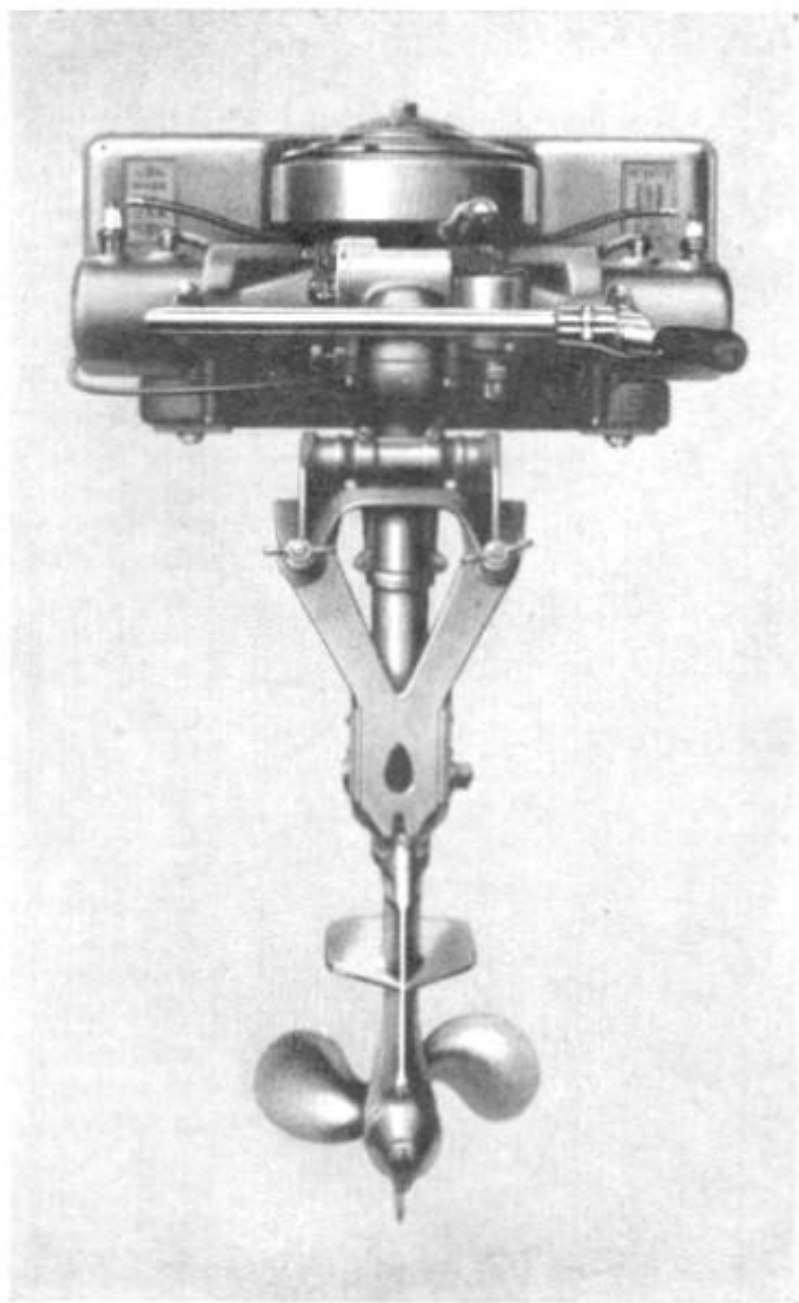


*The* **ANTIQUÉ**  
**OUTBOARDER**



**January**

**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 Walter Verner, 4304 Harding Road, Nashville, Tennessee 37202, U.S.A.

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# ELECTRICALLY STARTED Sea-Horse Outboard Motors

and Johnson Complete Outboard Motor Boats Already Point to Large Dollar Volume for Dealers



The powerful Sea-Horses "12," "16" and "24" may now start with electric starter which also charges battery. Remote Charger permits quick starting on shore battery... or when using emergency cranking rope.

A very large dollar volume of retail business is assured in 1930 in the sale of Sea-Horse Motors and Boats to match. And with this amazing advance in outboard motoring, it does not take much imagination to see that a steadily increasing and much larger volume is in store in coming years for dealers who establish themselves now.

To millions of people Johnson's 1930 advertising will bring the sensational news of electric starter as optional equipment on the famous Sea-Horses "32" and "16," and the new "24."

It also introduces the first Matched Units, complete outboard motor boats, powered by electrically started or rope-cranked Sea-Horses, from the luxurious 20-foot Aquaflyers to 14-foot Utility boats and racing hulls.

Boat business of Johnson dealers will be stimulated by the seamless, waterproof Sealite construction of Johnson hulls—much

lighter, faster, and stronger than ordinary outboard boat construction.

Alternate-firing in new Sea-Horses "4" and "12" will capture the attention of all who intend to buy small motors.

A new record of 49.34 m.p.h. will win the admiration of all outboard speed enthusiasts.

These announcements can only mean that the increase of new outboard buyers must be measured in tens of thousands. Already indications from dealers and response to national advertising point to gains for 1930, far surpassing all previous records.

### Write for Proposition

Write promptly for color illustrated catalog, details of the Johnson Franchise, and whether it is available in your locality.

JOHNSON MOTOR COMPANY, 4300 Pershing Road, Waukegan, Illinois... In Canada: Canadian Johnson Motor Company, Ltd., Peterboro, Ontario

Front Cover: 1928 TR 40 Giant Twin  
Back Cover: Walt Ellis, W.M. Conover  
Third National Meet, Shipyard Museum

# JOHNSON

MATCHED UNITS

## SEA-HORSES & BOATS

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For smaller motors, the new alternate-firing Sea-Horses "4" and "12" set up new standards of smooth power flow, minimum vibration, and easy starting. Besides water-cooled underwater exhaust, they have Full Pivot Steering which locks the boat.



The Antique Outboarder

Volume 14- No. 1

January, 1979

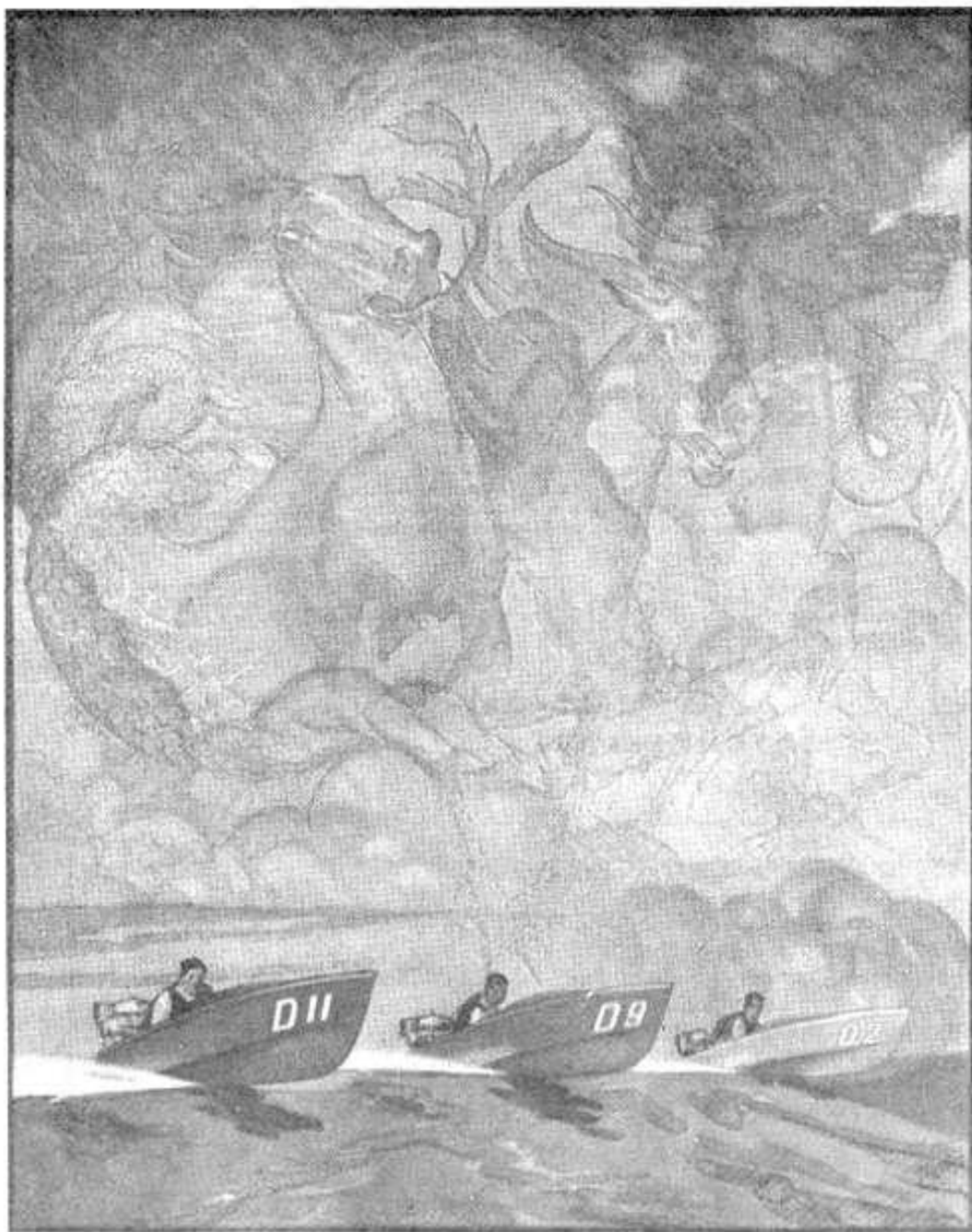
Published quarterly by The Antique Outboard Motor Club, Inc.  
Publication offices—3724 Briarcliff Road, Kansas City, Missouri 64116

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

Change of address should be forwarded two weeks in advance and zip code number should be included.

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**T**HE Sea Horses live again! Famed in legend and myth as the flashing steeds of Neptune, god of the sea, they come to life again to typify the flashing speed and power in the new line of motors by Johnson!



# **THE JOHNSON STORY**

Dedicated To

Warren M. Conover

This rendition of the Johnson Story by the Editors of The Antique Outboarder is dedicated to Warren M. Conover, 88 years of age on November 23, 1978. He is the last surviving member of the Johnson Brothers Engineering Corporation.

This is a combination of two excellent articles submitted by

Jim Webb, AOMCI

&

John Van Vleet, AOMCI

Other credits are as follows:

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Jim Webb

Johnson Motors

Lemuel S. Connelly, AOMCI

The VINTAGE AIRPLANE

Edited by

P.L. Wall



# Family History

Four men (with help from many others) made Johnson Motor Company, once of South Bend, Indiana but later of Waukegan, Illinois, produce elegant Johnson Outboard Motors that were world respected. These tremendous men must not be forgotten as individuals. They were Lou, Harry, Clarence Johnson and Warren Conover. To begin to appreciate them one must first learn something of their parentage, their generation, and their experience prior to originally forming the company in South Bend, Indiana.

The parents of the seven Johnson children were Soren (born in 1843) and Bertha Lawson (born in 1854). Bertha was born in this country (Chicago, Illinois) to Swedish-Norwegian parents, and Soren migrated here at the age of 11 from Aalborg, Denmark. He became a "tool dresser" which was a highly skilled blacksmith artisan in the era of plain high-carbon steel tools and machine parts. In the days before high temperature measuring equipment was generally available, a tool dresser could, by color chiefly, heat treat steel and case harden it when required. A tool dresser fundamentally could also make virtually every machine part required on the primitive machine tools of the time that were found in railroad shops.

He first worked for the Pennsylvania Railroad at Effingham, Illinois, where seven children were born to the couple. The Johnson family moved to 717 N. 10th Street, Terre Haute, Indiana when the Pennsylvania Railroad moved its division point shops there in 1898. The following is a generation summary of the Johnsons of Terre Haute:

Hattie was born about 1876. She married and gave birth to one son (Bert Harding) before dying in 1898 of an infection.

Arthur was born June 7, 1879. He was a machinist, and became active in union organizing activities through the Socialist Party. He died in 1913 from an accident at home.

Louis was born October 16, 1881 and died May 5, 1963. He was the oldest of the "Engine Four", and was an extremely talented and most imaginative designer.

Harry was born May 14, 1884 and died May 28, 1967. He was a very creative, logical "idea" man who intuitively could visualize and select the very best ideas and designs that the "Engine Four" needed.

Julius was born in the winter of 1886/87. He was a top notch machinist who did precise aircraft engine machining before becoming a specialist on complex automatic glass bottle manufacturing machinery at Alton, Ill. He died in 1974.

Lutie Mae was born April 25, 1891 and died March, 1961. She is very important to our story in that on November 15, 1910 she married her childhood friend Warren Mason Conover, who became one of the Engine Four.

Clarence was born August 8, 1895 and died October 7, 1976. He was the mechanic of the family. His reliable attention to detail made him the only mechanic Lou would permit to work on the airplane and people who knew him also say, "He could make anything."

The same generation of the Conover family Ralph and Anna (Smith) Conover. Both parents were of pioneer stock, their American forefathers having gradually moved westward, riding Erie Canal boats and taking the stage coaches with stops en route. They were both raised in the Terre Haute area. Ralph and Anna had three sons.

Pearl B. ("Bill") was born in 1882. He became a Terre Haute detective until he retired.

Ray W. was born in 1885 and spent his working life with National Cash Register at Dayton, Ohio as a service instructor.

Warren Mason was born November 23, 1890. He inherited the love of the earth from his parents and has been involved with farming all of his life except for his time with the Engine Four." (1918-1935).



# The Beginning

"The oft-told story of the walnut tree grove is true," recalled Warren Conover. Lou wasn't lazy, but he just didn't like the hard physical work of rowing that boat, with very heavy oars, when the Johnson boys made the trip to the walnut tree grove some miles up the Wabash River against a strong current. In 1903 Lou and Harry (then in high school with Warren Conover's two older brothers, Bill and Ray) had accepted the challenge of the Wabash River at Terre Haute and were making white pine patterns for their first inboard motor, a large slow-speed single cylinder, 2 cycle engine, developing about 3 HP at 350 RPM and weighing at least 150 pounds. This was put in their 18 ft. rowboat named "The Arrow" and it pushed it very satisfactorily.

This was the first motor ever built by the Johnson brothers. In itself it wasn't much, but it was important in that it fired their imagination for greater things. This was the germ from which the Johnson Motors Company eventually evolved, but that word "Motors" didn't at that time, include any thought of an outboard engine.

Wanting more power they built a much larger inboard engine, "The Yellow Jacket", with a brass water jacket and a single cylinder, 5"x5". It developed about 12 HP at 500 RPM and really pushed the rowboat.

Soon after, about 1905, they came out with a single cylinder 3"x3" weighing but 65 pounds and making 3 HP at 800 RPM. Then came a twin cylinder 3"x3" and a 4 cylinder 3"x3", the 4"x3" single, the twin and a 4 cylinder engine. These engines were all "in line" design. Lou and Harry Johnson were in the inboard marine business in a rather big way considering that the factory was a large two-story shop built behind the Johnson's Terre Haute home.

Warren remembers, "These inboards started better than any motor I ever used. We never owned a crank - just used the flywheel to roll it! All the early Johnson inboards used the very good Splitdorf vibrator spark coils - Lunkenheimer brass mixing check valves - Stay Rite spark plugs with removable porcelains. The plugs gave lots of trouble cracking from expansion. Later on a mica plug was used and later the Rajah - a good one. All Johnson-designed engines were 2 cycle."

"The first motor was put to an interesting task in that the power to run the little factory was the original single cylinder 3 HP marine engine that had been in the rowboat. Julius designed and built a governor to operate a pushrod that came up under the check valve on the old Lunkenheimer mixing valve. It lifted the valve off the seat so the engine would miss an explosion or two to slow it to a steady speed. This worked fine and supplied all the power for the shop through a line shaft up in the second floor. Julius was the production force and really did most of the machine work. Harry did some but Julius was the man who really was the work horse. He was the finest machinist I have ever known." recalls Warren Conover.

"While Lutie Johnson and I were going together (1906-1909) I did not do any real 2 cycle engine work with her brothers but I did do lots of testing of new motors that were to be delivered to the customers. We had a big old 'john boat' on the Wabash River and I was helped by Clarence (who was about 12 or 13 years old at the time). We would put a single cylinder 3"x3" or sometimes a 2 cylinder 3"x3" in the old family steel tire wheelbarrow and take it down the Pennsylvania Railroad tracks (8 blocks) to the Shewmaker Boat Landing at the river bridge. It took lots of work to install the engine in the 'Ark' (the testing boat) and align the engine with the stuffing box so it would not bind - took lots of shimming - and all the gas, water pipes, muffler, etc. had to be connected. We did this just to spot check - just to be sure the engines were actually 'run in' enough to be safe to be shipped to the owners. Some went to

Arkansas and Missouri where they were used by the mussel diggers on the White and Arkansas Rivers," stated Conover.

Designs by Lou and Harry progressed from the small marine field about 1908 with the completion of a very lightweight, 4 cylinder, V, 5"x 4" watercooled engine with both aircraft and high speed motor boats in mind and with a varying number of cylinders from 4 to 12. Lou is directly quoted, "In our development we prepared designs and worked out the problems with many drawings and mathematical calculations in a precision manner."

Warren, only 19 at the time of the first big motor, says, "I never had anything to do whatsoever with the design or building of the plane or big motors but I did help test the first V on an old Prony brake, and we got long continuous runs of 50 HP at 1250 RPM. He estimates its dry weight with the propeller hub and the magneto at 145-150 lbs. This seems remarkable but entirely possible.

## **The Johnson Airplane**

Though marine motors were their first love, the Johnson boys became interested in airplanes. Engines were heavy things in those days and Lou Johnson, ever the dreamer, conceived the idea for a lightweight engine for an airplane. They built their first airplane motor, a lightweight, 4 cylinder, 2 cycle, V - type job. They put together an all wood monoplane that was so heavy that they couldn't get it off the ground. So they changed the structure to an aluminum frame with light wooden wings. The brothers drew straws to see who would be the first to try to fly and Lou won. They wheeled it to a level field. The engine responded quickly and one of the first successful flights of an American monoplane was made at Terre Haute on August 8, 1911. The plane soared 40 feet off the ground and continued for over 300 yards.

The Terre Haute Tribune reported that Mrs. Johnson, mother of the boys, was overjoyed. She said, "I am not much afraid about their going up, but I always worry when they start to come down. I think that is the most dangerous part of flying."

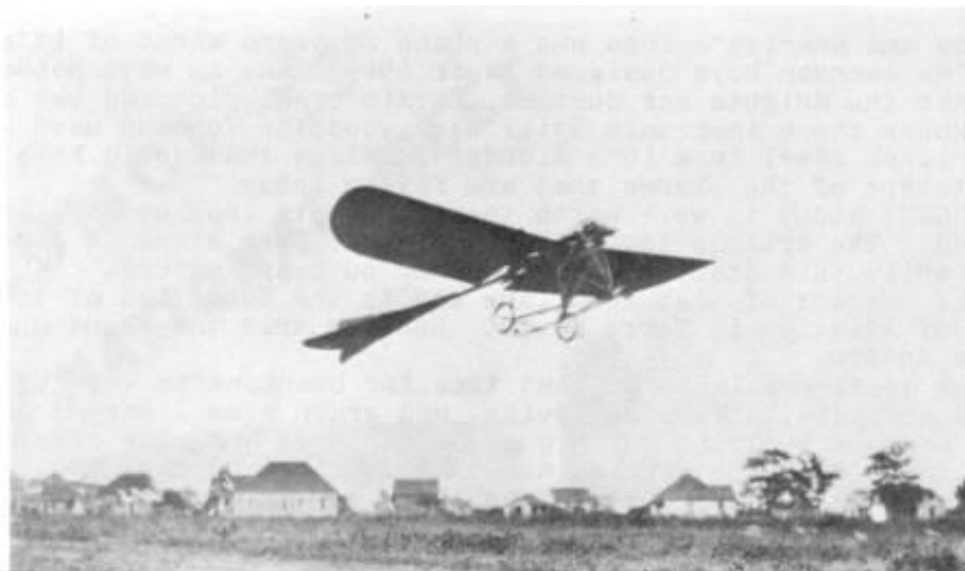
Lou did the exhibition flying after that, mostly at fairs. He got a \$1,000.00 prize for a 20 minute flight. He was almost killed at Arthur, Illinois when a faulty cylinder gasket blew out, with Lou catching a flood of water in his face while the craft was still airborne. He hung on and landed the plane safely. Lou continued to fly, but in his later years refused to go up in any of the modern airplanes. Lou thought they were not really safe. As a gesture to the past he participated in the reconstruction of a model of the famous Johnson monoplane which was presented to the Smithsonian Institution in Washington.

The nationally known magazine, ARGOSY, paid belated honor to the Johnson brothers in their September issue. Under the title, "The Great Indiana Airplane Blunder" ARGOSY tells the story of the Johnson boys and their really spectacular achievement. The article opens with this statement:

\* Argosy - September 1961  
"Who knows how far the course of aviation would have gone if someone had followed the lead of the Johnson boys, who designed a fabulous, streamlined airplane twenty five years too soon?"

They are old men now and their hair is white. They speak slowly, but they stand straight and walk with honest pride because, as young men, they achieved something extraordinary - and today the world has acknowledged their achievement. If the world had noticed them at the time, their name, Johnson, would have been emblazoned in aviation history next to Bleriot and Wright and Curtiss and Martin. But the young brothers were isolated in the backwoods of the middle west and if there had been a conspiracy, events and time could not have been more brutally against them. Their trage-





Top: First successful monoplane flight in America was on August 8, 1911. It was built by the Johnson brothers with aluminum frame and wooden wings, powered by lightweight, 4 cylinder, 2 cycle, V-type, 60 HP engine, and flown by Lou Johnson.

Below: Photo of the Johnson monoplane model taken by Dr. Paul Garber as it appears in the Air and Space Museum at Smithsonian Institution. Photo courtesy of October 1977 THE VINTAGE AIRPLANE.



dy and America's loss was a plane 25 years ahead of it's time. The Johnson boys designed their 1909 plane in ways nobody else, not the Wrights nor Curtiss, Martin or Bleriot had yet conceived. Where these immortals still used wood, the Johnson used aluminum and nickel steel in a long slender fuselage that could have been a prototype of the planes that are flying today."

That ARGOSY story is well worth the trouble to look up at a local library and read. The article is too long to quote here since it concerns airplanes while this story mostly concerns outboard motors.

The success of that monoplane led to the formation of the Johnson School of Aviation in Terre Haute. Besides this they continued to make inboard motors.

The steel available at that time for crankshafts - of loosely controlled analysis, stress relieving, and grain size - warped during the "pack" case carburizing techniques of the time and made crankshaft straightness over the working temperature range a problem. It is certain that some power losses occurred as the big Vs heated up.

Improved crank materials (all Johnson cranks were case hardened) and closer attention to heat treating techniques and main bearing and clearances permitted quite successful aero engine tests on Long Island with the V 8 at about the time disaster struck the Terre Haute factory. No doubt further development could have greatly improved the V 12 had time and money been available.

## **Disaster**

On March 23, 1913 on Easter Sunday, a very severe storm with torrential rains brought a concentrated tornado that touched down on the south edge of the Terre Haute city limits and leveled an area of about 12 city blocks. General flooding accompanied the storm as the Wabash River rose to all time high levels not cresting for four days. Many fatalities were reported and injury lists published were high and severe. Electricity and gas plants were damaged and shut down for some time.

Regrettably, the Johnson plant on Hulman Street was almost at the middle of the worst area. The building, design drawings, patterns, engines under construction and engine parts were destroyed by winds and water. All of the machinery was extensively damaged, although it is remembered some was salvaged later. It is believed the airplane's engine and propeller were in the building and destroyed or thrown out with the Hulman Street building debris. The airplane structure - wings, tail surfaces and fuselage - was not at Hulman Street at the time of the tornado. It survived and was still stored in the old shop behind Soren Johnson's residence when Mrs. Lutie Conover and her children joined Warren at South Bend in 1918.

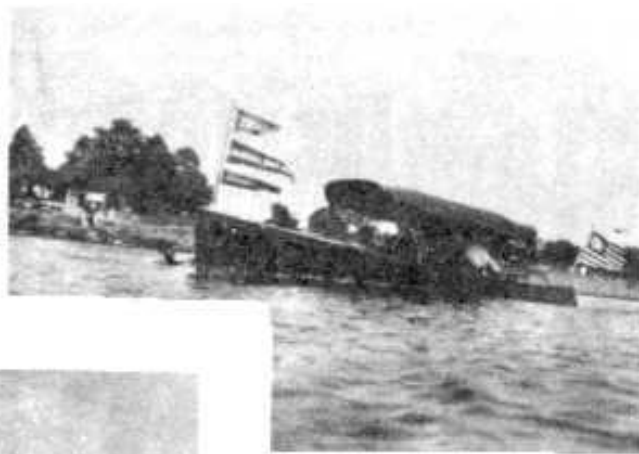
After this disaster Julius left for the glass industry where he remained until his retirement. Warren continued his farming, now full time.

The brothers, with both Lou and Harry having most of their life's savings in the plant, had no insurance against such a storm and both suffered a heavy financial loss. Local investors and the Chamber of Commerce offered lots of sympathy and encouragement but no cash, buildings, tools or useful help for even the marine field, where specific fuel consumption is of much less importance.

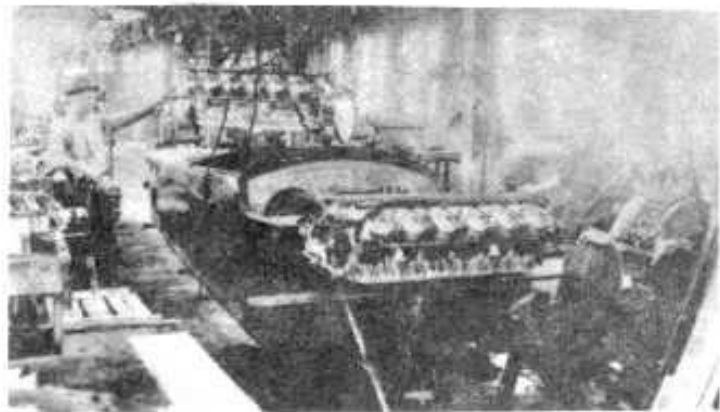
Lou and Harry tried to interest aviation customers in their engines without success. The time of an individual continuous flight had increased to many hours particularly in Germany and Russia. The total weight of both the engine and the pounds of fuel required for all but very short flights encouraged 4 cycle designs even though the engines themselves were heavier on a pounds-per-horsepower basis. The 4 cycle engines used less than two thirds the weight of fuel per HP hour that the 2 cycle engines required. Thus, no 2 cycle aircraft gasoline engine has ever been successfully used in commercial service.

Right: 1907 BLACK DEMON  
2cycle, 4" x 4", 18 HP,  
1200 RPM inboard engine

Below: BLACK DEMON III  
2 - 12 cylinder engines  
being installed. 1914



Harry (front) and Julius Johnson build  
the hull of "Black Demon III" in 1914.



BLACK-DEMON III 1914

Race craft powered by 2 V-type, 12 cylinder engines, 180 HP each, designed and built by the Johnson brothers. The Demon won second place in a Chicago race behind world famed "Disturber III".



# Rebuilding

The Johnsons were slow getting back into business. The plant had been housed in a building actually owned by the Terre Haute Chamber of Commerce, and the Chamber was unwilling to make further investment in the Johnson future and things looked black. But rebuild they did, and by 1914 they had designed and built their race craft "Black Demon III." It was here that the versatile Lou demonstrated talent in boat design and some of his ideas in this field later were to be followed by leading marine manufacturers.

They entered "Black Demon III" in a Chicago race and their boat took second place behind the well-known craft named "Disturber III". The Johnson boat was powered by two V-type, 12 cylinder engines, each developing 180 HP.

By 1915 the Johnson Brothers Motor Company had made so much progress that they circularized a six-page brochure they mailed to prospective customers as an "advance circular." It contained descriptions "of the new 1915 model Johnson Speed Motors made in four sizes:

Size	4 cyl	60 HP	210 lbs	8 cyl	120 HP	395 lbs
	6 cyl	90 HP	298 lbs	12 cyl	180 HP	590 lbs

"These V-type motors," the brochure said, "are especially designed for speed boats, hydroplanes, hydro-aeroplanes and racing automobiles, or for any service where extreme power and reliability are essential. Every minute detail in their design and construction has been given the most careful consideration by engineers of years of experience, who have long recognized the great possibilities of a perfected two-cycle engine."

As if to remind themselves of their early years of trial, the Johnsons added a final paragraph to the brochure which read:

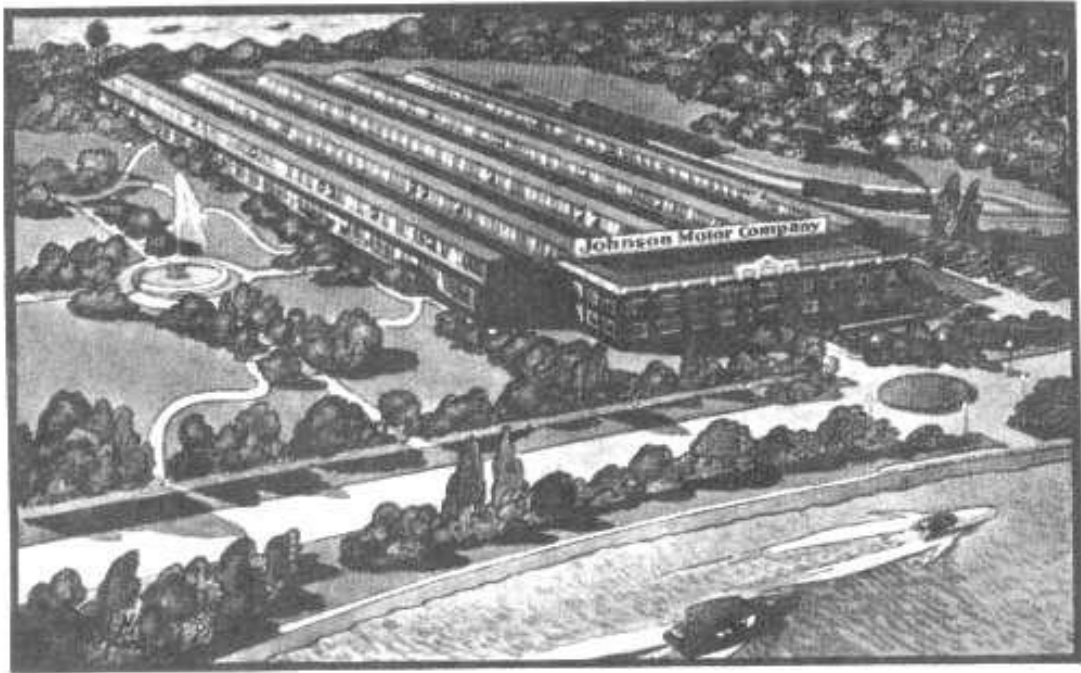
"NOT AN EXPERIMENT! This motor is in no sense an experiment. Our models have been in actual use for four years in aeroplane and speed boat service, which is the most exacting known. They have flown in our aeroplanes for the past four years hour after hour, without a miss. We believe this should prove beyond any question their absolute reliability and efficiency. Johnson Brothers V-type motors powered the first successful American designed monoplane."

## Motor Wheel

Clarence Johnson marked time in other employment, but saved his money still dreaming of lightweight simple power plants. During the winter of 1914-15 he invested some of his personal savings in building a light weight, air cooled, opposed twin cylinder, simultaneously firing, 2"x1½" 3 port engine. Clarence planned originally to have this excellent engine push a boat with an air propeller, which it did very inefficiently with very high gas consumption. The air propeller was surely not a safety feature. To test the engine when the river was unusable, Clarence mounted the air propeller rig on a bicycle, an even more dangerous application!

Lou and Harry, seeing the excellence of the engine, worked with him on an excellent chain drive arrangement where the engine mounted over and drove the rear bike wheel.

Clarence originally used a "National" magneto which had serious bearing problems and was not a reliable spark source at the speeds he wanted to reach. Dick Oglesby, an electrical engineering graduate of Rose Polytech in Terre Haute, saw the problem and told Clarence of a flywheel magneto he had invented and patented. It was being made in South Bend, Indiana by the Quick Action Ignition Company, a successor to the older firm



Above: The Johnson Motor Company \$1,000,000.00 plant built in 1927 on the shores of Lake Michigan at Waukegan, Illinois.  
Below: Factory taken over by the Johnson Motor Wheel Company in 1918. The first outboard motor was built here in 1921. Most of the men in the picture that Warren Conover knew are dead.

of Knobloch Heideman.

(Mr. Knobloch - pronounced "Know block", a goateed German, made the Wright Brothers' first (1903) aircraft magneto. Warren remembers him "very well as a very fine and respected gentleman." It is believed he died not knowing that his low tension magneto provided the first "spark" of controlled flight.)

Oglesby asked Warren Ripple, head of Quick Action Ignition, to send the Johnsons four sample magnetos.

The three Johnsons (Lou, Harry and Clarence) made four motor wheels from Clarence's patterns, giving one in 1916 or '17 to their brother-in-law, Warren Conover. Warren, who had "helped" as a boy and young man on engine projects, was now considered as "associate" completing the "Four."

Getting favorable reports from the Johnsons and magneto inventor, Dick Oglesby, Quick Action sent a commercial representative, H. E. Marshal of Marshal, Decker & Co., The Rookery, Chicago, to evaluate the unit as a business opportunity. Marshal arrived at Terre Haute, almost unannounced, one cold December morning in 1917.

Warren says, "Lou phoned me at home on the farm and asked if my motor wheel was in running condition as their motor wheels were - all three - 'out of order' - taken apart for winter improvement and repair. It was real luck that I had just finished going over my outfit with a fine tooth comb. It was in perfect order so I rode the motor wheel the seven miles through bad roads and deep snow at five degrees below zero to meet Lou and Mr. Marshal in Terre Haute at 7th and Main. They followed me with a Yellow Cab all over the town and into the country as a demonstration of what our motor wheel would do." Marshal's favorable report to Quick Action, Warren says, "is how we came to go to South Bend early in 1918 to start the motor wheel business."

Somewhere along the way, Quick Action and Johnson Motor Wheel may have become one entity before the spring of 1921. Research could not find exact dates and legal sequences of this action.

The Johnson Brothers Engineering Company was formed with four stockholders: Lou, Harry, Warren and Clarence. As was a common practice, they had a patent and design agreement which was binding on all successor companies.

Warren Ripple, head of both the ignition and motor wheel operations, was imaginative and enthusiastic. Conover states unequivocally, "Warren Ripple was a scrupulously honest man. One of Ripple's lawyers dreamed up some technicality where he might 'get out' of a contract with the Johnsons. Ripple would have none of it."

As Johnson Motor Wheel Company they produced 17,000 units late in 1918, in 1919 and in 1920. Speed records were set - and races won - with these units. These were really very fast, high performance, light motorcycles for their displacement. One established an official record of over 58 MPH on a half mile dirt track. Warren Conover at Baltimore, Maryland beat a Cleveland single cylinder motorcycle on a one mile dirt track at just over 54 MPH in July, 1920.

They were joined at South Bend by Joseph G. Rayniak (born in Bohemia) who learned tool making and manufacturing as an apprentice at Packard under the tutelage of L.E. Joles. Rayniak came to Johnson on March 1, 1920 from the Bugatti-Duesenberg fiasco in Elizabeth, New Jersey where Colonel R. C. Bolling had assigned Charles B. King to try to rush into production the incompletely designed 2 crankshaft French Bugatti 420 HP 16 cylinder aircraft engine that seemed promising to some. Joles, too, was at Duesenberg and he also came to Johnson, but for a very short time. Rayniak, a great manufacturing man, really understood tooling and line production and ran the factory well. He stayed with the successor companies to become president of Outboard Marine.

For awhile the Johnson Motor Wheel Company prospered. Some 17,000 of the motor bikes were sold. A firm named Edwards and Christ in Chicago Conover said, was the largest distributor of the vehicles in the country, with other big distributors in Los Angeles and Philadelphia.



The Johnsons were hit by another big "wind" -- that of economic change. With the advent of the popular and relatively inexpensive automobile, a meeting was called when it was rumored Ford was coming out with a car costing only \$365 and the bottom fell out of the motor wheel business. And with the nation's general economy suffering a strong recession, it wasn't long before the Johnson Motor Wheel Company folded.

"In those days you tried to get onto any payroll you could," Conover recounted. "So I spent four months in Chicago with Edwards and Christ, helping that firm actually take over the Johnson Motor Wheel business and being paid by Edwards and Christ. I also helped the distributors in Philadelphia and Los Angeles straighten out their business with the Johnsons."

But the latest setback to their fortunes could not wipe from the minds of the brothers the dream they never had quite forgotten -- that of building a practical, lightweight outboard engine.

Conover laughed as he recalled this incident in 1920. "I told Lou that I had a canoe at home and was going to put an engine into it." Conover said. "Lou laughed and said, 'Old Man, why would you want to put an engine into a canoe - why don't you put the engine onto some kind of an old boat?'" Conover, who scoffed with good humor at the idea of putting an engine on the end of a boat, explained that Lou Johnson often referred to him as the "Old Man" because Conover had married and had children before the Johnson brothers.

"It was shortly after that little exchange," Conover recalled, "that I was having dinner in my home with my wife and Lou rushed in and asked us to 'get everything off the table. I got something here to share with you.' I cleared the table and he unrolled the drawing of the very first Johnson outboard motor and it was not changed very much until after several thousand motors were built." "We all had a hand in any changes that were made."

## **Johnson Motor Company**

The Johnson Motor Company was incorporated under the laws of Delaware on April 1, 1921 at the South Bend address to succeed the Johnson Motor Wheel Company to make outboards and to continue magneto manufacture for Maytag and Fairbanks Morse. Warren Ripple became president with Lou Johnson as the secretary.

Lou needed help in outboard drafting design so he hired Finn T. Irgens who had had two years of engineering in his native Norway. During a summer while a Purdue University student (where he later graduated) he was sent to Sweden to buy a "release" from Archimedes on an invalid 360 degree steering patent. Irgens brought to Johnson the knowledge of metal strengths and stresses that made possible the designing of the famous 35 pound Johnson Light Twin, a far lighter and more compact engine unit than any yet developed. Yet the 35 pound Johnson was plenty strong. Irgens worked on the J-25 but observed Big Twin development until hired by Lockwood Ash after the first Johnson planing speed records were set in 1925. He later became OMC-VP of Engineering.

During the transition period from the motor wheel to the outboard motors, Pat Tammer, the sales manager, and Warren spent a lot of time getting all of the motor wheel parts completed and the assembled units that were left, sold and moved out of the plant during 1921.

Warren had served Johnson Motor Wheel Company at South Bend, Indiana mostly in the marketing area, so he was the first service manager of the new company and organized the service department. He wrote Operating and Installation Instructions and set up a dealer service organization, that was stated to be worldwide but was practically only in North America from coast to coast. He gained experience and made many friends in handling dealers while setting up this organization and while disposing of motor

wheels and motor wheel parts to the Atlantic and Pacific seaboard dealers. The final balance, including production tools, was sold to Edwards & Christ in Chicago. It appears probable that these components from Chicago including tooling, went to England as a light, friction disc drive motorcycle: the "Economic" appeared in 1923 and '24 with a Johnson engine, perhaps made in England.

"Disposing of all motor wheels, parts and tools prevented me from doing a lot of work I had in mind on the building of the new outboard, but I did turn over ideas to Harry and when I finished with the motor wheel, I did experimental work at the plant for  $\frac{1}{2}$  cash pay and  $\frac{1}{2}$  Johnson Brothers Engineering Company stock," said Warren.

The Johnson Brothers Engineering Company included only the "Four" in a design - and perhaps patent - licensing company to Johnson Motor Company. Details are not available but even successor companies honored the agreement scrupulously - even generously. Lou was "senior" and the royalty split varied, by agreement between the four, from time to time.

Warren says, "Harry and I worked a lot on carburetion at the end of 1921. We made the first carburetor for the original motors so that the same lever used for choke was, when raised 'up' the throttle. It is still a better idea than any I know of being used now." This general design was used on all Johnson motors until the very large motors much, much later.

"Our first experimental samples used brass castings (I still have some of them) with a jet that could be bent and turned into the best low speed running position and held in that position while we checked that it was also correct at maximum speeds." Once developed the jet could easily be made and positioned on production tooling.

This carburetor made all the difference. Outboard motors prior to this time used Lunkenheimer mixing check valve or a virtual copy. Those that used carburetors used standard manufactured items that had been designed for entirely different applications than outboards.

Harry and Warren worked out a better breaker for the old magneto as the RPM was really too fast for the one Oglesby had originally designed. They made the parts for the improved magneto by hand. Harry made the sketches and Warren cut out the parts.

"At this time - 1921/'22 - I constructed a very lightweight boat (40 lbs). 'The Scooter' or 'The Shingle' as it was called. It was 9' long and 44' wide, 12" freeboard with no step, made from  $\frac{1}{4}$ " spruce. I could not for the life of me get the boat to plane as the propeller would cavitate/ventilate \* so I put a short drive shaft through the bottom of the hull (canoe motor fashion). It then planed beautifully but not with me and my 180 pounds. I put my son, Clay, then an 11 year old lightweight, in the boat and we were in the 'fast boat' business (14 MPH). That was the first time I know of any boat being planed by an outboard motor," said Warren.

The company made working blueprints of this hull and later on, when

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\* Clay Conover (and Webster's Dictionary) taught me a bit of English I'll share with you if you're interested. What most of us called "cavitate" (in pre-1936 days, at least) was nearly always air entrapment in the water flowing ahead of and toward the front side of the propeller blade - more properly "ventilating" the propeller with air. More power and underwater sonic problems caused "cavities" or voids to form in underwater components and in the water behind the propeller and beyond its tips. Being of antique vintage, we will use the word "cavitate" in its pre-1936 all inclusive manner.

John Van Vleet

larger motors came along, very quickly all of the best real racing hulls were 44" across the bottom which was really an accident as Warren used standard white spruce lumber 11" wide from the lumberyard for the bottom and dressed it down to  $\frac{1}{4}$ " thickness.

"I finally went back to try to plane this hull with the regular outboard (Waterbug model "A") installation but it still really did cavitate badly so I made a plate of copper sheet about 6"x 8" and clamped it around the drive shaft tube just above the propeller and it worked perfectly. I then started cutting down on its size, for looks, and finally arrived at the proper size for the small twin which was the only model we were building in 1922.

"The first few Johnsons did not have anti-cavitation plates so we sold them as an accessory for some time. We applied for a patent but found the same idea had been used 50 years earlier on tug boats on the east coast. Lou got the idea of casting the plate integral with the gear case and that did get us a very good patent as all of our competitors found out later," reports Warren.

"In 1922 our first Johnson engine, known as the Light Twin and the 'Waterbug', was introduced at the New York Boat Show and I then took it around New York state and all of New England. During my travels out of Boston I met a very fine fellow by the name of Walter H. Moreton. He was Evinrude's distributor for all of New England. He said to me in one of their dealer's (a Mr. Peterson) stores in Nashua, New Hampshire, 'So you are the guy who is selling all my old Evinrude dealers this new Johnson Outboard Motor.' A year later Walter Moreton became the Johnson distributor for New England. Walter Moreton and his VP, Tom Parker, were both fine men and good dealers." Warren recalls.

In 1922 Johnson sold over 3,000 of the new Light Twin and this advanced to 7,000 units in 1923, a high figure for that time. That figure reached past 9,000 units in 1924.

In 1925 Johnson brought out its brilliant 27 pound model "J", Light Single. It used many of the Light Twin parts and sold for \$125.00.

Warren said, "We had some trouble with the plunger pump in very fine sand and silty rivers such as the Missouri, and also in Alaska. The valves stuck and plungers wore out, so I got the idea of a propeller pump. It worked at all speeds but once you stopped the motor the cooling water would not start circulating again unless the motor was 'revved up' fast enough to again start the cooling water. Lou saw me working on it and said, 'Say, Conover, why not put the discharge water pipe just ahead of the propeller and take advantage of the suction as well as the 'push'." I did just that and it worked under all conditions so the PRESSURE VACUUM pumping system was born." (First sold on the 1926 "P-30" Big Twin.)

The real effort in South Bend during 1924 and '25 was the design, prototype and production planning for the all new Big Twin ("P-30"), an opposed engine of 22.7 cubic inch displacement.

Of all the outboard manufacturers only the Johnson group had had any experience with planing hulls in 1925. Their 360 HP 23' step hydroplane, "Black Demon", (60 MPH in 1914) and Warren's 9' boat, "The Shingle", in 1922 provided them the background for hopes of better outboard speeds. The "Four" knew planing speeds would open an entire new market to add to that of the fishermen.

The Big Twin, rated at 6 HP at 2500 RPM, first planed a hull early in 1925 (with Warren driving) over a properly measured mile on the St. Joe River in South Bend just over 16 MPH. This motor was "souped up" and turned close to 3000 RPM on the boat. This was simply a time trial - not an "official run" or race. Printed reports credit Hank Boman with setting a "World Outboard Straight-away Record" of 16.68 MPH with a Big Twin on White Lake, Michigan, on July 4, 1925.

This motor was a "turning point" (Bob Zipps' phrase) and gave all competition a target to shoot at when first seen in 1925 and when first offered to the public in 1926. By the end of 1926 it had raised the APBA



official record to 23.38 MPH.

The South Bend manufacturing plant by now was far too small. The need for more space plus the problems of competing with the automotive industry for workers and bickering with the city fathers on noise problems led the company president, Warren Ripple, to decide to seek new quarters elsewhere. Mrs. Ripple, related to Chicago's Potter Palmer family, and her husband had many friends in Chicago's northern suburbs so Ripple sought and selected a site in Waukegan and built a new plant, moving in 1927.

During 1926 the Johnsons re-designed and tooled one new model, the "K", and somewhat increased the size of the Big Twin ("P") with an eye on the new racing classes being proposed.

The contest board of the American Power Boating Association, afraid they might miss out on something, had established in 1924 truly remarkable "racing class" piston displacement limitations with displacement boats in mind.

Now that Johnson had a motor that could plane a boat, it was a whole new ball-game so other non-producing manufacturers, in a delaying tactic, quickly urged the adoption of different piston displacement limitations "for the good of the industry." The Johnson 1927 designs complied with what they had expected but the "have nots" prevailed and further re-design was necessary to be truly competitive in 1928 when the following standards, set in 1927 would go into effect:

<u>Class</u>	<u>Cubic Inch Displacement</u>
A	Under 15
B	15-20
C	20-30
D	30-40
E	40-50

For 1927 the "P" Big Twin, by then larger by about 5 cubic inches, went on to set further records, up to 32.32 MPH during the year. A "K" model of 17.33 cubic inches was also introduced but the effort and planning and the actual move to Waukegan did give other manufactureres breathing time to try to catch up.

During 1927 dreamer-idea man-genius Harry took to imaginative designer Lou his "release charger" idea. This made it possible for a strong, large young man to start a very large opposed twin which would have been impossible to start otherwise. Surely all of the four Johnsons participated in discussions which resulted in the 1928 Class "E" Giant Twin.

Well informed persons in the engine field who are not yet Johnson "fans" may not understand this "Johnson Only" feature - a feature applicable only to opposed simultaneous firing 2 cycle twin pairs. No modern outboard qualifies. Harry envisioned the compression release of one cylinder and the blocking of its transfer port when starting. Thus the mixture charging volume designed for scavenging and charging two cylinders swept only one - but very clean - and the cranking effort was reduced nearly one half. After the engine started, Harry opened the transfer port and restored compression and mixture to the idle cylinder with a level. New! Simple! Great!

The release charger made it possible to build and market the largest engine ever dreamed of for 1928, the TR 40 Giant Twin. It was made for two years only, and still today it is one of the most wanted engines by members of AOMCI. It really must be seen to appreciate its size. Though only 2 cylinder opposed firing, it had a 3" bore, 3½" stroke and 49.45 cubic inches displacemnt. It developed 25.75 HP at 3500 RPM, weighted 110 lbs. and sold for \$275.00.

The following information was related to Jim Webb by Warren Conover:  
"I well remember one run at Webster Lake, Massachusetts when the

Johnson Giant Twin made 32.0 MPH in time trials. This was the same outfit that Tom Parker drove in the "Free For All" or unlimited Class at Lake Quinsagamonnd near Worcester, Massachusetts right after the time trials. Gates Harpel and Ralph Blue were with me at the time and helped me to check the time and the course for accuracy. Gates Harpel was Johnson Sales Manager and Ralph Blue was the top motor mechanic and souper.

At the start of the race, when they got the gun, Tom opened the throttle and ran up a large cornered wave and did a back loop. We saw just the bow of the boat sticking out, but Tom didn't appear. We thought he had been hit on the head and was unconscious. Gates Harpel ran down to the dock and jumped into a boat that had a Johnson on it. Before he could get the motor to start, Tom's bald head popped out from under the boat. He was okay. He had come up under the air pocket in the bow and waited until all the boats had gone before he came out.

There were about 15,000 people along the shore at that race on Lake Quinsagamonnd, so Warren Ripple had me take two of our outfits and give free rides. Bob Atkinson and Ralph Blue went along to drive the boats and I picked the riders, but no one but the kids would get into the boats. When we returned to the dock for another load, some of the larger kids wouldn't get out. Rather than have a fist fight about it, I got a State cop to clear the boats. That ended the free rides for the day.

Regardless, the results from the day's demonstrations were good as one couple from Worcester was so impressed by the demonstration that they bought a similar outfit from the local dealer.

Other 1928 models were re-designs of the "K" and "P" to the new APBA Class B and C rating standards. It was also in 1928 that annual sales of Johnson motors passed the 27,000 mark, a volume accounting for more than half of the industry total.

At this time, the "Engine Four" could look proudly at their position. They had their own personal abilities and:

1. A president with whom they got along quite well.
2. A plant, the best in the industry, with manufacturing capably managed by the very competent Rayniak.
3. A marketing system headed by Pat Tanner "without a doubt the finest sales manager in the industry - a fine man and a square shooter" that had resulted in enormous consumer and dealer following well supported by good dealer training, customer service and advertising.
4. Designs for the coming 1928 season that were now in line with industry displacement standards and with the extra speed potential of the new Class "E".
5. Financial stability.

Surely they assessed competition and, barring an accident, were quite sure all might be at least a year behind - with inferior manufacturing plants - and, with the possible exception of the Evinrude family's personal company, Elto, vastly inferior consumer-dealer support.

Harry had been discussing with Lou, Warren and Clarence the terrible volumetric efficiency of both the 3 port system and the suction-operated check valves without carburetors on competitive 2 port engines. The four even may have been sketching Harry's first 1:1 gear ratio rotary valve ideas, somewhat similar to the old Corliss steam engine valves.

Then Elto solved their ignition problem and suddenly jumped out of the "rudder" class to become a heads-up competent and a potentially very dangerous competitor. The "Engine Four" rellied and decided to concentrate for 1929 on Class "B" (just less than 20 cu. in.) and Class "D" (just less than 40 cu. in.), an opposed release charged twin, model S, and a similar double unit, a four, model V, but both with geared rotary valves between carburetor and crankcase. (1:1 ratio)

# Sea Horse Age

In 1928 Carl Prell of Lampert, Fox, Dolk & Prell Advertising Agency in South Bend, Indiana dreamed up the name "Sea-Horse" and it was first used on 1929 models.

The Four "SEA-HORSE" Men responded with alacrity. One of the group insisted on caged roller powerhead bearings, new to outboards but old in motorcycle practice, for the new twin and four.

Elto had done very well in 1928.

Lockwood had done respectably during that year as Irgens added to what he had learned with the Johnsons a long forgotten Waterman trick and placed an extra piston ring on some Lockwoods as low as possible on the piston skirt to restrict crankcase to exhaust mixture loss during the power stroke. (Spinaway had treated the same problem with piston labyrinths.) With piston and bore tolerances possible in 1928 at Lockwood, this seemed to help. Twenty-twenty hindsight is great - so is merger theory - but we do presume the Johnson group speculated on the amalgamation that resulted in the Briggs engineered Outboard Motors Corporation (Evinrude, Elto and Lockwood) late in 1928.

The 1929 "Sea Horses", especially the class "B", model "S" and the class "D" model "V", won spectacular customer and dealer acclaim even though they had to face a class "E" Elto and other improved motors.

The great commercial success of the 1929 season did, however, inspire enthusiastic President Ripple to commit the company to a "Matched Unit" boat/motor concept. A program of this nature seemed inadvisable unsound to many even then as it might alienate many dealers and most boat manufacturers. This appears to be Ripple's first (if not only) serious error in judgment.

The Johnson group planned, during 1929, to continue the 1929 "S" and "V" models unchanged for 1930 except in their racing and new electric starting configurations. These would use Harry's improved half-speed geared rotary valve and varying, but improved, carburetion for those purposes. They adopted the improved half-speed rotary valve to the new 30 cu. in. "P" series for 1930 in all versions.

Another Johnson "first" design introduced in 1930 modified some electric starting class "C" and "D" motors calling them "PA"-50 and "VA"-50. These motors lacked integral gas tanks but had carburetion changes or electric fuel pumps so they could draw gasoline directly from the tank in the hull. These were called "Aquaflayers."

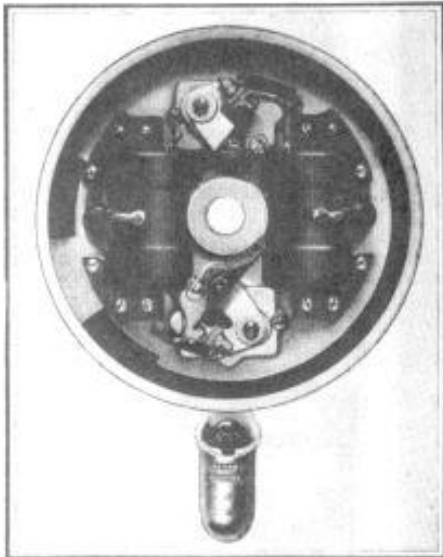
Also a "first" at Johnsons in 1930 was the electric starter on the 16, 24, and 32 Hp motors, which may have resulted from the addition of the matched boat units. Part of a Johnson ad reads as follows:

"To millions of people Johnson's 1930 advertising will bring the sensational news of electric starter as optional equipment on the famous Sea-Horses "32" and "16," and the new "24."

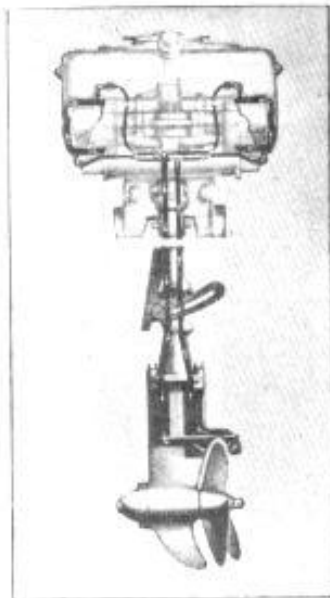
Your OUTBOARDER Editor has one of the 32 HP electric-start motors which performs as well, or better than it did in 1930, adding substance to the often published Johnson quality story!

Before the end of 1928 testing had told "idea man" Harry that the 4 cylinder ran very, very well with the release charger blocking two cylinders and he may have recalled to Lou the long forgotten "Amphion", a little known twin of 1915, that featured two power strokes per revolution. They completely re-designed for 1930 the smallest twin (the "A", once the Waterbug) and the "K" series into slightly smaller "Alternate Firing" motors taking advantage of Harry's ideas and experience with the release charger and rotary valving on the 4 cylinder "V" during testing during the fall of 1928. These had non-geared rotary valves.

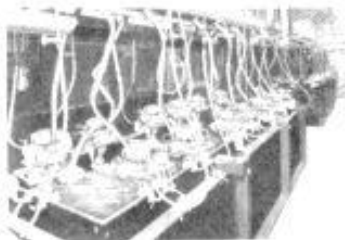




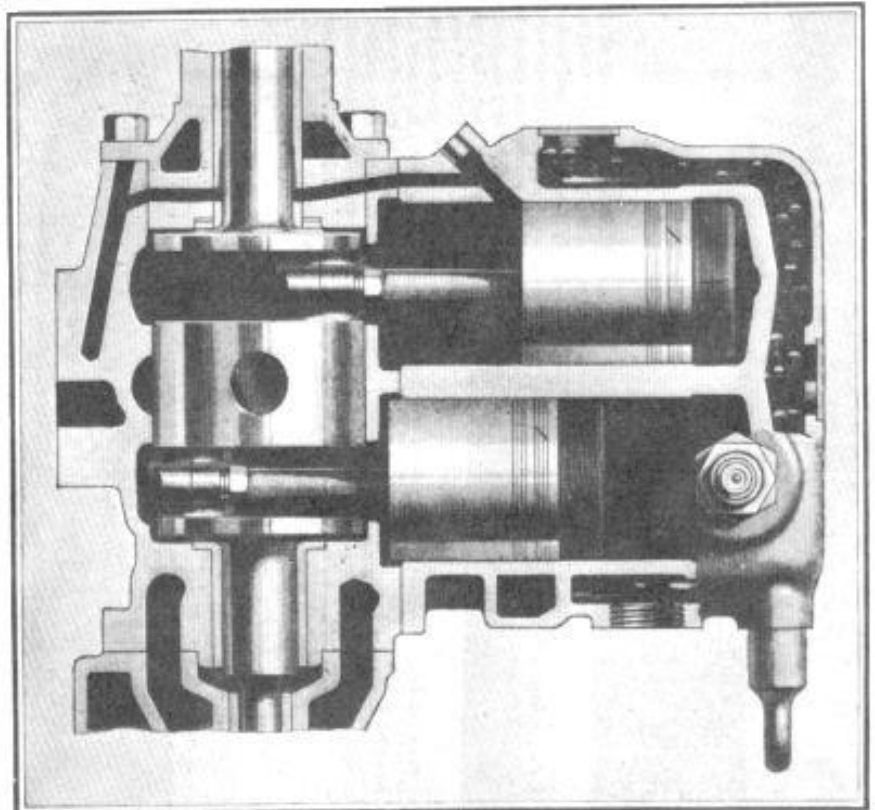
1930  
MAGNETO PLATE



1930  
JOHNSON PRESSURE-VACUUM  
COOLING SYSTEM



Tank Test-Room at the Johnson Plant  
1925



*The new Johnson design, which permits alternate firing of cylinders with a resultant unequalled flexibility and smoothness of power flow, is shown in the above sectional view. Note the straight rod design and absence of offset rod bearings.*

1930

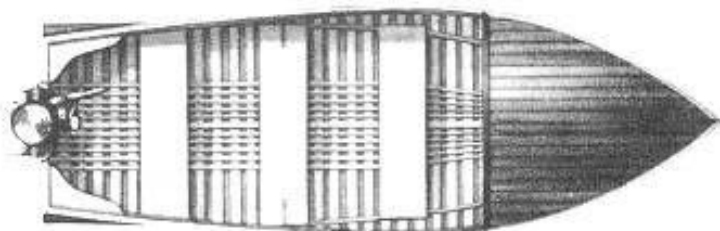
## *Johnson Revolutionizes 2-Cylinder Performance with Alternate Firing*



Inboard Installation of  
Johnson Outboard Motor in  
"OCTA" Model Old Town Canoe  
Displayed at New York Boat  
Show in 1922.



*The Johnson Utility "A"*  
 14 foot boat, "especially portable, safe, and seaworthy."



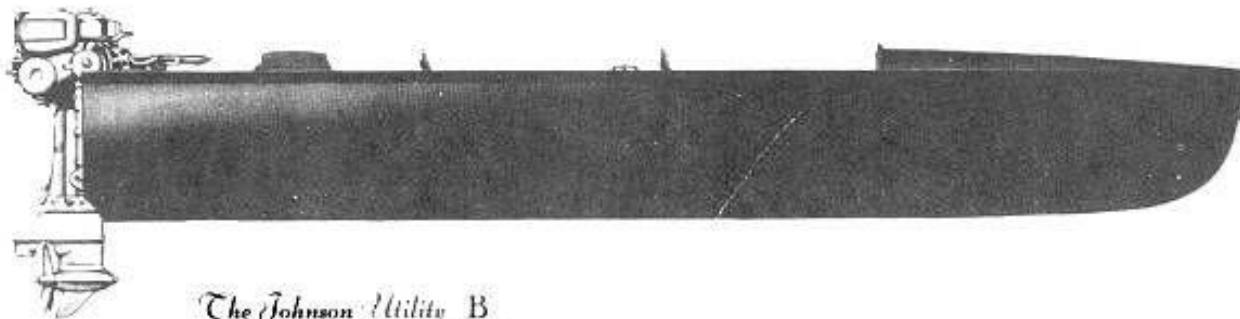
LENGTH—13 ft. 6 in. BEAM—52 in.  
 DEPTH AMIDSHIP—19 in.  
 TYPE—Round bilge, bent ribs. HULL  
 WEIGHT—175 lbs.  
 DECK—Substantial bow deck.  
 CONSTRUCTION—Sealite, copper and  
 brass fastened.  
 CROSS SEATS—Three

HARDWARE—Solid polished brass bow  
 ring, transom ring and car lock.  
 FINISH—Hull and deck, Johnson green;  
 sheer and interior, natural wood.  
 MOTOR MOUNTING—On transom.  
 MOTORS—Sea Horses "Single," "4"  
 and "12." Standard Models; Light  
 Twin and Standard Twin.

Round bilge hull with broad 52-inch beam, safe and seaworthy. Ideal craft for family use, camping and week-end trips, especially when children are along. Performs well at medium speeds with four passengers, will carry six comfortably. Also a perfect tender for yachts. This seamless Sealite Utility A weighs only 175 pounds. One person can beach it, two men can carry it. Easily transported on a trailer in back of your car. The Sealite construction enables the boat to be stored indefinitely, and still remain in condition ready for instant service without leakage.

-20-

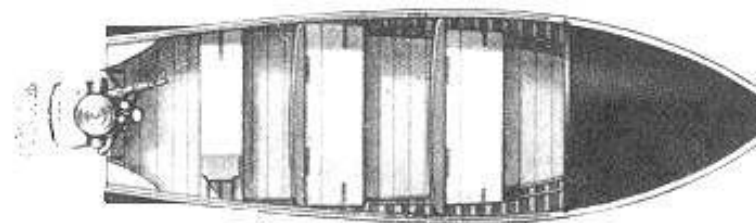
Johnson Sealite is shatter-proof, withstanding 400 pounds pressure per square inch . . . is seamless, impervious to absorption, will not warp, crack, shrink or swell . . . is weatherproof, requiring no care, no caulking while in storage . . . is readily beached or carried and easily repaired, if ever necessary . . . does not soak up weight-increasing water as the ordinary hull which noticeably loses speed after the first weeks of service . . . the longer you own a Johnson boat the more you will appreciate Sealite.



*The Johnson Utility B*  
 15 foot boat, "easily carried by two men . . . fast . . . durable."

LENGTH—15 ft. BEAM—52 in. DEPTH AMIDSHIP—22 in.  
 TYPE—V-bottom. HULL WEIGHT—227 lbs.  
 CONSTRUCTION—Sealite, copper and brass fastened.  
 CROSS SEATS—Three with lazybacks.  
 HARDWARE—Solid polished brass bow ring, transom ring  
 and car locks.

FINISH—Hull and decks, flamingo red; water line, black;  
 sheer and interior, natural wood.  
 MOTOR MOUNTING—On transom.  
 MOTORS—Sea Horses "12," "16," Standard Twin.  
 TRAV. SPEED—Up to 22 m.p.h. with Sea Horse "16"; 14 to  
 17 with "12," and Standard Twin.



# JOHNSON BOATS AND MATCHED UNITS

1930

## JOHNSON BOATS and MATCHED UNITS

LENGTH—17 ft., 6 in. BEAM—60 in. DEPTH AMIDSHIP—25 in.

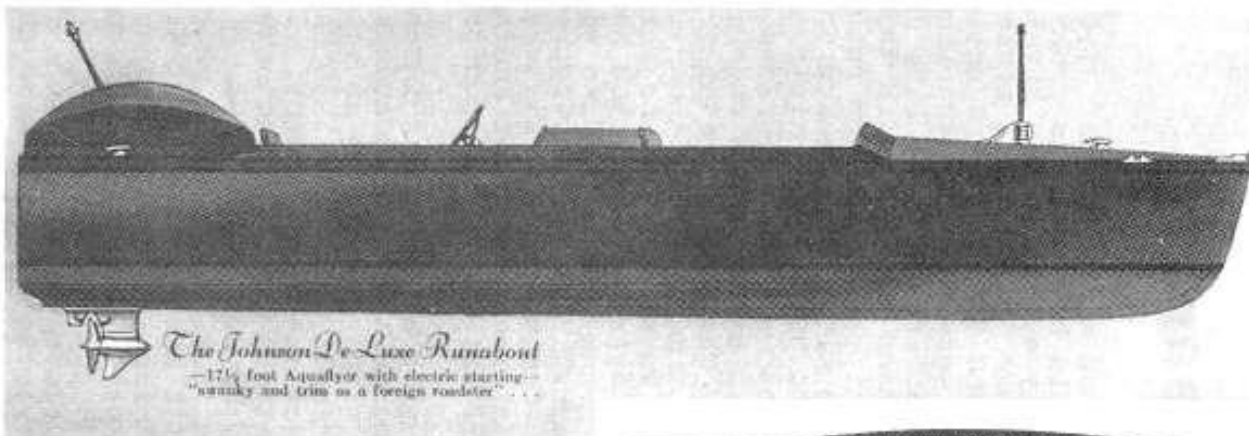
TYPE—V-bottom. HULL WEIGHT—450 lbs.  
CONSTRUCTION—Sealite, entirely copper and brass fastened.

SEATS—Two Double-cockpit arrangement with center deck, giving the boat an extremely graceful and pleasing appearance.

UPHOLSTERY—Two upholstered seats and seat cushions of life preserver type in green Spanish grain leatherette with French pleating. Both cockpits are fully lined to match upholstery and floors are covered with high-grade linoleum.

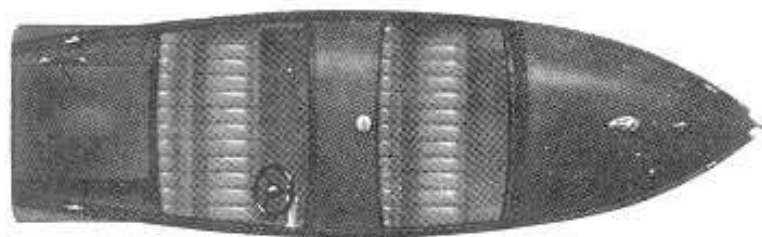
HARDWARE—Electric stern and running lights,

three deck cleats, one pair bow chocks, one bow plate, all solid nickel silver. Stern protection band around transom and stern protection band around bow. Moulded black composition steering wheel, two mahogany lug poles, one fifteen-gallon gasoline tank under center deck with deck filler cap and shut-off valve. Complete remote controls grouped on instrument panel of steering wheel operating motor starting switch, choke, spark throttle and electric lights. Electric storage battery and one four-foot six-inch paddle.



*The Johnson De Luxe Runabout*

—17½ foot Aquadyor with electric starting—  
"snappy and trim as a foreign roadster" . . .

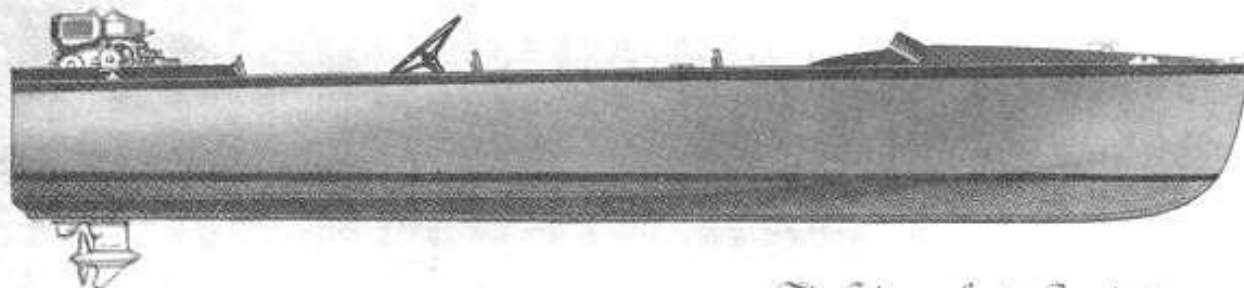


FINISH—Hull and deck deep orange; black water line; bottom green. Interior lined with material to match upholstery.

MOTOR MOUNTING—In well in stern of boat completely enclosed and concealed with hinged hatch cover, secured with padlock when not in use.

MOTORS—Electric-starting Sea Horses "16" or "32."

TOP SPEED—Up to 25 m.p.h. with Sea Horse "32"; 19 m.p.h. with "16."



*The Johnson Service Runabout*

—17½ foot boat, with electric or rope starting  
—"exceedingly roomy" . . . very fast.

LENGTH—17 ft., 6 in. BEAM—60 in. DEPTH AMIDSHIP—25 in.

TYPE—V-bottom. HULL WEIGHT—395 lbs.

CONSTRUCTION—Sealite, copper and brass fastened

CROSS SEATS—Three with lazybacks.

UPHOLSTERY—Three cushions, life preserver type in green

Spanish grain leatherette.

HARDWARE—Three deck cleats, one pair bow chocks, one bow

plate, all solid nickel silver. Stern protection band around transom and stern protection band around bow. Moulded

black composition steering wheel, with motor throttle remote control attached. One four-foot six-inch paddle.

FINISH—Hull and deck, two-toned green; interior and sheer, natural wood; water line red, bottom bronze.

MOTOR MOUNTING—In well in stern of boat, partially concealed.

MOTORS—Sea Horses "16," "21," "32."

TOP SPEED—Up to 27 m.p.h. with Sea Horse "32"; 23

m.p.h. with "21"; 20 m.p.h. with "16."

Sealite Construction—the supreme boat-building achievement—a feature of these Johnson boats. . . .

35% stronger in tensile strength than any comparable hull construction! Johnson boats have an additional outside hull of Sealite . . . thus are virtually two boats in one . . . doubly strong, leak-proof and safer.



The Johnson success story held through 1929 into 1930. Driven hard by Warren Ripple, the Johnson organization had grown rapidly. A successful plant had been opened in Peterborough, Ontario in 1928.

## **Depression Years**

Saleswise, 1929 was a record year for Johnson with sales of 31,086 units. However, profits were not what they should have been as promotional expenses were high and money flowed freely except in Joe Rayniak's factory. Warren Ripple ignored the storm warnings of the stock market crash of October 1929 and ordered full speed ahead for 1930. Production schedules were heavily increased and new models were added to the line.

The matched unit program in which Johnson offered a large line of boats matched to the various sized motors. Johnson did not build the boats but contracted for them to be built and shipped by various reputable boat plants in the eastern section of the country. Ripple appropriated the enormous (for that time) sum of \$600,000.00 for advertising to promote the heavy production of the boats and motors. This required additional working capital which Ripple raised thru stock issues underwritten by Hayden, Stone & Company of New York. The total capital raised came to \$1,300,000.00.

Now the depression was really being felt. To youngsters who weren't alive in 1930 I suggest that you ask your grandparents to tell you how rough and tough the depression years were and how men were glad to work for 25 cents an hour, if and when there was work. The bottom dropped out of sales of all makes of outboard motors. Consumers did not take to the Johnson matched unit program, and except in areas near boat factories, the high cost of freight placed the matched unit hulls at a serious price disadvantage.

In the summer of 1930 Johnson had a serious boat and motor inventory creating a shortage of cash. Ripple still ignored the ominous economic situation, and instead of cutting expenses he plunged ahead in an attempt to force sales that were not materializing. Finally, late in 1930 Hayden, Stone took over control in an attempt to protect their investment. Ripple was replaced as president by David Stratton. Later Stratton was replaced by H. G. Delabar; both recommended by Hayden Stone.

Clarence, not yet 35 years old decided to "retire for good" on February 5, 1930. He bought a trailer and with his wife went out West and into the Northwest fishing. He returned March 28, 1935 to Johnsons where he resumed work as an experimental engineer. Clarence had found it harder to quit working than it was to work. He continued working for Clay Conover until the end of 1962 in the successor company.

During 1930 instead of complete austerity, the Johnsons were permitted to slightly redesign and further improve their "SR", "PR", and "VR"- "B", "C" and "D" racing motors and the "KR", all designated "R" for racing. The fabled "XR" 55, a 49.87 cu. in. class "X" upgrading of the class "D" "VR" 4 cylinder motor, was designed for the 1931 production. In a "let's use up the spare parts inventory to secure cash" program the obsolete 1929 "A" and "K" motor spares were "design adapted" - a Madison Avenue phrase meaning "cobble up" - to new model designations "OA" and "OK".

The Johnson group continued to wait out the depression indecision except for one brainchild of Harry's, a tiltup, propeller steering Stern Drive, the first in the marketplace (using many standard components), which Lou and the group elegantly engineered. Pilot models of this "SD-10" and "SD-11" differing only in steering method - lever or cable - were produced, announced to the trade, and orders accepted from customers. With depression lessened sales potential (and general shortage of cash) production was never tooled - deposit monies were returned to disappoint-

ed customers. Details of this unit became lost to successor companies until recently.

The new National Association - a "trade controlled association" - prohibited any factory support, and more important, any factory publicity for racing.

The Johnson Motor Company outboards that had been produced continued to perform as was to be expected over the years. And repair parts were promptly available.

Lou acquired a 38' cruiser in 1929 and spent most of his summers after 1930 in the North Great Lakes area (Drummond Island) and North Channel. He gradually retired or drifted away from any regularity at Waukegan, possibly bored. His assistant, one R. Karasinski, "who first studied for the priesthood," replaced him until 1936. Troubles with Hayden Stone and their corporate management multiplied but the tremendous Johnson Four team had started to break up.

Virtually nothing was done in 1931 and 1932 involving new design and no new models were released, but available figures show sales of 8,548 units sold in 1931 and 6,103 units sold in 1932. It is obvious to anyone in the manufacturing business that a drop from some 24,776 units in 1930 to the above figure in 1931 and 1932 creates chaos in any organization. The cash flow went to zero and in 1932 the firm went into receivership. At Delabar's request it was reorganized with Delabar as president and for 1933 marketed the following models: J 65, OA 65, A 65, K 65, S 65, P 65, and V 65. Sales for 1933 (if the old records are accurate) were excellent, totaling 41,152 units, a new high for Johnson.

Clay Conover had been around the company but not employed by them before graduation from Purdue University in June 1933 when he entered the Johnson Motor Company in the engineering department. In 1936 he became assistant chief engineer and two years later became chief engineer, serving in that post through World War II. In 1950, Conover was named chief

In 1950, Conover was named chief engineer for Outboard Marine Corporation. He held that post some 10 years before being elevated to the position of director on marine engineering for the Corporation. In 1966 he was named Johnson Motors division manager, succeeding Eugene Kreager, elevated to the post of VP, OMC.

Throughout his career in engineering, Conover set his sights on developing products that, at the time, seemed difficult to attain. In addition to the separate gas tank idea, he helped develop a starter that became standard equipment after successfully introduced on the 1937 model engine. As early as 1935 he had two carburetors and one engine in production and a revised 22 horsepower engine on the drawing board. One of his outstanding accomplishments came after World War II. It was a reverse gear for the 10 horse power engine and it sparked sales nationally. He is credited with no less than 24 patents held by Johnson Motors.

Clay Conover is a longtime member of the Society of Automotive Engineers, he is past president of the American Boat & Yacht Council and is active, with his wife, in numerous Waukegan community affairs.

1934 saw new models released with total sales of 10,787, again creating problems within the financial end of the business. It appeared to Delabar and Hayden, Stone that the problem could not be solved and the decision was made to sell the company.

The Stewart-Warner Company was eager to buy Johnson Motors but could not act quickly enough to satisfy the underwriters. Then Stephen Briggs, Chairman of the Board of Outboard Motors Corporation and Ralph Evinrude, President of Outboard, agreed to buy 80,000 of the 120,000 outstanding shares of Johnson stock, at \$10.35 per share in cash. This was in 1935.

Harry Johnson and Warren Conover retired in October 1935 before they knew the details of an "impending" deal.

John Van Vleet says, "Efforts to find someone who can define the exact function of each of the "Four" during the Johnson Motor Company period are unrewarding. We gave up and attempted to describe the contribu-

ion rather than the title of each of the four. All worked reasonably well with Ripple."

"Lou, chronologically the oldest and with the widest, most diversified experience, took an idea - he didn't seem to care if it was his own or another's - constructively criticized, discussed, modified and, if not discarded, finally created truly elegant, readily manufactured designs in which he took great pride."

"Harry, next oldest, was "The Idea Man" among other things. Not all of his ideas were good, as he would freely admit, but history seems to prove a very high percentage were. Harry didn't sit in an office and wait with sharpened pencil for an idea to come. He had his nose in all phases of the operation."

"Warren, perhaps remembering the false hopes for the big potential aviation customers in 1913/'14, and his personal problems unloading the last of the Motor Wheel venture, kept marketing the product high in his personal interest priority plus customer satisfaction. He initially helped Pat Tanner, the Sales Manager, set up a Service Department but hated to travel so, while assuring himself that field sales work was adequately staffed and handled, concerned himself with being sure that both dealer and user were taken care of in that friendly Hoosier manner that has resulted in so many great firms originating in Indiana."

"He kept well acquainted with Lou's area and problems as well as "knowing what was going on" in the factory. Warren also served a never mentioned but very important function. Two blood brothers (i.e., Wilbur Orville) sometimes get along. Three rarely, but when more than one who can constructively criticize the ideas of the others can, they all have a tremendous creative advantage. Warren served as an impartial, ever present lubricant for the brothers, possibly his most single function." "Clarence, a perfectionist, was a well qualified "devil's advocate" type sounding board for each or all of the others on nearly any business subject. He perhaps knew more of economical shop methods of outboard motor manufacture than any of the others, even advising Lou during design. Somewhere we have also picked up the impression that he was as dedicated a quality bug as Warren."

"The "Four" did not know who, if anyone, would (or could) make a deal with erratic Hayden, Stone. Happily, knowledgeable people of competitor Outboard Motors Corporation acquired control and shortly merged them to form Outboard Marine and Manufacturing."

Johnson Motor Company technically did not expire until the merger during 1936 but new corporate management replaced the 1930/'35 ineptness before the end of 1935. All four associates in Johnson Engineering got along with and felt they were fairly treated by their outboard motor oriented successors.

## **Afterward**

From the Johnson' point of view the new corporate management with outboard experience was recognized a good thing. Erratic, remote controlled, banker management had permitted them to keep going but barely.

Warren Ripple had died in 1931 of "depression strain."

OMC and Johnson, fighting each other tooth and nail in the infinitesimal marketplace, were the only significant old manufacturers to survive.

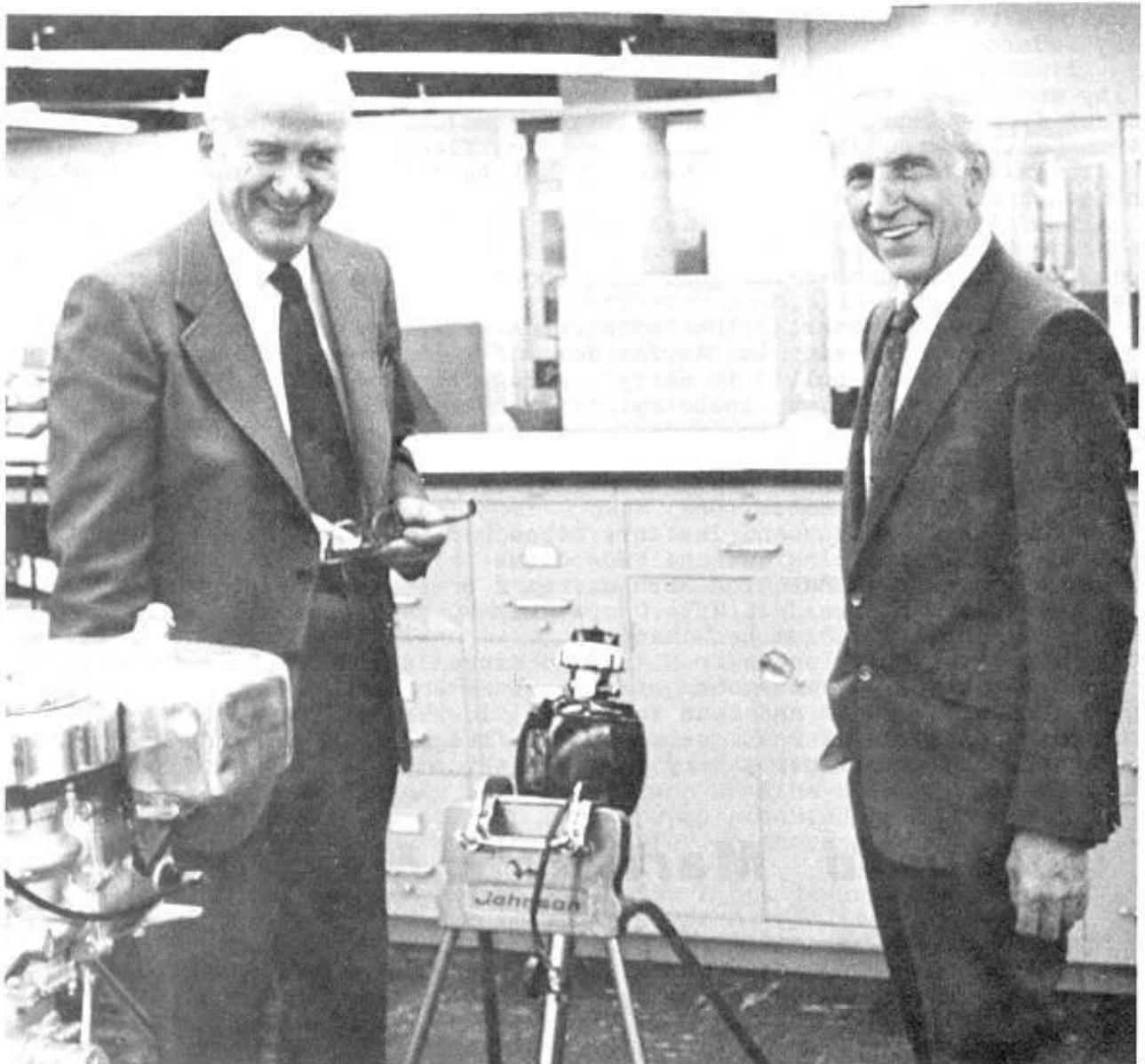
Other new manufacturers - Thor at Cedarburg, Wisconsin, was trying to start up and a small part of the remains of the once great Kissel motor at Hartford, Wisconsin, was making a great effort to secure the Sears Roebuck fishing motor business.

Dealers of all brands were not very enthusiastic having nearly starved on parts and service business. Many had lost their "lines" as their manufacturers succumbed.





Left to right :  
Lou Johnson,  
Harry Johnson,  
Julius Johnson,  
Clarence Johnson.  
Photo taken in 1943 by  
Warren Conover.



W. Clay Conover

October 6, 1972

Warren M Conover

Harry and Warren were "engine people" and only unchallenging work appeared to be on the immediate horizon. They were tired and able to retire "comfortably well off." They did not feel inclined to stay and wheather the economic adjustments and corporate ladder jockeying that any new ownership control and/or merger inevitably brings. Warren says, "In 1935 we caught the epizootics, a disease that affects the horses on a merry-go-round - when run neglected, unpainted and unlubricated over many years out in the weather - round and round - up and down. Not too different from corporate life - same effect - often fatal." Frustration! (We checked our dictionary - Warren is right as usual.)

During the fall of 1935 Warren determined to resume farming. He bought 240 acres on the north bank of the Tippecanoe River with a long stretch of beautiful heavily wooded river frontage. Warren's decision inspired Harry who bought 7½ adjacent river front acres, built a home and really retired. They both left Waukegan the same day. They continued to be stockholders in the successor companies.

After the war Warren took time off from his tree planting, farming and dairy herd and built with his own hands (and no doubt helpers) a lovely modern home on the Tippecanoe River of lumber cut from his property. It is superb. The design and workmanship exceed, if possible, the quality and selection of the native woods. "Nine different varieties of wood cut from the property are used in the construction." (Five varieties of "home grown" oak are used in the first floor to ground level inside stairs.) (A few years ago he sold 7 standing walnut trees for more than he had paid for the farm.)

All of the Four were avid fishermen. Warren and Clarence (with Clay) were North American big game hunters. Photographs and moose racks abound. Harry joined them for game bird shooting. Lou was the only non-hunter of the Four.

In 1959 Harry presented the Smithsonian with a 1/10th scale model of the 1911 monoplane and its "Aerial Motor." All worked on it (or talk of it as it was being built) in Harry's garage workshop. Even Julius, then retired from the glass industry, came and helped.

After the death of Lutie Johnson Conover; Warren's wife, in March of 1961 Warren, with much encouragement from both children but especially his daughter Helen, a retired commercial decorator, married widow Ann (nee Mohr) Milse in November 1962.

Ann and her late husband Theodore Milse had operated an evergreen nursery near La Porte, Indiana and had become friends of both Conovers many years before in connection with Warren's tree planting projects.

Clay Conover has retired after more than 40 years from the commercial world where the market has changed.

An air of serenity oozes from Ann and Warren's home often spiced by his sharp wit and quick alert memory as well as Ann's keen sense of humor. One thing we (Gert and John Van Vleet) do wish to share with you - neither of them has ever lost the ability to laugh at themselves.

No descendant of either family is presently employed by the successor company. (1978)

## **Outboard Marine & Mfg. Co.**

Since the creation of Outboard Marine and Manufacturing Company, numerous changes have been made. Unprofitable lines have been dropped, new overseas facilities have been opened and production capacities have been greatly enlarged in all areas.

1936 saw only one engine rated higher than 10 HP, it being the P 80 at 22 HP. Few customers had money to spend for racing engines and the sales were directed toward the fisherman. As so many manufacturers found out, racing is a glamorous sport but will seldom support a factory.

Records show some 20,518 engines sold that year.

Nine models were built in 1937 nearly all new releases including the first PO. It was rated 22 HP and again the only model released over 10 HP. Sales increased to 31,212 engines, leaving no doubt that fishermen liked what Johnson had to offer.

1938 brought eight models including for the first time two 1.1 HP engines. Sales were 31,277 units sold. 1939 saw ten models released. There were few HP ratings - 2, 1.1HP - 3, 2.5 HP - 3, 5HP - 1, 9.8 HP - and the PO 39 at 22 HP. Sales were 40,804 units.

1940 saw eleven models released. The 1.1 HP engines were dropped and replaced by 1.5 HP units. The great SD model was released at 16 HP and the PO at 22 HP was still there. Sales were 41,928. In 1941 some changes were made, eleven models were again released with the PO at 22 HP still the largest. Sales figures were 41,305 units. 1942 offered the same line up as 1941 and sales figures show 21,575 engines sold.

## **War Effort and Recovery**

Shortly after Pearl Harbor all civilian production was stopped and all divisions of the company went into war work - military outboard motors, fire pumps, airplane parts, gun parts - the list is endless. All stocks of outboard motors were frozen and could not be released without proper government orders. All of the Outboard Marine and Manufacturing factories went on 6 day week with time hours per week reaching sixty, and with a rush of critical orders the weekly hours reached 72. For short periods supervisory and even hourly paid workers were on a 7 day week. Employee cooperation was excellent. In the lighter jobs many women were employed for the first time. Results were very good with company and employee working together for America. The "E" flag with star and the Minute Man flag were received by the company in acknowledgment by the U. S. government of its war effort.

The day after World War ended the sales office phones started ringing and didn't stop for a couple of years. Dealers were begging for outboards of any size. One dealer wanted the whole frozen inventory and did not care how many - just load them and ship them. He would send cash as his bank would back him to the limit - just get the motors rolling!

It was immediately decided the only fair solution was to allot available motors according to pre-World War II sales as converting from war production to civilian was a huge job. With the end of the war that came suddenly after the bombs were dropped of Hiroshima and Nagasaki, there had been no thought given to planning for entering civilian production as the end of the war seemed quite far away. Immediately the production department had to order everything from cotter keys to cylinders. The parts suppliers were in no better shape to handle the "at once" orders. Thus there was little produced until well into 1946 with five pre-war models released and sales figure of 47,063 units.

1947 released five models having the same HP line up as 1946 with sales of 75,713 units. The same HP line up was produced in 1948 but the total sales of 84,359 units had almost doubled in three years. Prosperity was back.

1949 introduced the gear shift which Bob Zipps described as Johnson's "second turning point" in January '78 OUTBOARDER magazine. This was featured on the 10 HP, QD 10. A 16 HP, SD 20 with a remote gas tank was also introduced. The sales figure for the year totaled 88,148 units. 1950 saw some model changes, HP ratings remaining the same, sales figure amounting to 82,915 units.

Records show that Johnson sold 869,939 engines between 1922 and 1950. A remarkable record considering they went through a long, major depression and World War II.





Model number identification, and Serial numbers used by year  
from 1922 through 1950. Submitted by

Dr. Walter W. Otto.

Model	Year	H.P.	R.P.M.	Cu. In.		Wt	List Price	Champion Spark Pl.		No. Cyl. Config. & Induction *	Special notes
				Disp.	Bore			Stroke	Old		
A	1922-4	2	2250	9.42	2	1.5	35 140	C7	D9J	02-3Pt.	
AL	"	2	2250	9.42	2	1.5	35 140	C7	D9J	02-3Pt.	
BN	"	2	2250	9.42	2	1.5	40 145	C7	D9J	02-3Pt.	Salt water
A25	1925	2	2400	9.42	2	1.5	35 140	C7	D9J	02-3Pt.	
AB25	"	2	2400	9.42	2	1.5	40 145	C7	D9J	02-3Pt.	Salt water
J25	"	1.5	2700	4.71	2	1.5	27 125	C7	D9J	1-3Pt.	
A25	1926	2	2400	9.42	2	1.5	35 140	C7	D9J	02-3Pt.	
AB25	"	2	2400	9.42	2	1.5	40 145	C7	D8J	02-3Pt.	Salt water
J25	"	1.5	2700	4.71	2	1.5	27 125	C7	D9J	1-3Pt.	
P30	"	6	2500	22.72	2 7/8	1 3/4	80 210	C7	D9J	02-3Pt.	
PB30	"	6	2500	22.72	2 7/8	1 3/4		C7	D9J	02-3Pt.	Salt water
A35	1927	2.5	2600	9.42	2	1.5	37 140	C7	D9J	02-3Pt.	
J25	"	1.5	2700	4.71	2	1.5	27 125	C7	D9J	1-3Pt.	
P35	"	8	3750	27.5	2 11/16	2 7/16	83 220	R7	K60R	02-3Pt.	
K35	"	6	2750	17.32	2 5/16	2 1/16	60 180	R7	K60R	02-3Pt.	
A35	1928	2.5	2600	9.42	2	1.5	37 140	C7	D9J	02-3Pt.	
J25	"	1.5	2700	4.71	2	1.5	27 115	C7	D9J	1-3Pt.	
K40	"	7.15	3500	19.93	2 3/8	2 1/4	61 165	R7	K60R	02-3Pt.	
P40	"	13.15	3700	29.78	2 11/16	2 5/8	85 210	R7	K60R	02-3Pt.	
PR40	"			29.78	2 11/16	2 5/8	85	R7	K60R	02-3Pt.	
TR40	"	25.75	3500	49.45	3	3.5	110 275	R7	K60R	02-3Pt.	
A45	1929	3	2700	9.42	2	1.5	38 150	C7	D9J	02-3Pt.	
J25	"	1.5	2700	4.71	2	1.5	27 115	C7	D9J	1-3Pt.	
K45	"	7.15	3500	19.93	2 3/8	2 1/4	63 185	R7	K60R	02-3Pt.	
P45	"	12	3000	29.78	2 11/16	2 5/8	87 230	R7	K60R	02-3Pt.	
S45	"	13	4000	19.93	2 3/8	2 1/4	99 250	R7	K60R	02-3Pt.	
V45	"	26	4000	39.85	2 3/8	2 1/4	120 325	R7	K60R	0A4-GR.	
SR45	"	16	5200	19.93	2 3/8	2 1/4	102 250	R1	K57R	02-3Pt.	Racing B Class
VR45	"	32	5200	39.95	2 3/8	2 1/4	138 325	R1	K57R	0A4-GR.	Racing D Class
TR40	"	25.75	3500	49.45	3	3.5	110 275	R1	K57R	02-3Pt.	

-29-

Model	Year	H.P.	R.P.M.	Disp.	Bore	Stroke	Wt.	Price	Old	New	N.C.C.I	Special notes
J25	30-32	1.5	2700	4.71	2	1.5	27	115	C7	D9J	1-3Pt.	
A50	"	4	3500	8.78	1 7/8	1.5	45	145	5M	D9J	A2-IR	
K50	"	8	3500	13.96	2 1/8	1 31/32	60	165	R7	K60R	A2-IR	
KR55	"	12	5500	13.96	2 1/8	1 31/32	60	225	R1	K57R	A2-IR	Racing A Class
P50	"	20	3500	29.92	2 3/4	2.52	102	245	R7	K60R	02-GR	
PR50	"	24	5000	29.92	2 3/4	2.52	113	350	R1	K57R	02-GR	Racing C Class
PR55	"	27	5500	29.92	2 3/4	2.52	113	350	R1	K57R	02-GR	Racing C Class
PR60	"	27	5500	29.92	2 3/4	2.52	113	350	R1	K57R	02-GR	Racing C Class
S45	"	13	4000	19.93	2 3/8	2 1/4	99	215	R7	K60R	02-GR	
SR50	"	16	5200	19.93	2 3/8	2 1/4	102	300	R1	K57R	02-GR	Racing B Class
SR55	"	18	5500	19.93	2 3/8	2 1/4	103	300	R1	K57R	02-GR	Racing B Class
SR60	"			19.93	2 3/8	2 1/4	103	300	R11	K54R	02-GR	Racing B Class
V45	"	26	4000	39.85	2 3/8	2 1/4	120	280	R7	K60R	0A1-GR	
VR50	"	32	5200	39.85	2 3/8	2 1/4	139	375	R1	K57R	A04-Gr	Racing D Class
VR55	"	36	5500	39.85	2 3/8	2 1/4	138	375	R1	K57R	A04-GR	Racing D Class
OA55	"	3	2800	9.42	2	1.5	45	109	C7	D9J	02-3Pt.	
OA60	"	3	2800	9.42	2	1.5	45	97	C7	D9J	02-3Pt.	
Ok55	"	8	2800	19.93	2 3/8	2 1/4	60	145	R7	K60R	02-3Pt.	
Xr55	1931	50		49.87	2.656	2 1/4			R1	K57R	A04-GR	Racing E Class
J65	1933	1.4	3000	4.71	2	1.5	27	72.5	C7	D9J	1-3Pt.	All motors made in 1933 and later were O.B.C. certified.
OA65	"	2.8	3000	9.42	2	1.5	42	96.5	C7	D9J	02-3Pt.	
A65	"	4.1	4000	8.28	1 7/8	1.5	46	125	5M	D9J	A2-IR	
K65	"	9.2	4000	13.96	2 1/8	1 31/32	63	145	R7	K60R	A2-IR	
S65	"	13.3	4000	19.93	2 3/8	2 1/4	102	207	R7	K60R	02-GR	
P65	"	21.4	4000	29.92	2 3/4	2.52	114	227	R7	K60R	02-GR	
V65	"	26.1	4000	39.85	2 3/8	1 1/4	133	278	R7	K60R	A04-GR	
F70	1934	3.3	3000	9.42	2	1.5	43	105	C7	D9J	02-3Pt.	
A70	"	4.1	4000	8.28	1 7/8	1.5	46	140	5M	D9J	A2-IR	
J70	"	1.4	3000	4.71	2	1.5	39	85	C7	D9J	1-3Pt.	
K70	"	9.2	4000	13.96	2 1/8	1 31/32	63	160	R7	K60R	A2-IR	
S70	"	13.3	4000	19.93	2	1 1/4	102	225	R7	K60R	02-GR	
P70	"	21.4	4000	29.92	2 3/4	2.52	114	250	R7	K60R	02-GR	
V70	"	26.1	4000	39.85	2 3/8	1 1/4	133	290	R7	D60R	A04-GR	
J75	1935	1.4	3000	4.71	2	1.5	30		C7	D9J	1-3Pt.	
F75	"	3.3	3000	9.42	2	1.5	43	115	C7	D9J	02-3Pt.	
300	"	3.7	4000	7.59	1 7/8	1 3/8	37	130	J6	J6J	02-IR	
A75	"	4.5	4000	8.28	1 7/8	1.5	48	145	5M	D9J	A2-IR	
K75	"	9.3	4000	13.96	2 1/8	1 31/32	64	165	R7	K60R	A2-IR	
P75	"	22	4000	29.92	2 3/4	2.52	109	255	R7	K60R	02-IR	
OK75	"	8.1	2800	19.93	2 3/8	2 1/4	70	150	R7	K60R	02-3Pt.	

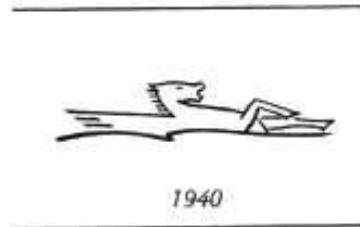
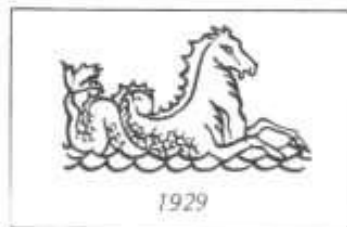


Model	Year	H.P.	R.P.M.	Disp.	Bore	Stroke	Wt.	Price	Old	New	N.C.C.I	Special notes
A80	1936	4.5	4000	8.28	1 7/8	1.5	48	145	5M	D9J	A2-IR	
K80	"	9.3	4000	13.96	2 1/8	1 31/32	64	165	R7	K60R	A2-IR	
J80	"	1.7	3300	4.71	2	1.5	29	90	C7	D9J	1-3Pt.	
P80	"	22	4000	29.92	2 3/4	2.52	108	255	R7	K60R	02-IR	
100	"	1.7	3300	4.71	2	1.5	25	62.5	J8J	J8J	1-3Pt.	
200	"	3.3	3300	9.42	2	1.5	39	82.5	C7	D9J	02-3Pt.	
LS37	1937	2.1	4000	4.14	1 7/8	1.5	33	75	J8J	J8J	1-3Pt.	* These motors have internal rotary valve for low speed.
DS37	"	2.1	4000	4.14	1 7/8	1.5	39	95	J8J	J8J	1-3Pt.	*
LT37	"	4.2	4000	8.18	1 7/8	1.5	40	105	J8J	J8J	A2-3Pt.	*
DT37	"	4.2	4000	8.18	1 7/8	1.5	45	130	J8J	J8J	A2-3Pt.	*
210	"	3.3	3300	9.42	2	1.5	39	85	C7	D9J	02-3Pt.	
110	"	1.7	3300	4.71	2	1.5	25	59.5	J8J	J8J	1-3Pt.	
AA37	"	4.5	4000	8.28	1 7/8	1.5	48	145	5M	D9J	A2-IR	
KA37	"	9.3	4000	13.96	2 1/8	1 31/32	64	175	R7	K60R	A2-IR	
P037	"	22	4000	29.92	2 3/4	2.52	109	260	R7	K60R	02-IR	
MS38	1938	1.1	4000	2.04	1 3/8	1 3/8	17	49.5	J8J	J8J	1-3Pt.	*
MD38	"	1.1	4000	2.04	1 3/8	1 3/8	21	62.5	J8J	J8J	1-3Pt.	*
LS38	"	2.1	4000	4.14	1 7/8	1.5	31	77.5	J8J	J8J	1-3Pt.	*
DS38	"	2.1	4000	4.14	1 7/8	1.5	38	94.5	J8J	J8J	1-3Pt.	*
LT38	"	4.2	4000	8.28	1 7/8	1.5	38	109	J8J	J8J	A2-3Pt.	*
DT38	"	4.2	4000	8.28	1 7/8	1.5	39	130	J8J	J8J	A2-3Pt.	*
KA38	"	9.3	4000	13.96	2 1/8	1 31/32	64	177	R7	K60R	A2-IR	
P038	"	22	4000	29.92	2 3/4	2.52	109	270	R7	K60R	02-IR	
MS39	1939	1.1	4000	2.04	1 3/8	1 3/8	17	49.5	J8J	J8J	1-3Pt.	*
MD39	"	1.1	4000	2.04	1 3/8	1 3/8	21	62.5	J8J	J8J	1-3Pt.	*
MS39	"	2.5	4000	4.08	1 3/8	1 3/8	21	79.5	J8J	J8J	A2-3Pt.	*
HA39	"	2.5	4000	4.08	1 3/8	1 3/8	26	86.5	J8J	J8J	A2-3Pt.	*
HD39	"	2.5	4000	4.08	1 3/8	1 3/8	28	94.5	J8J	J8J	A2-3Pt.	*
LT39	"	5	4000	8.84	1 15/16	1.5	33	109	J8J	J8J	A2-3Pt.	*
AT39	"	5	4000	8.84	1 15/16	1.5	38	117	J8J	J8J	A2-3Pt.	*
DT39	"	5	4000	8.84	1 15/16	1.5	42	129	J8J	J8J	A2-3Pt.	*
KA39	"	9.8	4000	13.96	2 1/8	1 31/32	64	177	R7	K60R	A2-IR	
P039	"	22	4000	29.92	2 3/4	2.52	109	269	R7	K60R	02-IR	
MS15	940	1.5	4000	2.42	1 . 5	1 3/8	19	49.5	J8J	J8J	1-3Pt.	*
MD15	"	1.5	4000	2.42	1 . 3	1 3/8	24	62.5	J8J	J8J	1-3Pt.	*
HS10-15	"	2.5	4000	4.08	1 3/8	1 3/8	22	79.5	J8J	J8J	A2-3Pt.	*
HA10-15	"	2.5	4000	4.08	1 3/8	1 3/8	26	86.5	J8J	J8J	A2-3Pt.	*
HD10-15	"	2.5	4000	4.08	1 3/8	1 3/8	28	94.5	J8J	J8J	A2-3Pt.	*
LT10	"	5	4000	8.84	1 15/16	1.5	33	109	J8J	J8J	A2-3Pt.	*
AT10	"	5	4000	8.84	1 15/16	1.5	36	118	J8J	J8J	A2-3Pt.	*

Model	Year	H.P.	R.P.M.	Disp.	Bore	Stroke	Wt.	Price	Old	New	N.C.C.I.	Special notes
DT10	1940	5	4000	8.84	1 15/16	1.5	42	130	J8J	J8J	A2-3Pt. *	
KA10	"	9.8	4000	13.96	2 1/8	1 31/32	64	177	R7	K60R	A2-IR	
SD	"	16	4000	22.09	2 1/2	2 1/4	88	245	5M	D9J	A2-IR	
PO	"	22	4000	29.92	2 3/4	2.52	109	269	R7	K60R	02-IR	
Ms20	1941	1.5	4000	2.42	1.5	1 3/8	24	55	J8J	J8J	1-3Pt. *	
MD20	"	1.5	4000	2.42	1.5	1 3/8	26	62	J8J	J8J	1-3Pt. *	
HS20	"	2.5	4000	4.08	1 3/8	1 3/8	27	87	J8J	J8J	A2-3Pt. *	
HD20	"	2.5	4000	4.08	1 3/8	1 3/8	29	94	J8J	J8J	A2-3Pt. *	
TS15	"	5	4000	8.84	1 15/16	1.5	40	118	J8J	J8J	A2-3Pt. *	
TD15	"	5	4000	8.84	1 15/16	1.5	42	125	J8J	J8J	A2-3Pt. *	
KS15	"	9.8	4000	13.96	1 1/8	1 31/32	64	185	5M	D9J	A2-IR	
KD15	"	9.8	4000	13.96	1 1/8	1 31/32	71	195	5M	D9J	A2-IR	
SD10	"	16	4000	22.09	2 1/2	2 1/4	89	255	5M	D9J	A2-IR	
PO15	"	22	4000	29.92	2 3/4	2.52	109	280	R7	K60R	02-IR	
MS20	1942	1.5	4000	2.42	1 1/2	1 3/8	24	62	J8J	J8J	1-3Pt. *	
MD20	"	1.5	4000	2.42	1 1/2	1 3/8	26	70	J8J	J8J	1-3Pt. *	
HS20	"	2.5	4000	4.08	1 3/8	1 3/8	27	97	J8J	J8J	A2-3Pt. *	
HD20	"	2.5	4000	4.08	1 3/8	1 3/8	29	105	J8J	J8J	A2-3Pt. *	
TS15	"	5	4000	8.84	1 15/16	1.5	42	140	J8J	J8J	A2-3Pt. *	
TD15	"	5	4000	8.84	1 15/16	1.5	42	140	J8J	J8J	A2-3Pt. *	
KS16	"	9.8	4000	13.96	1 1/8	1 31/32	64	205	5M	D9J	A2-IR	
KD15	"	9.8	4000	13.96	1 1/8	1 31/32	71	215	5M	D9J	A2-IR	
SD10	"	16	4000	22.09	2 1/2	2 1/4	89	280	5M	D9J	A2-IR	
PO15	"	22	4000	29.92	2 3/4	2.52	109	310	R7	K60R	02-IR	
World War 11 Permitted Military production only in 1943-44-45.												
HD25	1946	2.5	4000	4.08	1 3/8	1 3/8	29	116	J8J	J8J	A2-3Pt. *	
TD20	"	5	4000	8.84	1 15/16	1.5	42	154	J8J	J8J	A2-3Pt. *	
KD15	"	9.8	4000	13.96	1 1/8	1 31/32	71	250	5M	D9J	A2-IR	
PO15	"	22	4000	29.92	2 3/4	2.52	109	350	R7	K60R	02-IR	
HD25	1947	2.5	4000	4.08	1 3/8	1 3/8	29	120	J8J	J8J	A2-3Pt. *	
TD20	"	5	4000	8.84	1 15/16	1.5	42	160	J8J	J8J	A2-3Pt. *	
KD15	"	9.8	4000	13.96	1 1/8	1 31/32	71	250	5M	D9J	A2-IR	
SD15	"	16	4000	22.09	2 1/2	2 1/4	89	310	5M	D9J	A2-IR	
PO15	"	22	4000	29.92	2 3/4	2.52	109	350	R7	K60R	02-3Pt.	
HD25	1948	2.5	4000	4.08	1 3/8	1 3/8	29	120	J8J	J8J	A2-3Pt. *	
HD25	1948	2.5	4000	4.08	1 3/8	1 3/8	29	120	J8J	J8J	A2-3Pt. *	
TD20	"	5	4000	8.84	1 15/16	1.5	42	160	J8J	J8J	A2-3Pt. *	
KD15	"	9.8	4000	11.96	1 1/8	1 31/32	71	250	5MJ	D9J	A2-IR	
SD15	"	16	4000	22.09	2 1/2	2 1/4	89	310	5MJ	D9J	A2-IR	
PO15	"	22	4000	29.92	2 3/4	2.52	109	350	R7	K60R	02-3Pt.	

Model	Year	H.P.	R.P.M.	Disp.	Bore	Stroke	Wt.	Price	Old	New	N.C.C.I.	Special notes
HD25	1949	2.5	4000	4.08	1 3/8	1 3/8	31	130	J6J	J6J	A2-3Pt. *	
TD20	"	5	4000	8.84	1 15/16	1.5	44	170	J6J	J6J	A2-3Pt. *	
QD10	"	10	4000	16.6	2 3/8	1 7/8	56	300	J6J	J6J	A2-Reed	
SD20	"	16	4000	22.09	2 1/2	2 1/4	86	350	5MJ	D9J	A2-IR	
P015	"	22	4000	29.92	2 3/4	2.52	116	395	R7	K60R	O2-IR	
HD25	1950	2.5	4000	4.08	1 3/8	1 3/8	31	125	J6J	J6J	A2-3Pt. *	
TN25-26	"	5	4000	8.84	1 15/16	1.5	44	170	J6J	J6J	A2-3Pt. *	
QD10-11	"	10	4000	16.6	2 3/8	1 7/8	56	285	J6J	J6J	A2-Reed	
SD20	"	16	4000	22.09	2 1/2	2 1/4	86	340	5MJ	D9J	A2-IR	
P015	"	22	4000	29.92	2 3/4	2.52	116	395	R7	K60R	O2-IR	

Year	Serial Number.	Year	Serial Number	Year	Serial Number
1922	506 thru 3930	1931	152778 thru 161326	1940	355972 thru 397900
1923	3931 " 7500	1932	161327 " 167430	1941	397901 " 439206
1924	7501 " 20000	1933	167431 " 208583	1942	439207 " 460782
1925	20001 " 30599	1934	208584 " 219371	1943/45	460783 " 491736
1926	30560 " 44977	1935	219372 " 232156	1946	491737 " 538800
1927	44978 " 65524	1936	232157 " 252675	1947	538801 " 614514
1928	65525 " 96408	1937	252676 " 283888	1948	614515 " 698874
1929	96409 " 128000	1938	283889 " 315166	1949	698875 " 787023
1930	128001 " 152777	1939	315167 " 355971	1950	787024 " 869939





**1928****50<sup>th</sup> Anniversary****1978****Outboard Marine Corporation of Canada Ltd.,****Peterborough, Canada****A History of Progress**

- 1928 JOHNSON MOTORS was founded in Canada and commenced operation with 17 employees in a 30,000 sq.ft. factory.
- 1931 JOHNSON Cedar Strip Boats were first produced in the Peterborough Plant. The deluxe Imperial model sold for \$225.00.
- 1932 The first ever, inboard-outboard Stern Drive was introduced by Johnson.
- 1936 The amalgamation of Johnson Motor Company and Outboard Motors Corporation, manufacturers of EVINRUDE and ELTO outboard motors took place. Outboard Marine and Manufacturing Company came into being. A fire this year destroyed the boat plant. Production began on the Johnson-Tremblay centrifugal fire pump, used extensively in Canada for forest fire and municipal fire fighting.
- 1939 After September, all production of outboard motors ceased for the duration of the war. OMC began producing components and finished product for a myriad of companies manufacturing planes, tanks, ships and guns for our war effort.
- 1942 The first major expansion program was completed, enlarging the plant area to 69,269 sq.ft.
- 1945 Another expansion was completed to an area of 87,553 sq.ft. The wartime employment high was 822. On June 20th a letter to all Outboard Marine dealers across Canada announced the first outboard motors to be produced in Canada in nearly six years. Production for that year was immediately sold out.
- 1948 An additional 12,000 sq.ft. was added to the bustling plant. OMC introduced the famous Q.D. 10 h.p. motor, bringing the gear shift to outboarding.
- 1949 A further 64,182 sq.ft. was added to the Peterborough plant bringing the total floor space to 163,735 sq.ft.
- 1950 Though many people predicted the post war boom was over, OMC built another 19,000 sq.ft. addition and introduced a new 25 h.p. outboard motor which furthered the trend to family pleasure boating.
- 1953 LAWN-BOY, the rotary powered lawn mower was introduced. The growing production of outboard motors, together with this new product, necessitated an additional 40,000 sq.ft. Total floor space of the Canadian plant had now reached 222,732 sq.ft. Employment stood at 833
- 1956 The Company's name was changed again, to Outboard Marine Corporation of Canada Limited. The 30 h.p. outboard motor was introduced continuing the trend to more power for water skiing and bigger outboard cruisers. OMC announced the purchase of Industrial Engineering of British Columbia.
- 1957 This year saw the start of a \$4 million expansion program in Peterborough, bringing the total floor space to 339,106 sq. ft.
- 1958 Outboard Marine introduced two tremendous advances to the outboard industry this year. The first was a new concept in silent operation, reducing the

sound level of outboards to the level of an automobile. The second was the unveiling of the 50 h.p. V-block, four cylinder outboard, a remarkable engineering achievement. Employment reached a new high of 1,177.

1960 OMC's V-block 75 h.p. outboard motor set a new world's speed record of 114.650 miles/hour. OMC of Canada had its first 30 year club meeting with 14 members present.

1962 Purchased plant in Trenton and began production of the OMC 17 boat, which started the trend to inboard-outboard powered boats.

1963 A new 28,240 sq.ft. addition to plant facilities, included a new die cast department and brought the total floor space area to 363,683 sq.ft.

1964 OMC purchased the former Peterborough Canoe Company property and set it up as a national service and parts center.

1966 A new plant was built on Neal Drive in Peterborough on 100 acres of land, primarily for the manufacture of snowmobiles. OMC outboard power now ranged from 1½ to 115 h.p., with 5 stern drive models ranging up to 225 h.p. An EVINRUDE V-4 set the fastest speed ever with outboard power--131 m.p.h.

1967 OMC opens its first company owned Parts and Service depot in North Bay.

1968 A new three cylinder 55 h.p. outboard was introduced by EVINRUDE and JOHNSON. This engine also re-introduced thru-hub exhaust to OMC engines, an idea patented by Ole Evinrude many years before.

1970 OMC outboards go to a 50:1 gas to oil ratio. Just ½ as much oil as early outboards. OMC Canada built its one millionth outboard motor.

1971 A new engineering concept by OMC eliminated all overboard drains that deposit unburned fuel into the water. Although patented, OMC made these anti-pollution inventions freely available to all its competitors. A three year study by the U.S.

Environmental Protection Agency gets underway, that eventually proves that outboards do not pollute the water.

1973 Roger Wood drives his OMC power boat 112.414 mph to set a Canadian speed record. OMC opens a new parts and accessories distribution outlet in Quebec City.

1974 Michael Dumas, a young Canadian artist, was commissioned to do 30 wildlife paintings over a period of five years. The OMC art collection was born.

1976 The introduction of the V-6 200 h.p. opened a new era in boating performance and convenience. OMC opens new parts and accessories distribution center in Peterborough.

1977 Further expansion of our parts and accessories branches sees the opening of a new outlet in Ottawa. The OMC racing team won the National Overall Championship in Mod "U", set a new Canadian speed record of 114.974 mph, and a new world's competition speed record on a five mile course with a Mod "U" V-6. A JOHNSON outboard took the National High Points Championship in Mod 50, and OMC engines also won the National Championship in SE Class and FE Class with our 75 h.p. motors. OMC announced the termination of PIONEER chain saw production and that the company and its manufacturing facilities will be offered for sale.

1978 Canadian sales of outboard motors in the export market reaches an all time high.

The following are registered trademarks of Outboard Marine Corporation of Canada Ltd.:

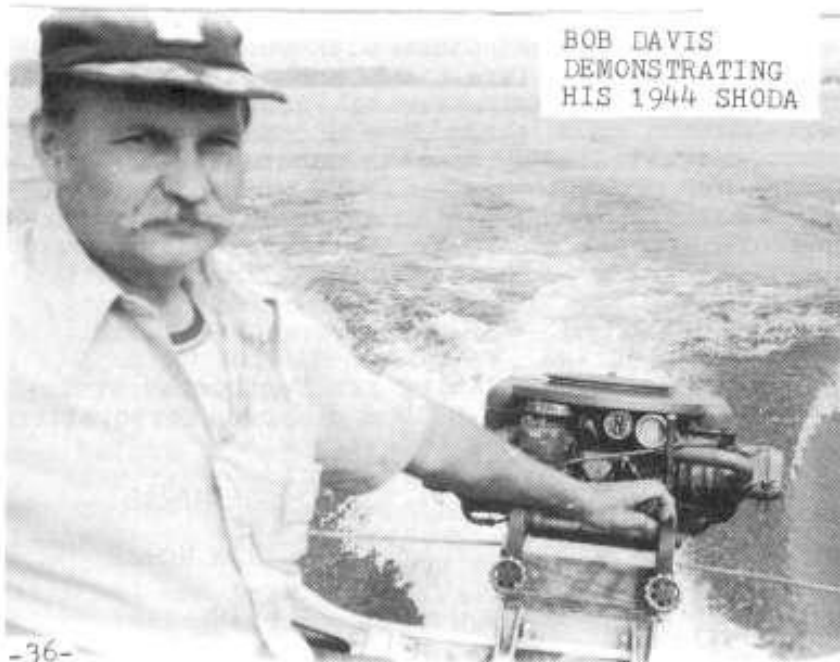
- |          |            |
|----------|------------|
| EVINRUDE | SEA HORSE  |
| JOHNSON  | IRON HORSE |
| OMC      | ELTO       |
| LAWN-BOY |            |



RACING THE OLDIES ON THE ST. LAWRENCE SEA WAY ARE ERNEST HAACK, MARK WRIGHT, SAM VANCE, BILL ANDRULITIS, BOB ZIPPS, AND RIDERS.

## ★ **THIRD NATIONAL MEET** ★

by Claire Vreeland



BOB DAVIS  
DEMONSTRATING  
HIS 1944 SHODA

Most members attending the AOMCI 3rd National Meet in Clayton, New York arrived a day or two early. My husband, Paul, and I drove over from Colebrook, Connecticut on Wednesday preceding the meet and instantaneously, irrevocably, fell madly in love with Clayton --- the history, the legends, and the people. Not only Clayton, but Alexandria Bay, Cape Vincent, the islands and most of all the river held us in fascination. And of course, the Shipyard Museum which our Yan-



kee Chapter President, Dick Fuchs, had raved about, we found more than interesting. We viewed the exhibits and watched the work in progress on the restoration of NARRA MATTAK, a 1902 Elco built by Electric Boat Company in Bayonne, New Jersey. This boat displaces 21.8 tons and is powered by an 150 H.P. Chrysler Crown marine engine.

We spent Thursday being "tourists" by taking the International Boat Company Tour to Granoque, Ontario, and then to Boldt Castle on Heart Island. Later in the afternoon we met with other AOMCI members and their families at the summer home of Riggs and Nan Smith at Fishers Landing for a cookout. As the Chairman of the meet, Riggs had a hundred and one details on his mind, but he was a charming host and gave several of us rides in his beautiful wooden boat.

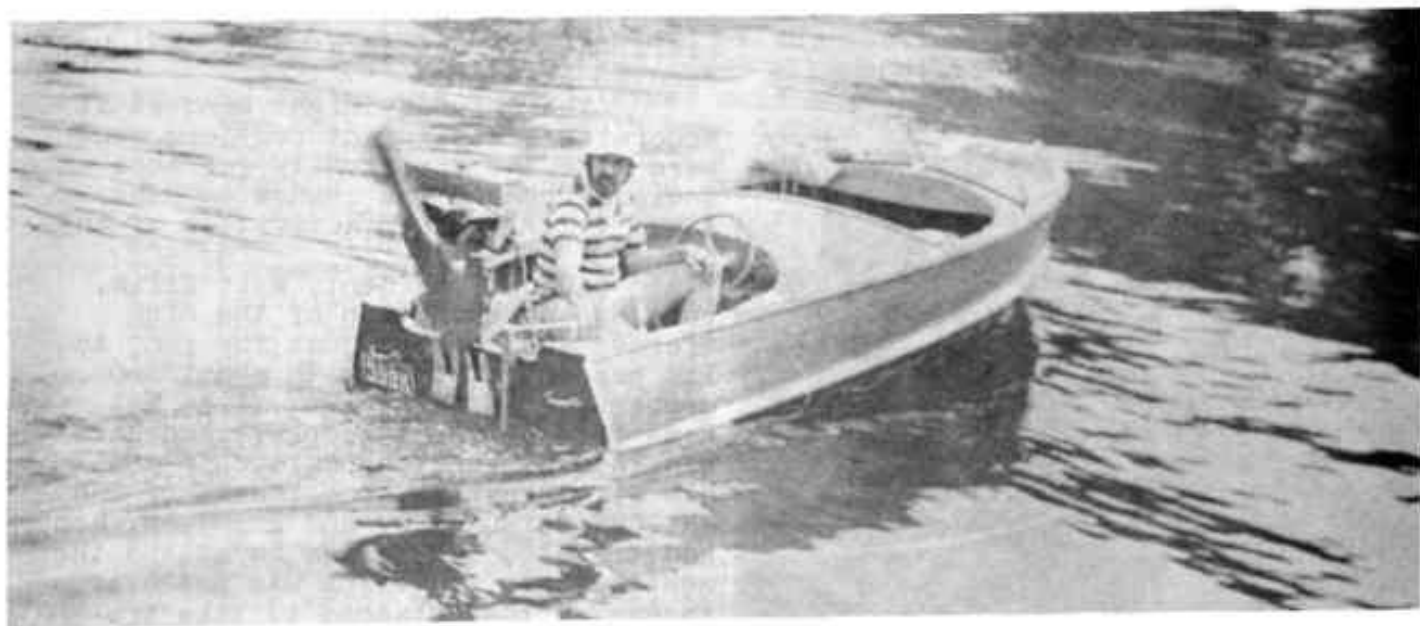
The meet officially opened the next day --- everything about it was exciting, including all 97 antique outboard motors exhibited by the 39 members who came from Arkansas, Colorado, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Kentucky, Massachusetts, Missouri, New Jersey, New York, Ohio, Pennsylvania and Wisconsin; plus Canada and Michigan. It was a "really great show!"

"It's absolutely overwhelming...there's so much here," I said to Marcus Wright of Little Silver, New Jersey, who posed while I took a picture of him with his 1928 Elto. "Just take the motors chronologically and go from there," he advised, in sympathy with a novice who knows nothing about motors, but who as a freelance writer had promised an article about this meet to SOUNDINGS.

Mr. Wright went on to explain why he particularly likes the Eltos, "the easiest starting outboards ever built." He said they were all advertised to start with a quarter turn. "And they do!" He smiled and demonstrated.



SCAVENGING FOR NAILS AND COINS



BILL ANDRULITIS RUNNING HIS "MOST UNUSUAL" 1917 AEROTHRUST.

Bob Zipps, Yankee Chapter member wandered by saying, "This is a great meet!" Every meet that Paul and I have attended we have heard Bob say the same thing even when the weather is cold and rainy!

I am interested in people and a no more interesting group of people can be found anywhere than a gathering of AOMCI members. AOMCI ranks are filled with people who collect interesting things and travel to interesting places in pursuit of their hobbies.

I paused to take a picture of Bob Zipps son, Dave, polishing the brass on his dad's motors. Then I stopped to talk to members of the Bob Davis family from Mountain Hime, Arkansas. He exhibited his 1913 Hassw, a 5 H.P. motor which runs on benzine and castor oil, and his 1944 Shoda, one of only nine known to be still in existence.

The days passed quickly with plenty of things to see and do. There was a boat ride out to Grindstone Island for a picnic, the judging of motors, the flea market and auction, the scavenger hunt for the children, the demonstration of spinning yarn by Nancy, Bill Andru-litis' wife, the talking, the cookouts, the banquet and awards, and, the favorite, Bang and Go Back contest.

Friday afternoon Mort Daller was in charge of a high speed outboard motor demonstration which featured Bill Salisbury and his class "C" outfit, and Sam Vance with his 4 60 Evinrude.

On Saturday afternoon, Sam Vance was in charge of a pioneer outboard motor development period demonstration which featured "in water" demonstration of Bob Cox's 1905 Motogodille, Tom Luce's 1912 Evinrude, Bob Grubb's Amphion and Bill Andru-litis' Aerothrust on a handsome Pennyan boat.

The Saturday night banquet at McCormick's Restaurant provided members with the opportunity for more socializing and the chance to hear AOMCI V.I.P.s recap activities of the club.

AOMCI President, Walt Ellis, told of the evolution of the club "formed as a hobby, just for fun" to its present status, with about 560 members. "In this club...I've met some of the finest people...and have had lots of fun." he said. He and his wife, Phyllis, publishers of THE ANTIQUE OUTBOARDER, and grandson, Ron, had traveled 1400 miles to attend the meet. Their traveling was not over though ad they planned to take trophies to Jim Webb, historian, whose stories of outboard motor pioneers



MARK WRIGHT AND 1928 ELTO



SAM VANCE TANK TESTING AN ELTO -38-

have enlightened and entertained OUTBOARDER readers, and Bob Brautigam, former president and publisher of THE OUTBOARDER from 1969 to 1976.

This meet proudly featured Pioneer Day, in which members active in the early days of outboard motoring were honored; among them, Warren Conover and Mary Daller.

Warren is the last survivor of the small group that started the Johnson outboard motor on its way to the top of the industry. Warren made most of the magneto parts for Johnson's first water cooled motor by hand for the production model. He cut out the laminations with tin snips. He was also responsible for lights on the Johnson Motor Wheel, a two-cylinder motor which converted bicycles into motor bikes.

Mary Daller, who publishes THE KNUCKLEBUSTER Newsletter, was prominent in outboard motor racing in the 1930's and has worked with outboard motor and boating publications.

Others invited to the Pioneer Day were Ralph Evinrude, Jim Webb, Bob Brautigam, and Randolph Hubbell. But none were able to attend.

The three day meet had something for everyone and all of it was enjoyed with great enthusiasm... Riggs Smith and his committee are to be complimented on a successful and outstanding meet.



MARK WRIGHT AND BOB COX PICTURED WITH BOB'S 1905 MOTOGODILLE.



Left to right: DR. WALTER OTTO, PHYLLIS ELLIS, DICK FUCHS, YOUNG GIRL AND RHEA OTTO Seated: ANN CONOVER, MARY DALLER...enjoying the afternoon at RIGGS & NAN SMITH'S, FISHERS LANDING, NEW YORK.



WARREN CONOVER AND BOB ZIPPS RUNNING A 1922 JOHNSON MOTOR.





IN MEMORY OF PHILIP G. GRAEN

October 10, 1905 - September 13, 1978

The Antique Outboard Motor Club of America lost a true friend with the passing of Phil Graen on September 13, 1978. Phil was "the life" of the Mid-America Prop Spinner Chapter.

Outboard motors played an important part of Phil's life. He first got into motors when he ran a boat house on Lake Erie, (near Loraino, Ohio) in the early 40's. He began racing boats in 1941, running a PO on his red and white "Skat". The PO still is in the family.

In 1946 Phil moved to Bloomington, Illinois. He continued tinkering with outboards and joined the AOMCI in 1967. He worked as a cook on tow boats plying the Illinois and Mississippi Rivers, and picked up quite a few old motors along the inland waterways.

Besides the PO, one of his pride and joys was a Clark Troller. However, he did not find it along the river. He and his daughter, Donna, drove to Pascagoula, Mississippi to pick it up. It took half a day to talk the old boy into parting with it..... That was a true collector of old iron

The first meet Phil attended was the First National AOMCI Meet at Antioch, Illinois. He can well be remembered not only for his collection of motors but for almost always having some "firepower" to protect his collection - usually an antique double barrelled shotgun!

After he retired from the tow boats, he spent a great deal of time along the Illinois waterway in his cabin at a place called Goofy Ridge, south of Peoria, Illinois. He made more meets, and was a regular at the MAPS meets. He also made it to the Second National Meet at the Lake of the Ozarks.

Phil had about 40 pieces of old iron in his collection, plus enough old pieces to build a few more. He was always on the go and was making preparations for the Fall MAPS Meet at Taylorville when he left us. He would have been 73 years old October 10, 1978.

Submitted by Gene Yonker, Donna and Hank Hahn

(Editor's note: Our club has lost one of its oldest and most loyal members. I am sure I speak for all who knew him in saying we will miss Phil. He was a true gentleman.)



Right" Picture of Phil Graen taken 1943 in red and white "Skat" boat on Lake Erie at Beaver Park, Ohio.



Above left: Phil Graen with a KA 38 that MAPS Chapter presented to him, replacing the one he lost in Lake Taylorville in fall of 1976. Right: Phil receiving award from Clarence Sitton, MAPS' President. Next: Phil displays his Clark Troller. Below left: Picture taken by Ron Ellis with the inscription -- "Never a dull moment with Phil." Right: Fishing was a favorite pass time of Phil's. One fall Phil with expert help not only furnished the fish but cooked them too for all the MAPS group.



# A Letter from Alcy Richardson

from Bob Zipps

photos from Dick Hawie

ad from Sal Lentine



Mary and a brace of trophies.  
Motor Boating, July 1928

times and it still fascinates me. (ANTIQUÉ OUTBOARDER, July 1976, page 24)

Another article about the club was printed in the August 1977 issue of the Yankee Magazine. The article generated a tremendous amount of interest. Among the many letters that I received, the most interesting by far was sent by Mary Alcott Scharbius. Here it is:

"My Dear Mr. Zipps,

I read with great interest the story of your collection of outboard antiques in the current Yankee. What a marvelous hobby, and how fortunate you have the know-how to make them work.

Back in the days when I raced outboards, one never dreamed of keeping the old model when the new ones came out - somebody might beat you!

I often wonder what became of my 1928 Evinrude Speeditwin Class "C" with which I won the World's First Fresh-Water Marathon - from Milwaukee to Chicago - 101 miles. It was June 2nd, 1928 - a gray, windy day, of confused seas and numbing cold. I was 15, and the only girl in a 68 boat fleet of men. When the checkered flag waved me in at Navy Pier in Chicago, I had won by 28 minutes. My nearest rival, a boat manufacturer named Lyman, driving his own lap-strake design powered by a Johnson (a dirty word in the pre-merger days), unfortunately came a-cropper off of the beaches on the North Shore, and I was home free.

I was driving an all-aluminum "Mullins Seahawk" - 15 foot displacement hull - and a daring departure from the wooden hulls of the day.

It was a great thrill for a young girl, and I continued racing through-out that summer - taking a second in the 202 mile Chicago-St. Louis Marathon over the 4th of July holiday. My father, "Red" Richardson, driving a Boyd Martin Bullet and using the same 25 HP Evin-





**NEW WORLD'S RECORD**  
**38.436**  
 MILES PER HOUR  
 JUNE 4<sup>th</sup>



**96 MILES**  
 MILWAUKEE TO  
 CHICAGO, JUNE 2  
 First, Second, Fourth and Sixth



AT WORCESTER, MASS.  
**1st. 2nd. 3rd.**

**CLASS C. FREE-FOR-ALL**  
 10 MILE *Grand Free-for-all*  
 (1st-2nd-3rd-4th)  
**CLASS C. NOVICE**



*4 Twin Cylinder Models*  
 Speeditwin—16 H.P. 85 only lbs. 6 to 40 M.P.H.  
 Fastwin—12 H.P. only 69 lbs. 5 to 30 M.P.H.  
 Fleetwin—6 H.P. only 55 lbs. 4 to 25 M.P.H.  
 Sportwin—2½ H.P. only 44 lbs. 3 to 13 M.P.H.  
 Write for 1928 Evinrude Year Book.

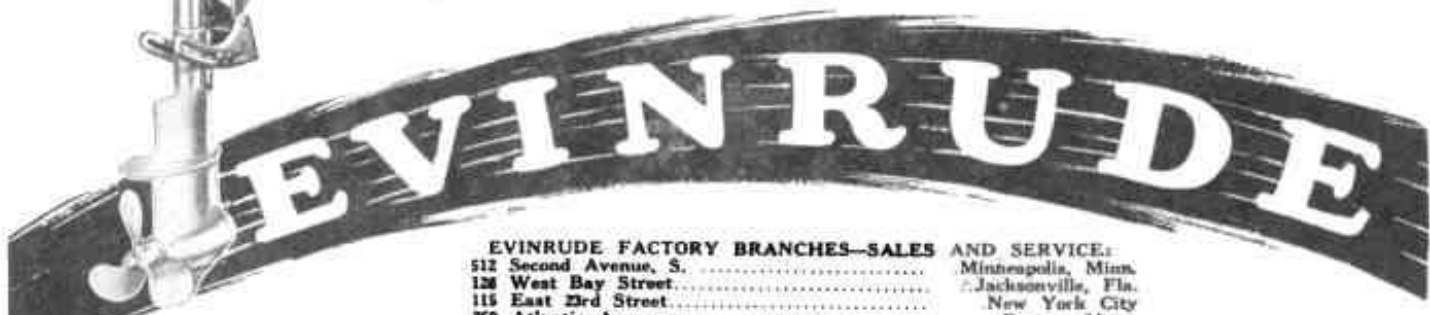
FOR the third time this year, Evinrude Speeditwin breaks all world's speed records, by averaging 38.436 M. P. H. for six one-mile heats, at Balboa, Calif., June 4. Boat, Fire Fly owned and driven by Charles Holt, Los Angeles amateur, powered with strictly stock model, 16 H. P. Evinrude Speeditwin. Auspices So. Calif. Outboard Motor Boat Association and A. P. B. Association.

Duplicating its triumph on the Hudson in the great Albany to New York Race, Evinrude Speeditwin, driven by 15-year-old Mary A. Richardson captured the Milwaukee to Chicago Marathon, making the 96 mile run over the rough water of Lake Michigan in 4 hours, 2 minutes, 22 seconds and finishing 39:29 minutes ahead of any other make motor.

At Worcester, Mass., on May 30, Evinrude Speeditwins again demonstrated their championship speed. Before over 15,000 spectators, Commodore H. Ross Maddocks, driving a genuine stock model Evinrude Speeditwin, took first in Class C Free-for-All, Class C Novice Race and the gruelling 10 mile Grand Free-for-All. Speeditwins also placed second and third in all of these events and also fourth in the Class C Novice Race, in addition to placing first, second and third in Time Trials. Auspices New England Outboard Motor Association, and American Power Boat Association.

Friction-Reducing Ball and Roller Bearings on Connecting Rods, Crankshaft, Drive and Propeller Shafts — an important, original and exclusive Evinrude Speeditwin and Fastwin feature for longer life and greater speed.

**EVINRUDE MOTOR COMPANY**  
 1118 27th Street  
 Milwaukee, Wis.



**EVINRUDE FACTORY BRANCHES—SALES AND SERVICE:**  
 512 Second Avenue, S. . . . . Minneapolis, Minn.  
 126 West Bay Street . . . . . Jacksonville, Fla.  
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 64 King Street, W. . . . . Toronto, Ont., Canada

Mention OUTBOARD MOTOR BOATING, 57th St. at Eighth Ave., New York.

rude was over-all winner in the St. Louis Regatta races following the marathon.

Those were exciting times - and the Yankee article on your hobby brought them all back in living color.

Thanks for the memories and continued happy times for your "collecting".

With all good wishes,

Sincerely,

Mary Alcott Scharbius"

I'm sure you will all agree that it is an absolutely beautiful letter, and I was proud to receive it. Dick Hawie, our club Curator, dug into the archives and did an outstanding job in researching the race to come up with great photographs to complement the letter.

Dick reports that after Mary won driving "Lady Sparton", Jim Welch driving "Century Traveler" came in second using a "C" Evinrude, W. G. Kaehler driving "Big Boy Kaehler" with an Elto-D was 3rd, and Walter Jahr driving "Marwall" with an Evinrude C was 4th.

Franklin Cook, who on page 11 of Hank Bowman's Encyclopedia is credited with winning the race, actually (according to Dick) came in first in Class "B". My thanks go to Sal Lentine for the loan of the full-page Evinrude ad.

Alcy Richardson (as Mary was known in her racing days) says, "Those were exciting times!" Ah, if only the motors we have lined up in basements could talk, imagine the stories they could tell!!! But only people have memories, have feelings and love outboarding. How lucky we are that we can "relive" those days with great people like Mary Alcott Scharbius, when she was known as Alcy Richardson.



## Girl Wins Strenuous Contest

Lovely Mary Alcott Richardson  
after winning a tremendous race.

Action photo of "Mullins Seahawk"  
powered by an Evinrude "C".

Rudder, July 1928

Motor Boating, July 1928

★ AOMCI ★  
'THIRD' NATIONAL MEET

by Riggs Smith,  
Meet Chairman



The Third AOMCI National Meet is over with the mighty St. Lawrence River returning to normal after the departure of old outboard engines.

The First National Meet was held at Antioch, Illinois in July, 1972. The Second National Meet was held at the Lake of the Ozarks in June, 1972. The Third National Meet was held on August 11, 12, and 13th, 1978.

The spray and noise from many old outboard motors has just about settled by now. The whirlwind weekend of the National Meet is over. For some of us on the committee it was the fastest weekend of our lives. It was also the busiest, most interesting and most fun-filled time of our lives.

The host site for the meet was at the world famous Shipyard Museum in Clayton, New York. This little town is centered in the middle of the beautiful Thousand Islands Region of the St. Lawrence River in upstate New York. The Shipyard Museum is the largest freshwater museum of its type in the world. AOMCI members had full use of this facility and its grounds, as well as the massive waterfront. Obviously for this we in the AOMCI were grateful.

To those members and friends and families who could not attend this National Meet we are sorry you missed it. We missed you and you missed a really fine weekend.

To specifically thank every individual here at this point would be too lengthy. An awful lot of people helped to make it a success. We will, however thank our sponsors who were:

Mercury Outboards

Outboard Marine Corporation

H. Chalk & Son, Fishers Landing, New York

Bill & Jacks Marina, Fishers Landing, New York

The meet did not actually begin until Friday morning but on Thursday



many of the members, their families and friends met at Riggs and Nan Smith's cottage in Fishers Landing. No one actually counted, but the sherrif's department (good friends) estimated about 20 cars with about 60 people for supper! Lots of fun, chatter, and the making of new acquaintances occurred.

Early Friday morning the formal activities began on the Shipyard Museum grounds. Trailers, boats, literature, accessories, parts, antique outboard motors arrived and the committee began with member registration.

Preparations for the antique outboard motor cruise to Canoe Point State Park were in motion. At 10:30 a.m. Tom Luce, group leader, was given the signal to take his group of high speed followers around the west end of Grindstone Island. All operators had charts, but the river can be dangerous as there are many shoals to contend with. Sam Vance found this out as he tried to use the skeg of his Evinrude 460 to write his name on one of the shoals just off the head of Club Island! Luckily the damage was not too severe and Sam was able to continue to the park. The slower motors headed in a more direct route to the park. Bob Cox offered the use of his 27 foot Cigarette prototype, the "Split" to taxi quite a number of members and families to the picnic site. It was quite an interesting sight to see all of those antique outboard motors cruising down the river. The faster outfits arrived about the same time as the slower ones, due to the distance variation. Actually, there were very few casualties that had to be towed in. Our president and his grandson missed the trip entirely because of battery problems with their Red Wing boat, but about 25 boats and 100 people participated in this event.

Right: Riggs Smith, his beautiful wooden boat, AOMCI members on St. Lawrence River, Fishers Landing, New York.



Left: Ron Ellis, 1935 Red Wing boat, VE 50 1930 Johnson.



Lower right: Milt Moos, PO motor beautiful boat & AOMCI friends.

During lunch at the state park, there was much discussion and chat about antique outboards motors. Bob Matthews, our assigned AOMCI meet photographer, was busy getting many pictures of boats and people. Most of the pictures for this article were taken by Bob, and he wouldn't take a cent!

After lunch the entire group headed back to the Shipyard Museum. Because of the lack of entries, the "electric outboard motor" class had to be scratched and a demonstration of racing engines on the flat water began. Dave Salisbury provided a fine demonstration of his class "C" outfit. Sam Vance showed us his Evinrude 460. Others chose to demonstrate in the provided test tanks. The judging for the antique racing engines began and we used a "peer" judging system, whereby members themselves judged by filling out a question and answer sheet. The racing engines winners were:

- 1st place - Jim Murphy for his 1930 Johnson VR50
- 2nd place - Jim Murphy for his 1933 Johnson PR65
- 3rd place - Bill Salisbury for his 1949 Johnson PO15 Hotrod

Later the "unrestored, original outboard motors were judged and it was quite interesting to see what a class like this one will bring out of the woodwork. The emphasis was placed on the running as opposed to the "mint" restoration items. Anything beyond a tune-up would cost points. The winners in this event were:

- 1st place - John Herberg for his 1936 Neptune
- 2nd place - Bob Zipps for his 1934 Johnson S70
- 3rd place - Gary Mower for his 1946 Evinrude Zephyr

That evening Tom Luce, our AOMCI meet auctioneer, conducted the auction on the museum grounds with Phil Kranz and Bob Zipps as the "fence" men. Several fine antique outboards, many parts and accessories were sold. Jean Luce collected in excess of \$150.00 to go to the club treasury.

Bright and early Saturday morning, after hearing about Bob Davis' car radiator showering party goes with hot anti-freeze and Dick Fuchs' car "theft alarm" going off in the middle of the night, the judging for the "little kicker, unshrouded, aluminium" was started and the winners were:

- 1st place - Jim Murphy for his 1929 Johnson S45
- 2nd place - Tom Luce for his 1907 Waterman Porto
- 3rd place - Bob Grubb for his 1940 K40 Mercury

After this event the judging began for "little kicker, shrouded, aluminium and the winners were as follows:

- 1st place - Dick Perry for his 1948 Evinrude Zephyr
- 2nd place - Dick Perry for his 1947 Champion 4.2 hp
- 3rd place - Bob Grubb for his 1937 Evinrude Scout

Just prior to the lunch break, the judging for the "best brass" antique outboard motor was completed and the winners were:

- 1st place - Bob Davis for his 1913 Hasse
- 2nd place - Bob Grubb for his 1920 Amphion
- 3rd place - Bob Cox for his 1904 Motogodille

After enjoying lunch of hot dogs and hamburgers on the museum grounds prepared by a fine cast of volunteers at the charcoal pits, came a very special event called "The First Quarter Century Outboard Motor Demonstrations, and Pioneer Outboard Motor Development Period." As chairman of this event, Sam Vance had written to many of the pioneers of outboard motor development during the year. The response was sparse as most of them had other commitments or were not in the best of health, but Warren Conover, of Johnson Outboard motor fame arrived. It was quite a thrill to see Mr. Conover out on the course operating Bob Zipps' 1922 Johnson "A". This event was a real success and everyone appreciated Sam Vance's super efforts.

Two of the oldest motors in existence at the meet were John

fine 1899 Submerged Electric outboard motor and Bob Cox's fine 1904-5 Motogodille. John Van Vleet also displayed a Cross Radial.

The judging continued and the winners of the "big iron unshrouded aluminium motor" were:

- 1st place - Bob Davis for his 1944 Shoda
- 2nd place - Sam Vance for his 1931 Super C Elto
- 3rd place - Bill Andrulitis for his 1928 Hartford Sturdy-twin

Winners of the next class "shrouded big iron aluminium motor" were:

- 1st place - Bob Grubb for his 1949 Mercury KF9
- 2nd place - Tom Glock for his 1948 Johnson PO

Saturday evening a fun-type awards banquet was held at McCormick's Restaurant in Clayton. The food was excellent, with about 100 people attending. Mr. Bolling Haxall provided a slide show of past antique boat shows at Clayton. Vince Dee, President of the Thousand Islands' Chamber of Commerce and head of the Shipyard Museum offered a brief welcoming to the AOMCI group. Sam Vance provided a very interesting short summary about some of the information on old outboards and the "pioneers" involved in the business, which surfaced during his investigation and assembly of the "pioneer" period.

Among the honored guests introduced were Mr. and Mrs. Warren Conover from Culver, Indiana. Mr. Conover was a true pioneer in the development of the Johnson outboard motor. A most remarkable gentleman at a very young 87 years of age.

Other honored guests were Mr. and Mrs. Walter Ellis. The Ellises and their grandson, Ron, drove from Kansas City, Missouri, picking up the Conovers enroute. Mr. Ellis, better known as Walt, is president of AOMCI. Mrs. Ellis, better known as Phyllis, was most charming and is to be commended for her fine efforts in helping Walt with the overwhelming burden of the administrative duties of running the AOMCI and putting out the ANTIQUE OUTBOARDER magazine.



Bob Zipps and daughter with Warren Conover running Bob's early vintage Johnson outboard engine, Clayton, NY.



Clayton, New York

After introductions of committee helping with meet awards were presented to the class winners.

A special award was presented by Walt Ellis to Mr. Bob Brautigam for "Outstanding Service as President of AOMCI and Publisher of the ANTIQUE OUTBOARDER for eight years." Another special award was presented to Mr. Jim Webb for his "Long and Outstanding Services as Historian and Writer for the ANTIQUE OUTBOARDER." Walt stated that he would personally deliver these two



plaques to these very fine gentlemen.

Riggs Smith was presented a toy 1920 outboard boat and "wind-up" outboard motor from the members in attendance. He also received a trophy for National Meet Chairman from AOMCI.

The "Classic Outboard Motor" of the Year Award went to Bob Murphy for his fine TR 40 Johnson 1928 25.75 hp, and the "Most Unusual" antique outboard motor special award went to Bill Andrulitis for his most unusual 1917 Aerothrust (airplane type propeller) 3 hp. This motor ran flawlessly and was beautifully restored by Bill, himself.

Special thanks were paid to John and Janet Bradley, who, without their fine efforts we would not have been able to conduct such a meet as this one.

Sunday, August 13th, was the last day of the meet and early in the morning Dr. E. K. Smith came down to the Shipyard Museum and "planted" several dollars in various coins. He also planted some old roofing nails. About 11 o'clock all of the kids with their parents went on a scavenger hunt with a metal detector. Some got rich, others got nails!

Meanwhile preparations were made for a "bang-and-go-back" race. Due to quiet hours required on Sunday, a white flag was used instead of a shotgun. After several attempts to start this event, the starter, John Bradley, gave the official start. Fifteen boats over the line at one time - any APBA referee would have had a fit! But off they went, without any real problems. When the first boat reached the bouy, the flag went up. At this point all boats turned in place. The first boat back was Dave Caldwell, driving his 1930 Johnson PO. The second place was awarded to Bill Salisbury, driving his mighty fine Johnson S 45, 13 hp. There was lots of action in this event as less than two seconds separated the first and second place finishers.

Later all AOMCI members were invited to parade their motors around the demonstration course and in front of the town of Clayton. Some did while others finally found time to go through the Shipyard Museum.

Everyone had a great time. The weather was perfect, warm days and cool nights, a little rain, but only at night. We hope to see all of our AOMCI friends again at the "Fourth National Meet" wherever it might be held.



Left: Mrs. Jim Murphy, TR 40, and Waterman Porto intrigues Ron Ellis 4-60 Right: Tom Luce tank testing

Photos for this article contributed by Bob Matthews and Walt Ellis



John Van Vleet, Hartland, Wisconsin & his "old iron".



Dr. Walter Otto, Savannah Georgia - 1936 Neptune



Left: Walt Ellis presents Bill Andrulitis "Most Unusual" trophy for 1917 Aerothrust. Right: Mary Daller, Knuckle Buster Chapter secretary, and photos of her APBA racing days. Below left: Riggs Smith presents John Herberg "Best Original" award for 1936 Neptune. Below right: Ernest Haack, Muskegan, Michigan & Harold Culp from Orange City, Florida judge a TR 40.





Picnickers on Grindstone Island



Non-member assistants:  
Charles Matthews, Hollis  
Smith, and Tom Mundt



Dick Fuchs, Doris and Dick Schaber,  
Riggs Smith discuss days events.



Two "Old Classics"  
owned by Ellis & Herberg



Left: Bob Grubb tank testing 1920 Amphion at Shipyard Museum grounds.  
Right: Dick Perry with 1947 Champion, and judging are John Herberg,  
David Salisbury, Dick Fuchs, and Mike Kolat.



THIRD NATIONAL MEET REGISTERED MEMBERS

ARKANSAS

Robert Davis

COLORADO

Bruce Rippeteau

CONNECTICUT

Bill Pohlman

Richard Fuchs

Herman Schaber

Robert Zipps

DELAWARE

Mary Daller

Mort Daller

FLORIDA

Robert Cox

GEORGIA

Dr. Walter Otto

ILLINOIS

Charles Kozelsky

John Herberg

INDIANA

Warren W Conover

KENTUCKY

William L Horst

MASSACHUSETTS

Bill Andrulitis

Robert Gabriel Jr.

Richard Perry

MISSOURI

Ron Ellis

Walter E Ellis

NEW JERSEY

Thomas L Glock

H Thomas Luce

William T Salisbury Jr

Mark Wright

NEW YORK

Mike Culver

William D Hodges

Phillip Kranz

Allen C Merrick

Gary D Mower

James Murphy

Riggs Smith

Donald C Tritton

Sam Vance

OHIO

David Caldwell

Edmond Diederick

Milton Moos

Pennsylvania

Robert W Grubb

Amos C Shaner

WISCONSIN

Mike J Kolat

John Van Vleet

# ANNOUNCING

TO ALL AOMCI MEMBERS,

Jim Wickert will hold a "meet" February 3 & 4, 1979 at his house in Longwood, Florida. He lives on a 300 acre fresh water lake and has a dock, a small beach and ramp, but no rental boats available. Anyone wanting motel reservations contact Jim, and he will make them for you. He would like for anyone planning to come to let him know.

Jim Wickert  
112 Cherry Hill Circle  
Longwood, Florida 32750



FROM THE PRESIDENT AND HIS FIRST-MATE

Phyl and I hope you had a wonderful 1978 ----- did some of the things you have dreamed of, like finding that special engine for him and something else for her. We also hope 1979 will be better yet.

No, I haven't found a Cross Radial or TR 40 I'm still wanting, but I did find a box of shear pins for a TR 40.

For the club, we wish to thank Riggs Smith and his committee for a successful, enjoyable and well organized Third National Meet.

*Walt and Phyl*

# DECALS

Decals add that finishing touch to your restoration  
These are to original specifications and in color.

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Robert Brautigam 2316 West 110 th Street  
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With start and oiling decals. Exact duplicates  
of originals. Water applied \$5.00 @  
Bob Zipps 182 Brentmoor Road  
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Johnson Sea Horse 32, fits V65, V70, VR's  
VE's. Johnson Sea Horse 25, fits all  
Giant Twins, V45, V75.  
Evinrude Speedifour & Big Four. Modern. \$10.00 @  
John C Harrison 1000 N W 54th Street  
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For Evinrude Scout, 1937, and others with  
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and operating instructions. \$6.00 @  
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Pottstown, PA. 19464

Metal name plates for front of gas tank.  
Fits all ELTO Ruddertwins \$5.95 @  
George Loeb 7037 Suburban Avenue  
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early P and S models. \$7.00 @  
Evinrude 4-60 \$8.00 @  
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Grass Valley, CA. 95945

Johnson K, from P/N 27-227 with S and O  
Instructions, also fit OK55, OK65. \$5.00 @  
Water applied  
Johnson alternate firing A models  
from P/N 25/244 also fit K35, K40,  
K45, KR40, A35, A45, and OA65.  
Vinyl type, self stick. \$6.00 @  
P/N 11-124-J, model 100 and others. \$4.00 @  
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P/N 29/151 Fits PO with Sand O inst. \$7.50 @  
Johnson A35, A45, and Sea Horse 3  
from P/N 13-576 Water applied \$6.00 @  
Charles Hansen 2108 Broward Road  
Jacksonville, FL. 32218 all postpaid

For Lauson motors, state single or twin.  
Give model number if possible. \$5.00 @  
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Scarborough, Ont. M1H 2V7

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## The Antique Outboard Motor Club Inc.



# AOMCI 14<sup>TH</sup> YEAR