

OUTBOARD

INBOARDS
BOATSPORT

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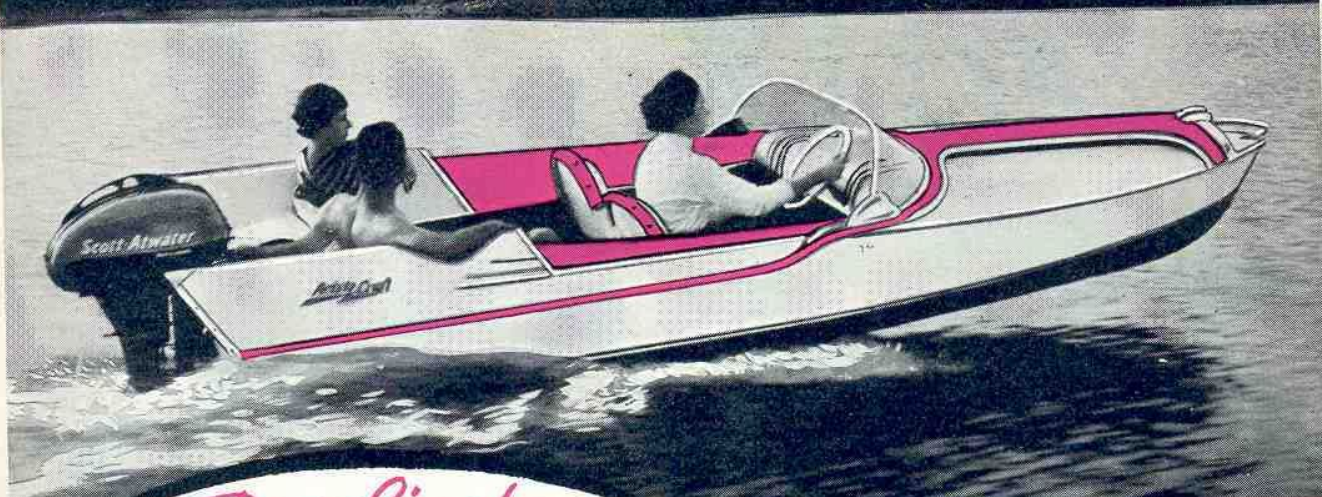
APRIL 1957
35¢

THE HUBBELL HYBRID B
YOU CAN'T FOOL THE ELECTRIC EYE
1957 RULES CHANGES
1956 RECORDS AND CHAMPIONS




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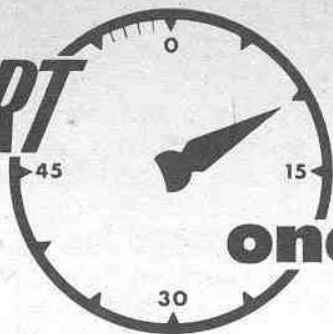
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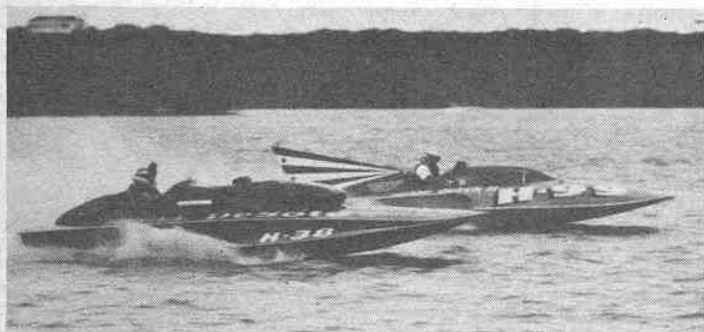
ATLANTA BOAT WORKS
665 Pylant St. N.E., Atlanta, Ga.

BOATSPORT



one minute gun

AT MADEIRA BEACH, FLA., Nov. 25, G. W. Taylor, Orlando, Fla, emerged top racer of the day, copping first places in B and C Outboard Hydro and capping the day by taking top honors in C Racing Runabout. The C Service Runabout events were won by Norm Roberts, Maplewood, Mo., with C. R. Watson and Allan MacLeod, both of St. Petersburg, finishing second and third respectively. Al Holub, Berwyn, Ill., was runner-up to Taylor in C Hydro, with Buddy Smith, Miami, third. B Hydro runner-up was Raleigh Carpenter, tailed in third spot by Jack Sellers, both drivers from St. Pete.

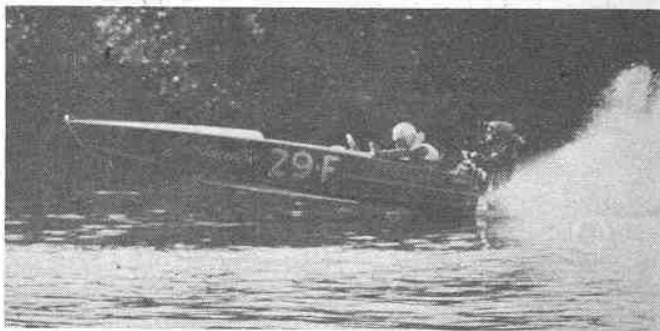


Nuta leads Byers at Nassau

Buddy Smith was second to Taylor in C Racing Runabout, with Charlie Watson third. John Estes, North Miami Beach, topped the field of 44-c.i. inboard runabouts with Joan Sollie second and Wally Askew third. S. E. (Sonny) Jones of Miami Beach copped 48-c.i. hydro honors, with Jack Prince, Winter Haven, second, and F. C. (Doc) Moore third.

of the Bahamas, and a vast spectator crowd lined the shores of Nassau's inland Lake Cunningham for Nassau's First International Regatta, participated in by 28 APBA inboard entries over a choppy mile and two-thirds circuit. The Governor's Cup, over a six-lap distance, went to Henry Lauterbach, Portsmouth, Va., in Bill Ritner's Wa Wa Too, a 266-c.i. hydro, at an average speed of 77.20 mph. Dixon Vose, Turner, Ore., in his Chris II, was second. The 48-c.i. high points were garnered by Doc Moore of Miami, Fla. J. C. Cox, Lake Alfred, Fla, was second. Jack Colcott, Jr., Seattle, Wash., won in the 91-c.i. events with an average speed of 56.820 mph, with Wayne Purdy, Madeira Beach, Fla., second, despite the fact that Purdy's boat struck an obstruction on the course and sank in the final of three heats. The 135-c. i. race was captured by Edwin Schroeder, of Niagara Falls, N. Y., George Fugate, Fort Lauderdale, emerging second in the final standing. Louis Nuta, Jr., Miami, won the 7 Litre title, although he finished in a point tie with George Byers, Jr., Columbus, Ohio. Nuta had a 10.1-sec. time edge in the two heats; the two racers exchanged first and second spots...The Nassau Trophy race, a 58-mile affair with one required pit stop, went to Sam Griffith, Miami, in his 266-c.i. Pussy Cat, with second spot going to Weldon Ropp in 135-c.i. Miami Belle. Drivers from twelve states competed in the Bahamas events.

NASSAU, BAHAMAS, Dec. 14--His Excellency, the Earl of Ranfurly, Governor



Roncallo on record-breaking "36" run

HOLLYWOOD BEACH, FLA., Dec. 27, at APBA-sanctioned time trials, 18-year-old Carlos Roncallo, Miami, established a new 36-c.i. stock runabout mile mark at 37.644 mph.

(Continued on Next Page)

George Byers, Jr., scorched his 7-litre Miss DeSoto through the traps at a new mark of 133.399 mph. His fastest one-way run was at 136.364 mph. Sid Street, of Kansas City, Mo., powered his 266-c.i. Z-Z-Zip for a new average of 132.60 mph, breaking a mark he had set at Salton Sea, Cal., in late October of 1956 by nearly five mph. The final record breaker was Ronnie Smith, Mt. Holly, N. J., who upped the old 225-c.i. record of Seattle's Richard Hallett, 107.238 mph, with a 111.641 mph clip.



AT MIAMI BEACH, Dec. 30, Henry Lauterbach won the Baker Palladium Trophy awarded at the Orange Bowl Regatta's International Grand Prix for the second year straight. Lauterbach dominated the event by taking three straight heats, with Ray Gassner, St. Petersburg, Fla., running second in each heat. Jack Prince emerged victorious in the keenly competed for 48-c.i. events. John Estes, North Miami Beach, topped a field of five 44-c.i. runabouts. Weldon Ropp took straight heats in 135 c.i. In the F Service Runabout racing Howard Hibbert dominated with George Byers, Jr., winning the 7-litre competition. Lauterbach was topped by Ray Gassner in the 266-c.i. race when he was disqualified for jumping the clock at the start of the second heat.

Henry Lauterbach and son David

MIAMI, FLA., Dec. 31, Mrs. Helen Martin, in a homemade fiberglass inboard runabout powered by a 300-hp Lincoln, scored an overall win in the Nine-Hour International Endurance Race at Pelican Harbor. For the second year in a row, Dick Spelman, Miami, topped the outboarders in the Nine Hour grind with a Mercury Mark 55-powered Thunderbird hull...SEVERAL NEW RECORDS were established under U.I.M. rules. Miamian Stu Gray racked up an international pair of marks. The first was 37.838 mph for two hours in his CU runabout, the second just slightly less, 37.172 mph for a four-hour average. Sam Griffith, in a 266-c.i. inboard hydro, set a new one-hour mark of 61.758 mph, breaking the nearly 20 year old record of 58.7 mph set by Count Theo Rossi, Milan, Italy, in 1938.

HAULOVER BEACH, FLA., Jan. 2, Italian Carlo Pagliano ran into Orange Bowl tough luck, for the second year in a row. Pagliano, European D Stock Hydro Champion, had engine trouble with his own motor, and borrowed a four-cylinder Mercury from Don Pontius. Though Pagliano put on a terrific performance before the 10,000 spectators, he was beaten by Jack Jerome, Savannah. Pagliano's running mate, Paolo Mora, finished third. A Stock Hydros, which needed three eliminations, went to Don Pontius, with Bob Herring, Sheboygan, Wis., in second place. Jim Coulbourn, Burlington, N. J., in a new Sid-Craft, dominated the B Stock Hydro events, in which Skip Ritter, Hallendale, Fla., was second. The AU events went to Charlie Lovelace, Tampa, with Chris Erneston, West Palm Beach, second. Lovelace shared top honors with Pontius by winning the BU races with Ritter second, while Pontius took DU; Irving Schmidt, Riviera Beach, Fla., was second.



Stu Gray is congratulated by Manuel Ramos, Cuban Captain

MIAMI, FLA., Jan. 8, was the location for the first Miami International Challenge Outboard Regatta between South Florida drivers and Cuban competitors. Racers competed in BU, DU, BSH, DSH, and "36" classes, and the South Floridians defeated the Cubans for team points, by a score of 8207 to 3672. The new "36" class record holder, Carlos Roncallo, won in that class, with Skip Ritter taking BU, Stu Gray winning in DU, Buster Royal winding up out front in BSH, and Dutch Stossel taking the competition in D Stock Hydro. Top Cuban drivers were Joaquin Jimenez, second in BU, and Oscar Del Valle, second-place winner in B Stock Hydro.

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Frank Scalpone, Editor

Richard Van Benschoten, Editorial Advisor

Hank Wieand Bowman, Technical Editor

Paolo Speroni, European Correspondent

George Weaver, Art Director

Friede Strobl, Art Assistant

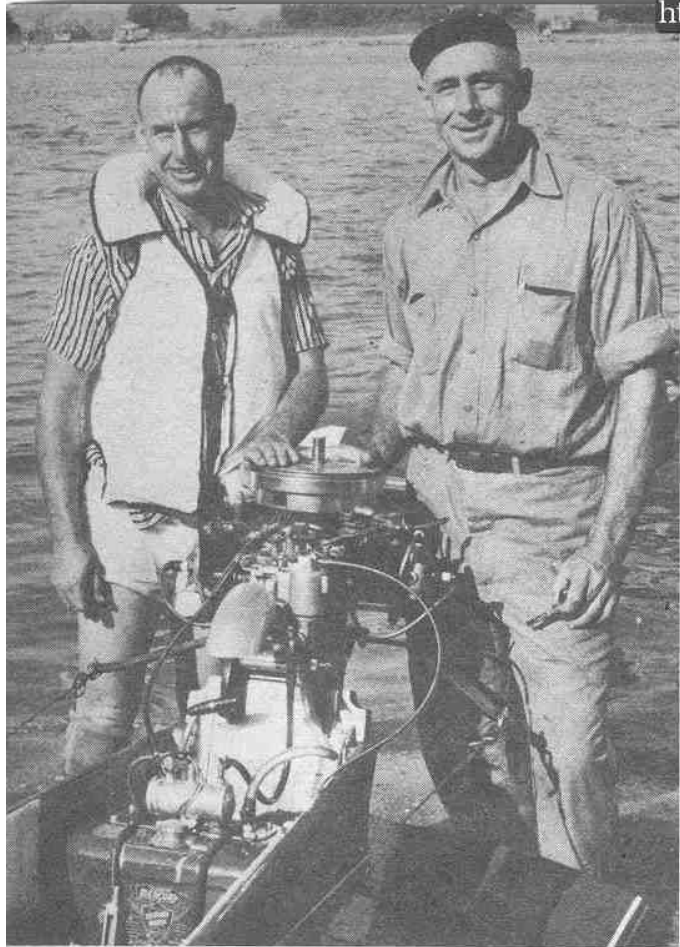
Martin Landfield, Art Assistant

COVER STORY

BOAT SPORT'S cover this month portrays a variety of competitors. In the upper black-and-white photo is Tony Rodrigues, who recently set the amazing C Stock Hydro record of 67.431 mph in a Baycraft hydro. The lower photo shows Britisher John Allen driving Akela in an English event (see p. 16). The photo of a runabout cornering hard is from a color transparency by the Kiekhaefer Corp. (Mercury motors).



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Champion Keith Sorenson, at left, and two-cycle motor wizard Randolph Hubbell with their 33-hp, 20-c.i. B.

THE *Hubbell-Sorenson Hybrid*

**CHAMPIONSHIP ALKY-BURNING B MOTOR
A BLEND OF READILY AVAILABLE PARTS**

By Hank Wieand Bowman

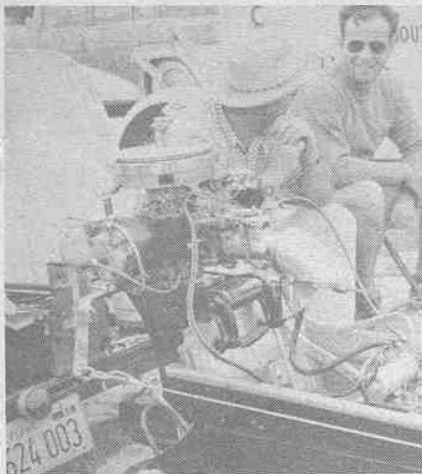
TWO YEARS AGO at Mt. Carmel, Ill., a West Coast hydro driver, Keith Sorenson, all but unknown to the alkie-burner clan, trailered in to the N.O.A. 1955 National Championships. The racer was far better known among aircraft speed pilots than in the outboard kneepad circuits. Most of his boat-driving experience, which hadn't been too lengthy, had been with the stocks. He made little pre-race impression and certainly wasn't considered as one of the drivers who would offer a serious threat to the fast boys in his class.

With him was a youthful-looking, quiet-spoken man, racing-motor master Randolph Hubbell, who usually wears an infectious grin. At one time Hubbell had campaigned alkie burners in the East, but after the war, he moved temporarily out to the West Coast, fell for the climate, overlooked the smog and stayed on.

A third member of the party was a pretty teenager from



Hubbell and his daughter Mary are congratulated by BOAT SPORT racing reporter Blake Gilpin, Mary for her M Hydro championship win and Hub for his *Wildcat's* performance at N.O.A. 1955 Nationals.



In this starboard side view of the motor can be seen one of the stock Ford coils utilized.



The powerhead of this B titleholder is built up from standard Hubbell racing components.



Bendix electric fuel pump is visible mounted on the three-gallon Mercury tank on powerhead.

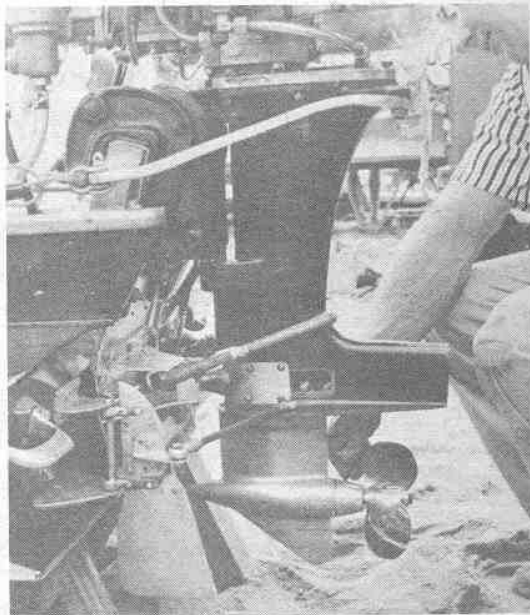
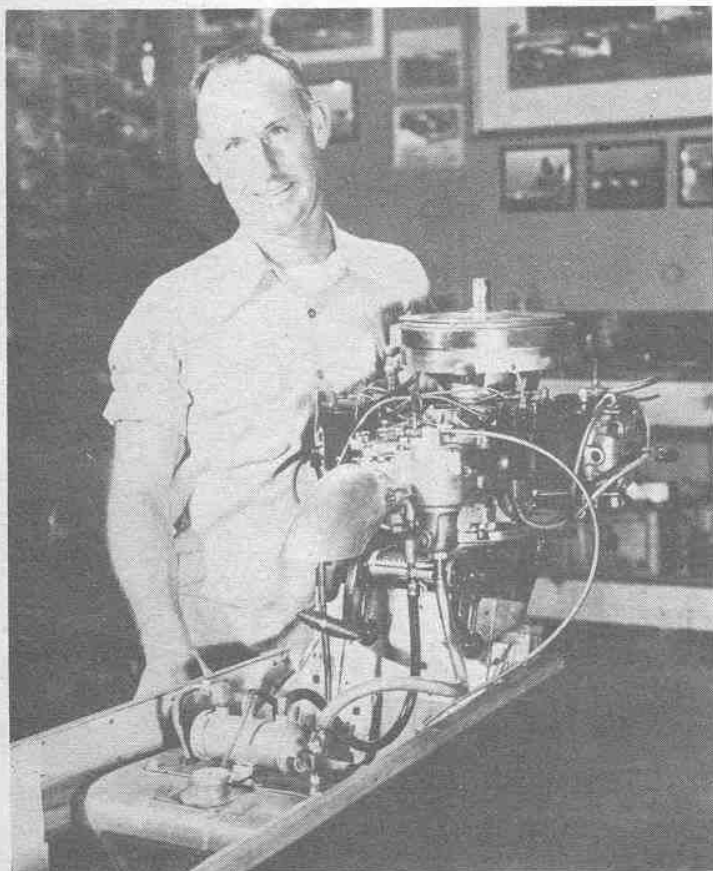
Alhambra, Calif., who for a long time had been a better-than-middling hydro racer in the M brackets. The teenager went on to cop the N.O.A. M championship and Randolph Hubbell, better known as Hub or Pep to the racing fraternity, was understandably proud since he is Mary Hubbell's father.

But Pep has two loyalties in life—one to his family, the other to his profession. His profession is building racing parts and designing and building motors from scratch, modifying and improving the performance of stock equipment altered to alcohol and on occasions going way out on a limb to try something new. At Mt. Carmel, his Class B Hubbell *Wildcat* was new, or at least then untried, on N.O.A. circuits. Though Mary's M victory was important, Hub if anything was even more concerned with the Class B events.

During the early part of 1954, one of Hub's playthings

was this *Wildcat*, a modified-to-alcohol Merc Class B stock KG-7. The motor and its counterparts were destined to give the then-dying alkie B class on the West Coast a real shot in the arm. One of Hub's principal racing achievements had been giving the outboarders a transfusion from time to time. How successful his blood administrations have been was indicated during 1956 when for the first time since the war, the alkies, which many had prophesied were riding on their last prop, staged a real comeback, and are moving into the 1957 season stronger in racing members and larger in registered equipment than at any time in the past ten years. Hub can well take a bow as the one individual most responsible for keeping the old special racing equipment from passing by the boards and becoming again a healthy going competition division with plenty of muscles of its own.

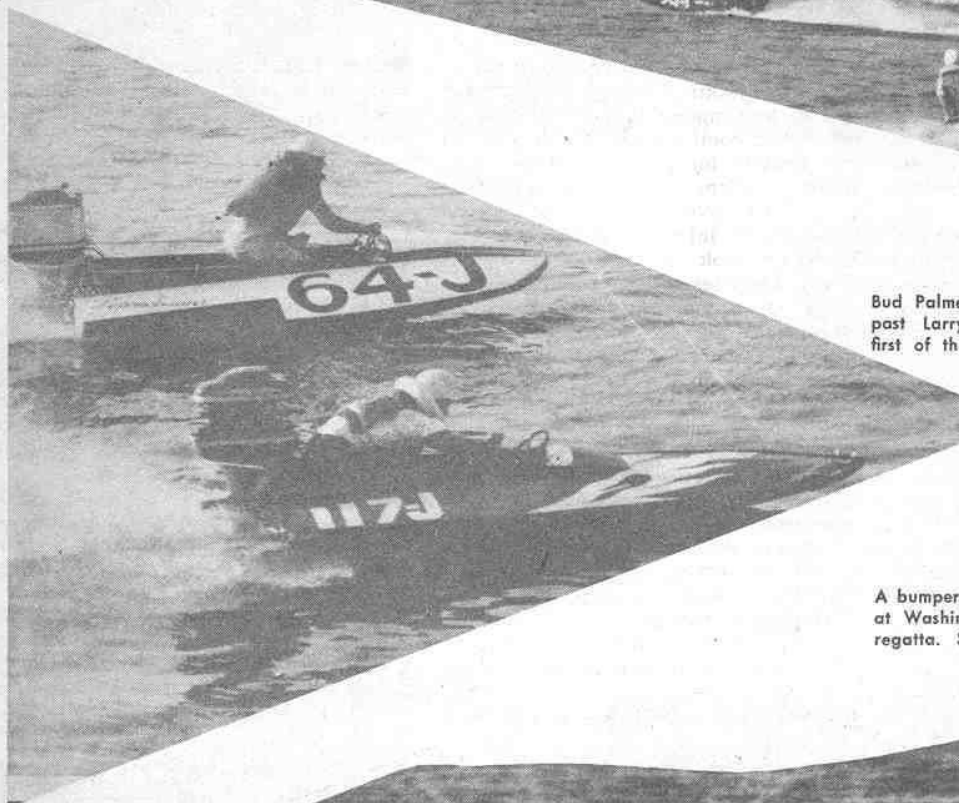
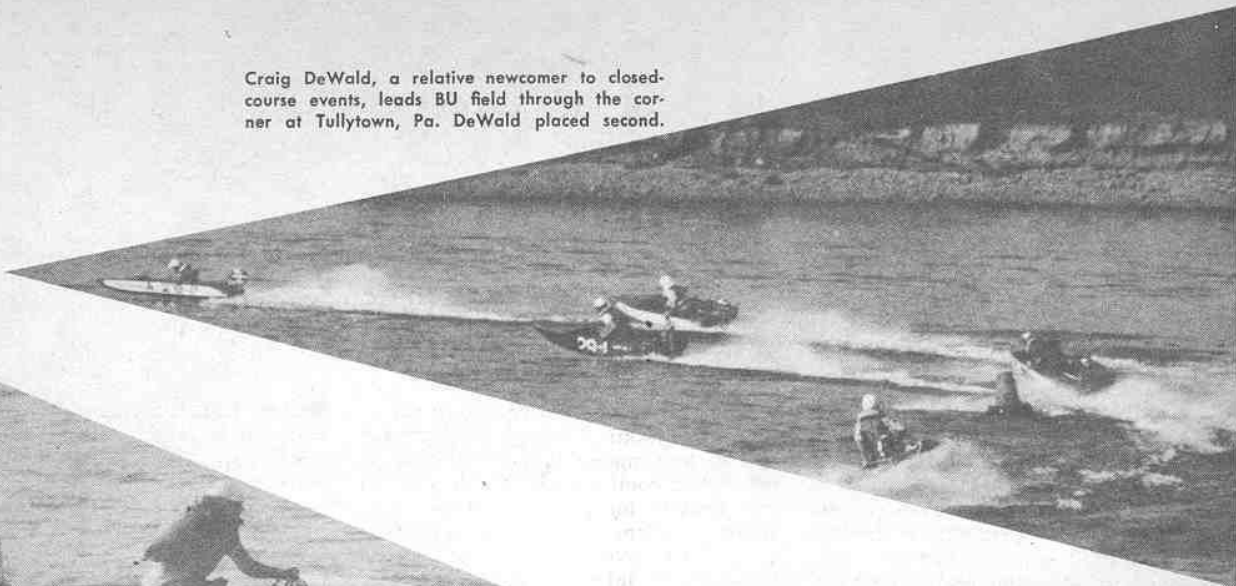
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Photograph of the lower end of the Hubbell hybrid with a Quicksilver unit shows both the steering fin and the lower unit thrust bracket.

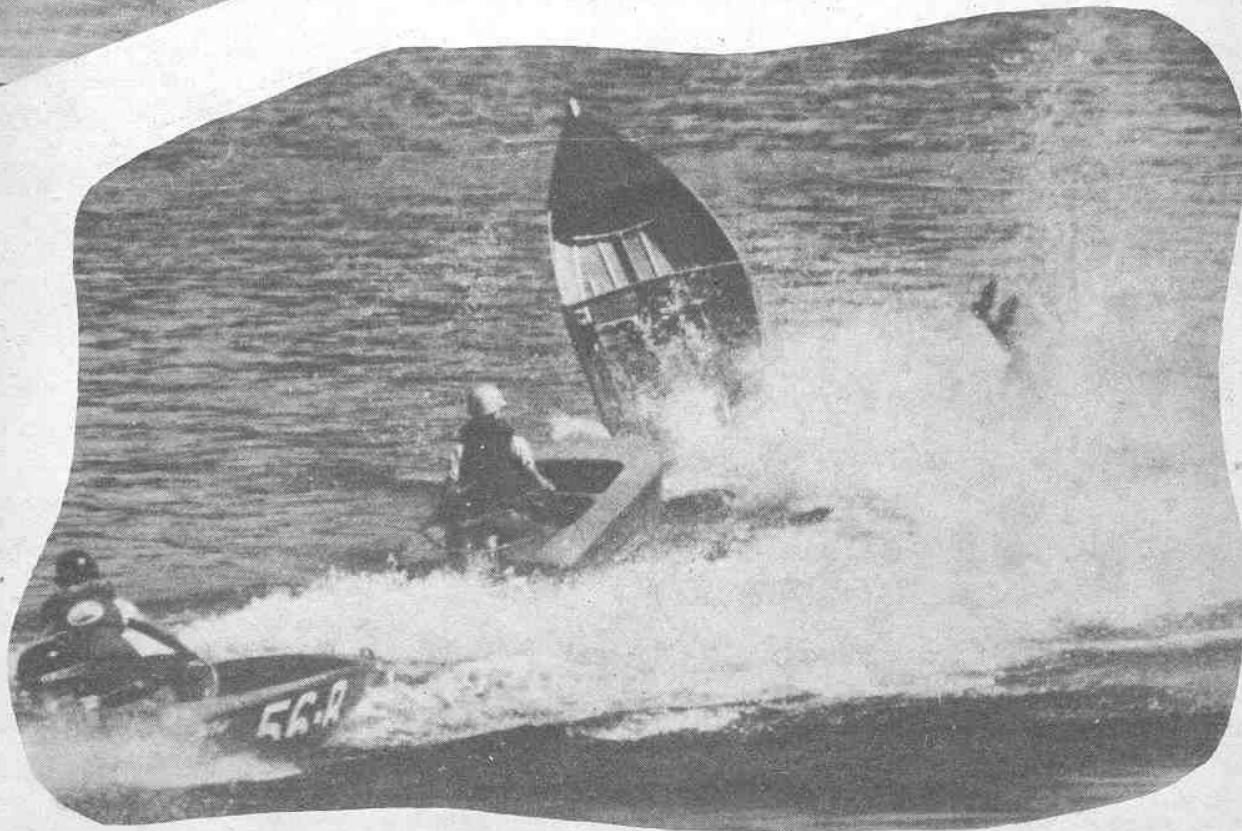
Driver Sorenson with the Hubbell Sorenson hybrid in early 1956 version. The three-point tricky-handling *Wildcat* was designed by him.

Craig DeWald, a relative newcomer to closed-course events, leads BU field through the corner at Tullytown, Pa. DeWald placed second.

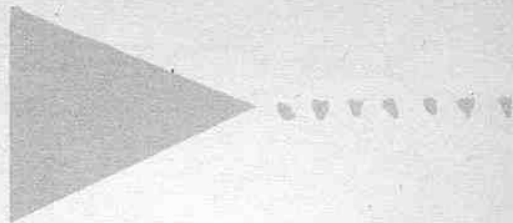


Bud Palmer, Mt. Laurel, N. J., in 117J, moves past Larry Teel, Lambertville, N. J., in the first of the CSH heats at the Tullytown meet.

A bumper crop of stock outboards was on hand at Washington, D. C., for the President's Cup regatta. Sensational flips marked the events.



BOAT SPORT **covers** THE RACING SCENE



By Blake Gilpin

SIX HOURS OF PARIS

In the late Fall months of 1956, the second annual Six Hours of Paris Marathon was staged with such success that the event is destined to become an annual fixture on the French racing calendar. At the inaugural event, October 9, 1955, thirty-six outboards and inboards lined up for the dead-motor-type start at pits adjacent to the Iena Bridge in the shadow of the Eiffel Tower. In its first running, the Seine River grind, which is conducted over a 2.3 mile course right in the heart of the French capital, was won by Raymond Guyard with his son as co-pilot in a 13' plywood hull powered by a 25-hp 1952 model Johnson. Guyard averaged 29.5 mph.

For 1956 the field in the pits at the same location had nearly doubled. Sixty-nine entries from France, Germany, Spain and Belgium awaited the starting signal for the mid-metropolitan race which was created and is sponsored by the Yacht Moteur Club de France.

The French sponsoring club, primarily a water-skiing group, features the enduro as a means to promote further interest in boating in France and stages it in conjunction with the International Boating Salon. In 1956, as in 1955, though the event was open to outboards and inboards alike, the outboarders took top honors. Winner Henri Desfilles helmed a Ralu plywood sports runabout powered by a 30-hp Evinrude Big Twin to lead home nineteen other finishers at a six-hour average clip of 28.6 mph. The slower speed this time was attributed to the far rougher water conditions, in part due to nearly twice as many entries churning the river between the stone-walled banks, fronting Quai D'Orsay on one side and Avenue de New York on the other, and to a stiff breeze that cut the water into a rugged chop. In the final hours, with waves pounding and swamping numerous entries, the more discreet helmsmen throttled back in an effort to outlast their less prudent competitors.

The race is expected to attract Brit-

ish and Italian racers in 1957 and may well become for boating Europe the counterpart of the famed Le Mans auto enduro.

PRESIDENT'S CUP

The annual President's Cup Regatta on the Potomac River at Washington brought out a bumper crop of approximately 300 outboard runabouts and hydroplanes to vie for honors in the 25th edition of the classic event. Elimination heats were required in nearly every class and though the expected rough water was a bit calmer than in previous years, it still took its toll of flips, swampings and toss-outs.

Buddy Fleming, Edgewater, Md., with straight heat wins in AU, lapped his best five-mile circuit at 38.810 mph. Second spot went to Dion Arrigoni of Durham, Conn.

A plethora of BU entrants required elimination heats but fortunately, for reasons of time limitations, withdrawals and motor failure knocked out

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Deanie Montgomery, Corsicana, Texas, won the N.O.A. Class A alky championships and recorded a new straightaway mark of 59.211 mph with the Konig engine shown.



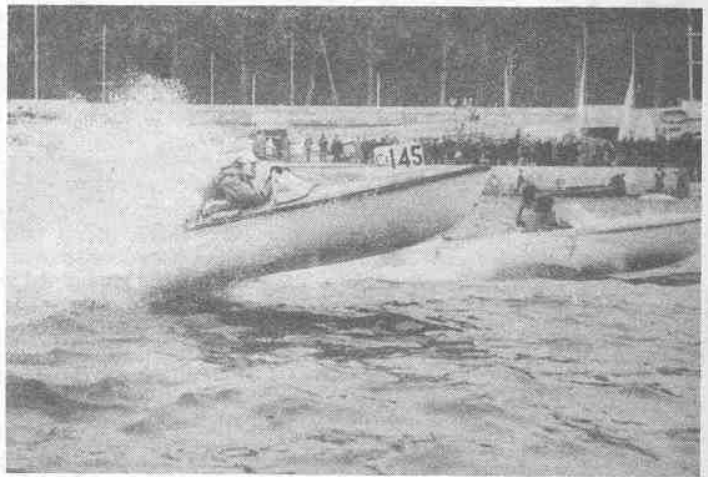
A part of the 16-boat field of C's at Cenay Lake. Bill Sebold, Granite City, Ill., the eventual winner, is at left.



Just over the starting line go the A Hydros at Minden, La. Leading at this stage is Dave Livingston, Lake Village, Ark.

BOAT SPORT COVERS THE RACING SCENE continued

Ultimate winner Henri Desfilles is pictured in his Evinrude Big Twin-powered Ralu plywood runabout, 41, flashing by the committee barge in the early stages of the Paris race.

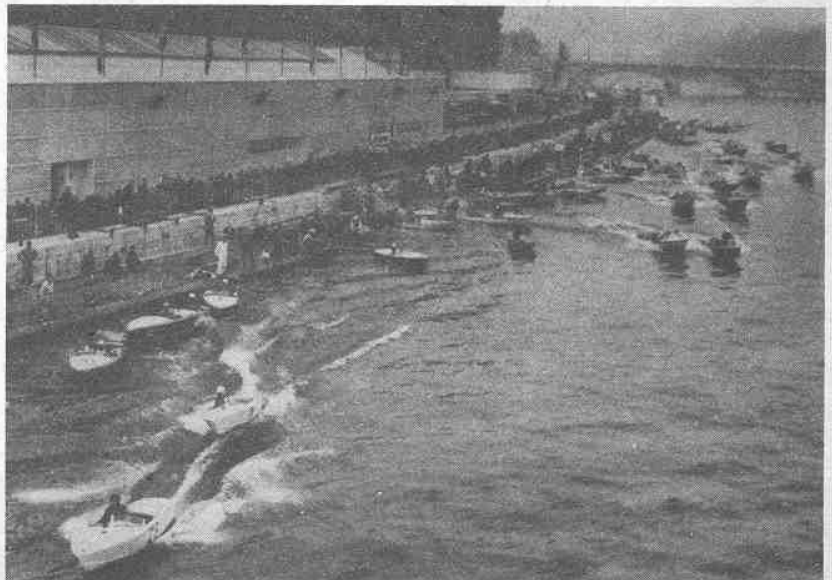


Two wives log boats' progress during Six Hours of Paris marathon.

Two women competitors, Mlle. Dyrion and Mme. Francois, team together in C-145.



Henri Desfilles was winner of the outboard division.



A part of the 69-boat field gets underway in the annual marathon on the Seine River.



Walter "Cuz" Knight, Kingston, Tenn., returns to pits after winning N.O.A. Class A Stock title.

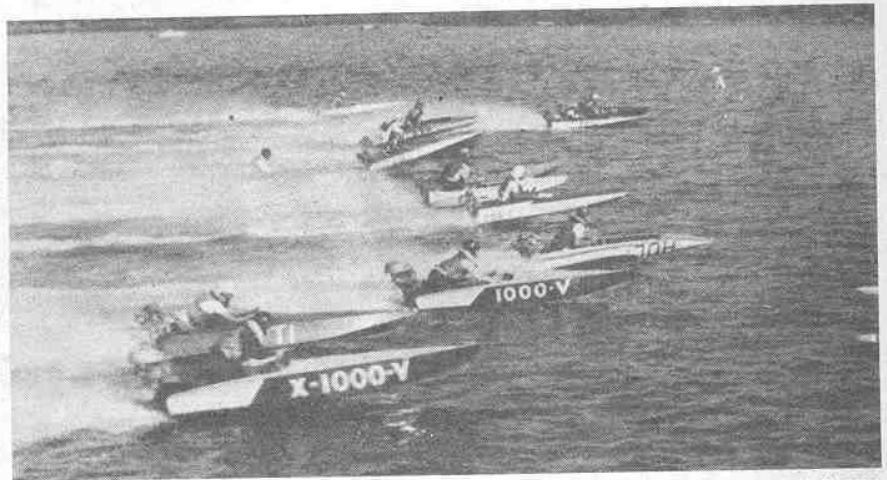
eight of the forty-four registered boats so that only three twelve-boat heats and a final were needed. Elimination-heat winners included Craig DeWald, Reading, Pa.; Dion Arrigoni; and Ed Bradley, Jr., Lancaster, Pa. Arrigoni took the final at a 43.207 mph clip, while DeWald merged a heat win and third place in the final to garner second-place honors.

Dick Ellis, Falls Church, Va., won his elimination heat in DU, as did Les Kahn, New York. Ellis went on to win the final and the first-place trophy while Terry Meckley, Lock Haven, Pa., with a third and a second, was runner-up.

Hunter Grimes, who has been a consistent winner and holds both the one-mile and the competition A.P.B.A. CU record, took home another first-place trophy to Alexandria Bay, New York. Howard Hilt, Jr., Binghamton, N. Y., won the A Hydro events, and Howard Kiger of Winston-Salem, N. C., won in DSH.

The real eye-filling spectacle at the President's Cup, however, was provided by the annual showing of the Unlimiteds. This year the giants of the water speedways not only tangled rooster tails for the President's Cup, but also returned to action to scramble for the revived American Speedboat Championship title, which was combined with the William Rogers Memorial Trophy event. The Unlimiteds were out in force. This apparently was a surprise to the regatta committee, for there was a crane shortage at the Anacostia Naval Air Base where the big ones were pitted, causing delays in an otherwise well-run program.

(Continued on Page 28)



B Runabouts in action at Johnson City. Dr. Hursh, title winner, is in modified Rinker hull 70H.

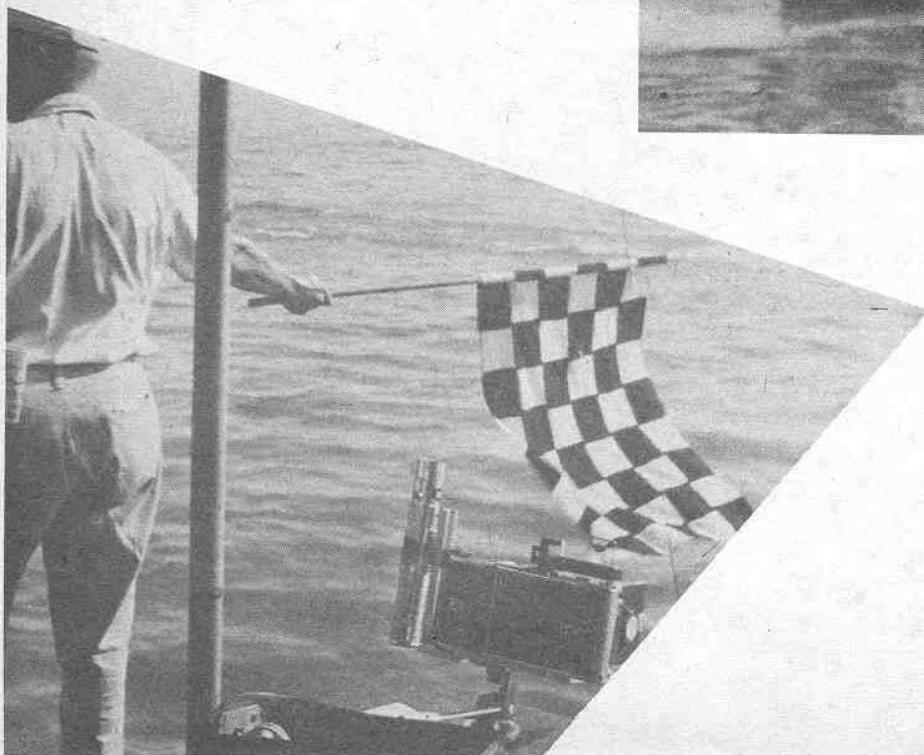
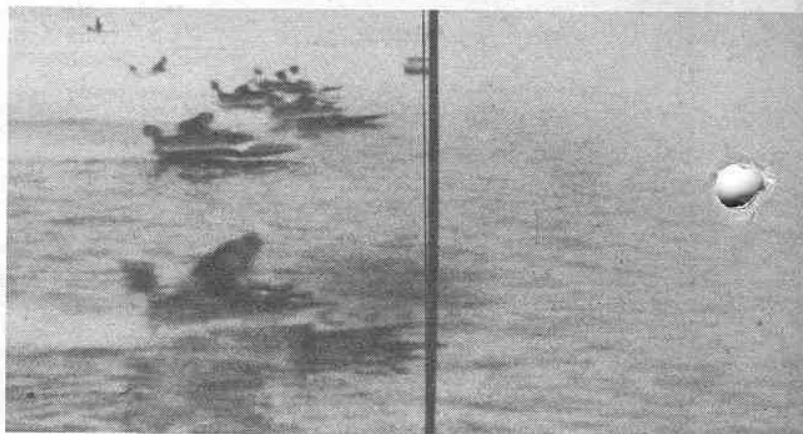


Bob Keller copped the N.O.A. D Hydro title and posted a new straightaway record of 74.534 mph.

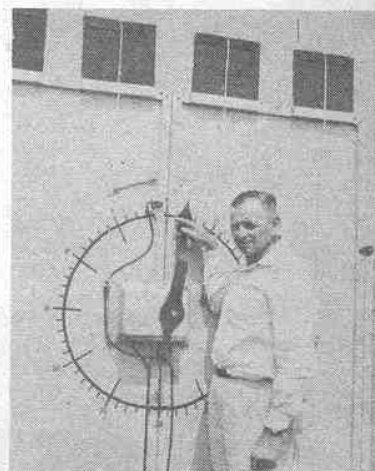


Of these C Service Runabouts in a recent N.O.A. national event, the camera indicates that N-101, V-64 and S-134 were all illegal.

Thin line drawn left of wire line is made to compensate for swinging buoy. Boat in foreground is obvious offender in any case.



Polaroid-backed camera is electrically keyed into the clock and is lined up before the race with the starting-line buoy.



Dale Drake's L.A.S.A. clock triggers red flasher at 60-sec. mark to guide scorers.

YOU CAN'T FOOL THE ELECTRIC EYE

HOW OFFICIALS CHECK THE START AND HOW THE ELECTRIC EYE WORKS

By Henry Hotchkiss

IT'S REALLY SURPRISING how many active competitors in the racing game, many of them veterans, are not wholly conversant with starting rules. This lack of understanding on the part of many of the drivers leads to much unnecessary griping and is at least in part responsible for the needless bickering that occurs at committee headquarters.

The scorers at any sanctioned regatta are responsible for recording the boat numbers of any boats that cross the starting line before the official start.

Some racers fail to realize that the officials on the stand are impersonal. Nearly anyone who has been racing any period of time has met at least one chronic beeper who always feels that the committee members are "out to get him." This is strictly so much hokum. Even if a member or a group of members of a regatta committee were to be so non-objective about their jobs as to attempt to pick on one hapless driver, it would be a difficult chore to carry out. Things happen as rapidly on the officials' stand as they do on the

course itself—too fast for personalities to be singled out.

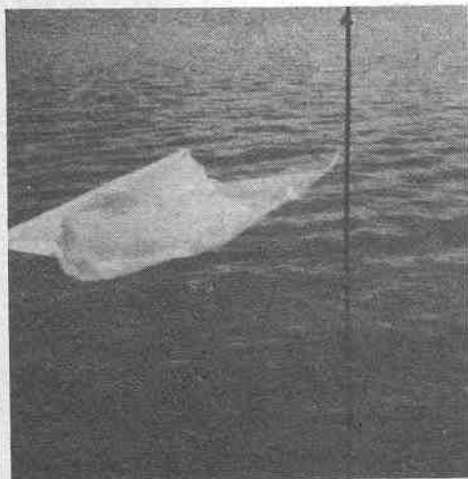
One of the most tense moments at any regatta is that last few seconds before the sweep hand of the starting clock reaches sixty. The official start of the race occurs at that moment. The sound of the gun is purely incidental. During those last few seconds, the scorers are tensed, particularly if it's apparent that a boat, several boats or a large part of the starting field are crowding the clock and clock jumping can be expected. Drivers cease to have identity and the scorers' focus is on numbers, unlinked at the moment with names.

In the February issue of BOAT SPORT, we covered the technique of getting up on the line immediately after the sweep second-hand hits the sixty-second mark. However, the question of who is to be disqualified after a false start, who is disqualified when one or more boats have jumped the clock and a restart is not called, when a restart must be called, when it can be called at the referee's discretion, and other technical details concerning possible

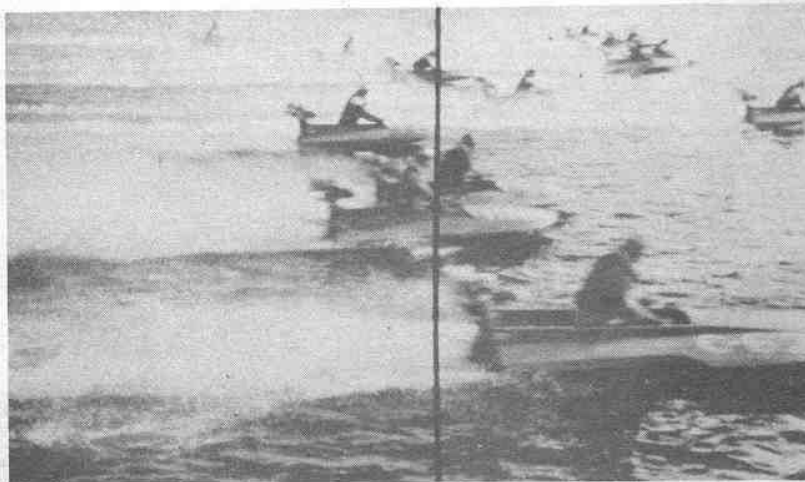
disqualifications at the starting line, all need further stressing. Let's point out again that the official start is that exact instant when the hand of the starting clock indicates that the final minute has elapsed. Officials and the referee refer to the clock, not the flag or the sounding of the gun, to determine disqualifications. A restart can be called if in the opinion of the referee the race committee has failed to record the numbers of those boats which have crossed the starting line before the official start. This is not, or at least was not prior to the advent of the "one-eyed judge" on the stand, a rarity.

When a group of anywhere from twelve to sixteen starters (depending upon the status of the event and the number of starters permitted) swarm down on the line in a closely-bunched pack wreathed in rooster tails, it isn't beyond the realm of possibility that even the sharpest-eyed scorers may miss some of the clock-jumping culprits or be uncertain whether they have caught them all.

(Continued on Page 40)



This start photo caught only the flag; contestants were so offbeam they were still outside camera range.



More than half the field was over in this photo, but scorers still had to spot the lead boat, which was subject to disqualification. Use of camera makes starters' chore easier.

Around the Buoys



Dr. Wayne Ingalls, right, A.P.B.A. Senior Vice President and Los Angeles Speedboat Assn. Commodore for 1957, with his son Dr. Tommy Ingalls.



Bill Tenney, who with Doug Creech was selected from the alkies ranks to be honored as a 1956 member of Gulf Marine Hall of Fame.

THE 1956 GULF MARINE Racing Hall of Fame selection committee, comprised of former A.P.B.A. President George Trimper; Charles F. Chapman, Editor of *Motor Boating*; W. Melvin Crook, Associate Editor, *Yachting*; Albert Bauer, popular A.P.B.A. official; Russ Lunnen, Gulf Oil Corporation, Philadelphia office; and W. B. Lenkard, Supervisor, Gulf Oil Corporation Marine Division; with William Edgar John, A.P.B.A. Vice President of Cruiser Racing, and Hank Wieand Bowman, Technical Editor of BOAT SPORT serving as advisors, announced their choices.

Gulf has annually honored a num-

ber of inboard racing drivers and this year expanded its Hall of Fame to include outboard, stock outboard, and inboard cruising competitors. The selections are made from those racers competing in A.P.B.A.-sanctioned inboard and outboard races east of the Mississippi River.

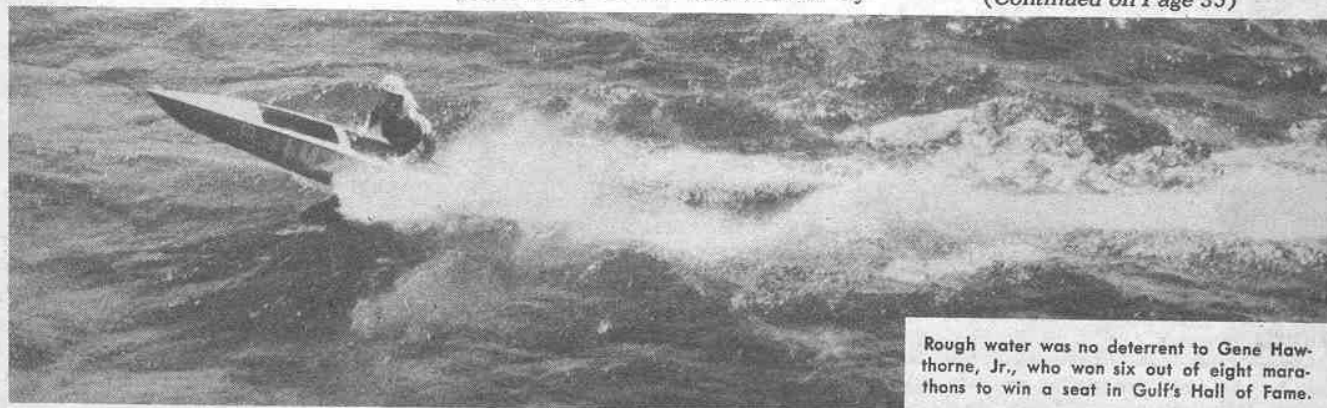
The inboarders chosen included John Estes, 44-cubic-inch runabout racer from Miami Beach, Fla. Estes had established an enviable record for himself, placing first 26 times in 42 competitive heats.

Paul Bauer of Deer Park, Ohio, was selected on the basis of his impressive performance in the 48-cubic-inch hy-

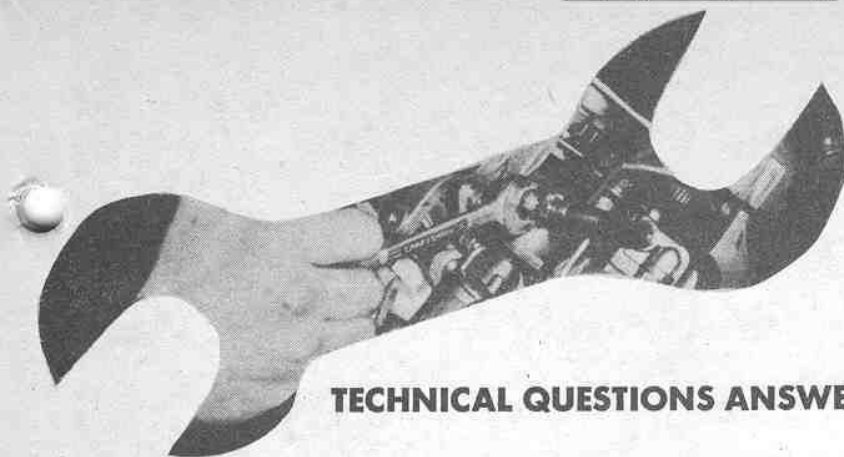
droplane class, in which he scored 20 first places from among 28 starts.

Henry Lauterbach, Portsmouth, Va., driver of Bill Ritner's 135-c.i., 225-c.i. and 266-c.i. hydroplanes, was an overwhelming choice, having scored 17 first places in 34 heats in the 135-c.i. class, 20 firsts in 33 starts in the 225-c.i. class and 24 firsts in 32 starts in 266-c.i. class. In addition to this amazing percentage of wins, Lauterbach, helming *Wa Wa Too*, also won the 266-c.i. National Championship at New Martinsville, W.Va.

Skeeter Johnson, Cambridge, Md., winner of the 136-c.i. National Cham-
(Continued on Page 35)



Rough water was no deterrent to Gene Hawthorne, Jr., who won six out of eight marathons to win a seat in Gulf's Hall of Fame.



Dear Hank:

TECHNICAL QUESTIONS ANSWERED BY HANK WIEAND BOWMAN

QUESTION: In the August 1956 issue of BOAT SPORT there was an article on "The Jones-Entrop Hydro," which is a cabover outboard racing hull. Could you please give me the addresses of Hugh Entrop and others who make cabover hulls, as I am anxious to either purchase a hull or buy plans in order to make one for next season for use with a Mercury 30H motor. According to the article these hulls appear to be very good in rough water, and they turn without digging in. As the water I race on is always rough, this should be the answer.

—C. E. Sutton, Great Yarmouth, England

ANSWER: You are quite right that one of the outstanding features of this design is its ability to turn without digging in, and to perform well on rough water. Hubert A. Entrop, who at present is making cabovers in limited quantities, is at 10806 23rd N. E., Seattle 55, Washington. The West Coast Boat Works, Route 5, Box 1092—Hiway 99, Vancouver, Washington, is currently in production with a hull called the Record cabover hydro, which is designed by T. J. Record along with Ted Jones. Jones has also worked with Speedliner, General Marine Co., Sixth and Oak, St. Joseph, Mo., which is producing a cabover type. Any one of the three hulls would be suitable for use with your Mercury Mark 30H motor.

The Van Pelt Boat Co., Spring Lake, Mich., has also been working with the design and has perfected both an A and a B model. We have had no information that they plan to make a CSH of this design, but with the increased popularity of the class, it is probable that they will.

QUESTION: Please tell me where I can obtain plans for do-it-yourself construction of the hydro-glider described in April 1956 BOAT SPORT.

—Dale Pahl, Scotia, N. Y.

ANSWER: The hydro-glider you referred to is the Bensen Flying Boat Model B-7B or the Bensen Hydro-Glider, B-7W. There are plans available for do-it-yourself kits. Complete construction plans for building and flying the Hydro-glider cost \$15. Complete construction plans for the Flying Boat are \$20. A full construction kit for the latter lists at \$198. These, or further information, may be obtained from Igor B. Bensen, Bensen Aircraft Corp., P. O. Box 2725, Raleigh, N. C.

QUESTION: I want to know what to do to get the most out of an Evinrude Big Four. Here in Sweden we have a lot of ex-U. S. War Dept. 50-hp stormboat motors, or "4-60 Heavy Duty" as Evinrude calls them, which with the exception of the transom bracket are the same as the Big Four. As I can obtain one quite inexpensively, I would like concrete advice on how I could get it to go as fast as possible.

—Per Stahlhammar, Djursholm, Sweden

ANSWER: I suggest that you get in touch with Randolph Hubbell, 2511 N. Rosemead Blvd., El Monte, Calif., who has had considerable experience with these motors and who also stocks the necessary parts to convert them from utili-

tarian condition to F Class racing motors. I would also suggest that you drop a note to Joe Michelini, 6945 Stony Island Ave., Chicago 49, Ill., who has built up many of these motors and I am sure would be glad to advise you.

QUESTION: Could you give me any information on the new 280-cu. in. inboard hydro class? I have a chance to buy a 1949 Ford V-8 motor with a full house, which was used in a stock car last summer. The displacement is now about 275 cu. in. What would be the required length of the hull and what would be allowed on the motor?

—Donald Dillie, Wellsville, N. Y.

ANSWER: The 280-cu. in. class was established as a probationary class in A.P.B.A. last year and has been so successful that it will be regularly recognized during the 1957 season. However, this class has been designed, as was the 136 class, to appeal to inboard racers who did not want to have the trouble and expense of modifying their motors from completely stock condition. The full-house '49 Ford V-8 you mention, though its displacement is only 275 cu. in., would thus not qualify under the spirit of the rules. I suggest that for full information you write either to A.P.B.A. or address an inquiry to A.P.B.A. Vice-President and Inboard Racing Chairman Franklin Foulke, 50 Eastern Blvd., Essex 21, Md.

QUESTION: What kind of pitch of prop should I use on my Mercury 40H-DSH in the Las Vegas area, the Bakersfield, Calif., area, and the Sacramento area?

—N. T., Sacramento, Calif.

ANSWER: You neglect to state such important factors as the overall weight of the boat and the overall weight of the drivers. As you doubtless know, there are no true formulas when it comes to high-speed planing boats. Most drivers have finally hit upon the propeller for their equipment by using the factory recommendation as a starting point, and with that as a guide, then trying slight variations in pitch and diameter until they find a prop that gives best results. There are no generalities as far as props are concerned. The prop that is right for a large oval course is all wrong for a one-buoy course, and the prop that is right for rough water is wrong on exactly the same outfit, under smooth water conditions. I feel that one of your best guides will be that of checking on the type of propeller that is being used successfully by those competing in the same areas in which you are running. Use this as a guide and from that point work on your own.

QUESTION: We do not have a local boat club, and as I understand it I have to belong to one in order to race, or else join either N. O. A. or A.P.B.A. I would like your advice as to which sanctioning body to join.

—Chuck Lohr, Carson City, Nevada

ANSWER: Many drivers have found that if there was enough racing activity by both N.O.A. and A.P.B.A. in their areas, they preferred to join both sanctioning bodies. If you would prefer

to run with only one group, your decision very probably will be dependent on the number of regattas sanctioned by each body in your area. If in doubt, why not write to the area representatives of both groups to find out?

QUESTION: I am now building Hal Kelly's "Airborne" to his A dimensions. I intend to race it in Classes A and B. In both plans Kelly calls for a 14° transom angle, but adding a one-inch afterplane for the A.

I have heard that faster speeds can be obtained with a larger transom angle. I am not sure whether this is because more weight can be concentrated aft, or because it increases the length of the moment arm from the aft end of the planing surface to the propeller, or a combination of both. If this theory is correct, I am thinking of changing the angle from the given 14° to 18°. I have heard that a transom angle of this size would be all right with the B engine, but if an A engine were put on the same boat, there would be a tendency for the rig to kite and possibly backflip.

Do you think I should leave the angle at 14° or increase it to 18°, or wouldn't it make an appreciable enough difference in the speed to bother with?

—Peter D. Watson, Orono, Maine

ANSWER: I would suggest that you stick to Hal Kelly's original 14° transom angle. There is no advantage in increasing this transom angle and I am afraid you have your facts reversed concerning means of increasing speed by decreasing the angle of attack of the motor.

It is a general practice that as you shim up the motor you will also have to increase the angle between the transom and the driveshaft housing. The farther you increase this angle, the lighter the boat becomes, and it does then have a tendency to kite, become airborne, and backflip. There is nothing to be gained by making the transom angle 18°, since in actual practice you will be cocking the motor out rather than trying to draw it in. Bringing the motor in will cause the boat to ride noseheavy and weave.

The Kelly designs have been very satisfactory in competition as well as in marathon events, and the most successful ones have been those whose builders stuck to the original designs.

QUESTION: I am interested in a boat kit for an outboard runabout between 10 ft. and 13 ft. in length, with a single cockpit deck plan, capable of speeds of over 40 mph with 16 hp. Any help in finding such a boat would be appreciated.

—Jeremy Kammerer, Detroit, Mich.

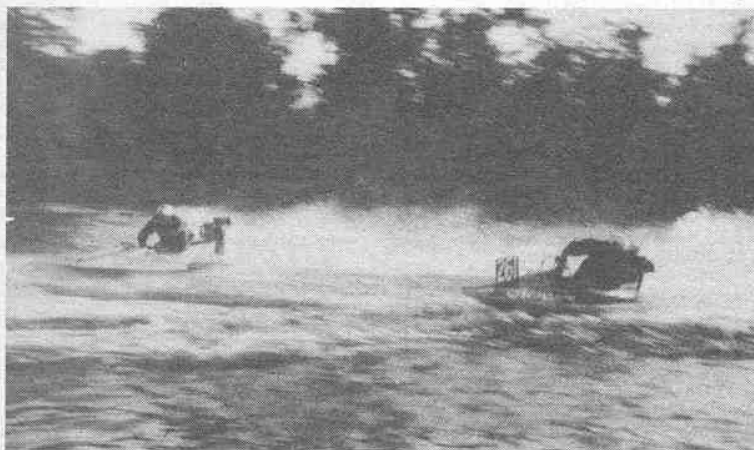
ANSWER: I am a bit afraid that with the normal utility motor of 16 hp your speed expectancy of 40 mph is rather high, unless you go directly to a racing utility design, and I gather from your letter that you are more interested in a sports runabout type. Custom Craft of 1700 Niagara St., Buffalo 7, N. Y., makes some high-speed kit designs and I suggest that you write to them and obtain a copy of their kit catalogue.

(Continued on Page 38)

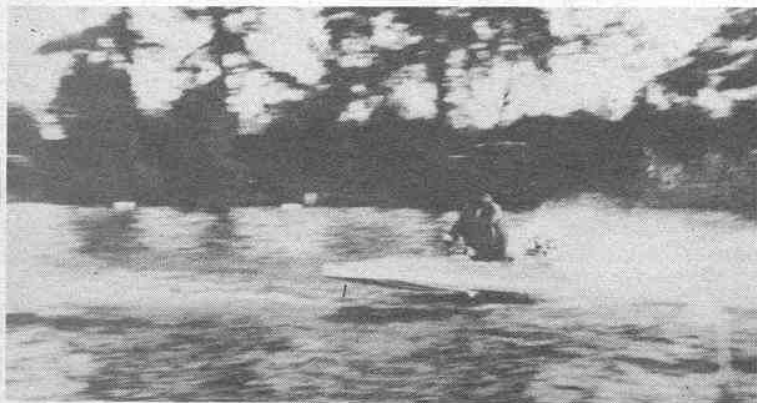
The British Racing Scene



This little Wessex hull, based at the Jacoby design, is very light and handles well in smooth water, making it a formidable outfit. Engine on this hull is an old Anzani and driver is Ron Smith, who swept the board at Essex Club meetings in 1956.



Many English drivers are still partial to single pointers, like 'Oh Boy, 261, shown above overtaking a hydro of a more recent design as they move toward a turn buoy.



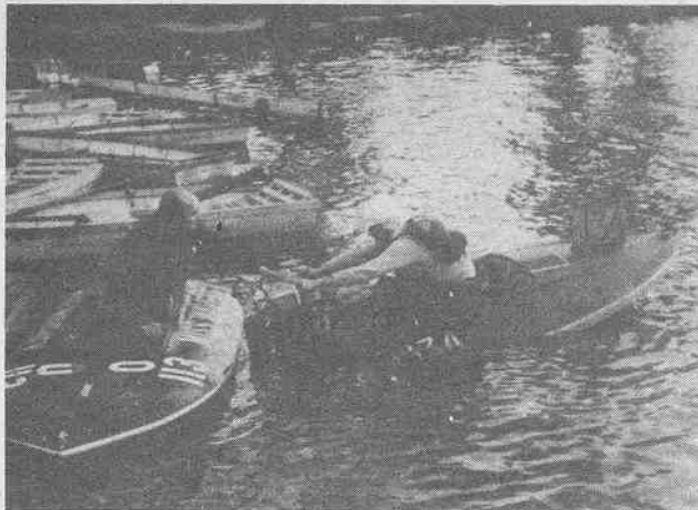
Rapid little 'un. Super B, a Wessex hull powered by an alky-burning Konig, is driven by Freddie Padfield. She is very small and light, but has acquired a name for speed.

HYDROPLANE RACING IS RAPIDLY growing in popularity in Great Britain, but it must be faced that at the moment it is not a well-known pastime . . . in fact, when in a recent radio quiz a competitor was asked "What is a hydroplane?" he had really to think. The sport is in a healthy position, however, with all the clubs flourishing more than ever before, and this writer for one predicts that within the next decade it will blossom forth in popularity as auto racing has done here since the war.

The governing body of the sport in the United Kingdom is the Marine Motoring Association, with headquarters in London. The MMA controls about a dozen clubs in different parts of the country. During the summer each club holds regular race meetings, mostly weekly, with the entry confined to its own members, but each organizes one or more "open" meetings during the year at which all drivers holding MMA licenses are welcomed.

All our racing is hydroplane; we have no runabout events. Our racing differs from that in the United States also in that we have no Stock classes.

A most attractive feature of our racing is that in a world of professionalism it is still regarded as a sport by its participants. There are no large cash prizes to be won and no starting or bonus money. Thus the sport does not attract a large following of chaps who are merely out to win and do not mind how much money they lay out or to what depths they descend to do



No. 134 is a Jacoby hull owned by the author, who is sitting in 113, an old Dobson hull, very large and stable but requiring a beefy motor to make it go.



Mistral is a McCrae 3-pointer built last winter by her driver, Alan Richards, fast despite the old, inefficient Anzani motor.

By J. Richard Aley

THE ENGLISH HYDRO RACERS ARE A SMALL BUT KEEN GROUP MAKING THE MOST OF LIMITED AND OUT-OF-DATE EQUIPMENT

so. While everyone naturally tries to keep just that one step ahead of his competitors most hydro drivers in my experience are only too willing to help another, and a happy spirit pervades the whole sport.

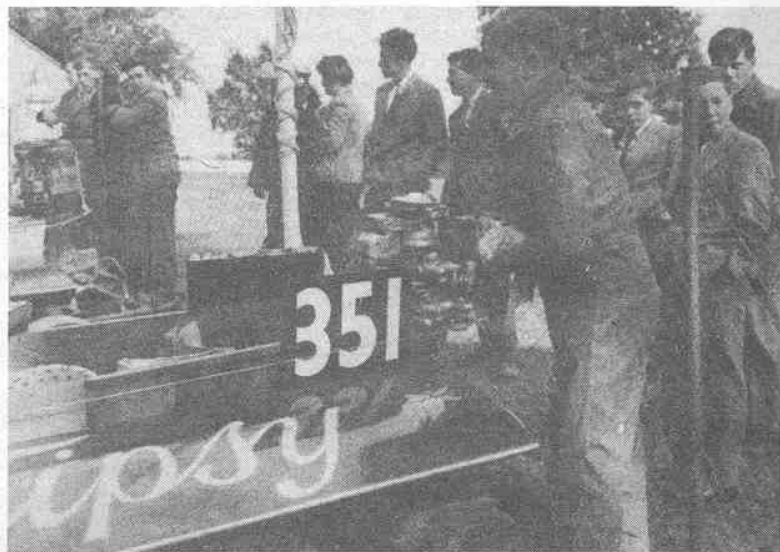
I remember a case last season where a newcomer was having trouble starting his motor. One of the old hands, seeing his predicament, jumped into the rig with him, started the engine, and then, to avoid stopping it again, simply slipped overboard and swam to his own boat just in time to start a very wet race. And this was at Oulton Broad, where the water is pretty cold.

Now don't get the idea from the foregoing that our racing is a gentlemanly "After you, old boy" affair. On the contrary, because the boys are in it purely to enjoy themselves, there's no let-up at all, and it's no place for a faint heart on the turns.

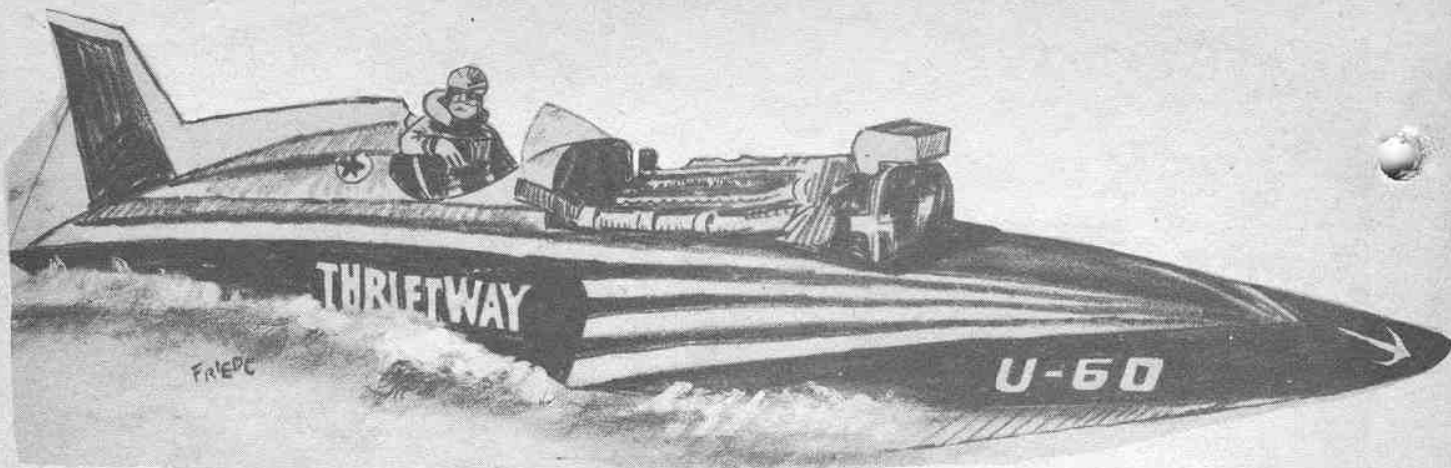
What makes some of our racing appear rather hair-raising is that we have no class racing at our normal regattas. Class racing is left to the bigger open meetings when the fast types can really enjoy themselves. At the weekly do's all the boats run together on an individual handicap system. Under this, each driver has his separate starting time allotted according to his previous best time on that particular course, and when he exceeds this handicap he is re-assessed before racing again. Of course this makes some of the races difficult to follow, particularly as in the average eight- or ten-mile
(Continued on Page 32)



John Hollington adjusts the Evinrude Storm motor of Clipper before the Gosfield Trophy Race, which was won by Gordon Bowell of Oulton Broad with a Martin-engined 4-pointer.



Final adjustments to Topsy's Konig B motor, mounted on a hull similar in design to the American Wetback of Hal Kelly. An alky-burning Mercury can be seen in left background.



TORQUE TALK

Lou Eppel, BOAT SPORT columnist and Chairman of the A.P.B.A. Honor Squadron Selection Committee, names those he considers last season's standout drivers.

By Lou Eppel

AT THE END of each racing season, it has been our custom to review the past season and pick out some of the drivers whose abilities as pilots seemed to us outstanding. In many cases, these drivers were not necessarily among the top point scorers, nor were they always those who set records; often they displayed exceptional talents as chauffeurs in spite of equipment which left something to be desired for one reason or another. In our group, there are drivers who were well up in point scoring, and who may have set records; however, that was not the reason for their selection.

In the Unlimited field, we especially like the driving of Gold Cup winner Bill Muncey, whose skill at the controls of Willard Rhodes' *Miss Thriftway* was certainly demonstrated at the Detroit Gold Cup race as well as at the President's Cup Regatta at Washington, D. C. Another Unlimited driver whose driving style is professional to the nth degree is Chuck Thompson of Detroit. Chuck handles *Miss Pepsi* with the same adroitness he showed his own alcohol-burning outboards in years past, and a check of his starting pattern over the years, and his amazing consistency lap after lap, certainly put him in the top echelon of Unlimited drivers.

In the limited inboards, we must doff our cap to Henry Lauterbach of Portsmouth, Va. Henry's driving of Bill Ritner's fleet of limited hydros put them out in front in high-point scoring in the 266's, 225's and 135's, which leaves little else to be said. Another limited inboard hydro pilot whose driving brought him great success, including the current one-mile record for the 136's, is Bob Boehm of Heraldsburg, Cal.

In the inboard Racing Runabouts, two Californians take top honors, in driving

skill as well as in having the best running pieces of equipment in their classes today. In the B's it was Ernie Rose of Patterson, Cal., and in the E's it was Ed Brown of Sacramento. We especially liked the performance and riding characteristics of Brown's *Bouncy Barby III*. Her hull was built by Brown several years ago, and she is powered by a six-cylinder Chevy. Both Rose and Brown hold the mile records for the class they race in, with Rose being credited with a 72.547 mph average, and Brown with a fantastic 89.5633 mph recently established at the Salton Sea mile trials. Brown not only pushed the record up to its present mark, but also took the National Championship title at Newport Harbor, and boosted the five-mile mark for competition at the Lake Mead regatta.

Among the alcohol-burning or Racing Outboards, there can be little argument with the selection of Doug Creech for special applause in the driving department. Unfortunately we haven't seen too many of the alky races this season as our junkets took us elsewhere, but reports which have reached this desk throughout the year indicate that Manuel Carnakis and Chuck Parsons also have earned high praise.

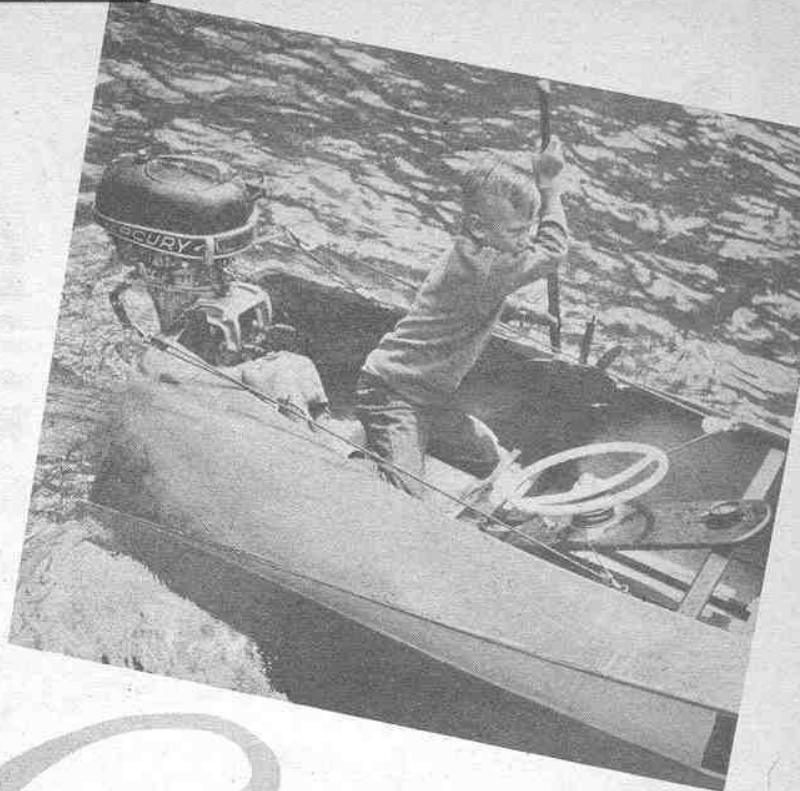
With the thousands of Stock Outboarders tearing up the waterways of the country, it is almost impossible to salute the many who deserve special salutations, so we shall doff our lid to one and all, and at the risk of having a horde of irate drivers, as well as irate mothers and fathers of drivers, who are not mentioned descend on us en masse, we shall name a few whose driving techniques caught our fancy during the year. In the New England area, we singled out Tommy Von Mello of Marion, Mass., whose driving ability could well be used in any of the limited

inboards currently screeching around the buoys. Tommy's starts occasionally leave something to be desired, but once under way, Von Mello is a hard man to stay ahead of, or to pass. His flair for the spectacular and his top equipment have made Von Mello a favorite of the spectators, though not necessarily a favorite of the competition. In the Middle Atlantic area Tommy Young of Wachapreague, Va., and Dave Kough of Hawthorne, N. J., seemed to us to have the necessary class to put them just a little bit above the rest of the fields. Young's consistency at race after race, week after week, was a delight to see, and Kough's performance at the Nationals in Cambridge surely places him in the special-mention category.

Down south, Florida's Don Baldaccini, carrying on from where he left off last year, dominated the fine competition in his area. Placing in three events in the Nationals proved his local victories were not against lesser-calibre competition. In the mid-west, Dean Chenoweth of Xenia, Ohio, Gerry Waldman of Milwaukee, Wisc., and Ray Lenk of Detroit exhibited the type of driving which set them apart from others we watched during the year. Lenk's second win in the Mennon Marathon (Around Manhattan Island) against odds which seemed almost insurmountable really proved his right to special kudos.

On the West Coast, thirteen-year-old Billy Schumacher of Seattle, Washington, Rocky Stone of Willamina, Oregon, and Ronnie Hill of Bellflower, Cal., all displayed that little extra something which, to these tired old eyes, put them into the extra-special class of drivers.

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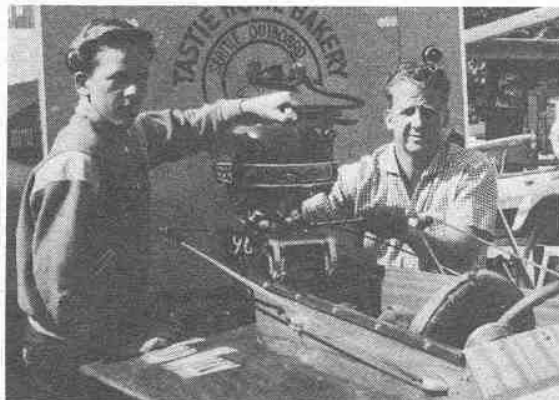


The pensive youngster at left is ten-year-old Tommy Makinen, whose good racing record began two years ago in his original rig, above.

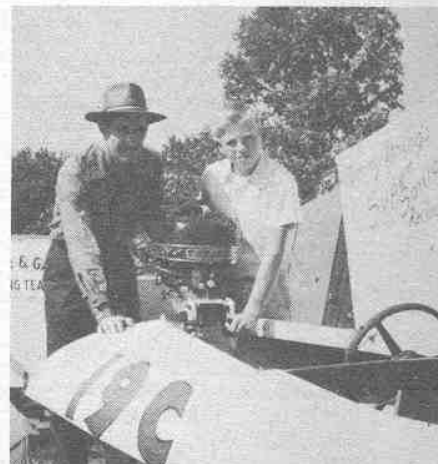
EARLY SPEED



Julie Herrick, 15, of Sacramento, Cal., races in Western B Stock Hydro events.



Billy Schumacher, Seattle, Wash., is shown with his father and his ASH rig. Billy holds the A.P.B.A. JU championship, and last year was the AU titleholder.



Ronnie Hill, 12, of Bellflower, Cal., won a third place at Stock Nationals.

OUTBOARD *IMBROGLIO*

BOATING WRITERS RUN DIZZY
RACE TO SHOW HOW IT'S DONE



Jack Smith laps John Collins in third heat. Note devilish grin on face of troublemaker Collins.



Start of final shows eventual winner John Kingdon veering left to cut off Smith and McKeown.

THE LUSH SERENITY of Florida's Cypress Gardens was dealt a severe blow early in December by what was in many ways the boat race of the year. On a bright and warm afternoon, a group of writers representing magazines, newspapers, radio and TV, gathered together by the Kiekhaefer Corporation for demonstrations of the 1957 Mercury outboard motors, revved up a quintet of 6-hp Mercs mounted on as many Flyin' Flivvers and were off in a four-heat-and-final race. Sixteen writers saw competition in this FF-class go, with BOAT SPORT's "Outdoors with the Outboards" columnist John Kingdon surviving the first heat to go on and conquer the hard-pushing finalists.

The Flivvers are unusual eight-foot-long fiberglass hulls with two air-chamber pontoons. With these pontoons and their 54-inch beams, they proved highly stable craft, as these photographs testify. The Mercury-Flivver combos made ideal rigs for their willing pilots, some of whom had never driven any outboard before.

A ten-lap course was charted around one of the tiny Cypress Gardens isles, and Lou Eppel, BOAT SPORT's "Torque Talk" columnist, took over the mike to describe an event unparalleled in the history of motorboat competition.

In the first heat Kingdon faced wily Hal Kelly, stock-outboard racer, boat designer, BOAT SPORT photographer, and boatman *extraordinaire*; hard-plugging novice Rust Hills of *Esquire*; and Dick McGlaughlin of the *Boston Globe*. Kingdon's determination outlasted the efforts of harried Hal, who pushed John past the checker.

Don McKinney of *True* overcame the seemingly-insurmountable lead of international correspondent Nerin Gun to win the second heat. Gun's incautious helming won him an early lead but also a prop-full of weeds, and he saw McKinney and Bill Wallace of the *New York Telegram & Sun* precede him home.



The five-man third heat was a rough touch-and-go affair, with Jack Smith of *Mechanix Illustrated* the top survivor. Game Mort Fleischman of *NBC*, a newcomer to outboarding, got his feet wet—literally—and emerged with a second-place spot. Jersey's Bill Robinson, Art Herzog of *Cavalier*, and John Collins of the *Boston Herald Traveler* rounded out the field, with the fiendish Bostonian creating the worst maritime havoc by a New Englander since the Tea Party.

In the fourth heat jumpin' John DuBarry met (*met* indeed!—see photo) Bill McKeown of *Popular Boating*, Conrad Wink of *Pageant*, and two crowd pleasers from previous heats, called back by popular demand: John Collins and Nerin Gun. Collins' harrying tactics found him proceeding against the traffic most of the time, and it soon developed that the winner would be the man who best avoided Collins' frenetic Flivver. Steady Bill McKeown did the trick, taking Wink by an eyelash in a last-second spurt.

After some frenzied pit work, the citrus-fortified heat winners met for the title: Kingdon, McKinney, Smith and McKeown. Kingdon set about opening an early lead in this 20-lap final and was never headed, taking the flag with almost a full lap between him and Jack Smith.

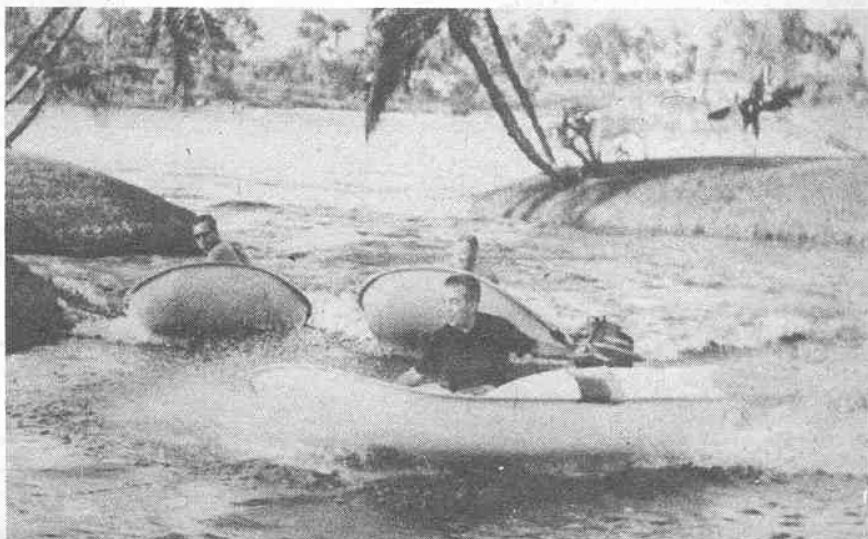
The Mercury-Flivver rigs amazed everyone with their ability to take it. The six-horse Mercs took on a job usually reserved for their competition-rigged big brothers, pushing the 110-lb. boats and their pilots at spanking speeds for five grueling heats, enduring continual stalling, reversing, and general abuse. The Flyin' Flivvers demonstrated a praiseworthy reluctance to capsize under the most extraordinary handling imaginable, and showed no distress at the battering they received. For the non-"racing" outboarder, the \$225 Flivver makes a safe child's craft, a good water-ski tower, and a nice duck boat.—F.S.

BOAT SPORT

John DuBarry takes the most direct route, in this case over the motor and transom of Nerin Gun's Flivver. This was one of the numerous pileups instigated by Collins, seen disappearing at left.



This view of the pits before the final shows disconcerted-looking Bill McKeown apparently seeking support from Jack Smith's boat, as Kingdon sizes up the situation. The pit work was hectic.



A fast-moving Nerin Gun laps Don McKinney and Bill Wallace in the early stages of the second heat. Nature of course and contestants put a premium on utter disregard for rules and courtesy.

OUTDOORS with the OUTBOARDS

TRAILING YOUR

TODAY'S BOAT TRAILER bears about as much resemblance to that of ten years ago as a 1957 streamlined car bears to a historic Model T.

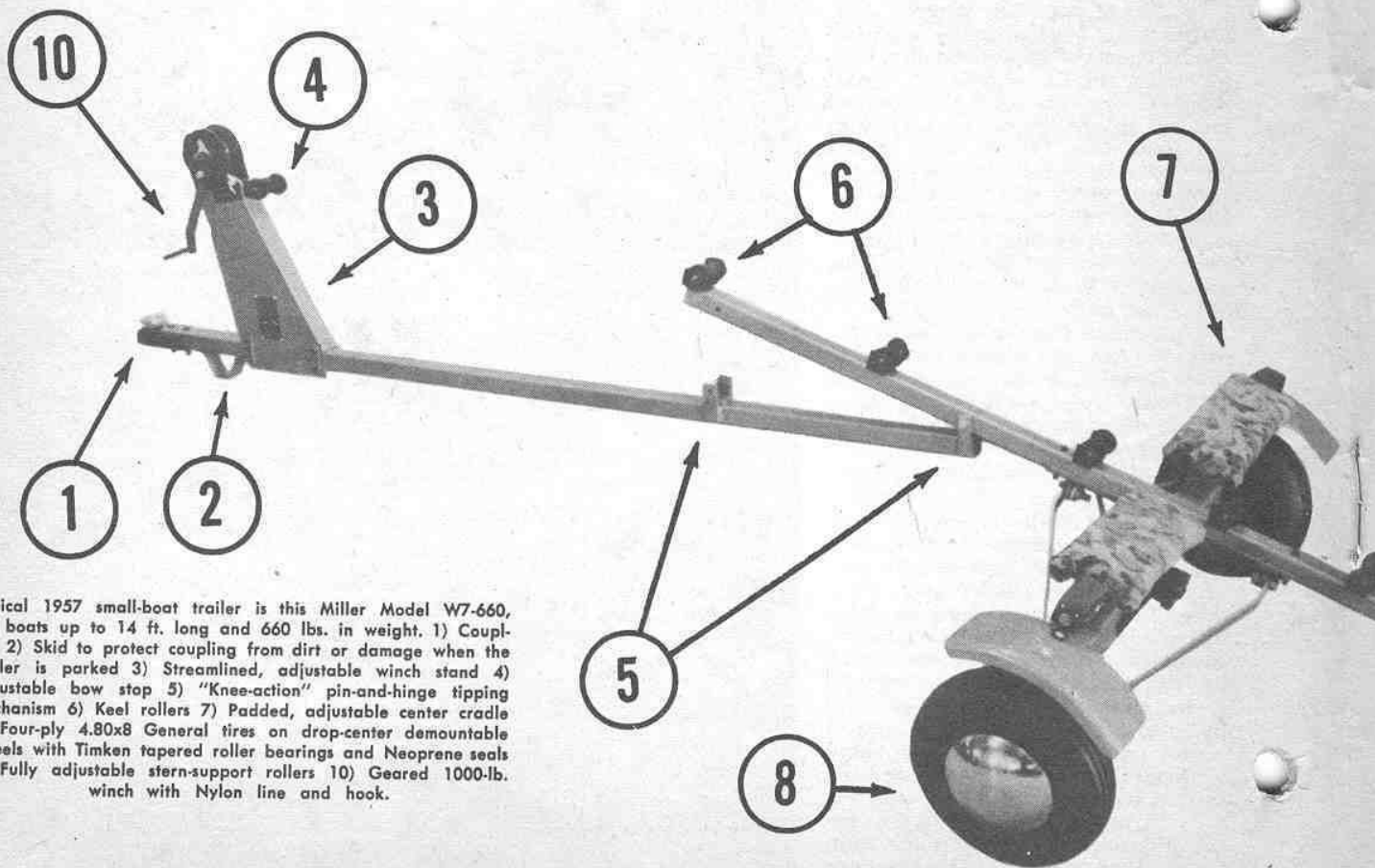
The problems of the trailer industry a decade ago were few because the outboard boat of that day was built in but three forms: the light fishing craft, the 12 to 14-foot runabout, and the outboard cabin cruiser. The trailer builder therefore could produce three types of carriers and let it go at that, secure in the knowledge he had covered the field.

Today, however, boat diversification

has become relatively complex—and trailer builders have had to develop quite a variety of models to handle all of the different boat classifications and sub-classifications. Yesteryear's 18-footer, for example, was almost invariably a cruiser with rugged hull, sizeable superstructure and extensive equipment that, taken all together, added up to considerable weight. But today's 18-footer is just as likely to be an open, relatively lightweight runabout as it is to be a cruiser. And today's cruiser is just as likely to be 15 feet in length as it is to be 18 feet.

The trailer industry, as a result, has had to design and manufacture two different types of trailers in the 15- to 20-foot range, one for lightweight boats and the other for heavyweights. Although these two types have the same general dimensions, they serve entirely different purposes, function differently and differ quite a bit in cost.

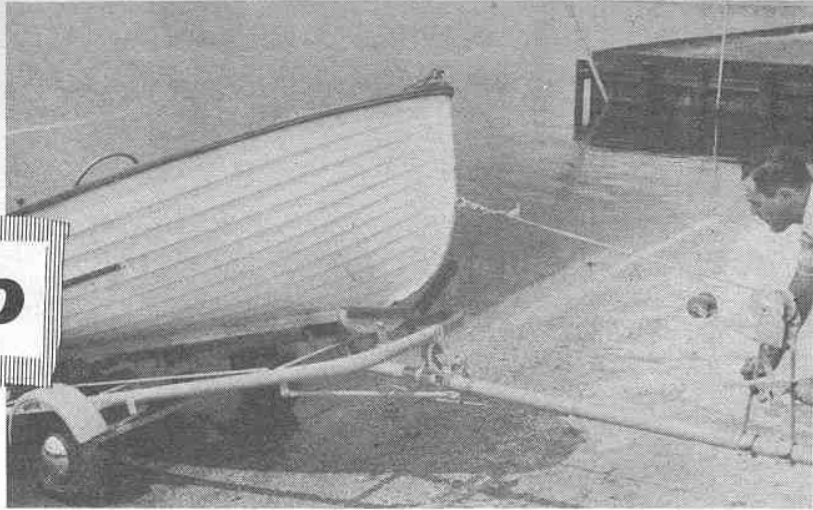
The possibility of the owner of a heavy boat buying a lightweight trailer to save money gives the trailer builder nightmares—because the inevitable result is that the trailer breaks down and
(Continued on Page 31)



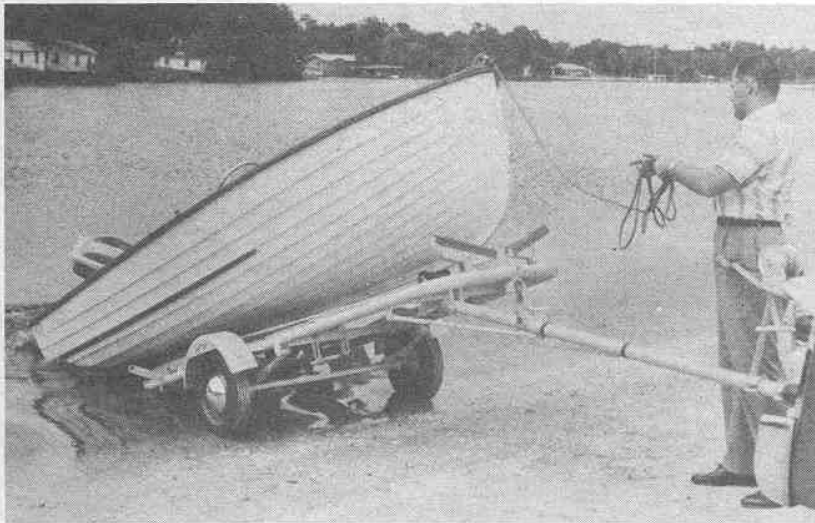
Typical 1957 small-boat trailer is this Miller Model W7-660, for boats up to 14 ft. long and 660 lbs. in weight. 1) Coupling 2) Skid to protect coupling from dirt or damage when the trailer is parked 3) Streamlined, adjustable winch stand 4) Adjustable bow stop 5) "Knee-action" pin-and-hinge tipping mechanism 6) Keel rollers 7) Padded, adjustable center cradle 8) Four-ply 4.80x8 General tires on drop-center demountable wheels with Timken tapered roller bearings and Neoprene seals 9) Fully adjustable stern-support rollers 10) Geared 1000-lb. winch with Nylon line and hook.

R OUTBOARD

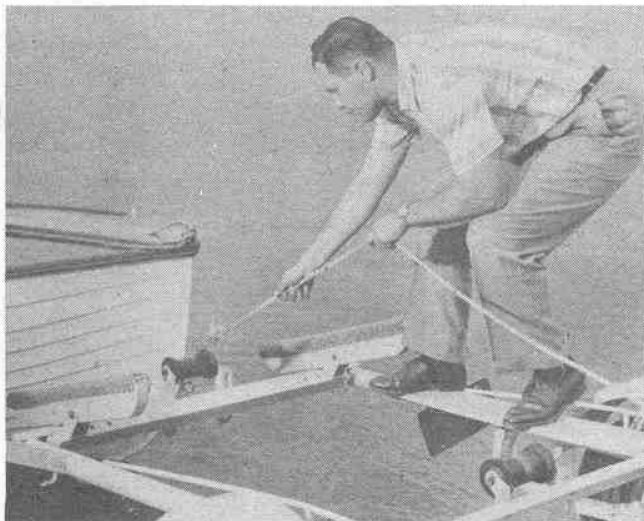
By John Kingdon



This maker eliminates "tongue-tussle" by "trigger-tilt" construction (visible under bow). Trailer is self-leveling.

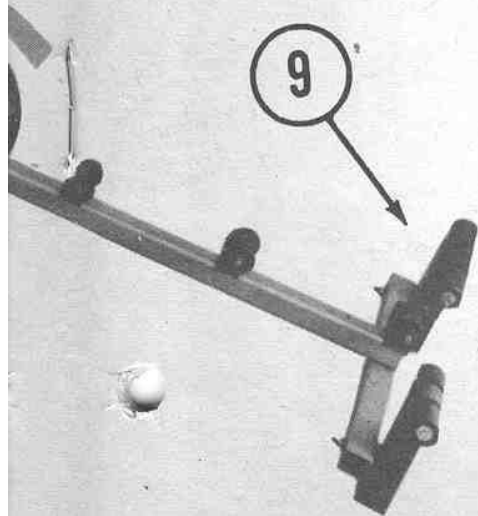


Winch remains at the normal hand-level position for re-loading. Note how bow roller raises hull clear of cradles.



It is not necessary for a modern trailer to be immersed in the water. Do not let water rise higher than lower rim of wheel.

9



The BOAT SPORT CAMERA

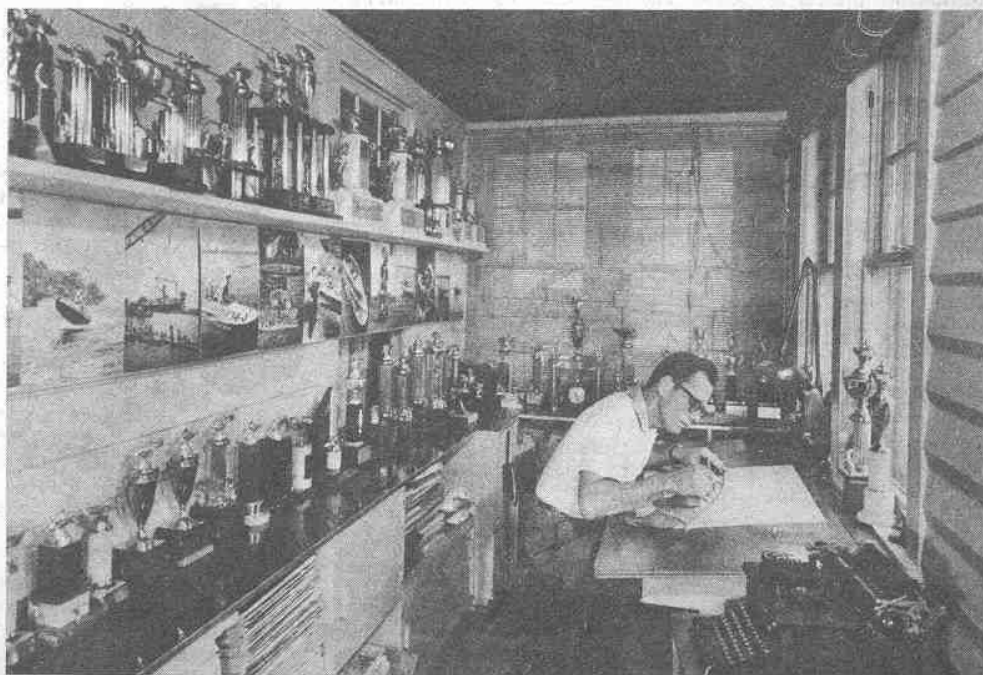
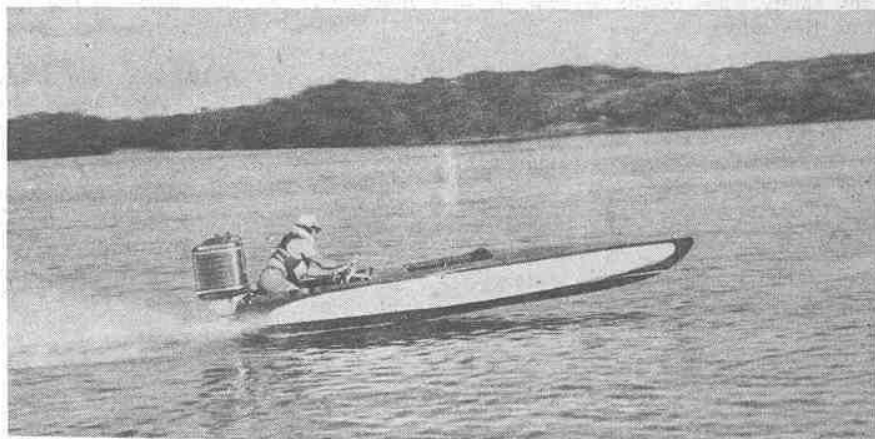


A closer look at Tony Rodrigues, seen in the topmost photo on our cover this month. Tony's grin is easy to understand: his scorching 67.431 mph mile run at Cambridge, Md., set a C Stock Hydro record and had spectators rubbing their eyes in disbelief.



Minutes after Bill Muncey heard he was disqualified at the Gold Cup, even Mrs. Muncey's consolation kiss failed to cheer him up. End of season brought smiles as he won President's Cup, Imperial Gold Cup, later on the Gold Cup.

Jim Wynn tests the Mercury Mark 75H on a F Raveau hull at Sarasota, Fla. Research on the lower unit is still in progress, and the motor is expected to produce over 70 mph on runabouts when finally set up for optimum output.



Hal Kelly amid some of the trophies he has won in the past three years testing boats of his own design at races before offering his plans for sale. In 1956 he placed fourth nationally in B Runabout professional and first in New Jersey in both B Hydro and pro B Runabout. Besides these activities, Hal has a full-time artist's job, and with his wife Ethel designed and built all the furniture in their home.

1957 racing rules changes

by shanon place

AS A RESULT OF BALLOTING a number of new general racing rules as well as specific rules affecting inboard, outboard or stock outboard racers were voted for by A.P.B.A. members and will be in effect during 1957. Of interest to potential sponsors was one general rules change which permits the inclusion of eighteen rather than sixteen heats in a \$25 sanction fee. In certain sections where stock outboards have been running two heats each of A, B, C and D runabouts and hydros, sanctioners have been loath to add additional heats despite the renewed popularity, particularly in the East, of JU class, because of the added sanction fee. Now sponsors can run all five classes of stocks within the base fee.

During the 1956 racing season many sanctioned A.P.B.A. race announcements carried mention of the fact that outboard and stock outboard drivers seen in competition with locked throttles or standing in their boats would be disqualified. During 1957 a new rule which calls for a boat to be anchored at either end of race courses and manned by one or more judges on the lookout for violations of any safety rules or other racing rules will put real teeth into this safety measure.

INBOARD RULES CHANGES

225-c.i. hydro owners whose motors were once limited to \$600 have had their expenditure allowance increased by the passage of a new rule which reads, "The cost of the motor and all extras as finished products shall not exceed \$800 U.S.A. at list price, installed in the hull, but excluding labor of assembly."

In the 136-c.i. class, a new rule has been added which states, "It shall be permissible to use a cam shaft which has been reground to stock lift and timing. The above cams to be reground by a grinder designated by the Chairman of the Inboard Racing Commission and the Chairman of the 136 Technical Committee."

Owners of 48-c.i. hydros have also had the cost of their assembled power plant, including any extras and modifications, increased from a maximum of \$550 to \$650.

Cracker Box class inboard runabout owners have a new limitation placed on their engines, that of a maximum 10:1 compression ratio.

OUTBOARD RULES CHANGES

A general rules change eliminates all distinction between amateur and professional drivers and owners in the outboard classes.

Restrictions on flywheel weights, which did not apply to F Hydroplane motors, have also been eliminated on F Racing Runabout motors. Minimum flywheel weights for C Service motors have also been eliminated.

The lower unit "V" dimension, that is the distance from the upper base of the driveshaft housing flange to the center of the gear box, is eliminated for both C Service and C Racing Runabout motors and any unit approved by the Outboard Racing Commission may now be used on C Racing Runabout motors. The same added leniency has been granted F Hydro class racers. All hydroplane hull weights minimum restrictions have been eliminated in the outboard classes though prevailing overall weights will continue to be enforced.

STOCK OUTBOARD RULES CHANGES

Stock outboard drivers are now permitted to cover the forward cockpit of their hulls with a plywood cover, providing the cover is securely fastened, yet may be removed for purposes of inspection. It is recommended that the cover be hinged at the front edge of the cockpit and

screwed or bolted down at the rear edge. Securely fastened fabric cockpit covers may be used in marathon races only.

Also for marathon racing only, drivers may at their election mount an auxiliary fuel tank on the cross seats.

Last fall at the A.P.B.A. Stock Outboard Nationals at Cambridge, a hassle of considerable proportions developed concerning the interpretation of the rule outlining the various aspects of the bottom design of runabouts. The rule, to avoid any fuzzy interpretations in the future, has been completely rewritten. It's an important one and one which inspectors will enforce to the fraction of an inch during 1957. The rule as changed reads, "The hull shall have no step and there shall be no breaks in the longitudinal or transverse continuity of the immersed surface other than the keel, rubbing strips, or lapstrake of no greater depth than $\frac{5}{8}$ " and running in a fore-and-aft direction. In the region starting at the trailing edge of the planing surface and extending forward for a distance of three feet, all longitudinal breaks in the immersed surface, including the junction of the non-trip chine and the planing surface, shall be essentially parallel to the center line of the hull. The maximum allowable deviation from parallelism in this region shall be $1\frac{3}{4}$ " per foot of length."

Hull and overall weights for FSH class, which will include the new six-cylinder-in-line Mercury Mark 75H, are set at 160-pound hull weight with an overall minimum weight of 335 pounds. The items included in overall weight have been further clarified. Runabout and hydroplane hull weights include steering wheel, motor controls, permanently-attached speedometer and tachometer, permanently-attached hardware such as carrying handles, cleats, permanently-attached coaming pads, cushions and flotation equipment. The phrase "permanently attached" has been defined as meaning fastened in place with bolts, screws or tacks requiring the use of tools for removal or installation. Any fuel tank or battery for engine ignition may be included in the hull weight if it is permanently attached or securely fastened in place with elastic cord or straps.

With added emphasis on safety, one very important rules change will now be enforced which requires the wearing of a collar-type life jacket and crash helmet at all times while underway driving registered racing equipment. This means that any driver entering into and getting underway in a registered stock outboard, whether it be simply during a tryout of equipment on his own local waterway or at pre-race testing, is subject to disciplinary action unless he conforms with this rule.

Long standing in the rules for stock outboarders has been the requirement to use only fuel compounded of standard pump gasoline and petroleum motor oil. To add teeth to this rule, drivers using special blends or additives of any nature which can be considered illegal will not only be disqualified but also suspended from further competition for one year from the date of the disqualification.

The former rule prohibiting the use of an auxiliary device to alter motor angle while under way has been rephrased to include prohibition of any device installed for alteration of height while underway. This rule, however, will not cause prohibition of mechanically-adjusted transom panels which are locked in place with bolts or clamps and serve only to eliminate requirements for shim sticks.

The only other rules changes affecting the stock outboarder concern qualifiers for Divisional and National Championships. Drivers finishing fourth or fifth at their Regional Championship will be given preference in their order of finish to substitute without eliminations for those drivers placing first, second and third who don't appear.

IT'S NEWS

NEW CABOVER HYDRO

The West Coast Boat Works, Route 5, Box 1092-Hiway 99, Vancouver, Washington, announces full-scale production of the Record cabover hydro. The designer T. J. Record, working along with Ted Jones, has spent more than ten months constantly testing and reworking designs to come up with this D-F production model. The boat, equipped with a Mark 55H and factory Kaminc prop 48-26007 set up for competition, has been clocked unofficially at 69 mph. One of the Record hydros helmed by Bill Carson, Jr., San Francisco, won one heat, placed second in another for an overall second-place standing at last fall's A.P.B.A. national outboard championships at Long Beach, California.

TIPPER TYPE TRAILER

The Dexter Ready-Rig trailer, manufactured by Liggett Supply and Equipment Company, Elkhart, Ind., announces its new deluxe Tipper model which provides full-length keel support for racing utilities and can take a capacity of up to 800 pounds. More complete details can be obtained by writing directly to the manufacturer.

NEW RACING SPARK PLUGS

The Champion Spark Plug Company, Toledo 1, Ohio, announces three new and improved spark plugs with heat ranges designed to replace the former R-2, R-11-S and R-2-S. The K-58-R is a new one-piece shell 18 mm. plug with 1/2" reach, designed to replace the popular two-piece R-2-S. Features of the new K-58-R include an extra-strength insulator which in laboratory tests pierced 1/4" steel plate under 6850-pounds pressure without shattering and a stronger one-piece shell. The combination permits the use of an improved sillment seal to minimize gas leakage. The insulator nose diameter has been reduced to provide greater clearance volume in the firing end of the plug. This offers improved non-fouling characteristics over the R-2-S and improved "charge cooling" and a consequent broader operating range. The K-58-R is manufactured with a solid-post-type terminal stud to fit spark plug cable terminals of the thrust, hook or spring snap type.

The K-55-R is designed to replace the R-11-S, and the K-53-R to replace the R-2, offering a complete range for

the alkali-burner driver. For those who have used hotter racing plugs, a K-61-R is available to replace the former R-7. The gaps on all of the new plugs are .015" to .018".

NEW ELECTRIC OUTBOARD TACHOMETERS

Bendix Pacific Division, 11600 Sherman Way, North Hollywood, Calif., announces a new precision-calibrated electric tachometer which should be of interest to all race drivers. It's equipped with an easy-to-read sweep-type arm indicator. Harold Depew, San Diego, who last fall won the San Diego-to-La Jolla outboard marathon with a twin Johnson 30-equipped 15-foot Yellow Jacket Riviera, had both motors fitted with Bendix Electric Outboard Tachs. Depew feels that the

tachs are not only a definite necessity for any racer but are also a valuable instrument for obtaining best performance from outboard motors on any type of boat application.

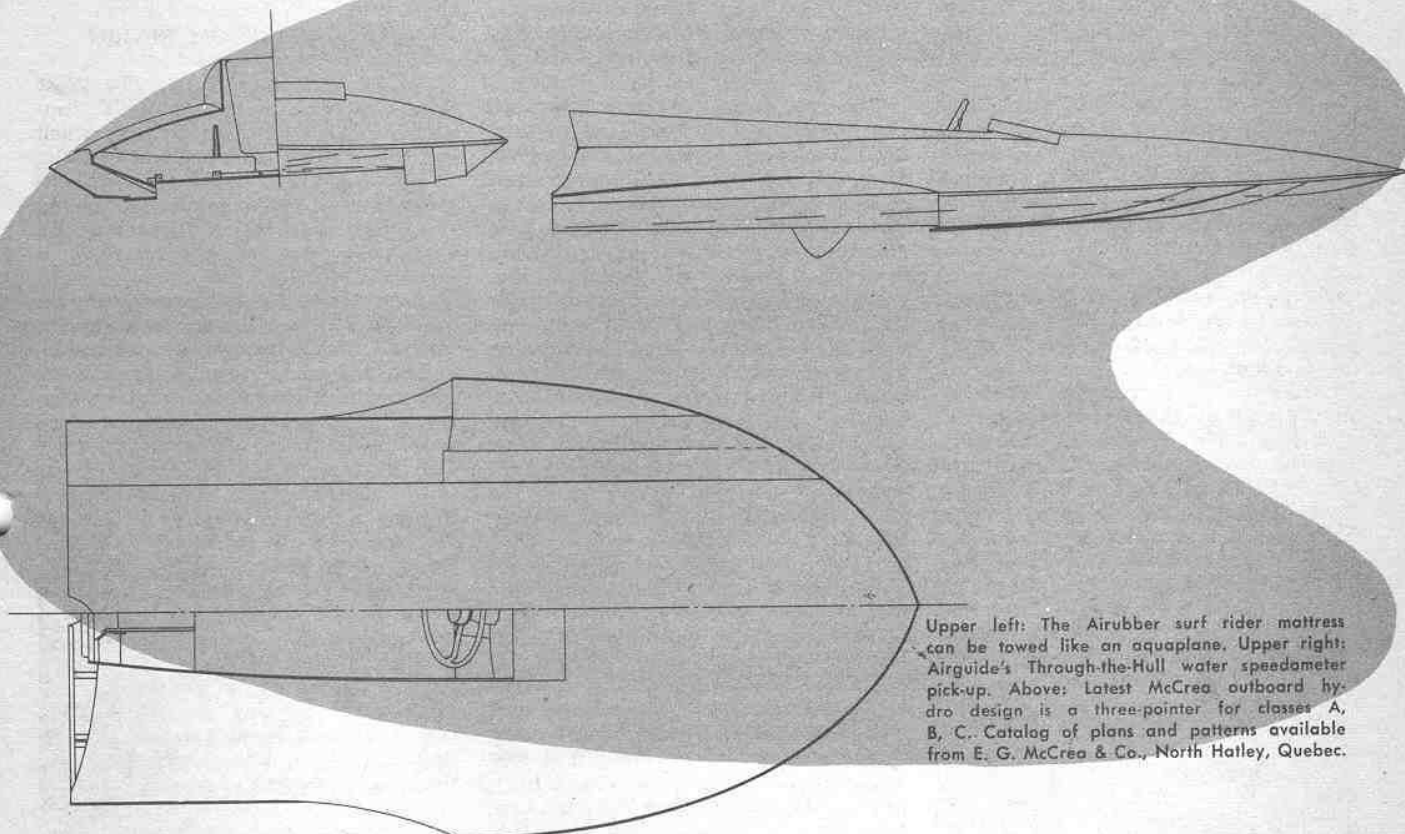
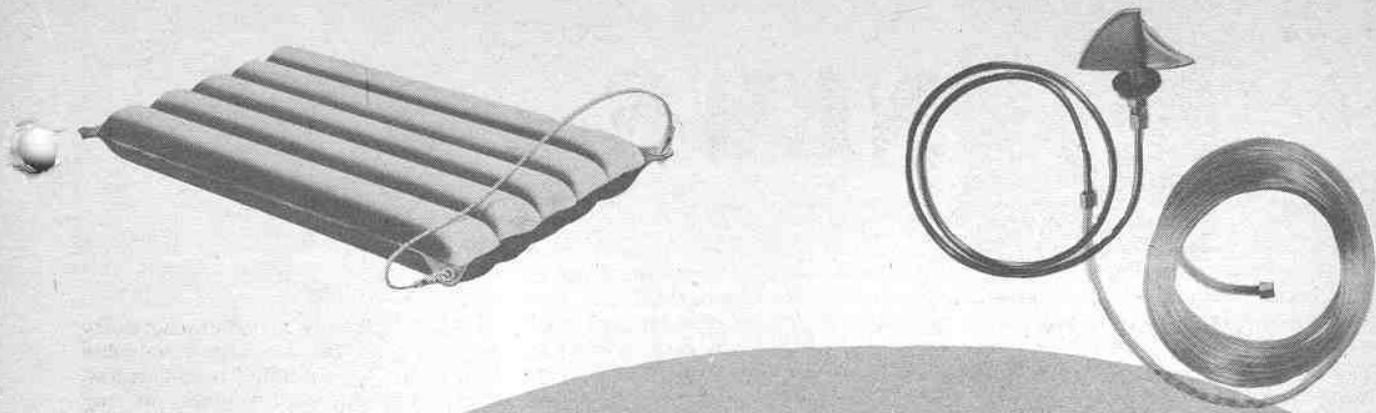
PACING BOTTOM FINISH

Metallic Coatings Corp., 234 West 44th St., New York 36, N. Y., announces a boat bottom coating which can be burnished to a brilliant metallic luster to offer one of the slickest, fastest racing bottoms possible. The racing finish, which is one of the company's Coperoyd products, lists at \$7.00 a quart.

The initial coat of Coperoyd may be put on with roller, brush or spray, although the latter two are preferable, and then after at least 24 hours hardening, it should be rubbed lightly with



Couture Sea-Paris rent all the equipment shown in this photo, plus a new car, as a package for a flat rate of \$110 a week. Originated in Miami, the rigs will be widely available by summer.



Upper left: The Airubber surf rider mattress can be towed like an aquaplane. Upper right: Airguide's Through-the-Hull water speedometer pick-up. Above: Latest McCrea outboard hydro design is a three-pointer for classes A, B, C. Catalog of plans and patterns available from E. G. McCrea & Co., North Hatley, Quebec.

a fine grade of steel wool or 4/0 wet and dry sandpaper. If the latter is used the surface should be kept wet at all times. The second coat should then be applied and the same performance repeated. When a final light coat has been given, it should be allowed to harden for two or three days at room temperature, then rubbed with medium steel wool or 6/0 wet or dry sandpaper. Then the bottom should be flushed with water, dried and burnished with the finest grade of steel or bronze wool until it is brought up to a slick mirror-like hard finish.

NEW BOAT RENTAL SERVICE

The Sea-Fari originated by Couture Rent-A-Car Service, Miami, Florida, offers vacationers a 1957 car, a 17-foot fiberglass boat, Gator boat trailer, twin

7½-horse Evinrude motors or a single 35-hp Evinrude, four buoyant life cushions, fishing caps, plus either water-skiing equipment or fishing gear for four at a flat rate of \$110 a week. It is expected that Couture Sea-Faris, auto-trailer-boat rigs will be available by mid-summer in New York, Cape Cod, through the west to Chicago, Denver and Dallas.

THROUGH THE HULL PITOT TUBE PICK-UP

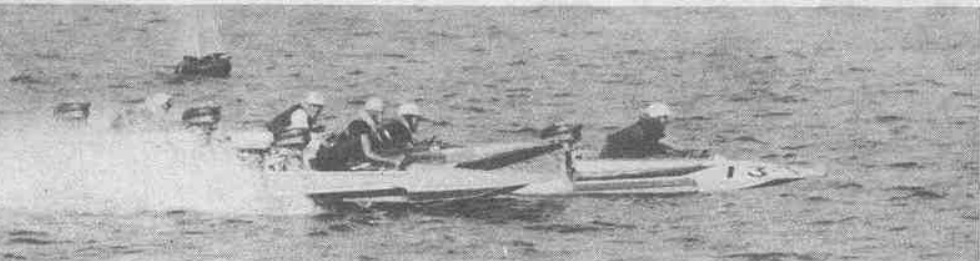
For those racers who want a permanent water speedometer pitot tube installation, Airguide Instrument Company, 2210 Wabansia Ave., Chicago 47, Ill., has the answer. Airguide's new Model 14 Through-Hull Mount Pick-Up Unit, which retails at \$5.00, is a complete assembly consisting of a

streamlined bronze pitot tube 3" long, 1½" high, with threaded brass fittings and leak-proof gasket.

NEW AQUA PANEL SPEEDOMETER

Ketcham and McDougall, Inc., 465 Eagle Rock Ave., Roseland, N. J., long famed for their Aquameter speedometers, now announce a new type which can be mounted directly into an inset hole in a dashboard or a complete panel which is rapidly becoming standard equipment on many sports runabouts. The Aquameters are equipped with slim, ¼"-diameter pitot or impact tubes and come with a range of calibrations, 5 to 35, 0 to 45, 10 to 60, 30 to 80, and 50 to 135 mph. The company, which is headed by an ex-
(Continued on Page 39)

THE RACING SCENE



(Continued from Page 11)

The list of entries was impressive. Included was *Miss Thriftway* with Bill Muncey, still smarting over the Labor Day Detroit Gold Cup hassle which was destined not to be finally settled until the early days of December. Roy Dossin's *Miss Pepsi*, which had already won the President's Cup three times, was out for a fourth stab at the Chief Executive's award, with skilled Chuck Thompson at the helm. Other entries included *Shanty I*, the Harmsworth and Seafair winner, with Russ Schleeh in the cockpit, and Bill Stead handling owner Bill Waggoner's other entry, *Maverick*. Bud Saile had his twin-engined *Miss Wayne* on hand and Jack Schaefer had trailed in another Detroit twin-engined job, *Such Crust III* with Freddy Alter doing the throttle shoving. George Simons' two *Miss U.S.'s* were on hand, the *I* slated for Jack Bartlow and *II* driven by Doc Terry. Joe Schoenith arrived with all three of his *Gales*, *IV* with Roy Doby, *V* with Bill Cantrell, and the twin-Allisoned *VI* with Lee Schoenith doing the wheel and throttle work. Jay Murphy of Lake Tahoe, Calif., was on tap with his *Muvalong*. Edgar Kaiser's rose-and-coral-colored *Hawaii Kai* had little Jack Regas of Livermore, Calif., behind the wheel. The final entry was *Miss Supertest*, the Canadian unlimited, with Danny Foster controlling the Rolls-Royce-powered behemoth for owner J. Gordon Thompson.

This year the stage was set for another exciting one. Muncey was out to beat decisively the best in the field and make his victory stick. Thompson wanted to make it four wins for the old conventional. The fact that these two were pitted against one another in the opening qualifying heat added to the excitement. The year previous Muncey had set a new 45-mile race record at 92.676 mph. In the opening heat Muncey really booted *Miss Thriftway* down the straights and took her through the corners as though she were tied to a rail. Though he gave the buoys ample free-way, he clocked one lap at 104.449 mph. This tossed into the discard the previous President's Cup three-mile lap record of 103.627 mph, set by Danny Foster in *Tempo* in 1955. None of the other four contestants was able to match Muncey's speed and determination to win and when the first 15 miles had been rolled out, *Thriftway* had been clocked at an average of 101.427 mph, stealing from Foster the second President's Cup record which Danny had held at 100.709 mph and getting off on a good start toward another race record.

In the second qualifying heat, Freddy Alter crossed the line in third spot. But before the first three-mile lap had been completed he had put *Such Crust* out in front where she stayed through to the checker. *Gale V* finished second with *Miss U.S. II* third. *U.S. II*, however, had badly damaged her port sponson pounding over the rough water so she had to be withdrawn from further competition.

The first three qualifying heats had been formed by lot, which put into the third heat *Miss Supertest*, *Hawaii Kai III* and *Gale IV* and *VI*. The water was rougher as the breeze intensified. Danny Foster got his Canadian boat off to a beautiful start and a nice edge in the first lap, but suddenly the mahogany-and-red Staudacher-built hull started to dance from one sponson to the other. The port sponson dug momentarily, tearing an eight-foot long, 18-inch wide jagged hole. Lee Schoenith in the twin-engined *Gale VI* took over the lead and romped home an easy victor, with *Gale IV* and *Hawaii Kai* scrapping it out for second spot, the former beating the Kaiser entry in for the checker by .6 seconds.

Two more qualifying heats were scheduled to reduce the starting field to a six-boat pack. Rain caused postponement until the following day. *Shanty*, *Thriftway*, *Gale IV* and *VI*, *Pepsi* and *Muvalong* made up the first of the second series of eliminations. A stiff south breeze was blowing as rain clouds gathered. The rolling Potomac nearly spelled disaster to *Miss Thriftway*, for though she took the heat handily, her port sponson, like *Miss U.S. I's* and *Miss Supertest's*, had torn apart under the beating. The race was a hair raiser, with *Pepsi* and *Thriftway* battling it out for the entire fifteen miles. *Pepsi* had the edge on the straightaways since Muncey didn't overextend the three-pointer, trying to save *Thriftway* from an unnecessary beating. *Pepsi* wallowed in the rough water in the corners, corkscrewing and calling on all of Thompson's skill as *Thriftway* was able to make up time. Going down into the final turn it appeared that *Pepsi* might make the checker first, but *Thriftway* again moved through the corner, heeling slightly and sliding on her undamaged starboard sponson. The final turn provided the margin to let *Thriftway* bounce in with an .8 second slice of water between her washerwoman-like stern and *Pepsi's* arrow-like bow.

The water continued to get angrier and an official postponement of the program spelled victory for *Thriftway*, for during the wait for calmer water her

crew was able to patch the damaged Seattle boat.

Regas in *Hawaii Kai* took the second semi-final but only after *Such Crust* had run into fuel-pump trouble. *Kai* moved up from behind to take *Maverick* in the final turn.

Muncey with two wins didn't give *Thriftway* her head in the final. He let *Pepsi* set the pace and rode in second spot. This was close enough to the van to give *Thriftway* a total point score of 1100, two 400-point wins and 300 for her second in the final.

Hawaii Kai, which finished third in the President's Cup standing to *Miss Pepsi's* second, went on to shatter all previous Potomac River course records in the two-heat American Speedboat Championship. Regas clocked one lap at 105.675 and bounced along at 103.487 in his fastest heat.

The 135-pound West Coast Unlimited driving terror finished up his season in a blaze of glory when he competed in the first running of the Sahara Cup at Nevada's Lake Mead. Regas topped eleven other Unlimiteds, turning one 2½-mile lap at 105.479 mph. His late season point spurt for *Hawaii Kai* gave the Kaiser boat the runner-up spot in the Unlimited Class high point honors for 1956, just 23 points behind the Unlimited National Champion Russ Schleeh in *Shanty I*. Regas, who helmed her the latter half of the year, gives promise of offering his competition plenty of trouble in the fast-growing fleet of speedboating showboats during the coming season.

JOHNSON CITY, TENN.

Beautiful TVA-built Boone Lake, ten twisting miles outside of Johnson City, Tenn., on a relatively narrow one-mile oval, was the setting chosen by N.O.A. for the annual Division III championships of that sanctioning group's stock outboard classes. Approximately 300 boats registered for the series of races which were conducted on water which was nearly table-top smooth despite prevailing high winds. The picturesque location with steep wooded hills sheering down to the lake banks offered perfect protection against the chill breeze that blew during the three days.

The 1955 A runabout champion, Dr. George Reichardt, Nashville, Tenn., failed to make an appearance to defend his crown and reportedly has retired from racing. Dave Christener of Quincy, Ill., rolled up a perfect score of straight-heat wins to take the defenderless A Runabout title, with

Charlie Lovelace, Tampa, Fla., pushing him hard in both heats to gain runner-up position.

Though Christener was among the sixteen-boat B Runabout field in the final events, Dr. Charles Hursh, Goshen, Ind., clung tenaciously to his 1955 title, shaking free of his competitors in the heavy trafficked first



Bill Seebold, of Granite City, Ill., who won the N.O.A. Jim Mulroy Memorial Trophy in 1955, was the winner of the C Hydro title in 1956.

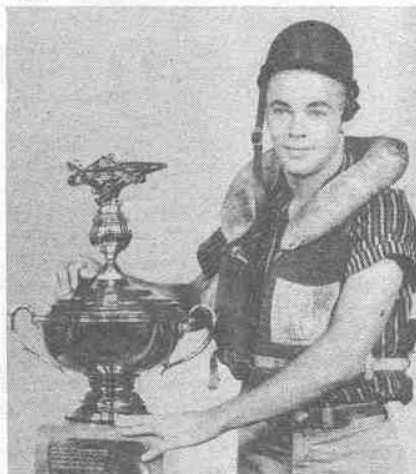
turn in both heats and romping in open water for the balance of the distance. Freddy Goehl, Quincy, Ill., and Dave Christener camped in the doctor's rooster tail both heats, waiting hopefully for the ace in the Rinker Craft to leave daylight between his round-chined hull and the turning buoys. Hursh's helmsmanship was flawless, however, and to his second-place A.P.B.A. Championship trophy, the optometrist added the N.O.A. title.

The C Runabout class, which only a year ago was breathing its last gasps and had all but dropped from competitive ranks, boasted a full complement of the 30-cubic-inch power plants in the new four-cylinder-in-line Mercury Mark 30H version. Len Clifford, Cairo, Ill., won the first heat, with Mike Lemon, Anderson, Ind., finishing second and Jimmy Morrow, Fort Worth, Tex., third. In the second canto, Clifford failed to make the distance and Morrow, with a clean cut win, laid claim to the crown over runner-up Mike Lemon, who again finished second.

Lemon was the defending titleholder in D Runabout and was in for another disappointment when his usually reliable four-cylinder mill failed him in the first heat. Perpetual cigar-chewer Earl Renfrow, Boonville, Mo., won the first heat with an ample spittin'-distance lead over J. B. Paulk, Temple, Tex. In the second heat, Renfrow, a railroad engineer, poured on full steam but had to be contented with a second-spot finish behind ex-champion Lemon. Renfrow's first- and second-place finishes gave him a safe point margin over the other contestants, with Paulk, combining a second and fourth, landing in the almost-champion position.

Most closely contested were the A

Hydro events, when after the two heats had been run, there was less than a 75-point spread between the first four finishers. Walter "Cuz" Knight, Kingston, Tenn., won the initial five-miler, pushed right to the tape by pretty Marilyn Donaldson, Dayton, Ohio, the only female driver to qualify into the finals of any of the N.O.A. title events. Miss Donaldson, you may recall, is the only girl driver ever to score a class runabout win in the rugged A.P.B.A. 88-mile Winnebagoland Marathon. This occurred some years back, but the girl is definitely making her presence felt in the hydro ranks, to which she is a relative newcomer. At the A.P.B.A. Championships she finished sixth in the finals. By the time the N.O.A. meet was conducted, she was giving quarter to no one and proving that she was a definite threat on the course. Later in the season at Madison, Ind., helming one of the newly designed Sid-Craft hydros, she copped a heat from some of the mid-



Dicky Pond, of Keokuk, Iowa, was Free-for-All hydro winner at the N.O.A. Minden, La., alkyl nationals, and poses here with the Fox Trophy.

west's best drivers to finish runner-up at that major mid-western wind-up affair.

In the second ASH heat at Johnson City, Charlie Lovelace spurted out in front to take a well-earned first spot. Knight dropped back to fourth and consistent, hard-driving Marilyn Donaldson wound up third. The final point score showed Knight scoring 400 for first and 169 for fourth to total 569; Lovelace, with 127 points for a fifth place in his first frame, rang up 400 for his win in the second to total 527. This score nipped Miss Donaldson by two points, placing her third with 300 for a second place and 225 for a third, a total of 525. 1957 should see the 18-year-old Dayton statistician giving the male drivers plenty to worry about.

In B Hydro, Larry Rogers, the Champion motor engineer, garnered a second and first to top runner-up Dave Christener, who won the first heat but was boxed at the start of the second and able to eke out only a sixth place.

C Stock Hydro drivers were snowed under by the impressive and consistent performance of John Ayers, Fort

Smith, Arizona, who handily won both heats, with Bud Jones, Sioux City, Iowa, taking second in each round but never providing a real threat to the winner.

The final title was in the 40-cubic-inch class and several of the sixteen boats scheduled in the D Hydro group failed to get out for the gun. The audience expected to be let down by the ten-boat field after seeing 16 starters in other heats. Bob Keller, Anderson, Ind., was anything but an odds-on favorite to take a title when the white flag dropped at the beginning of the first heat. He got away to a poorly-timed start and was dead last as he entered the straightaway of the first lap backstretch. Keller then methodically set out to better his position, boat by boat, as the five laps progressed. From tenth he moved up into seventh by the end of the first lap. By the end of the second lap, the fans occupying a lengthy stretch of boat houses and finger piers began to be aware that the Anderson driver might figure in the results, as he sped past in sixth spot. He was fourth at the end of the third lap and the rig was as hot as a blacksmith's forge. Keller's Merc 55H was really screaming as the driver carefully picked his holes, threaded his way through them and pushed full bore through the corners.

He was up in second as the green flag dropped to start the final lap and hardly a spectator remained sitting. Only Gene Hilton, Newton, N. C., was ahead of the Indiana threat. Keller bided his time, moved out of Hilton's wake and midway through the backstretch took over the lead to provide a real crowd-thrilling first-heat victory. Keller apparently just doesn't like to



John G. Ayers, Fort Smith, Ark., won the N.O.A. C Stock Hydro title and then established a new 69.632 mph straightaway mark at Johnson City.

do things the easy way, for though he improved his start in the second heat, it was still a middle of the pack deal, this time with Jim Griffin of Quincy, Ill., out in clear water and another five boats separating Keller from victory. This time the fans expected him to win on the basis of his previous performance, and Keller did just that, again knocking off boats one at a time until at the end of the fourth lap he had moved out in front to come home for the checker unchallenged, undeni-

ably the most impressive of the stock-title winners at the Tennessee go.

The day following the races Keller proceeded to show why he had been able to smoke through the field. He covered a two-way average of the timed half-mile at 74.534 mph to shatter the previous record by more than 10 mph. With decent starts, Keller doubtless would have set up a new competition record as well.

Other new records were established by Ralph Scott of Paducah, Ky., who upped the straightaway A runabout tempo to 48.128 mph, and Earl Renfrow, perennial record breaker, who smashed his own D runabout standard and hung up a new speed of 62.827 mph. Scott also put a new C Runabout record in the books at 54.795 mph. Then John Ayers prop-rode through the traps with a C Stock Hydro at 69.632 mph to establish the first official record in this N.O.A. class, which is still less than a year old.

MINDEN, LA.

In mid-October, N.O.A.'s alkiburning championships were finally staged on Minden's Caney Lake, La., after the scheduled Caddo Lake events had been cancelled because of low water. With seven titles at stake and two free-for-all trophies posted, alkiburning drivers from 19 states as far west as California, north to Wisconsin, east to New York, south to Florida and southwest to Texas, plus a champion from Berlin, Germany, made the N.O.A. event the most representative of the top-flight competition held at any alcohol-burner event during 1956.

In A Hydro, the savvy fans picked Orlando Torigiani, California KR driver, who collects A hydro titles like some people collect stamps, to take the event with ease. But Torigiani, for one of the rare times in his career, was destined to run into motor trouble on his well-groomed outfit. The Bakersfield cotton farmer, after trailering halfway across the continent, completed only one circuit of the Caney Lake one-mile oval.

A three-way battle developed in which strangely enough none of the old stand-by KR Johnsons figured, the competition being between Deanie Montgomery, Corsicana, Tex., Dieter Konig, Berlin, Germany, and Dave Christener. The first two helmed German-built engines, products of Dieter's father's outboard concern in Berlin. Christener helmed a modified Mercury.

Montgomery won the initial heat with the other two following in the order listed and came back to cop the second at a new record speed of 49.82 mph, proving the virtues of the German motor, untried in United States competition prior to 1956. Konig took second honors.

Bill Tenney was favored to win B Hydro but the Dayton, Ohio, flash was disqualified in the initial heat, which cost him his opportunity for the crown, despite winning the second heat. Ben Turpin, Sweetwater, Tex., merged a



Jimmy Morrow, of Fort Worth, Texas, won the C Stock Runabout title at Johnson City, Tenn.

first and a second and appeared to be champion, though his equipment was later protested. At this writing no B hydro crown has as yet been awarded. Freddy Goehl, Quincy, Ill., who finished runner-up, may come into the title if Turpin's appeal is disallowed.

The C Hydro event found the bulk of the hot drivers throttle-happy at the start. Disqualifications were rife as they crowded the clock in both that and the second heat. Hap Owens, Bedford, Ind.; Elmo Belluomini, Buttonwillow, Calif.; defending champion Bob McGinty, Corpus Christi, Tex.; and Bill Tenney all established somewhat of a record by getting themselves axed for clock jumping in both frames. Bill Seebold, Granite City, Ill., wound up with the title, with Gale Young, Pensacola, Fla., second.

Dud Johnson, Rolling Fork, Miss., won the first heat of C Service Hydro but failed to finish the second. Dave Barnes, Zanesville, Ohio, with two second-place finishes, proved the value of consistency and walked off with the title, with second-heat winner Dave Livingston, Lake Village, Ark., merging a first and fourth to gain runner-up honors. In F Hydro, consistency again paid off; Jim Griffin, Quincy, Ill., took the title with two second spots, beating out Bill Brown, St. Louis, Mo., who finished sixth in the first and won the second. In the F events, first-heat winner Jerry Biskup, Lincoln, Neb., established a new competition record of 56.285 mph, but unfortunately was disqualified for jumping the clock in the second.

Ellis Willoughby, Alexander, Ill., scored two easy wins to take the C Service Runabout championship, and broke the five-mile competition record in his first heat with an average speed of 47.022 mph. Homer Kincaid, N.O.A.'s 1955 high-point champion, merged third and second places for overall second position.

In C Racing Runabout, Bob McGinty successfully defended his title, took straight heats unchallenged and set a new record of 53.412 mph in the

first five miles. Clay Pettefer, Lake Charles, La., was the lone host-state winner, taking the Free-for-All Runabout Tatum Trophy, while Dicky Pond of Keokuk, Iowa, took the Fox Trophy for Free-for-All Hydros.

Three new marks were hung up in the speed trials the day following the events. Fred Mathews, Watervliet, N. Y., though unable to score better than a lone fifth spot in competition, broke his own two-year-old CSR record with a 51.650 mph average. Title holder Deanie Montgomery had a perfect time in A Hydro, not only leaving with the championship and a new competition record but also pushing the Konig motor through the straightaway at a record breaking 59.211 mph. Mel Kirts, Elkhart, Ind., established the final record by running his C Hydro through the traps at 68.966 mph.

TULLYTOWN, PA.

At one of the East's final A.P.B.A. closed-course stock events, officials of the aggressive Winding River Boating Association were the spark plugs of a well-attended eight-class race at Tullytown, Pa., under the joint sponsorship of the Bucks County Rescue Squad and the Delaware Valley Outboard Racing Association. Jim Coulbourne, Burlington, N. J., helmed a combination Mercury-Sid-Craft hydro to turn in a perfect score with an elimination heat and final heat win in ASH.

Three elimination heats were required in BSH. Buddy Fleming, Edgewater, Md., also turned in a perfect score to garner 20-c.i. honors. The CSH events were taken by Bud Palmer, Mt. Laurel, N. J., who finished in a point tie with Larry Teel, Lambertville, N. J., both scoring a first and third. Palmer won on the basis of the lesser elapsed time for the two heats. Edward Nestlerode, Lock Haven, Pa., and Glenn Brown, Bloomsburg, Pa., both scored firsts and seconds in DSH. Nestlerode gained the victory on a time basis.

AU went to young Don Pontius, Hummels Wharf, Pa., who won the second elimination heat and final in that class, with Warren Klawans, Annapolis, Md., making a decisive showing in BU. Klawans, while awaiting his heat, understandably got his signals mixed when a bevy of false starts sounded a regular barrage of cannon shots back to the pits. Thinking that the first heat must surely have been run, Klawans came out on the course at the next gun to romp home first, though the second-place boat piloted by Dick Rees, Pottstown, Pa., was declared the official winner. Klawans then went out in his properly-scheduled heat to win with an overwhelming eight-second margin. He repeated in the final canto with a 4½-second differential over second-placer Craig DeWald, Reading, Pa.

In "36" Class, Bill Raymond, a 16-year-old student from New York City, took straight heats, as did Terry Meckley, Lock Haven, Pa., in DU.

Outdoors with the Outboards

(Continued from Page 23)

the manufacturer receives an undeserved black eye. The trailer builder never overrates the carrying capacity of his product. When choosing a trailer, it's up to you not to underrate the total load—boat, motor and equipment—that must be carried.

ASSUMING THAT you have purchased the proper trailer for your boat, what do you do next?

First, put a frame hitch on your car. You can buy one that's specifically designed to fit your particular make and model. Both for safety's sake and for riding comfort, avoid the clamp-on bumper hitch. The frame hitch will provide a sway-free ride and full insurance against slippage. And it won't subject your car to the body-loosening jolts that come from having a half-ton or so of weight tugging at the bumper.

THE USE OF safety chains is debatable. Some states require them; in such places, of course, you must comply with the laws. Where chains are not required, however, there is an excellent argument for not using them. Anti-chain boatmen claim that safety chains increase the possibility of a serious accident. In the first place, they say, instances of a trailer coming uncoupled are so rare as not to constitute any appreciable hazard (most couplings now have snap-type pin fasteners which are about as sure as death and taxes.) In the second place, they point out, a free-running trailer (one that has come uncoupled) will, because of the crown of the road and the drag of the trailer tongue, tend to slide to a quick halt on the road's right-hand shoulder. On the other hand, they say, an unhitched trailer that's still held to the car by chains can throw the car out of control and cause a real crash, possibly one that buckles across both lanes of the highway.

TIE-DOWNS are important because they keep the boat on the trailer and protect the hull from distortion and jolts when trailering. If both the bow and the stern tie-downs were rigid, the boat's hull would be subjected to road shocks that could loosen fastenings and cause hull malformation. The bow tie-down is therefore made from heavy shock cord, allowing the boat to flex and absorb road shock.

The rear tie-downs are usually either bars or straps. Most trailer manufacturers allow you to choose either type. The strap tie-downs are more convenient to operate, but are more subject to expansion and contraction when the weather or temperature changes and are more inclined to slip than are bar tie-downs, which are firm under all conditions. Many boatmen therefore use strap tie-downs for short hauls and switch to bar tie-downs for longer trips, particularly over rough highways.

The principle thing in selecting rear

tie-downs is to pick the type that will remain firm on your boat. If one type permits the boat to slide about on the trailer (and there will be variance from boat to boat depending on hull construction and lines), switch to the other. If neither proves satisfactory, there is another type that isn't as common but may solve your problem. It is a chain-and-clamp system that attaches to the boat's transom.

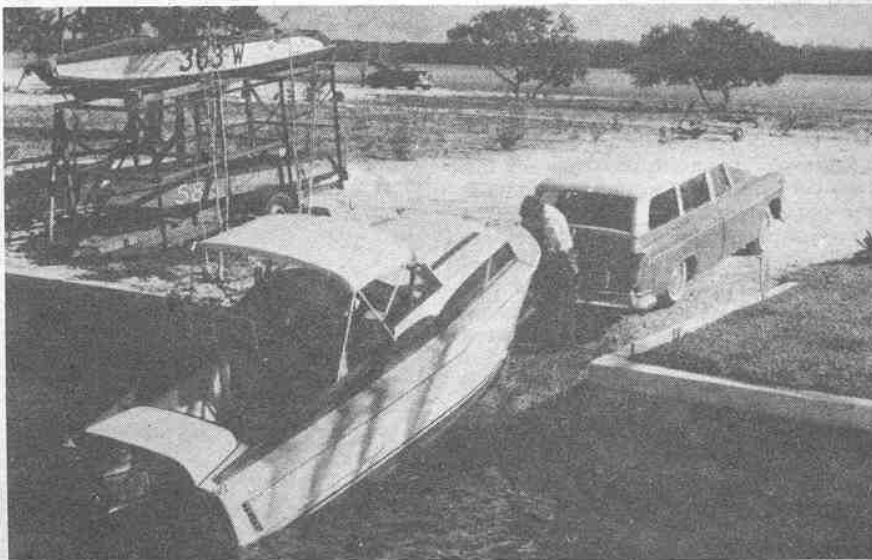
When driving, check the tie-downs occasionally, especially if you are traveling over rough roads. And, as an extra measure to prevent hull distortion, loosen the tie-downs when parking overnight or longer.

THE BOAT should be so loaded on the trailer that the trailer is just a trifle tongue-heavy. With the average run-about, the tongue weight should run about 40 to 60 pounds. With the outboard cruiser or other large craft, the tongue weight should range, depending on the weight of the boat and its gear, up to possibly as much as 150 pounds. Try lifting the tongue. If the trailer is definitely nose-heavy but comes up readily, it's okay. If the trailer is either too nose-heavy or not nose-heavy enough, shift the fuel cans and other gear in the boat until the proper balance is achieved.

In any case, towing the craft is the final test. If the trailer sways, the load is too far aft; if the trailer seems to jolt or nudge the car, the load is too far forward.

A TRAILER TAIL LIGHT with a brake-activated stop light is an absolute must for your safety on the road. As an added precaution, it's a good idea to apply strips of reflective red tape generously to the boat's transom. Directional signal lights on the trailer are also advisable; if you don't have them, slow down and make sweeping hand signals well in advance of all turns.

The almost-hidden trailer which carries this roomy President cruiser shows little resemblance to the race-boat trailer at left. Trailers have expanded horizons of outboard vacationers.



IF THERE'S one thing that gives a trailer manufacturer a feeling of futile rage (besides seeing his products overloaded), it is the sight of one of his creations being dunked in the water. Picture the poor guy. His firm has spent many thousands of dollars to develop trailers that *do not* have to be rolled into the water when loading and launching. His engineers have repeatedly warned that water should never be allowed to rise higher than the lower rim of the wheel. Yet here is one of his babies being mistreated.

Just what is wrong with backing a trailer all the way into the water? Plenty. First of all, since the trailer is made of iron and steel, it can rust. And rust it will, particularly if the water happens to be salt or brackish. Also, despite the best of grease seals, water can penetrate to the wheel bearings, and the conscientious trailer builder is the first to concede it. Water penetration occurs most frequently when the trailer is run on the highway long enough for friction to heat the hubs and then is suddenly dunked in cool water. The resulting contraction of air in the hubs forms a vacuum that's bound to suck water into the bearing areas.

YOUR TRAILER requires relatively little maintenance. Repack the wheels with lubricant every 1,000 miles (oftener, of course, if you happen to dunk them in the water). Apply oil often to movable parts such as the coupler and the tilting and pivoting devices. Check the whole rig regularly for rust spots. Whenever any appear, sand them and refinish with touch-up paint (this can be bought in the proper color, packaged in one-pint pressurized squirt cans, from your dealer). When the trailer is to be left outside during the winter, protect it by smearing everything with grease. To take it out of the mothballs in the spring, simply clean off the grease and re-oil the moving parts.



Charlie Trumper's Mooi Meiste formerly raced as Thunderbolt in the hands of Len Melly, one of the fastest of England's drivers. Note the unusually wide short hull for a single-step design.

The British Racing Scene

(Continued from Page 17)

race the limit man in his slow outfit will have covered three or more laps before the scratch starter will even have taken hold of the starting cord for his Konig. We find though that spectators soon get accustomed to the idea, and surely the sight of the fast boys not only dicing among themselves, but threading their way through the field as they shovel on the coals to make up those missed laps, is a sight preferable to that of the rather dull procession that so often is the result of class racing.

Besides making for interesting racing in the mixed field found at most clubs, this system gives everyone an equal chance of doing well, and the less wealthy fellow who cannot afford to go really fast does not get that feeling of bashing his head against the wall, which so often is the lot of many racers who spend much of their racing careers wallowing in the fast boats' wash.

Another factor that encourages the slower chaps is the system of awarding many of the trophies at club regattas for the aggregate of points scored for places throughout the season. This encourages reliability and determination, and the outcome that has arisen this past season in my own local club, where many of the awards are going to one of the slowest, but most consistent and well-driven, outfits, is not uncommon.

Now what of the outfits themselves? Until the last few years we have had no fast outboard engine built in this country and we have been entirely dependent on power heads imported from the United States. Although the new version of the British Anzani B Class Unitwin shows promise, most drivers are still using foreign power units. Pre-war designs of Johnson and Evinrude are very popular, as is the Mercury twin of post-war years, and we are now beginning to see a few four-in-line Mercs as well. In the past

year the German Konig (see BOAT SPORT, Sept. 1956) has made a great impression and many of our fastest outfits are thus powered. Let us admit, however, that some of these Konigs have not been too reliable, and I know several drivers who, after a fruitless half-hour of pulling the starting cord, would willingly have had their old Johnsons and Evinrudes back. But as drivers get more experienced with them and come to learn their temperament, so the motors have come increasingly to the front, and today the alky-burning Germans tangle happily with the brute force of the Class X jobs on almost equal terms.

Although Britain has not been making many outboards in recent years, her motorcycle manufacturers have been churning out some good stuff, and it is not surprising that we have got down to some hard work on conversion jobs. With a Triumph Tiger-engined rig Claude Mayes holds the Oulton Broad record, and among the London-centered British Outboard Racing Club there are several pilots who pin their

faith on converted Speedway J.A.P.'s; one of these drivers is ex-auto racer Eric Brandon. Rudge and Norton units have also been tried and there are several specials, the results of hundreds of hours of painstaking labor. Surely the fastest of this category is the little Class A engine of Barnes Ross of the Sussex racing club, which won top place at the Willesden regatta this year ahead of a bunch of Konigs.

No less ingenuity is shown in our hulls, many of which are home-made. Most of those being built at present are three-pointers, but about two-thirds of those in service are of the older single-step type. Probably the main reason for this, apart from the average Englishman's prejudice against anything new, is that most of our courses are short, and the ability of the old design to turn tightly often pays off in terms of seconds saved and compensates for its being slower on the straightaway. However, as more chaps are realizing that the shortest course is not always the quickest and that a three-pointer can be just as stable as a single-stepper, so more are appearing on the scene.

An interesting hull experiment that has proved fast and stable in the choppy waters of Oulton Broad well known to thousands of American ex-service-men stationed in East Anglia with the Eighth Air Force during the war, is the Lowestoft-built four-pointer. I predict we shall see more of this design in the future.

One hull that has slowed the swing to the three-pointers over here is the little Wessex Clubman. This is a very light hull modelled on the American single-step Jacoby, and it is appearing in some numbers. It is cheap to produce and very handy on tight courses, while at the same time does not lose much speed on the straights. For this reason it has proved successful on our more sheltered waters, although there can be no doubt that its exponents have a pretty hectic time in rough conditions. At Befont early this season, for example, when the rain kept the water smooth for the Class B and C Championships, Peter Mason won both events with a Konig-engined model of

Contrast in styles: Jake is an early hull and Whoops is a modern Merc-powered three-pointer owned and driven by Darrell Hall, U. S. Army Sergeant stationed abroad, seated behind the boat.



this design, and later, when a similar model appeared at Gosfield, home of the Essex club, the lap record, which previously had been the property of the unlimiteds, was knocked for a big chop by a driver who had never seen the course before.

Inboard racing is not popular in this country and there are only about three clubs that organize classes for this kind of boat. But, as might be expected from a country that has produced Donald Campbell's world speed record-holder *Bluebird*, those inboards that do exist over here really motor in no mean manner. Engines vary from the larger Jaguar and V-8's to the Ford engines of 1172 c.c., not forgetting at least one boat powered by a Connaught racing-car engine. The Ford engines are mainly in the "Darby" class, a special class for one-design hulls which, despite considerable encouragement, has not so far gathered much support.

The English climate, with its variable summers, is not kind to the sport. It is seldom fit to start racing before the middle of May, and by the middle of September evenings are growing short and the weather is getting uncertain. So the season is a short one, and it is usual for drivers to belong to several clubs and squeeze in two meetings a week in the evenings and another at the weekend. As the racing clubs are scattered this involves quite a tidy slice of motoring, so it is not surprising that the boys have the trailer idea well developed. There are some pretty potent combinations of outfits and towing vehicles to be seen around the meets.

Although Great Britain can boast of many thousands of miles of coastline, practically all our racing takes place over closed courses on inland lakes, and each club has its own course with its own characteristics. Naturally the type of outfit favored by members of different clubs varies accordingly. Oulton Broad, already mentioned and one of the original homes of hydro racing over here, has produced a band of rugged boats and equally rugged drivers who excel in rough water, whereas at Bedfont, a lake near London, a lighter type of craft can survive, although the three-cornered nature of the course does not favor sheer speed.

It seems as if there will be lots of British Anzani motors running next season—even some of the chaps who have been running Konigs are thinking of going British next year. This move is debatable; the Anzani may have a slight edge on pump fuel, but the German unit will rev much higher when converted to an alcohol burner.

Broadly speaking the overall picture is one of difficulties being overcome by the tremendous enthusiasm of a small band of enthusiasts, and how small that band is can be judged from the fact that there are only about 250 registered drivers in the country. Figures don't prove a thing however, and if the trend keeps on as it is now going that number will have doubled and trebled itself within a few years.



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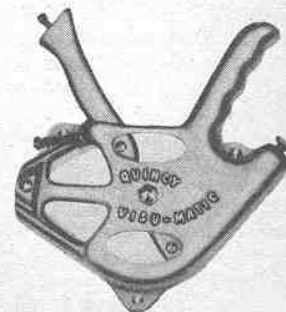
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The Hubbell-Sorenson Hybrid

(Continued from Page 7)

Without Hub's foresight in undertaking to supply replacement parts for motors that hadn't been built since 1940, the alkie gang might well have been forced to hang up their kneepads for want of equipment to keep going. Today anyone wanting to enter the specially-designed-for-racing classes can buy spare parts enough to completely build up any class alkie burner from scratch, or can buy brand new alkie-burner motors carrying the Hubbell trademark.

Hubbell has made proved equipment such as the 19.93-c.i. Hubbell Model B-55 racing engine and his Model C-52 Class C plant, which, equipped with lower units of his own design, are faster and more durable than their counterparts and patterns, the Johnson SR's or PR's, supposing that you could get either of the two Johnsons fresh out of the crate. But oddly enough, Hubbell also likes to do a bit of off-beat experimenting. In 1954 he found just the guy to do this with, a new racer then driving strictly-stock equipment.

Keith Sorenson of La Crescenta, Calif., a carpenter by trade but an exponent of racing by avocation, had the boat bug bad. Sorenson's background of speed is an interesting one. Prior to 1949, Keith had spent more than 2000 hours of painstaking work building up a 1932-cubic-inch "Good-year" class plane in which to compete at the Cleveland Air Races. The plane proved to be a good one and Keith's competitive ability was unquestioned, for he placed second with his creation against the best in the country in 1949 and again in 1950, and took a third with his plane in 1951. Keith then switched into stock outboard racing, at that time just beginning to boom. He and Hubbell met in 1953 and the next spring started playing around with a Mercury Super 10 modified to alcohol. Hubbell was particularly interested in the B alkie class, since at that time it had practically died out on the West Coast. Many regattas no longer scheduled B's on their programs.

Sorenson's part in the informal team relationship was that of building the hulls and handling the driving, while motor wizard Hubbell came up with stock modification ideas for what developed into the Hubbell-Mercury *Wildcat*.

Hubbell modifications included transfer passage reed blocks (flapper valves) to provide a controlled supply of additional air essential to power at high rpm, oversized pistons, rebored cylinders and carburetors converted to alcohol use. By actual dynamometer tests, the *Wildcats* were able to develop more than 30% more horsepower at 6500 rpm than the already excellent stock powerhead. This gave increased boat speeds of up to seven mph and put the modifieds in a position to run with or even outrun the Johnson SR's on both straightaways and closed courses.

This also gave the B class an unexpected twist. The old alkie-racing drivers are a proud group who feel that they must prove that their opposed-twin cylinder racing motors are better than any altered stock alternate-firing twins. Seemingly it hurt their pride to see the stockers coming into the alkie ranks and occasionally running away with top money. As a result a bevy of former racing B's, which hadn't shown at regattas for a couple of years, were suddenly pulled out of mothballs and refurbished by their owners, who decided to put the upstarts into their proper places. The result was a revitalized, keenly-contested class.

In the East, however, where the B's had continued to be a good, heavily-populated competition class in conventional racing motor form, few if any stock conversions had proved their worth, at least before Sorenson arrived at Mt. Carmel. He'd already demonstrated on the West Coast that his Merc KG-7 modification could trim practically any SR in that area.

On the Wabash River Sorenson tangled with thirteen other top-flight B's in the finals and ran second in the N.O.A. Nationals. The A.P.B.A. Nationals were scheduled for several weeks later at Shreveport, La. Sorenson had to go back to California, since he couldn't spare further time from his work, but another driver, Dave Gorman, from northern New York State, had qualified an outfit similar to Keith's at the A.P.B.A. Eastern Divisionals. When he ar-

rived at Shreveport, Gorman learned that he wasn't to be permitted to race; in fact he wasn't even allowed to put his outfit in the water on threat of expulsion.

Though I saw the Sorenson rig run at Mt. Carmel and was tremendously impressed by it, I wasn't able to make the Shreveport Nationals. I do know that a number of B competitors were quite concerned by what appeared to be a distinct drive to keep a hot potential out of competition by interpreting rules in such a way that the modified was declared illegal at the last moment. However, that ruling is water over the dam. Hubbell was the first to state categorically that the incident shouldn't be considered a reflection on the local officials at Shreveport. He said, "It certainly shouldn't reflect on Marshall Eldredge who, as chief inspector, felt responsible for a piece of business he would have preferred not to touch with a ten-foot pole." But Eldredge's hands were tied and the New Yorker's version of the *Wildcat* was never given an opportunity to prove itself because the "flapper valves" were ruled illegal by the racing commission. This ended the *Wildcat*'s A.P.B.A. career.

An A.P.B.A. rules change in 1955 permitted the use on



Set up for competition and short turns, Hubbell-Sorenson hybrid can run about 62 mph. Straightaway potentials indicate possible new records.

B motors of any stock lower unit approved by the Outboard Racing Commission. This meant that a combination of one make powerhead and another manufacturer's unit was legal.

Hubbell and Sorenson planned to go to work on another motor to stop the rest of the B boys in their tracks and take a first, not a runner-up spot, at a National title event. Hubbell's dynamometer tests had indicated that his Hubbell B-55 powerhead could put out 32 horsepower at 7000 rpm as opposed to the 25 horsepower developed at 6500 by the *Wildcat* they had used at the N.O.A. Nationals. The two decided they would use the B-55 powerhead as their starting point. Sorenson, as a former stock driver, with a lot of experience handling a boat with a Mercury Quicksilver unit behind him, favored the Quicksilver for his 1956 mill. Hubbell didn't because by his observation he'd never seen an alkie-motor driver who could do much with one of the direct-ratio units in competition. This Hubbell admits is a matter of driving technique, since the 1:1 gear ratio Quicksilver and the 13:19 more commonplace SR lower unit or the Hubbell version of the same ratio offer totally different handling characteristics. Keith, however, had proved his ability to handle the Quicksilver unit too well for Hubbell to balk, so Hub went along with the Quicksilver for the bottom end.

Keith designed the hull specially for use with a Merc unit and the Hubbell B-55 powerhead combination. Since Hubbell's powerhead is quite a lot heavier than the Merc, Keith decided on a hull that would be approximately C size, held as closely as possible to B weight. After the Long Beach, California, A.P.B.A. Nationals, which Keith won coming from behind in both heats, the hull was weighed in at about 145 pounds, which added to Keith's weight of 155 meant that he was lugging an extra 35 pounds over the 265-pound minimum class limit of boat and driver. This proved the important point that extra weight apparently isn't too much of a disadvantage if the hull is of good design.

(Continued on Page 37)

Around the Buoys

(Continued from Page 14)

pionship in his boat *Beverly Ann*, was chosen, having turned in 16 first place finishes in 26 competitive heats.

Bill Muncey, Detroit, Mich., was selected from among the Unlimited Class competitors, Muncey having won the Gold Cup and the President's Cup at the helm of Willard Rhodes' *Miss Thriftway* and the Imperial Gold Cup at New Martinsville in B. G. Bartley, Sr.'s 7-litre *Wildcatter*.

Myron Wolf, Glen Cove, N. Y., skipper of the inboard cruiser *Sea Wolf II*, entered the Gulf Hall of Fame on the basis of scoring the highest total number of points to win the A.P.B.A. National Predicted Log Championship and also for winning the Dewar Trophy, awarded to the scorer of the greatest number of points in any five sanctioned inboard-cruiser events.

Outboard racers elected to the Hall of Fame were Doug Creech, Charlotte, N. C., winner of the George H. Townsend high-point medal, and William E. Tenney, Dayton, Ohio, winner of the Colonel Green Star Island Trophy during the Florida circuit and the United States representative in international events in Europe during the 1956 season.

Stock Outboard racers selected included Danny Ziegfeld, 13-year-old JU driver of Baltimore, Md., who rolled up 22 first places in 32 heats of competition.

Tommy Young, Wachapreague, Va., competing in four stock classes, AU, BU, ASH and BSH, had a particularly impressive record in AU, in which he scored 26 first-place finishes in 64 heats, plus 13 seconds and 13 thirds. Young also was high-point A.P.B.A. scorer in both AU and BU classes.

Gene Hawthorne, Jr., Detroit, Mich., was selected on the basis of his performance, particularly outstanding in BU, in which he scored a total of 6469 points, including class wins in six out of the eight major marathons in which he competed.

Dick Schluskel, Neenah, Wisc., was honored for his domination of A Stock Hydro competition, in which he scored with 30 first places in 44 starts.

Ed Sonoras, Newport, Mich., was chosen on the basis of his outstanding win-start ratio of 22 first places in 30 heats in BSH.

The final Gulf Hall of Fame selection was Bill Janz, Chicago, Ill., who campaigned in both CSH and DSH and who in CSH emerged high-point winner, coming in first 22 times in 32 heats.

ON THE WEST COAST, the Los Angeles Speedboat Association, the aggressive alcohol-burning racing group which was largely responsible for the successful conduct of the 1956 A.P.B.A. Outboard Nationals, elected Dr. Wayne R. Ingalls, new A.P.B.A. Vice President, as the club's Commodore for 1957. The L.A.S.A. wound up its 1956 season with a cold-weather event in the late

fall at Carlsbad, Calif. Class winners included Eric Molinar (1956 National M Hydro Champion), who swept the Carlsbad M Hydro competition in straight heats. Mike Stellhorn topped a seven-boat field of A Hydros, while Manuel Carnakis (1956 CSR Champion) won C Service Runabout in straight heats. Bob Marvick merged a first and a second place to beat out Alec Cockburn, with second and first place finishes, by one second in total elapsed time, to win top honors in F Racing Runabout. Lewis Morphy combined a second and a first to take the CRR events. Keith Sorenson (1956 B Hydro Champion) swept his class with a perfect point score, as did Roy Gates in C Service Hydro. David Reddon, with a first in the initial heat and a fifth in the second, topped an eight-boat C Hydro field.

At its December 15 year-end meeting L.A.S.A. announced its high-point class winners for the year. In M Hydro, Boots Morphy topped National Champion Eric Molinar with a point score of 6419 to Molinar's 5894. Elmo Belluomini tallied 4550 points in dominating the A Hydros, with Dick Lawrence runner-up from among thirteen club members in this class, with 3833 points. Bill Bauman scored 5369 in the active B Hydro class to top National Champion Keith Sorenson, who scored 4000. Manuel Carnakis in C Service Runabout ran to expected form, dominating his group with 7300 points over runner-up Ralph Homes' 2400. Carnakis also proved to be the only double L.A.S.A. high-point winner, barely edging out Lewis Morphy in C Racing Runabout, 2464 to 2450. Homes won the club title in F Hydro with 3013 points, as Chuck Parsons ran second with 1600. Parsons, the F Racing Runabout champion, snowed under his competition in that field with 6325 points to second-place driver Walter Gillo's 3225. Dr. Tommy Ingalls was victorious in C Hydro, ranking second-place driver Dick Sherman with 5200 points to Sherman's 3620. Fourteen L.A.S.A. club drivers had campaigned C Hydros. In C Service Hydro, National Champion Henry Wagner dominated club events, scoring 4500 to Bob Owens' 1535.

A RESUME of the A.P.B.A. 1956 Inboard National Champions follows:

Unlimited Class, Lt. Colonel Russ Schlee, San Carlos, Calif., helming *Shanty I* at Seattle, Wash.

Roy Musson, Akron, Ohio, piloting *Wildcatter*, gained the 7-litre championship crown at Buffalo, N. Y.

In the two other national championships decided at the Buffalo Launch Club's Annual Regatta, Harry Bickford, Hampton, Va., won the E Service crown, with Howard Hibbert, Miami, Fla., garnering top honors in F Service.

Three championship titles were settled at Newport Beach, Calif., where Jack Salmon, Pico, Calif., took the 135-

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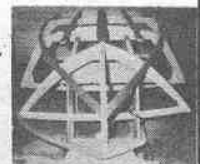
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c.i. title, Carl Maginn, Glendale, Calif., won the Cracker Box crown, and Ernest Rose, Patterson, Calif., emerged victor in B Racing Runabout.

At St. Petersburg, Fla., William Selden of that city dominated the C Racing Runabout Championship heats, while J. B. Smith, Cincinnati, captured the 91-c.i. title on the same Lake Maggiore course.

At New Martinsville, West Va., where the 266-c.i. and 136-c.i. crowns went on the block, Henry Lauterbach, Portsmouth, Va., took the larger class and Skeeter Johnson, Cambridge, Md., won over the 136's.

At Melbourne, Ky., Mac Wiefering, Dayton, Ky., upheld local pride by taking the 225-c.i. crown. The 48-c.i. hydro class was captured by five-mile record holder Jack Colcock, Seattle, Wash.; Bob Critchlow, Lancaster, Calif., won the PODH title at Lake Mead, Nev.; and Bob Mutschler, of Ocean City, N. J., won the 44-c.i. Championship at Millville, N. J.

DURING 1956 INBOARDERS established a number of new records. Sid Street in his Z-Z-Zip, a DeSoto-powered 266-c.i. hydro, was clocked for a two-way average through the Salton Sea straightaway trap at 127.864 mph. At the same location, Paul Pierce in his Dodge-engined Cracker Box No Go set a new mile straightaway mark of 84.215 mph.

Ed Brown in a Chevrolet-powered E Racing Runabout *Bouncy Barby III* was clocked at the same location at 89.563 mph. Earlier in the season in late July at Clarksville, Va., Harry Bickford rolled out a new straightaway E Service Runabout mark of 59.729 mph.

In inboard competition the first new five-mile speed tally of the season was hung up by E. Burt Davidson at St. Petersburg, Fla., when he averaged 60.688 mph for three laps over the triangular 1 2/3-mile circuit in his 91-c.i. hydro *Porcky*.

At Salton Sea in April, Ernest Rose clocked a new record 61.517 mph for B racing Runabout in *Lil Bee*. At Buffalo, N. Y., Howard Hibbert established an F Service Runabout new speed of 51.843 mph in *Prowler, Jr.* Two days later, at Seattle, Wash., J. A. Colcock really had his Crosley-motored 48 hydro *Little Racket II* screaming to record a scorching 67.821 mph for the five miles. At Abingdon, Md., on August 19, Harry Bickford in *Skip-E* added the five-mile distance record to his E Service Runabout straightaway record scoring by clocking 53.066 mph. At Baton Rouge, La., Jim Bowles in his 44-c.i. runabout *Brewster* broke a three-year-old class record with a new 45.317 mph tempo.

Three additional competition marks were hung up at Lake Mead, Nev., on October 15. Ed Brown clocked 73.409 mph in his ERR *Bouncy Barby*. Bob Patterson increased his own Cracker Box record of 68.002 mph to 68.545 mph in his boat *Hot Cinders*. Bruce Greer, in a Rich Hallett Chrysler-powered 7-litre *Seven Grand*, romped through five miles at 86.289 mph. This

put into the discard another 1956 7-litre mark established a month before at Newport Beach, Calif., by Edgar Kaiser's *Restless* at 83.877 mph.

1956 WITNESSED DONALD CAMPBELL establish a new straightaway average water speed record in his jet propelled *Bluebird* at 225.36 mph. The near-flying speed brought gasps of awe when it was learned that Campbell's initial run through the traps had been made at 286 mph. It would certainly seem conceivable that 1950 will see the 250 mph mark cracked since, on his return run for the record average, Campbell "stroked" to establish the high average, returning at just a little better than 164 mph.

The odd part of the new record is that Campbell had never had any intention of driving *Bluebird* over 250 mph, feeling that that speed was the extent of the safe design characteristics of the boat, though its peak potential is somewhere in excess of 300 mph. Campbell later admitted that the 286 mph run had been somewhat of a mistake. He had accelerated to that speed inadvertently because of an inaccurate speed-recording device in the boat, which proved to be more than 30 mph off in the high ranges. Thus when actually just 14 miles under 300 mph, Campbell had thought he was racing along at a conservative (for him) pace slightly under 250 mph.

England also was the setting for another impressive speed mark when Norman Buckley, a 40-year-old lawyer from Manchester, in his hydro *Miss Windermere III*, set an amazing one-hour speed record for Unlimited Class boats at over 78 mph. The previous record had been held in Germany with a one-hour average speed of 64.03 mph.

BY THE SEASON'S END the long disputed Gold Cup hassle had finally been ironed out, albeit not to the complete satisfaction of all parties concerned. The American Power Boat Association's Inboard Racing Commission upheld the appeal of Willard Rhodes, owner of *Miss Thriftway*, whose driver Bill Muncey was charged with hitting a buoy during the course of the Gold Cup race, Detroit, Mich., on September 1. The local race committee had disqualified Muncey. The Inboard Racing Commission's findings and decision on Rhodes' appeal cleared Muncey of the local committee's disqualification after a lengthy study of newsreels and sifting of reams of evidence. However, the Gold Cup still had been held in abeyance due to a lawsuit pressed by Horace Dodge to declare the event "no contest" because of qualifying technicalities which had caused Dodge's boat, among others, to be eliminated from the event. Fortunately for all concerned Dodge dropped his case before the year's end. This permitted a final tallying of Unlimited Class point scoring during the season, in which Bill Waggoner's *Shanty I* nosed out Edgar Kaiser's *Hawaii Kai* by a slim 23 point margin.

H. W. B.

BOAT SPORT

The Hubbell-Sorenson Hybrid

(Continued from Page 34)

The powerhead used for the hybrid was Hub's shop reference engine. Hub frequently had had to stand near the thing when it was on dynamometer tests and said, "Looking the flywheel in the eye at speeds up to 7500 rpm, at which point the engine was putting out 33 horsepower and still on the upcurve, you can understand why I wanted an all-steel flywheel."

Steel-hubbed aluminum alloy flywheels have in the past been known to disintegrate. When they do, the resultant explosion can be compared to a shrapnel blast. With safety as a first consideration, Hub decided to use a steel Evinrude flywheel. This precluded the use of a conventional magneto ignition and so the switch was made to battery ignition. Hub points out that this preference for battery over magneto ignition was purely secondary to one of safety. However, once the decision was made to use battery ignition, Hub decided to keep the ignition as simple as possible, to construct it with readily obtainable parts. He selected Ford motor parts. Parts from any automotive 6-volt ignition would probably have done as well, but Keith planned to haul the rig in a Ford truck.

The battery selected was a 6-volt "jelly" battery. Again, any 6-volt motorcycle battery would have done the trick. But in the "jelly" type battery, the electrolyte solidifies and there is no possibility of acid spillage. The jelly battery has been in the rig when Keith has flipped it. Even after being dunked in salt water, it has continued to function.

For points Hubbell used Johnson outboard leaf springs and Evinrude screen-door spring types. These are becoming a little difficult to come by and are a bit on the antique side, so that for '57 Hubbell will probably come up with something different. He's found that up around 7000 rpm, the motor develops a slight miss which stops any potential further speed advance right at that point, though the power curve indicates that the power peak has still to be reached. Hubbell's now working on a new distributor assembly which he hopes will eliminate the miss and at the same time remedy the erratic "dwell" which is inherent in outboard ignition of both battery and magneto types.

The cylinders' compression was balanced at 18 cc's. The rotary valve was timed to open just as the intake port closes and the rotary valve closes at 1-1/16" after top dead center has been reached. The spark is timed at .380" before top dead center.

The carburetor is one of the hybrid's most interesting components. Hubbell expected carburetion to cause him his greatest difficulty. He wanted to stick to the conventional SR-type vacturi. This would have been fine if he had also retained the standard fuel tank integral to the powerhead. In fact, he and Sorenson did use this at first but the nose of the boat rode a little light. They couldn't seem to break the after-plane free of the water and the rig felt as though it were dragging. Sorenson likes to "fly" a hull with the stern as high as possible, probably a throw-back to his air-racing experience. At any rate, the performance was disappointing, so they had to get some of the weight forward. The buffed aluminum fuel tank so coveted in the eyes of the racing driver, including Hub, had to go in order to make the balance shift.

That's when the carburetor problems came into the picture. The vacturi type is sensitive to fuel pressure and must be operated at between one and one and one-half pounds pressure. These pressures are difficult to stabilize under racing conditions using a remote pressurized fuel tank. Hub licked this by eliminating the carburetor's cork float and installing in its stead a standpipe in the bowl with an overflow outlet at the desired fuel level.

Since they were already operating their engine with 6-volt battery ignition, they installed a 6-volt automotive Bendix fuel pump on the top of a regular Mercury 20H 3-gallon tank. Fuel is pumped from the tank into the carburetor in the conventional manner, but Hub drained the overflow from the standpipe back into the tank, as can be

(Continued on Page 39)

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Dear Hank

(Continued from Page 15)

Luger Industries, Inc., 4452 Nicollet Ave., Minneapolis 9, Minn., also offer such kits. As to plans for a high-speed runabout design, I suggest that you write to Hal Kelly, 98 Anderson Ave., Bergenfield, N. J., E. G. McCrea & Co., Dept. BS, North Hatley, Quebec, Canada, or the General Marine Co., Dept. 1127, Sixth & Oak Sts., St. Joseph, Mo.

QUESTION: I would like to have the addresses of A.P.B.A. and N.O.A.

—M. P. Hazen, Terre Haute, Ind.

ANSWER: American Power Boat Association, 2534 St. Aubin, Detroit 7, Michigan; National Outboard Association, 707 Market St., Knoxville, Tennessee.

QUESTION: I would like to know if there is any such thing as a spark plug break-in period. I have heard that a spark plug with a few running hours on it will perform better in any specific mill than a brand-new plug. I wonder if this is so, and why?

—Kerry O'Gorman, Rochester, Ind.

ANSWER: There is no spark plug break-in period. A spark plug does not perform better with

a few hours' running time. In a new motor, of course, running time will free all rotating parts and the motor will run better. This is due to a reduction of drag caused by slightly out-of-line bearing surfaces which need to be mated.

QUESTION: I am building a boat for my Mercury 55H motor. Do you have the names and addresses of dealers in outboard-motor spares, and the names of books on tuning outboards for racing?

—J. Grobier, Stilfontein, South Africa

ANSWER: For spare parts for the Mercury, I suggest that you contact Wheels Inc., 222 W. 65th St., New York 23, N. Y. My own Encyclopedia of Inboard Motorboating carries considerable information on tuning for racing and on refining both the stock and the alcohol competition motor. If you are interested particularly in the alcohol burners of KR, SR, PR type, I recommend W. R. Carpenter's Outboard Racers' Manual, sold by Michigan Wheel Co., Grand Rapids 3, Mich. My own book has 424 pages and lists at \$5.75. The Carpenter book is 97 pages and the last quote I found on it was \$2.75.

Torque Talk

(Continued from Page 18)

Now that we have climbed well out on a limb in listing just a few of the many, many outstanding drivers we watched during the year, we would like to say that the overall level of driving this year was far better than that we have seen in years past. Not only this, but there seemed to be greater respect for the rules, both General Racing Rules and the technical rules. So, to all competitors in all divisions of powerboat racing, we offer our congratulations on a most successful year of racing.

NOW THAT IT HAS FINALLY been decided, without the benefit of the keen discernment of the high benches of justice, that Willard Rhodes' Miss Thriftway won the Gold Cup in 1956, the solons charged with the task of setting up the rules for the 1957 edition of the battle for the urn have been putting their heads together to establish a set of rules which will apply not only to the Gold Cup contest, but also to all Unlimited class racing. Some of the many ideas put forth by the several separate factions within the Unlimited group seem to make good sense, and certainly will benefit the sport, but some of the other suggestions offered seem to smack of the spoiled child attitude which says that if you won't play my way, I'm going to take my marbles and go home.

One interested group feels that they should have their own Unlimited Inboard Racing Commission within the structure of the American Power Boat Association. This group wants a separate commission for a class that had 43 boats registered in 1956 throughout the entire country. Of these 43, 28 actually entered Unlimited races, and of these 28, 24 actually received points during the year. The elaborate plans

for establishing this separate Commission would include, after elections were held, practically everyone who owns an Unlimited, or even thought of owning an Unlimited, somewhere within the structure of the Commission. Having been associated with various commissions actively since 1943, and having been exposed to the great variance of thoughts engendered by geographical loyalties and civic pride, as well as good business reasons, we feel that such a separate Commission would become so ensnarled in its own complexities that the real or imagined troubles experienced by some of the Unlimited owners during 1956 would seem trivial by comparison.

Whatever the outcome of the plans of the Unlimited owners in their quest for complete independence from the A.P.B.A.'s Inboard Racing Commission, we feel sure that they will search hard and long and far to find another such group of completely impartial and experienced men, with the interest of powerboat racing foremost in their minds, as they had during the past year. Frank Foulke, the Inboard Vice President of the A.P.B.A. and Chairman of the I.R.C., deserves the fullest thanks from these owners for the fine job he did in unscrambling the mess brought about by some owners who lost sight of the fact that this is still a sport, and that all of the hard working and dedicated members of Foulke's Commission, as well as the special committees appointed to see the hassle through, had not one thing to gain personally, except several entries in their check books showing expenses involved in trying to get the sport back on a solid footing, with the winner on the race course being given credit for his victory.

The Hubbell-Sorenson Hybrid

(Continued from Page 37)

noted in a study of the fuel lines in the pictures. The pump is activated by the ignition switch. This is one of Pep's innovations that worked perfectly from the outset, though he did test the idea thoroughly before installing it on the engine.

The carburetor venturi used is 1 1/8" in diameter. The radiused pipe on the front of the venturi is nothing more than a splash guard to offer carburetor intake protection against a gulp of water.

The only other modifications to the powerhead that would vary from the conventional are three water jacket bleed lines off each cylinder for more even cooling.

Sorenson also came up with a number of innovations. One is a steering fin which is linked into the lower unit located on the port side of the engine. It can be seen, too, in the illustrations. This fin gives him stability on the straightaways, preventing weaving or wandering off course and greater control cornering. Sorenson uses this stabilizing fin on courses with one-buoy turns and on short multi-buoy courses, but on a gradual, radiused mile and two-thirds course he doesn't feel it would be necessary. Sorenson also fabricated an adjustable thrust socket bracket secured near the bottom of the transom and to the base of the driveshaft housing just above the anti-cavitation plate.

Though the housing is free to swivel about this thrust socket, the accessory gives a two point bearing surface on the transom which relieves much of the strain of pounding and keeps the line of thrust constant. It's so designed that the motor angle can be adjusted in fine increments between the normal pin and hole adjustments made in the bracket.

The hull itself, which is strictly a Sorenson design, is a 10-foot three-pointer. Sorenson has located a single fin inboard and just aft of the port sponson. He uses air traps which are carried back to within 10 inches of the transom. The boat admittedly is tricky handling.

For props Hubbell has tried Mercury factory Kaminc steel wheels, both CU and CSH. The CU does the best job, giving about 62 mph at 7000 rpm. If Hubbell and Sorenson decide to take a crack at the mile record, they unquestionably will do extensive propeller testing, and expect that for straightaway use the Oakland Johnson holds promise of good results.

The A.P.B.A. Nationals established the Hubbell-Sorenson hybrid as a combination that had straightaway speed to burn over the rest of the field, including outfits of most of the country's top B drivers, and could perform like a bomb through the corners. This motor-and-boat combination might well go on to lift the present B records, but the motor at least can be easily duplicated by readily available parts.

Letter

With an honest effort on the part of A.P.B.A., N.O.A., and officials toward more safety in races, I was horrified at the cover of the February issue.

Standing in a boat while racing will get a disqualification in a well run race.

Such "showing off" could easily be inferred as recommended by Boat Sport.

-Dwight B. Sprow, Park Ridge, Ill.

BOAT SPORT does not condone unsafe driving; in fact, we have consistently emphasized and supported safer driving techniques. We used the photograph on the February 1957 cover because it was an exciting picture; this was not intended to condone standing anymore than our printing a photograph of a spill (and we have many times) indicates that we are in favor of spills. A number of readers wrote us on this, by the way, and we are pleased to see that we are being watched so carefully.

It's News

(Continued from Page 27)

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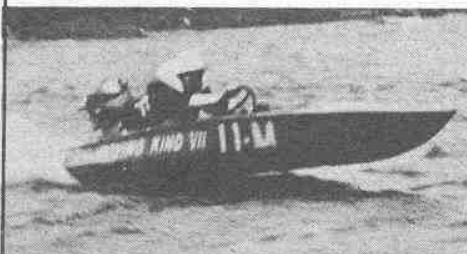
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For the racing-boat driver who's been plagued by remote fuel tanks bounding around and doing damage to the boat, Whitman & Robinson, Weedsport, N. Y., are now manufacturing a Nomar tank holder, made of steel covered with tough vinyl plastic, which will not rust, chip, corrode or wear. The holder, which is provided with anchor screw holes and tie-down rings, is available for Mercury 6-gallon tanks at \$6.50, Evinrude and Johnson 4-gallon tanks at \$5.75, and Evinrude or Johnson 6-gallon tanks at \$6.50.

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You Can't Fool the Electric Eye

(Continued from Page 13)

The rules clearly state that all boats starting before the starting signal, which is the clock, shall be disqualified unless a restart is ordered. On the first start of any heat, if more than half the boats cross the starting line before the final sixty seconds have elapsed, the referee can call back the boats for another start. The referee does not have to call for a restart and may not if his scorers have spotted all offenders. Usually the restart is only called when it is impossible for the scorers to note the numbers of all illegal starters. If the restart is called, then only the first driver illegally across the line is given the axe.

Now comes a problem that has caused some confusion but it is a result of a situation that occurs a number of times during any racing season. That is the recalling of all the boats with none disqualified.

Sometimes this occurs as it did at the Long Beach, California, A.P.B.A. alcohol-burner Nationals, when a boat or boats stall on the course in a manner which in the opinion of the referee can cause an unsafe situation or create an unfair advantage for certain starting drivers and a disadvantage for others. In this case, when the boats are brought back and the one-minute gun is fired again, that original pass at the starting line is in fact considered no

start at all and is wholly nullified. The boats moving down toward the starting line are thus not engaged in a restart but are actually coming up for their first official start. So in this instance the rule of the first start applies.

As there is no communication between the officials' stand and the boats on the course, there is no way for the drivers to know whether they are on a "first start" or a "restart." If a start has been nullified, there may be in actuality three attempts at a start. *Because of this, no driver should ever leave the course without specific instruction from the officials' stand.*

If more than half the starting boats are legal, the heat can be run and all offending boats will be disqualified, though they will not be notified of their disqualification until the completion of the heat.

So each driver should realize that he, not only the first boat who jumps the clock, may later be disqualified whether it is the first start or a restart. There can only be one restart after a false start, even if there is only one boat in the entire field that is legal. Should all boats be illegal on the restart, the whole field is disqualified and the heat just isn't run. This has happened.

Confusion, too, has arisen when on the restart the field is again recalled. This situation arises when the scorers

have not been able to spot the numbers of all the guilty boats. In this instance rather than permit one or more of the offenders to get away with gun jumping, the referee has no choice other than to call the field back. This, too, shall not be considered a second restart but rather a nullification of the restart and restarting of it in fairness to all boats involved. No driver should suffer from a failure of the race committee to fully carry out its job.

I have noted at several races during the past season a practice by certain officials that is not covered within the rules of A.P.B.A. but which is specifically provided for under N.O.A. rules. When a restart is called occasionally a flagrant violator will realize that he has been the offender. Rather than run five miles for naught, he will leave the

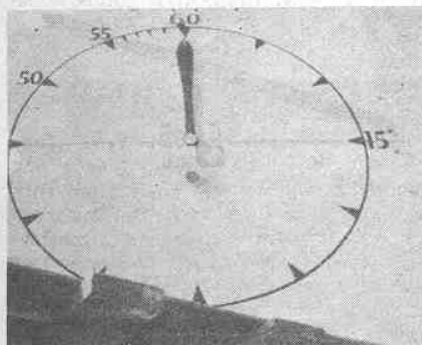


Photo of starting clock was snapped automatically in test of clock-camera synchronization.

course and return to the pits. However, since the driver frequently is in no position to judge who has or who has not been the violator, particularly when two or more boats are very closely bunched, the offender is not always certain that it was he who was spotted. As a result a boat already automatically disqualified frequently runs in the restart.

Conceivably, too, this illegal boat's very presence in the field can work a hardship on one of the legal competitors. It may be the illegal racer whose driving effectively blocks a boat which might otherwise win or place in the event. One group of eastern officials has made it a practice to carry a large blackboard to regattas. When a restart is ordered the number of the offending boat may be chalked on this board. The board is displayed and as the boats circle back for the refiring of the one-minute gun, they can pass by the committee barge and check for the offender's number.

This I feel is a good innovation, not from the standpoint of eliminating the need of a boat already disqualified from running five miles fruitlessly, because the violation was of his own commission and concern is not for him, but rather to give a fair shake to all legal boats in the restart.

Under N.O.A. rules this situation is specifically provided for. "The referee may at his discretion notify those who have been disqualified." And further, "Drivers may, if they desire, furnish the Referee with a board or sign with

their boat number painted thereon which the Referee will have displayed by the starter in the event the driver has been disqualified for an infraction of the starting rules . . ."

However, until the advent of the one-eyed judge, spotting offenders at a start has been one of the biggest problems confronting the scorers. Frequently the announcement of disqualifications has led to unpleasantness, griping by the drivers disqualified, and insistence by some that the scorers are blind as bats. At more and more regattas, electric timing clocks are replacing manually-controlled models. The automatic timing devices take the element of human error out of the clock operation.

Moving a step farther, cameras have been tied in to the clock's movement. In simplest format, some means are provided whereby the shutter of the one-eyed judge winks at the precise moment the sweep secondhand reaches sixty. By use of a Polaroid Land film holder back, the officials could be provided with a developed print record of the start within sixty seconds after the picture was taken. How this camera works and how it takes most of the guesswork out of scoring should be explained, since some drivers are still very skeptical about the extra eye on the judges' stand which generally can't be fooled.

To be effective the camera must be used in conjunction with an electric clock. The triggering of the shutter must be automatically operated and tripped by the clock movement. "But how do we know the picture was taken exactly when the sweep secondhand reached sixty?" At each regatta where the camera-clock tie-up is used, several test runs of the device are made to check on accuracy of synchronization. To do this, the camera is pointed directly at the face of the starting clock. The clock is then given a test run. If the synchronization is perfect, the picture taken by the Polaroid camera will show the clock's secondhand right on sixty, not a fraction before or after. A means to adjust the synchronization is provided in the event the clock and camera should be out of harmony. Any driver who is curious will find that the committee is always glad to produce the picture of that day's proof test or run off a test for him should he still be skeptical.

The photograph must also record some method of establishing the starting point of the course, otherwise even the photograph taken at the sixty mark proves nothing. This has been worked out by having a wire perpendicular to the front of the lens to designate the starting line, which heretofore has been an imaginary line from a point on the officials' stand to the starting buoy. The camera is securely positioned in a manner so that the cross wire on the lens bisects the mid-point of the starting buoy. You can see this line in several of the representative photographs which were taken at the recent N.O.A. alcohol-burning champi-

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onship events at Minden, La.'s Caney Lake. Should the buoy shift slightly on its mooring, the line can be corrected by drawing a new line on the picture from that point at the base of the picture to the center of the buoy. This calibrating is perfectly fair to all drivers since they are expected to start on a line between an established point on the officials' barge (which is the camera location) and the starting buoy.

The next question is the time lag in camera shutter speed. Does it affect the accuracy of the result? If a boat is running at 60 miles an hour, it's traveling at the rate of 88 feet per second, or eight feet in a tenth of a second. The human eye in a split-second judgment is certainly not capable actually of detecting a tenth of a second difference from the usual starting clock movement. Eight feet, however, is nearly a boat length.

If a starting camera, for example one such as was used by N.O.A. in taking the pictures shown here, was set with a shutter speed timing of 1/400th of a second, wouldn't it still be in error by 2.4 inches at a 60 mph start? The answer is no, for actually when the camera is properly synchronized, the time lag of the shutter speed is of no importance. If in the test run the picture is taken exactly at the instant the sweep second arm reaches sixty, that is what is desired. The timing device must be actuated a split second in advance of the clock's reaching the sixty second point to compensate for the time lag of the shutter. This is done.

For the visible proof of clock-camera synchronization to be of any value, the clock must be so designed that the sweep hand continues on beyond the sixty-second point, making another circuit until turned off. Otherwise all that would be proved was that the clock had completed one 360° circuit and there would be no way of knowing if the camera was slow. This latter feature, too, has been taken into consideration, so that the electrically-triggered eye usually can't be fooled.

I say "usually" in that there are certain instances when either because of poor light conditions or spray thrown by other boats, certain offenders' equipment might be obscured. When the camera fails to give a clear picture, the referee, of course, has no alternative but to apply the same rule that he would should his scorers fail to pick out all the offenders. One instance of this nature occurred at Mt. Carmel, Ill., several years ago at an N.O.A. championship event. There all boats but one were recorded as being illegal. However, the number of that lone legal boat was not clear in the picture. The boat had a white or a light colored deck. There were several boats in that particular heat with similar paint jobs. Of these, two drivers both claimed to be the legal starter. Each doubtless thought his claim justified though the camera had established that only one of the two was correct—but which one? The camera failed to prove that point

and there was nothing that could be done other than calling for a complete restart.

Another situation in which the camera failed occurred at the Long Beach, Calif., A.P.B.A. Nationals. A starting field of runabouts there was split into two distinct groups of boats. One batch of closely-bunched racers was well over the starting line. The others had played it overly safe and were still well back from the line as the clock hit sixty. When the picture was developed, only the bows of the oncoming legal boats could be seen. A batch of wakes indicated the clock jumpers had already passed beyond the camera range. Fortunately, the scorers aren't eliminated from the starting phase of the officiating job by the camera. The camera is used only as their handy and usually effective tool. In this case the scorers had picked up the numbers of all legal boats, so despite a picture that proved nothing, the legal boats were protected.

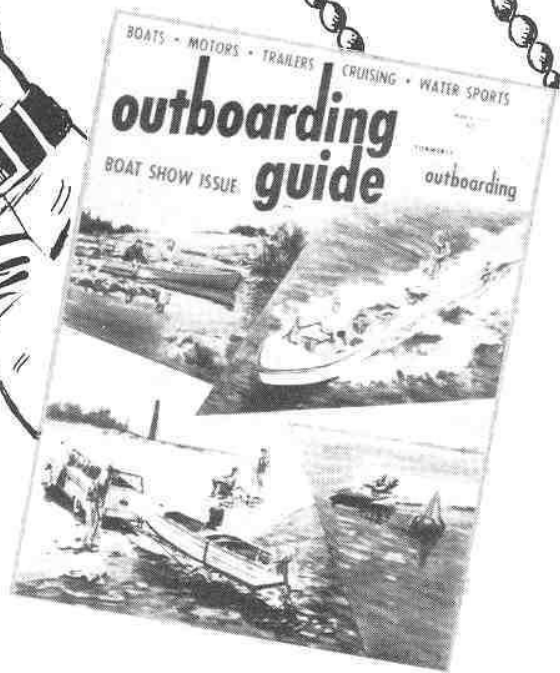
Another situation occurring at Long Beach definitely proved the efficiency of the electric-eye camera. A.P.B.A.'s outboard commissioner Jack Maypole was competing in the C Hydro events. At the completion of one heat, Maypole's boat was declared illegal for jumping the clock, according to the scorers who were spotting the offenders. There was no question in the scorers' minds that Maypole had been illegal and they called the alleged violation without consulting the pictorial record of the start. After the event Maypole questioned the decision and asked to see the photograph. The picture in this case proved that the scorers had erred in their judgment. Maypole's boat was within a fraction of an inch of the scribed line between the buoy and the starter's stand. Though uncomfortably close, his boat was legal.

At an N.O.A. race at Winchester, Tenn., Referee Dick Gulden and Starter Henry Ferguson as well as all of the scorers thought a boat had jumped the gun. They called it that way, but when they inspected the camera's record of the start, they had to retract their decision. The presumed offender was still within about six inches of being up on the line.

Drivers must remember that the officials have only one job to do at the start, that is to spot the boats. Today at more and more regattas race committees have added the one-eyed judge to help scorers on their touchy assignment. The driver who is moving up for a start is hardly in a position to protest decisions. He should be busy driving a race and certainly cannot be expected to swing his head left to right or get a wall-eyed view of clock, buoy and the relative position of other boats as well as his own at the instant the clock hits sixty.

The reasonable driver knows this. He also realizes that the one-eyed judge isn't necessarily out to convict him, for its record can prove a racer right as well as it can prove him wrong.

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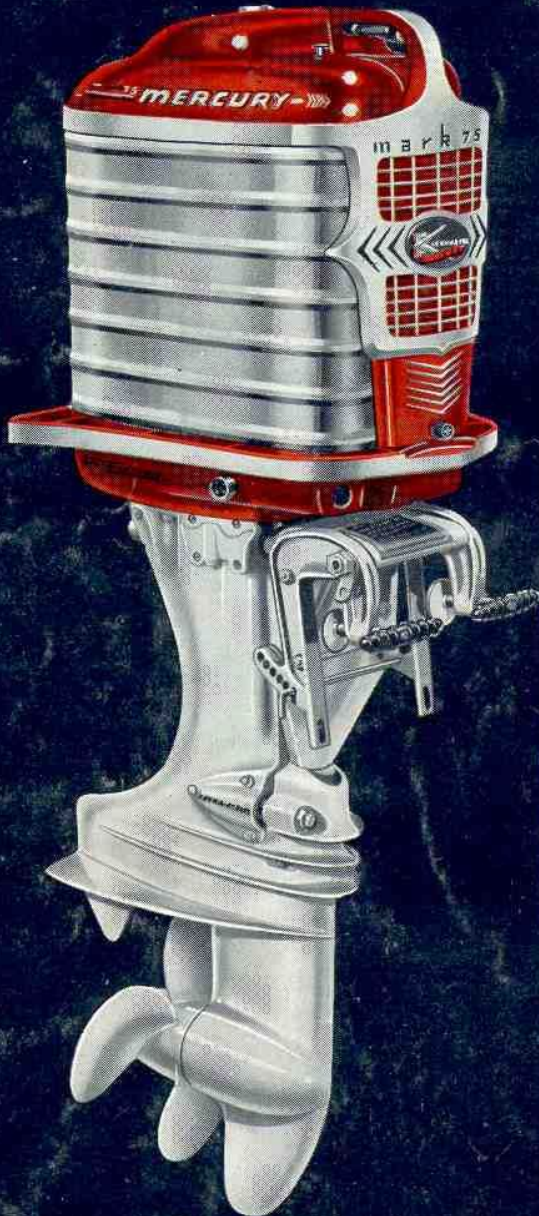
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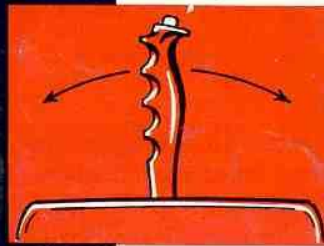
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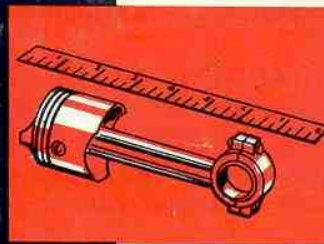


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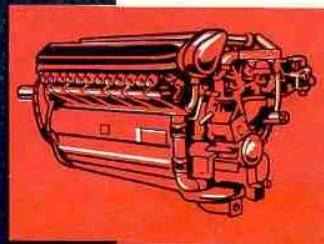
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