

VOLUME 5

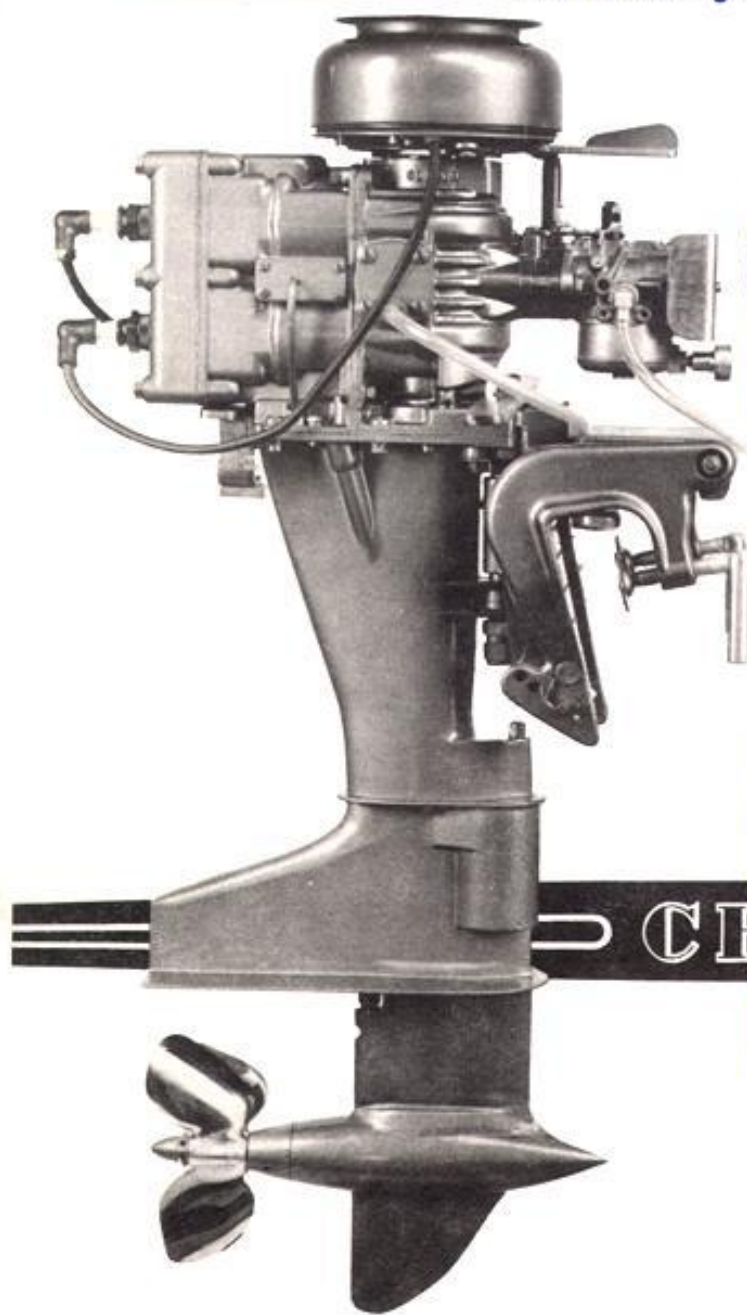
NUMBER 4

OCTOBER 1970



# THE ANTIQUE OUTBOARDER

The Pioneering Authority



CHAMPION



The Antique Outboard Motor Club Inc. is incorporated in the State of Texas as an Educational Institution. The Club is devoted to people all over the world who are interested in the search for, restoration and preservation of old time outboard motors. Regular membership dues are \$7.00 per year. Other membership information available on request. Address membership requests to A.O.M.C., Inc., 20505 NW 3rd Av., Miami, Florida 33169.

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### Club Officers, addresses and duties:

<b>President</b>	David R. Reinhartsen .....	8819 Enfield, Northridge, Calif. Coordinator of A.O.M.C.I. activities.
<b>Vice President &amp; Editor</b>	Robert W. Brautigam .....	2316 W. 110th St., Bloomington, Minn. 55431 Edits and mails <i>The Antique Outboarder</i>
<b>Treasurer</b>	John C. Harrison .....	1000 N.W. 54th Street, Miami, Florida 33127 In charge of financial affairs.
<b>Secretary</b>	Carol R. Reinhartsen .....	8819 Enfield, Northridge, Calif. Keeps A.O.M.C.I. records.
<b>Parts Aquisition</b>	Marcus Wright III .....	30 Crest Dr., Little Silver, New Jersey 07739 Helps members find parts for restoration. Gives technical advice on 1921 to 1929 Eltos.
<b>Membership Chairman</b>	Richard M. Jones .....	20505 N.W. 3rd Ave., Miami, Florida 33169 Keeps A.O.M.C.I. membership records.
<b>Classified Editor &amp; Newsletter Editor</b>	Robert H. Zipps .....	24A St. Regis St., E. Hartford, Conn. 06108 Management of the classified section of <i>The Antique Outboarder</i> and preparation of the monthly <i>Newsletter</i> .
<b>Historian</b>	W. Jim Webb .....	2560 N. 97th St., Wauwatosa, Wisc. 53213 Worlds foremost authority on outboard motor history, Author of a column, "Of Historical Interest", for <i>The Antique Outboarder</i> .
<b>Curator</b>	Richard A. Hawie .....	31 Hillside Dr., Easton, Connecticut 06612 Helps in identification of rare motors and authors a column, called "Notes From The Curator", for <i>The Antique Outboarder</i> .
<b>Special Features</b>	James L. Smith .....	330 O'Connor Dr., Toronto 6, Ontario, Can. Author and Editor of a Special Features column for <i>The Antique Outboarder</i> .
<b>Racing Editor</b>	B.W. "Bud" Cowdery .....	15 Crestdale Rd., Danbury, Connecticut 06810 A column on the early days of outboard racing for <i>The Antique Outboarder</i> .
<b>Motor Registration</b>	Robert B. Hampton .....	54 Clinton Avenue, Eatontown, N.J. 07724 Keeps registrations of antique outboards.

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### Regional Activity Centers

**YANKEE CHAPTER**  
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Simsbury, Conn 06070

**KNUCKLE BUSTERS CHAPTER**  
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**MIDWEST CHAPTER**  
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**TWIN CITIES CHAPTER**  
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Champion Motors  
Co. "Hot Rod";  
See feature story  
on The "Champ",  
page 27.

Special Notice:

See announcement  
of membership con-  
test winner,  
page 22.

Planned for next issue: A report on the  
British Sea Gull; Boat Shows and Outboards;  
Speedifour; Amphion; regular features and  
other stories.

AOMCI EXECUTIVE COUNCIL

Dick Anderson	Ron Johnson	Bill Salisbury
Bob Brautigam	Bill Kelly	Jim Smith
John Harrison	Tom Luce	Sam Vance
Dick A. Hawie	Don Peterson	W. Jim Webb
Peter Hunn	Dave Reinhartsen	Mark Wright
Dick Jones	Bill Rose	Bob Zipps

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*Change of address should be forwarded two weeks in advance and Zip code numbers should be included.*

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# The Antique Outboard Motor Club Inc



## CLUB BRIEFS

IMPORTANT   IMPORTANT   IMPORTANT   IMPORTANT   IMPORTANT   IMPORTANT   IMPORTANT

Members are urged to check your membership cards and renew your annual dues before receiving a notice. Your remittance early will save the Club time and money. All dues should be forwarded to Mr. Dick Jones, 20505 NW 3rd Av., Miami, Florida, 33169.

PLEASE SEND ALL ADVERTISEMENTS AND REQUESTS FOR SAME TO BOB ZIPPS (ADDRESS INSIDE FRONT cover), Classified Editor, instead of mailing direct to the Outboarder office. Bob will see to it that your ad is properly processed and sent along to the magazine.

RICHARD C. MICHEL IS OUR CLUB CARTOONIST. LET DICK KNOW OF ANY PUNCH LINES OR IDEAS for a cartoon you may have. Dick's address is: 494 Windsor Road, River Edge, N.J., Zip code 07761.

THE ANTIQUE OUTBOARDER COULD USE A PICTURE OF YOUR MOST UNUSUAL OUTBOARD MOTOR, ALONG with a brief paragraph or two about its characteristics and how you acquired it. The idea is to assemble all the material into a story about unusual outboards for a later issue of the magazine.

VOLUNTEERS ARE EARNESTLY SOLICITED FOR THE JOBS OF (1) SMALL INBOARD EDITOR, AND (2) Antique boating editor. This task involves assembling enough material about the subject to provide a interesting article for each issue of the magazine. Here's your chance to help out - and also to be a part of recording what may soon be forgotten history.

AOMCI OWES ANOTHER DEBT OF GRATITUDE TO EVINRUDE MOTORS AND ESPECIALLY TO LES STANARD, Service Manager, Evinrude, for furnishing the 1909 through 1970 Evinrude model designer charts you recently received in the mail. Many thanks also to Mess'rs Dick Jones, Harold Culp and John Harrison for doing the mailing job.

THE NEXT KNUCKLE BUSTERS CHAPTER MEETING WILL BE HELD AT 10:00 AM SATURDAY, OCTOBER 31, 1970, at the home of Mark Wright, 30 Crest Drive, Little Silver, New Jersey, 07739. Mark is planning a demonstration covering balancing and port timing for outboards. As always, all interested members are welcome. Those planning to attend should drop Mark a postcard to let him know.

A REMINDER THAT BILL SALISBURY'S MEET IS BEING HELD SEPTEMBER 27, 1970, AT CALERO DAM near San Francisco. Be sure to attend, for this promises to be a great meet. Attendance is already the greatest of any California meet ever. Dave Reinhartsen, Bill Motley and Dick Anderson (families too!) are attending, representing the L.A. Chapter.

AN INVITATION TO ALL THOSE IN THE AREA IS EXTENDED ON BEHALF OF DAVE REINHARTSEN TO attend the Los Angeles Chapter Organizational meeting on Saturday afternoon and evening, October 24, 1970, at Dave's home: 8819 Enfield, Northridge, California.

DAVE REINHARTSEN REPORTS THAT THE ONLY BACK ISSUES OF THE ANTIQUE OUTBOARDER STILL IN his possession are for April, 1966. Issues from April, 1969 on are still available from The Outboarder publishing office...

JIM WEBB'S BOOK, THE PICTORIAL HISTORY OF OUTBOARD MOTORS IS SAID TO BE AVAILABLE FROM the Ventura Book Service, 114-20 Rockaway Beach Blvd., Rockaway Park, New York, 11694, at the low price of \$2.98.

MEMBER JIM ALTMAN WHO HAS SOME FINE OUTBOARDS RECENTLY TOOK HIS BEAUTIFULLY RESTORED Briggs And Stratton antique Motor Wheel to Chappel Hill, North Carolina. Jim's unit which is mounted on a buckboard, received a national First Place award.

MARK WRIGHT REMINDS US THAT THE AOMCI PARTS SOURCES MANUAL CONTAINS USEFUL INFORMATION about locating piston rings, on page 5, column 1; and on page 7, column 1 & on page 11.

\*\*\*\*\*

# From The President

Dave Reinhartsen is alive and well and living in California. His address is 8819 Enfield, Northridge, Calif., 91324. Enough said. Just a couple of thoughts, or so, to pass on to you. The first is that the season for meets is almost at a close - and if the meets this year have run true to form, many of us have come to the meets with engines that we really haven't checked out. We have rebuilt them at the last minute, even the night before the race - we haven't run them yet, and we expect to come to the meet and have them run. It just doesn't work. Please, please, when you come to meets, bring two engines so that at least one will operate. Better yet, be sure, very sure that you know your engine. Know its idiosyncrasies - know what might go wrong. When we come to meets, pull the rope and away we go. Then we'll have good meets of professional status.

I am the worst offender in the next category, and I refer to that of not answering letters. If this Club, with its unique membership, is going to grow and improve, we must maintain effective communication by answering all letters that people send to us - that includes me. Please, if someone has written to you asking for help, it doesn't take more than a few minutes to reply by postcard. We should all do this! During the past several years I have had a job which entails considerable travel, and have even changed jobs - moving to a different state. This has curtailed my answering letters from many of you. However; the situation has now changed; I still travel a bit, but am making more time to reply to letters. -- You can do the same.

Letters come in almost daily congratulating the Club and especially Bob Brautigam on this fine magazine which he is putting together. You are..(Ed. note, I omit many more kind words of praise which can only make me even more red-faced. Thank you.)...Other people deserve special thanks; Dick Jones as Membership Chairman, John Harrison for his work as Treasurer, Bob Zippis for The Classified Section and The Newsletter-that's a really big job- certainly Mark Wright for his handling of the parts hunting service which has been valuable to each of us. A special thanks to each and every one of these sparkplugs - and a special request to other members - join in! Get involved! We need your participation.

Sam Vance is going to handle the sale of sweatshirts for the Club now. If you would like to purchase a sweatshirt emblazoned with the Club emblem, please contact Sam. He is in the process of ordering them now. I'm not certain what the price is but it is done on a no-profit basis and the price per sweatshirt should be somewhat less than \$5.

Now that I have moved to Los Angeles, I am pleased to note that we have two very active Club members living in the Los Angeles area - Dick Anderson and Bill Motley. Thus we have the nucleus of a Los Angeles Chapter. Our first Meet is scheduled to be at my home on Saturday, October 24. All members are invited to this kick-off meeting - we would especially like to see a good turn-out from the LA area. I am shooting for a meet schedule of every other month in L.A., and a meet in San Francisco every other month, alternately. Thus there will be a meet in California once a month. I'm sure that more than a little rivalry will develop.

I'm quite unhappy about my absence from Club activities, but as more time is available now, that situation will be turned around. If you come to the Los Angeles area for any reason, give me a call, and we'll get together.

OCTOBER, 1970



# LETTERS TO THE EDITOR

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Thank you for your interest in the independent survey done at Lake X on possible pollution by marine engines. It is a pleasure to furnish releases covering this continuing study, together with a cross section of media reaction.

The major objective of this survey is to clearly define the position marine engines occupy in the pollution picture. Lake X offers a unique opportunity to conduct examinations in a natural, ecological environment subjected to extreme exposure from exhaust emissions.

There is a tendency for pseudo experts to jump into any issue of this nature with what they consider obvious evidence. The results of their frantic accusations are wasted public funds and energy. The real truths provided by such an in-depth survey as the one at Lake X can help direct money and talent toward correcting major offenders destroying our recreational waterways. Cordially yours, Kiekhaefer Mercury, Joe Swift, Public Relations Director. Ed. note: A brief summary of the data provided by Mr. Swift appears within this issue of the Antique Outboarder. However; the entire package of text is available for your reading - just request it.

---

The Elto 4-60 article by Mr. Wilkins and Mr. Hitze really brought back memories to me. Naturally, auto racing has been a big bug with me since I was old enough to walk. Dad took me to the Time Trials at the Indianapolis Motor Speedway when I was two, back in 1925.

Back in the mid-thirties, we used to go to the old State Fair Coliseum every week during the winter, to watch the AAA midgets run. It was dirt, with bales of hay in the corners. All the motors mentioned in the articles were around, and my favorites were the team of Tony Bettenhausen and Ronnie Householder in twin white midgets with Eltos in them. What a sensational noise! The Eltos would go only one speed which was fast. To get a race going, the rest of the field would slow way down until the Eltos were in sight - going like crazy. Then, everyone would floor it and somehow, the race would be on. Dust flying, hay bales being demolished like mad, castor oil fumes all over, WOW! Best racing I ever saw.

Emil Andres, Harry McQuinn, Duke Nalon, Jimmy Snyder (The Chicago Milkman) and even Rex Mays used to show up. Tony Wilman also had an outboard! In the summertime, they moved to the cinder track in the Butler University Bowl.

This is true, believe it or not. My Dad and Mom took one of their more sophisticated friends to see the Midgets one night. She really didn't want much to go. After observing the first heat race, she majestically rose from her seat to her full stature (which was ample especially in a large mink coat) and announced to one and all - "This is a damn gyp! Why, all of those drivers are as big as I am!" Our whole section in the stand almost collapsed on the spot! Sincerely, John D. Gould, Jr.

---

We wish to congratulate you on the July issue of the Antique Outboarder, it certainly was terrific in all Departments with a wide divergency of articles on motors. One in particular intrigued me - the story on small inboard engines. I hope this will become a regular feature, as here in Canada, there were, years ago, a great many firms building small 1, 2, and 3 cylinder, 2-cycle inboards - that I'm sure would be of interest to many of your readers. ....I hope you will convey to all members who are responsible for the July Issue, my sincere congratulations for a job well done. Yours very truly, E. Walton-Ball (as excerpted, Ed.).

---

Enclosed is a picture of an outboard that you perhaps could use as a "mystery motor" in the magazine. This picture (Figure 1) came from an old scrap book, origin unknown. When I first saw the picture, I thought of a Cross 5 cylinder radial; but this appears to be 4 cylinder, and doesn't look at all like the Cross on pages 13 and 15 of the April 1970 issue. No, I don't know what this one is. I've heard something about a Riley radial, could this be one? Maybe some of our members can help! From the picture, it looks like this one is being used for racing.

The enclosed Ad (Figure 2) came from a recent issue of National Fisherman. Maybe he could be of service to outboarders.



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Above: Figure 2.

Left: Figure 1., Mystery Motor!

Buddy Streat, Tom Luce and I participated in the Thousand Islands Boat Show in mid-August. Several other members were there as spectators. I received First Place in the Outboard Motor Class, with a 1923 Caille Liberty Drive. There were some pictures of last year's show in the November, 1969 Rudder Magazine, including my Sea Sled boat. Sincerely, Phil Kranz.

This engine goes in the "what is it department"; Can anybody help? Rick Anderson.....



.....Yesterday, July 19, I went to the races to watch the Molinari boats primarily, 40 of them, run the 225. That is, 225 miles of marathon racing at the Marine Stadium. I was fortunate enough to meet Mr. Ralph Evinrude, and Mr. Lou Eppel, Service Manager of Johnson Motors. I thanked them both for their interest and help with the Club.

You wouldn't really believe these boats. They are all tunnel jobs and they run at a 90 mile per hour clip on the straightaway. The winner averaged 72 plus MPH for the 225 miles. These are all single engine jobs of 100 cubic inches displacement. I have never driven an outboard rig which would go 72 MPH in its palmiest days. Things have really changed! These tunnel boats run very comfortably and don't knock your brains out the way our old runabouts and hydros did. The fellows sit up about 12 feet in front of the engine, in an aircraft type cockpit with foot throttle - and automatic buttons on the steering wheel to change the motor angle. This really makes our stuff more antique by the moment. Best regards, John Harrison

(end)



RICHARD A. HAWIE

# NOTES FROM THE CURATOR



Those who know me will be surprised to learn that I have finally attempted to restore and run some of the motors in my collection.

My son pushed me into the restoring end, as I was content to collect and identify motors. He has turned out to be an excellent parts cleaner and gasket cutter. Those are two essential skills for a successful restoration.

Running antique motors, unfortunately, requires starting them; and that takes a strong back and a weak mind. I am convinced that a motor that refuses to start just sits on the boat absorbing water so that it weighs twice as much when you sadly take it off as when you hopefully put it on. It wasn't the dual carburetors on the Johnson VR-50 which caused them to fall into disfavor; it was the double hernias of the poor racing mechanics. You guessed it; we have been fooling with some of the big Johnson "iron" this summer.

Seriously though, if a motor is mechanically sound, restoration becomes a matter of disassembly, cleaning, polishing and re-assembly -- except for the ignition which always needs some attention. If we could get a good supply of ignition parts, most of the motors owned by Club members could be restored. You can find abused motors, ones with broken parts or frozen pistons; but you will seldom, possibly never, find a motor that was run so much that it was worn out. They just couldn't start them that often.

There are two problems that you can run into with the Johnson S, P and V service motors. We use service powerheads, but fudge a little by putting them on racing lower units. They are easier to start than the racing powerheads that we have.

The first problem is that the S and P motors, especially, often fell into the hands of hot rodders before they became antiques; and the cylinders are scored or the pistons burned. The second problem is with the rotary valve bearings. The top bearing is in a retainer that is not available anymore. Hopefully, your bearings will be OK. If not, and you have a good lathe, you can turn a cup to fit a 202 standard ball bearing; or you can try Randolph Hubbell, 2511 N. Rosemead, So. El Monte, California, 92002. For many years he has been the main supplier for the racing drivers when they used Johnson and Evinrude motors. Although I haven't gotten anything from him in two or three years, I was surprised at the parts I was able to get then.

If your rotary valve bearings are O. K., you may be lucky enough to have a steel gear, too. Service motors usually had fibre gears; racing motors always had steel gears. Occasionally some good mechanic put a steel gear on a service motor. They outlast the fibre ones.



The timing of the rotary valve is relatively simple; but if it's off time, you'll have a non-starting motor or a flame thrower depending on how it's indexed. If you've never had one of those monsters backfire a tongue of flame the full diameter of a Vacturi carburetor which is 2 inches, it's not something you really need to experience.

There is a big screw on top of the housing; if you remove it you can see the gear teeth. Somewhere in one full revolution there should be a "J" stamped on the gear. The J should be in the center of the inspection hole when the piston is  $\frac{1}{2}$  inch after top dead center for a service cylinder and  $\frac{5}{8}$  inch after top dead center for a racing cylinder. The ports in the cylinder determines the timing of the rotary valve. If you look into the rotary valve with the carburetor removed, you will see that the center web of the rotary valve is just closing when the "J" is in the center of the inspection hole. If it isn't, someone misindexed the gear on the rotary valve; the "J" on the gear should be on the center line of the center web. The foregoing is for motors with half speed rotary valves. The 1:1 rotary valves of the V-45 and S-45 are timed the same way, but the internal construction is different.

The ball bearings on the top and bottom of the rotary valve should be greased as they don't get any oil from the fuel mix. I use lower unit grease on them.

Externally geared rotary valves are fast engines because of the extra air-fuel rammed into the crankcase by closing the valve after top dead center, but the timing is fixed for one speed only; so when you slow the motor down, the air-fuel doesn't ram into the crankcase; it bounces back off the rotary valve into the boat or your backside. The inside of a boat can get pretty slippery after a while.

The air-fuel mixture is rushing into the sewer pipe that is laughingly called a carburetor at speeds approaching 50 miles per hour. Drivers of these rotary valve motors soon learn not to wear loose tee shirts or have anything in their back pockets for they will be sucked into the valve and be ground up as efficiently as the best garbage disposal unit can do.

The S-65 powerhead we are using came with the Vacturi floatless carburetor which we promptly changed to a standard Vacturi carburetor No. 22-249. The floatless carburetor is actually a diaphragm carb such as is used on many go-karts and motorcycles. The diaphragm on the Vacturi is a brass sheet which was cracked, so we switched rather than fight. I suppose a modern fuel pump diaphragm could be substituted if you want to experiment, but we didn't feel like wasting time on it when we knew a standard Vacturi would work. They were also used on the S-65. The few people I know who had run the floatless carbs had comments which shouldn't appear in a family magazine.

The factory set-up uses a twist grip throttle control with the Bowden cable coming into the carburetor from the starboard side. We use a spring-loaded racing throttle and bring the cable in from the port side. This requires a homemade clamp fastened either on the float bowl or the rotary valve to hold the Bowden cable. I wondered why all the racing drivers went to this trouble until I rolled a boat over with the Bowden cable in the factory set-up. The cable passes over the cockpit in an "S", and it caught my ankle as I went over.

It's a little scary in deep water because you go down with the ship. If you use a throttle, we recommend bringing the Bowden cable into the carburetor from the port side.

Now, heaven knows I am not the Ralph Nader type (I once ran a Mercury KG-7 without a butterfly valve, and slowed down the motor by putting my big toe in the carburetor!), but I strongly recommend that these Johnson "S" "P" and "V" motors be run with a steering wheel rather than the handles put on them at the factory. The S-65 is only 13 HP but the torque of these opposed twins is such that they are a handful to steer with a handle.

I made a steering bar out of angle iron and fastened it on the motors using the aluminum plugs which stick out of the muffler. I drilled and tapped 3/8--16 threads in the center of each aluminum plug. They are standard on the three models, and we use the same bar on all of them.



The intrepid driver "at speed" about 41 MPH.



VR-50 in painful state-not running...



Richy about to spend the afternoon with the "tools of ignorance" (starter rope and squirt can).



We wish this were the other racers' view of our boat. Note location of steering bar.



P-50 with P-75 cylinder heads - we experimented. Racing exhaust tube is above water.

Unless you have a selection of propellers, you can run into problems with these big motors, especially if you are running on a very heavy or very light boat. The smallest propeller we had for our VR-50 (single carb model) was a 10 3/8 x 18! This was for a hydroplane in the days when there were no weight restrictions and we were using it on a heavy De Silva racing runabout. With a stone cold motor and that 18" pitch, it was physically impossible for me to pull the motor over fast enough to get a good enough spark to start the motor. We had to change from R-7 to 5-M sparkplugs and to a B-Hydro prop that we had to get the monster started. Though R-7 plugs are recommended for many of these motors, they are hard-starting plugs, and sometimes it's advisable to use 5-M plugs which are hotter running but easier starting. If you don't advance the spark too far, or run too long, the hotter plug won't hurt and will give you a chance to make sure the engine will start and will warm up the engine so that you can change to the R-7's. The 8 5/8 x 14 1/2 B-Hydro wheel allowed the VR-50 to wind a little higher than I like, but it enabled me to start the motor and learn its starting pattern. Each motor has a character of its own. Some require lots of fuel and little throttle; this one started easier on all four cylinders and full throttle! After forty years a motor doesn't always run the way it was designed to run. When we warmed the motor up I was able to run it with the 10 3/8 x 18 prop, but it was stubborn to start. If you are very brave you can start the motor without a propeller, but it will start to run away without a load and you can't get a good carburetor adjustment.

We use clear plastic fuel and water lines on these motors. The copper tubing often is cracked or full of salt corrosion and is horrible to line up if you have to remove the cylinders or heads often. On the water lines we cut the copper tubing at the fittings leaving them about 2" long. Then we slip 3/8 I. D. water hose on the copper tubing and hold them with miniature stainless steel clamps which are available at marine stores. The fuel line is clear plastic hose and we use brass fuel fittings in the carburetor and gas tank in place of the stock fittings and copper tubing. Having a view of the cooling water passages may save a motor if you spot water not passing through the clear hose, so we feel it's worthwhile even though it's not factory stock.

The service motors are cooled by water coming up the rear water passage in the torque tube into the bottom of the cylinder heads and exhausting from the top of the cylinders down the front water passage in the torque tube. The muffler is cooled independently by water passing up the exhaust tube. The factory racing set-up used a short above water exhaust tube so the muffler in the racing set-up must be cooled by the exhaust water from the cylinders. Though the racing exhaust tube is above water, the cooling water tends to silence the exhaust; and it is quieter than most high-powered inboard engines and all ski boats. It is a deep-throated buzz which is easier on my ears than the rock and roll sounds that come from most radio stations today.

We ran an S-65, P-50 and VR-50, all with racing lower units, on our C-D De Silva; and the three ran within 4 MPH of each other on our speedometer! They shouldn't have! Why they did may be the basis for the next article.

- End -

# Special Interest Group News

Here's a list of the different Interest Groups intended to help focus on your needs for literature, information, parts and fellowship regarding your favorite motor or subject. Notice that not all of the Groups have leaders - volunteers are needed! Write to the Antique Outboarder magazine publishing office.

Giant Twin - Don Peterson	Golden Anniversary motors	Small Inboards
Lockwood Chief - D. Reinhartsen	Unusual and rare motors	History - W. J. Webb
Johnson PO - Bill Salisbury	Restoration for display	Eltos - Mark Wright
Johnson V Series - J. Harrison	Racing engines and souping	Cailles - W. Weidmann
Johnson A Series - Bob Zipps	Watermans - Dick A. Hawie	Lockwood - R. Anderson
Antique Boats and equipment	Research - Dick A. Hawie	Martin - Glen Ollila

.....  
ELTOS - Mark Wright...Numerically, Eltos are about the third or fourth most plentiful antique outboard, according to Bob Hampton, Head of the AOMCI Motor Registration Dept.. As the two cylinder models are more common than the four cylinder "quad" models, most of the technical questions coming in concern the twins. Questions on either the twins or quads are always welcome and answered by personal letter. The majority of inquiries are about the Atwater-Kent timers.

Eighteen 1928 and six 1929 Quads are known to be in the hands of members. About nine '28 and three '29 Quads (one is a Hi-Speed model) are in operating condition. From serial numbers seen, it is surmised about 3500 '28 and 1000 '29 Quads were built. We have listings of perhaps ten '28 Quads known to be in the hands of non-members. This information is available to any member who might like to acquire one of these rare and fine running engines.

There are sufficient models of Eltos built into the early thirties to render publication of technical information on them too huge a task to undertake. However, this Group does have in its files, just about everything you might need to know and is at your service to answer technical questions, even to the point of repairing irreplaceable old parts. In many cases, we can put the owner in touch with others having specific parts needs.

Eastern Meet organizers have discussed the idea of running special events for the rare Quads. This comment is directed to those Quad owners whose engines are not operating at the moment - as encouragement to get them running for the 1971 Meets. Be sure to let the word out as yours becomes ready.

GIANT TWIN - Don Peterson...A blue report..Alas, about half of the Giant Twins in the group are not even close to running, with at least one owner ready to use his as a boat anchor. Most popular missing parts are rods, cylinders, pistons, carburetors, gas tanks, ignition parts and lower units. According to Don, "Fellas - this is the saddest shape I've ever heard of any association being in. Maybe we should all have our heads examined. If we do this collectively, maybe they will give us a lower rate. Besides, if we disclose the nature of our hobby, the Doctor would probably insist he examine the whole Club membership."

"We have added one other constituent: Eric Gunderson, 57 - B Mt Hamilton Road, San Jose California, 95114. Let us not demoralize Eric right away with the parts situation. Let's all write him and offer moral support. I'm just kidding on our 'shape' - could not resist putting it in. 'Til next month, good hunting."

JOHNSON PO - Bill Salisbury...The "PO boys" in California have been hard at it. Besides always trying to see whose motor will start the easiest, idle the slowest or go the fastest, we have also been trying to see whose will fall off the boat easiest into 60 feet of water. So far, Dale Denning is the winner (?). The only thing was that it was "yours truly" who was operating Dale's boat when it happened! I wonder if there was some foul play there?

Starting the PO baffles some people, so in order to make it easier, I will attempt to

give you some pointers. The method varies on the type of carburetor your PO has. The earlier engines, the P-75 up through the PO-10, have a carb equipped with a full choke. There is no cut-away in the choke butterfly. The PO-15 engines have a cut-away choke. You should determine which your engine has by removing the cover over the air intake. Don't depend on the model number, as your carb may not be original.

Follow these few steps and your PO should start easily. First, assuming you have already filled the tank with fuel, set the needle valves: the high-speed 3/4 turn open; the low speed 1/2 turn open. Then, with the fuel valve and air vent open, set the no-cut-away-choke full closed. Next, set the mag lever one or two notches to the right of center, no more, and close the throttle, and finally, open the compression release. DO NOT push down the float pin with the full choke carb as you are likely to flood the whole boat yard. Now, rock the flywheel back and forth with the starter rope about ten or so times drawing a uniform mixture into the crankcase and cylinders. On the rebound from one of the rocks, just continue to pull it through compression and your engine will probably be running. Immediately crack open the choke about 1/8 to 1/4 or you will lose it. If you do lose it, leave the choke about 1/4 open, crank again, and it should start. Next, move the compression release all the way to the left - oops! an Evinrude just went by - but don't open the throttle until the engine warms up a bit and you find it will run smoothly with the choke at least half open. Now advance the spark so that the lever is about one notch past the right end of the carb. Opening the throttle now will give you the ride of your life!

Set the high speed adjustment in the normal manner and set the low speed so that the idle is smooth with spark retarded to center, and so that after spark is again advanced to top speed position, engine will accelerate smoothly, when the throttle is opened fully.

Now for the cut-away carb, the procedure is exactly the same except with this one, you flood the carb with the float pin in the conventional manner. Eric Gunderson says that with his cut-away, he doesn't need the choke at all. I have tried the cut-away procedure with my full-choke engine, and it just does not work. The reason is that the cut-away carb has a drain in the venturi area that prevents over-flooding. The early carbs don't have that drain. This is not to be confused with the drain located right near the choke area.

I might add, that during starting, if your engine backfires, it is doing so because of a lean mixture. If it backfires and stops during the starting procedure, just repeat your starting steps using just a bit more choke to prevent the lean mixture after the engine has started. It takes a little time to get to know your PO, as with any engine, but after you do, I think you will find it very reliable and a delight to run.

I would like to hear from more of you PO owners. Please send me your engine model, serial number, type of prop (and dimensions), type of boat used on, speed attained if known and RPM. Also include any interesting experiences that you have had with a PO. If any PO owner is having any problem with his engine, or needs any parts, just scratch out a note to me and maybe I can help you. I have a good "committee" here on the West Coast, all with lots of PO experience to help solve the problems.

ALL GROUPS are encouraged to submit news about their special interest subject along with anecdotes and bits of technology to The Antique Outboarder. Above all, become completely knowledgeable of your selection in terms of history, specifications, etc., for posterity.



Here's Bill getting one of those "rides of your life" after some help getting started by, I believe, a passing member of the Lockwood Chief Group. Sorry, Bill, I couldn't help telling. Ed.



# OF HISTORICAL INTEREST

..... *W J Webb*

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## THE OUTBOARD OF THE FUTURE

THE ANTIQUE OUTBOARDER IS INDEED GRATEFUL TO  
MR. BROOKS STEVENS AND TO EVINRUDE MOTORS  
FOR PHOTOGRAPHS USED IN THIS STORY

The outboard of the future will be, like the outboard of today, a compromise representing what the various engineers believe to be the best achievable balance of available features most desired at that time. The future in outboards, like the future in just about everything else, will come upon us one day at a time, one little change at a time and probably so gradually that we won't realize when it has arrived. Future ideas are conceived, spend years incubating and when they hatch into reality may look so feeble and uncompromising that we fail to envision into what they may grow.

Take the reed valve for instance. When Evinrude introduced it in 1935, I doubt that anyone thought that it would become the standard outboard intake mechanism within fifteen years. For one thing, the art of laminating metal for reeds had yet to be perfected. A lot had to be learned about fatigue, flexing speed, capacity of openings, etc.. But it was learned and successfully applied. The reed is typical of how features develop and pass into wide acceptance.

All right, when is the future? At what date are we shooting? Not 1971 - parts for 1971 motors have been in production for months. Not 1972 - designs and production plans for that were "frozen" over a year ago. Expensive special tooling has been on order since the "freeze" or before. Even now, production and purchasing department expeditors are listening to - and trying to better - broken delivery promises. The 1973 outboard has been in work for a couple of years. Some of the improvements that will come to light in 1973 were hatched as many as 10 years ago and have been under refinement most of the time since.

But since we must have a target date, lets try to pick one sufficiently far ahead so that there will be a chance, even though slight, of getting some of today's "way out" ideas in shape for the public to buy. So, let's say 1981 - that is pretty close, but let's say it anyway. Now, what do we want our 1981 outboard to be? Here are some of my ideas. Yours are sure to suit you better, so call me as square and backward as you want. I won't argue.

In comparison to what we have today, I want the 1981 motors to be lighter per horsepower and per mile of delivered speed - far more quiet - much more dependable, rugged, reliable - easier to operate - more attractive looking, as "far out" in appearance as possible - more economical - have better all around performance range - priced so that a man can pay for one of any size with fewer hours of his work than today - and above all, THE 1981 MOTORS MUST REDUCE POLLUTION TO AIR AND WATER TO FAR BELOW PRESENT LEVELS.

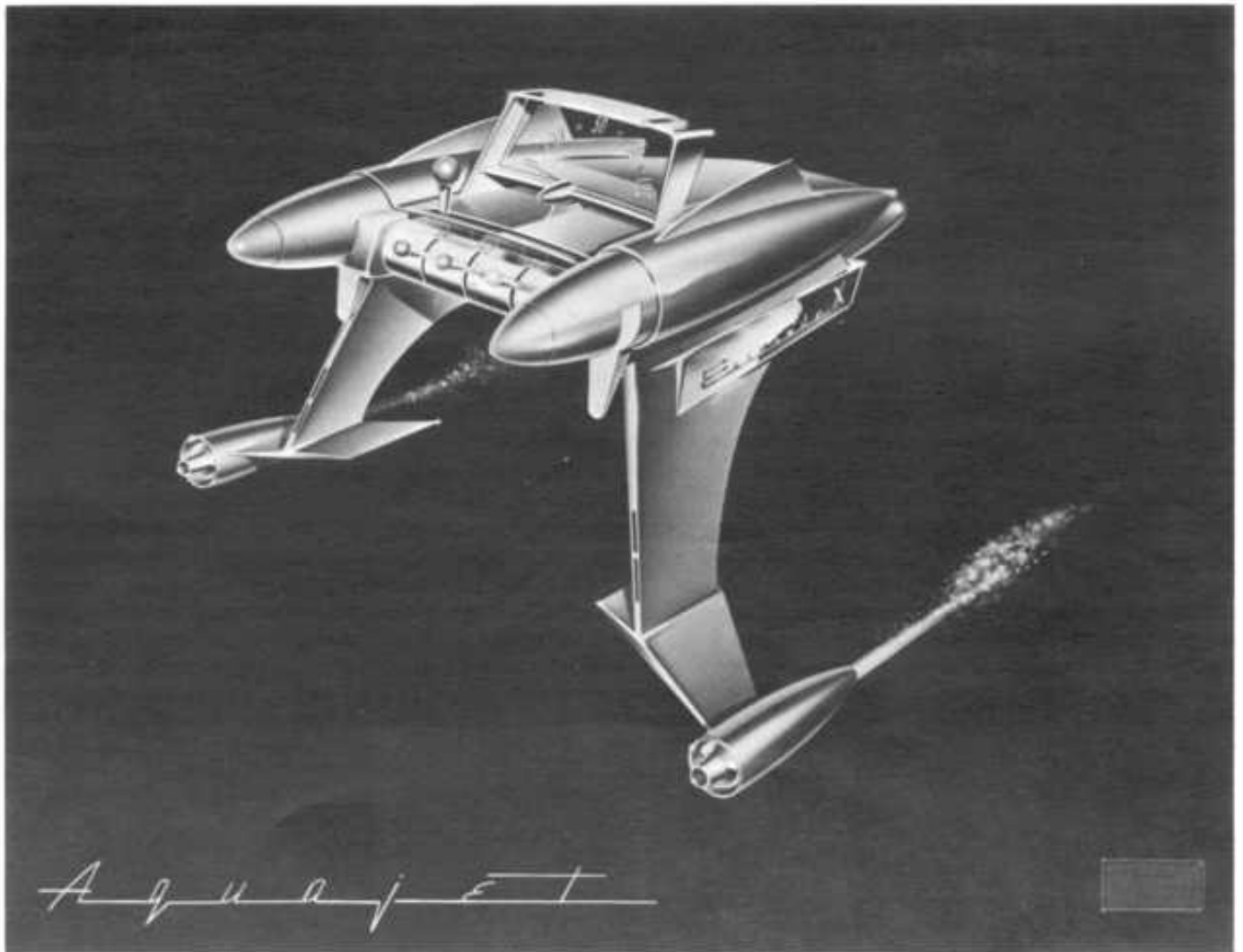


Figure 1. Aquajet. While the Aquajet design contemplates reciprocating, internal combustion engines of conventional design, it can be readily adapted to a rotary combustion, a turbo-jet or even a steam type power source...The power packages are installed in streamlined housings on either side of motor head drive pumps that suck water through intake slots at the leading edges of vertical stems, then discharge it at high speed through underwater jet nozzles. Reverse is readily accomplished through manipulation of water pumps.

That will do for a starter. You add as many desirables as you would like. Be specific too. I am afraid to mention some things for fear of starting arguments or giving away secrets. Just about everyone of those desirable 1981 generalities will come out of a combination of several other desirable attributes - compromises. For example, if our engineers wanted to design a combustion outboard with the single consideration of achieving maximum power per pound of weight, they would be the happiest clams in the world. They wouldn't have to worry about the many noises that come from unfettered intake, exhaust, ignition, gears and lack of acoustic treatment throughout. Long life and easy starting would go out the window. It would probably require a natural born mechanic with an "ear" and a "touch" to get proper performance. But it would sure put out the power and speed and would delight the few who could and would buy it. It would cost like the mischief and its screaming operation would get it ruled off most lakes and rivers. So what. We designed it for maximum power and speed output and nothing else. It wouldn't sell in volume necessary to support economical production, and so wouldn't make an attractive marketing proposition.

To the best of my knowledge, there have been only a few designed with only racing as the



Figure 2. Turboprop. As shown, a gas turbine similar to a jet plane motor drives propellers that allow the boat to be maneuvered like a twin engined cruiser. Air drawn through slots around the speed indicator mixes with gas vapor. The mixture burns rapidly and thrusts against metal vanes which turn the driveshaft. Exhaust gives added push. Other type power sources can be applied to the drive unit. Reverse can be accomplished by mechanical means at present.

desired end. One of these was the Soriano outboard, a 4 cylinder, 4-cycle, supercharged affair that really put out power and speed. But its short life and high cost put a damper on it. Another was the Speedibee, a 19.9 cubic inch job put out by Evinrude in 1930. This was a beautifully designed engine but it had some "bugs". Evinrude never had a real opportunity to work out these bugs because right at that time, the great depression set in and there wasn't a dime for anything except to stay afloat and out of receivership. So a good motor was shelved and never revived. I am not sure about the German Konig. In his letters to me, Dieter Konig laid some emphasis on service needs while pushing the power and speed of that fine motor to the limit. Another was the Italian Iesco, hand-built by de Priole. And there are probably others that I haven't heard about.

Today's American racing outboards all started life as an adaptation of service engines, available in any store. Of course, they don't stay "stock" very long, but they were service motors at birth....Oh, brother, will that start arguments!

What will be the popular type of outboard engine unit in 1981? Chances are, it will still be the reciprocating, internal combustion engine. Notice I said "chances are". This does not rule out a rotary combustion type like the Wankel, a gas turbine, or an



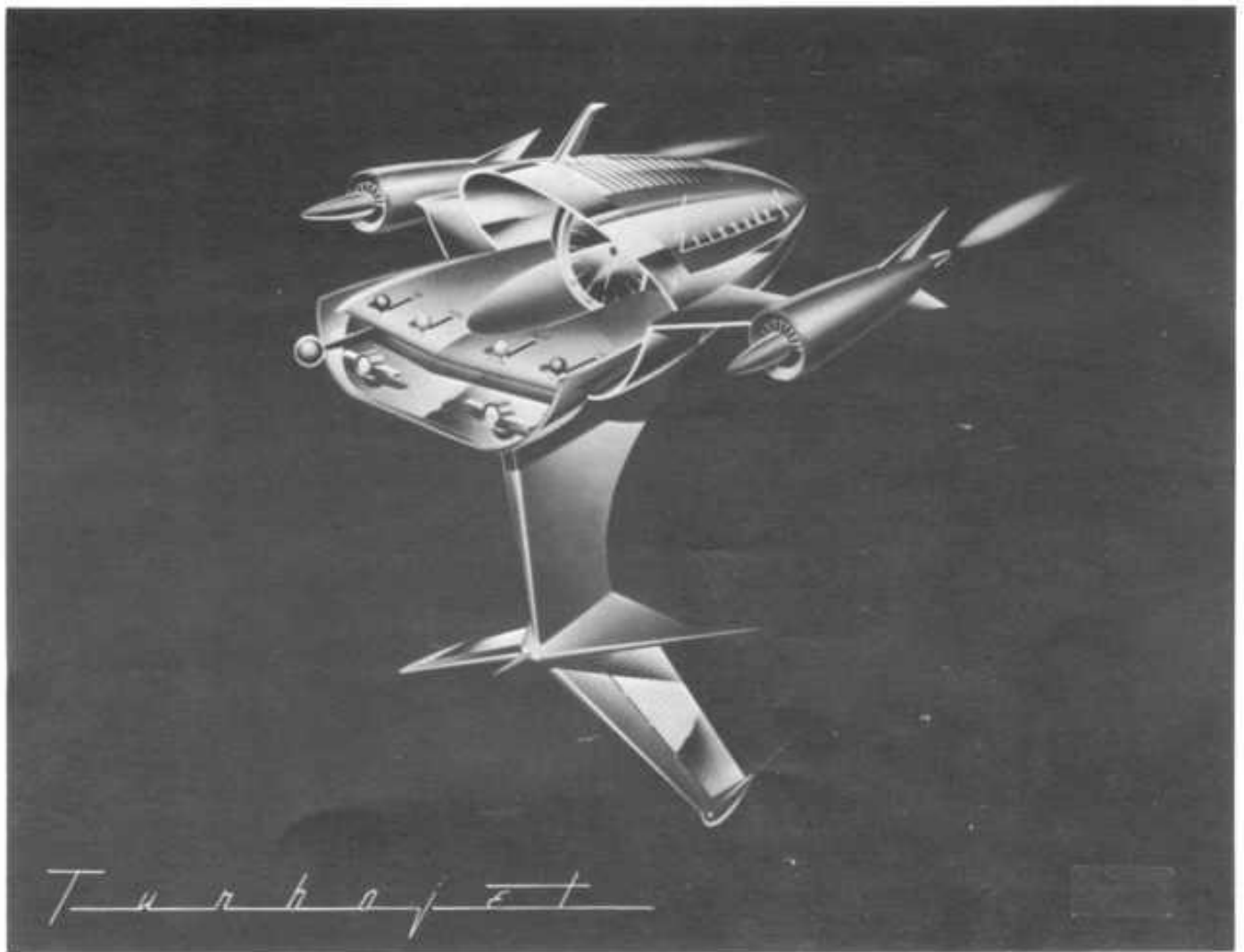


Figure 3. TurboJet. As shown, double turbines throw exhaust gases to the rear, forcing boat/motor combination ahead at possible speeds of 100 MPH or better. The boat is steered by twin rudders fashioned in the shape of an inverted V to function effectively on banked turns. Adjustable horizontal plate above the rudder counteracts the tendency of a fast moving hull to take off from the surface of the water....A single jet engine can be easily adapted. Reverse could be achieved through closing of clamshell type housings in rear of exhaust opening, thus reversing gas thrust. This would be similar to the McNab-Kitchen rudder. Remember?

airplane type jet. It could also be, and don't laugh - steam! POLLUTION CONTROL might put steam well up front as a preferred power source. I doubt the preferred power source will be electricity unless a better means of storing or generating electric power can be developed. Based on what we now know, size, weight, cost and lack of speed performance would seem to rule out the electric. The same would apply to an atomic power source. But, as anyone knows who remembers the days when there were no automobiles, radios, airplanes, television or men on the moon will tell you, Nothing is impossible. From this time on, I think that every engine researcher and designer will have the specter of POLLUTION at his elbow, and properly so. In this, the engine researcher and designer must work hand in hand with the producers of fuels and lubricants. Clean burning with a minimum of harmful combustion by-products will be the go or stop sign on every engine and fuel development.

The "cleaner" an engine operates, the more BTU's - hence power- it will pull out of each ounce of fuel. Within sensible limits, of course. But our "clean" 1981 outboard must be lighter and faster than what we have now, and that will take some doing. we



Figure 4. Mr Brooks Stevens' round boat design, 1957.

can't have a "clean" engine that weighs, say 10 to 20 pounds more than its ancestor outboard engine of today.

Turbine and other rotary combustion types were known and running back in the twenties, but it wasn't until metals with proper strength and heat characteristics were developed at reasonable cost, that these engines could be brought into general use. Some of the rotary or turbine type internal combustion engines do pretty well on power per pound, etc., today - but they still have a long way to go on pollution control. They are no worse than the reciprocating engines of today, but we know so much more about reciprocating, internal combustion engines, that I think we can get them "cleaner" in ten years than we can the rotary types. I doubt that ten years allows sufficient time to get a gas turbine or rotary combustion engine - or jet - developed to the point where its weight, size, cost and "cleanliness" will put it in the volume outboard market. I hope I'm wrong.

Our 1981 outboard must be far quieter per horse power, than today. It is going to be more powerful, but not at the expense of more noise. Better intake and exhaust tuning, the use of better acoustic materials - some of which are now known but unuseable due to cost or bulk - and motor muffling are all problems our engineers will lick, never fear. Motors have been built that are inaudible at 50 feet - except for the noise of the boat being pushed through the water. But, cost, weight and bulk rule out this model for now. My 115 H.P. motor isn't as noisy as a "quiet" 1950 model 14 horse motor owned by a neighbor. And that is because of scientific noise elimination and insulation. We will have more of it by 1981.

Reliability, dependability, longer more trouble-free life, easier operation- these are musts for 1981. Our 1981 outboard must deliver the same type of service as does a Rolls

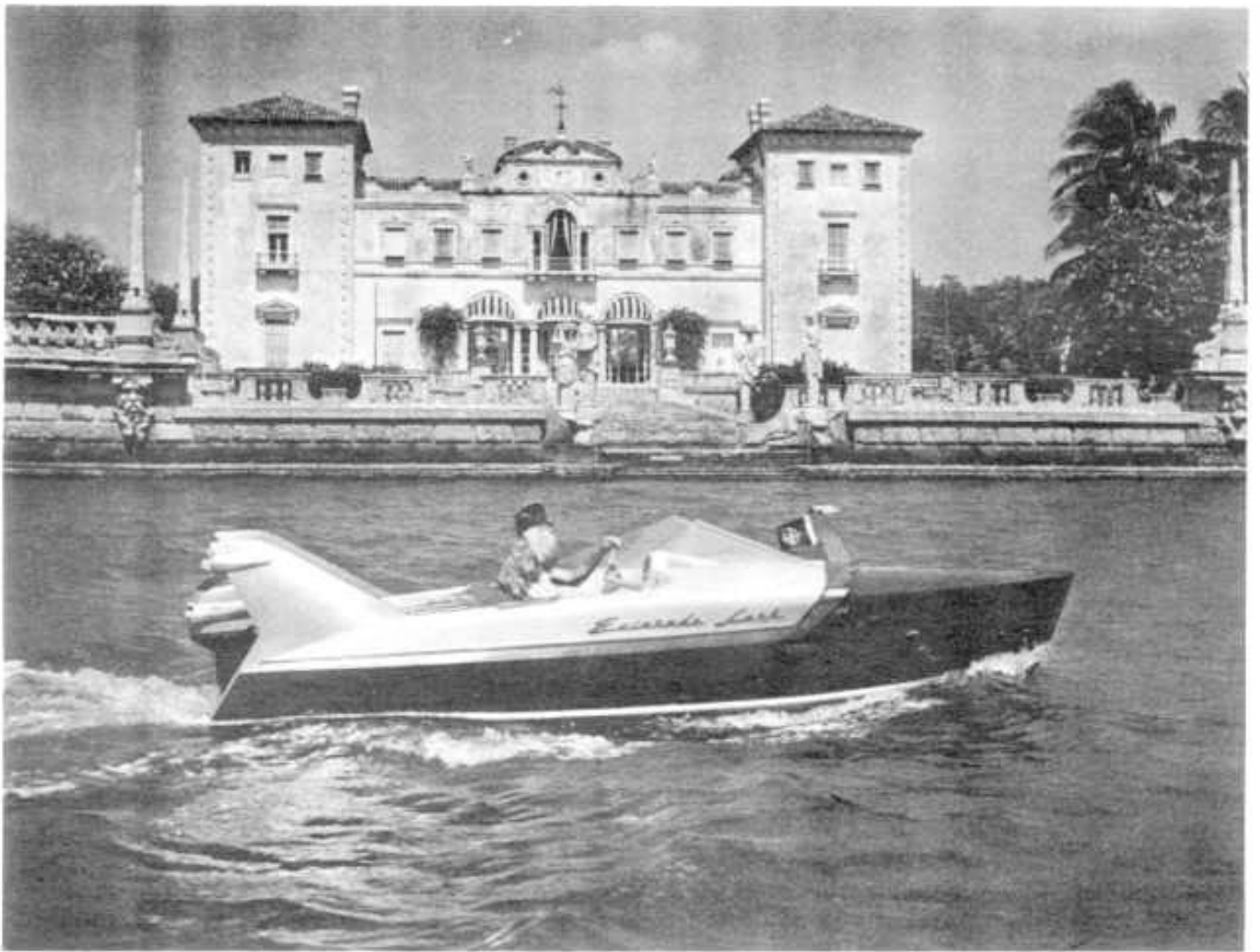


Figure 5. Brooks Stevens' 1955 Lark Runabout boat.

-Royle or a Mercedes-Benz, and they must be just as easy for a woman to operate as are those cars. Shoot if you must this old, gray, bald head; but I have purposely not given our Detroit automotive products top rank. At the same time, I think that the average American outboard is at least as reliable and easy to start as the average foreign make. But that just isn't good enough for my money - or yours! For a number of reasons, that I omit here to avoid arguments, I think that American workmanship of this decade falls far short of what it was 35 and more years ago. But, that's no excuse for poor quality.

I think that our engineers must design motors that have fewer critical fits and dimensions. Our tool men must design and build machine tools that will produce more perfect pieces, even if the button pusher-machine-hand doesn't know or care what is happening in the machine. Our manufacturers must do what is necessary to assemble perfect pieces properly. They must develop and follow inspection and test procedures that will ferret out every substandard item. IT IS IMPOSSIBLE TO INSPECT QUALITY INTO AN ARTICLE. QUALITY MUST BE BUILT IN. Fine inspection only uncovers substandard quality.

Our manufacturer has one more responsibility. He must conduct himself and his programs such that every employee will want to do a perfect job, will want to be proud of his ability, and will want to be proud of his job, his handiwork and his employer. It is up to the employer/manufacturer to motivate his employees properly. No one else can do it.

Our 1981 outboard must be so rugged and reliable that the greenest greenhorn, or your wife or daughter can take it down the farthest reaches of the Mackenzie River without any apprehension of breakdown. You bet, our 1981 motor must be easy to look at. It must come in colors that compliment Madam's boating clothes or swim suits (if any). Besides being slick, it must look as modern as 1982.



Figure 6. Good view topsides, Lark Runabout.

Just what it will look like will depend partly upon the shape of the power plant and upon the means of propulsion best fitted to the power source. Should it be the conventional underwater propeller? Or water jet? Or say, a fan jet with after-burner.

Way back in 1955-56, Brooks Stevens of Milwaukee, the internationally famed industrial stylist and designer, who has been standing the marine styling world on its ear since 1934, gave the outboard industry three fine targets to shoot at. Far ahead of their time then, and still ahead today, they nevertheless are not nearly so far-out now as they were. And watch 'em get closer. The three target outboards are the AquaJet, TurboProp and TurboJet models illustrated in Figures 1, 2 and 3. Wouldn't you love to run one of these? ....I'll bet you will!

Talk about more power per pound - or lighter overall weight. Part of it will come from better design and part of it will come from using metals and alloys not now used for various reasons - high cost, scarcity, no-good in salt water, etc.. Let's consider Magnesium. It is abundant, low in cost, possessed with greater tensile strength than Aluminum and at the same time, about 40% lighter than Aluminum. But Magnesium is no good in salt water. It burns pretty easily too. However, Dow Chemical and a number of other firms currently in bad with the hippies, yuppies and others who think America is a lousy place, has been working for years trying to make Magnesium as sound in salt water as Aluminum is....At a cost which will make it competitive with Aluminum. I will bet they make it by 1981. When they do, motors will get lighter - right now.

As beautiful and desirable as these Brooks Stevens jewels may be, not a one of them will be a success unless the average 1981 workman can buy one as easily as he can buy an outboard today. The answer to lower costs must lie in improved design, better tooling which

will reduce costs through savings in labor and scrap, better use of available materials and in lower cost materials. But don't worry, give the boys a free, unregulated market in which to work and they will come up with better products, at a lower cost, in the future, just as they have always done in the past.

Let's not overlook the important part that good boats and good boat designs have played - and will play - in giving the outboard owner a wider range of enjoyment. Back in the April Antique Outboarder we talked about the 16' round bottom Evinrude boat which was copied by builders around the world and which opened new, better performance horizons for outboard owners everywhere. In 1925 Johnson Motors, then of South Bend, Indiana, now of Waukegan, Illinois, sponsored the design and development of the Baby Buzz hydroplane which rapidly spread around the world and gave the public a safe, speedy (for that day) planing boat which took fuller advantage of the increases in outboard motor powers just coming on the scene. The public loved it.

As before, the old masters - Chris Thompson, Bill Lyman, Charlie Hermann of Penn Yan, Jim Welch of Century, Dan Kidney plus some good new ones like Heming Larson, Gordon Hooton and Fred Martin to name a few - improved not only the Baby Buzz but came out with a step plane in 1926. A motor that could make 16 MPH on a Baby Buzz could make 22 MPH with a step plane. And step planing was fun - thrilling, bouncing, spine jolting fun.

Motors and boats got better and faster together. In September of 1928, Eldon Travis of Peoria, using a Boyd-Martin Bullet and a 1928 Elto Quad, set a new official World's mile trial record of 41.748 MPH at the Midwest Nationals. In 1929, a Johnson Sea Horse "32" with a Century Cyclone broke the 50 MPH barrier. In 1931, the Evinrude 4-60 and Century Hurricane combination officially passed the 60 MPH mark...and Ray Pregenzer actually had a safer ride at 60+ MPH than did Eldon Travis at 41.748 MPH - mostly due to better boat design.

Without the genius of the boat men to help along, the outboard would have been tied to the displacement type hulls. The only result of increased powers would have been to make the displacement hulls more unstable. The safe and thrilling speeds that make boating so enjoyable, to so many, simply could not be achieved without proper hulls. Without good boats, the outboard motor and boat industry would be but a small fraction of its present size - in my opinion. So, as motors became faster and more powerful, boat designers and builders kept pace with finer bottoms. The boating public responded by buying boats, motors and equipment in volume that only an irresponsible person would have dared predict, 45 years ago.

In 1955, Brooks Stevens developed his famous Lark Runabout (see Figure 5 and 6) design to match the Evinrude Lark outboard. Remember that 1955 Evinrude Lark with the chrome trim? The Lark Runabout, the first one to have fins, introduced new ideas of beauty and comfort to the boating field. It was copied all over the world. In 1957, Stevens shocked 'em with the Round Boat shown in Figure 4. The Round Boat, as such, never went into production, but builders everywhere began to equip their boats with depth and fish finders and navigation aids which appeared for the first time on the Round Boat. Actually, the Round Boat was intended as a vehicle for testing new ideas which would make boating safer and more enjoyable for owners.

I predict that when the first 1981 outboard motor hits the water, there will be boats to match it, and help make the most of this outboard of the future. One thing is for sure - if we don't have the new, "way out" boats, the new "way out" motors won't get far. I also predict that the day will come, maybe by 1981, when we will have finer boats than any we have yet seen, made 100% of a new plastic squirted into a mold. The first such boat may cost a million, but after that, they will come like peas out of a pod - and at a price far lower than anything we have today. Impossible? Of course - so was the airplane, or the radio, or television, or atomic power.

*Jim*

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# Service Clinic



## CRANKCASE VALVE SPRINGS AND LIFT DISTANCES

By Marcus S. Wright III

When restoring early antique engines with atmospheric pressure operated crankcase valves you may find the original valve springs to be deteriorated beyond usefulness. For proper engine performance, crankcase springs must be correct or the engine cannot breathe adequately. However, a bad spring condition will cause very poor engine performance despite the fact that compression, crankcase sealing and ignition are in good condition.

Should the spring tension be too great, only a small charge of air/fuel mixture will be admitted to the crankcase. This has the same effect as running with a retarded spark or partly open throttle. Crankcase vacuum will be too high also, additionally robbing RPM from the top: the piston(s) pull against this vacuum, slowing the engine. The wrong spring tension can cause an engine to peak-out at an RPM 25% to 75% lower than rated.

Once in a great while you can have an engine with very sluggish performance and yet you know the main bearings are sealing the crankcase well, compression is good, the spark plugs show correct color, there are no tight bearings or pistons or rings, ignition is OK and the propeller is reasonably correct. Remove the crankcase valve spring. Put it on a scale, and compress the spring to the length it would be if it were in the engine. Should you have more than 4 to 8 ounces of pressure reading on the scale - this could easily be why you have a sleepy engine. Try any lighter spring. If RPM's pick up, then really go to work and find yourself a spring with 4 to 6 turns per inch and a wire diameter of about .025". Scrap Eltos are fairly easily available and usually a good source for these springs.

Don't be concerned with the natural frequency of the spring. At the RPM most spring-loaded crankcase valve engines operate at, you will be well within the limits if you find yourself a spring that fairly meets the above specifications. Spring steel or stainless steel spring material is good. Worth repeating is that the crankcase valve should have 4 to 8 ounces of pressure holding it on its seat.

The distance the crankcase/carburetor valve can raise from its seat is important. Too much lift will make it difficult, if not impossible, to get the engine running properly. The mixture will lean-out and fuel atomization will be poor. Outright stalling usually takes place. Lift that is insufficient will show up as limited top RPM, or produce the same effect as would a partly closed throttle.

Most of the engines built from the mid-twenties using crankcase check valves will have lift distances built into the carburetor when manufactured. No alteration should be made on those. The only exception to this would be for those of you who run engines at high altitudes. Elto advised the addition of a 1/32" thick gasket under the valve covers for each 3000 feet of altitude, over sea level. The same value would apply to other make engines.

Some engines, such as the early Evinrude singles and the first Eltos, have adjustments on the carburetors permitting adjustment of valve travel while running. Set for small travel when starting, gradually increasing as engine warms up and RPM is increased to maximum. Early Eltos have a lever on top of the valve stop. Correct adjustment permits 1/4" lift with the handle of the adjustment lever pointing toward the port cylinder. Remove the carburetor and use the shank of a 1/4" drill for a feeler gauge.

Some engines, such as Thor, have an adjustable valve stop inside the carburetor - necessitating removal from the engine for adjustment. Set the valve lift at 3/16", using a drill shank here also as a feeler gauge. Increase or decrease the distance 1/32" at a time, depending on the earlier described symptoms. For the finest tuning here, do the

job while the engine is mounted on a boat rather than mounted in a test tank as tanks usually impose a considerably different load condition as compared to boat running.

The correct crankcase valve spring(s) and lift distance in your antique engine will result in better starting, better flexibility from idle to full RPM and permit the powerhead to develop all the horse power it is capable of doing - simply because you have made it possible again for the engine to draw in a full fuel charge under all conditions.



# THE PURCHASE OF A GIANT TWIN

By Don Peterson



One night, last October, after writing numerous letters of inquiry on motors, and scouring all over for motors and parts, I felt slightly depressed. No leads - no parts - blah - BLAH! About 7:30 PM the phone rang. It was Mahlon Lameroux, to whom I had written a letter to many months before, on some motors I was going to trade or sell. After telling him what motors I had and some shop talk on parts, he mentioned, "I've got a Giant Twin I've been trying to find parts for - it's the darndest old pot I ever saw!"

After I was revived by my wife, I inquired further as to what he needed. "Cylinders and pistons" he replied, "and several other parts". After hanging up, still in a state of shock, I tried to get a mental picture of what he would be interested in trading the Giant Twin for. I wrote a letter to him, offering several of my motors, Eastern Idaho, The Brooklyn Bridge, the whole state of Oregon plus the Northern half of California. NO ANSWER! Finally I called long distance to Shaw Island, Washington, where Mahlon lives. An expensive call, but well worth it. Yes, he was willing to trade. However, he was not very specific in what he would take in trade. More questions: What does he think the thing is worth - \$500? More? Is he reasonable or would he be wildly shocking in these post-Argosy days.

In December, after lengthy preparation, My brother and I proceeded to drive what seemed to be 4 million miles, having car trouble consistently all the way - almost missed the ferry boat, took the one-hour ferry ride - and finally we were there. Shaw Island is in the San Juan Islands, just off the northern part of Puget Sound. When we drove off the ferry, we had no idea where to go. However, we drove down what seemed like a main road for a few miles and passed a car going very slow - we stopped! They stopped! We had arrived! After introducing myself and my brother to Mahlon, we proceeded on to his home. Questions were still in my mind. Was this a journey of despair? Maybe this motor was a PR-40 or a P-30 or maybe a dinky little model A.

We pulled up to the storage shed Mahlon had and as I locked in, I discovered I was "home free" because lying on the floor was a 4 gallon gas tank with a partial decal reading Sea Horse "25". After looking over Mahlon's collection and bringing out the motors I had brought for him, we had an interesting conversation and got to know each other better. I had only about an hour until the next ferry and my brother was all but forcing me bodily into the car. Mr Lameroux wanted us to stay all night but alas, my brother wanted to start back. I promised I would return again.

Mahlon also loaded me up with parts and my brother and I took off. As we drove onto the ferry, I thought to myself, I want to come back here and spend some more time with these people. After getting home, I wrote John Harrison about the parts I needed for the motor. John came up with the parts I needed and went way out of his way to help me. Also, Jim Smith helped very much by giving advice and providing a parts list.

After writing Mahlon to thank him and his wife for their hospitality, I decided to make definite plans to return to that beautiful island. It's not too common these days to find a person with a rare antique engine who doesn't think it's worth its weight in gold. Mahlon, by the way, has just joined the club and is now among the "finest of fellows". If you are ever up in northern Washington around Anacortes, take the trip to Shaw Island and look up Mahlon Lameroux - a Prince of a man!

# ANNOUNCING! THE BIG WINNER IN THE AOMCI Membership Contest

James R. Whitbeck  
RR #1, Hartington  
Ontario, Canada

Congratulations to Mr. Whitbeck. He's now the owner of two THOR outboard motors to be shipped immediately by AOMCI's President, Mr. David R. Reinhartsen. Jim won the motors in a "play-off" drawing held to decide the overall winner from a number of members each with the same contest score.



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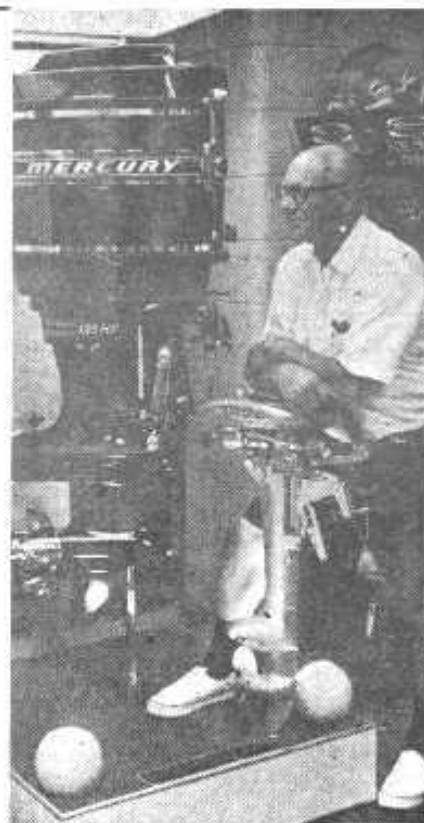
# Kiekhaefer Pollution Study

Kiekhaefer Mercury shares the national concern about water pollution.

Do marine engines contribute to the problem?

To help answer this question, Kiekhaefer Mercury has sponsored an independent scientific study of Lake X, the company's fresh water test facility in Florida. Here are the results of this important pollution survey.

From: Public Relations Department  
Kiekhaefer Mercury



Carl Kiekhaefer

## POLLUTION STUDY EXONERATES OUTBOARD MOTORS

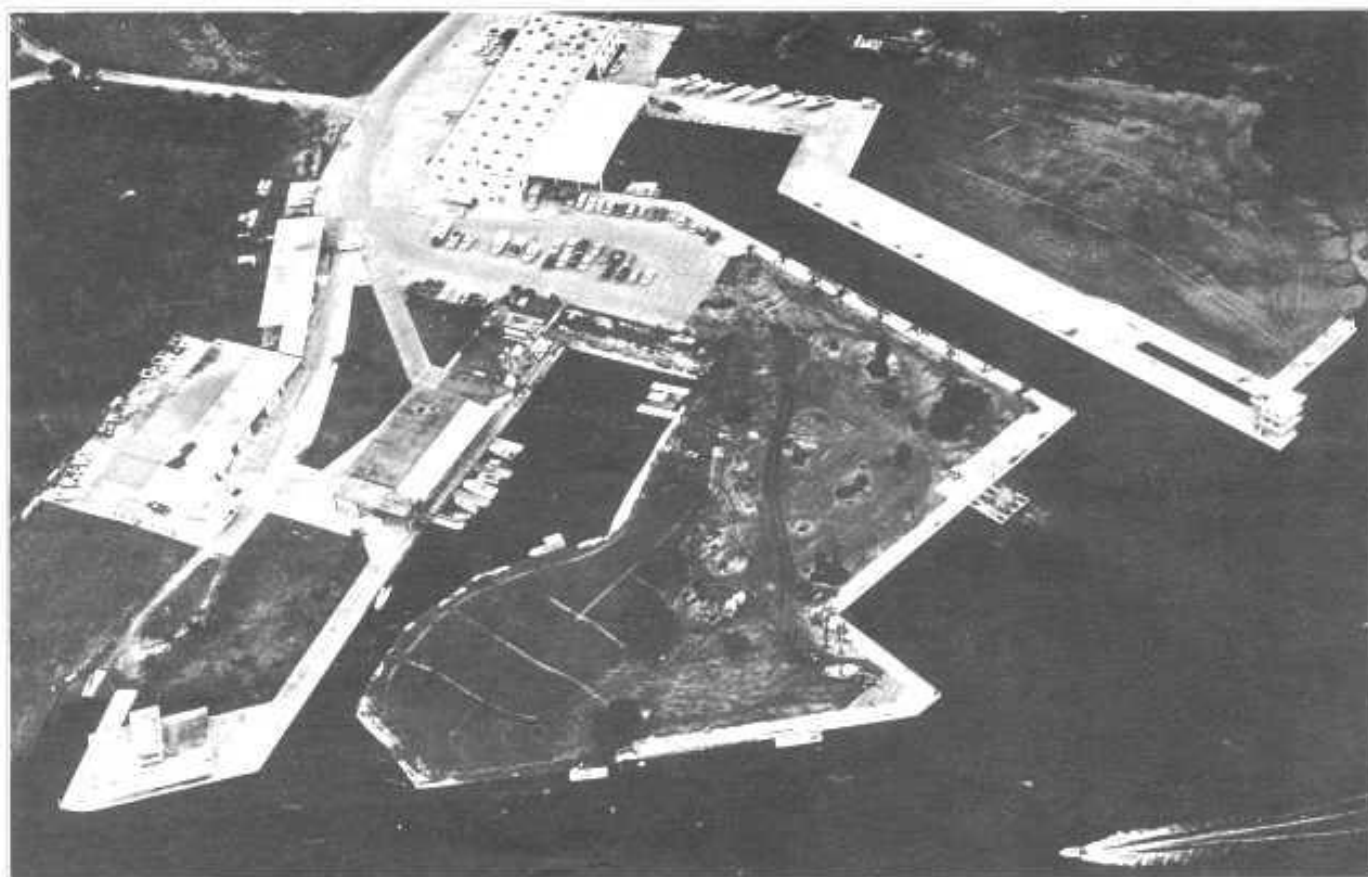
An independent pollution study of two Florida lakes has shown that no contamination exists in the waters tested due to exhaust gasses or liquids from marine engines. The survey was conducted by Environmental Engineering of Gainesville, Florida, at the request of Kiekhaefer Mercury, manufacturers of Mercury outboard motors and MerCruiser stern drives and marine inboard engines.

Sites of the study were Lake X, Kiekhaefer Mercury's principal marine testing base in Central Florida and nearby Cat Lake. Lake X supports a continuous 24-hour test program involving the use of outboard, inboard and stern drive marine engines. Company officials believe the lake carries the most concentrated boat traffic of any lake in the world. Since the test center was officially opened 10 years ago, approximately 3 million gallons of fuel and oil have been used in normal operation.

Environmental Engineering was retained to study the effects of exhaust emissions. Two studies were made. One was completed near the end of May and another in early August, 1969. Cat Lake, inaccessible and never used by powerboats, was included in the examination as a basis for comparison. Results announced by Dr. H.D. Putnam, Professor of Environmental Engineering Sciences at the University of Florida, and a member of the research firm, indicate "no observable effect on plankton or bottom organisms in the Lake."

In another paper of the two-part presentation, A.T. DuBose, Analytical Chemist for Environmental Engineering said "Numerous samples from both lakes were collected by our team and analyzed for organic compounds known to be found in exhaust emissions of internal combustion engines. Neither Lake X nor Cat Lake were found to have any of the organic compounds found in gasoline and oil." DuBose went on to say, "These organics are readily broken down into harmless material by the bacteria already in the water, or are in such minute quantity, our best equipment cannot detect them."

Both scientists commended Kiekhaefer Mercury for backing such a comprehensive survey and making available the Lake X properties for analysis. They emphasized that no better example of confined fresh water could be found anywhere offering the extremes needed for such an in-depth examination.



Lake X, Florida, Mercury test center and site of pollution study.

There is a rapidly increasing public awareness of water pollution and the urgent need to preserve our recreational boating areas. The marine propulsion industry is being confronted with ill founded rumors and damaging innuendos that confuse the truth about fuel and oil residue deposited as the result of marine engine operations.

This is the specter of a "crusade" beginning to haunt recreational boating. Many of the accusations have no basis in fact. The hue and cry is coming from sources without the technical knowledge, or the background in research, needed to fairly analyze and present the entire picture.

It's interesting to note that during one of the surveys, higher than normal bacteria counts were discovered in a small section of one of the lakes. The reason for the high counts was traced to the fact that five house trailers were quartered too close to the lake and bacteria from human wastes were being washed into the lakes during periods of heavy rainfall. When the trailers were moved several hundred yards away from the lake, the bacteria counts dropped quickly to a level found in any other clean lake in the United States.

Lake X water proved to be excellent for the fish life it contains. A number of outdoor enthusiasts who recently sampled the fishing there were more than happy with the big, fat bass that were hauled from the lake. Some of these fish weighed 7 pounds!

It's important for Antique Outboarders to recognize the following condition described in Environmental Engineering's report: "The greatest hazard to lake biota comes from re-fueling operations which take place near marinas. Here gasoline or oil spills settle to the bottom and destroy benthic organisms. Proper handling of fuels near these areas can prevent destruction of natural habitat." -Ed. End.

**PARTS WANTED:** Coil and steering handle for Elto Cub; Carburetor idle adjustment for 1947 Evinrude Speedifour (entire needle valve assembly needed) and right-hand cylinder for a Champion model D3D, 6 HP. Bob Peterson, 796 Larpenteur, St. Paul, Minnesota 55113.

Bill Rose, Chapter president, stands behind Jere Sairs' 1928 Elito Quad while the Boys look over Bill's engines.



#### MIDWEST CHAPTER HOLDS ITS FIRST MEET....

An informal meet was held August 8 at Ed Kant's cottage on Lake Winneconne. Each member brought a few motors to race and display. Bill Rose showed an Evinrude Model B, a 1941 Evinrude Quad, a Caille Redhead model 15, Elito Ace, a 1940 Sea King, Johnson 100 and Johnson 200.

Ed Kant proudly displayed an Elito Model C Rudder Twin, a Wisconsin and a mystery motor. Gene Yonkers, Taylorville, Ill., who was accepted into membership at the

## MIDWEST CHAPTER NEWS

by Lynn Sallee

meet, brought a 1934 Evinrude Sportfour and a 1937 Bendix. Jere Sairs showed off a 1922 Evinrude Model A, '28 Elito Speedster, a 1935 Evinrude Lightfour and a '28 Quad.

Warner Turner competed for attention with his 1933 Elito Lightweight and a '38 Elito Ace. Don Miller's two prizes were a 1928 Johnson K-35 and an Evinrude Sportwin.

Members spent the afternoon racing about the lake building up terrific appetites for the picnic supper and acquiring beautiful sunburns. One member, who prefers to remain anonymous, had a stalled engine and had to be towed into the dock by one of the kids swimming nearby. Warner Turner had his problems too. A sheared pin was just repaired when he dropped his glasses into the water. Fortunately they were retrieved, but at last notice, his sunglasses are still at the bottom of the lake.

Our next meeting will be at 2 PM, November 7, at the Kaukegan, (Illinois) Public Library. Don't miss Harry Stern's demonstration on rebuilding check valve carburetors or President Rose's movies taken at our meet!

More pictures, next page..

The Midwest Chapter Ladies Auxiliary stands watch over more of Jere Sairs' collection.

The Winneconne Gang.....





More on Winneconne! An antique? Sidenheeler and Gene Yonkers' '34 Sportfour in a friendly tug of war.



Ed Kant - knee deep in his harbor.



Notice these Antique Outboarders always manage to have a girl or two around.

Get in on...  
**JOHNSON MOTORS**  
*Nationwide*  
**OLD MOTOR SEARCH**  
**SEA-HORSE**  
**TRACKDOWN**  
 October 15<sup>th</sup> thru March 15<sup>th</sup>

HOW ABOUT IT? DO YOU  
 HAVE ONE OF THESE  
 "MILESTONE" MOTORS ???

- Model A
- Model P30 (or PB30, PL30, PBL30)
- Model T40 (or TR40, TL40)
- Model 545 (or SL45)
- Model K50 (or KL50)
- Model VE50 (or VLE50)
- Model 300
- Model QD (or QDL)
- Model CD (or CDL)
- Model V4-10 (or V4L-10, V45-10, V45L-10)



THEN TAKE IT TO YOUR  
 JOHNSON SEA-HORSE  
 DEALER AND REGISTER  
 FOR THE  
**GRAND REWARD**

Fill out the registration form available now at your Johnson dealer. Just complete a simple statement on "Why Johnson outboards are the most dependable motors ever built" in 25 words or less, and you may win a complete boating outfit... An 18-foot Lane Star Voyager cruiser, including the powerful Electramatic V75 Johnson and a Lane Star trailer... PLUS the latest boating accessories! But that's not all...

You'll also be eligible to win one of  
**10 Electramatic V-75 JOHNSONS**  
 JOHNSON MOTORS • "A HERITAGE OF LEADERSHIP"

**SEA HORSE '25'**  
**DECALS**      **GIANT TWIN**  
**\$20 SET**      John C. Harrison  
 1000 N. W. 54th Street  
 Miami, Florida 33127

# The CHAMP

"OLD CHAMPIONS NEVER DIE..."

by Glenn Ollila

Old Champions never die...Not the ones that sip home brew, anyway; "Hot Rod Home Brew", that is. Hot rod home brew, in case you care to try it, is heady stuff: 80% alcohol, 10% benzol, 4% castor ether, 6% nitromethane; with 12% Baker's Grade A Castor and 10 cc acetone added to the gallon.

And sipping both home brew as well as the ordinary tap variety, the old 6N Hot Rod has kept going right on to 1970. Would you believe the Champ of 1955 is alive and well - in competition yet? Recently at the National Outboard Association championships in Alabama, three trophies went to the Champ. And if you want a slice of that kind of action, Lyle (Swanie) Swanson can fit your transom with a brand new 6NHR, A or B hydro class, for the neat sum of \$550, without prop and racing stacks. Refer to photo #1. First class transport costs \$100 more - then you get the complete rig, a product of Swanson's Outboard Service Company, 5215 Lakeland Avenue North, Crystal, Minnesota, 55429.

While the Kiekhaefer products were certainly dominating the racing scene back in 1954 when the Champion 6NHR first saw the competitive waters, how did the Champ emerge to fulfill its name and win the National Outboard Association B Hydro Season Championship in 1955? And what is the old 6NHR doing, albeit alive and well in Crystal, Minnesota, today?

First, let's look at the background of this Champion. Earl DuMonte, a founder and President of the Champion Outboard Motors Company of Minneapolis, Minnesota had long experience in the racing field. In fact, his principal interest in outboarding stemmed from his campaigning Outboard Motors Corporation products. He and his designer-engineer, Dale Kloss, were interested in developing a stock racing motor with which to test out ideas they planned to incorporate in the strictly utility Champion engine production line.

The design they came up with is more than a little resembling the Johnson KR. But in many respects it is an improvement on the KR. It has a vastly superior connecting rod/bearing set-up and a beautifully styled lower unit. It utilized a 14:19 gear ratio as compared to the KR's 12:19 and in the design, propeller shaft bevel gear was located aft, rather than forward of the pinion gear. The prop turns with a rotation opposite that of the KR.

As a result, the props developed and available for the KR would not work on Hot Rod

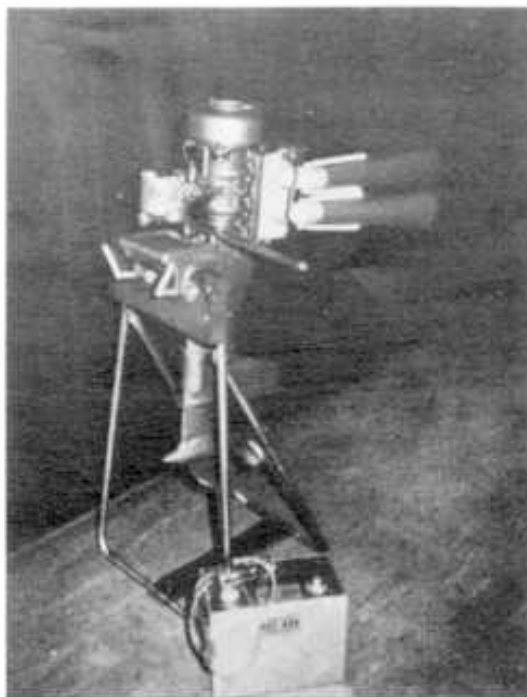


Photo 1: Champion 6NHR Hot Rod

engines. While the Mercury props had the same rotation, the different gear ratios utilized rendered these props unsatisfactory also for use on the Champion. This factor, added to the shortage of unit production, got the Hot Rod off to a slow competitive start.

But in 1956, 150 Hot Rods were in the field and they romped across finish lines clock-

ing speeds that proved they could hold their own in competition - and on occasion, came out on top. Larry Rogers, a Champion factory representative, amazed the field on one day, speeding first across the mark in a Swift hydro, clocking five miles at an average of 49.261 MPH - then only .054 MPH short of the NOA competition record.

For the sum of \$425 in 1956 you bought 46 pounds of Hot Rod. The 6NHR machine has a displacement of 19.94 cubic inches, the bore and stroke being 2-1/2" X 2-1/32". Fuel induction is by means of internal dual rotary valves of the two-port type with no cams, springs or reeds. The Hot Rod is equipped with a Carter concentric bowl type carburetor. The alternate firing twin has removable water cooled cylinder heads with cast iron sleeves in a die cast aluminum block. Basically, the 6NHR has much in common with the 16-1/2 HP Champion general utility motor. Rotary valve timing, exhaust port timing and intake port timing are the same. Connecting rods and powerhead bearings and many of the stock parts were used with minor changes.

The 6NHR appears to be the end of the line, in more ways than one, for Champion. The Champion Motors Company ceased production in 1957. In February, 1958, the rights to the Champion name and patents were sold to Western Tool and Stamping, Des Moines, Iowa, now a part of AMF Industries, Inc. The tooling, prints, jigs, fixtures and spare parts were retained as a part of Airmotive Machining and Engineering Corporation, Minneapolis, Minnesota. In 1955, Lyle Swanson was a Champion Motors dealer; through this basic association with the company, in 1961, he acquired the remaining parts, tools, jigs, prints, etc., from Airmac, and set up the "Champion Outboard Motor Parts Factory" doing business as Swanson's Outboard Motor Service - servicing, selling and producing Champion parts and building Hot Rods. Parts remain available for all units built from 1957 back to 1946; and Swanson has many parts available for units built back to 1935.



The first Champion, a single, made in 1935. Note the early can type muffler.



Mr. Ray Miller, Champion Executive, with the serial #1 Champ and a 1957 factory racer.

Back in 1935 is when Champion Motors was founded, as a sales organization. Key figures in this new venture were Stanley Grey and Earl DuMonte, co-founders of Champion Motors and Ralph Herrington, Chief Engineer, an employee of Scott Atwater. Ralph Herrington developed the first generation of Champion Outboards; that is, all the models built through 1942, when World War II interrupted production. The motors were manufactured by Scott Atwater from 1935 to 1942. Apparently the company name was acquired from Henry Dolan, Sig Conrad and Dutch Witch of St. Paul, Minnesota, who had built a small number of

motors around 1927 and given up the idea. (Refer to the Antique Outboarder, Volume 4, Number 4, October 1969, page 11 for the story by Richard M. Jones, "The Smallest, Oldest Champion".) The first production model Champion outboard motor, serial number 1, is pictured in photo #2. This motor belongs to Mr. Ray Miller, who enjoyed a career with Champion from 1935 until operations ceased. Miller's career with the company is paralleled by the age span between the motors in photo #3. With Ray Miller are unit #1 of 1935, a 3.2 HP single; and a 1957 factory racing unit, a twin of 7.8 plus horsepower.

With a post-war vision for the building of a new industry, Earl DuMonte was able to acquire the resources to plan and build a second generation of Champion outboards - and a facility to manufacture them. In January, 1944, plans for the production of new Champions were introduced. After months of research and engineering effort under the direction of Ralph Herrington and Dale Kloss, a new line of Blue Ribbon Champions was born.

By 1947, production was at a peak and about 140,000 units were manufactured during the year. The outlook as bright at Champion and Ralph Herrington's mood in photo #4 reflects the situation at the time. While Champion outboards were not manufactured during the war period, the service and parts department provided excellent service - and when the War ended, happy repeat customers appeared in droves. Business was very good; private label motors were also produced under names such as "Voyager", "Monarch" and "Majestic" for various hardware chain stores.

Dramatic promotion and publicity, coupled with a reasonably priced and rugged product seemed to promise even greater sales success. One promotion to demonstrate the rugged qualities of the Champion outboard focused on an endurance run. The Company encouraged the public to witness and record the continuous running of a standard Blue Ribbon Champion, which with the exception of brief intervals for spark plug changes, ran for more than 15,000 hours, or the claimed equivalent of "130,000 miles or more than 80 years of operation in the hands of the average user".

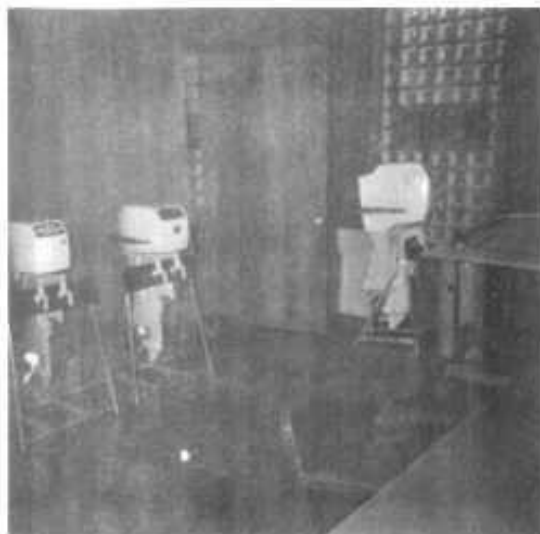
Another promotional effort ended rather abruptly in a farmer's field. This activity was titled "Champion Motor Magic" and various stunts were demonstrated with sales fanfare and publicity. The objective again was to demonstrate the rugged qualities of the Blue Ribbon Line, and emphasize ease of starting. One of the stunts involved immersing and freezing a Champion into a solid block of ice. Then, the motor was chopped out, and started on the spot. ("One pull", of course). Another demonstration took place on a wintry, ice covered Minnesota lake. There, a hole was cut in the ice, and a Champion thrown into the icy deep, pulled out, and started on the spot. This was "Motor Magic"; it was concluded one day when a demonstration ended with unexpected results.

The plan was to fly the Champ in an airplane over a lake, and upon the signal of a tug at the pant leg, the man with the Champion in the back of the plane was to toss it from the sky, into the lake. A diver was waiting to fish it out, after which it was to be started with the appropriate dramatics. Unfortunately, the wind of the open door apparently tugged at the man's pants - which he read as the signal - and he tossed the motor out into a farmer's field, some miles short of the lake. The result is shown standing between Ray Miller and another Champion employee, in photo #5.

Around 1955, sales were seriously in a decline, and it became apparent the public wanted higher performance. Champion responded with the "Tandem 33", a pair of 16-1/2 HP model 6N-Ds mounted to be run as a single unit. The market and the keen competition demanded a "third generation" development of higher performance outboards. However; the financial considerations precluded this, and Champion Motors ceased production in 1957.



Ralph Herrington looks perfectly contented and right at home. Note the pride of his life peekin' under that left wing. Could that be a Champion motor?



Sleek 12, 25 & 50 HP models



75 Beautiful Horses!



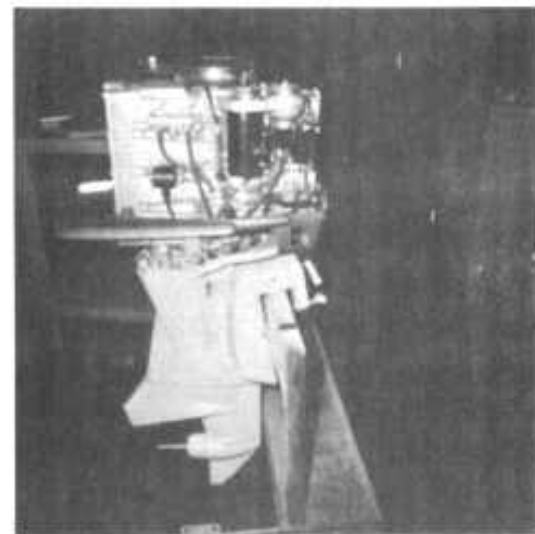
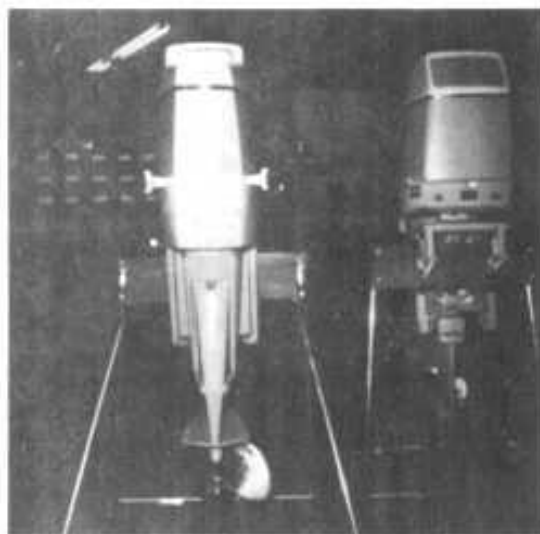
Look what's under the bonnet!

# 30 SURPRISE! CHAMPIONS...ALMOST

Styling of tomorrow!

No paper tigers here!

Twin carbs - vertical w/





When production ceased in 1957, the Champion line of motors was made up of these models:

Name	Guide Four	Guide Six	Fishin' Seven	Pacemaker	Hot Rod
Model #	2N	3N-S	4N-D	6N-D	6N-HR
Horsepower	4.2	6.0	7.8	16.5	16.5+
Displacement, cubic inches	5.84	9.66	9.66	19.94	19.94

In February, 1958, Western Tool and Stamping purchased the Champion name and patents. They secured, and funded the development of a third generation of Champion outboards by Dale Kloss. By November, 1959, Mr. Kloss had completed the engineering of a line including 12, 25, 50 and 75 HP models. Prototypes were built and running; the moment of decision was at hand! Western Tool and Stamping management declined to proceed with the substantial investment required to tool up for production and the effort was halted.

Utilizing his engineering skills in another business area, Dale Kloss, his Father and several associates from Champion Outboard Motors formed K & K Manufacturing. In July, 1962, K & K purchased the prototypes, prints, patents and rights to the Champion name from Western Tool.



A promotional stunt goes awry when a Blue Ribbon Champion hits the dirt instead of the lake. Note crushed gas tank.



The photographs on the preceding page reflect the grandeur of what might have been!

....."Old Champions never die...?"

Richard Jones offers these tips:

(1) For water lines and large fuel lines which are hard to shape without kinks and flats, I fill the line with fine, dry sand and cork or pinch the ends shut. This will allow lots of shaping without trouble. Another technique which helps is to use a piece of soft aluminum welding rod for a template. You can form it right into the fittings you wish to join, and then match the tubing to it.

(2) I would also like to plug STP (for no monetary gain, I swear). I've used it for years in everything except salad dressing. It is especially good for outboard motors because it stays on all surfaces as a film, when regular gas/oil mixes dry up - especially on a hot shut down. I haven't had a motor stick yet with the stuff and any spillage on the outside gives lasting protection from rust, etc. I make 20% of my oil STP. For instance on big motors I use 40W non-detergent oil - cheap stuff from discount stores - filling a quart mason jar with oil except for the top 1/5, which I fill with STP. This works fine for two gallons of fuel.

# CHAMPION OUTBOARD MOTORS MECHANICAL SPECIFICATIONS

For Years 1935 Through 1942

Name	Year	Model No.	H.P.	Spark Plug Recommended		Bore & Stroke	Stroke Disp.	R.P.M.	List Price	Oil Recommended*
Standard Single	1935	A	3.2	J1	15	2 1/8 x 1 3/4	6.61	3600	\$ 49.95	1/2 Pt. SAE 30
Standard Single	1936	1B	3.2	J1	15	2 1/8 x 1 3/4	6.23	3600	49.95	1/2 Pt. SAE 30
Lite Twin	1936	2B	4.4	J1	15	2 1/8 x 1 3/8	9.78	3800	69.95	3/4 Pt. SAE 30
Senior Twin	1936	3B	7.6	J1	15	2 1/8 x 1 3/4	12.46	4000	39.95	3/4 Pt. SAE 30
Standard Single	1937	S1C	2.8	J1	15	2 1/8 x 1 3/4	6.23	3600	49.95	1/2 Pt. SAE 30
DeLuxe Single	1937	D1C	3.2	J1	15	2 1/8 x 1 3/4	6.23	3600	59.95	3/4 Pt. SAE 30
Standard Lite Twin	1937	S2C	3.4	J1	15	2 1/8 x 1 3/8	9.78	3400	69.95	3/4 Pt. SAE 30
Deluxe Lite Twin	1937	D2C	4.4		7	2 1/8 x 1 3/8	9.78	3800	79.95	3/4 Pt. SAE 30
Deluxe Senior Twin	1937	D3C	6.6		7	2 1/8 x 1 3/4	12.46	4000	99.95	3/4 Pt. SAE 30
Red Flash Single	1937	R1C	3.2	J1	15	2 1/8 x 1 3/4	6.23	3600	49.95	1/2 Pt. SAE 30
Standard Single	1938	S1D	2.9	J1	15	2 1/8 x 1 3/4	6.23	3600	49.95	1/2 Pt. SAE 30
DeLuxe Single	1938	D1D	3.2	J1	15	2 1/8 x 1 3/4	6.23	3600	69.95	3/4 Pt. SAE 30
Standard Lite Twin	1938	S2D	3.4	J1	15	2 1/8 x 1 3/8	9.78	3400	79.95	3/4 Pt. SAE 30
Deluxe Lite Twin	1938	D2D	4.4		7	2 1/8 x 1 3/8	9.78	3800	89.95	3/4 Pt. SAE 30
Deluxe Senior Twin	1938	D3D	6.6		7	2 1/8 x 1 3/4	12.46	4000	115.00	3/4 Pt. SAE 30
Standard Single	1939	S1E	2.9		7	2 1/8 x 1 3/4	6.23	3600	39.95	3/4 Pt. SAE 30
DeLuxe Single	1939	D1E	3.2		7	2 1/8 x 1 3/4	6.23	3600	69.95	3/4 Pt. SAE 30
Deluxe Lite Twin	1939	D2D	4.4		7	2 1/8 x 1 3/8	9.78	3800	74.95	3/4 Pt. SAE 30
Deluxe Senior Twin	1939	D3D	6.6		7	2 1/8 x 1 3/4	12.46	4000	115.00	3/4 Pt. SAE 30
Kingfisher Single	1940	S1F	3.2	H	7	2 1/8 x 1 3/4	6.23	3900	69.95	3/4 Pt. SAE 30
Challenger Single	1940	D1F	3.2	R	7	2 1/8 x 1 3/4	6.23	3900	52.95	3/4 Pt. SAE 30
Fish Hawk Lite Twin	1940	S2F	3.4		7	2 1/8 x 1 3/8	9.78	3800	74.95	3/4 Pt. SAE 30
Play Boy Lite Twin	1940	D2F	5.8		7	2 1/8 x 1 3/8	11.08	3800	89.95	3/4 Pt. SAE 30
Blue Streak Single	1940	B1F	3.2		7	2 1/8 x 1 3/4	6.23	3900	39.95	3/4 Pt. SAE 30
Kingfisher Single	1941	S1G	3.0		9	2 1/8 x 1 3/4	6.23	3900	44.95	3/4 Pt. SAE 30
Challenger Single	1941	D1G	3.0		9	2 1/8 x 1 3/4	6.23	3900	54.95	3/4 Pt. SAE 30
400-Standard Single	1941	S4G	3.6		9	2 1/8 x 1 3/4	6.95	3900	54.95	3/4 Pt. SAE 30
400-DeLuxe Single	1941	D4G	3.6		9	2 1/8 x 1 3/4	6.95	3900	62.95	3/4 Pt. SAE 30
Viking Twin	1941	2G	5.3		9	2 1/8 x 1 3/8	11.08	3800	84.95	3/4 Pt. SAE 30
Electra Twin	1941	3G	6.1		9	2 1/8 x 1 3/4	12.46	4000	99.95	3/4 Pt. SAE 30
Ensign Single	1941	M1G	3.0		9	2 1/8 x 1 3/4	6.23	3900	44.95	3/4 Pt. SAE 30
Commodore Single	1941	M4G	3.6		9	2 1/8 x 1 3/4	6.95	3900	54.95	3/4 Pt. SAE 30
Admiral Twin	1941	M2G	5.3		9	2 1/8 x 1 3/8	11.08	3800	84.95	3/4 Pt. SAE 30
Super Single	1942	1H	3.9		10	2 1/8 x 1 3/4	6.23	3900	62.95	3/4 Pt. SAE 30
Viking Twin	1942	2H	5.8		9	2 1/8 x 1 3/8	11.08	4000	109.95	3/4 Pt. SAE 30
Electra Twin	1942	3H	7.0		9	2 1/8 x 1 3/4	12.46	3900	149.95	3/4 Pt. SAE 30

\*Use above recommendation to one gallon of regular gasoline — not white, or so-called outboard gas.

## JOIN The Antique Outboard Motor Club Inc.

### MEMBERSHIP INFORMATION

Name \_\_\_\_\_ Date \_\_\_\_\_

Address \_\_\_\_\_ Telephone \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Number of pre-1942 motors collected \_\_\_\_\_

Check the way(s) that you most enjoy Antique Outboarding

Collecting motors

Running motors

Restoring motors

Collecting information

Mail this application and \$7.00 to:

THE ANTIQUE OUTBOARD MOTOR CLUB

20505 N.W. 3rd Av. Miami, Florida 33169

OIL/GASOLINE RATIOS FOR ANTIQUE OUTBOARDS



Mark Wright  
 With appreciated assistance from  
 John Harrison and Jim Webb

For many, Guesswork has been the word when it comes to determining the proper oil/gas mix for old engines. Only that quantity of oil in the fuel that will provide adequate lubrication is necessary. Additional oil beyond this requirement will cause piston rings to stick, spark plugs to foul and exhaust ports to become gradually more and more restricted with carbon - all resulting in power loss and hard starting.

Regardless of the RPM, HP or make of the two-cycle antique, only non-detergent, two-cycle oils should be used. Modern "50 to 1" oils such as produced by Chrysler, Mercury, OMC, Texaco and others provide the best lubrication for antiques as well as materially reducing air and water pollution. The detergents in today's oils for four-cycle engines will cause early plug fouling (and worse) and should not be used. Unless you use 3 to 4 times more high detergent oil than a good outboard two-cycle oil, you also run the risk of seizing the engine - so avoid such oil altogether.

Generally, even the slightest trace of exhaust smoke at cruising RPM, engine fully warmed and carburetor needle at correct setting, means too much oil. The surplus oil is not being fully burned. Instead, it is being heated by combustion to a gas, issuing from the exhaust as smoke. Inspection of the exhaust ports, at the cylinder, would reveal an oily coating. Ports should be dry with dry, accumulated carbon. The pistons and bearings should be damp with oil, however.

In 1968, Jim Webb in a letter to the writer, about a 1928 Eito Speedster, 7 HP @ 3500 RPM said, "Ole Evinrude knowingly recommended more oil than his motors needed. This was because of the uncertain quality of the oils available and the fact that oils of the same brand weren't the same in all parts of the country. Actually, I have run Speedsters on a third of a pint to the gallon, and with today's fine oils, I'm sure a quarter of a pint would be plenty. Less plug fouling, etc.. As a matter of fact, with well run-in motors, I would try it with even less, but don't you try it."

One can find engine builders' advice of 1/4 pint/gal for a 1922 Eito to 2 pints/gal for a 6000 RPM Evinrude C racing engine. Confusing? Somewhat. As a starter, the following suggestions can be used for guidance with modern two-cycle "50 to 1" oils:

<u>Horsepower</u>	<u>RPM</u>	<u>Pints/gal</u>	<u>Comments</u>
Up to 10	Up to 4000	1/3	(1 Quart to 6 gallons gas)
Up to 10	Over 4000	1/2	(1 Quart to 4 gallons gas)
10 Plus	All	1/2 to 3/4	(1 Quart to 4 or 2-2/3 gallons gas, respectively)
Racing Engines	-	Makers' advice	Decrease quantity if excessive smoking

Add 50% for the first four hours to the figures above for over-hauled engines. Many small HP, low speed antiques are recommended to use even less than shown above. Bear in mind the above table will permit you to fuel many engines from one large fuel can for convenience. You are strictly on your own, no matter what you do, but if it is any help to your decision, the above mixes are extensively used by the writer with never any

lubrication or fouling problems. Should you find a burned or scored crankshaft in your antique, bear in mind the crankshaft and rods are softer than new (because of the heat generated during the burning and scoring) and will need more oil. 50% More oil in this case is suggested to be sure you don't burn or score the rods, shaft or bearings for a second time.

An engine with the carburetor or rotary valve in the center of the crankcase requires less oil than a three-port with intakes on the side of the cylinder. Reason: on the former, the crankshaft and rod bearings are the first items the incoming oil/fuel vapor contacts.

Remember that crankcase compression causes the oil particles to be compressed out of the fuel mix - not unlike the process where an increase of barometric pressure, on a very humid day, will cause rain. In the crankcase, slower RPM means more time is available for the oil to be compressed or "rained out" of the fuel mix - thereby doing a more complete job of separating the oil from the gasoline. A racing engine turning 6000 RPM therefore presents less time for the "raining out" process to take place. In this case less oil is extracted from the gasoline or alcohol mix. This less time condition plus the much greater bearing and piston loads that require a thicker film of oil, explains why such engines need a lot more oil.

The outboard motor trailing smoke spells not only potential engine trouble to the owner. These days we are being reminded often, and properly so, about air and water pollution. A patiently measured out and thoroughly mixed fuel batch will help everyone else too.

## - Service is the Final Test of Lubricating -



## TWIN CITIES MINNESOTA CHAPTER NEWS

By Ron Johnson

The Twin Cities Chapter has had a busy and full summer of outboarding. Our first two Meets were held at Island Lake, which has a beautiful park and picnic area around 2/3 of the lake shore. The Spring Meet, the first, began with everyone surrounding Bob Peterson's OB-16A Neptune. Bob pulled the starting rope, the motor started and ran, but didn't go anywhere! Back to shore - a new shear pin - and then, that Neptune refused to start again! Ever! (I think the water was too cold.)

Our next big attraction was a race of the Minnesota Gophers. John Koonce had just restored his; Bob Brautigam has two - one for show and one for running. The two racers got lined up, and began cranking their machines. ... "Yes, there's one starting! But John why are you running backwards?" Bob just had a few words - something about bringing the wrong Gopher - as Glenn Ollila rowed back to shore. Glenn is a new member whose interest and collection is going great guns. Glenn brought two excellent motors - a 6 HP, 1931 OMC and a Martin "60". Both ran well.

During this Meet, I ventured out for the second time in my 10'2" runabout. On my first venture, a few days previous, I attempted to run a Evinrude Sportfour (17.4 HP) with the steering wrapped backwards around the steering wheel drum. In the resulting confusion, I sank both boat and motor. Bob Peterson had his movie camera running during the entire sinking - now he thinks it would be a good idea to trade his Super 8 movies with other chapters. I think he has a good idea too - but you wouldn't send that movie of me, would you, Bob? Ed. note: This film is strongly recommended for entertainment. It's hilarious - rated G.

My second venture turned out well. My OK-55 proved to be a real tiger on this boat, doing a surprising 27 MPH.

Our second meet, held August 22nd, had a 10 HP upper limit, and everyone had "maximum performance" fever. Glenn Ollila showed up with a fine looking Martin 100 plus a 10' hydroplane equipped with a KA-37 Johnson. Bill Slice and Dave Johnson brought a 8-foot punkin' seed, also powered with a KA-37. I think the highlight of the day was when Bob Brautigam (our largest member) took Glenn's hydroplane on its maiden voyage. I'm sure Glenn was thinking all the time that if Bob comes back dry, then it will be safe for the rest of us. Everybody tried with their motors - from a six HP Mercury to a 10 HP Caille - to catch my old smoking, sleepy, 2800 RPM, OK-55. Better luck next summer, fellows.

Our third, "big iron" meet was held September 19, at Lake Minnetonka. Bob Brautigam brought a 33.4 HP Evinrude and a 1932 Junior Quad with battery ignition; both ran beautifully. Glenn Ollila ran his excellent Martin 200 (20 HP). Bob Peterson ran a F-80 and a 33.4 Evinrude he had just finished putting together. It started on the third pull - good work, Bob! Bill Slice was so busy with everyone elses' big motors, that he never ran his '29 Elto Speedster.

I ran my PO-15 that was very noisy, and a 1941 Speeditwin that still had some dirt in the fuel line. How embarrassing! I had to be towed back to shore. I ran a 33.4 HP Evinrude also, and after some adjustment of transom height, developed 29 MPH. Mr John Koonce and Mr Les Stevenson also attended the meet and were very helpful in answering the questions of our many guests and curious spectators. Nev Club member Paul Swanson and prospective member Roger Steen helped bring the meet to a successful ending. After all, these meets are a swell way to express one's interest in antique outboarding and I want to thank all of those who came to our summer meets and helped in the fun.



Bob Brautigam poses with Glenn Ollila's V-45.



Mrs. and Bob Peterson and his Big Twin Evinrude.



Ron Johnson and his OK-55 in max. performance run.

## TWIN CITIES SCENE



John Koonce with his Elto, K-35 and Gopher.



Gene Theisen, standing, and Bob Peterson, Waterwitch.



Ron Johnson and Bill Slice with Ron's 22 HP PO-15.

# Big Bear Meet '70

By Bill Motley

The AOMCI Southern California Chapter held its first meet on August 8th and 9th at Big Bear Lake. This was Southern California's first meet, and was honored with the presence of new-come Californian and Club president Dave Reinhartsen.

Due to a last-minute communications mixup, only a few members were able to attend, but the crowd was swelled by their families and a number of friends and curious onlookers. Also, no formal events were held for lack of enough competitors, but instead the time was spent getting acquainted, swapping notes, setting up future trades and acquisitions, and of course, joyriding.

President Dave Reinhartsen stole the show by first racing a hull identical to his own, but powered with a late model 35 horse Johnson, and winning handily with his magnificent 33 horse Evinrude Speedifour. Next, he towed in another boat with a new but dead motor. And then to top everything, he contrived to be locked out of his car with his keys in the care of a friend who had gone to another area for a while. I tried to help out by opening the car and hot-wiring it so that he could drive it, and Dave immediately put me under citizens arrest! There were several questions asked about my past!

Other members and their motors included Rick Anderson with a thundering P-80 and an un-restored but nearly mint Lockwood Ace, Ron Byrd with an unusual Waterwitch twin, and myself with a 1940 Evinrude Zephyr and a 1941 Evinrude Lightfour.

Saturday night was spent at Rick Anderson's cabin with families and friends joining in a pot-luck dinner. Host Anderson also deserves special thanks for arranging for us to use a portion of one of the lake marinas, and for even getting the use of several of the marina's boats, free.



Rick Anderson at the tiller of his thundering P-80



The author, Bill Motley, with his 1941, 5.8 HP, four cylinder Evinrude Zepher. Note bottle of California racing fuel.



Rick Anderson's Lockwood Ace. Those decals are original.



Ron Byrd's Waterwitch, a twin with about 9 HP.

Next year's meet is already being planned, so why don't you plan with us? Contact Dave Reinhartsen or Rick Anderson and let them know that you'll be there.

# TRADER'S COVE

by R. H. ZIPPS

## GENERAL REQUIREMENTS APPLICABLE TO CLASSIFIED ADVERTISING

1. a) Members - Complete AOMCI Form 101 or include: Make, Year, Model, Serial Number, Number of cylinders, runs or not, condition of compression and spark, list parts missing, overall condition, features, prices, state if member.  
b) Non-members must complete AOMCI Form 101. Obtain forms from writer.
2. Advertising rates: Members - free except parts and literature for sale type ads. Should be neatly typewritten. Non-members \$1.00 per 3 line, 1 column ad. Other non-member advertising space is available at \$5.00 per quarter page, \$10.00 per half page, \$20.00 per full page of camera-ready repro ad copy.
3. Closing Dates: All ads must be received not later than the 1st of the month preceding the date of issue.
4. Transactions based on good faith: Deliberate misrepresentation, or violation of the code of business ethics and good sportsmanship, will constitute grounds for refusal of advertising, and may result in disbarment from this club.
5. Warning to purchasers: The AOMCI will accept no responsibility for any unsatisfactory transaction involving articles which either have or have not been described in accordance with the provisions of paragraph one.

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Letters come in from members saying that they get a charge out of seeing a motors-seen ad with "no other info". I'll have to admit that it leaves a lot to be desired as far as detail is concerned, but this is an honest-to-goodness lead, and getting you leads on motors is what this column is all about.

The "no other info" ad is aimed at primarily those members who either live close by the owner - so he may drive over to see what the motor may be - or live close enough so the member may call the owner on the phone. Getting a "no other info" ad on a motor in the same or next town is like getting a tip from a buddy at work, or the guy next door.

For instance, I got a tip from a co-worker at the office. He is a gun lover and had gone to a junkyard to buy some wheel counter-weights to use in casting his own bullets. While he was there, he noticed a motor lying on the ground. Not being familiar with motors, he didn't pay much attention to it, except to notice it was a Johnson.

He told me about the motor and in a sense, his tip amounted to a "no other info" ad. The next day was Saturday, so I went to the junkyard and the Johnson turned out to be a beautiful V-45. It was very dirty but also very, very nice. It wasn't frozen, and it was all there, so I promptly bought it.

The moral of the story is: take the "no other info" ads seriously and track them all down. You can never tell, it could turn out to be a Giant Twin, or as in my case, a V-45.

As a post-script I might add that, you can't beat the prices charged in a junkyard. There is no sentimental value that has to be paid for only its usefulness value as junk. So check out the junk yards in your area, you can never tell what you'll find at a low price.

Bryant Page of 46 Concord Road, Acton Center, Mass., is looking for a pair of lower unit gears for his Elto Handitwin. Can anyone help him



out?????? Bryant also has a lot of spare parts for sale, to fit an Evinrude Fastwin.  
 Write to him for details.

---

MOTORS SEEN-

BENDIA: Mod SM; Ser  
 7B020; F. Rombach; 424  
 Arabella; New Orleans, LA.  
 ELTO: Ruddertwin; F.  
 Nielsen; RR #1; Wauhaus-  
 hene, Ontario, Canada  
 ELTO: Mod G; Gerharat  
 Norenberg; Box 341;  
 Cross Lake, Minn.  
 ELTO: Speedster; John  
 Mulloy; 207 Clover Lane;  
 Grand Rapids, Minn.  
 ELTO: 2 motors; George  
 Sudeo; 940 W Indianola;  
 Youngstown, Ohio  
 ELTO: Speedster?; Curt  
 Janibowski; Guthrie,  
 Minnesota 56451  
 EVINRUDE: Mod 4370; D.  
 Zimmerman; 1251 N Oakwood  
 Oshkosh, Wisconsin  
 EVINRUDE: 1926?; John  
 Laird; 1820 Michigan;  
 West Sacramento, Calif.  
 EVINRUDE: Mod A; Ben  
 Hoffman; 5824 Chapparal;  
 Las Vegas, Nevada  
 EVINRUDE: Mod B; Joe  
 Carvey; 18 Meadowbrook;  
 Appleton, Wisconsin  
 JOHNSON: Mod K-45; Joe  
 Arcuicci; 1014 Thomas;  
 Sun Village, Penna.  
 JOHNSON: Mod LT-10; K.  
 Story; Central Fire Hall;  
 Johnson City, Tenn.  
 JOHNSON: Mod A; Jacob  
 Manker; 256 Fernwood St.;  
 Morton, Illinois  
 JOHNSON: Mod S-45; R.  
 Toole; 421 48th Ave.;  
 Bellwood, Illinois  
 JOHNSON: Mod A-25; Dale  
 Gomer; G-4022 Orgould;  
 Flint, Michigan.  
 JOHNSON: Mod P-35; Dave  
 Jennings; 608 Crescent;  
 Mt. Pleasant, Mich.  
 JOHNSON: 1932; 1.5 HP;  
 L. Christiansen; 321 6th  
 NE; Watertown, S. Dakota  
 MISC: Many motors; Bill  
 Arrington; Box 302;  
 Delta Junction, Alaska

MOTORS SEEN-

CALLE: Liberty Twin; D.  
 Stappenbeck; 52 Brook-  
 tree; Penfield, New York  
 ELTO: Mod A; L. Hahn;  
 Route 1; Box 211;  
 Churchville, Maryland  
 ELTO: Mod G; Robert  
 Okeley; Rte 1, Box 346A;  
 Mattawan, Michigan  
 ELTO: Mod 4313; Jack  
 Neidlinger; Box 256;  
 Hampden, North Dakota  
 ELTO: Mod A; K. Wagner;  
 1760 Beloit Plaza;  
 Beloit, Wisconsin  
 EVINRUDE: Mod A; Harold  
 Smith; 3900 Oberlin RR 5;  
 Gladwin, Michigan  
 EVINRUDE: Mod 4255; Dick  
 Koerselman; 114 3rd NW;  
 Le Mars, Iowa 51031  
 EVINRUDE: No other info;  
 L. Olmstead; Box 72;  
 De Tour, Michigan  
 EVINRUDE: 1937; 2.5 HP;  
 Ben Hodge; Route 4;  
 Tomahawk, Wisconsin  
 JOHNSON: Mod PO-15; L.  
 Zgoda; 156 Beale;  
 Cheektawaga, New York  
 JOHNSON: Mod K-45; Russ  
 Townsend; 4064 Totem Lane;  
 Pontiac, Michigan  
 JOHNSON: Mod A-35; A.E.  
 Jenkins; 5572 Jenkins Dr.  
 NE; Atlanta, Georgia  
 JOHNSON: No other info;  
 Charlotte Pool; 59750  
 Gibbel; Hemet, Calif.  
 JOHNSON: No other info;  
 L. Behnke; 336 S Wood;  
 Peshtigo, Wisconsin  
 JOHNSON: Mod K-50; John  
 Noga; 1142 South Mill;  
 New Castle, Penna.  
 JOHNSON: 1939; 24 HP; D.  
 Frost; 12 S Broad St.;  
 Pawcatuck, Conn.  
 JOHNSON: Mod 200; John  
 Gallinari; Highland Rd.;  
 Bridgton, Maine  
 MOTOR FOR SALE: ELTO Model G, serial 33304 opposed twin;  
 has rudder, runs, complete; has leaky seam on gas tank;  
 Wendell Sabia, 404 Arlington, Hoyt Lakes, Minn. 55750

MOTORS SEEN-

CHAMPION: 1940-41; R. Bigler;  
 19 Woodlane Drive;  
 Moorestown, New Jersey  
 ELTO: Mod 607; Arnold  
 Haines; Owego,  
 New York  
 ELTO: Mod J; Arthur Kibbee;  
 3043 Park; Charlotte,  
 North Carolina  
 ELTO: Ruddertwin; Nora  
 Feller; 8402 E. Mich. R 7;  
 Jackson, Michigan  
 ELTO: Mod 4264; Mrs. B.  
 Duncan; Route 1;  
 Ortonville, Minnesota  
 EVINRUDE: Large Twin; Jon  
 Miller; 825 Putnam  
 Fort Wayne, Indiana  
 EVINRUDE: No other info; H.  
 Thompson; 708 Tropical;  
 Zephyrhills, Florida  
 EVINRUDE: Mod A; L.H. Smith;  
 Higdon, Arkansas  
 72067  
 EVINRUDE: 1936; Sportfour;  
 P. Swanson; RD #2; Polk,  
 Pennsylvania  
 JOHNSON: Mod 100; Henry  
 Bosman; 5700 Ridgewood;  
 Western Springs, Illinois  
 JOHNSON: No other info; H.  
 Brooks; 1209 Marcia;  
 Memphis, Tenn.  
 JOHNSON: Mod SL-45; Clint  
 Riordan; Star Route 59;  
 Lewiston, Calif.  
 JOHNSON: Mod 3007; Edwin  
 Dazey; 607 Day Street;  
 Akron, Ohio  
 JOHNSON: Mod HA; W. Pipes;  
 4301 Kinhead Apt. 15;  
 Fort Smith, Arkansas  
 JOHNSON: Mod A-45; G.  
 Carter; 224 Goshen; North  
 Little Rock, Arkansas  
 JOHNSON: Mod AA-37; L.  
 Lafrange; RR #1;  
 Parksville, B.C. Canada  
 LOCKWOOD-ASHK: Ser 8211;  
 Ken Wagner; 1760 Beloit;  
 Beloit, Wisconsin  
 MOTOR FOR SALE: ELTO Model G, serial 33304 opposed twin;  
 has rudder, runs, complete; has leaky seam on gas tank;  
 Wendell Sabia, 404 Arlington, Hoyt Lakes, Minn. 55750

# Fun's where you find "em"

By Preston Beard

Recently on a trip North, on an ore ship headed for loading north of Duluth, I figured I might have enough time during the six hours it takes to load the ship with ore pellets to look and see if there were any old motors around. After docking about noon, the ship loading began and I headed for the small company town nearby. There wasn't a sports store as such - a Western Tire Store etc.- but boats and motors were handled by the Mobil Station. The operator of the Station said he had nothing, but told me of a sports store a few miles down the highway.

The driver who originally drove us to town, took me there and left after I said I would walk back. While visiting with the young woman in the store, she told me that she wasn't the owner but that he would be back about 4 PM. I asked her to let me look in his shop to see if there was anything worth waiting for. We looked, and there on the floor - quite dirty - was a Johnson K-35 twin, the only old motor in the place.

About a half-hour later, the driver came back as he was worried that the loading might end sooner than expected, and the ship would leave without me. So, we called the shop owner on the telephone and asked him about the motor. He said he intended to restore it for display purposes - but the snowmobile season was almost on him, and his backlog of work made it remote that he would get to any restoration soon. He said he would sell it for what he paid for it - eight dollars - and that settled it. I paid the young lady, put the motor in the truck and went back aboard ship.

On the return trip down the lakes, I got some cleaning solution and a brush from the Chief Engineer and slowly removed the accumulated grime. Took the plugs out, etc. I noticed the magneto plate had been bent down, but putting it in a vise, I bent it back to level. I found I was shy the two crankshaft keys, and the nut on the propeller shaft isn't the right one, and the tank is dented a bit - but outside of that, the motor is complete. Haven't had a chance to check out the magneto yet, I'll have to get some keys first; but I'm hoping it will be OK. It's a warm feeling to wipe away the grease cover from the flywheel starter plate and see "Southbend"

All during the voyage back, I was kidded by the Engineer, Captain and crew about providing emergency power in case the ship ran into problems. In fact, we made a very fast trip to Toledo, the Captain claiming it was due to the auxiliary power we had aboard.

One thing I'll never forget, is that just after cleaning it up and while putting the motor on top of some drums on the aft deck, they gave me a blast with the fog horn. It was so darn loud, and startled me so, I almost heaved the K-35 to shore - about 200 yards away. One blast in a lifetime is enough! My ears are still ringing, while the motor is now down in the basement of my home, waiting its turn.

## Red Face Department By Jim Webb

On the second Sunday in August, Boss Lady Webb and I invited twenty-two of our neighbors out to our summer home on Lake Beulah for swimming, skiing, cocktails, food and last but not least, a ride in front of my 115 HP Evinrude.

All went well. Several successful rides were had. Then, suddenly, when we had pulled about 200 yards from our dock, the motor sputtered and died. Attempts to make it fire more than a few turns failed. My guests were very helpful with questions like "is it flooded?", "does it always do this?" and "how will we get back?". The ladies in the boat were getting apprehensive and I started to paddle back to the dock. By this time, every neighbor on the bay was looking on, some with considerable pleasure. After all, over the last 13 years, I have pulled everyone of them in. Luckily, I never made a crack about the fact that an Evinrude would never do that. Most of them have Evinrudes but there are one or two Johnsons and a Merc.

Suddenly, one of my passengers said, "you know, once when we were out, a kinked gas line  
(continued on next page)

# AOMCI NEW MEMBERS

Frank A. Patten  
11 Anne Street  
Ozark, Alabama 36360

Raymond A. Rydell  
PO Box 19  
Avalon, California 90704

Herbert D. House  
1602 B Wood Court, Rt 5  
Valdosta, Georgia 31601

James E. Murphy Jr.  
1410 Douglas  
Flossmoor, Illinois 60422

Alton M. Hotchkiss  
96 N. Main St  
Cortland, New York 13045

Niel Turrini  
171 Windsor Av  
Rockville Centre, N.Y. 11570

Lowell E. Hetzner  
7162 State Route 203  
Prospect, Ohio 43342

Larry W. Linder  
2041 So. 320th #105  
Federal Way, Wash 98002

Randall E. Updyke  
#5 Alderbrook Gulf  
Union, Washington 98592

Dr. Sidney H. Feldman  
1235 Jefferson Davis Blvd.  
Fredericksburg, Va. 22401

Joseph P. White  
5305 Lewis Drive  
Port Arthur, Texas 77640

Ronald Aaberg  
Pedro Bay  
Alaska 99647

LCDR Alvin N. Catalano, USN  
3971 Arey Drive  
Imperial Beach, Calif. 92032

CWO David Haus 737655  
USS Bryce Canyon (AD-36)  
c/o FPO San Francisco, Cal. 96601

Philip A. Gaudreau  
10 Capital Ave.  
Meridan, Connecticut 06450

Dr. Walter W. Otto  
8816 Ferguson Ave.  
Savannah, Georgia 31406

Allan D. Tatum  
1238 Keolu Drive  
Kailua, Hawaii 96734

Robert W. Hirst  
c/o Stinsman Bros.  
Crystal Beach Road  
Earleville, Md. 21919

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Grosse Point Farms  
Michigan 48236

Ian F. Hall  
Austalian Embassy  
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Washington D.C. 20036

Wayne A. Mocksfield  
RD #2 Box 338  
Lake Hopatcong, N.J.  
07849

John J. Enright Jr.  
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New York 11768

William D. Hodges  
1112 Loudon Road  
Cohoes, N.Y. 12047

Ned Mohrman  
3719 S Main Street  
Akron, Ohio 44319

Charles Wright  
Rt 5 Box 5759B  
Gig Harbor, Washington  
98335

Frank A. Schlachter  
1615 Cleveland Av  
Racine, Wisc. 53405

A cordial welcome is extended to all newcomers. Other members are encouraged to make contact either by writing or visiting. Let's show these new members how to really participate in the Club activities such as Meets, Chapters and Special Interest Groups.

"Red Face Department", continued...

made it act like this" - a great light dawned!! I rushed to the stern and sure enough, one of the chairs was resting - right on the gas line. And away we went, although the ladies were still apprehensive.

Salt was properly rubbed in my wounded pride when a neighbor (and former friend), upon being told of the incident, said, "Why I should have thought that you would have looked for gas line trouble the first thing. That's what you have always told me!" The fact that he was 100% right made matters even more embarrassing. Yes, and I'm the guy who once rescued a fellow nine miles out in the Gulf of Mexico by removing a chair - or gas tank - I forget which, from his gas line. And he didn't like or thank me for it either. Now I know how he felt.

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Colorful- 5½ inches high  
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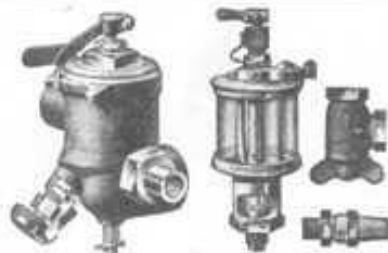
To Mr Glenn Ollila and  
the Champion Spark Plug  
Company for furnishing  
the 1970 marine charts  
sent to AOMCI members  
of record as of 7/1/70.



## REMEMBER

Richard M. Jones is handling all new &  
re-newed AOMCI Memberships and records.  
All applications, dues and address cor-  
rections should be sent to him at 20505  
N.W. 3rd Avenue, Miami, Florida 33169

PLEASE CHECK YOUR OWN MEMBERSHIP DUE  
DATE AND RENEW EARLY. SAVE THE CLUB \$\$



THE LUNKENHEIMER CO.  
"QUALITY"

# AOMCI 5<sup>TH</sup> YEAR