## Uife <br> タッチリロホは  <br> 1866



Dick Jones，first place winner of the Texas Nationals receives a marine speedometer from Jaynie Brannigan，Queen of the Great Race and the Knuckle Buster Cup from Val Valentine of Valentine Marine Supply．

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## The Antique Outboarder

is an official publication of The Antique Outboard Motor Club.. The first issue was printed in January of 1966, and suaceeding issues are mailed in January, April, July and October. The Antique Outboard Motor Club was organized in Ootober, 1965, and is beyond any doubt, non-profit. The club is devoted to people all over the world who are interested in these fasoinating engines, their restoration and their preservation. Club headquarters: 1107 Pueblo Drive, Richardson, Texas, 75080.

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Marous Wright, Parts Aquisition: 30 Crest Drive, Little Silver, New Jersey, Helps members find parts needed in their restoration projects.


He pulled............

and he pulled some more.

and he pulled


Then Diok Anders on pulled.......

and ne pulled.......

and pulled some more. But it didn't start.

## special members

## Sponsoring [\$100.]

KIFKHAEFER CORPORATION, Fond du Lac, Wisc ons in

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These members have contributed to the clubis growth and activities through the purchase of a Special Membership. In recognition and in appreciation, they are so listed.

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## sweatshirt



These high quality shirts are imprinted with the official elub emblem. Order yours in $S-M-L-X L$; black or burgundy with white emblem; short or long sleeves.
price: $\$ 4.95$ each p.p.
Send check and information to

> Tom Zimmer
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> Algonac, Miohigan

Mark (1.) and Mike Zimmer with Dad.

## the great Race, 1967

## photographs by ed miley

story by r-l.anderson


"Now we are going to hold two Bang and Go Back races". Member Bill Curtin of Wichita Falls appears at the left of this photo. Bill hit a bad wave early in the afternoon and flipped his boat. No damage B111 says, "wait 'til next year."

Driveris Meetingl In a Bang and Go Baok race, everyone goes as fast as they can toward that boat. When the gun sounds..........


* Winner of the Johnson Motors Trophy for the oldest running motor, a 1927 Lockwood Ace.


All the way from Miami! Kent Jones, Dick Jones and wife Jean prepare the Miami Special. At 11 PM the evening before the race, an emergenoy call went out from the Jones garage. The spark on Diok's 1936 Evinrude was too good! The problem was remedied, and Dick later won the race!

The Pits - Dick Anderson, Sandy Aitken, David Reinhartsen, Diok Jones, Paul Stetson, Al Richmond and Pat Brannigan.


Another view of the Pit area; Susan Anderson, Dick Jones, Dick Anders on, Dave Reinharts en, Sandy Aitken, Al Richmond, and Paul Stetson.

Al Richmond and Sandy Aitken! Will you please come to the driveris meeting?


The East Turn at the Texas Nationals. In the lead, Dan Richter, followed by Bill Curtin and Dick Jones.

They're off! Dan Richter in the lead with his :38 Johns on PO, followed by Dave Reinharts en with his Johnson VE-50 and Dick Anders on with his 127 Lookwood Ace.



Looal radio station KVIL had coverage and participation. They had a bit of trouble with overheating.

Looal television, channels 4 and 8 cover ed the race. Channel 4is photographer got so enthusiastio that he waded in; or was it the Home-Brew?


First Place Trophy to Diok Jones of Miami, Florida.


Sec ond Place to Dan Richter of Richards on, Texas.

Last Place Prize, a box of band-aids and an antique duok deooy go to the President of this organization. We all hope he oan do better next year.


This summer my wife Susan and I traveled from our home in Hermosa Beach, California, to the great race in Dallas. It was probably the most wonderful trip that we have taken in a long time. It took us three days of easy driving to reach Dallas and two days of hard fast driving to return home again. We saw many things on our way to and from Dallas; for example, the palace of the governors in Santa Fe, New Mexico, Carlsbad Caverns, Tombstone Arizona, and many tired-looking jackrabbits. The trip to and from Dallas has to take a back seat to the wonderful time that we had while we were in Dallas. There is no way to describe the wonderful people that we met and were associated with during our stay in Dallas. They were all fine people and really made us feel welcome.

We will never be able to thank the Reinhartsens enough for their hospitality. The time that we spent in their home was great, and the only thing that they insisted upon was that we consider their home ours.

The Aitken family is another group that is a must to meet. Mr Aitken (Sandy) is the funniest person that I have met in a long time, and his charming wife
is probably the eighth wonder of the world. She has at least eight million kids and still has time to devote to the Antique Outboard Motor Club.

The club was especially lucky to obtain some boats not only from Val Valentine, Valentine Marine, but also from Mr. Grant McKay of Chrysler Marine products. Mr . McKay gave us a tour of the Chrysler plant, which was very interesting. Dave railroaded Janie Brannigan (Pat's sister) into being our queen of the antique outboard race. She was a real good sport and did a fine job.

As to the race itself, it was the biggest blast I have had in my whole life. There was more noise, smoke, and quaint little phrases than I have heard in a long time. Two of Dallas's television stations had camera crews there, and the club got lots of free publicity, especially from Channel 4. The club was fortunate enough to obtain some excellent home brew (recipe on request), and this added greatly to the days' festivities. Drivers sampled after the race. It is rumored that the home brew had a good deal to do with the free publicity that Dallas T.V. gave us.

Radio KVIL of Dallas was also there with their entry, the KVIL special. They carried a tape recorder in their boat so that they could give a play-by-play of the race over the air later in the day. Hal Copeland, our Public Relations man, handled the publicity for the race, and did a very fine job.

The only thing that marred the days' events was the flipping of a boat driven by member Bill Curtin of Wichita Falls, Texas. Fortunately, no one was hurt and activities continued without any more accidents.

I would like to say, however, that next year Dave and his wife should have more help with the race. They hired some neighborhood boys for help (Paul Stetson and Pat Brannigan), but still there was just too much work to be done. So next year how about some help for poor old Dave and his wife. They cannot do it alone-and should not be expected to.

The evening of the race a group of us including Mr. and Mrs. Kent Nance of the Richardson Daily News, Janie Brannigan, Mr. and Mrs. Kent Jones, and Mr. and Mrs. Dick Jones had a big victory dinner at "Cattlemans Restaurant" in downtown Dallas. That was also a lot of fun and an affair that Cattlemans won't forget for some time.

Again, the 1400 mile drive was more than worth the trouble and expense, and I am going to be there again next year, no matter what happens. To those of you who couldn't come for one reason or another, I'd like to recommend next years' race, which will be bigger and better than the Great Race ' 67 . Be there!



## Ohe Only Motor You Can Attach on Shore

NOW the days of danger of failing into the water while leaning far over the stern of the boat to attach your motor, are over. The Caille Liberty Motor can be attached on land. Then you just shove your boat out in the water, give the flywheel a turn, and zip! off you go. This is but one of the many exclusive Caille Liberty features.
It is the only motor that can be successfully used in weedy, mossy places. It goes through jungles of weeds like an eel. And for going through shallow areas, infested with sunken logs and dangerous stones, you can't beat it. The propeller just rises over obstructions automatically and goes on driving the boat without loss of speed or power. That can't be said of any other so-called tilting motor. You can beach your boat anywhere, no matter how shallow,

## 'I Attach MotorWith Boat <br> Hauled Out" <br> Cass Lake, Mich.

Caille Perfection Motor Co.
Detroit, Mich
After using one of your LIBERTY MOTORS for two seasons. I think it is only fair to tell you of the wonderful serviceit has given me. I have
used other makes of motors and there are moused other makes of motors and there are motors of every make used here at Cass Lake, but
only the ten or twelve LIBERTY DRIVES only the ten or twelv here are satisfactory.
Cass Lake is quite shallow, not over six or eight inches of water until you get out quite a
distance from shore. With every other make distance from shore. With every other make
of motor it is necessary to row or push the boat of motor it is necessary to row or push the boat and attach it, while I pull the stern of my boat up on shore and attach motor while standing on solid ground. This is an outstanding feature of solid ground. This is an
the LIBERTY DRIVE. can step out on dry land.
The Caille Liberty is different from other rowboat motors because it is the forerunner in the march of progress. We predict that ere long the old vertical type will be as much a novelty on lakes and streams as a horse and carriage on the boulevards. It is simpler than the old vertical motors-provides ample power and more speed-is easily operated with its simple, motorcycle control, and sells for only $\$ 75.00$ complete $\bar{W}^{2}$ mere fraction of the price asked for ordinary types. Why pay more and get less? Why not send now for our catalog?

Catalog also shows the famous Caille Five-Speed Motor-the highest develop

## The Caille Perfection Motor Co.

## 6223 2nd Boulevard <br> Detroit, Mich. <br>  LIBERTY MOTOR <br>  <br> Complete



# 1924-27 CdIlle liberty twin 

m.S.WRIGht III

This unusual engine, original in all respects except carburation, was assembled from two partial engines acquired through the Antique Outboarder. Contemporary advertisements made note of itis ability to go through weeds easily and over submerged logs without damage. Caille predicted the basic layout of the engine would revolutionize future outboard motor designs.

The Caille firm probably named the Liberty Twin after the Liberty aircraft engine built during World War I. That engine was famous at the time providing power in aircraft, racing inboard speed boats and rumrunning boats during Prohibition.

The Liberty Twin was very well built. Machining and aastings were superior to that in many contemporary motors. The exhaust manifold, orankease, main frame and mounting bracket were excellent aluminium castings, some of whioh were highly polished. The pistons and aylinders were of cast iron. Connecting rods were of bronze, offset. American Bosch magneto and Zenith carburetor were standard equipment. The tank was fabricated from aluminium sheet with the lower unit made of chromed brass tubing. The propeller shafting was of steel and was telescopic, permitting the lower unit to be shortened for easier stowing.

The oylinders were painted a dark blue, and tank decals had a matching blue baokground. The steering handle, priming cocks, flywheel rim, water and grease tubes, main bearing grease resrvoir, magneto magnet and lower unit wing nuts at the main frame were all chrome plated. Many areas of the motor which still retain a good finish today, attest to the fine original workmanship and appearance these engines had.

How do we get ready for a run? You slide the removable lower unit outward six inches, between two olamps which are an integral part of the main frame. The propeller shaft engages in a square hole in the orankshaft magento drive gear which has the thrust bearing, and whioh, in turn, engages the cranksshaft. You tighten the lower unit clamps with large wind nuts, one beneath the magneto

mount and the other at the back end of the engine frame. After slipping a short piece of hose over a special joint at the after end of the engine frame, to $r e c e i v e c o o l i n g$ water from the plunger water pump (driven by a cam ahead of the propeller), you adjust the propeller depth by setting a thumb nut beneath the engine frame, thereby regulating the engine angle.

The steering handle controls the advance, which is the engine speed control. Priming caps are on each cylinder but are not necessary on this test engine because the only non-original part is a Thor Single carburetor. Slightly flooding the crankcase results in immediate rope starting. When you try it, the Liberty Twin comes to life farily loud and very clear.


When we tested it on an ll' Skimmar fiberglass cathedral hull, the Caille produced a speed notic eably higher than that attained by a 1913 Evinrude which was tested only moments before. The 4 HP rating of the engine is, therefore, quite realistio. Steering is a bit clumsy as the steering handle end is looated only $14^{\text {in }}$ ahead of the pivot point, which the propeller is located $46^{\prime \prime}$ aft of the steering pivot point! It requires a lot of effort to return to a straight course after turning hard. When making a close turn, it was found easier to push down on the steering handle, thus lifting the propeller partly out of the water and, reducing the turning effort. Remember, the propeller is nearly $4^{\prime}$ behind the boat! I offer the opinion that this may be the reas on the Liberty Twin had such a short life - no other contemporary engine seems nearly as hard to steer.


While we were testing, almost everyone we enc ountered in other boats did a double take when they heard the exhaust and then took a good look. While the exhaust manifold is machined to receive a muffler, no photos yet seen in research show any. The only quieting effect is from spent cooling water which discharges through the exhaust manifold system. The exhaust is rather loud, but bearable.

The Liberty Twin is a fine running engine. It is a pleasurable challenge to operate because of itis unusual design, ease of starting, good reliability characteristics and light weight. Idling is good, but I believe this engine's idling RPM would be slower using the original carburetor. It is indeed an interesting antique worthy of the true collector's serious attention.


## SPECIFICATIONS

Original price:
HP and RPM:
Engine:
Bore; Stroke:
Carburetion:

Ignition:
Propeller:
Gear ratio:
Weight:
Best speed:
Slowest speed:
$\$ 140.00$
4 @ 1200
Simultaneous firing; Opposed 2 cylinder $2^{11} \times 2^{\prime \prime}$
Zenith CV-22: One atmospherio pressure operated poppet valve preceded by a Venturi and carburetor float ohamber. American Bosch Magneto; FBC-2SK, ED-21. 2 blade bronze; 8年" dia. X $7^{\prime \prime}$ pitch. Direct 48 pounds
5.15 MPH (actual)

2 MPH (estimated)

# outboard service troublesi have met 

W. J. WEBB

Regardless of engineering and production are lavished on a product before the using public gets its first liok at it, said product will be found to harbor numerous "bugs" which only John Q Public can find. In defense of our engineers and produation people I must say that some of the "bugs" show up only when a produat is misused. In defense of John $Q$ who is after all the one who pays our salaries, I must say that better than half the "bugs" are of our own making; The result of wrong calculations or failure to anticipate all oonditions of normal use or fallure to test properly before going into production. Besides, onoe John Q. has parted with the price, he has a right to do whatever he wants, as long as he doesn't try, unfairly, to get the maker to pay for some savage breakage or misuse, clearly the fault of the user. But human nature being what it is, a small percentage of users will always try to take an unfair advantage. Those are the boys who make life interesting for Service Managers.

Faulty lubrication due to failure to mix oil and gas properly, causes serious motor trouble. Every Antiquer knows that running with too much oil fouls plugs, stioks rings, oloses up ports and manifolds. Running with too iittle oil or poorly mixed oil and gas will result in a frozen motor. Every year I was in the business, frozen motors showed up with unmistakable evidence that the motor was run without oil in the gas. I have heard a number of them say, "Why I only ran it a quarter of a mile. I thought I could get that far without oil." Half of these ino oil' boys are repeaters. Many a 'no oil' repeater gets smart and tries to cover his tracks by putting in oil after the freeze up. But these is always clear gas in the carburetor, and the other evidence is always unmistakable. That's when the serviae department gets into some dandy arguments with the owner.

Until about twenty-five years ago Evinrude used to remove spark plugs after testing, insert corks in the plug holes and send along a brand new set of plugs in the tool kit. This was done to prevent residual oil from running down into a plug and fouling it. They used to squirt a spoonful of oil into every spark plug holè to protect against rust in storage. And did that cause us troublel Reputable dealers would always set up the motor, install and test it before delivery. But there were always a few dealers who would hand the motor over to the owner in its original box and call it quits. Seldom did the owner read the part about installing spark plugs. In faat he usually unpaaked the motor in his garage, threw it in his automobile trunk and was on his way without plugs, starter rope or instruations. Yes, that seems incredible, but I have been on the receiving end of too many angry letters and phone oalls to tell you otherwise. The standard complaint ran like this "I got no starter rope with it, so I borrowed one, and when I pulled the cor d there were two pops (Those were the corks blowing out) and the darn thing wouldn't run at all." So we rushed him a tool kit or sent him to the nearest dealer and hoped for the best.

Way back in May, 1926, Mrs. Evinrude fielded a loud telephone complaint from a man out at Okauchee Lake, some 25 miles from Milwaukee. He wanted service from a factory man and right now. Since the nearest dealer happened to have a day job as proof reader at the Milwaukee Journal and wouldn't be out until late afternoon, Mrs. Evinrude told me to jump in the Model T pick-up and go help him. Fortunately Rob Cary, our Service Manager, told me I had better take along some fuel and a complete tool kit which contained spark plugs and battery. When I got there I found that the angry owner had no tool kit and didn't even know that he needed a battery to run his new Elto. He had spun the starter knob, been rewarded with two pops, and that was that. It took but a couple minutes to mix some gas and oil, put in the spark plugs, and the motor responded on the first turn. And was he happyl We went over to Riney Schatze's in Okauchee, had a oouple of striotly illegal beers, and that was that. Over those early years I made at least a dozen service aalls just like that one.

Back about 1935 we had one very bad experienoe with spark plug hole oorks. A man in New York state put a brand new Light Four Imperial -the first outboard motor to have a completely enc losed powerhead, on his boat, filled her up, pulled the Simplex starter rope, heard several pops from the corks and nothing else. He continued to puil for quite a while, ohoking the motor from time to time and naturally getting angrier by the sea ond. Suddenly, when the concentration of gas vapor in the enolosed spaoe reached the right proporation, there was a violent explosion, (caused by a spark from a plug wire, ) the shroud flew off, and the motor burst into flame. The boat got a little singed and the wiring as well as all else burnable, was a onsumed. Fortunately, the owner kept his head and with help kept the fire from spreading. We raised heok with the dealer and fixed up the man's motor, no oharge."

Years back when boats weren't as stable as they are now, people used to oapsize at high speed with the result that the motor was still turning fast when it went under water. You old timers know what happened unless the driver thought fast enough to olose the carburetor - the rods usually buckled, the crankshaft sprung, and many times the oylinders lifted off or tore loose from the crankase, all from the incompressible water taken in.

The evidence was always clear, many times the orankase was still full of water, yet we had a number of owners olaim they hadn't tipped over and that the motor just tied up like that. Some repeaters got smart and would empty out the water, but they always forgot to dry out the roller bearings. How they would holler.
Another fruitful sourae of trouble was gears. Years back before we had good gear housing seals, it was impossible to keep grease in a gear housing, at least for more than a few days of steady use. Bearing and gear design also had something to do with it. Most of the owmers greased their gears faithfully and were rewarded by good long life. But some of them decided it was too much trouble and let water do the lubriaating. So when gears and bearings wore out, we had adjustment olaims. The repeaters got smart here too. When sending in a gear housing with worn out gears, they would fill it with fresh grease. Fresh grease looks very different from grease that has been run. The evidence of ungreased wear is always olear.

One of the wildest arguments I was ever drawn into concerned a broken orankshaft. My desk faced a north window overlooking 27th Street and one day I noticed an object fall off the top of a ar
and come bouncing and rolling down 27th Street. When it aame to rest I oould see that it was one of our Elto Speedsters, and that during its careening skid the flywheel had come off. The owner came back and pioked it up and I thought no more of it until several hours later when our Service Foreman, Harry Weir, asked me to aome down to the service department. Harry was mad, and a stook individual, the same fellow who had pioked up the Speedster was threatening everyone in sight. He had come in to the service shop and demanded a replacement for the broken crankshaft of his Speedster motor, claiming that it had broken like that while running. The motor was a mess, pavement burns and dents from one end to the other. When I asked the fellow if this was the motor I saw bouncing along 27th street this morning, he oalled me quite a few oholce names. I thought he was going to hit me, but he didn't quite get that far. Then I named the year and model of his oar and some of the wind went out of his sails. Finally he changed his tactics and began to beg for a break as he just couldn't afford to pay the cost of the repair job. But he finally got even with us. He told us to go ahead and repair it, but we could never get him to come in and piok up the motor. After several years we sold the motor for less than we had in it.

By and large manufacturers earn the service trouble that befalls them. We still don't make engines fool-proof, nor will we ever be able to. In the never ending search for lighter yet more powerful motors, we shave a margin too thin now and then and trouble results. Everyone of us at one time of another has had a rash of connecting rod breakages, burned pistons, drive shafts that couldn't take it, or gears that can't handle the power put through them. Every manufacturer has had a supplier of years standing suddenly begin to deliver junk. The guy is always sorry and correats his troubles but that doesn't help us. For example, back in the twenties a coil maker who had been the acme of reliability for years sent us several thousand coils, a large peraentage of which were likely to break down after eight or ten hours operation. When that happened the motor owner was out of business right then. Sure, we made good on it and sent out replacement coils for all the motors that we could trace to that particular series of coils, But that didn't help Evinrude's overall good will much.

All outboard manufacturers have strong test programs - the bigger the maker, the better and more searching are his test procedures. Skilled testers are a rare breed. It takes mental and physical stamina of the highest order to stand the day-in-day-out pounding that test work demands. Careful listening for a hundred tell tale noises are the order for the day. Tireless and tiresome efforts to duplicate some unusual or previously unheard of wear or trouble pettern just reported from the field are daily projects. The hardest task is to report absolutely everything that happens. Something relatively or apparently unimportant may have an important tie-up with some other small item reported by another tester. Every previously known "bug" is searched for. Reports are aarefully written and even more oarefully digested. Computers get into the act. Each year a new orop of "bugs ${ }^{\text {n }}$ omes along. I know one thing for darn sure - the outboard motors being made today are far more durable and dependable, far easier and more fun to run, and worth far more money than any motor ever built before.*

* EDITOR'S NOTE: Modern motors do however, lack character and experienae.



## BATZ'S HAND PROPELLER FOR BOATS.

## From A Pictorial History of Outboard Motors

Published by Renaissance Editions, Inc.

FOR THOSE WHO ENJOY ANTIQUE OUTBOARDING: Renaissance Editions is bringing out "The Pictorial History of Outboard Motorboating" ( $\$ 10$ ) by W. J. Webb and Robert W. Carriak in October. The book starts with the very earliest motorboats in the early 1800's, describing how they looked and how they worked. Descriptions of all types of motor boats and outboard motors are included as are the manufacturers of various types of motors. The book also deals with boat races and boat shows. It contains action photographs throughout and interesting line drawings, especially of early types of engines.

# five dollars worth of trouble <br> John G. BLanton 


#### Abstract

After reading with enjoyment the article "Anthea in "Outboardland" by A.T. Aitken in the January, Volume 2 issue, the last paragraph rang a bell. Maybe the other members would like to hear the somewhat humorous story of the restoration of an Elto Light Iwin.

During my travels as an aerial photography mapping pilot, our base of operations was Hot Springs, Arkansas. This was in the fall of 1964. My wife and I were looking for something to do on our day off and decided to go to a marina and look at a bunch of boats that we couldn't afford. The usual tour of new boats was made, then inside to the shiny new motors, and finally back into the shop. It's always fun to see what goes on in the shop, as well as what type of "goodies" may be hidden among the junk motors! Sneaking a look back into the dark, (and somewhat smelly), recesses of the junk corner, we immediately spotted a motor that really stood out, (for several reasons). It was the furtherest back, wi thout doubt the dirtiest, most corroded, and it smelled of a combination of old gasoline and turpentine. A most unusual-looking speciman, but with a rudder no less. A closer inspection revealed that the old brass prop turned freely...but that was all! (Shear pin out). Everything else was locked up solidly-carburetor adjustment, gas tank top, exhaust cut out valve, and last but not least, the fly wheel.


After a short discussion, accompanied with some strange looks, the manager sold us the motor for $\$ 5.00$. (With a little persuasion, he might have paid me $\$ 5.00$ to haul it off). It was exciting to see how my wife liked the motor, too. The first thing she said was to lay it in the car trunk easily...it turned out later that she was afraid I would knock off some of that greasy dirt in the car.

My wife Doris and myself travel 355 days a year, and our contracts generally last a month or so. This adds up to a lot of moving, so we usually live in apartments, cottages, or motels. Most members probably have garages or basement shops in which to work, but this old motor was destined to be restored on the kitchen floors of a dozen places in as many states.

This day of purchase was an exciting one. After much cleaning and scraping through years of grease and rust, the data plate was uncovered-Elto Light Twin, Serial Number c14688. At the time, we had a laugh at the light twin part. Soon, though, the old Elto was indeed lighter. The fly wheel was off, as well as the prop and rudder. This is the point, as members know,
where fun begins to turn to work. The rudder on this motor is the water pick up and is hollow, with scoops on the leading edge. Sometime in the distant past it had been full of water, and you guessed it....it froze and broke. (This was later heli-arc welded in Bozeman, Montana).


So went the rest, or restoration, as the case may be: Lower unit cleaned and adjusted in Fort Jmith, Arkansas.... Pistons removed from cylinders, (after much soaking in everythine from kerosene to beer), in Abilene, Texas.... Gas tank rebuilt in Charlotte, North Carolina....Complete assembly cleaned inside and out in La Junta, Colorado....etc.

Then the great day in the fall of 1965. The parts were taken to a plating company in Tulsa, Oklahoma. They were all plated exactly as original and all aluminum parts were polished, at a cost of $\$ 25.00$ and worth every cent! No more kitchen floors from then on...all these shiny parts (which looked like an expensive silver set, to me anyway), were all laid out in proper order on the motel bed. There vas little protest from Doris, so you know they were clean as could be. A motor stand was purchased and assembly started.

When complete, it was a beautiful sight to behold. Shiny brass prop to nickel plated flywheel just as it must have looked many years ago. But one more thing.....would it run as it did many years ago? There was somewhat of a doubt, because the ignition system had been a mess. The wiring running into and out of the coil had been taped, wrapped tosether, soldered, and anything else that can be done to wiring. When the new wiring was installed, it was necessary to dig deeply into the coil through layers of tar to reach good wiring. The condenser was a spooky-looking thing and a bit unravelled. It still had a wire, so I included it in the circuit and poured back the hot tar. When the 6 -volt hot shot battery was at last hooked up, the old Elto put out a spark that made our TV. set begin to roll....much to my amazement!

The Elto was taken home to Florida for Christmas vacation. The fun began on the lake behind our house. I mounted the Slto on my Dad's aluminum 12 foot fishing boat. Our old cocker spaniel, Twig, must go on all fishing trips, otherwise, she swims after the boat, almost drowning and scaring the fish. So with Twig aboard, I paddled out a ways and began cranking the knuckle-buster. There was instant smoke and much popping, but no running yet. After some experimenting with the spark control and mixture, we got under way. My right hand was almost useless from fatigue, and for the first 15 minutes, it got even worse because of the constant stalling and readjustment of everything. Soon things smoothed out, that is, at full throttle! Idling or trolling speed is where the fun comes in. The boat shakes to the point of being downright scarey. The bow shakes one way and the stern the other, though amid ships is quiet. The boat looks like a teenager doing the twist and sets up a most strange-looking wake. There is a narrow needle valve range, and the carburetor poppet valve can be clearly heard. The rudder has a tiller handle fitted over the top of the motor and must be held constantly. At the slower speeds, the Elto runs better and slower with the exhaust cut out open. This gives everyone on the lake a chance to enjoy it, too!


After the Elto got broken in a bit better, Twig and I decided to fish a while. We were trolling along, much too fast because of the high-pitched prop, I suppose, not the RPM, when a big bass hit. Not being too familiar with the motor as yet, it was a few seconds until I could hit the stop button on the timer. Then all heck broke out....the Elto stopped for a moment, then began to run backward and raised its rudder and prop out of the water. My knee hit the timer and knocked it to full speed. I don't know what RPM the motor hit, but it sure sounded off. The bass was running all around the boat, and the dog threatened to jump overboard! The Illto quit of its own accord, thank goodness. Guess there must have been a lot of noise and foam, as the fishermen in the other boats were laughing and pointing at us. Meanwhile, the bass had jumped out of the water,

slung the lure, and tangled the line around the prop. He knew what he was doing, but I sure still had a lot to learn about the motor! Hold down on the kill button until all motion ceases!

On the way home that day, the dog oaught "Antique Outboard Rabies." This was oaused by laying her head between her front legs and trying to sleep. The violent shaking of the boat oaus ed her to foam at the mouth and nose and get red eyes. This can't be any worse, I suppose, than the "Antique Outboard Bug" that I've got, loause we both come back for more.

## 

## Minn-Kota Troller History

## 중 <br>  <br> 1932-33 <br> 1934 <br> 1935 <br> 1936-41




1956


1956


1959-61

1960.62


196062


1962


196062

# Anthea In Outboardland 

A.T. Aitken



## HINTS FROM HANNAH

Bill Kelly of Kirkland, Washington, sent us these valuable hints and says that every shop should have the following:

1. Brasso - This copper, brass, and chrome cleaner will polish up any corroded brass or bronze item and even smooth aluminum with a minimum of elbow grease. It is available at most grocery stores at $69 \$$.
2. Kiekhaefer "Merchromatic" dull aluminum lacquer- This paint is still available even though Mercury has not painted engines "Silver" since 1955. It's hiding characteristics are excellent and it does not wash off with gasoline like $99 \%$ of all other available spray aluminum paint. It is durable and does not give the parts a coated finish.
3. Plain old lacquer thinner - This can be any high quality automotive type. It is unexcelled for cleaning up old cruddy parts, removes permatex type compounds, softens up old gaskets and leaves parts clean and dry for final painting. Of course, heavy accumulations of dirt and grease should be first removed by cleaning it with a standard washing solvent.
4. "Strypeeze" - This is a brush cleaner and paint remover. Not only is this pair of compounds good for accumulated paint removal, but it will also remove accumulated carbon from pistons, cylinder heads, mufflers and assorted parts. However, parts to be subsequently painted MUST be very thoroughly scrubbed with acetone or lacquer thinner or else the paint will not dry or adhere properly.
5. Dow-Corning "Silastic" sealer - This is a moisture cure silicone rubber compound available under many trade names such as "Bathtub Caulk" "Aquarium cement", "Marine Sealant", etc. It is white and smells like vinegar as it contains acetic acid. You can use it as a gasket sealer, thread compound, and lower unit seal to replace cork seals. Upon disassembly it is easily removed from engine surfaces requiring no hard scrubbing of surfaces, and excess squeezed out upon assembly can be easily pulled loose or trimmed off, leaving a neat, clean assembly job.
6. "Marine-Tex" - This is an Epoxy filler. Here is a real good compound for everything from filling in dents in old gas tanks to patching that crank case in which a con-rod got loose and snuck out! It can be used on all non-stressed areas just like weld. It is nearly as strong as aluminum. Do not, however, attempt to use it to repair highly stressed areas. It can be filed, sanded, and drilled like metal.

Bill also offers the following service. He can get any piston ring for any old time engine. He asks you to send him an old ring (or even a piece of the ring) and the bore. It will help if you can also send the model, year, and serial number of the engine. Prices are reasonable, depending on type and size of ring required.

Many thanks to you Bill for sending us the hints and information. Keep us informed of your activities. Bill wants to hear from members in the Seattle area. Judging from our correspondence with Bill, he has a wealth of interesting information and lots of enthusiasm.

George Loeb of Norfolk, Virginia, sends us this hint to lead up an aluminum tank which is so badly bent that it can't be tapped out; melt equal parts of the body solder and pot metal (horn rings, door handles, etc.) and use this to tin the tank after cleaning it with steel wool or sandpaper. After tinning, plain solder will flow and stick very nicely, and you can fill the dents.

For those who are able to get ahold of a Polaroid camera, it will take some of the guess work out of reassembling motors. Sandy and I took a series of pictures as we took an engine apart. These are mounted on the wall above the workbench. As we are very slow at completing our project, these step by step pictures are invaluable. For those who really want to get into it, there is a close up attachment available that catches every detail. Pictures like these are also very good for exchanging information between member.

## ********************

From Here and There ...
John Ward writes of his summer's activities. He says his "Modern" 1958 Elgin finally started to fall apart, so he's more sold than ever on the old-timers. John has also been in the boat business this summer.

One of the most amusing and delightful pieces to come our way in a long time was an article written by Helen Lentine, wife of AOMC member Sal Lentine of Fleminton, N. J., which appeared in the Democrat on July 27. It will be reprinted in its entirety to show that the time honored phrase of "If you can't lick 'em, join ' $\mathrm{em}^{\prime \prime}$ is still the best idea. Helen Lentine relates her adventures as the wife of a collector and how she finally joined her husband in his hobby.

Jim Webb is back in this country after 5 months of travel and work. For 3 months he was on an assignment for the International Executive Service Corps in Ceylon. After completion of his duties there, Mr. and Mrs Webb went around the world. After seeing the sights and enjoying the tour, Jim says the good old USA is the best there is. Welcome back, Jim. We have enjoyed your letters and stories of your adventures.

The Aitken household now numbers 10 with the arrival of Jennifer in August. Survival of loose parts in this household is tricky with 2 little boys who seem very mechanical minded....or maybe it is more lightfingered. At any rate, it points up the need for increased safety precautions around the workbench.

Has the West gone soft?
Dave Reinhartsen has an antique inboard.

# $n_{\text {noes }} f_{\text {foem }} t_{\text {tec }}$ <br> Canater 

R. d $\mathbf{h a w l e}^{\text {a }}$


My research recently has led me far afield from the Bendix motors of the late thirties, so that will be postponed -- which stirs no one I'm sure.

A racing buddy of mine from New Jersey did not belleve that there once was a canal, the Morris Canal, which went from the Hudson River to the Passaic River -- thence from Newark, N. J., near Plank Road Bridge, to Lake Hopatcong some 54 miles west: page 32 , October, 1915, MOTOR BOATING Magazine. I hate to waste research; and perhaps outboards did travel the canal even though the toll rate was 15 cents per mile with a 60 cent locking charge at Lake Hopatcong. Seriously, I find it hard sometimes to separate outboard from inboard history, and anyone familiar with New Jersey topography would be interested in the feat of building a canal that far inland anyway. No, I don't know how they got over the mountains which is what he asked me. I recall a second article about this canal but I can't find it yet. It had a map as I recall. This is the problem with a good memory up to a point. I now keep a file index on relevant items when I find them.

While researching the Morris Canal I found an ad on page 73 and a picture on page 41 of May, 1918, MOTOR BOATING Magazine for the Caille Liberty Drive single! The specs were the same as the 1919 model, but the price was $\$ 48$. This is ten months earlier than the introduction of the single mentioned in my last column. I can find no mention of the single between May, 1918, and March, 1919; in fact the Caille ads were hard to find. Caille was usually a prominent advertiser taking full page or half page ads, but in this period their ads were small one-inch ads. I assume that the restrictions of World War I were responsible for this.

It appears that the Liberty Drive Single was advertised at least ten months earlier than I had thought. Perhaps I should hide behind the antique dealers' fence of "circa" which they use when they can't date an object exactly. Therefore Caille Liberty Drive Singles were introduced circa 1918!

According to MOTOR BOATING, on page 15 of the August, 1925, issue, a Johnson model P30 set the record of 16.68 MPH on July 4, 1925, at White Lake, Mich. This should clear up John Hunt's question as to the date of this record in his letter to Dave in the last newsletter.


The Johnson powered outboard boat which won the event for outboard motors of unlimited size. This boat showed a speed of better than $16 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. in the mile trials
page 15 - August, 1925 - MOTOR BOATING
It occurred to me that the references to Bowman and Whittier may not have been familiar to all the members. Hence the seed was sown for the theme of this column. So changing hats to Librarian I'll delve into my library and give you some 1dea of the books on boating that I have found helpful and interesting.

We, of course, await Jim Webb's book. Having had a tiny glimpse into the research for it I await it eagerly.
page 44 - August, 1926 - MOTOR BOATING

W. J. Webb, Assistant Sales Manager of the Elto Outboard Motor Company, trying a Super Elto on a fast canoe

The most helpful book out now is The Encyclopedia of Outboard Motor Boating by the late Hank Bowman published by A. S. Barnes \& Co., New York. It is a comprehensive book on boating, touching history, repair, selection of boats, and the myriad facets of boating. Published in 1955 the technical section deals with that era, but proper maintenance and mechanical procedures apply for any period. There is a long chapter on racing and racing history, too. If my library were limited to one book on boating I'd choose this one. I would think that your local bookstore could help you get this book.

My second choice is the Outboard Motor and Boat Book by Robert J. Whittier published by the Voyager Press, Stoughton, Mass., in 1950. Written five years earlier than Bowman's, it is smaller, having about 150 pages to Bowman's 400. My copy is a paper bound book, but on good paper. The pictures are excellent, and there are good drawings of some of the carburetors you might run into. Remember that post-war motors through 1949 were not dissimilar to the pre-1942 motors we seek.

Handbook of Outboard Motorboating by Porter Henry and Bill Allard published by McGraw-Hill Book Co., New York, in 1948 is not as good as the two books just mentioned in editorial content or pictures. This book does have a section on motor listing which I find very useful. The listing covers motors made in 1947 but also ilsts earlier models produced so that the listings fall in our interest area. The early Water Witch, Sea King, Sea Bee, Neptune, Martin, Lauson, Champion and Bendix motors are listed as well as some Johnson, Evinrude, and Elto motors. This is the only list I have of some of these private label brands, hence I find the book handy.

The Outboard Racers Manual by W. R. Carpenter published by Muskegon Outboard Specialties in 1951 is a smali 100-page book on the racing model Johnsons and Evinrudes. The explanations and pictures are good and are very helpful if you are interested in the Evinrude Speeditwin, or Johnson K, S, and P models. It can be used as a good text for setting up the service motors as well as the racing models. The chapter on rotor valves is very good. This book was for years listed in the Michigan Wheel catalog although it is not now.

Hank Bowman's Guide to Care and Repair of Your Outboard Motor published by the Chilton Co. in 1962 is a good modern text on outboard motors. It, of course, deals with modern outboards, but basic information is never dated. It should be available in marine stores.

All About Small Gas Engines by Jud Purvis published in 1963 by the Goodheart-Wilcox Co. is a more extensive book covering both four cycle and two cycle motors. It covers modern motors, but does have one good cutaway of the Evinrude Zephyr. It should be available in bookstores.

Those interested in building old design boats will be pleased, as I was, to learn that MOTOR BOATING Magazine still has two books with old outboard plans in them. They even have a few blueprints

Outboard Boats You Can Build for $\$ 5$. has reprints of MOTOR BOATING construction articles including Bruce Crandail's plans and some by Lou Johnson.

Selected Popular Motor Boat Desigas for \#4. has plans for only three outboard hydroplanes - Flowers Falcon, and Humarette and Humarock Baby - but the book was copyrighted in 19341 It is a good example of earlier naval architecture and writing style.

I would suggest that you write to MOTOR BOATING, 959 Eighth Avenue, New York, N. Y., 10019, and ask for their free catalog No. 67 of MOTOR BOATING books. This catalog also lists the available blueprints, too. The catalog is free, but it does take them some time to mail it out.

There are several books on naval architecture which do cover boats almost as small as we would use. Naval architects often consider small boats as being between 20 feet and 50 feet overall.

Naval Architecture of Planing Hulls by Lindsay Lord published by the Cornell Maritime Press in 1946 is a very good book. The author gives many charts and good sketches which explain the actions of planing hulls without saturating you with tables so that you can't tell a boat from a computer.

The Naval Architecture of Small Craft by D. Phillips-Birt pub1ished by the Philosophical Library in 1957 is by an English author as is High Speed Small Craft by Peter DuCane published by the Cornell Maritime Press. I find the writing style and speling difficult to adapt to, and their emphasis more on ocean-going "small boats."

How to Design Planing Hulls by Jim Stoltz published by MOTOR BOATING Magazine in 1963 is a paper back reprint of a series in MOTOR BOATING Magazine. I did not find this book as good as Lindsay Lord's book. From the standpoint of one interested in why boat designs have progressed the way they have in 40 years, I did not find this book too helpful. The author seems to use three charts and four equations to explain things where a sentence or two would seem to do. If you like mathematical explanations, this book is for you.

Cycle World Books, Box 20220, Long Beach, Calif., has three books available on the theoretical side of two cycle engines all by English authors.

The Two Stroke Engine by K. G. Draper published by G. T. Foulis \& Co. covers the theory of two cycle engines including some early history, but from the English point of view, and mostly motorcycle engines. At $\$ 5.95$ it is not a cheap book, or particularly helpful in explaining our old outboards.

The High Speed Two Stroke Petrol Engine by Philip H. Smith published by Autobooks in 1965 is an expensive ( $\$ 12$.) monumental book on the two cycle engine. This is a 400 page book devoted to all facets of two cycle engineering. It, of course, features English and European developments; there is some mention of outboards, but little on the old ones we are interested in.

Mr. Smith's The Scientific Design of Exhaust and Intake Systems published by Robert Bentley, Inc., in 1962 is a real "brain buster" and would be of interest to very few members -- those few who really want to know how a modern 3 port racing engine can approach speeds of 100 MPH .

Of historical interest is Twice Across North America by MotorBoat
by John Edwin Hogg published in 1960 by Ziff-Davis Publishing Co. This is a story of Mr. Hogg's trip in 1959 by motorboat from the Atlantic to the Pacific Ocean, with reminiscences of the voyage he made in 1925 in the opposite direction. The boats were Evinrudepowered in both cases.

Our editor suggested the theme Mysteries of Outboard History for this column and while we are "Just Between The Bookends," I came upon a mystery or at least a fantastic claim while reading a book on auto racing! In the book, The Golden Age of the American Racing Car by Griffith Borgeson, I find the claim that the late Harry Miller,
the famous racing car builder, built a four cylinder outboard before 1900 and that Ole Evinrude worked for Miller at that timel Mr. Borgeson seems to be quoting Mrs. Miller who it appears is quoting from a 1937 newspaper which is unnamed. Due to the unusual writing style of Mr. Borgeson and the importance of this if it is true, my hardworking wife will attempt to reproduce pages 62,64 and part of 65 (page 63 is a full page picture of Mr. Miller) of The Golden Age of the American Racing Car by Griffith Borgeson, published by W. W. Norton Co., Inc., New York, copyrighted 1966 Library of Congress Catalog card 66-11651. (Let us hope that that satisfies the copyright laws.)

HARRY ARMENIUS MILLER

## Chapter 7

"Harry Miller was born in Menomonie, Wisconsin, in 1875. His mother was Canadian. His father, who spelled the name Mueller, was born in Germany, where he trained for the priesthood and, on the side, became an accomplished musician, painter, and linguist. In Menomonie Mueller worked as a schoolteacher to support his brood of two girls and three boys. His son Harry deserted school for a job in the town's one machine shop at the age of thirteen.
"Mueller was furious. He had high hopes for the careers that his sons would pursue in this land of opportunity, which Harry seemed determined to throw away. But the only higher learning that had any meaning for Harry had to deal with machinery. He quickly learned the machinist trade and then learned to maintain the steam donkey engines in the town brickyard and in nearby lumber camps. He was in his element. At seventeen he was ready to tackle wider horizons and left home.
"He drifted to Salt Lake City, then home again, and then in 1895, when he was nineteen, he decided to give Los Angeles a try. There he got a job in a bicycle shop and met Edna Lewis, who was all of sixteen. They fell madly in love and became engaged.
"While waiting for Edna to reach the age of consent Harry worked at his 18-dollar-a-week job and on the side set up a tiny shop where he fabricated special parts for converting ordinary bicycles into racers. He saved his money, and when they were married in 1897 Harry took his bride back to Menomonie for an extended stay with his family.
"Now he was a sophisticated young man from the big city, and he had his pick of jobs for which his experience qualified him. To get to and from work he designed and built a bicycle on which he mounted a small one-cylinder engine. It has of ten been claimed that this was the first motorcycle in the United States. If so, it did not occur to Harry to protect the idea, and soon there were companies making fortunes from 1t. Edna said:

Harry was always working. Always building things or thinking about things to build. That's all he ever did or cared about. Then, according to a 1937 newspaper blography:

The following summer at Menomonie he worked out a peculiar fourcylinder engine, clamped it on a rowboat and showed his cronies how to enjoy their afternoons off. It was the first gasoline outboard motor in the country.
"About that time my wife got terribly homesick and we packed up and went back to California." Miller recalls. "I never did get around to patenting the outboard engine--clean forgot all about 1t."

A young machinist in the shop at Menomonie was not so lackadaisical. He brought out a two-cylinder outboard shortly afterward. His name was Olie Evinrude, and he became the papa of a highly profitable industry.
"It was in 1900 that Harry and Edna arrived in San Francisco, where he got another machine-shop job and built another motorcycle to get around on. Here he got experience with foundry work and with the manufacture of pistons. Later, shortly before World War I, he set up his own piston factory, and it seems to have been the first in the United States to make pistons of aluminum. From San Francisco Miller moved back to Los Angeles, where he designed a novel type of spark plug. It must have been protected because he sold the manufacturing rights to the Peerless Motor Car Company for a good price.
"In 1905 Harry built his first automobile. All that Edna could remember in later years about its structure was that it had a dog clutch and no transmission. He used to treat Edna and their son to Sunday drives, and getting started or stopped was usually an adventure. Edna marveled at his inventiveness and told him that he could be a great captain of industry if he would only alm for that goal. The thought repelled him completely."

I hope that by the next newsletter the mystery will be solved by Jim Webb or Mr. Evinrude. For now we will close the cre..ea..king do.o.o.rr.

page 26 - March, 1915 - RUDDER

# LAKE TEST: C.R.Owen JOHNSON P-35 GIANT KICKER OF 1927 

## Introduction

Before 1926 no one thought of the outboard in any connection with the word "speed." RPM was usually registered as a three digit number and miles per hour and horsepower could usually be counted on one hand. Two things saved the outboard motor from its rut. The first was the development of the well balanced opposed twin and the second was the lower price of post war aluminum. The first motor to use both of these advantages successfully was the 1921 Elto. Nonetheless, it took the industry five years to realize the speed potential and two more to fully develop it. The $\mathrm{P}-35$ is one of those motors of the in-between period when the industry had caught the bug but was unsure about what to do with it.

The 1926 Johnson P-30 set off the racing fever by being the first motor to surpass twenty miles per hour. Johnson created this motor by scaling up one of their 2 hp . models. Since the method worked in 1926, it was assumed by Johnson that it would win again in 1927. They were only partly correct. The Elto Speedster, of more advanced design, weighed 15 pounds less and needed only $70 \%$ of the P-35's displacement to produce 86 percent of its power. Even so Johnson stuck to its formula through 1928 when they produced the amazing Giant Twin, T40. Elto's Quad made it obvious that more cylinders, higher rpm and lighter pistons were the answer. The $\mathrm{P}-35$, therefore, is a motor representing a discarded principle. It is a freak of the short lived Johnson giant kicker series. Yet in 1927 this freak was expected to show up the more sophisticated machinery, and often did. The reason why can be learned by running it.

## Description

When you look at a P-35 it appears to be a photographic blow up of a Johnson A-35. You have to look hard to find the subtle changes. On the inside of the engine there are few. The three port opposed twin has heavy cast iron pistons and bronze connecting rods mounted on bronze bushings. Contrary to the practice of other companies the con rods are offset so that the cylinders are directly opposite. This makes the engine beautifully symmetrical, but it puts a torsional strain on the con rods and bearings which one would think might cause broken rods. As it is, the P-35 is known to break crank shafts easily but this is attributed to a poor crankshaft design. The muffler is changed in that it is finned radially and that it is more open than in the much smaller A-35. The gas tank, shaft, and lower unit are also scaled up directly from the smaller motor. The lower unit employs ball bearings on the front of the propshaft. The final and most obvious touches of the scaling up routine are the carburetor and carrying bar The overall appearance is made vastly more impressive by size. The motor looks iike it means business from any angle. The $10^{\prime \prime} \times 111 / 2^{\prime \prime}$ two-blade prop hints at speed. This 8 looks like a twenty-five. Unfortunately, it also carries like one.

## Operation

When carrying the $\mathrm{P}-35$ it is best to think of it as a rare classic in order to numb the pain in your back with pride. The carrying bar is well placed, but the motor is very heavy and awkward when you consider that its horsepower is now regarded as ample only for fishing. Once it is mounted on the boat you feel a lot better. The gas tank is easily filled by pivoting the motor 180 degrees. The filler cap screws into the center of the back of the gas tank and is less subject to slosh than on the Elto and Evinrudes of the era. As far as I can see, this is the only practical use for the 360 degree pivot design on a motor of this bulk. The gas line shut-off valve is, as custom dictates, back near the muffler so you can expect to be burnt often. The motor is choked once then pulled once, unchoked. It fires right up every time so this is a strong point in its favor. The sound of the motor at low speed is exactly like that of the A-35 at idle. There is an audible intermittent hiss from the intake and a staccato jerking of the steering handle. The immense flywheel makes this motor a very smooth idler, another point in its favor; it would make a good fishing motor. When the spark lever is advanced, the P-35 begins to sound impatient for the throttle. When the throttle is opened you are temporarily disappointed. The size of the engine along with the noise has lead you to believe that it has more than eight horsepower. A1l that happens is that the bow rises and you plow on as before. If you move forward a foot or two, however, the motor regains enthusiasm. The bow dips, the boat takes off like a scared rabbit, the noise builds up into an airplane roar, and the speedometer registers on the top side of 23 miles per hour. Evidently the two-blade prop converts 2750 RPM into a lot of speed. This speed is truly amazing within the context of eight horsepower. If you consider the size of the motor, however, the performance becomes less noteworthy.

In conclusion I will say that the use of such a motor is limited in modern day service. One is always scared of losing a crankshaft. $\mathrm{P}-35$ crankshafts are almost impossible to come by as Dave R. will tell you. Also the size and weight of the engine make it impractical to use in the everyday manner. When you have antique outboarding in mind, on the other hand, the combination of speed, noise, and outdated design signify that you are in for a rare treat.

Specs: 1927 Johnson Big Twin Model P-35



John Harrison, 1000 N.W. 54th Street, Miami, Florida, has brand new decals available for the Johns on V series at the cost of $\$ 10.00$ per deal.

# the editors corner 

d $r$ reinhartsen

We can let the secret out now; Jim Webb has had published, a book titled: "The Pictorial History of Outboard Motorboating." Itis table of contents is below:

1. Pioneering Ideas: 1866-1900
2. Early Engines - Weird But Workable
3. The Remarkable Story of Ole Evinrude
4. The Enterprising Johns on Brothers
5. How The Industry Grew
6. Outboards in World War II
7. Refinements in Design and Engineering
8. Jets, Electrios, Steamers and Outdrives
9. Workhorse of the Waterways
10. New Era in Reareation
11. Raoing Stimulates Public Interest
12. Assoc Iations Serve Manufacturer and Consumer
13. Boat Shows Broaden The Market
14. Compendium of Statistios
15. Chronological Review of Brand Names

I am espeoially glad to see that someone has published on this subject, and even more glad that it is our own Jim Webb. As I consider Jim to be the worldig foremost authority on Antique Outboards, I think that this book is certain to become the Handbook of Antique Outboarding. To order your copy, or to obtain more information, write Renaissance Editions, Inc., 527 Madis on Avenue, New York, New York, 10022.

A second piece of "big news" is the Sec ond Anual Antique Outboard Race, held in Dallas, August 26th. This year's race was far better than last yearis. Diak Anderson and his wife Susan drove from Los Angeles to participate in the raoe and Diok Jones and his wife Jean towed an antique Dumphy from Miami, Florida. Bill Curtin brought a boat and motor from Wichita Falis, Texas and many spectators turned out to see the Second Anual Texas Nationals. It was a special pleasure to meet these members and visit with them. I hope they aome back next year, so that we can spend more time together.

Speaial thanks goes to Diak Anderson, who oame early so as to help me with the arrangements for the race, Hal Copeland, who handled the publicity so well that news of the race was carried on two radio and two television stations, and Val Valentine, of Valentine Marine Supply, who sponsored the race, donated;
trophies and prizes, and loaned us boats.
Planning for next year's Great Race has begun already. It will be held on Saturday, August 24 th, at Lake Dallas, Texas. This year we are planning a get together for general reminisoing, a tour of Chrysier Boats and Texas Instruments, a viotory dinner at

Cattlemen's Restaurant, and a trip to the Hemisfair in San Antonio. How is that for action? Start planning to oome.

I have been extremely pleased with the number of informal member get-togethers. Buddy Streat, Bob Zipps, Maraus Wright, Dick Hawie, Bob Eiring, Bill Kelly. Henry Seibel and many others have contributed to these meetings. Letis have more of them.

Watersport magazine is about $95 \%$ sure that an artiole about the alub will be in its Fall issue. It should be a fine article, written by a professional writer, and photographed by a professional photographer. As a matter of fact the photographer enjoyed the assignment so much he spent a couple of extra days in Miami taking piotures of John Harrison, Dick Jones and their collections.

I don't know what happened to the article about the New Jersey meet which was to have appeared in Argosy Magazine. I'll oheok on it - In the meantime, watoh for it.

Finances: Well......better. As of September 15 th we had $\$ 474.00$ in the olub account. This magazine will oost about $\$ 270.00$ to prepare, print and mail, leaving about $\$ 200.00$ in our treasury.

I received a very unusual letter a month ago. Seems a fellow by the name of Sam Vance was visiting his friend Bob Thurstone. The January, 1967 issue of The Antique Outboarder was laying around and Sam, being interested in old motors, pioked it up and glanced through it. On page 34, he aame aoross a pioture of a motor whioh I had just purchased. Believe it ar not, the motor used to be Sam's. Sam wrote to me telling me what he knew of the motoris history, and I replied telling him what I knew of it's history. Sam is now a member of the club.

As usual, we need artioles for our magazine. Motor Tests, Motor Desoriptions, Historioal Artioles - you write 'em - We'll print ${ }^{\prime} \mathrm{em}$.

Since the olub began, the number of members has grown from five to about 300. During that time, I have managed to keep my work level about constant by delagating authority and responsibility to lieutenants like Marc us Wright, Diok Hawie and Bob Zipps. Now usually an organization such as ours is plagued by too many chiefs and not enough Indians. Not in our case. We need Chiefs, badly. Speaifically we need:

1. A Vice-President in oharge of finances to keep the books and monitor spending.
2. A Membership Direotor to get new members, write rearuiting Iiterature, process memberships, and handle membership renewals.
3. A Magazine Editor to prepare The Antique Outboarder. Yesthis is a big job.
4. A Newsletter Editor to prepare a monthly one page news letter telling of olub activities and news. (This is something new whioh we can afford now - if we can get someone to do itl)

Please - pitch in and help your club grow. The only alternative
is hiring part-time help-which we cannot afford.

## From The Weidman Collection



1939 CIARKE TROLLER
1.2 H.P. SINGIE CYLINDER VARIABLE PITCH PROPELLER BATIERY IGNITION; WEIGHT 9 LBS.


1930 EVINRUDE FOLD LITE TWIN LOWER UNIT FOLDS UP INTO RECESS OF DIVIDED MUFFLFR FOR FASE OF CARRYING AND STORAGE.


1932 MUNCIE (NFPTUNE) TWIN. MOTOR MOUNIS SOLID ON BOAT, DRIVE SHAFT HOUSING AND LOWFR UNIT ROTATFES 360 DEGREFFS. A TILIER CORD CIRCLES THE BOAT AND THE WHEEL UNDER THE MUFFLER FOR STEERING.


1930 INDIAN, SILVER ARROW 20 CUBIC INCH TWIN.

## New Nembers:

These people have joined the club since the last Antique Outboarder was published and membership now stands at 275 If you live near these new members, phone them or write them - in some way get in touch. Go to see their aollection or extend an invitation to see yours. We all have to get ac̣quinted, and besides it will be a lot of fun to talk antique outboards, exchange information, and ideas. Get in touoh right away.
L. de Blauw, Dept. 560, Outboard Marine, Belgium, Pathoekeweg 72 Burges, Belgium
The Boat Shop, Wapello, Iowa
Ezio BrundelRe, 918 Telford Avenue, Ottawa, Ontario 7, Canada Ludwig Bollenbacher, 146 Campbell Road, Syracuse, New York 13211
Cortland E. Colver, Bella Vista Harrison's Landing, Quaker Hill, Conneotiout 06375
Elmer E. Coyte, 1001 Lasswade Drive, Tallahasse, Florida 32303
Charles H. Daily, 3 Country Club Drive, Savannah, Georgia 31404
0.E. Bill Hayes, P.O. Box 97, Clearlake Park, California 95424

Peter Hunn, 124 0ld Farms Road, Simsbury, Connectiout 06070 William M. Kelly, 10201 1l4th Place, N.E., Kirkland, Washington
Turner Kirkland, Union City, Tennessee
George W. Laking, 37605 Lakeville, Mt. Clemens, Michigan 48043
Bob Leonard, North Shore Landing, Bigg Bear Lake, California
Paul J. Lynch, 2136 South 22nd Street, LaCrosse, Wiscons in 54601
Frank Nunes, P.O. Box 537, Newman, California
Donald L. Pillar, P.0. Box 276, Clatskanie, Oregon
William H. Rose, 714 Bluff Street Waukegan, Illinois 60085
William Rust, 908 Ohio, Wiohita Falls, Texas 76301
Wayne R. Sargent, 3 Pine Crest Lane, Dover, New Hampshire 03820 Fred Scharmer, 304 Ottawa Street, Muskegon, Miohigan 49440
Kenneth E. Shaver, Rt. 6, Box 510, Port Orchard, Washington 98366 Sam M. Vanoe, RD \# 2, Unadilla, New York 13849
Gene E. Yonker, 802 East Esther Street, Taylorville, Illinois

## New Addresses

Jimie D. MoGinnis, P.0. Box 89, Pearl River, Louisanna 70452 William J. Smith, Point Defiance Outboard, 901 Doak Street, Tac oma, Washington 98402


## trader's cove

## R.h. $\mathbf{Z}_{1 p p s}$

This past summer's vacation brought forth some finds worth mentioning. For those interested in unusual motors, contact George Wenden 1388 Middlesex Street, Lowell, Massachusetts ror he owns onc of the most unusual motors I have ever seen or heard of.

The motor was made in Japan before or during World War II. It is a four cycle opposed twin. It has a modest ten to iffteen horsepower and a not so modest weight of about one hundred and fifty pounds approximately. I would give the brand name here but unfortunately my typewritter does not have the characters and I did not take Japanese as an elective in school, therefore a translation is out of the question.

It features overhead valves complete with pushrods. Lubrication is provided by a fully pressurised system with an oil pressure gauge. Since this is the only one of its kind owned by Mr. Wenden, it comes in long shart only. Sound interesting, well seeing it is more interesting. This motor is for sale and would be a unique addition to anyone's collection.

Traveling further brought me to the Outboard Motor Mart, 86 Lincoln Street, Boston, Massachusetts. I was given a tour of their basement and the number of antique parts they have is beyond the imagination. I would say try them Ior any Johson or ivinrude, but I also saw some Lockwood parts including a complete lower unit with stern bracket. They had a bin full of antique electric starting parts and parts for brands too numerous to mention. Their rates are as if they were new parts as would be expected since the time involved in locating, especially locating, wrapping and mailing a part is horrendous.

GENERAL REQUIREMANTS APPLICABLE TO CLASSIFIED ADVERTISING

1. Include: a) Make b) Year c) Model d) Serial e) No. of cyl f) runs or not g) condition of compression \& spark $h$ ) parts missing 1) overall condition j) features k) price l) state if member
2. Closing dates: All advertisments must be received not later than the lst of the month preceding the date of issue. Issues are mailed on the ifrst or January, ipril, July, and October.
3. Transactions based on good raith: Deliberate misrepresentation, or violation of the code of business ethics and good sportsmanship will constitute grounds for refusal or advertising.
4. Warning to purchasers; The Antique Outboard Motor Club will accept no responsibility for any unsatisfactory transaction involving articles which either have or have not been described in accordance with paragraph 1.

## MOTORS FOR SALE

ELTO- Light Twin, Mod C, Ser l4165, good condition, photo \& details on request, $\$ 35$. Keith Musselman, 8919 Chappel, Chicago, Illinois, 60617

MTU-Super, Mod G, Ser 35402, Twin, complete, good compression, little rust, good over all conaition, Jeines P. Achten, 1101 Oviatt, Kaukauna, Wisconsin
cilto- Super, Mod H, Ser 06130 , Twin, 1926, runs, complete, Fair, needs cleaning externally and one cylinder replaced which will be furnished be seller, comes with instruction book. SEE PHOTO BELOW, John F. Kraus 22-04 119th St., College Point, New York


ELTO-Super, Ser 61867, 6 HP , 1924-25, Like new condition. Photo \& details on request. Keith Musselman, 8919 Chappel, Chicago, Illinois 60617

ELTO- Super Quad, Ser 72118, pat. dates 1924-25. Photo \&c details furnished on request. Keith Musselman, 8919 Chappel, Ch1cago, Illinois 60617

ELTO- Mod 310, Ser 0389 P, Twin, 14 HP, complete, good compression, almost new cond. Robert Bonnett, 1198 Walker,

辿T0-Sportsman, 1937, 1.6 HP , Mod 4207, Ser 02340, Single, runs good, complete, very good overall condition, good comp \&c spark, starts on first pull. Clifford Jording, 2709 Woodlawn Road, Sterling, Illinois, 61081

EVINRUDE- Row Boat Motor, 1909? Mod A, Ser 39, (that is what Ralph wrote on the form, number 39A), runs, battery ignition, motor complete, original battery box dated 1908 included. Ralph Werner 3059 North 45 th Street, Milwaukee inisconsin 53210

EVINRUDE- Row Boat Motor, 1914, Mod B, Ser 28029, Single, complete good compression, ran 10 years ago. good over all condition, Jack M. Mulder Sr., 1319 Sheridan Rd. St. Joseph, M1chigen 49085

EVINRUDE- Row Boat Motor, Mod ? Ser ?, Single, runs, battery ignition, good compression, complete, rair over all condition Berndt Repair, avon, South Dakota 57315

EVINRUDE-Row Boat Motor, Mod A, Sor 123947, Single, 1920-21, complete, partially disassembled, Spare flywheel \& Stator plate included, excellent overall cond. R. J. Whittier, Box 543, South Duxbury, Massachusetts

EVINRUDE- Row Boat Motor, 4 to choose from, Mod A, Ser 100136, 110932, 111679, and the 4th has no plate. $\$ 30$ each. Photo \& details furnished on request. Keith Musselman, 8919 Chappel, Chicago, Illinois 60617

## MOTORS FOR SALE

IVINRUDE- Mod 162, Ser 0892, Twin, runs, complete, good condition, motor leg folds, has own metal carrying case. Sergeant Major Glenn T. Braden, Gen. L. Wook AH (5017), Fort Leonard Wood, Missouri 65473

EVINRUDE-. Mod N, Ser 15146 X, Twin, complete, 1923-24 and rebuilt at factory in 1931, Sportwin, Mrs. James Fay, 504 West Wisconsin, avenue, Pewaukee, Wisconsin 53072 (See Photo Below)


EVINRUDE- Speed Twin, Ser 110.514, no exhaust manifold, no mufiler, no prop, photo \& details on request. Keith Musselman, 8919 Chappel, Chicago, Illinois 60617

EVINRUDE- 2 motors, Mod 4357, Ser 00693 \& 04994,make one from them. David Reinhartsen, 1107 Pueblo Drive, Richardson Texas 75080

EVINRUDE- Mod N, Ser 14096,
Twin, complete, no damaged parts motor is in its original trunk, SEE PHOTO BELOW, Thomas D. Donnelly, z832 West 83rd Place, Chicago, Illinois


JOHNSON- Mod A, Ser 741, Twin, 1922, runs, complete, runs very good, original decals intact \& in very good condition, needs water pump piston. Motor very clean, Norman L. Reeves, 8923 North Frye Road, Peoria, Ill.

JOHNSON- Mod A-25, Ser 43095, Twin, runs, complete, no damaged parts. J. Foster, 567 South Bellevue, Lake Orion, Michigan, 48035

JOHNSON- Mod A-25, Ser 13099, $\$ 35$. Photo \& details on request. Keith Musselmen, 8919 Chappel Chicago, Illinois 60617

JOHNSON- Mod A-35, Ser 69039, 1928, Twin, $2.5 \mathrm{HP}, 2600 \mathrm{rpm}$, runs, complete, motor comes with original instruction book \& canvas cover. good to fair cond, dents in tank, Leroy Wilson, 66 Paulding sivenue, Tarrytown, New York 10591

## MOTORS FOR SALE

JOHNSON- Mod A-50, Ser 158677, Good Shape, details on request, David Reinhartsen, 1107 Pueblo Drive, Richardson, Texas 75080

JOHNSON- Mod PB-30, Sor 35413, Twin, 1930, runs, complete, good overall condition, one dont in tank, motor has brass lower unit. Robert C. Hall, 8626 Schroeder Avenue, Baltimore, Maryland, 21236

JOHNSON- Mod k-75, Ser 226749, Twin, 9.3 HP , runs, complete, fair over all condition, small dents in gas tank, C.F. Mynn, 1950 Naylor Roar S.E.,
Washington, D.C. 20020
JOHNSON- Mod MS-15, Ser 390641, perfect over all cond. details on request, David Reinhartsen, 1107 Pueblo Drive, Richardson, Texas

JOHNSON- Mod MS-38, Ser 297355, Bamtam, no gas tank, 1.7 HP , Photo \& detalls on request, \$20. Keith Musselman 8919 Chappel, Chicago, Illinois

NEPTUNE- Mod 0B12A, Ser D7-7073 excellent over all condition, details on request. David Reinhartsen, 1107 Pueblo Drive, Richardson, Texas 75080

NEPTUNE- Mod OB35A, Ser F7-6641 good over all condition, details on request, David Reinhartsen, 1107 Pueblo Drive, Richardson, rexas 75080

OUTBOARD MOTOR CORP.- Mod 4097, Ser 0263, Twin, runs, good compression, good spark, good over all condition, Clifton Hall, 2413 Blakemore Avenue, Nashville, Tenn. 37212

## MOTORS FOR SALE

THOR-SEA KING - Ser Wl012, Fair over all condition, details on request, David Reinhartsen, 1107 Pueblo Drive, Richardson, Texas

WATERMAN- Mod Cl4, Ser 141948, restored, photo \& details on request, Koith Kusselman, 8919 Chappel, Chicago, Illinois 60617

## PARTS WANTED

CAILLE- Liberty Drive Twin, need magneto-American Bosch \# FBC-2SK-ED-21, Buddy Streat, 817 Forest avenue, Richmond 29; Virginia

CAILLLE- Liberty Drive Twin, need carburetor- Zenith CV-22. Marcus Wright, 30 Crest Drive, Little Silver, Nem Jersey

KLTO- Super Light Twin, need oylinders, Marcus Wright, 30 Crest Drive, Little Silver, New Jersey

ELTO- 1928 Quad, needs Gas Tank, Murfler, timer, 2 pistons with connecting rods. Marcus Wright, 30 Crest Drive, Little Silver, New Jersey

CAILLE- 1917, Front Cylinder, needs Rudder \& water pump, H.W. Seibel, 3207 Harley avenue, West, Seattle, Washington 98199

EVINRUDE- Mate, needs ignition coil, Douglas Haskins, 21
Chapmen St. Wollaston, Massachusetts
EVINRUDE- 460, needs exhaust stacks Buddy Streat, 817 Forest Avenue, Richmond, Virginia

Mercury- 1946, $\mathrm{KD}-4$, needs bevel gears for lower unit, John Ward, R.D. \#2, Champlain, Now York 12919

## PARTS WANTED

JOHNSON- TR-40, needs orankshaft, J.C. Harrison, 1000 NW 54th St. , M1ami, Fla. 33127

JOHNSON- K-40, needs oylinders \# 15 D 140 \& 15 D 141, R.B. Hampton, 54 Clinton $A$ © 0 ,
Eatontown, Nem Jorsey
JOHNSOX- $\nabla-45$, needs new crankshaft, J.C. Harrison, 1000 NW 54 th St., Miami, Fla. 33127

OWKNS DINETO electric start unit- needs cover, or loan of cover, or plaster cast of cover, David Reinhartsen, 1107 Pueblo Drive, Riohardson, Texas

## LITERATURE WANTED

EVINRUDS- Speedster, the IIrst model that was 32 HP . TAMRAMAmodel Cl4. Cataloigs, owners manual and parts listing wanted for these two motors. Ray Machon, 624 Gardnor Ave., Westchester, Illinois

## MOTORS WANTED

Johnson- Model PO, Konneth Fleiselman, 1717 Lipper ATe. Higginsville, Missouri

THOR- 3 oly, known as pyramid 3. CLARK- 2 cyi troller, CROSS- 5 oyl radial, LOCKWOOD- 2 oyl Aoe, LOCKWOOD- 2 cyl racing Chief, FLAMBEAU- 2 oyl, ECLIPSE-BENDIX- 2 cyl air cooled, ELTO2 oyl Super C, JOHNSON- 2 oyl Mod PR 65, CAILLE- Models 35, 40,49 , \& 50, CAILLJE- single cyl Liberty Drive, Gray Gearless, SPINAWAY- 2 cyl. Walter L.
Weidman, Voorheesville R.D. 2, Now York (Walter is a very serious collector as pictures of his restorations will show. He will buy or trade for any of the above and would like to hear from owners of the above)

## MOTORS WANTED

KOBAN- any year, any model, any condition. Robert H. Zipps, 24A St. Regis Street, Bast Hartiord, Conneatiout 06108

## MOTORS SEEN

BENDIX- Air cooled single, 2 1/4 H.P. Louls P. Rager, 377127 th Ave. South, St. Petersberg, Fla.

CHAMPION- $91 / 2 \mathrm{HP}, \$ 10-\$ 15$ suggested. Louls Houger, R.D, \# 1 , Watertom, Pennsylvania

## CLARK-Troller M.A. Guerrant

 R.R. 1, Otsege, MichiganKLTO- Cub, Mod 4264, SRE PHOTO BELOW, William Blair, 610 Dunn, Muncie, Indiana


ELTO- Cub, 1938, bad block, \$5 suggested. Norman Snyder, 302 First avenue, Keyport, Nem Jersey

ELTO- Super Light Four, 1929, John T. Page, 1816 Highland View, Mount Vernon, Illinois 62864

## MOTORS SEEN

ELTO- Mod G, Ser 49642, 1927, Cletus Rainsbarger, 2822 Charlotte, Ǩ̂ansas City, Mo.

ELTO- Mod G, Ser 31453, 1926. Floyd W. Baker, 302 Market St. Lowell, Oh1o

ELTO- Super Light Twin, 1927, Ser 49900, Lawrence Evans, 7719 Gingerblossom, Citrus Heights, California 95610

ELTO- Mod G, Ser 30047, Twin Fred Johnson, 1872 Evergreen, San Mateo, California 94401

ELTO- Mod C, 23620, Light Twin, Charles Lang, N64 W20708 M111 Road, Menomince Falls, Wisc.

ELTO- Richard Thurber, 2901 Commercial Ave. Madison, Wis. (That ad was just chuck full of information)

EVINRUDE- 1926, Mod N, Orville D. Brown, c/o Kendall Cabinet \& Gun Shop, R.R. \#2, Gobles Michigan 49050

EVINRUDE- 1939 Ranger, 1.1 HP , James Sherrill, PO Box 27, Pledger, Texas

EVINRUDE- 3.3 HP Sportwin, J. Lynn Potter, e/o Gunshop, Route 2, Box 375, Astoria, Oregon

EVINRUDE- Row Boat Motor, Richard Thurber, 2901 Commercial Ave., Madison Wisconsin

EVINRUDE- Spotwin, Stanton Randolph, 102 East 97th St. Kansas City, M1ssouri

EVINRUDE- 1938, Shurley Dorschner 225 Meade St., Neenah, Wisconsin

EVINRUDE- Row Boat Motor, Salo Salo, Box 5, Bondville, Vermont

EVINRUDE- Row Boat Motor, Robert Anderson, 604 Ammunition Rd. Fallbrook, California

EVINRUDE- Row Boat Motor, Luther Smith, Mulkeytown, Illinois

EVINRUDE- Mod B-100-H, \$15, Walter Schmidt, 706 S. Stonestreet Ave., Rockville, Maryland

EVINRUDE- 1933, 4 cyl, John Fucci 434 Morningside Ave. Fairview N.J.

EVINRUDE- Mod 4016, Russell McMahon, R.R.2, Brillion, Wisc.

EVINRUDE- 3 HP Twin, 1938, A.K. Sagen, Box 274, ,Troy, Montana

EVINRUDFE- Row Boat Motor, Al Berks, 2951 S 47 th St. Milwaukee, Wisconsin

EVINRUDE- Mod ER 20 T, H. Retterer 3612 W 70th St., Ch1oago, Ill. JOHNSON- MOd a-5O, Theodore H. Stoe, 761 High St., Lancaster, Pa.

JOHNSON- Mod A-35, A. Bernotas, 873 Broadway, Bayonne, New Jersey

JOHNSON- Mod LT-39, Alton Duran 1700 Kilgore Dr. Henderson, Texas

JOHNSON- Mod A-45, Virginia Sells, 100 W Neece St. Long Beach, Calif.

MARCURY- Thunderbolt, Joeseph Arsenault, 101 Dutil St. Berlin, New Hampshire

# Che Antique Outboard ftlotor Club 

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