

# *The* **ANTIQUÉ OUTBOARDER**



**October**

**1979**

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 \$12.00 per year. Other membership information is available on request from Ted Bieber, 1437 Kingstree Lane, Houston, Texas 77058, U.S.A.

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The Antique Outboarder                      Volume 14 No. 4                      October, 1979  
 Published quarterly by The Antique Outboard Motor Club, Inc.  
 Publication Offices: RFD 4, Colebrook River Road, Winsted, Ct. 06098

Single copies: \$2.00 except as included with club membership.

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FRONT COVER: Evinrude 1925 Sportwin on running board of an Evinrude dealer's service car. Chet Ruggles handled Evinrude Motors in Milwaukee for many years.

BACK COVER: Two views of Evinrude, high volume, low pressure Centrifugal contractors drainage pump. Motor shown is 6 HP Flwwetwin outboard adapted to pump. Sold for \$145 and up. (Photos loaned by W. J. Webb)

# Special Interest Groups

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.

Giant Twin - Don Peterson	Racing - Eric Gunderson
Class "F" Owners - Dave Reinhartsen	Watermans - Dick A. Hawie
Johnson PO - Bill Salisbury	Research - Dick A. Hawie
Johnson V Series - John Harrison	Clarke - Phil Kranz
Johnson A Series - Bob Zipps	History - W. J. Webb
Antique Boats & Equip. -	Eltos - Sam Vance
Mercury - Bill Kelly	Cailles - Walter Weidmann
Unusual & Rare Motors -	Lockwood
Inboards - P. S. Brooke, Jr.	Martin - Frank Zadonick
	Detroitier - Wayne Schoepke

Notice that not all of the groups have leaders - volunteers are needed! Write to the V. P. of Technical Services: Eric Gunderson, 515 W. Main, Grass Valley, California 95945.

## CHAPTER PRESIDENTS

Yankee Chapter	Dick Fuchs	New England
Knuckle Busters	Tom Luce	New Jersey Pennsylvania
Mid-West Chapter		
Florida Chapter	John Harrison	Florida
Long Island Ancient	John Gustaffson	Long Island, N Y City
Outboard Mariners		
San Francisco Chapter	Eric Gunderson	California
Twin Cities Chapter	Bob Peterson	Minnesota
Mid-America Prop	Ken Ponciroli	Missouri and others
Spinners		New York State except
New York State	Sam Vance	N Y City & Long Island
Texas Chapter	Ted Bieber	Texas
Central Ohio Chapter	Milt Moos	Ohio



# The President's Message

Hello Fellow Antique Outboarders:

I hope that all of you and your families had an enjoyable and safe summer, and managed to attend at least one of your local chapter meets

By now, I am sure that most of you have heard of the sudden passing of our president, Walt Ellis, on April 12. It was my pleasure to meet him at the third national meet at Clayton in 1978. He was a real inspiration to all of us. He is missed.

At this point, I wish I could announce the results of our upcoming AOMCI election. It is not yet possible. We are still looking for a candidate to fill the second vice president slot. His job is to schedule and chair the fourth national meet which hopefully would be held in the northern region of the mid-west in 1980. As soon as we can resolve this matter you will be receiving your ballots.

I recently asked Bob Zipps to step in and help me as an appointed first vice president. He has been most helpful in offering advice and distributing the executive newsletter. My thanks to Bob.

I would like to clarify the reason for selecting the Shipyard Museum in Clayton, N.Y. as our new national headquarters. The AOMCI, as an organization, is now quite large, and the demands for responding to the daily input of mails is significant. It is unfair to expect one person or a family to respond to this mail. We were offered, free of charge, a chance to use the facilities at the Shipyard Museum in Clayton. I chose this option. It relieves the president's job of responding to all of this volume of mail. This will allow the President to properly administrate the duties without the added burden of overwhelming clerical tasks. We have not merged with another organization nor will we ever merge with any other club or organization. I just feel that if another organization offers its help, and it is to our advantage, let's use it. The address of the Shipyard Museum is 750 Mary St., Clayton, N.Y. 13624.

I hope to assure that the AOMCI administrative processes and publications continue in the fine tradition that we are used to seeing.

Please continue to use our two fine publications. Chris and Sandi Eiring are doing a fine job with the newsletter. Use it to swap or sell. Their address is 326 W. South St., Oconomowoc, Wisconsin 53066.

Claire and Paul Vreeland are doing the Antique Outboarder magazine, beginning with this issue. Please share your experiences concerning old outboard motors with them. Mail for the Antique Outboarder may be addressed to them at RFD 4, Colebrook River Road, Winsted, Conn. 06098.

Happy Antique Outboarding.

*Rigg Smith*

# LETTERS TO THE EDITOR

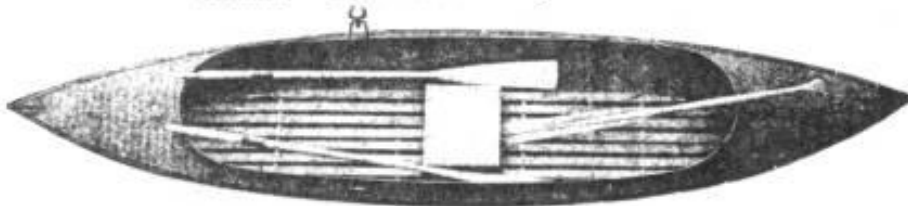
From William F. Bowen, Cincinnati, Ohio . . .

The enclosed ads are from the Northwestern Sportsman magazine for April, 1906. As can be seen, a Mullins duck boat was offered as a premium for 30 new subscriptions to this magazine. A subscription for a year was one dollar (12 copies).

Mr. Hawie may be interested in these copies, especially for the Mullins but also of the many other small boats manufactured 73 years ago. It would seem that Wisconsin Manufacturers predominated.

Incidentally, I have one of the Shakespeare reels shown.

## Mullin's "Get There" Safety Duck Boat.



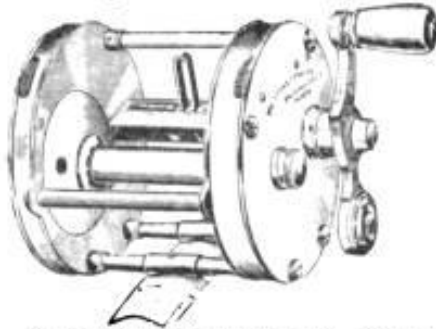
The "Get There" is 14 feet long, 36 inches wide, 12½ inches high to top of combing at ends, 10 inches in center. Size of cockpit 9 feet long, 30 inches wide. Galvanized steel, weight about 85 lbs.; including woodwork packed for shipment, 100 lbs. One seat, one pair oars and one short or long paddle, and slat bottom included. Given for  
*Thirty New Subscriptions.*

*above are but a few of the 400 handsome Premiums offered in our new 52-page Premium List. This List is FREE. Send for one.*



## Premiums Given Away For New Subscribers to The Sportsman.

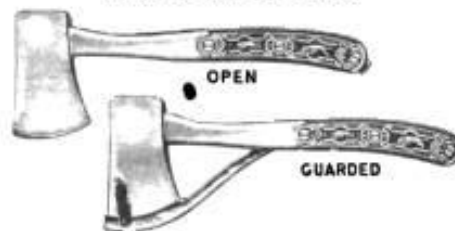
### Shakespeare Level-Winding Reel



A thoroughly perfected piece of work. Saves the trouble of "thumbing" the line and enables the angler to devote his whole attention to landing the fish. The editor of the Sportsman uses one of these reels on his fishing trips. Given for

*Thirty New Subscriptions.*

### Marble Safety Axe.



A safety guard protects the blade and allows you to slip the axe into hip or coat pocket. Can be carried in a sheath at the belt. Given for

*Three New Subscriptions.*

To The Editor continued

From W. J. Webb, Wauwatosa, Wis.

When I was gathering material for my book on the History of Outboard Motors, I spent many a fruitless hour searching through old magazines and many a stamp trying to find someone who could give me some real information about or a good picture of the Gierholt Direct Drive Outboard. I drew nothing but blanks and so had to go to press with just a reproduction of a Gierholt ad which showed only an artist's rendering of the motor.

But early in March, Al Oswald of Oswald Brothers Auto and Outboard Service of Cloquet, Minnesota sent me this excellent photo which shows what I am sure is a Gierholt.

The Gierholt was originally produced by the Gearless Drive Outboard Motor Company of Marine City, Michigan from 1920 into 1922. I could find no mention of it in any ads after 1922, but it showed up again under the name of Hess Motor Corporation of Algonac, Michigan. The first ad I could find from this address appeared in 1926 and the last ad came out in 1928, when production of the motor apparently ended.


I have no idea whether or not Al Oswald wants to sell this motor. If it were mine, I would hang onto it. Incidentally, Al says the motor still runs.

THE NORTHWESTERN SPORTSMAN.


## **SHELL LAKE BOAT CO.**

**SHELL LAKE, WISCONSIN**

---



CANVAS COVERED CANOE




OUR "SPECIAL" W BOAT

☛ The most graceful model ever constructed. Built in three sizes. One Grade—The Best.

Price, \$25.00 to \$30.00

☛ Built in a variety of sizes and styles of finish. THE BIG VALUE BOAT. Superior Quality. Low Price. Price \$22.50 to \$35.00



17-FOOT TORPEDO STERN LAUNCH

SEATING CAPACITY,  
NINE PERSONS.  
SPEED EIGHT MILES.  
TWO H. P. ENGINE.  
PRICE, . . . . . \$200.00

## To The Editor continued

From a letter to Walt Verner from Jim Webb, dated Feb. 2, 1976

Way back before we had today's type of separate auxiliary gas tanks, a lot of us used an eight-gallon model T gas tank strapped in the bottom of the boat. From this we ran either an autopulse, dry-battery operated, to the gas line between tank and carburetor. We cut the gas line and put in a "T". Usually, we filled the motor tank to be used as a spare and either closed the air relief screw in the filler cap or put in a regular shut off between motor tank and "T". The autopulse was very satisfactory. If it got stuck, and it would on occasions, a sharp rap with a hammer handle would get it going again. Those who had the extra cash would put in two autopulses, usually in series. One would always keep the other going.

The other, and just as commonly used device, was an ordinary bicycle pump hooked into a tire valve screwed into the auxiliary gas tank filler cap. A few strokes on the pump would keep enough air pressure in the Ford tank or tanks to keep gas flowing to the carburetor.

In 1928 I had two Ford tanks in my Century Traveller, autopulse operated, and I think I had to rap the autopulse only a couple of times. I did a lot of running on Lake Michigan too. In 1930 I got a larger Traveller and powered it with an electric starting 33 HP Quad. For that one, I put in 4 Model T tanks and fed the motor with an autopulse. It worked out just fine.

The tanks were placed two on each side and cross-connected every which way with flexible hoses so that when I was running with all four tanks filled, the gas usage, presumably, would even up the load. If I was only going to go far enough to use two tanks, I cut out the back two. That was where the 'every which way' hook-up came in handy.

The boys who used the tire pump, usually used an air gauge so they wouldn't over pressure the tank. With too much pressure, the carburetor floats would sometimes stick shut and the motor would quit.

Nowadays, all that fol-de-rol is missed because the motor uses its own crankcase pressure or vacuum to keep the gas flowing.

I remember that a few of the boys used a forth and back double-action hand pump to push gas up to the motor tank. In the longer races of those days it was as common to see flexible tubes going from the tank in boat to the motor tank through the filler cap as those outfits which ran the auxiliary gas supply direct to the carburetor. Personally, I preferred to run from the tank in the boat to the gas line between carburetor and tank.

I don't recall that anyone has written about how we used to use the extra gas supply necessary for marathons.

(Editors' Note: That would make a good story. How about it, Jim?)





To The Editor continued

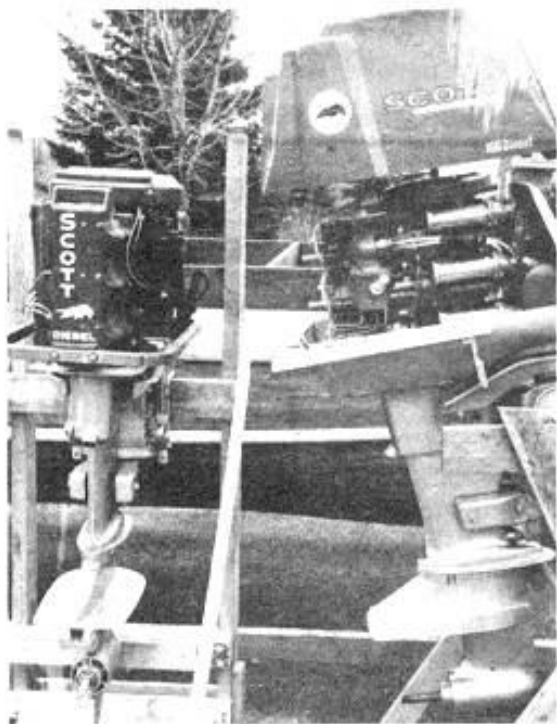
I have enclosed two photos of two Scott McCulloch Diesel Outboards that I have obtained from the McCulloch Corporation's Vice President of Engineering.

The final home for these motors is to be the Shipyard Museum at Clayton, N.Y. The newer motor (1963 approximately) has already been delivered to the museum (as shown with Riggs Smith.)

If any member, or anyone, has any sales, service or engineering information on these diesel outboards, I would appreciate knowing of it as I want to compile a history of these for inclusion in the Antique Outboarder. I am also in need of two three-bladed propellers with clockwise rotation (facing the prop). The McCulloch part #71413. Michigan Wheel used to make replacement props with the following Michigan part numbers: 684, 686, 688 and 690. These props are 12 1/2 to 13" OD with 5" to 7" pitch.

Anyone's assistance in this matter will be greatly appreciated and they will be given credit for any help they extend.

Dick Fuchs  
17 Deerfield Lane  
Simsbury, Ct. 06070





DEAR AOMCI MEMBERS:

We are just getting our feet wet in this operation, so if you spot typos, errors and omissions, please bear with us. It's got to be easier next time around.

Looking over back issues, we realize what a great job Walt and Phyllis did, and Bob Brautigan before them. Thanks to Bill Andrulitis who loaned us two 1988 issues put together by Dave Reinhartsen, we learned of the fine work of so many who wrote for the Outboarder way back then and who are still sending in material.

We are just beginning to get acquainted with who does what and lives where. It's a lot like joining a big, new family. It will take a bit of time to get to know all of you.

We certainly appreciate the prompt cooperation from so many Old Faithfuls in getting material ready for this issue. You are the backbone of the operation and without you the Antique Outboarder would not be possible.

We are especially grateful to Phyllis Ellis for her help and to her and Riggs Smith for their words of encouragement.

We do wish that this issue could have material from the west and mid-west and would like to hear from members in these areas and in Canada, Australia and New Zealand so that the magazine can truly represent the entire membership.

Please, all of you, send your letters, articles, photos, old ads, anything you would like to see in the magazine. Just a line or two to tell us what you are doing will be fine. If you have nothing for publication right now, let us hear from you anyway. You can tell us what you like or do not like to see in the magazine, give suggestions or just write to say hello. Otherwise, it will get very lonely sitting at the editors' desks.

Paul and Claire Vreeland  
RFD 4, Colebrook River Road  
Winsted, Conn. 06098  
Tel. 203-379-2983

# Cosmetic Restoration

By LeRoi Russel

This is the story of the cosmetic restoration of a beat-up Johnson TN-28. While it is a 1953 engine and not an antique yet, it is an interesting engine.

Whenever I get an old engine, the first thing it gets is a bath in gasoline or solvent with a paint brush to get rid of the accumulated crud it has picked up over the years. Then off comes the flywheel, gas tank, cowl- ing, carburetor and mag plate.

We will now presume by inspection that the rest of the engine is in good shape and ready for cosmetic restoration. The TN-28 originally was a light green color so we will take a steel brush ( not rotary type) and get the rest of the crud off and then we are ready to "face lift" the old gal to make her beautiful again.

Visit your American Auto Parts Store and get spray paint as follows:  
All are fast dry.

- 14-19 Red Oxide Primer
- 14-114 Hot Aluminum
- 14-5 Clear

They have various colors to match the old engines:

- 14-114 Hot Aluminum
- 14-111 Hot Black
- 14-112 Hot White
- 14-113 Hot Red

These hot paints were designed for exhaust manifolds on hot rods and will withstand heat to 1200° F. The hot aluminum is very shiny so apply two coats and do not touch even when dry. When it is dry, spray on two coats of clear (14-5) and you'll have a heat resisting dull aluminum finish like the original aluminum.

Now to get back to the "face lift." Spray the whole engine with two coats of Red Oxide Primer (14-19). It will stick to anything. When dry spray with original color and then spray two coats of clear over all of it.

"Red Devil" makes a trigger deal that fits these cans and makes it a lot easier to spray evenly. This item is available at variety and hardware stores and lasts forever.

Now we have an engine looking like brand new so let's get on with the tank and cowl. First, do not paint the carburetor or mag plate. Any visible parts of the mag plate can be painted by masking off the rest of the plate, but do not paint the carburetor as a little gas spill will take off the paint.

Now for those nasty dents and scratches in the gas tank and cowl. If you can straighten the cowl, so much the better. If not, use the same procedure as on the gas tank.

Here is what you'll need:

- (1) All the lollipop sticks you can burn out of the neighborhood kids, or a supply of tongue depressors.

- (2) A variety of sand paper, coarse to fine.
- (3) All the original decals-they will be shot during the process
- (4) A putty knife or regular table knife.
- (5) A one pound kit of Marine Tex made by Travaco Industries Inc  
345 Eastern Avenue  
Chelsea, MA 02150

Marine Tex is available or can be ordered at better marinas or boat stores. It is a marine putty that handles like putty, hardens like steel, sands like wood (unless you use too much hardener), and sticks to anything. It is impervious to oils, greases, fuel, brine and detergents. It was originally designed to patch holes in boats, repair cracked blocks, stop water, oil and fuel leaks in anything. All directions are in the kit.

Now to get to the dented gas tank. Use the steel brush and sand paper to get off the decals and excess paint. Then mix up a small amount of Marine Tex on a piece of cardboard with the putty knife and apply to the dents with the lollipop stick. You can fill these dents completely as this stuff will not sag. Use the side of the lollipop stick as a gauge until you have the dent built up to the contours of the tank.

Your work will be rough but if you wipe off the lollipop stick to keep it partially clean, it will help. Then get a cup of water and just before it starts to harden up, dip your finger in the water and keeping it wet, the Marine Tex will not stick to your finger and you can smooth it down and save a lot of sanding.

When it is dry, sand it down and look for low spots. Shoot on a coat of Primer and sand lightly. This will show up low spots and they can be filled right over the primer.

When you have the dents repaired to your satisfaction, shoot on a couple coats of primer, sand lightly. Be sure you have feather-edged the Marine Tex edges or they will show up. Use 400 sand paper (wet or dry) on a sanding block for the final sanding of the primer. When dry, shoot a couple coats of the original color on the parts and let dry. These are all fast dry paints. Now, put on one coat of clear (14-5) and when dry, install the decals. Then shoot two coats of clear over all of it, and "Hey boy!" you have a brand new gas tank without cutting, hammering, air pressure, heating or welding. You will lose a couple teaspoons of gasoline capacity in the tank, but so what?

Now put her together, and stand back and admire your "cosmetic restoration" of an old girl. Ain't she beautiful?

It is the same process your auto body man uses to take dents out of your car, but use Marine Tex as it is a lot better. I even use it on nicked-up props.

It took longer to tell you how to do this than to do it. If you are leary of this, try it on a dented piece of tin first.

See the before and after pictures (next page) accompanying this story. If you like this, let me know and I'll tell you the easy ways to check and repair those pesky magnetos.



#### A FEW FURTHER TIPS

- (1) An easy way to remove old flywheels.  
Take off the night and squirt WD-40 on shaft and flywheel. Let soak about an hour and don't be stingy with the WD-40. It may take two applications but the flywheel will come off easily.
- (2) "Tyme" is the best carburetor cleaner there is. Disassemble the carburetor and soak all parts except the cork float in it. Wash off with water, dry, and assemble and you have a really clean carburetor. A blow gun really helps here in blowing out passages.
- (3) If she doesn't want to start and to save yourself getting blue in the face and hot under the collar, get a short 3/8" electric drill. Then put a socket on the other end, the size of the flywheel nut. I'm presuming you have the old girl (new girl now) on a stand in water, and the gas oil mixture in the tank, carburetor and mag to start. Put the drill and socket on the flywheel nut and pull and hold the trigger. The drill will turn over the smaller engines easier, faster and longer than you can by pulling on the rope. Hold that trigger down and when she starts lift the drill and socket off the flywheel and then release the trigger.
- (4) American Auto Parts also has a paint (14-212) Silver Hammer Finish, that is beautiful on some of the old Martin engines--cover with two coats of clear to dull it.

I do not work for American Auto Parts but use their products because I've never had a failure yet from their parts. They also have an illustrated buyer's guide where you may find points, condensers and coils for your old engines.

"01 Knucklehead Rattlesnake Chaser Russel"  
 LeRoi Russel  
 343 Shasta Street  
 Prescott, Arizona 86301



## Hiawatha Boat Motor

**\$40<sup>85</sup>**  
**Freight Paid**

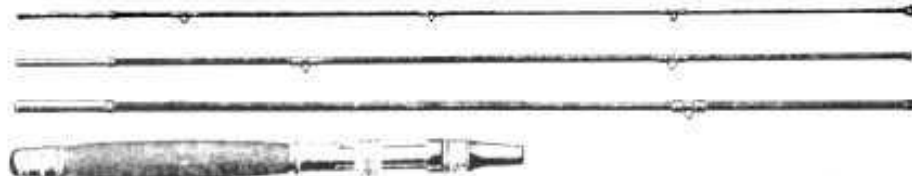
A Row Boat Motor is as standard as the Motor Cycle or Bicycle.  
 The only question to be decided is— which motor to buy? The Hiawatha Row Boat Motor has modern advantages which are worth considering. It is furnished complete with all necessary equipment.  
 The steering gear may be set in any position. It is automatically locked, holding the boat on its course without requiring attention.  
 The rudder on the Hiawatha is a real rudder, enabling the boat to make a pier even after the engine has been stopped. It surrounds the propeller in a way to thoroughly protect it.  
 It is a matter of only a few minutes to clamp it on the stern of any row boat and to see a couple that any member of your family will be able to operate it. It comes to you thoroughly tested, and will give you perfect satisfaction.

**Specifications and Dimensions.**

Bore, 2 1/2 inches; stroke, 2 1/4 inches.  
 Diameter of Propeller, 9 1/2 inches; pitch, 12 inches.  
 Minimum distance top of stern to center of propeller shaft, 21 inches; maximum, 27 inches.  
 Diameter of Fly Wheel, 9 1/2 inches.  
 Lubrication by mixing oil in gasoline.  
 Gasoline Tank holds 3 1/4 quarts.  
 Battery ignition with 3 cells, and non-vibration, 3-terminal, high-grade motor cycle coil.  
 Net weight of motor, without battery box, 22 pounds. Extra for battery box, complete, 8 pounds.  
 Box for shipment as shown, 22 1/2 by 27 inches.  
 Shipping weight, about 135 pounds.

<b>288C4860</b> —Hiawatha Boat Motor, with battery equipment.	<b>\$40.85</b>
<b>288C4866</b> —Hiawatha Boat Motor, with Fly-Wheel Magnet.	<b>\$55.25</b>
Freight Paid	<b>\$55.25</b>
Shipped from factory.	

### Steel Fish Rod.



Mountings full nickel. Celluloid handle. German silver ring tie guides and three-ring tip. First class in every particular. Given for **Eight New Subscriptions.**

### Locher & Robb Steel Rod.

No. 90. One-piece rod of extra good lancewood. Solid cork handle; German silver reel seat and trimmings; large raised hardened steel guides and tip; wound at close intervals with two colors of silk. Has many friends and will stand up under all proper conditions. Length 4', and 5 ft. Furnished with cloth case. Given for **Twelve New Subscriptions.**

YANKEE CHAPTER COLEBROOK RIVER RESERVOIR MEET

May 19, 1979

by Doris Schaber

The Yankee Chapter, AOMCI, had its first outdoor meet of this year at the Colebrook Dam in Sandisfield, Mass. The day was a little cloudy and we had a rain shower in the late afternoon but that did not dampen anyone's spirits. Everyone had their engines on their boats, trying and testing. This was an informal meet.

Bill Andrulitis ran a Lockwood Chief 1928. Of course, Bob Zipps ran his trusty 1934 Johnson S-70. Dick Schaber broke down and used a Johnson 16 HP to power his boat. Bill Salisbury used a Sport Four and Dick Fuchs ran his Caille. Dick Perry ran a TF 15 Johnson and a Champion 2J. Paul Vreeland ran a LS-37 Johnson and an Evinrude Zephyr.

Bill Andrulitis brought along a miniature solar model racer which he had created. While Bill was busy on the lake, his wife, Nancy Knettell, demonstrated the model and gave this description: Model brass racer, powered by a solar panel producing 6 volts at  $\frac{1}{4}$  amp or enough power to light a 3 watt light bulb. Propeller is driven by small electric motor using electrical energy directly produced from the sun's light striking the surface of the black discs or solar cells. The photovoltaic process, or technical name for this process, an inherent characteristic of certain forms of silicon, is the result of the sunlight being trapped by the black surface of the cells agitating the surface electrons, realigning them in a positive and negative fashion creating current. Metallic conductors silk-screened on the top of the cells retrieve the electricity and conduct it to the motor soldered to the positive and negative leads of the generating unit. Since there are no moving parts within the generating cells themselves, the ability for any solar nodule to create energy indefinitely is a possibility.



Listening to remarks of Chapter President Dick Fuchs  
(Vreeland Photo)

Gary Mower from Danbury brought two motors for display. They were motors he had acquired but three weeks previous to the meet, a 1923 Elto Rudder-twin and a Caille 5-speed rowboat motor from the teens or early twenties. He also brought a 1935 Evinrude Lightwin parts motor which Phil King bought. Vreeland showed a 1928 Elto Speedster and a 1933 Elto Super Single.

Dave Bachelder brought an A45 Johnson, SD 20 Johnson and a QD 10 1949 Johnson to run. All three ran beautifully and had been mechanically restored. Bob Gabriel brought an Evinrude Zephyr which ran quite well and an Evinrude Sport Four which had problems and would not run.

Dick Perry and Jim Perry brought Johnson TF 15, DT 10, 110, LT 37, Champion 2J and a Martin 40. All ran except the 110 which did well till it lost spark. Jim said, "This is my favorite meet."

Yankee Chapter was very pleased to have a member from Stuart, Fla., Ed Baird and his lovely wife attend the meet and cook-out. Ed said, "We did a little swapping and I picked up some needed P.O. parts. We met many great people and I do appreciate the hospitality of the Yankee Chapter and all the efforts of Dick Fuchs."

Sam Cronk and Ric Cronk of Ashley Falls, Mass. attended the meet as guests of Paul Vreeland. Sam subsequently joined the club and began the hunt for Old Iron.

Following a cruise around the lake, members adjourned to the home of Chapter President Fuchs in Simsbury for a patio picnic.

Most members signed a circulating notebook and wrote down so many enthusiastic comments about the success of the meet that Fuchs ears must have been ringing for days.

Bob Zipps summed it all up when he wrote: "This was the best Colebrook meet yet and the credit goes to Dick Fuchs for doing a great job."



Stephen and Benson Spivey accompany their father, Carl Spivey to the Colebrook River meet each year where the only hardship they have to endure is the admiring comments of members, "My, how you've grown."



## The Yankee Chapter News

by Bob Zipps  
photos by Ann Carpenter

It's easy to tell when there is going to be a meet at my home, because if you look around the basement the night before, it looks better than it did in months. Nearly everything is in its place and the aisles are passable. It's a team effort to make it this way and I have to thank my two children Chris and Dave for their help.

The big day was April 7, 1979. Members started arriving about 10 o'clock for the 12th annual Connecticut Indoor Meet, and before you knew it my driveway and my lawn had loads of motors and parts for sale and trade. It is a beautiful sight.

Following a delicious lunch prepared by my wife Pat, the members and their families were treated to two seminars. The first was conducted by Tom Luce and involved the repair of the pads on the end of thumb screws that contact the transom. The second seminar was given by Bill Andrulitis. Bill showed us a different way of removing stuck pistons based on using threaded rods. His method would be used when the grease pressure method cannot be used.

Following the seminars, Dick Fuchs, our Yankee Chapter President, conducted a short meeting. Then the final sales and trades of the day were made and as much as everyone hated to see it come, the day came to an end. However, we were all looking forward to the next meet.

Members and their families who attended the meet were:

Bill & Dot Lyman South Hadley, Mass.  
Phil & Charlotte King Granville, Mass.  
Carl Spivey Westport, Mass.  
Dick Perry Halifax, Mass.  
Ed & Bootsie Baird Stuart, Florida  
Bob Gabriel Billerica, Mass.  
Tom Glock Allentown, New Jersey  
Dave Bachelder Billerica, Mass.  
Jim Perry Halifax, Mass.  
Dave Salisbury Toms River, New Jersey  
Bill Salisbury Toms River, New Jersey  
Gary Mower Danbury, Conn.  
Tom Luce Westfield, New Jersey  
Dick & Doris Schaber Newington, Conn.  
Liz Schaber Newington, Conn.  
Bill & Olga Hodges Cohoes, New York  
Cleve Fuessenich Litchfield, Conn.  
Larry & Ann Carpenter Laconia, New Hampshire  
Earl Carpenter Laconia, New Hampshire  
Bill Andrulitis Manchester, Mass.  
Nancy Knettell Manchester, Mass.  
Phil Kranz Slingerlands, New York  
Norm Mullings Granby, Conn.  
Dick Fuchs Simsbury, Conn.  
Stan Moors Lebanon, Conn.  
Paul & Claire Vreeland Colebrook, Conn.  
Bob & Pat Zipps & family East Hartford, Conn.



A favorite among members is going from trunk to trunk and from van to van to see what motors and parts that were brought to sell or trade.



Cars, vans and trucks are lined up in my driveway and on both sides of the street in front of my house. The weather was perfect; fine for selling and horse trading. Shown above left to right are: Bob Gabriel and Gary Mower.



Part of the fun of indoor meets is talking about old motors with members that you haven't seen in a while. Even though everyone is standing around with winter coats on, when it's April and the Connecticut Indoor Meet comes, boating weather isn't far off.



Checking out the Antique Outboard Treasure in the pickup are left to right: Dave Bachelder and Dick Schaber. Indoor Meets are great for buying motors or picking up that part you need to finish the latest restoration.



# OF HISTORICAL INTEREST

..... *W J Webb*

About The 'Early Days'  
of The Outboard Industry

In the "good old days" when the products of Cameron Waterman and Ole Evinrude awakened the American public to the pleasures that rowboat motors, as outboards were then called, could bring them, there followed quite a rush on the part of tool and machine shops to satisfy the demand.

Of all the many companies that entered the outboard manufacturing business in America prior to the early thirties, only two survive today, Evinrude and Johnson. The rest petered out, for a number of different reasons, the most common of which was the then highly seasonal nature of the recreational boating business. There was plenty of business and money coming in during spring and summer, but sales and income fell thru the floor right after Labor Day. It showed a few signs of life after the big boat shows - New York, Boston, Chicago and San Francisco - but it didn't really pick up until warm weather really returned.

Things generally are so much different now than they were 50-60 and more years ago that any comparison is most difficult to make. For example, with the exception of parts of Texas, there was little manufacturing, hence limited employment in much of the South in the '20s. And the Texas activity was due more to oil than anything else. I traveled a lot in the southern states from 1926 on, and in all those days, even in 1929, just before the bust, I never had to write or phone ahead for a hotel reservation, even in Miami, which was booming and busting and booming in real estate. I always got just the accommodation I wanted when I checked in at any time of the day.

Outboard motor and boat sales throughout the South were only a small fraction of what they are today. There was practically no business in the winter months in the North, so we cultivated the South in winter with an eye to the future and also because we knew we would be so rushed in the warm weather that we couldn't spare the man power to work the South.

While I don't have all the unit manufacturing figures, I will stick my neck out and say that I believe the outboard industry is making and selling more units in less than a week than it was in a whole year at any time in the '20s. Back in the '20s, the range in outboard horsepower was from 1½ to 32 at the very top, and the average man could lift any outboard that was produced. Now we are up to 235 horsepower at the top, down to fractional horsepower electric trolling motors. Back in the '30s we made gasoline powered outboards in ½ and 1 HP ranges. The ½ HP was too small, but the 1 HP was very popular and sold for \$37.50. As for weights, a fellow had better have 3 good men or 2 good men and a crane to mount one of

today's big motors

Starting in 1926 and continuing for 3 years, I kept track of the seasonal increase in dealer and retail sales and found that, in general, the real pick up in business followed the 65-70 heating isotherm north. The increase in pleasantly warm days seemed to awake the boating bug in those who could either afford a new outfit or just had to respond to the urge to get out on the water. A sudden and unseasonably warm day in March would always bring a surge of orders from that lucky territory.

Also, we must remember that there wasn't the public confidence in outboards that there is today, and with good reason. Many of the outboards of those early days were anything but dependable, due sometimes to poor engineering, but more often to the machining standards that are miles from what is common today. Today's machines can hold to half a ten thousandth of an inch tolerance in normal production, whereas a standard like that was possible only in fine tool rooms in the '20s. Then we all did the best we could with what we had.

In the '20s for example, cylinders were iron, cast in sand. Following this, at Evinrude, we normalized them with 2 heat treatments, followed by boring, grinding and honing with a Hutto hone, the best there was in those days. Following assembly in motor powerheads, we lapped them with an electric motor using jewelers rouge and oil, disassembled the powerhead to wash out the rouge, reassembled to the lower unit and ran the motor in a test tank for 2 hours, then gave it a final test. We suggested running the finished motors at less than top speed for several hours before opening them up. Almost no one followed this suggestion, but we made it anyway.

Today, probably all outboard makers buy cast iron sleeves, cast them into aluminum cylinders, diamond bore them to a finish far superior to that obtained with all the old procedures, and come out with a much better product in many hours less time.

All of the outboard makers of the early days soon found that they couldn't keep going on the outboard business alone, so they branched out into a number of different lines. Since quite a few of them were jobbing machine shops, they went back to their real bread and butter in the machine shop and kept on with outboards for a few years until, for a number of reasons, they found that outboard profits would support this line. So by the '20s, there were only 5 substantial American outboard makers - Evinrude, Elto, Johnson, Lockwood and Caille. Lockwood, which became a division of Outboard Marine along with Evinrude and Elto in 1929, was phased out in 1930 with the onset of the Depression. Caille became inactive in the early '30s and finally disappeared in 1935. Elto left the picture in 1951.

By 1914 Evinrude found that it couldn't keep the factory organization that was large enough to supply the summer demand for outboards going thru the off season on outboards alone, so branched out into somewhat related lines - contractors drainage pumps, portable fire pumps for the forestry service, small single and twin cylinder inboard motors adapted from the outboard versions, flat and round bottom boats, canoes which they bought from reputable builders such as Kennebec, a wide line of boating accessories, etc.

Incidentally, the twin cylinder inboard was an alternate firing motor that ran very well and was smooth and quiet. But no one thought of making this alternate firing twin into an outboard until years later when Johnson brought out its fine line of alternate firing twin outboards.

These were all very good products, but with the exception of pumps, none of them made much if any money and were eventually dropped. The fire pumps were used almost entirely in fighting forest fires. Evinrude built the last fire pumps for public sale in 1941. During the WW II Evinrude and Johnson supplied 2 sizes of fire pumps to the U.S. Navy and Army. The 500 gallon per minute pumper, which used a variation of the 4-60 outboard for power made an especially fine record, three of them being credited with continuous running for some 39 hours and in so doing keeping a U.S. destroyer afloat until it could reach a friendly port. Pumps were discontinued after the war. Johnson designed and built the pump and assembled it with the motor. Evinrude built the motor which used slightly shorter rods than the outboard version. After the war the really hot drivers liked the short rod pumper powerhead better than the original longer rod 4-60. Naturally, changes in piston and cylinder were made to accommodate the shorter rod.

In the '30s, Evinrude and Elto brought out the Speedibile, a really fine little 2 cycle motor intended for bicycle propulsion. This never got off the ground as by that time license requirements for bicycle motor users took the product out of the reach of the young people who would have bought it. A few were built and sold, but the end came very soon.

Another product of the '30s was the LawnBoy. This was a 2 cycle, air cooled motor driven reel type mower, which had a very clever handle control which made operation very easy. However, it had a very serious weakness in a cutter bar which would bend out of line if anything like a smallish stick was cut. For some reason I could never understand, I couldn't get our engineers to beef up the cutter bar so it wouldn't bend. Our Indiana distributor cured the problem by bolting a straight stout piece of steel on the bottom of the cutter bar. This very fine product was taken over by the rotary type machine which really did a better job of grass cutting than the reel type machine, and it cost less.

Ole Evinrude was a highly skilled pattern maker who made lots of little additions and improvements on the various pieces of equipment in the pattern shop and in the machine shop as well. Some of these were patentable, but Ole couldn't or wouldn't afford the time to file patent applications so that a number of his little improvements became a part of the machine makers art.

Ole Evinrude always wanted to make a wood and metal working machine that could be used by home workshop people to perform any of the tasks that home workshop people love. The result was the Shop King, a really fine piece of shop equipment that was accurate, rugged and very compact. It came out in 1931 when people didn't have any money for things like that. Besides, it really missed the mark as home work shoppers didn't need a single machine that could do everything. They preferred to buy a drill press and a circle saw and maybe a lathe which would let them do just about everything. So the Shop King never got off the ground, as fine and reasonably priced a machine as could be found.

Elto supplied some powerheads adapted from the outboard for small inboard installations and for forest fire pumpers, the Ross pumper in Washington in particular. The volume here was never large enough to be very attractive. Elto kept in the profit column each year in the '20s by watching every nickle carefully.

Lockwood, which was originally known as Lockwood-Ash built jobbing machine products as well as inboard engines, but these were dropped by 1927, and outboard production was emphasized.

Caille was once the world's largest producer of slot machines, but with the passage of time, and the retirement of the original Caille boys, slot machines were dropped in favor of engines, inboard and outboard. Harry Masoner, Caille Sales Manager, told me that Caille also did quite a bit of tool work for the automotive industry.

The Johnson brothers who got a fine early start in airplane design as well as in airplane engines and large inboard engine and boat design and building, strayed briefly into the bicycle motor wheel game in the late teen years, before they found a permanent and happy home in outboard motors.

Lou Johnson, oldest of the Johnson brothers, did exhibition flying in a plane of his design, built by the three Johnson brothers, and powered by a light Vee type aircraft engine designed by Lou and built by the three brothers, Lou, Harry and Clarence. In 1911 Lou received \$1000.00 for a 20 minute flight in the Johnson monoplane.

The Johnsons started the Johnson Outboard Motor Wheel Company in Terre Haute and soon after moved to South Bend. Late in 1921, the Johnson Light Twin was launched. This used many of the engine parts used in the Motor Wheel. Its success was immediate.

In 1925, the Johnson boys had much to do with the successful Baby Buzz planing boat design which helped in the successful launching of their, but the standards of that day, huge Big Twin in 1926. It was this planing Baby Buzz which showed the boating public that the outboard could supply the thrill of speed on the water at a reasonable price. This really broke open the outboard market.

Many, in fact, most things have changed in the outboard marketing picture since the '20s. While we manufacturers all tried to set up competent dealers who would do a good job servicing as well as selling the product, that was easier said than done. All of us spent lots of time beating the bushes looking for someone with enough sand and ability to make a real career out of the outboard motor and boat business. Each year we were able to enlist a few more really good merchandisers. Most of these were people who loved the marine business and made successes through hard enthusiastic work.

While most of the outboard dealers in the '20s were primarily mechanics and men who loved to fish, a few of the early dealers were men of vision who saw the outboard as more than a fun hobby. These men thought enough of the game to follow the importunations of the manufacturers to set up well equipped service shops, attractive showroom displays and backed it all by well planned service and sales programs in which the buyer was given his money's worth. There were also the usual crop of chiselers and fast buck artists, but these soon weeded themselves out. Today, in large part, the motor and boat buying public is well served. If this were not true, we would not see the substantial number of good people who are making all or a substantial part of their living in the marine field.

Following a brief recession in 1938, the Outboard Industry was all set to bust loose in 1939. But WW II was imminent and starting in Europe, raw materials were scarce, and we were all held back. Outboard motors hard to get. By the end of summer, dealers were waiting at the door, so to speak, for anything we could turn out. Things got tighter in 1940 and we began to get into war work to supply the foreign demand. Things crashed to a near halt on December 7, 1941. In February 1942 Limitation Order 18

put a complete stop to all domestic outboard production; but there was very little to stop as we were out of nearly everything that we could use to make an outboard.

WW II brought a most interesting era in outboard manufacture to an end. When we started up after the close of the war, we had new and better machines, materials and methods. That is another and different story.

W. J. Webb



### *Waiting By The Gas Pumps*

The Vreelands couldn't resist stopping for a photo while en route to the Carpenters second annual meet on May 20, 1979, but in reality there was no waiting at the gas pumps in Laconia, N.H.



Cartoon submitted by Allen LeSough, 1009 Seventh Ave., Council Bluffs, Iowa.



"HE COULDN'T AFFORD A TRIP TO THE SOUTH SEAS SO HE'S DOING THE NEXT BEST THING"

## The Johnson Bicycle Motor

by John W. Hunt, D.M.D.

Quite a bit has appeared in TAO lately relative to the Johnson bicycle motor. As a boy I was fascinated by outboard motors and bicycle motors. I did get a chance to become involved with outboard motors at a fairly early age. My father made me two good boats of entirely different design to help on this. As to bicycle motors, it was a matter of dreaming until, as an adult, I used a 1 cylinder 1 HP outboard (Sears air-cooled shortened shaft) to propel a bicycle. I would say the design was more or less successful, even if not too successful, from a practical point of view. Incidentally, if anyone has a Smith or Briggs motor wheel for sale please contact me at once, collect.

Realizing the developmental importance of the Johnson bicycle motor and getting into outboard motors quite seriously in the early days of TAOMC, I decided to make a serious effort to find one of these bicycle motors (Johnson). It was even more important because in the fall of 1966 I had made a contract to take my museum display of outboards to the Greater Michigan Boat in Detroit in February of 1967. I felt the Johnson bicycle motor would add considerably and be an important part of my display. (An account of my trip to Detroit appeared in TAO April '67, p. 20.)

Some of you may recall a little publication of years gone by, Midget Motors Directory, I believe it was Athens, Ohio, which listed a small 1-cylinder powered car, plus used components for very small cars, and used small engines, etc. I recall that there had been an ad For Sale: Johnson Bicycle Motor in original crate listed some time earlier. Either I hadn't answered the ad or had answered the ad and never received a reply. In any event, I placed an ad in November of 1966 in Midget Motors Directory for Wanted: Johnson Bicycle Motor. I received only one reply but that was from Lewiston, Maine (believe it or not) only some 60 miles away. After some correspondence and phone conversation, I went to inspect my prize the day before Christmas 1966. I remember this well as it was Christmas Eve. Before I arrived home it was very foggy, a rather unusual situation for this part of the country at Christmas time.

I located the small machine shop where the motor was located. The motor was unmounted but more or less complete with big ring sprocket.

It's possible the motor itself had been used as a stationery engine. Also the flywheel looked like one from about a 4 HP outboard - I'm not sure yet. I realize now that the compensating springs that go on the rear wheel were missing and still are.

My primary concern was to get the engine set up in demonstrating (not running) condition to take to Detroit. This I did without too much trouble--with one rather minor assist from a local machine shop.

The picture may indicate some weird snow machine but it is set up that way for demonstration. There is little temptation for some one to try to push it around and probably rip all the spokes out (especially since compensating springs are missing.)

As noted this is a two cylinder, air cooled, opposed engine mounted over rear wheel. I have to be most humble in giving a description because there are several men still with us who actually were involved in developing and marketing this little machine.

The drive is direct--no clutch. The sprocket on engine has ten teeth--the large ring sprocket has approximately 80 teeth--I got tired counting them. The engine sprocket is located between the flywheel and the crankcase.

There are three controls: a ratio of 1 to 8 throttle, a choke connection, and very important a control to a rod on engine which did two things--it grounded ignition to spark plugs and activated relief valve in each cylinder. To start engine, bicycle was pedalled with lever in pre start position, no ignition and relief valves open (choke closed for cold engine). When engine was turning over, lever was activated. This brought spark to plugs, relief valve closed, and happily the rider was on his way under power. Since traffic lights were few or non existent, it wasn't too much of a problem that engine had to stop every time bicycle came to a stop (direct drive gear to gear by chain). To stop, control lever activated, spark grounded-compression released. To start, procedure as above but choke of course not needed for warm engine. All this above is surmised since I never have actually operated engine and I am certainly willing to be corrected if wrong. I may some day, when more time is available, actually try to see if I can get it running.

As the very excellent article in January '79, TAO states, 17,000 of these bicycle units were sold but with Ford's car selling for \$365.00 it was only natural that the bicycle motor business could not thrive forever.

However, we can be most thankful that this basic little engine could be used to develop that revolutionary, grand little outboard motor which appeared in 1921. I have to admit that, as in the past, even today my pulse quickens just a bit when I see one of those early little 2 HP Johnson outboards. There are still quite a few of them around--many of them in running condition even now.

Is there anything that brings one more quickly to attention than an advertisement that states engine in original crate with instruction book and parts list? Ha!

John W. Hunt, D.M.D.  
239 Main Street  
Sanford, Maine 04073



IN MEMORIAM

Alden C. Merrick  
Albany, N.Y.  
April 5, 1979

Dr. Walter W. Otto  
Savannah, Ga.  
August, 1979

## EDITORS ANNOUNCE 1980 BLACK AND WHITE PHOTO CONTEST

Given three wishes, one would certainly be that the mail would bring in pounds of stories and dozens of pictures from AOMCI members so that issues of The Antique Outboarder would present Show and Tell material most useful and entertaining for its readers.

All material and photos are welcome for the one thing that exemplifies AOMCI membership is sharing and the Outboarder is the perfect vehicle for such sharing.

Lots of you go to meets bringing your Instamatics, 110s or 35mm cameras all cleaned up and loaded with film, ready to shoot. But you get so busy having a great time that you forget to take pictures. Or, simply because it is a great meet with so much happening you feel that any picture you take of the Great Event has to be good. How can you miss? Aha, very easily. The first rule is to take the pictures. Take lots of them. Professionals shoot dozens in order to get one really great shot.

You're not sure about camera settings? Again, do as the pros do. Take several shots of the same thing, but with different shutter speeds and f-stops. You stand an excellent chance that one of the shots will be a truly good one.

Get in close, close enough so your subject completely fills the frame. Close enough to pick up the details of those fine decals. Take your time in focussing. Move around a bit to get the best angle. Remember, every time you move, you need to adjust the focus. Most people move back away from the subject to include more background or foreground or to include a number of people or things. The result is a too-busy photo which loses much of its impact.

Of course, A0 photos are different. Sometimes the thing you want to picture is a sparkling clean and polished restored motor. That's not always as easy as it would seem. Close up shots against an uncluttered background are the answer.

The contest is open to any and all paid-up AOMCI members.

Only black and white 5 x 7 photos will be eligible. Photos may accompany an article or may be separate from other submitted material. Other photos will be printed in the magazine, same as always, but eligible for this contest are black and whites only.

Only photos submitted for publication in the four 1980 issues will be eligible for this contest. A panel of judges will be named.

First prize will be an autographed copy of Jim Webb's "Pictorial History of Outboards" if available. If not, something of comparable interest will be substituted.

Second prize will be an AOMCI t-shirt which will designate you as Official Prizewinning Photographer.

Third through sixth prize will be AOMCI t-shirts.

# *My 1929 Evinrude Fastwin*

By Sam Vance

To start this very unusual story, you must go back to the year 1929, when the Evinrude Motor Company was building and selling a model called the "Fastwin," a 14 HP, 2 cylinder opposed firing, magneto ignition, rope start outboard motor. This one, in particular, is 13H359.

I'm not sure of its life from 1929 to 1952, but it found its way to a small boat shop in Elk Rapids, Michigan. My folks had just bought a summer home on Elk Lake, and my uncle had given us an Elto Ruddertwin #3580050 (which I still have) and an old galvanized tin row boat (which I still have for fishing.) But for a hot rod kid like me, the old Ruddertwin wasn't fast enough. I had heard about the Fastwin and went to look her over. When I arrived at the boat shop, the owner proceeded to tell me about what a good running motor it was. Well, like most old outboards it was covered with dirt and grease from prop nut to flywheel nut and also the entire muffler system was missing. We finally settled on a price of \$15, and I loaded it into the car.

When we got back to the cottage, we cleaned the outside of the motor, and my dad and I fashioned an exhaust system out of 1½ inch copper tubing. I was very anxious to try it out. We borrowed our friend's 14-foot Thompson and mounted the Fastwin on the transom. Then I started a series of rope pulling and cursing like you never heard. (For a similar situation, see Dave Reinhartsen's pictorial description on the inside back page of the October, 1967 issue of AO.)

We finally figured out that the expansion tank and muffler do have a purpose. The Fastwin would run fine on land, but it wouldn't start on the boat. After a little exhaust pipe modification, the Fastwin started and ran great for the rest of the summer.

One afternoon, just before returning to Chicago, one of the fellows had the bright idea that the Fastwin would really "bomb" out on the back of his eight-foot pram. Well, the high RPMs were too much for the ole Fastwin, and the upper rod let go and came right out the crankcase.

Needless to say, I retired the Fastwin to the workshop for repairs. In the meantime, while looking for the muffler system, I found an S-45 in a basket. We took both motors back to Illinois for winter-time repairs. I was able to find a used crankcase, rods and pistons in Peoria, Ill. where I was going to school at the time.

With repairs made on both motors, we were in the water in the early spring of 1952. The S-14 on a little nine-inch racing hydro and the Fastwin on a newly purchased 16-foot alumna craft "k."

The ole Fastwin ran very well for two more seasons, but then my dad wanted more flexibility, so he bought a 1950 25 HP Johnson with a gear-shift and electric start, and the Fastwin was retired to the boat house.

Time marched on and my new bride and I were transferred to Dallas, Texas in 1956. The motorboating bug had followed me to Texas, and that winter I built and assembled a Sears 12-foot kit fishing boat. The ideal motor for this little boat was the ole Fastwin which had been setting idle, gracing the motor boards of the boat house since 1954. Dad put the Fastwin

in a box and shipped it to Dallas. The motor had a small dent in the gas tank from its travels from Elk Lake, Mich. to Dallas, Tex.; otherwise, it turned out to be a great combination and ran very well for one season. We really buzzed up and down the lakes of North Texas; Lake Dallas, Grapevine Lake and Lake Texoma on the Texas-Oklahoma border. But, like my dad, and with my wife carrying our first son, Matt, I wanted a little more flexibility in my outboard, so I traded the ole Fastwin for a 10 HP Mercury with a gearshift to a Johnson dealer on Harry Hines Boulevard in North Dallas. So, I said good-bye to the ole Fastwin.

Now...it is ten years later (1967), and we have moved twice and landed in Unadilla, N.Y. That summer we were visiting my folks on Elk Lake for our two-week vacation. My long-time friend and fellow member of AOMCI, Bob Thurston, and I were talking old motors one day, and he drew my attention to the picture on the back page of the AO's January, 1967 issue. (Thurstons also have a summer home on Elk Lake, and Bob has a great collection of S-P-V type Johnsons.) Bob asked if the motor pictured was my ole Fastwin. He knew the motor because of the homemade exhaust system and the 14-foot Thompson I had borrowed in 1952 belonged to him.

Well, I nearly flipped my lid--here was my ole Fastwin with 1½-inch copper tubing exhaust and all! Dave Reinhartsen had found it in the junk yard in North Dallas and saved it from the scrap heap. The caption under the picture asked "Can anyone help to identify this motor?" I sat down that night and wrote Dave a two-page letter describing the ole Fastwin and its life from Elk Lake to Dallas. Dave is the kindest gentleman I know, and he said, "Anyone with the knowledge and history of a motor like that deserves to have it back." So I sent Dave two checks: one for membership in AOMCI and the other for shipping the ole Fastwin to Unadilla.

When it finally arrived it had the same dirty, greasy appearance it had in the boat shop in Elks Rapids some 17 years earlier. I again cleaned it up and tried to run it. This time there were more problems. The lower unit bearings were shot, as well as the top main bearing, and it had two broken rings. Little by little, I have found enough pieces and parts to begin a full-blown restoration on the ole Fastwin. Thanks to Tom Luce, who had some spare parts. I am striving to get the performance the ole Fastwin gave us in the early 50s. One pull on the choke, and the second pull she starts! A very remarkable engine, and I'm proud to have the ole Fastwin back at Vance Junction.

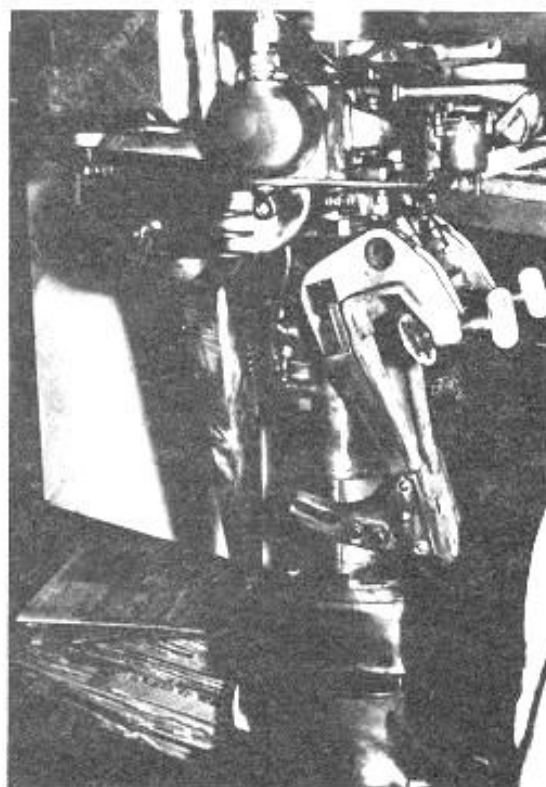
I hope you have enjoyed reading about the history of Ole Fastwin, but really it's not nearly as exciting unless you have lived it. Maybe some of you have a similar motor.

The Ole Fastwin will be part of Vance Junction forever!

Sam Vance  
Box 33 C  
RFD 2  
Unadilla, N.Y. 13849



1929 Fastwin As Received



1929 Fastwin Restored



Sam Vance At Elk Lake, Mich. Aug. 1951

# *But It Was A Bargain*

By Peter Hunn

"O.K. You get on this end, I'll grab onto this, and at the count of three we shall make a valiant attempt to lift. Are you ready? One, two, three! Ugh! Do you have it? I guess I have the heavy end! Watch it, don't scratch the decal on the cover...uh...I mean the paint on the wall. Man! This thing weighs at least a ton! Do you want to put it down?" Crack! "Just think, this Halloween we can be the Hunchback of Notre Dame. See if you are able to stand up straight now."

The above bit of seemingly irrelevant conversation is a direct result of a typical "can't pass this one up" purchase. The curious are invited into the next paragraphs.

It must have been about ten years ago. . . I had recently received my driver's license. The aforementioned document indicated that my parents no longer had to drive me from marina to marina until the car looked like a refugee from an abandoned front end alignment shop.

The middle seat had been unbolted and removed from the family Volkswagen bus in hopes of a record outboard motor find. As I decelerated, downshifted and wound around the exit ramp, my anticipation flashed mental video of an Evinrude M, TR-40s, 3-cylinder Thors, a Clarke twin and dozens of green Mercurys with Wuikies. . . for. . . oh, say \$12 each.

A green, plywood sign that looks as if it was painted by Foster Brooks reads "MARINA, TWO MILES."

I thought: "If I can keep this buggy at an even 30 MPH, I'll be there in four minutes." A sigh of relief was registered along with the realization that no other party could possibly get there before me and empty out all of the old iron. Not in a mere 240 seconds. Nevertheless, I decided to create the first VW bus shaped milkshake machine and watch the speedometer find 55 MPH as the micro-bus jumped from pot hole to crater towards the opposed twin style treasure center.

The VW came to a halt in a spot just a few yards away from the Marina owner. This fellow could have easily made a living winning Buddy-Ebsen-Jed Clampet look-alike contests. He swung open the outside door to the old shed and with all the good intent of a Henry Fonda Life Saver's commercial, said that we just might find an old-time engine or two, "doncha know."

That old door hinge started pleading for a drop of oil and let out a squeak that signaled a broad smile, intense mental notes and a series of "Oh, Wows."

Inside the shed was a load of semi-valuable equipment ranging from outboards to plumbing supplies. However, the light was so bad that one could easily mistake a toilet for a cross radial gas tank. Suddenly, my eyes spotted what looked to be the world's biggest and ugliest Mercury. There, near the door, on a broken down stand (that seemed to be begging for a wheel chair and a foot bath) was a giant????? with half of a cover. I ran around to the front of the engine and in search of the tell-tale name plate, read the word "FAGEOL" for the first time.

Meanwhile, the marina owner appeared in the shed to "quote a price or two."



I was standing there by the FAGEOL, wondering if my parents would ground me for a week if I bought a heavier than thou motor and flexed my muscles in anticipation of the proposed purchase.

The marina owner said "A guy brought in that engine for repair because the lower unit gears gave out." "There were no parts available and somehow the #@&% thing, that is to say, rare example of marine machinery, ended up here."

Within a few minutes, Mr. Marina said "Goodbye" to the FAGEOL, said "No, it ain't" to a passerby asking if that hunk of junk was part of a riding lawnmower, said "Good luck in the future," to a new FAGEOL owner and the latter said "Goodbye" to \$10.

\*\*\*\*Potential Fageol owners, please take note! You may find that come the second that you need to lift and move an engine of such size, all nearby people suddenly vanish in much the same fashion as may be seen in a transporter sequence on the TV show STAR TREK.

I've never run my 1957 Fageol 44 (mainly because the lower unit gear housing is missing--a lower unit from a 40 HP Flying Scott almost fit...but) and over the years it has rested in the basement serving as the northern wall of my kid sister's playhouse. A few years ago, my Mom and Dad moved into a new house and the new occupants of the house in which the Fageol sat agreed to store the "darn thing" until I had time to move it.

Well, recently, my wife Carolyn and I went to rescue the old Fageol, only to find that these new occupants wanted to tell me something "regrettable." I imagined the worst but was semi-relieved to find that the aforementioned residents had only let their kids "learn about engines by taking the motor apart just a little." I grabbed the cam shaft, valve cover and a few nuts and bolts along with the main Fageol component and moved the whole thing to a more secure locale.

A midget auto racing enthusiast offered to purchase the Fageol 44 for its Crosley car engine. However, I'd hate to see it get out of Antique Outboard Motordom. Maybe someday when I have more time...? Meanwhile, there she sits, pointing towards the more optimistic 1950s and serving as a perfect definition to the phrase, "OH, MY ACHING BACK."

P.S. There is a good Fageol article in the October 1973 edition of THE ANTIQUE OUTBOARDER.

Peter Hunn  
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West Simsbury, Ct. 06092

# *Browsing Through The Old Books*

By Larry Carpenter

While in Boston one day in February, my wife went into several old book stores and managed to find and purchase half a dozen books on boats and outboards published in the early days of the sport.

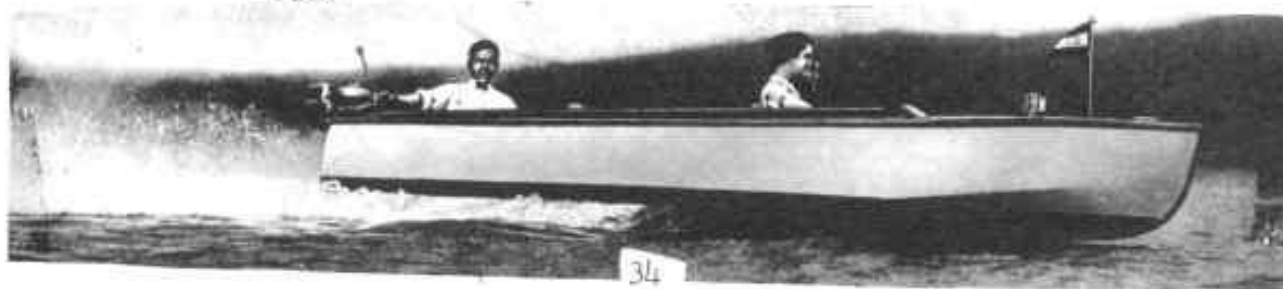
One such book is entitled "Practical Outboard Motorboat Building And Operation" by E.C. (Doc) Schnurmacher. Copyright 1930.

In the back of the book is a glossary of outboarding terms that I am sure club members will enjoy.

- BARNSTORM - To take part in a series of regattas.
- BUNNY - A fast outboard that doesn't handle smoothly when under speed.
- CIRCUIT RIDER - A member of the R. C.<sup>3</sup> or Regatta Circuits Rider's Club.
- CLOUDBUSTER - A racing boat that sticks her nose up in the air, refusing to plane.
- COFFEE GRINDER - A motor of ancient vintage.
- COFFIN - Outboard racing hull.
- CONK - When the motor quits.
- COWBOY - A pilot who grandstands.
- DROOPYPANTS - An adjective descriptive of a pilot who has emerged from the water after joining the Hell Divers.
- DONKEY FUZZ - Dirt in the carburetor from impure gasoline. Any small substance preventing the motor from functioning properly.
- DUNKER - From the German to dunk. Denotes a type of outboard that sticks her nose under in a following sea.
- ELEPHANT BREATH - Any special high test or doped fuel used in the motor when racing.
- FREE-FOR-ALL - Generally the last race on the program in which everything that can turn a propeller will take part.
- HELL DIVER - One of the oldest words in outboarding. Pertains to a pilot who has taken a tumble into the water. There are three degrees of hell diving. Ask any hell diver how to qualify.
- HOT MOTOR - A motor that has been well broken in. A sweet motor for racing.
- M.P.H. - Miles per hour, the greatest topic of conversation in the racing game.
- MYSTERY BOAT - Any home made outboard racing hull of antecedents so doubtful that its parentage and probable performance is enshrouded with secrecy.
- PLANING - The art of getting the nose of your boat out of the oblique into the horizontal and into swift action forward.
- PIDDLING - Just ambling along. Cruising at low speed.
- PILEDRIVER - An outboard that pancakes heavily on slightly rough water.

- PULL A MALCOLM POPE - To do something spectacular in outboarding.
- RACE - Any two or more outboards seen together.
- REVVING - The number of revolutions that a motor is turning up per minute.
- ROOSTERFEATHER - The wake thrown high by a racing outboard. It is the ambition of every great pilot to be able to travel fast enough and turn sharp enough to be hit in the eye by his own roosterfeather.
- SHEAR PIN - A little nuisance that breaks when your propeller hits an obstruction. "As useful as a broken shear pin" - Old Latin proverb.
- SHEAR PIN DERBY - A race in water that contains a lot of driftwood such as the Albany to New York or 'round Manhattan race.
- SCOW - Any outboard that makes less than twenty miles per hour.
- STEWS - A term employed by racing pilots to denote the crowd or bunch on the judge's stand. The probable origination of the term goes back to the time when judge's stands were uncovered and they "stewed in the sun".
- SURVEYED COURSE - A body of water over which a hot cross bun designer has squinted an eye and proclaimed it to be a certain distance without allowing for rocks, hairpin turns, driftwood or floating delicatessens.
- TACK - Tachometer: the little instrument that shows the number of revolutions of the motor and the state of nervousness of the pilot.
- TIMER - A chap who carries two watches with him.
- TRIPE - A sponge used to bail out an outboard.
- TYPECRASHER - A woman race driver. Originated from amount of publicity women drivers have always procured when racing.
- VETERAN PILOT - A newspaper term denoting any chap that has an outboard boat and motor.
- WASHOUT - A busted outboard hull.
- WEEWEE - A driver in Class A.
- WEAKNESS - A peculiarity or oddity such as the red beret always worn by Kirk Ames.
- WHEEL - A propeller - also a screw or prop.
- WING DING - To make a sharp turn at speed - to drive fast.

Editors Note: A similar glossary was sent in by Paul Strot, Portland, Ore.



# Johnson Parts

BY BOB ZIPPS

If you ever took a look at early Johnson parts books, you would see that the part numbers have a prefix. That is a letter or number followed by a dash and then the part number. What does the letter or number prefix mean???

Well after a little bit of digging, it seems that the prefix indicates where the part is used. In the early days of the company, only letter prefixes were used. Some time between 1928 and 1929, I haven't been able to nail down exactly when, a new system was adopted where numbers were used as prefixes instead of letters.

A conversion system for the prefixes is as follows:

Changes by Number				Changes by Letter			
B	91	UB	92	1	C	19	T
C	1	UC	2	2	UC	20	UT
F	71	UF	72	3	G	21	S
G	3	UG	4	4	UG	22	US
H	17	UH	18	5	M	23	V
J	11	UJ	12	6	UM	24	UV
K	15	UK	16	7	P	71	F
LC	89	ULC	90	8	UP	72	UF
M	5	UM	6	11	J	85	Z
O	13	UO	14	12	UJ	86	UZ
P	7	UP	8	13	O	87	WD
S	21	US	22	14	UO	88	UWD
T	19	UT	20	15	K	89	LC
V	23	UV	24	16	UK	90	ULC
WD	87	UWD	88	17	H	91	B
Z	85	UZ	86	18	UH	92	UB

Let's take an example of the prefix change from letters to numbers. 0-40 Shear Pin is now 13-40; the number "13" having been substituted for the letter "O" that formerly prefixed this number.

OK, now you know the secret of converting the letters to numbers. The next step is to find out where the part is used. This can be easily done by using the following table:

Prefix Number		Model Motor Used Upon
1 & 2	Carburetor Parts	Older Models
3 & 4		
5,6,11 & 12	Single	J-25, 65, 70, 75, 80, 100, and 110
5,6,13 & 14	Light Twin	A, A-25, 35, and 45
7 & 8	Big Twin	P-30
15 & 16	Standard Twin	K-35, 40, and 45
17 & 18	Big Twin	P-35, 40, and 45
19 & 20	Giant Twin	TR-40
21 & 22	Sea Horse	S-45, SE-50, S-65 & 70, SR-45,50,55,60,65, 70, and 80
23 & 24	Sea Horse	V-45, VE- & VA-50, V-65, 70, VR-45, 50, 55
25 & 26	Sea Horse	A-50, 65, 70, 75, 80 and AA-37
27 & 28	Sea Horse	K-50, 65, 70, 75, 80 & KA-37, 38, 39

Prefix Number		Model Motor Used Upon
29 & 30	Sea Horse	P,PE,PA-50,P-65,70,75,80 & PO-37,PR-50,55,60,65 & PO-38,39,10,15
31 & 32	Light Twin	OA-55,60 & 65
33 & 34	Standard Twin	OK-55,60 & 75
35 & 36		XR-55
37 & 38	Light Twin	F-70,75, Model 200 and 210
39 & 40	Light Twin	Model 300
41 & 42	Light Twin	LS,DS,LT & DT-37, LS,DS,LT & DT-38, LT, DT & AT-39 & 10, and TS,TD-15,20
43 & 44		MS,MD-38,HS,HA, & HD-39,MS,MD-39 MS-15,MD-15,MS,MD-20,HS,HA,HD-15,HS, HD-20,HS,HD-25
45 & 46		SD-10,-15
75 & 76	Accessories	(Not Motor Parts)
85 & 86	Drainage Pump	
201 & 202	Stern Drive	
71 & 72	Ignition Parts	

Odd prefix numbers indicate detail parts. Even prefix numbers indicate assemblies.

Now let's take another example. How about part number 13-124. It is a screw for Gas Tank to Cylinder and it is used on Models A, A-25, 35, & 45.

Do you have the system down pat??? Try this one on for size??? Part Number 19-63?????? It is a handle for a bypass valve for the model TR-40 Giant Twin.

Also note that some parts are interchangeable and are used on several different models. However, the prefix numbers are for the basic models.



## MAKING, REPAIRING, AND FINDING PARTS

Marcus S. Wright III

\*\*\*RESTORER'S TIPS Reprint, January 1970\*\*\*

As you build your collection from time to time you will have an opportunity to acquire an engine that is so rare you might never find another copy to use for a parts motor. One or two minor parts may be missing or very badly worn and yet you would like to make a patient long-range project of getting your prize running again.

Gears, shafts and bushings may be beyond use. A good machinist can make shafts and bushings with ease. Should the gears be beyond recall, try Boston Gear Works in Quincy, Mass. The old samples could be sent them for matching or substitution. Many very early engines have standard gears available right out of a modern gear catalogue.

A good machinist can nicely fix a crankshaft or flywheel with a bad taper. In extreme cases, new flywheel hubs can be made to be shrunk and pinned to the old flywheel. Be sure to keep the keyway exactly where it was originally. Crankshafts with rusty throws can sometimes be sufficiently polished to run again. A good plater can restore these too, but have him approved by a crankshaft rebuilder first.

Bronze bushed bearings were usually made from standard I.D. and O.D. bushing stock still available today from industrial hardware supply stores. More often than not new bushings will restore bearings clearance properly, as the crankshafts are usually O.K. if not deeply rusted or scored. Don't forget to put oil grooves into these new bearings.

Piston rings are standard. Ask your local auto wholesale parts store to order plain cast iron compression rings for you. Give him the bore diameter and the ring width. Rarely, very old engines will be found with exceptionally wide rings. The writer's 1913 Evinrude 1/2 inch wide rings were replaced with 1/4 inch wide rings in each groove. Sealing is actually better. Be sure to lightly hone the cylinder, otherwise the new rings will never seat properly. Help yourself on initial starting by running the well-oiled engine in a lathe or drill press for a while. This improves compression for initial starting. It is usually best to start the engine out of the water for 30 seconds before using it on a boat. Starts much easier as a result.

Should new piston rings with step cut ends be unavailable use straight cut rings. Line up the ring ends so the ends won't hang up in the ports as they pass else you could damage the rings and cylinder. For insurance pin the ring so they cannot rotate. Drill the hole in each piston land about .005 inches smaller than brass welding rod you press into piston ring lands for pinning. A small round file will notch the rings for pinning. It is usually best to do the pinning at the ring end.

Make gaskets yourself using a small ball pein hammer and good gasket paper. Use the part itself for a die.

Borrowing parts for copying is another way out of some situations. Three 1915 Ferros are speaking again as a result. A Washington member loaned me his muffler. Two copies were made, one for a New Hampshire member and another for my engine. My Ferro's pump was copied and set to the Washington member who had the original muffler.

New muffler cans can be fabricated of brass or stainless steel by sheet metal fabricators. Most cracked or broken aluminum castings can be repaired by professional welders with Heli-Arc equipment. Remember aluminum warps somewhat due to the intense welding heat. The welder can tell you what to expect. Depending upon the use of the part, have a good machinist true-up the casting bores and faces where rotating or reciprocating action is involved.

Cultivate the acquaintance of a competent machinist. He can advise you as to the repair or fabrication of otherwise unobtainable parts. Get to know racing engine mechanics and owners of antique autos as they often know individuals with specialized talent who will take interest in your problem and be of assistance to you.

The rarer an engine is the more it deserves to be operational. The personal satisfaction of restoring and running rare engines is unique. We trust these suggestions will be helpful to you. The AOMCI Parts Sources Manual is the best reference available for sources of parts.



WELCOME TO NEW MEMBERS

Laurel Carter  
202 Stanford Drive  
Berea, Ohio 44017

John Laskey  
West Poland  
Maine 04291

Walter O. Johnson  
6219 43rd St.  
Tampa, Fla. 33610

Sam Cronk, Jr.  
Pollikoff Road  
Ashley Falls, Mass. 01222

John Pope  
Cleveland St.  
Harpers Ferry  
Bolivar, W. Va.


Howard P. Goodwin  
46 Helmsman Court  
Marine Oaks  
Baltimore, Md. 21222

Richard A. Gaiser  
4804 Oak Lane  
Zion, Ill. 60099

Roger C. Schellin  
4105 N. 94th St.  
Wauwatosa, Wis.

Kenneth J. Wahl  
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## THE EVINRUDE TWIN CYLINDER INBOARD MODEL DDR

By J. L. Smith

The Evinrude inboard motors were first produced in 1916 and their manufacture was continued until 1927. The single cylinder Model CC was simply an adaptation of the powerhead of the familiar cast iron Detachable Row Boat Motor. As the Model CCV, it had a water pump attached to act as a pressure pumper. The Model DD used a cast integral cylinder block to house two pistons, in line and firing alternately. Bore and stroke remained the same, that is 2-5/8"x2-1/2". Connecting rods were of bronze, pistons cast iron, and each carried three pretty hefty rings 3/16" wide and 3/32" thick.

The idea of adapting outboard powerheads for inboard use was not uncommon. In the single cylinder configuration, Waterman, Lockwood Ash and Caille Perfection Motor Company did the same during this period. The latter also made a few for Sears of Chicago under the brand name Motorgo. The motors were recommended for small craft, and the instruction and parts book for the Evinrude shows a 104 pound twin installed in a canoe!

The Model DD (thought to mean direct drive) drove the propeller shaft through a universal joint directly from the crankshaft while the Model DDR (direct drive reverse) had a gear box bolted between the crankshaft and propeller shaft. The three position control handle featured neutral at centre plus a forward and reverse position. The reverse gear for the sample motor shown was made by the Carlyle Johnson Machine Company, Manchester, Connecticut and bears a patent number for the year 1911. The input and output shaft each have a gear with a total of six other gears acting in planetary style. This adds an additional 21 pounds to the regular model.

During an inspection of the motor, we note that lubrication of the main bearings is assisted by grease cups, pressure of grease being kept up by turning down grease cup covers. Since operation is two cycle, general lubrication is achieved by mixing oil with gasoline. At the rear of the block can be seen the water pump for cooling purposes. It runs from an eccentric on the crankshaft and features a plunger pump with ball check valves.

The spark plugs are an early design with 7/8" base. Ignition is by a self-contained magneto although the sample motor has been altered for battery ignition. A starter drum bolted to the flywheel accommodates a rope, although one would have to pull upwards rather than forward. Original installation carburetor was apparently a four ball Kingston, although the sample motor has a bronze Jones Compact made by the Gen V Company of Brooklyn, N.Y. The parts book lists a Zenith carburetor as used on the 1925 model, but a different one again for 1926 and 1927. In regard to this parts book it is interesting to note some of the prices: \$35.00 for cylinder and crankcase assembly, a carburetor complete \$12.00, and a gas tank with all necessary fittings for \$7.25. Each page has the notation "A minimum charge of 15¢ will be made on all orders amounting to less than that amount."

Gas tanks, of course, were separate from the engine and were mounted to the boat with brackets or straps. To assist in the starting, each cylinder has a brass priming cup. Induction of fuel is by a three port system with cylinder intake passage and ports cast into the port wall. The carburetor is also mounted on the port side and fuel from it is conveyed



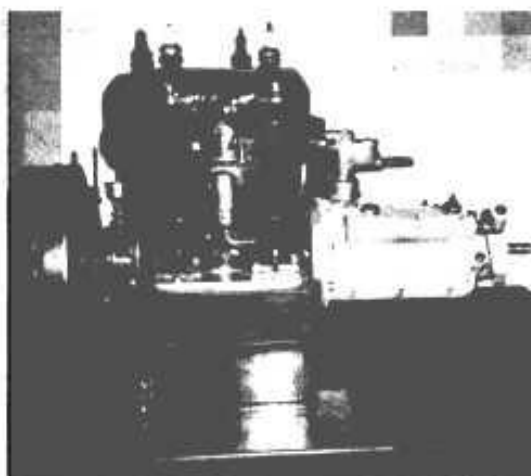
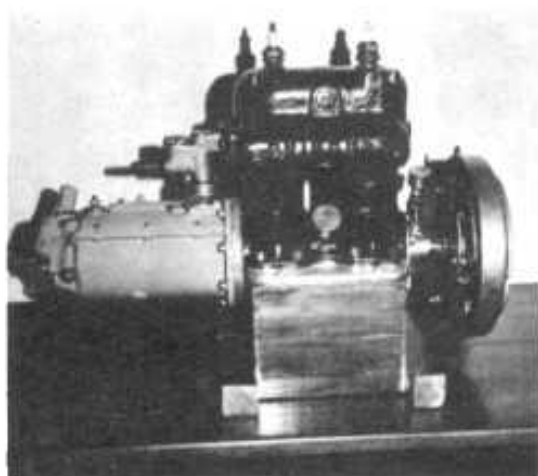
through a circular passage between the two cylinders to a housing cast integral on the starboard side. This housing is cleverly designed to act both as an exhaust and intake manifold and has a partition cast internally to divide the two. It projects a circular hump running the length of the block and has letters forming the word 'EVINRUDE' cast onto it. The upper portion approximates the exhaust ports and connects with discharge exhaust tubing and muffler to the rear. Since only the cylinder block is water-cooled, there were probably many painful burns experienced by accidental contact with the exhaust system.

Several pages at the end of the parts book are devoted to accessories required for operation of the engine... gas tanks and tubing, rudder, mufflers and tubing, steering wheel, propeller, shafts, logs, etc. By viewing this complicated paraphernalia, it is readily understood why the simplicity of the outboard motor quickly attained favor. Following the last models in 1927, the company devoted its attention strictly to the outboards - returning only in recent years to the stern drive units.

The sample motor located in Niagara Falls, Ontario, had been stored in the basement of the owner's home for 30 years. Following his decease, his widow prepared to sell her home and move to an apartment in a different town. She was desirous of disposing of this machine, and when I offered \$75.00 it was readily accepted. It has serial number DDR 66722. An inquiry for its exact year of manufacture was directed recently to the Evinrude Company of Milwaukee. Mr. John Pfeil, product service supervisor, reported that many of their records were destroyed through an unfortunate incident several years ago, and he regretted being unable to supply this information. However, it's probable that the engine remained basically unchanged during its years of manufacture with possibly only peripheral changes in regard to magneto and carburetor.

Discontinuation of motors in the inboard field was probably a wise decision on the part of the management in view of the increasing success of their outboard models and the existing competitive situation for marine inboard engines.

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330 O'Connor  
Toronto, Ontario  
Canada M4J 2V3



## THE KINGFISHER

By Wayne Schoepke

While talking with friends one day about one of my favorite topics, I learned that a company by the name of Loos Machine Shop in Colby, Wisconsin (about forty-five miles from where I live) had made an outboard motor. Looking through my sizable collection of information I have gathered over the past five years, I found not even a mention of such a motor.

As the Company still exists, I decided to take a ride and see what I could find out. Talking with one of the Loos brothers, I was informed that they had indeed manufactured approximately five hundred air-cooled outboard motors for someone in Minneapolis in the early 1930's. He could not remember much about them except that they were about five-eighths horsepower. The Company had a fire some time between then and now and all their records were destroyed. He stated that he hadn't heard of, or seen, any of them in many, many years.

My next step was to place an ad in the local paper to see if I might come up with one of the motors, or at least some information. I was in luck. I found an engine and with it a gentleman who worked for Loos Machine Shop and had had the engine since it was made. He couldn't give me much additional information except that the biggest problem was the lower unit which was replaced by a handmade one. It seems that the original lower unit was made of cast aluminum and had neither a provision to add grease or to drain off water for winter storage.

Another slight problem was that the spark advance lever had to move over the gas filler cap. It worked fine as long as the air relief screw was down tight, but wouldn't pass it when it was open to run. On the engine I have, the lever was modified with the end of the lever bent 90° up.

Since finding this engine, I have talked with many people looking for additional information; but the only thing I have found is a few parts at Jim Cason's at Silver Lake, Wisconsin. Anyone know anything more about these engines?



Wayne Schoepke  
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Wausau, Wisconsin 54401

NOTES FROM THE CURATOR .....

By. Richard A. Hawie



In the early days of midget autoracing outboard powerheads were used as powerplants. I did a little research and have found a few pictures of some of the midget powerplants.

My personal knowledge of outboard-powered midgets is slim. I can remember seeing one midget auto race as a child. My father was not an auto racing fan. My recollection is that the race was run as a money-raising event by the local Shriners' Temple and he was an active Shriner. My only memories of that night are of the pungent smell of castor oil and the ungodly noise of the motors; there had to be some 4-60's in the field. It is strange how things work out, for given my first exposure to the noise of racing I should be the last one to have spent 15 years in the pits at boat races surrounded by noise. It is strange, too, that the only auto race I saw as a child was a midget race, because my mother's brother George Howie was an Indianapolis race driver. He placed 11th in 1931 and was first alternate in 1932, and raced throughout the East and as close to Bridgeport as Danbury, Conn.

The history of midget auto racing is very well covered and pictured in the book, "The Mighty Midgets" by Jack C. Fox, published by Carl Hungness, Box 24308 Z, Speedway, Indiana, 46224. It is an expensive book, about \$21.00, so purchasing it would depend on your interest in midget auto racing; but I assume that public libraries might also have it especially big city ones.

Unfortunately there do not appear to be too many good clear pictures of the outboard powerhead mounted in a midget car available. Bruce Craig has over 15,000 racing photos and has been very cooperative checking negatives which I thought might be outboard-powered.

There are many pictures of the outboard-powered midgets with the hoods on. One feature of the outboards that seems to be universal is the huge exhaust manifolds leading to a sewer pipe-sized exhaust pipe. No wonder my ears were bothered by the noise.

Jack Fox does not go into much technical detail in his book; it is mostly a history of the drivers and various racing associations which were formed through the years. He does make the mistake of identifying Bill Betteridge's engine as a "Kaley" (p. 27). Quite obviously Mr. Fox never saw the name Caille spelled out and spelled it from the erroneous pronunciation which is commonly heard. This must have been a source of irritation to the Caille people because their ad on p 119 of the May, 1923 issue of Motor Boating magazine right under the name Caille has the explanation (pronounced Cail).

I haven't copied any of the photos from Mr. Fox's book because it is copyrighted. It's one thing to copy a photo from a 1932 out-of-print boating magazine, another to copy from a book which the people are trying to sell. If you have the book or can borrow one, several of the pictures are of interest. The picture of Carl Rosenthal on p 27 has two outboard engines in the background plus an outboard carton with the Johnson name on it. I'm enough of an expert not to try to identify the make or models from what little I can see of them. The picture of Leo Faulkner on p 29 appears to be in front of the same place - whether it is an outboard dealership or a gas station which sold outboards I can't tell. There are three outboards in this picture; the middle one appears to be a Johnson "A" or "K" model. The blue eagle N. R. A. sign is on the wall just above Leo's head which dates this photo in the early thirties. Ray Richards in the Furnell and Wilson car on p 57 has a powerhead with a Vacturi carburetor and a half speed external rotary valve. It appears to be a Johnson powerhead which would make it unusual, for the usual engine used was the Elto 4-60 or the Elto Class X 61 cubic inch powerhead. The largest Johnson was the XR-55 50 cubic inch engine, and while it might be competitive in a good handling chassis, the extra 10 cubic inches in the Elto made it more popular. I can't see the cylinders on this engine but I wonder if this might be a Draper X powerhead, a fascinating thought.

The photos in this article are available from Bruce Craig, 401 New Jersey Ave., Phillipsburg, N. J. 08865.

Photo (1) is the best one I've found which shows the engine. It is a 4-60 with some interesting modifications. The marine coils have been replaced with four short round coils, one for each spark-plug. There is a trademark cast on one of them, and it's some sort of an animal but so far I have not been able to match it with any ignition coil company's trademark. They must have had some electrical problems with the ignition for there are five condensers showing, and assuming there is one on the coil behind the driver's hand there are six condensers when four would seem more than enough. The carburetor is a "Vacturi." The handsome young fellow on the left pointing to the carburetor is Bill Betteridge, one of the early stars of the West Coast midget circuit. Bill was tragically killed in a midget accident on June 10, 1937. Bill Cummings who is standing by the front of the car won Indianapolis in 1934 driving No. 7 The Boyle Products Special. Betteridge only drove midgets and was a Southern California boy. The picture is one of several publicity shots taken in 1934 while Cummings was on the West Coast having his car worked on at Harry Miller's shop in Los Angeles. Betteridge's engine has no starter rope sheave or starter motor visible so I assume it was push started.

(2) This is Cletus "Cowboy" O'Rourke in Red Collin's Elto at Gilmore Stadium. This photo is on page 52 of Jack Fox's book. I can't date this one, but the carburetor is a Schebler which was used on the late 1930 and 1931 4-60s. I don't think the picture is that old, just the powerhead. The box with the inverted fuel bowl is an Autopulse fuel pump. The 4-60 outboard had gravity feed; when mounted in a car without the tank above it a fuel pump was needed.

(3) This is Duane Carter and the engine in #15 is an Elto 4-60. The engine looks a little more stock than Bill Betteridge's. The cylinders are detachable and the carb looks like a Vacturi. It is well hidden by the large air cleaner. Large air cleaners seemed to be the rule on the two cycle powered midgets, especially since most of the races were on dirt. The ignition on this engine is the stock 4-60 coil.

The background in some of these pictures is quite interesting. This one appears to be a beach area that has seen better days; the two cottages on the left certainly look seedy. The water tank behind Duane's head has a hole in the roof! The building with the flag pole looks like Spanish architecture. The fenderless convertible behind the midget looks like it's had some hard miles in its short life. I don't know the year or location - somewhere on the West Coast I would think, sure isn't Milwaukee!

(4) This is Duane Carter and two more team cars all Elto-powered. You can see the large exhaust systems used. This picture has essentially the same background. The last car in line with the odd looking Woodlite headlight appears to be an Auburn convertible! I wonder if an old car buff saved this one.

(5) This is Curly Mills in the Tupman Elto. Don't let the V-8 on the hood fool you; Tupman was a Ford dealer. V-8 in the thirties was a Ford "ad mark" if not a trademark. This 4-60 has a big air cleaner, too. The Vacturi carb can just be seen. The cable which loops up alongside the hood goes to the high speed needle. Curly could adjust the high speed needle from the cockpit. The crowd in the stands is nattily dressed, the men in business suits, the women wearing hats and white shoes. The trophy girl is not identified, but she surely is very pretty and well dressed. If you compare her to the under-dressed, over-stuffed trophy girls at race tracks today, I am not sure we have progressed in 35 years.

(6) Though you can't see the engine in this shot, I included it to give some idea of the size of the midget race cars. That's Bill Betteridge with a 30's afro haircut leaning against that beautiful convertible.

(7) Bill Betteridge in his car wearing an early crash helmet. The exhaust system is different than those on Duane Carter's cars. Apparently they were individually built. Betteridge's powerhead is set 180 degrees from Carter's car. Bill's exhaust is out the port side; Duane's exhaust out the starboard side. More of the photos I have seen have the exhaust on the starboard side. I can't think of a technical reason why one way would be preferred over the other. In fact, I don't know why mounting the powerhead with the carb forward as it would be in a boat would not work, though I've never seen one built that way.

You don't see rumble seat convertibles like the one in the background any more. It has a trailer hitched to the bumper, though you can't tell if it is a boat trailer or car trailer.

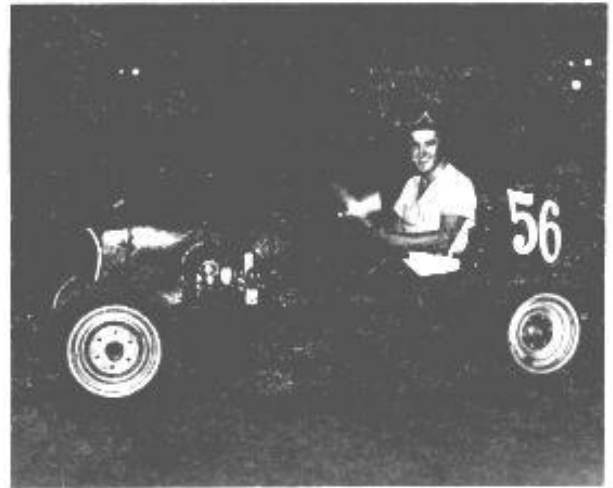
(8) We are an outboard club so we should have at least one real outboard. This is Bill Betteridge in a racing runabout at Long Beach Marine Stadium. I don't have West Coast race results to check whether C-102 was Bill's boat. The engine is a Johnson though I can't tell an "S" from a "P" model with that unclear a photo. On that big a boat it is more likely a P model, but I can't be sure. The spray from the boat obscures most of the identifying detail of the motor.

(9) The hood is buttoned down on this one, but the familiar script lets us know what is under the hood. This is Chet Mortemore in R. V. Collin's car, and the year is 1934 for Mortemore was killed racing a midget in October of 1934. Auto racing is a great but cruel sport; Betteridge, Mills and Mortemore all were killed while racing midgets. It wouldn't seem that a car powered by our beloved 4-60 could be that dangerous. Fortunately boat racing has had few fatalities, not that any fatalities are good; but relative to many other sports, boat racing is a safe sport.

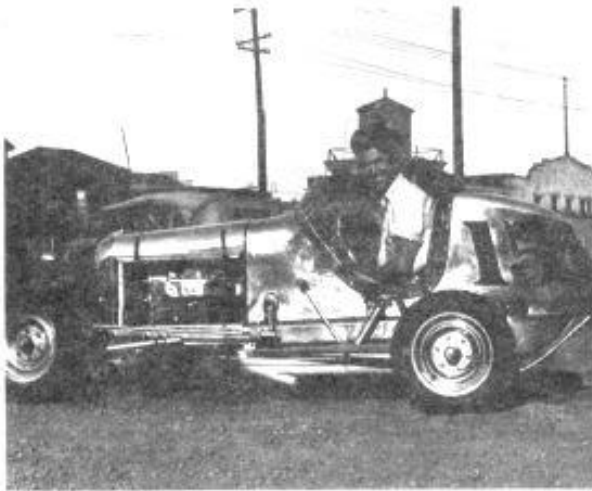
Midget auto racing was organized as a low budget class of racing and there were many small local racing clubs which operated in the thirties and forties. A lot of backyard mechanics and local gas station operators got into midget racing, many with outboard powered midgets, so that there still may be some around in the back of a garage or barn. It takes some digging but this may be another source of some of the old iron.



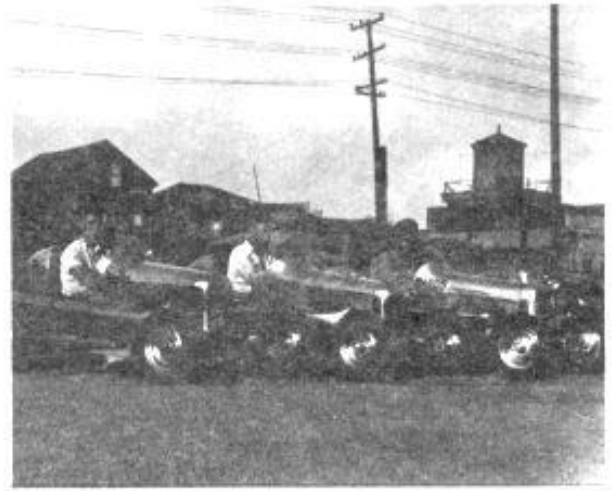
(1) 304 Betteridge, Cummings look at midget motor.



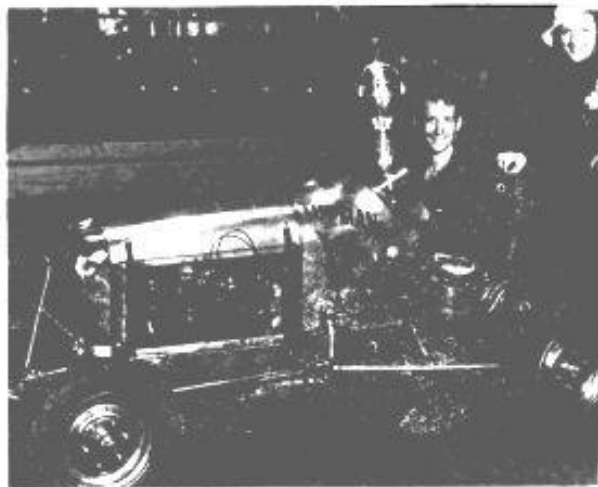
(2) 147 Cowboy O'Rourke side view.



(3) 53-4A Duane Carter Elto #15.



(4) 53-37 Elto team cars.



(5) 50 MCT 44 Curly Mills Tupman Elto



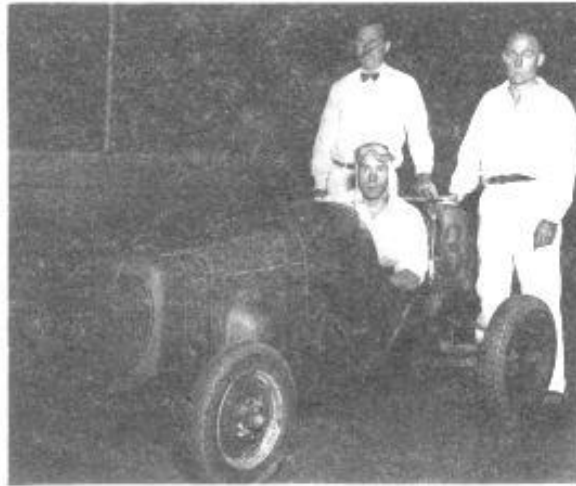
(6) 53-155 Betteridge Elto and his car



(7) 105 Bill Betteridge side view.

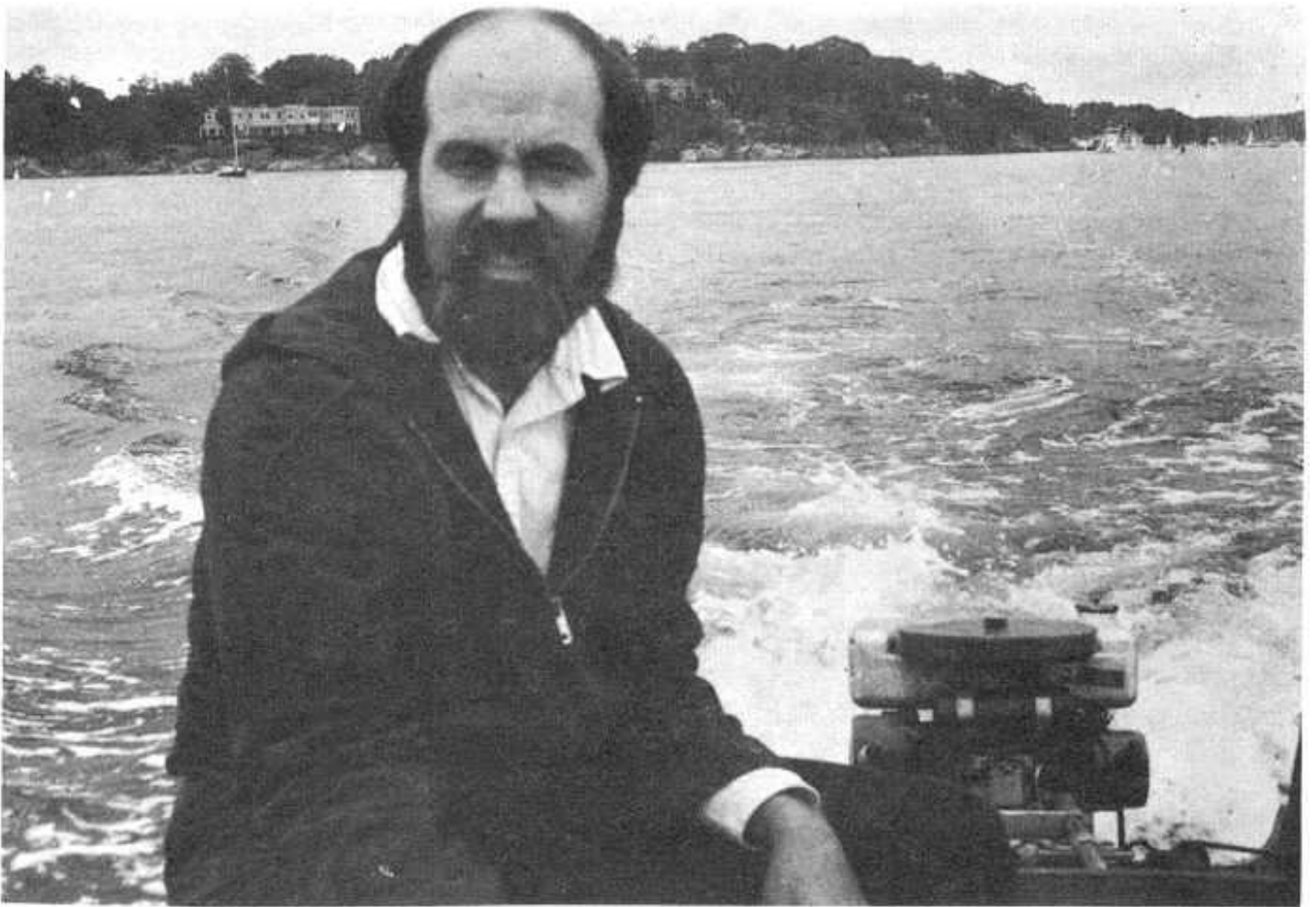


(8) 27 Bill Betteridge in boat.

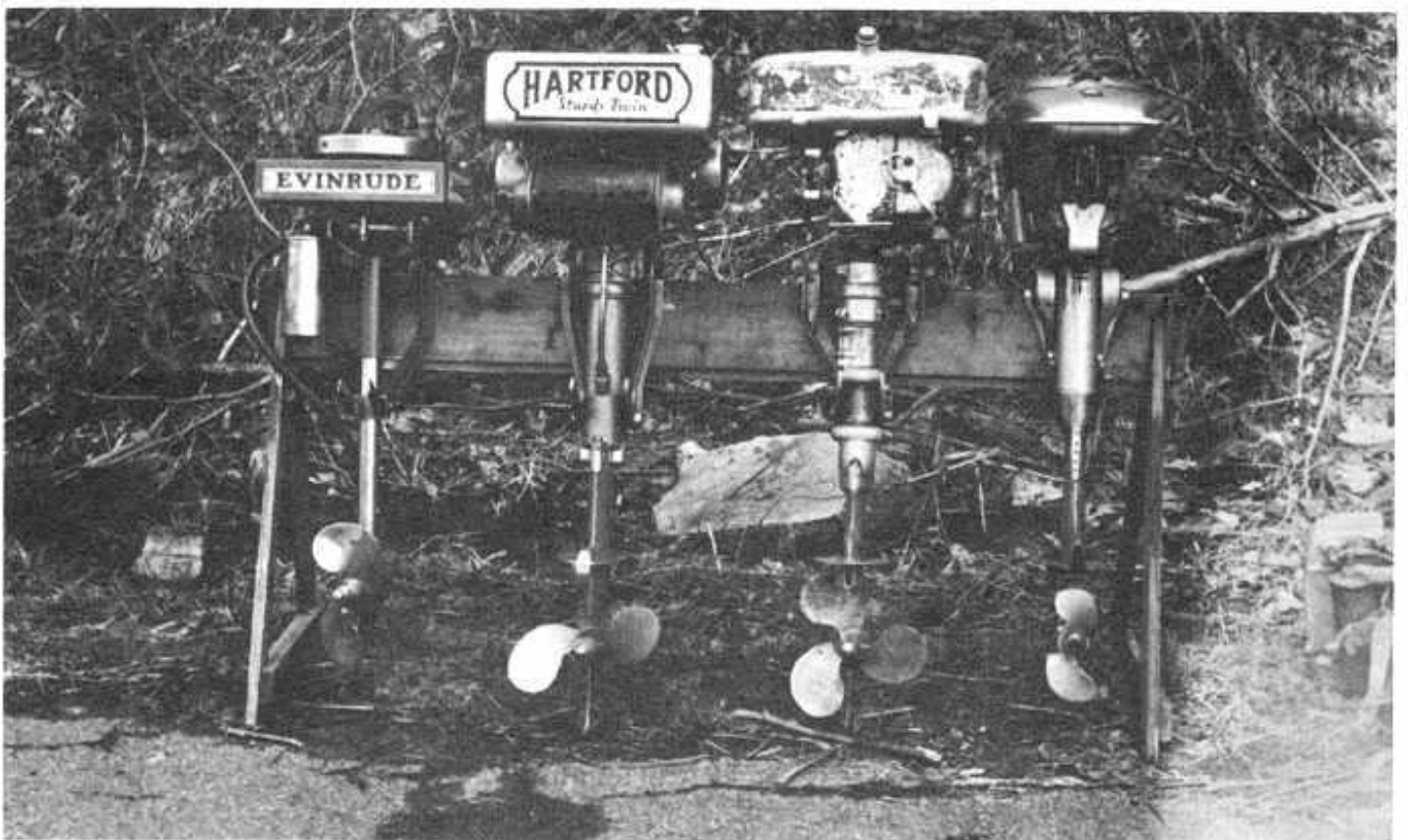


(9) 145 Chet Mortemore





Bill Andrulitis runs 1929 Elto Speedster in Manchester bay.



Dick Schaber's collection of old Iron, shown at Colebrook River meet in 1978. (Vreeland Photos)



# Discontinued Spark Plug List

Discont'd Plug Type	Replaced Plug Type	Discont'd Plug Type	Replaced Plug Type	Discont'd Plug Type	Replaced Plug Type	Discont'd Plug Type	Replaced Plug Type	Discont'd Plug Type	Replaced Plug Type	Discont'd Plug Type	Replaced Plug Type
0-COM	W10	X5-COM	RD9	RP7	P7	L9J	L90C	XEH11	XEH8	UEJ14	XEJ12
C0	W14	XE5-COM	ED9	UK7	K7	N9Y	N9YC	XEJ11	XEJ12	UF14Y	RF14YC
E0-COM	EW90	XEJ5	RJ8C	XE7	XED16	OBL9Y	RV9YC	XF11Y	RF11YC	XD14	RD14
1	W14	XJ5	RJ8C	XEJ7	XEJ8	RBL9Y	RV9YC	XH11	RH10	XEJ14	XEJ12
C1	W18	XN5	RN5C	XEL7A	REL888	RB9Y	RS9YC	XJ11	RJ11	XF14Y	RF14YC
1-COM	W14	Y5	UY8	XJ7	RJ8C	RF9Y	RF9YC	XJ11Y	RJ12YC	XH14Y	H14Y
ORD-1	XMJ14	6	W18	XL7	RL82C	RF9Y5	RF9YC	12	D16	XJ14Y	RJ14YC
ON1	N1	6-COM	D14	Z7G	Z8	RN9GY	RN9YC	BN12Y	RS12YC	XN14Y	RN14YC
TAC-1	REL888	6-COM-D	D14	8	D16	RN9Y	RN9YC	EJ12	XEJ12	15	D16
2	W18	6-COM-62	D14	8-COM	D16	UF9Y	F9YC	H12J	H12	15A	D16
2-COM	W18	6M	K15J	8-COM-C	D23	UN9Y	N9YC	J12	UJ12	15-SPEC	D16
2-COM-L	W18	6MJ	K15J	8-COM-D	D23	XD9	RD9	J12JM	J12J	A15	25
AG2	CH2	A6	A6YC	8-COM-K	D15Y	XE9	XED16	J12Y	J12YC	C15	D21
J2	J57R	A6Y	A6YC	8-SPEC	D16	XED9-COM	XED16	L12Y	L87YC	J15	K15J
J2J	UJ2J	AG6	CH6	A8	A8YC	XEH9	XEH8	N12Y	N12YC	L15Y	L95Y
L2G	L55G	BN6Y	S6YC	A8Y	A8YC	XEK9	ED9	NA12	N57R	RBL15Y	RV15YC
N2	N2C	DJ6	DJ6J	BL8	RY8C	XF9Y	RF9YC	ON12Y	RM12YC	RBL15Y4	RV15YC4
N2G	N2C	E6-COM	XED14	D8	K97F	XH9	RH8	P12Y	P10Y	RBL15Y6	RV15YC6
ORD-2	XMJ17	EJ6	XEJ6	DJ8	DJ8J	XJ9Y	RJ12YC	RBL12	RV12C	RBL15Y8	RV15YC8
ON2	ON2C	EJ6J	XEJ6	DL8	K98F	XN9Y	RN9YC	RBL12-6	RV12C6	UD15Y	D15Y
ON2G	ON2C	J6	J6C	DL8C	K98F	10	D16	RBN12Y	RS12YC	UL15Y	L95Y
RN2	RN2C	J6J	J6C	E8-COM	XED16	10-COM	D23	RF12	RF10C	XEC15	XED16
RN2G	RN2C	J6JM	J6C	ED8	K97F	10-COM-64	D23	RF12-5	RF10C	C16C	W16Y
TAC-2	RML12	J76	CJ6	EDL8	K98F	A10	A8YC	RJ12Y	RJ12YC	D16M	D16
3	W16Y	KCJ6	CJ6	EH8	XEH8	C10S	XEJ6	RJ12Y6	RJ12YC6	ED16	XED16
3-COM	W18	L8G	L82C	EJ8	XEJ8	D10	D9	RL12Y	RL87YC	H16	D8
AG3	CH3	N6	N5C	EJ8J	XEJ8	EC10	EW90	RN12GY	RN12YC	H16A	D6
BL3	V4C	N6Y	N6YC	H8JM	H8J	EH10	XEH8	RN12Y	RN12YC	N16Y	N16YC
L3G	L77JC	N6YCX	N6YC	J8	J8C	F10	F10C	RZN12Y	RS12YC	RN16Y	N16YC
N3	N3C	N6GY	N6YC	J8J	J8C	H10JM	H10J	RZN12Y5	RS12YC6	UED16	XED16
N3G	N3C	P6	P7	J8JM	J8C	HT10J	CJ8	UJ12Y	J12YC	UK16Y	K7
ON3	ON3C	R6	ASYC	J78	CJ8	J10	J62R	UL12Y	L87YC	XD16	RD16
ON3	ON3C	R6G	A6YC	K8G	K8	J10-COM	J6C	UN12Y	N12YC	XD16J	RD16J
RN3	RN3C	RA6	RA6YC	L8	L90	J10-COM-J	J6C	XH12	RH10	XN16Y	RN16Y
RN3G	RN3C	RA6Y	RA6YC	L88	L90	J10Y	J12YC	XJ12	RJ12	H17	D9
XN3	RN3C	RBN6Y	RS6YC	N88	N8	L10	L90C	XJ12J	RJ12	H17A	D9
4	W16Y	RCJ6	CJ6	NA8	N5C	L10S	L82C	XJ12Y	RJ12YC	RBL17Y	RV17YC
4-COM	D6	RD6	D6	N8Y	N9YC	N10PY	N11YC	XL12Y	RL87YC	RBL17Y6	RV17YC6
AG4	CH4	RJ6	RJ8C	P8G	P7	N10Y	N11YC	XN12Y	RN12YC	UDJ17V	CJ4
BL4	V4C	RJ6J	RJ6C	R8	RA8YC	N10Y4	N11YC4	13	D16	UJ17V	UJ2J
C4	W16Y	RN6	RN5C	RA8	RA8YC	NA10	N3C	A13	30	UL17V	UL81C
C4X	W16Y	RN6GY	RN6YC	RA8Y	RA8YC	P10	P8Y	BL13Y	V12YC	18	K15J
J4	J4C	RN6Y	RN6YC	RBL8	RV8C	R10	ABYC	J13	30	J18Y	J18YC
J4J	J4C	UJ6	J6C	RBL8-6	RV8C6	RF10	RF10C	J13-0	30	N18	N16YC
J4JM	J4C	UJ6M	J6C	RJ8	RJ8C	RJ10Y	RJ12YC	J13Y	J12YC	RJ18Y	RJ18YC
L4G	L77JC	X6-COM	RD14	RJ8J	RJ8C	RN10GY	N89GY	N13L	RN13LC	RJ18Y6	RJ18YC6
L4J	L82C	XD6	D6	TJ8J	CJ8	RN10Y	RN11YC	N13Y	N12YC	RJ18Y8	RJ18YC8
N4	N4C	XE6-COM	XED14	UCJ8G	CJ8	RN10Y4	RN11YC4	QJ13Y	RJ12YC	UJ18Y	J18YC
N4G	N4C	XEJ6J	XEJ6	UJ8	J8C	UJ10Y	J12YC	RBL13Y	RV12YC	XEN18	XEN14
RJ4	J4C	XJ6	RJ6C	X8-COM	RD16	XEF10	EF10	RBL13Y6	RV12YC6	XH18Y	RH18Y
RJ4J	J4C	XJ6J	RJ6C	XE8-COM	XED16	XEH10	XEH8	RBN13Y	RS12YC	XJ18Y	RJ18YC
RL4J	RL82C	XN6	RN5C	XEH8J	XEH8	XF10	RF10C	RJ13Y	RJ12YC	J19V	UJ2J
RM4	RN4C	Y6	UY8	XEJ8J	XEJ8	XH10	RH10	UBL13Y	V12YC	L19V	L20V
RN4G	RN4C	XY6	UY8	XH8	RH8	XH10J	RH10	XJ13Y	RJ12YC	UL19V	UL81C
TAC-4	XMJ12	7	D16	XH8J	RH8	XL10S	RL82C	14	D16	XMJ19	XMJ20
UCJ4G	CJ4	7-COM	D16	XJ8	RJ8C	XN10Y	RN11YC	A14	30	20	W20
UJ4J	UJ81C	BL7Y	V9YC	XJ8J	RJ8C	Z10	Z9Y	A14-0	30	RJ20Y	RJ18YC
UL4J	UL81C	BN7Y	S7YC	XN8	RN8	Z10G	Z9Y	C14	30	XJ20Y	RJ18YC
X4-COM	D6	C7	D16	XN8B	RN8	11	D16	D14M	D14	21	W10
XJ4J	J4C	E7	XED16	XN8B	RN5C	BL11Y	V12YC	EC14	EW90	XED21	XED16
XN4	RN4C	F7Y	F7YC	Y8	UY8	CJ11	CJ8	EF14	EF10	22	W20
Y4	UY8	J7	J8C	Z8	RZ8	EH11	XEH8	EJ14	XEJ12	F22	F11YC
Y4A	UY8	J7J	J8C	9	D21	EJ11	XEJ12	F14Y	RF14YC	J23	25
5	3X	J7JM	J8C	9-COM	D23	F11Y	F11YC	H014S	REB37E	A24	25
5-COM	D9	L7	L82C	AG9	CH9	H11	H10	J14	UJ12	G24	34
5M	D9J	L7J	L82C	BL9Y	V9YC	H11J	H10	J14C1	J99	A25	25
5MJ	D9J	N7GY	N7YC	BN9Y	S9YC	J11JM	J11J	J14-64CL	J99	A26	D16
AG5	CH3	N7Y	N7YC	D9JM	D9J	J11Y	J12YC	J14J	CJ14	C26	M41E
BL5	V4C	P7Y	P8Y	EH9	XEH8	K11	UK10	J14Y	J14YC	AG27	CH27
C5	W14	QL7J	RL82C	EK9	ED9	L11S	L82C	L14	L90C	C27	M41E
E5-COM	ED9	QL7J5	RL82C	F9Y	F9YC	N11Y	N11YC	MJ14	XMJ14	AG28	CH28
J5	J6C	R7B	D6	H9	H8	QJ11Y	RJ12YC	NA14	N54R	29	30
J5-COM	RJ81B	RBL7Y	RV9YC	H9-COM	H8	ON11Y	RN11YC	N14Y	RN14YC	31	25
J5J	J6C	RBN7Y	RS7YC	H9J	H8J	RBL11Y	RV12YC	RBN14Y	RS14YC	AG32	CH32
L5	L82C	RJ7	RJ8C	J9-LONG	H10	RBL11Y6	RV12YC6	RBN14Y4	RS14YC	A34	32
L5J	L82C	RL7J	RL82C	J9	J8C	RF11Y	RF11YC	RF14Y	RF14YC	35-COM	W18
N5	N5C	RN7GY	RN7YC	J9J	J6C	RJ11Y	RJ12YC	RF14Y4	RF14YC	36	C97B
N5M	N5C	RN7Y	RN7YC	J9Y	J12YC	RN11Y	RN11YC	RJ14Y	RJ14YC	C36	886N
N5G	N5C	UCJ7G	CJ8	K9	K8	UF11Y	F11YC	RN14Y	RN14YC	AG39	CH39
RN5	RN5C	UJ7G	UJ11G	L9G	L82C	UJ11P	UJ11G	RN14Y6	RN12YC6	40	K98F

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 VE's. Johnson Sea Horse 25, fits all  
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from P/N 13-576 Water applied \$7.50 @

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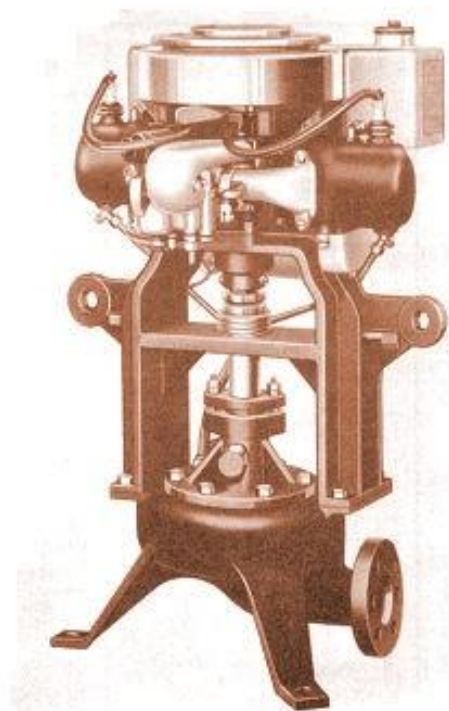
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