations do not bring measurements above or below manufacturer's specifications.

(e) Cylinders may be rebored to a maximum of .065" oversize to accommodate any oversize piston supplied as stock replacement part by the manufacturer.

(f) A wedge may be installed beneath the carburetor to bring its vertical axis upright to compensate for motor angle.

(g) Substitution of components such as distributors and flywheels are permitted only if the motor manufacturers supply such components as stock replacement or optional equipment for the specific model motor involved.

(h) Spark plugs, piston rings, coils, condensers of any make available on the open market may be substituted.

(i) On the Ford V-8 60 motor, it is permissible to use either a Stromberg 81 or 97 or Chandler Grove 92 carburetor.

(j) Stock cylinder heads may be milled without restriction but they may not be filed.

(k) Valve timing may be altered only by changing the setting of the cam shaft relative to the crankshaft.

Prohibitions:

- (a) No changes are permitted in valve area, valve seat or in shape and size of valve.

(b) No form of supercharger or injection device may be used.

(c) No gearbox may be used to alter the speed, angle or direction of power application from motor to propeller.

(d) The propeller must be of a make and type that is offered to the public at a price not in excess of \$35.

(e) Fuel is restricted to gasoline of the type sold as regular or premium fuel for automotive or marine service.

Boats in this class will carry the prefix S on their bows. (End)

NOVA SCOTIA SUCCESS STORY

(Continued from page 20)

know them here in the United States.

Their best speed mark to date has been about 40 m.p.h. made by S. O. MacMillan with an Evinrude 25 horsepower stock motor on a Moulded Plycraft Boat.

Most of the boats in the club have been designed by Richard Cole, who won the Florida Marathon in 1952. The club was delighted when Mr. Cole entered one of their regattas, using the same boat he had so successfully competed with in Florida, but racing against the 12' utility boats he had designed. The best Cole could do was a fourth and a fifth. But the club members did concede that their course was more difficult than a marathon course. It was laid out in a rectangle with four sharp, wide-open turns but it is just this sort of all-out spectacular racing that has helped the Avon Boat Club put outboard racing over with a bang in Nova Scotia. (End)

BEETLE BOMB KID

(Continued from Page 11)

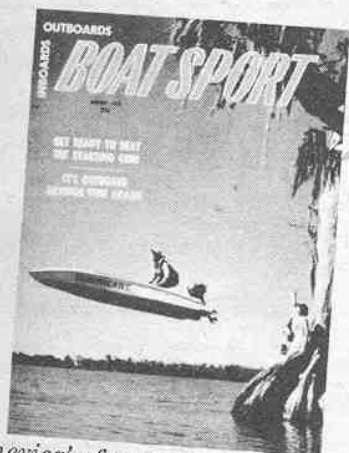
a five dollar bill that I framed and have hanging in my room today. For that race I ran my 10 h.p. Mercury with the regular service lower unit (the quick-silver unit was considered faster of course but I didn't have one then) on a Speedliner B boat.

During that first race my feelings were no different than they are today except that I didn't know how to time myself between the five minute and one minute gun and did not know how to pace myself to come down to the starting line from the crack of the minute gun until the starting flag dropped. As a result I was where I shouldn't have been—on the outside of the pack instead of inside and this made me have the long way to go. After more coaching from Mr. Culver and a few races under my belt I learned that the shortest way around a course is to follow a direct line from one buoy to another and always to keep on the inside so that I have no one else's wake to cross.

That summer I entered four races in our local circuit of Piqua, Dayton, Troy and St. Marys, Ohio. Of these four I took a first, second and fourth.

1951 was better. I entered twenty-six races in eight states. In twenty-four of these I placed first, second or third. In the other two I ran fourth and fifth. At

(Continued on opposite page)



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CORRECTION



Carl Lawler at the time he was getting ready for last year's Albany-New York Marathon. Carl is looking forward to a busy season. No doubt, he'll be racing somewhere around Long Island when this issue of BOAT SPORT hits the newsstands from Coast to Coast.

Dear Sir:

In the June issue of BOAT SPORT on page 5 is an error in the naming of the contestants in the photo shot of the boat race. The rider of "Hi-Mabel" is myself, Carl Lawler, instead as stated, Tony Rodrigues. Please correct this error. You may obtain proof of my statement by consulting the Official Long Island Association of Racing of which I am a member. Thank you.

Yours truly,
Carl Lawler.

P.S. Howard Edwards of the "News Day" of Long Island was the photographer who took this particular picture.

BEETLE BOMB KID *(Continued from opposite page)*

the end of the year I was professional high point driver in Ohio, A.P.B.A., in A and B Stock Utility and A and B Stock Hydroplane. I was plenty thrilled to get a letter from Mr. Carl Johnson, Secretary of the American Power Boat Association telling me that I had the privilege of carrying the number 2-S on my boats in 1952.

1952 has been my most successful racing year. I started in thirty-two races in the four classes mentioned above and never finished any farther back than third. I was fortunate enough to win the Regionals at Paw Paw, Michigan, in all four classes which entitled me to go to the Divisionals already qualified. The Divisionals were held at Winneconne, Wisconsin, and at the end of this race I again had qualified all four classes, this time for the Nationals held September 1952 in Oakland, California. When the Nationals were over I had won three firsts and a fifth: a first in A Stock Utility, a first in A and B Hydroplane and a fifth in B stock utility. Again in 1952 I was high point man in Region Six.

During my racing career I have used Speedliner and Penn Yan utility boats, and Swift hydroplanes. I have kept up with the new model boats and have used Mercury motors exclusively. In three year I have worn out two hydroplanes, seven utility boats and five Class A and B Mercury motors.

I didn't have a single flip during my first year of competition. However, in 1951 my nerve had advanced to the point where I could see no danger ahead and had my first spill in a race at St. Marys, Ohio. I had finished first in the A Stock Utility event and had come out on the course for the Class B (standard unit) event. I got off to a poor start and in trying to pass too many boats in the first turn I lost it and went under. Knowing that there were several propellers to pass over me I was a little frightened because of the buoyancy of my life jacket. I could not keep down under water long enough. I finally bobbed up and barely managed to twist my head out of the way of the final boat's lower unit. *(See over)*

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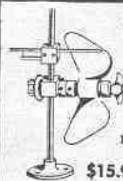
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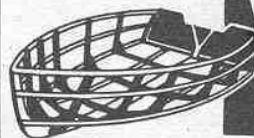
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BEETLE BOMB KID *(Continued from preceding page)*

I had much the same experience in the last race of the season. I was riding in first spot at Aurora, Indiana, but I was worried because I knew my flywheel had come loose and was ready to fly off at any second. My Dad had told me to keep low in the boat if I ever suspected this had happened, so the flywheel wouldn't hit my head. I had just cornered the last buoy and was heading down the stretch for the checker when I flipped. That one was caused by my inability to keep the boat properly balanced because of the awkward position I had taken in order to be sure to avoid the flywheel when it let go. My buddy, Roy McCoy, was trailing me close and he nearly flipped himself trying to dodge the spot where he saw me go under. This was really the only time I was definitely scared during an upset. Due to Roy's quick maneuvering he probably saved my life.

Another close call was in a race on Bell Isle's Blue Heron Lagoon at Detroit when I was rammed by another boat. The crash jammed my throttle open and I finished six laps with a damaged hull and had to regulate my speed with the spark control. I finished

second in that one and sort of figure I earned it the hard way.

To win races I think a fellow should start out when he's young. I began racing when I was twelve and I'm fifteen now. I consider the most important thing in driving is watching the field carefully and getting good starts. Also, of course, you have to be sure you have your motor set at the right transom height; also that the angle of attack of the lower unit is at the right angle. Above all keep your motor tuned to the last degree of efficiency and be certain you have the proper pitch and diameter propeller for the type of water on which you are racing.

I finished the 1952 season with a total of fifty-four trophies in my collection plus money and some merchandise prizes. One of my most coveted awards is the Jack Shaefer Trophy which I won last season. I missed winning this in 1951 by one second and my real goal in 1952 was to come back and win it—and I did. But remember, that aside from winning, which of course is fun, the real kick in the racing game is just being in there competing. (End)

CONTEST WINNER COPS MARTIN "100"

(Continued from Page 19)

them go shopping. Route No. 7, running on low ground along the river, passes through the small town and connects it with its larger neighbor by way of a bridge, a few miles downstream. During high water times, which happen often on the Ohio River, Proctorville is often cut off entirely from Huntington except by boat, and at a flood level of 54 feet the town is completely surrounded by water.

In April of 1948, when the river came up in the spring thaw, Charley Pinkerman put his outboard motor on an old steel, scow-built lifeboat salvaged from a steam ferry that had once run across from Proctorville before the bridge was built, and started a high-water ferry service to take people to work, deliver some of the newspapers, bring milk and bread and other supplies over to his stranded town. When the waters subsided, the ferry stopped operations; but it was ready for service whenever needed, and it saw a lot of it.

Before the big flood was over the level came close to 69 feet and water was up to the second story windows of most houses. The weather was so cold that no one else would take a boat out. But Charley didn't wait. He drafted himself and his outboard ferry into emergency, around-the-clock service. For a full week the town of Proctorville was cut off, and during every day and night of that week Charley's boat was fighting its way back and forth across the raging river, and Charley was in it. Besides bringing in food supplies so badly needed, he delivered the mail once daily and brought over the morning and the evening papers, which proved to be a wonderful morale booster for the marooned town. He carried peo-

ple regularly to work, taking as many as seventeen at one time. For awhile during the flood, the river was so full of driftwood and floating debris—there was always ice—that shear pins were snapped almost as fast as he could put new ones in. The racing current sometimes carried him miles downstream before repairs could be made. He brought the doctor in time and time again. At ten o'clock one night a woman had to be taken across to the hospital. Charlie got her there just in time; five minutes more and her appendix would have ruptured. Such things were all part of the night's work—and no charge was made for any of these services.

Charley has a scrap-book with clippings and pictures of his ferrying service during various flood times. The caption of one picture refers to him as "the captain." This has been crossed out and in the margin is written: "I am no captain." This is typical of his nature. His letter describing these experiences is written simply and sincerely, and makes little mention of his own heroism, which was revealed later by others. Charley Pinkerman knows his river and, like every good boatman, respects it for what it is and for what it can be under dangerous conditions. But nevertheless, he does not hesitate when there is a job to be done.

BOAT SPORT feels that, of all the many thrilling and courage-testing experiences which its readers sent in, this of Charles V. Pinkerman is the most unusual and, at the same time, best typifies the American spirit of digging in and doing the job, no matter what the odds are against you. It also is a well-deserved tribute to the outboard motor

industry of this country, showing the versatility of its products for both pleasure and hard, important work.

Mr. Pinkerman was presented with his prize, a 10 h.p. 1953 Martin "100" outboard motor, before a Sinclair Oil dealers' get-together in Detroit, Michigan, on April 6th. BOAT SPORT's editor, Harold Hersey, made the presentation in a ceremony broadcast from station WXYZ over a national radio network on Don Wattrick's program. Don is the Sports Director of Radio Station WXYZ in Detroit. He has been broadcasting for the past eleven years, covering Tiger baseball, Lion football and Red Wings hockey—all of Detroit. Last year he televised the Cleveland Brown football games. He has three daily sportscasts at 4, 5 and 6 P.M., Mondays through Fridays over WXYZ, and an ABC network sports program at 11:15 P.M. each Monday. He also televises the major city fights each Thursday over ABC television.

In conclusion, BOAT SPORT also wants to thank everyone connected with Martin Motors in Eau Claire; Bob Parkans, of the Daybert Distributing Company in Detroit, the agent for Martins Motors in this part of the Midwest; and Doug Campbell of WXYZ, for their help in making the entire affair a big success.

(The End)

THE INSIDE STORY OF RACING FUELS

(Continued from Page 21)

at 167°F., depending upon the weather and climate conditions, 50% minimum at 221°, 90% minimum at 293°, 100% evaporation end-point at 356°. Government motor-fuel specs permit a higher end-point of 365°. Summertime U.S. motor gasolines average about as follows, according to a National Bureau of Standards Bulletin (N.B.S.)—Initial boiling point (I.B.P.) at 100°F., 5% @ 120°, 10% @ 137°, 20% @ 165°, 30% @ 191°, 50% @ 237°, 70% @ 283°, 90% @ 371°, 100% end-point (E.P.) @ 404°. For winter weather, the above temperature points average about 10° lower for the obviously necessary higher volatility. In general, the I.B.P. fraction in the lowest-temperature 10% range is the easy-starting and fast-warm-up fraction which is adjusted to suit local weather conditions. The lighter fractions up to about 250° or so, supply the main, clean burning, fast igniting even distribution components. The heavy end fractions in the 300°-405° range which cause hard-carbon deposits, crankcase lube-oil dilution and slower combustion, are tolerated mainly for practical military logistics, wartime industrial potential and petroleum reserves conservation reasons.

The above general comments point to several practical reasons for blending race fuels rather than relying upon "straight" fuels. However, in blending, it should be remembered that two or three

(Continued on opposite page)

THE INSIDE STORY OF RACING FUELS

(Continued from opposite page)

fuels can form constant-boiling mixtures in certain ratios which behave much like single fuels. Such colloidal semi-compounds (azeotropes) usually possess B.P.s lower than that of any of their components. This might be referred to as a special case of "blend B.P." and illustrates another minor advantage of blends over straight fuels in the way of a highly volatile easy-starting fraction. However, if all or too much of a fuel gets into an azeotrope combo, some carb flat-spots and loss in V.E. and power output may develop. Blending in a complex-blend component like aviation gasoline with its multitude of wide-boiling-range fractions, tends to produce a more diversified mixture, a greater number of smaller "steps" in the fuel's distillation curve and less carburetion and induction troubles.

Fuel Vapor pressure (V.P.) is the gaseous pressure it devolps in a sealed tube at a specified temperature level, usually at normal temperatures or at the B.P. In the automotive industries, it is usually specified at the 100°F. point, which is the Reid Vapor Pressure (R.V.P.), since the fuel evaporation characteristics in the hot fuel-supply at the engine area is a principle factor in fuel vapor-lock tendencies. USAF specs limit the R.V.P. of aero superfuels to 7 lbs. sq. in. for this reason. Van Winkle lists the R.V.P. of special motor in his "Aviation Fuel Manufacture" as follows—benzol 3.2 lbs., methanol 5.3 lbs., ethanol 3.2 lbs., di-isopropyl ether 5.3 lbs., acetone 7.6 lbs., and methyl-ethyl ketone 3.2 lbs. Note the fairly high R.V.P. of acetone, hence its value as an easy starting fraction in alky blends in small percentages.

Blends of mixed fuels or solvents usually possess somewhat higher V.P.s than would be expected from their individual component V.P.s and mixture ratios. This might be called their "blend V.P." and is another minor advantage of blends over "straight" fuels in the way of easy cold-starting and fast warm-up, at a slight loss in fuel charge density, engine volumetric efficiency (V.E.) and power output at lower R.P.M.s.

The evaporation rate is the number of minutes or hours for an arbitrary amount of fuel or solvent to 100% evaporate from an open dish or plate at normal pressure and temperature. This might be rated in still air, or in fanned air as an accelerated test. This fuel property probably has some relation to a fuel's latent heat, specific heat, thermal conductivity, surface tension, viscosity, B.P., V.P. and moisture content, according to Gardner in his work on industrial paint finishes and thinners. Fuel evaporation rate has some bearing on induction system evaporation and distribution and engine V.E. In his "Industrial Solvents," Mellan lists the relative 100% evaporation rates of benzol at 1.85 hrs., methanol 1.40 hrs., ethanol

2.20 hrs., acetone 0.72 hrs., methyl-ethyl ketone 1.45 hrs., methyl acetate 0.68 hrs., and ethyl acetate 1.40 hrs. The Barrett Division aromatic solvents catalogue lists the evaporation times of 5 c.c. samples of a few solvents poured on a brass plate as follows: benzol 12 min., acetone 5 min., ethyl acetate 10.5 min., kerosene 4,000 min. Note the high evaporation rate of the volatile acetone.

As in the case of the B.P. and E.R., blends of fuels often possess higher evaporation rates than indicated by their component ratios. This might be designated as the "blend evaporation rate" with another slight blend easy-starting advantage over straight fuels.

Generally speaking, in considering fuel volatility (B.P., V.P. and E.R.), the lighter and more volatile fuels tend to provide easier cold-starting, faster engine warm-up, faster ignition and combustion, and superior hi-speed acceleration and top RPM performance. For this reason mainly, the writer prefers to limit fuel-blend end-points to a low 200 degrees F. or so, wherever practical. Automotive engineers of the National Bureau of Standards stated that at least 5% by weight of fuel must evaporate in a cold engine before the ignition spark will fire up the very lean mixture. For this reason, 1 to 10% of high volatility fractions such as aviation gasoline, ethyl ether, acetone, isopentane, etc., is usually blended into racing fuels.

The more volatile fuels tend to produce greater evaporation in the hot induction system, better manifold distribution, smoother and quieter engine running, a lower A.F. charge density, less V.E. and less power output at lower speeds. They also tend to require less induction manifold temperature levels at the exhaust ovens in stock 4-stroke engines, and less carb acceleration-pump capacity since there is less acceleration-charge condensation of fuel in the manifolds. They also develop less engine hard-carbon deposits, spark-plug fouling and crankcase lube-oil dilution and possess a somewhat lower density, calorific content and fuel economy.

One disadvantage of heavy fuel fractions in carb-and-manifold equipped engines is their centrifuging and fold-back effects against the outer manifold-wall bends which starve out either the inner or outer siamese-twin cylinders at different speeds or produce poor A.F. mixing in individually-ported four-stroke engines. In general, the writer tries to avoid the use of fuels with B.P.s much over 200°F. for racing work because of ignition and combustion lag effects, and their hard carbon fouling and lube-oil diluting actions. The modern aviation and motor-fuel trend is toward more volatile fuels with less heavy fractions in the 300°-400° end-point range.

(To be continued in the next issue of BOAT SPORT)



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TO CONVERT OR NOT TO CONVERT (Continued from Page 22)

compression ratios and spark plug heat ranges.

Bill Tenney, present holder of the A.P.B.A. Class B hydroplane mark, has chalked up 57.604 m.p.h. The SR Johnson racing motors presently competing in the B racing classes have over a period of the last fifteen years or more had every known legal modification trick tried on them. Further prop refinements, improved fuels and that one-in-a-thousand motor combination may conceivably someday bring a 60 m.p.h. straightaway average SR onto the course.

The A.P.B.A. B stock record holder is Clay Fox with a mark of 53.321 m.p.h. with a Mercury. The slightly more than four miles per hour existing differential conceivably can be quickly leveled off by the use of racing fuel and minor modifications.

So far, from the analysis, it would appear that the converted stocks will be able to compete on a fairly even basis with the Class As and Bs.

Under the new rules changes of both organizations, motors of over 30 c.i. piston displacement will compete in the Class F racing class. This particular class at one time was one of the most colorful and spectator-appealing classes at any regatta. The high whining scream of the 4-60 Evinrudes was pretty music to any racing man's ears.

Harry Vogts at the N.O.A. Nationals at Arkansas last fall averaged out, on a two-way mile trap run a new mark of 67.416 m.p.h. The Class D stock (and the four cylinder Merc 25s and new Mark 40s will run against the 4-60 Evinrudes) mark is held by Bert Ross, Jr., at 69.739 m.p.h. So—on the surface it would appear that the strictly stock Mercs not only will get in the F drivers' hair but by comparative speeds should whip the pants off Evinrude 4-60 owners.

Actually this isn't quite the case and Class F during 1953 should be for the first time in many years a terrific class to watch. But if competitive records are to be broken, here's one class where they should be broken in a hurry. For years 4-60 owners have been complaining that the gear box and lower unit provided as stock equipment for the F operated as a handicap, that if they were to be permitted to use the PR 65 Johnson racing unit or its Evinrude equivalent, miles per hour could be added to the class. Actually that this is true has unofficially been proved on several occasions; when competing as Class X (unlimited outboard) drivers took advantage of the more lenient ruling and adapted PR 65-type units to their 4-60s. Sure, and they jumped their speeds by multi miles per hour.

Both sanctioning groups in the Class F hydroplane class for 1953 permit the use of any gear box legal for use on Evinrude, Johnson or Hubbell Class C engines. With this added oomph, mile straightaway speeds of 75 plus are not to be unexpected.

However, several years ago a modi-

fied Mercury easily topped the 70 m.p.h. mark so the boys on the beach are really going to be watching F hydros in '53 for added excitement.

Much confusion exists among the stock hydro competitors as to just what they are permitted to do with their motors. The answer is a simple one. If you are the owner of a stock motor and plan to convert in order to compete in outboard racing hydro competition, you are permitted to modify the engine in accordance with the permissible modifications accorded all racing engines under A.P.B.A. regulations and all Division 1 motors under N.O.A. regulations.

If you are planning to run both stock and racing classes, that is where the problems begin. As has been pointed out by Carl Johnson, Editor of A.P.B.A.'s "Propeller," you have three choices:

1. Stay stock and compete exclusively in the stock divisions;
2. Stay stock and compete in outboard as well as stock outboard divisions;
3. Convert to racing and compete exclusively in the outboard divisions."

If you were competing last season in stock hydros and your motor had started to run downhill, if you decide to convert, your present cylinders may be bored out as much as .025" oversize. For the first time you are permitted to replace your pistons with oversize pistons, which you can obtain from any of the outboard racing parts accessories suppliers. You are also permitted to have your cylinders chrome plated.

Here's a word of warning concerning chroming. The racing drivers have chrome plated with one primary thought in mind: longer life to a set of cylinders—particularly several years ago when no racing parts suppliers were casting new cylinders and new racing parts could not be bought but old ones had to be reworked and repaired. Shiny hard chrome will not make you go any faster and since there will very probably be a rash of hop-up experts offering to cut up and perform wonders on your stock engines, don't forget to allow chroming only if it seems economical to do so. Since chrome plating it not cheap, you may find it advisable to replace the blocks instead.

Since, for the first time, you will be permitted to alter your compression ratio from stock, what is advisable? With a straight alcohol blended fuel, i.e. alcohol, benzol, and castor only, you will find that you can run compression ratios higher than you will be able to if you add nitro methane or some other components. My recommendation, certainly at the start, is that you buy one of the already packaged racing fuels, such as Chris-go, Francisco, Exol or others.

Since there are two schools of thought concerning a means of measuring compression ratio in a two stroke, I would not be overly concerned with what compression ratio you are running. Since

to date little has been done with such stock motors as Mercury, Champion, Martin, Scott-Atwater or Wizard in determining recommended compression increases for racing blends, I won't quote any figures here. As it is common knowledge that added output may be gained by decreasing combustion chamber volume, BOAT SPORT in future issues will—with photographs, line drawings and descriptions—explain step by step what can safely be done and to advantage, and what should be avoided. If you are impatient, better a word of warning immediately. Make any compression changes a little at a time and work for overall balance between different chambers so that chamber volume is consistent and contouring is consistent.

As a general rule, too, remember that a decrease in combustion chamber volume will alter the heat characteristics so that with higher compression pressures, you will require colder running spark plugs. Also remember that with any decided reduction in combustion chamber volume, you may run into difficulty of piston crowns hitting the inner surface of your cylinder heads or the electrodes of the spark plugs.

Finally, in order to use racing fuels at all, you must convert your present fuel lines to larger diameter fuel lines, since alcohol blends are more sluggish than gasoline. $\frac{3}{8}$ " inner dimension fuel line is a recommended minimum. Alcohol blends may play havoc with painted surfaces and plastic components, such as carburetor adjustment knobs. If this is the case, you will have to make replacements with alcohol resistant materials.

With most service motors it will be necessary to ream out tank shut off valves or elbows between fuel tank and fuel line to attain the minimum $\frac{3}{8}$ " diameter.

If with alcohol fuel at wide open throttle you are able to open your needle valve slowly to the point that your engine four cycles and slows down, you may be sure that your motor is receiving enough fuel. If not, you will find it necessary to alter the jets in the carburetor.

Meanwhile, realize that with the doors swung open for stock motors to compete against racing motors, the whole realm of hop-up tactics which heretofore have been closed to you are suddenly at hand. Also remember that in the twenty or more years that the racing motor boys have been playing with their racing motors, ill-advised grinding, filing and other modifications have ruined as many good motors as proper modification methods have made hot ones.

All in all this should be outboarding's most exciting season and for the first time many of those dockside arguments about whether or not a converted stock could take the strictly-designed-for-racing motors should be answered. We, like you, don't know the answers at this writing but we're looking forward to finding out! (End)

IT'S OUTBOARD SAVINGS TIME AGAIN

(Continued from Page 9)

NEWS FROM ALASKA

Alaska may not gain her statehood for awhile yet, but she is keeping up with the rest of the country in the growth of outboarding. Although the season is much shorter up there, our northern neighbors make up for it by feverish activity when the climate permits.

We wouldn't recommend trailering your boat up to these waters—not unless you have a lot of time to spare. But if you're headed that way for vacationing you don't have to worry about a boat. That is, not if you're going to be around Valdez because there is an outboard boat rental operation there now. It's a perfect spot for it too; opening out into Prince William Sound, a hundred-mile coastwise stretch of sheltered water set behind a breakwater of islands some fifty miles out. Here's a letter from a correspondent of ours which tells of this activity.

Mr. James McCracken writes: "As you can see by my address I have made quite a jump from Nogales, Arizona, but this is where I had planned for the boat rental business. I had made a trip to Alaska a couple of years back and at that time I made up my mind to come back.

"I have a partner in this business and we plan to get started in the spring; our idea is to rent to fishermen and tourists who wish to enjoy the local waters. Valdez is a very scenic spot and wonderful fishing waters, is served by plane, boat and highway. At the present time there is no such business as the one we are starting and anyone who comes here and wishes to spend a day fishing or just exploring the bay and inlets is out of luck unless he owns his own boat.

"We are both working and will continue to do so until such time as we can see how it goes, but we know that there is a definite need for a boat rental and are going to give it a good try. We are starting out with 12 and 14 foot skiffs with outboards from 10 to 22 h.p. It is a small start but we hope it may grow. Incidentally, my partner's name is Maurice Paige and he hails from Miami, Fla., so you can see we have left the southern sunshine for the Land of the Midnight Sun.

"As we cannot get BOAT SPORT here would you please put my name on your order list for a one year's subscription."

SAFETY AFLOAT

The second Annual Midwest Safety Afloat Conference was held during the Chicago National Boat Show in February. Some interesting excerpts from the proceedings follow.

Chairman Grant Thompson, Sales Manager, Thompson Brothers Boat Manufacturing Co.: "A lot of boys put 5 h.p. motors on 18 foot canoes. Personally, I don't recommend it, because if there is no duffel or other passenger in the boat it has a very decided list, and when you do board the boat and get

inside of it you have to be extremely careful because it will roll just like that. This summer I spent some time out in Colorado. We did some canoeing with a 3½ h.p. outboard, and even that on a 15 or 16 foot canoe is too much power. The new motors have so much speed that if you flip the throttle over the water will climb up the shaft of the motor and right into the boat. I find a 1½ or 2 h.p. motor makes an ideal set-up. There is one thing you must remember. A canoe is strictly a displacement boat. It will not get up on top of the water and plane, so because of that your little 1½ will give you almost as much speed as the 3½ or 5 h.p. motors would."

W. Van B. Claussen, Assistant National Director of Safety Services, American National Red Cross: "It is a generally accepted axiom that everyone using the water for recreation should know how to swim. But, are enough of us sufficiently emphasizing this? . . . Swimming, in relation to small craft safety, need not be urged to the extent of expert, speed, or long-distance performance. . . . As to long-distance swimming, except in rare circumstances the most foolhardy thing a person can do in an accident situation is to attempt to free swim to shore. . . . The idea is quite prevalent that such clothing (the heavy kind worn by many hunters and fishermen) will drag a person to the bottom if his boat is swamped or upset. Such false belief usually results in panic, violent struggling, and ultimate exhaustion. . . . many types of clothing will actually trap and hold so much air when wet that a swimmer is buoyed up instead of being dragged down.

"One very definite cause for many a minor outboarding mishap developing into a serious accident is the prevalent use of a canoe paddle for propelling a stalled boat, when it is obvious that only the leverage of a good pair of oars will do the job under existing wind and water conditions. We believe this quite common tendency to carry only a canoe paddle for emergency is largely due to the fact that so few outboard hulls, particularly in the runabout classes, are provided with rowlock sockets and rowlocks when manufactured. . . . The stowage of oars—to be available when needed but out-of-the-way and rattle-proof at other times—might be too great a problem for the average individual, but certainly could be worked out by the boat designers.

"Another cause of accident fatalities . . . is the boat that will not float at all when it is fully swamped or capsized. It seems . . . unbelievable . . . that anyone would manufacture and offer for sale a metal boat that is not provided with buoyancy compartments. Such a boat was seen, however, not so long ago, exhibited at a convention gathering.

"The 'hot rod' who buzzes the residential sections of lakes and waterways

(See over)

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IT'S OUTBOARD SAVINGS TIME AGAIN

(Concluded from preceding page)

is an abomination. The ignorant show-off who barges through swimming areas, and swoops past rowboats anchored for fishing, past canoes and small sailboats, is as much of a public nuisance as is a reckless driver on the highway."

Robert S. Greene, Director of Promotion, Outboard Boating Club of America: "This folder (OBC's 'Common Sense Afloat'), which contains the eight simple safety rules, has become our best-seller. I use the term 'best-seller', but it is free. Over a million copies of it were distributed last year. Next year we are assured of another half million . . . through the so-called 'OBC Kit Folder' which will . . . accompany every new boat and motor sold by an OBC sustaining member. . . . Also last year we showed you a decal transfer in rough form. This year it is a completed fact. This was developed particularly . . . to be pasted to the seat of a boat where the man who ran the outboard would see it and be reminded that there are certain things he ought to be thinking about while he is on the water. We are particularly interested in getting these seat decals on rental and livery boats . . . where people who know little or nothing about boats sometimes go."

(End)

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JACOBY HYDROS Classes ABC, BSH, DSH, Racing Accessories, Fred Jacoby Boat Works, North Bergen, New Jersey.

CONVERSIONS or all model Ford, Mercury, Lincoln and Jeep Engines. Free Catalog. Lehman Manufacturing Company, Dept. K, 972 Broad Street, Newark 2, N. J.

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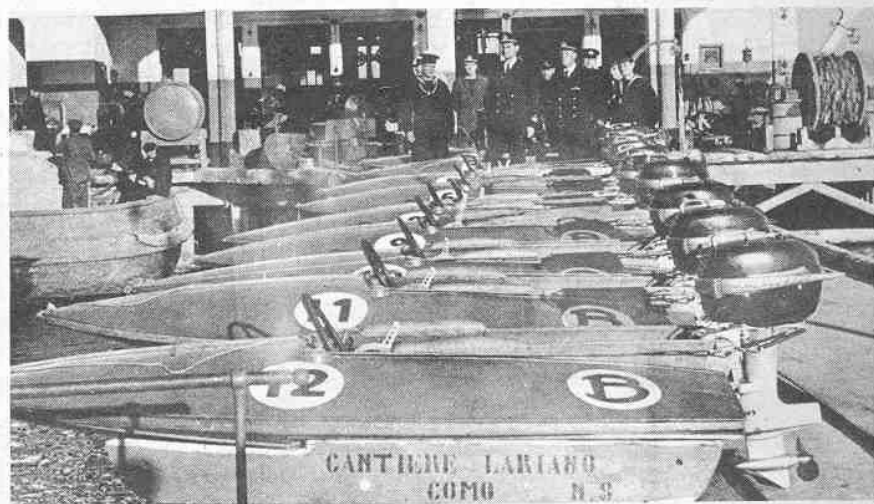
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Phyllis Makepeace of Port Elizabeth, South Africa, in the cockpit of her Joe Swift, Merc powered "D" hydro just prior to her record run

through the mile which makes her the fastest woman outboard driver in the world. Her official speed was a sizzling 65.9 miles per hour.



ITALIAN NAVY USES OUTBOARDS FOR PT BOAT TRAINING

REALIZING THAT THERE is no finer way to acquaint future PT boat commanders with the effects of wind and wave on small high-speed craft, the Italian Navy is now sponsoring stock outboard races for officer trainees. Conducted by the Italian equivalent of our Annapolis, the racing forms a major part of a course in fast boat handling, and is compulsory for men destined to serve on torpedo boats.

Here the one-design enthusiasts' goal is reached as never before. Modeling their outfits after the American Power Boat Association's popular B Stock Hydro class, the Italians had twelve identical single step hulls constructed and powered them with twelve identical Mercury Hurricane engines equipped with Quick Silver lower units. Triggered with twelve identical propellers the boats are as near alike in performance as it is possible to make them. At each class session the students are assigned boats by drawing numbers out of a hat, thus assuring that the outcome of the races will depend on driving skill alone.

Participants agree that the small, fast craft yield insight into the action of wind and wave formations that could otherwise be gained only by years of experience in larger boats. Thrilling races take place after the students have reached the degree of proficiency, and the Navy permits its classes to put on exhibition races at important regattas in Italy. The unbelievably close competition never fails to excite the many thousands of spectators at these events and makes for better relations between the Italian Navy and the Italian tax payer.

Interestingly enough, both the outboard motor and outboard racing are American inventions and the Italian Naval authorities are to be congratulated in utilizing them for serious training purposes while their country of origin overlooks them. What better educational and recreational pastime could our Naval and Coast Guard Academies adopt than stock outboard racing?

(The End)



They are on their way! The candid camera catches two boats in last year's Jacksonville, Florida, Outboard Club cruise to Leesburg. (From Johnson Motors).

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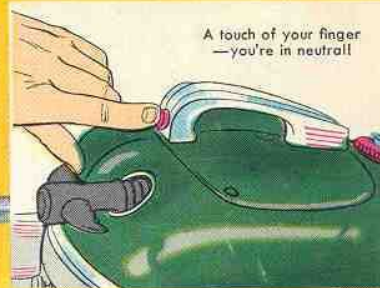
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