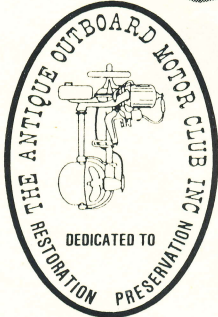


# Antique Outboard News

SOUTHERN CALIFORNIA CHAPTER

Membership 80 and Growing Fast



March  
2001

Volume 3, Issue 2

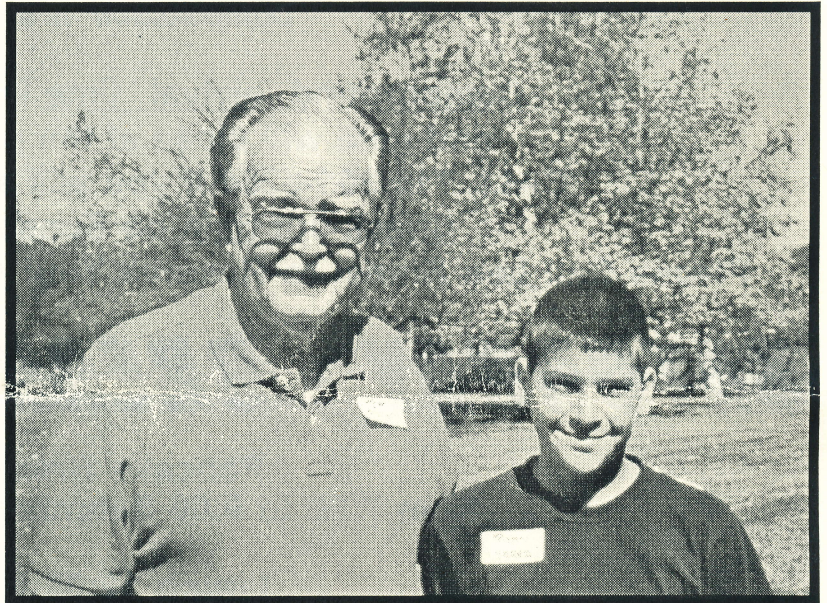
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## MEMBERS REFLECT ON "GOOD TIMES" ENJOYED WITH TOM BRIGGS

**O**n January 29th, Paula Perez, daughter of Tom Briggs called with the sad news of his passing. Tom was past-president of our Chapter. During the month of January his health had gone down steadily, resulting in a stroke. At the time of his death he was a Hospice patient. Chapter members sent flowers and attended his beautiful services on Friday, February 2, 2001. Tom Briggs will be greatly missed.

Much to our delight, Tom's beloved grandson, **Ryan Perez**, (pictured here with Tom one year ago) attended our Antique Outboard Meet on Saturday, February 3rd accompanied by his mother, Paula, and Grandmother. Ryan loves the old motors too! He searched through all of his grandfather's outboard books for just the right one to present to the Southern California Chapter in his Grandfather's memory. The one he picked was *The Old*



Tom Briggs with grandson, Ryan Perez one year ago at Tri City Park

*Outboard Book by Peter Hunn.* On the inside front page is inscribed, "To the Outboard Motor Club of Southern California - We wanted to give the Club one of Dad's books. He so enjoyed all of you. Thank you all for being such a special part of his life. His grandson, Ryan, will carry on his passion for outboards."

Ryan is a very special young man. We hope he will take an active part in our Chapter, as he is now an honorary member. He had fun drawing the tickets for our outboard raffle and door prizes.

We thank Ryan, Paula, and Grandma for their thoughtfulness in attending our meeting. It will be an especially memorable occasion to all of us for many years to come.

Antique Outboard News  
P.O. Box 746  
Yorba Linda, California 92885

David Marotta (1-1-02)  
32 Buccaneer Way  
Coronado, CA 92118-3257



**"BIG"**  
**WEST COAST MEET**  
**APRIL 7TH!**

# **BIG "WET" WEST COAST MEET 2 NIGHTS FREE CAMPING!**

As your hosts, The Southern California Chapter  
has rented the 100 site, group campground (no hookups)  
for 2 nights, April 6 & 7, convenient to our event and the Lake.  
*"Dump station" is available.*

Campground arrival time is Friday 8:00 A.M.,  
and gate will close at the park at 5:00 P.M.,  
CALL 714-801-3284 if you will arrive after 5:00 P.M.  
Check-out time on Sunday is 6:00 P.M.

Please Call Lee Kinnel to Reserve Your Camping Space: 714-996-6661

## **SATURDAY - BREAKFAST & LUNCH**

Pancake Breakfast  
from 7:00 to 9:00 Saturday A.M., April 7th

Lunch 12:00 Noon  
menu undecided  
(*minimum charge for meals*)

## **WET MEET / OUTBOARD SWAP MEET**

Meet will begin at 9:00 A.M.  
Bring your antique outboards, parts, NO SALE SIGNS  
Don't forget your name tag.  
Bring your outboards and boats to run on this beautiful lake!  
Follow the map on page 4

## **Win Raffle Prizes, Including:**

Win a 2 person, 45 minute cruise in Newport Harbor  
Win a 4 person, 45 minute cruise in Newport Harbor  
Win a 2 person cruise on the Catalina Flier to Catalina & back to mainland  
**BUY EXTRA TICKETS, if you wish, to insure your win!**

# West Coast AOMCI Members, Family & Friends . . . You Are ALL Invited April 6 & 7, 2001

**W**e are very excited to announce the **Big West Coast Meet** at Castaic Lake on April 7, 2001.

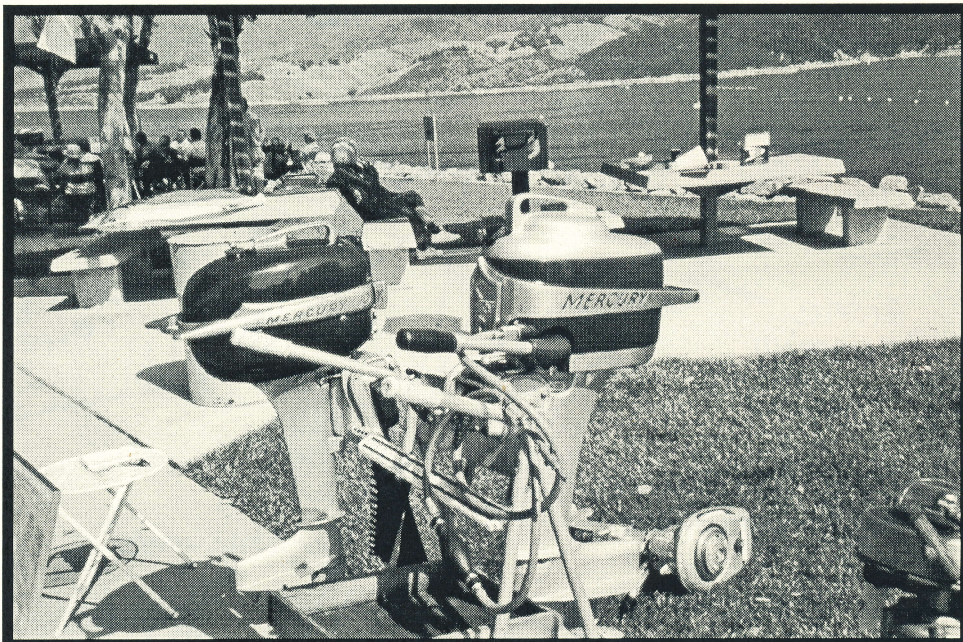
The Southern California Chapter has secured a Group Campsite, at **no charge** to West Coast AOMCI members, their families and friends, the nights of **April 6th and April 7th**. You will be able to enter the campsite early on Friday the 6th and will not be required to leave until 5:00 P.M. on Sunday April 8th. This gives us the potential for a three day weekend with our families and marine enthusiasts.

Our Chapter Member, **Paul Brinkman Jr.**, has arranged for a group discount at the following hotel; Hilton Garden Inn located at Six Flags, for \$79.00 per night - a \$30.00 nightly savings. Call 661-254-8800 and ask for the film rate, number FLM999. The Comfort Inn is also close by, phone 661-295-1100. These are both within five minutes of the lake.

The meeting on April 7 will begin with a pancake breakfast between 7:00 and 9:00 a.m. followed by the general meet. During this time an area will be designated for displaying those prize outboards and for swapping and selling. Please **NO FOR SALE SIGNS!**

The lake will be available for boating and fishing too! The West Launch Site reserved especially for us has a number of beautiful ramps and docks for our convenience.

At our Castaic Lake meet last October we had an opportunity to meet the people in charge of the lake are found them very cooperative and helpful. Lake Castaic is the largest lake in Southern California and I am sure you will find that it is a wonderful place to take families and friends for a relaxing weekend of fun and frolic. The Lake lies just a few short miles from **Six Flags Magic Mountain**, one of Southern California's major tourist attractions. And take my word, **YOUR KIDS WILL LOVE IT!** So while we are swapping outboards and lies, you can drop the kids off for a very special week-end of fun too.



*Gerry Coates' Mercurys on display with beautiful Lake Castaic in background at the October, 2000 Meet*

**To order breakfast and lunch (nominal fee) and to reserve your campsite we need you to contact us as soon as possible by calling one of the Board Members listed below:**

<b>Lee Kinneel, Pres.</b>	714-996-6661
<b>Tom Lockwood, V.P.</b>	714-635-3295
<b>Dennis Byrne,</b>	805-498-9621
<b>George Kent,</b>	949-589-0678
<b>Gerry Coats,</b>	858-272-3642

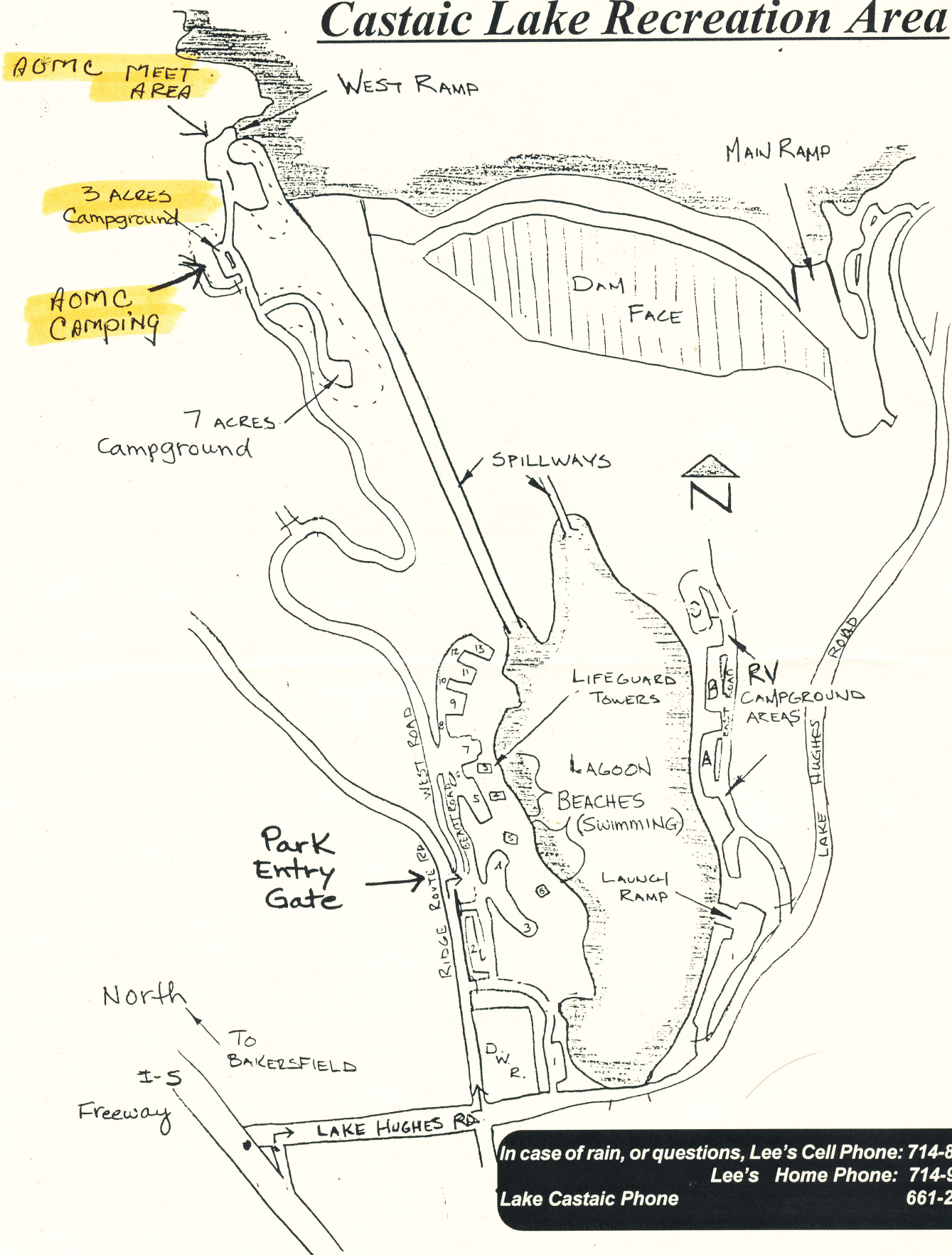
**P.S. Jack Holtwick** has picked up some great penetrating oil for us. Bring \$13.00 (cash only) with you to the next meet for a 12 oz. can. Do Not Miss This Opportunity!

**Lake Castaic directions: For those coming from Northern California and Nevada** travel South on Interstate 5, over the grapevine and exit left (going East) on Lake Hughes Road. Go through the signal light to the first stop sign which is at Ridge Route Road, turn left and go up to the main entrance to Castaic Park. The meet will be held at the West Launch Ramp location and you can get directions at the gate. Camping will be at the 3 acre group campground right next to the West launch ramp. (See Map Page 4)

**Coming from Arizona and the East?** Follow Interstate 10 or the 60 West to the 57 Freeway North and the 57 will merge with the 210 Freeway. Continue on the 210 until it merges with Interstate 5 and continue on Interstate 5 past Magic Mountain to the Lake Hughes Offramp. Exit right (going East) on Lake Hughes Road. Go through the signal light to the first stop sign which is at Ridge Route Road, turn left and go up to the main entrance to Castaic Park. The meet will be held at the West Launch Ramp location and you can get directions at the gate. Camping will be at the 3 acre group campground right next to the West launch ramp. (See Map, page 4)

**For those coming from San Diego and Orange County:** Go straight up Interstate 5 past Magic Mountain to the Lake Hughes offramp, Exit right (going East) on Lake Hughes Road. Go through the signal light to the first stop sign which is at Ridge Route Road, turn left and go up to the main entrance to Castaic Park. The meet will be held at the West Launch Ramp location and you can get directions at the gate. Camping will be at the 3 acre group campground next to the West launch ramp. (See Map, page 4)

# Castaic Lake Recreation Area



In case of rain, or questions, Lee's Cell Phone: 714-801-3284  
Lee's Home Phone: 714-996-6661  
Lake Castaic Phone: 661-257-4050

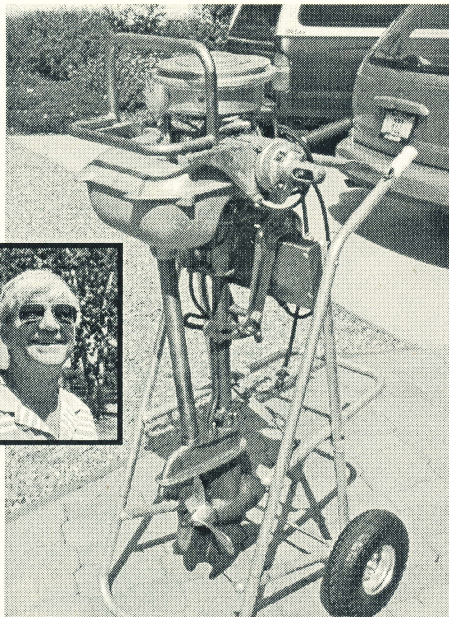
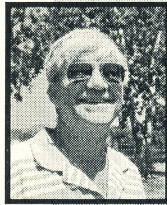
# WHAT IS THIS THING?

By,  
Walt Thompson, Morro Bay, CA

**D**o you recognize this motor? When was it made? Who made it? At the end of this article I will tell you.

During the past summer I received a call from a friend that I had met in Mexico. He lives during the summer on an island off of Nanimo East of Vancouver Island.

"Do you have a TD 20 that is in pretty good shape," he asked. I told him that I did and he said: "I have a friend standing here that wants it. He had a wooden boat when he was a kid with a TD-20 on it. He has found a duplicate of the boat and he now needs a motor." He put him on the phone and after my usual "I don't want to sell it, what do you have to trade" he came up with this proposal. He had this brand new motor that had never been run. The factory had given it to him because he was the top distributor of a line of marine products that they manufactured. I delivered my little TD-20 to him in Arlington, Washington,



and picked up this monster:

**Specifications:** 2 cylinders opposed 21+ cubic inches, bore 2.36 inches, stroke 2.4 inches, weight 99 pounds, direct drive propeller 3 blade 11 1/4 inch diameter x 9 1/4 inch pitch, 22 hp. RPM range 2800 to 3200, no water pump, the propeller forces the

water into the engine. Oil to fuel ratio (after break in) 15.7 to 1.

I have not had the courage to fire it up yet, but I hope to be able to soon.

**WHAT IS IT? It is a Volvo.** It evolved from the Archimedes which was manufactured from 1966 to 1969. This was followed by the Archimedes-Penta from 1970 through 1974. The subject motor was manufactured by Volvo from 1977 through sometime in 1979. All three were designated U-22.

The workmanship on this motor has to be seen to be believed. Most of it is made of machined brass and bronze. The tiller handle is machined aluminum and pops back to the straight ahead position when released. The hand work would have pushed the price of the motor out of the realm of reason.

Can you imagine this motor competing with a mid 70's Mercury or OMC of 20 to 25 horsepower? I can understand why not many were sold.

**Drop by on your way through Morro Bay.**

*Walt- Please bring it to our April 7th meet!*

## CLASSIFIEDS

**For Sale:** Johnson TS-20 and Johnson TN-26, 4 Elgins "to good home" Call Dennis 805-498-9621 or Fax at: 805-981-4022.

**For Sale:** 1956 & 1957 Evinrudes 7.5 hp., Call David at, 714-350-2792.

**For Sale:** 1966 Elgin 75 hp. Call Mark at 562-804-0661.

**I Build "New" Beautiful Wooden Boats** - Call Grady Tate at, 520-282-4458

**For Sale:** Martin "75", Waterwitch 5 3/4 hp., 1958 - 16 1/2' Lyman, 1966 65 hp. Mercury & trailer, good condition. Call Bob Myers 209-795-6904

**I Know the location of several 50's motors and parts** including a 1957 35hp Johnson w/electric start & controls, 7.5 hp. Johnson AD12 with tank - excellent. Dennis Byrne 805-498-9621

**Wanted: Electric Trolling Motor,** Call Scott Roberts 626-915-3314

**For Sale:** 1950 Glaspar 12' Row Boat with 57 Mercury 10 hp. & trailer + orig. gas can. Greg 818-957-6267

**Wanted-Rebuildable power head** for a Mark 45 & or Mercury 500 Larry at 310-510-7228 or P.O. Box 1302 Avalon, California 90704

**Wanted-Mark 20 or Mark 25** in original-perfect condition. Call Lewis Eagle at: 310-472-4989

**Wanted- OLD Fishing Lures,** reels, bamboo rods, misc. pre-WWII Fishing Tackle, Under 3 hp. Outboards pre 1940. Philip 805-967-8393

**Wanted - 12 hp. Goodyear Sea-bee** Call Tom Lockwood at 714-635-3295

**Wanted - Martin 20, 66 & 200. Scott Atwater 5, 7 1/2 & 10 gold and green** Please call Lee at: 714-996-6661

**For Sale: 1937 Johnson Sea Horse** Model PO-37, 22 hp. Owned since 1949 by James H. Todd (626) 336-6485

**For Sale or Trade: 16' Glasspar** Delmar 1955 twin 35 electric Johnsons trailer original controls. **CHEAP!** Many more boats and motors plus parts. Love to trade! Send for list to Jim Quinn 2110 16th Avenue, San Francisco, California 94116. Telephone: 415-921-5973

**For Sale: 1985, 70 hp. Evinrude** - rebuildable. 6 ft. trailer axel, 5 lug rims and tires, leaf springs and perches. Rims are 14". Call Dom Clesi at 562-860-3045

**Wanted - Mercury Outboard Motor** KG-7, KG-7H, KG-7Q. Also looking for a vintage 50's era three-point hydroplane i.e. Neal, Swift, Pabst, Jacoby, Sid-Craft, etc. Call Lyman Hughes 949-489-3823 - E-Mail: lbh2@compuserve.com

**For Sale: Three 8' Hydro Plane Boats** Call Gary 714-846-2039

# TRI CITY PARK MEET - A PANCAKE BONANZA

Our meeting at Tri City Park in Placentia, proved to be a great start for the year 2001. We began the meet with a pancake breakfast. Sorry, we had to hold the limit to 40 pancakes per person! Some came very close to the limit. We all had a great day, trading, buying and telling stories about those great old outboards.

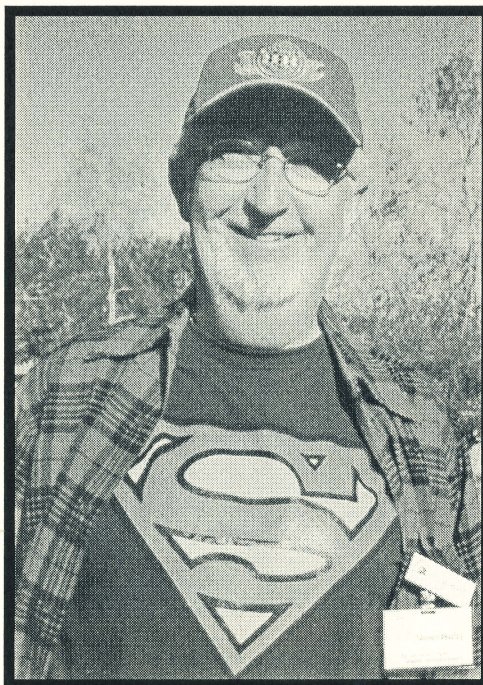
At our meeting we voted and passed a new program to honor our senior members. All members who have been in our Chapter for one or more years, have reached the age of 75 or older, you are now a lifetime member with all privileges, to be charged no further dues. How's that for a nice touch?

Tom Lockwood pointed out that our local members should be members of the National AOMC. The National, as you know, insures each one of us at our meets as long as we are members of the National. If you are not a member of the National at this time please call one of the members of the Board and we will send you an application.

We have a number of new members since January they are; **Thomas Harper, Lyman Hughes II, Frank Fowler and James Quinn.**

We welcome all of you to our Chapter and look forward to meeting with you in the future.

We have been working hard on the April and October West Coast Meets. I have been in contact with **Dennis Evinrude, President of our National**, and he has given us some direction on how to make these meets even bigger and better. The April 7th meet will be announced in the National Newsletter and we will be sending our Chapter Newsletters to National Members in Northern and Central California inviting their families and friends. As you know, we have one of the top Newsletters in the Nation and we hope by exposing outboard lovers in other areas to an issue, they will want to participate



*"Superman," Steve Hurley, above, is a very happy Chapter Member. He is recovering from a recent gall bladder operation. With a shirt and smile like this, how can he lose? Below, Jack Holtwick is describing the motors he brought to Darryl Webber, Craig Butcher & Twins, and Lee Kinnel*

with us at some of our meets.

Please contact anyone you know who is interested in old outboards to attend our next meet in April. If you call us, we would be more than happy to send a copy of our Newsletter and a special invitation to your friends. Do to our mailing to Northern California we have a new member from San Francisco, **Jim Quinn**. He says he loves to trade and has many motors and parts including the 16' Boat he has advertised in our Classified. Give him a call at 415-921-5973. Jim, we hope you become active in our **Big West Coast Meets** and look forward to seeing you there April 7th.

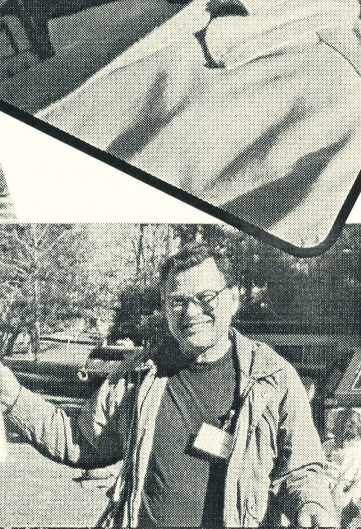
**Thanks to Paul Brinkman, Jr.** for his raffle donation, a J.A.G. hat! **Thanks Tim Coleman** for encouraging **Larry Harp**, from Waterford Michigan to donate his beautiful 5 hp. Johnson for our raffle. Larry was gracious enough to do so and we had a ball - everyone wanted to WIN this motor and you guessed it, **Bob Argott** was the lucky man of the hour. He has won at least 3 raffled motors and since he is so lucky has now decided to "just win raffles and not buy any more motors."



*Jack Holtwick brought these motors in memory of Tom Briggs - they once belonged to Tom. The one on the grass is a Johnson P65 1933 and weighs a whopping 130 pounds. The upright motor is a Light 4 Evinrude. Thanks Jack for your thoughtfulness.*



PRIZE WINNERS!



## *"The Voice" of the Southern California Chapter*

Chapter member **Doc Eyre** has been convalescing for quite a while. His wife called to tell us that Doc is able to come home to visit from time to time and is feeling better. I told her to let us know when he is home and some of us can plan to go see him. **Keep up the good work Doc!**



Guess who got me out of bed to answer the telephone the next day after the Newsletter went out? Would you believe **Bill "Oil Can" Milligan** from Christmas Florida! He forgot that his time is three hours ahead of us and he was excited about our **Big West Coast Meet** coming up in April. He said, "Post your membership right on the front page under the words, Southern California Chapter" -- for you, Bill, we will do just that. Bill Milligan is very active in the Florida Chapter and an expert OMC buff. You will remember that he helped our Newsletter get off the ground with suggestions and articles on the "oil debate issue." Well, much to our surprize he has sent more articles for us. Please enjoy one of these on page 9 of this Newsletter. **THANK YOU BILL MILLIGAN!**

Don't forget that we have **David Vaughan's** entire collection of Antique Outboarder Magazines on loan which gives us a Chapter Library. To date, **Weston Hook** has read over 50 of them and has enjoyed the wealth of information. New in our library is The Old Outboard Book presented by **Ryan Perez** at our February meet in memory of his grandfather, **Tom Briggs**. All members are welcome to peruse at their convenience.

In our last column of "The Voice" I reported to you that **Richard Plavetich** had been talking with **Lyman Hughs** of Laguna Niguel about our Chapter and I am pleased to report that Lyman did join! Welcome Lyman, we are very pleased with your membership. You are member number 75 - what a way to

start a new year! Don't forget, Lyman is in search of Mercury motors.

Has anyone heard from **J.J. Johnson**? He had major surgery but had still planned to make it to our last meet and we didn't see him. Where are you J.J. - are you doing o.k.?

**Dale Boss** from La Mesa, (San Diego Area) wrote the following note to us: "Sounds like everything is progressing nicely and that the members are satisfied. You know, every picture that appears in the Newsletter, of a member they are always smiling. Something is going right! Keep up the good work and keep smiling and people will think you are up to something. Enclosed are my dues for the year 2001."

**Herb Maier and Bob Argott** thoroughly enjoy British Seagull motors. They have sent literature so we will highlight this motor in future Newsletters. Herb says that "I always carry the Seagull as an auxillary. It will always start and the polished brass gas tank looks like a real antique. You can clean out the carb with your finger and the coil can't be beat." **Thanks to both Herb and Bob for their fine input.**

**You have no idea how pleased it makes us when we receive your articles for the Newsletter.** I hope you enjoy seeing your thoughts in print! We do love our Newsletter. **Ideas for articles:** Write a little bit about your work/personal life and how you got interested in antique outboards. In this way we can get to know each other better. Or, write about your favorite outboard, how you got it, where you got it, what you had to do to restore it, help you may need to do so, etc. Everyone has a story and everyone's story is interesting to us. **So, please write** a column, or paragraph about your life before, after or when you acquired outboard fever! Of course, pictures are worth a thousand words too! **Let's keep our Newsletter rating as one of the "BEST IN THE NATION."**

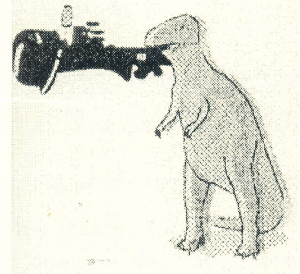
## *INDEX TO ANTIQUE OUTBOARDS AND THEIR HISTORY*

- 1872** Nellie, the oldest power yacht on record, now rests with many historical craft at the Mystic Seaport, Mystic, Conn.
- 1873** Napoleon III witnessed movement of craft on the banks of the Seine River.
- 1893** Music and Outboards with William Steinway
- 1905** Cameron Waterman introduced the first mass produced outboard
- 1909** Ole Evinrude's Coffee Grinder runs up the Kinnickinnie River at 5 m.p.h.
- 1914** Caille, Many outstanding features were introduced by Caille Motors and many trophies were won in the twenties.
- 1921** Elto, designed by Ole Evinrude, introduced the Elto 39 with extensive use of aluminum
- 1922** Johnson enters the field introducing the light twin, a two cylinder opposed motor
- 1925** Lockwood-Ash introduces slip clutch on drive shaft.
- 1932** Scott-Atwater, formed their company to manufacture outboards turning out 32,000 the first year.
- 1940** Mercury emerges as a successor to Thor Motors. The Mercury name was introduced at the New York Boat Show the winter of 1939-40. The motors were of one-cylinder design and of two-cylinder alternate-firing design.
- 1944** West Bend
- 1950** Chris Craft came out with the Challenger and Commander



# DINOSAUR OUTBOARDS

## 90 Years of Two Cycle 4 Bangers



3y AOMCI Member,  
Bill Milligan, Christmas Florida  
National Chairman of the Board of Directors

Dear Lee and all the members of the West Coast Chapters:

As promised, via AT&T, here is the material about the 4-Bangers. Though it may not be complete, the concept idea may further research by someone else for modification. Your Newsletters are super. We have a good one, but yours outstrips everyone else. I have recovered from a bunch of downers from Y2K last year, hope I do not ruin 2001! A friend of mine said I was gaining some weight, asked what I had planned to do about the extra weight. I stated, "Buy a larger Boat."

The four Johnson Brothers of Terre Haute, Indiana, built and designed 2 cycle V-4 engines for market in 1910 for aircraft and marine inboard application, also V-6, V-8, V-12's, all 2 cycle. In essence the 4 bangers (cylinders) are not new, only laid absent for forty years. The 1920's hungered for more speed, first the Johnsons opposed twins captured the speed title, broke that the following year, then came 1929 and the 4 bangers. Evinrude dominated the market with a wide variety of horsepowers, from 9.2 hp Lightfours, 18 hp Service Quads or Sportfours, 35 hp Speedifour, and the 460 Racer of 1932, horse power unknown (60 cubic inches). Let us not overlook the introduction of the Zephyr, 1940, 5.4 hp. with 4 tiny cylinders and weighing in at 46 pounds. Some old timers have stated humorously that the spark plugs were larger than the pistons.

Being in the outboard business since 1937, learning the art of starting a VR55 Johnson and the only 8 year old to solo down the Saginaw River to Bay City, Michigan in excess of 60 mph, I believe my father was trying to rid me of pestering him for a boat/motor of my own. Dad was a stern believer of, "When you earn it, you can own it!" There is a forgotten message here for todays youngsters. They also believe parts are hard to find for the older motors, also, "Newer is Better and Lighter." I say, "Older is tougher, even those of yesteryear combined aluminum and cast iron.

### Let us compare compatible horsepower of today;

1940-49 5.4 Evie. Zephyr 4 cyl. - 43 lbs. --- 1999- 6 hp. Evie 2 cyl. - 56 lbs.  
1934-49 9.7 Evie Lightfour 4 cyl. - 59 lbs. --- 1999- 9.9 hp. Evie 2 cyl. - 75 lbs.  
1928-42 18-25 Evie Sportfour 4 cyl. -85 lbs.-- 1999-20-25 hp. Evie 2 cyl. -115 lbs.  
1931-49 40 hp. Evie Bigfour 4 cyl. - 145 lbs.--1999-40-50 hp. Evie 2 cyl.- 180 lbs.  
1930-41 ???hp. Evie 460 4cyl. Racer -134 lbs.-1999-75 hp. Evie 3 cyl.-198 lbs.

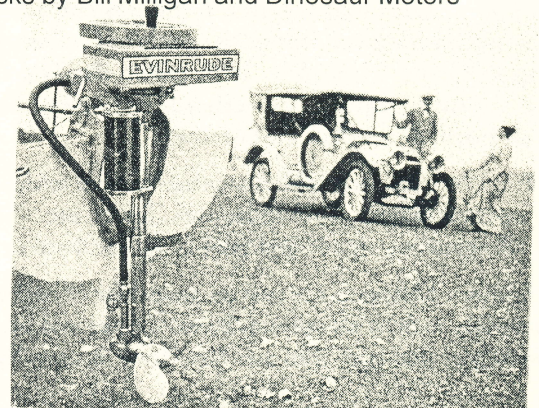
The 4 cylinder Evinrudes had an abundance of sur-names, Lightfours, Sportfours, Speedifours, Bigfours, Service Quads, Junior Quads, Speediquads, the list continues on to impress the buying public from year to year, same motor with improvements and name change.

I often question the value of modern technology vs. antiquated machine shop practices, how did the Iron Men build such quality, reliability and longevity into their products? How were the men of yesteryear able to do their thing without a modern computer? Hand built craftsmanship is a lost art, how sad! The Johnson V-4, 2 cycle of 1910 developed 50 hp., weighing in at 145 lbs., the Evinrude-Johnson V-4, 50 hp., 1958 weighs in at a hefty 223 lbs.

### References;

1999 Evinrude Sales Brochure  
1918p1935 Johnson Brothers Engineering Corporation  
1994 Magraw Hill - Peter Hunn's, The Old Outboard Book  
1956 Evinrude Outboard Motor Service Manual  
1930 - 2001 School of Hard Knocks by Bill Milligan and Dinosaur Motors

At right, first production  
Evinrude, 1911, developed  
1 1/2 hp. used battery  
ignition. Only lower unit  
turned for steering below  
fixed powerhead.



## *Johnson Motors Responds to Inquiry Over 40 Years Ago*

### Actual Response Letter to our Charter Member, Howard Jong :

From: Ray B. Cain, Johnson Motors, A Division of Outboard Marine Corporation, Waukegan, Illinois:

It was a pleasure to receive your letter, and learn that you had chosen our product in connection with your school report.

The enclosed catalog will completely describe our new line of Johnson Sea Horse outboard motors along with the many new features and Johnson specifications. Please note the selection in horsepower from 3 to 75 - a motor for every boating or fishing need. But most important is the famous Johnson DEPENDABILITY which is built into every Sea-Horse.

Your report will no doubt require a brief history of our company as well as the product we build. Therefore, we will go into the history and manufacturing facilities and hope that this information will be sufficient for you.

The first Johnson motor came off the assembly line late in 1921 from our original plant in South Bend, Indiana. The first engine was a 2 h.p., 2 cycle opposed twin, weighing but a mere 35 pounds. This outboard engine brought speed and portability to the outboard field and met with immediate success.

Speed and weight were the two big problems that had to be solved if the motor was to be a success. Speed meant case hardening of the moving parts of the motor, such as the crankshaft, because soft steel shafts would have frozen at the rate of revolutions desired. The parts were hardened permitting speeds of 2200 r.p.m. The problem of weight was solved by use of aluminum castings 7/64 inches thick, previously unheard of in the outboard field. By the fall of 1921 several experimental handbuilt models of this light weight 2 cylinder motor had been completed. The motor was of a revolutionary design for that day, being a 2 cylinder, 2 cycle opposed twin made largely of aluminum alloys.

Johnson did not rest with this new motor. In 1925 another motor was added to the line. This small, simple single cylinder motor called a J-25 weighed only 27 pounds and was well adapted to the ordinary row boats and light weight canoes of that day.

Development and research continued and in 1926 new markets for outboards opened with the production of a Big Twin, 6 h.p. motor. In its first appearance at White Lake, Michigan, July 4, 1925, the Big Twin set a record of 16.68 miles per hour. Before the end of that season, it had raised the record to 23.32 miles per hour.

Production and sales continued to grow and it was evident that much larger manufacturing facilities would be required. Late in 1927, the company with 200 of its work force and 40 freight cars of machines and equipment moved to its new million dollar plant on the shores of Lake Michigan at Waukegan, Illinois. This new plant contained approximately 150,000 square feet of floor space and was a far cry from the small original plant in South Bend.

New models were added to the line so that by 1928, they ranged from 1 h.p. single cylinder to the big giant twin which had developed about 25 h.p. So great had been the increase in public interest that Johnson's total sale of motors increased from 3500 units in 1922 to 26,000 units in 1928.

Since Johnson's move from South Bend, Indiana in 1927, it has grown from the original 150,000 square feet of floor space to approximately 1,000,000 square feet of floor space that the two plants occupy today. On November 6, 1952 Johnson's one millionth motor came off the assembly line. This was a history making production milestone, and Johnson Motors could take justifiable pride in becoming the first manufacturer in the highly competitive field to reach the one million mark.

Johnson's team of engineers has always possessed a pioneering spirit and Johnson, being the leader of the industry, was the first to develop: Alternate firing, rewind starter, underwater exhaust, die cast water cooled cylinders, anti-friction bearings, shock absorber drive, salt water protection, twist grip throttle control, stainless steel fittings, underwater cavitation plate, gear shift control, separate fuel tank and hypoid gear lubrication.

1958 revealed that Johnson Engineers still reflected the pioneering spirit when they designed and introduced a revolutionary new engineering concept to the outboard industry. The world's first "V" outboard engine design. It featured a full 50 h.p. engine having 4 cylinders, large piston displacement, high capacity fuel pump, tilt assist, trailing lock, tilt lock, 3 position key switch, super sealed in powerhead, waterproof distributor type magneto automatic fuel saver, super load carrying ability, single twin barrel down draft carburetor.

For 1961 Johnson added another feature which is a boon to consumers who want and need plenty of electrical energy on board to operate radios, depth indicators, lights, etc. This is the new high capacity AC generator built in on the V-75A, which charges at all operating speeds and guards against battery failure.

Johnson Motors is not just an assembler of outboard motors, it is a true manufacturer. At the two big plants in Waukegan, raw materials such as aluminum, brass, copper and other metals are converted into the finished, dependable, outboard motor. Because every part that goes into our Sea-Horse is actually built by Johnson, quality can be rigidly checked all along the line.

*Continued on Page 11*

## *Johnson Motors -Not Just an Assembler, a True Manufacturer of Outboard Motors*

*Actual Letter to Howard Jong from Johnson Motors, Continued from Page 10*

In the new Johnson die cast plant - the most modern of its kind in the world - aluminum alloys are melted down in huge furnaces before the molten metal is moved to one of the high pressure die cast machines, which form the parts to blueprint specifications.

Concurrently, with the production of die casting, precision machining of thousands of other parts is in process. Completely automatic machines produce essential parts such as gear blanks, shafts, nuts, screws, needle valves, and pins exactly to blueprint specifications. Floor inspectors are constantly checking material and workmanship for specifications that must be maintained to insure the high Johnson quality.

When a new Johnson has been assembled, it's a superb outboard motor. Every step has been taken to make sure that its components are without flaw and they have been assembled with the care needed to integrate them into one smooth working piece of machinery.

Market research provides our Sales Department with statistics that we use when determining consumer preference for horsepower, color, styling, uses and performance. Also, we can determine the age of an outboard purchaser by horsepower class.

Our Advertising Department utilizes this information in determining the design in advertising mats. Each printed advertisement suggests to the reader that he write to us for a colorful catalog with photos and descriptions and material on the Johnson line. Each consumer is then referred to his nearest Johnson dealer for follow-up. We use all medias to advertise our product, including television.

The Johnson outboard motor is a specialty product and is sold principally through marine type outlets. With our large advertising program on a specialty item, our natural method of distribution to the consumer is through authorized direct dealerships. We use distributors only in isolated instances.

Prestige products require complete confidence of its builder and Johnson warrants each new outboard motor of Johnson manufacture to be free from defects in material and workmanship, under normal use and service. With this outstanding warranty and our service organization, we have reached the inevitable position that we now enjoy a highly competitive field.

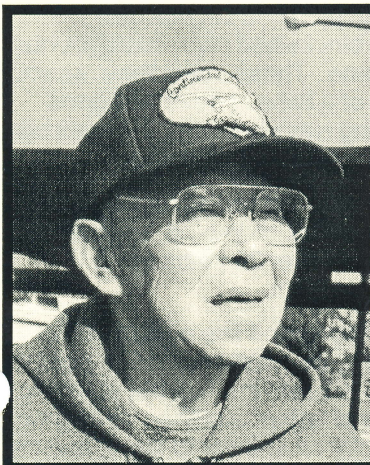
Thank you for your interest and if we can serve you in any other way, just let us know.

Cordially,

Ray B. Cain

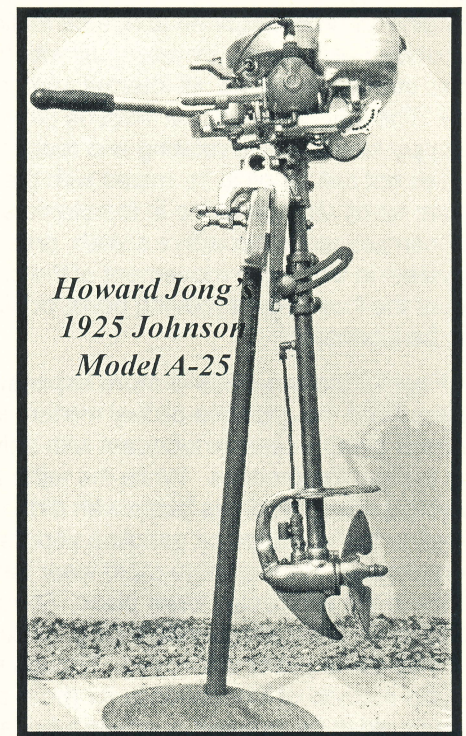
Sales Department

P.S. Good Luck on your project!



What has **Howard Jong** been doing lately? We have missed him at the last few meets, so we decided to call him.

"I have been celebrating Chinese New Year. It is hard for me to see well, so I haven't been driving much. My daughter-in-law takes me most places. Tell the members that I have an aluminum boat that has never been in the water that I want to sell for \$400.00. Lee, do you want to sell your Scott-Atwater?" My reply to Howard, "No, I really like that Scott." Howard is now an honorary member of our Chapter and is very pleased.



*Howard Jong's  
1925 Johnson  
Model A-25*

# Technical Tips

## Point tip replacement for points of large engines, like Sportfour, Speeditwin, etc.,

By Ron Ellis- Outboarder 7/75.

After numerous letters to a number of places in the U.S., looking for points for my Sportfours and getting no answer from anyone, I felt I had to come up with a way of making points or stop running the engines.

Equipment needed to do the job:

Small hand tools, vise, and a torch which is able to produce a small high-temperature flame for silver soldering. I use an acetylene and oxygen aircraft-size torch with a 00 or 0 tip, which gives good temperature control for this size work. Materials needed: Asbestos paper, .002 - .003 silver solder sheet, or granular silver solder in flux (Eutectic #1618 granular silver solder is very good), silver solder flux (if silver solder sheet is used), and 400-600 grit wet or dry abrasive paper.

1. Mike diameter of old point tips.
2. Find automotive points with tips of about the same size. Note: I find that Bosch points for 1200 cc VW engines of around 1965 models are just about the right size.
3. Heat steel backing of automotive point just short of melting steel and pull off point tips. Note: Keep track of which tip came off of movable point and which one came from the stationary side. I find it best to use the tips in the same position on the outboard points.

## Outboard Basics

Submitted by Harry Martin

Quoted from Hank Bowman's *Care and Repair of your Outboard Motor*



## The Two Cycle Motor

This column was created to introduce new members to the mechanics of outboard motors and it is our third article. I hope each new member will find the column very helpful as we learn "outboard basics" together.

The two-cycle motor offers the advantage of having fewer parts than the four-cycle, and also does not waste horsepower in providing some means to motivate mechanical intake and exhaust valves. This simplification of design is the feature that permits high efficiency with low weight, and an elimination of much of the mechanical complexity inherent in the four-cycle engine.

Another basic difference exists, representing an additional simplification favoring the two-cycle. This concerns the lubrication system. With the two-cycle, the engine lubricant required to reduce friction of rotating and reciprocating parts is provided very simply by mixing oil with the gasoline. During the course of each two strokes or cycles, all internal parts of the two-cycle engine are bathed with oil. The four-cycle engine must be provided with some mechanical means to supply lubrication to rotating and reciprocating parts since the four-cycle design does not call for oil to be mixed with the fuel. Rather, the lubricant is supplied from an oil storage sump in the crankcase. Distribution of oil to the engine is accomplished either with a splash, pressure, or combination splash-pressure system in which the movement of the crank and crank throws splash lubricant over the four-cycle's moving parts, or oil is pumped by mechanical means to parts to be lubricated.

Fuel for the two-cycle is more expensive since, unlike the four-cycle, the oil mixed into the gasoline-oil fuel mixture is constantly consumed. The four-cycle power plant reuses its lubricant with only a small amount of the oil being burned in the ignition process. While the latter is an economy, the lubricant of the four-cycle quickly becomes laden with dirt, gum, tar, and other foreign materials as well as being diluted by gasoline vapors passing down the cylinder walls into the crankcase. Hence, more rapid wear can be expected to occur in the four-cycle than in the two cycle power plant. Should any of the oil-circulation passages of a four cycle lubricating system clog, certain parts will be cut off from lubrication and will be damaged or destroyed. Though somewhat wasteful of lubricant, the two-cycle method of lubrication is far more positive. All that is required of a two-cycle outboard to be assured of ample lubrication is oil of the recommended type and proportions properly mixed with the gasoline.

4. Place wet asbestos paper around outboard point parts with only point tips showing. Heat tip backing steel until old solder melts and tips can be removed.

5. Sand and clean point backing steel of outboard parts.

6. Sand and clean automotive tips on solder side.

7. Place silver solder and flux on point back up steel and flux on new point tips. Note: Use wet asbestos paper again on parts like in Step. 4. Use vise or clamp to hold back up steel parts in place.

8. Heat back up parts and tip until solder melts. Note: Tips will move some when solder melts; use a steel nail or the like to hold or move the tips around

9. After the tips have cooled in air, polish or lightly sand them.

Operation number 9 should finish the job. I have found with my own small number of engines, this is all that is needed most of the time to put a set of points back in almost new condition. I have found on one set that new rubbing blocks and pivot bushings had to be made. These operations require the use of a lathe. I have had good luck using Navy brass for the bushings and nylon for rubbing blocks.

This method of replacing point tips may also work on low-hp. engines, but it has been over 20 years since I worked on them.

This may sound like a lot of bother for a thing as small as a set of points, but it sure beats the hell out of writing a bunch of letters and then waiting two months for an answer to them, and the answers never come.

## THE AERO-BUILT JOHNSON



By  
AL JARVIS

The 1935 Johnson model 300 motor, from the standpoint of appearance alone, is an unusual motor. The powerhead, consisting of cylinders, crankcase, muffler and front control panel, appears to be one unit. Reportedly, this merged-unit design was to afford a balanced appearance, compactness and protection of parts. Some might say that this merely represented Johnson's attempt to streamline their 3.7 h.p. flashy motor for that year. However, there is more to it than that. The motor is Aero-Built.

When Johnson published its outboard motor brochure that year, it pictured six motors ranging in horsepower from 1.4 to 22. Five followed normal manufacturing practices and material usage. The centerpiece however was labeled the Aero-Built 300, weighing only 37 pounds. Their 3.3 h.p. weighed in at 43 pounds while the 4.5 a strapping 48. Johnson engineers spent two years in metallurgical research and investigation into new methods of motor construction. They built, tested, discarded and rebuilt until they arrived at a moderate

priced motor displaying advanced features of aeronautical construction.

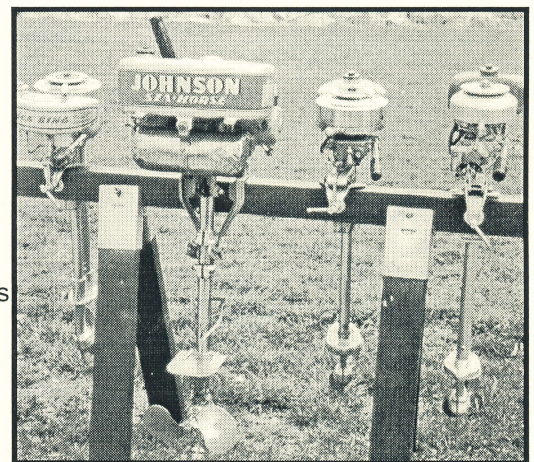
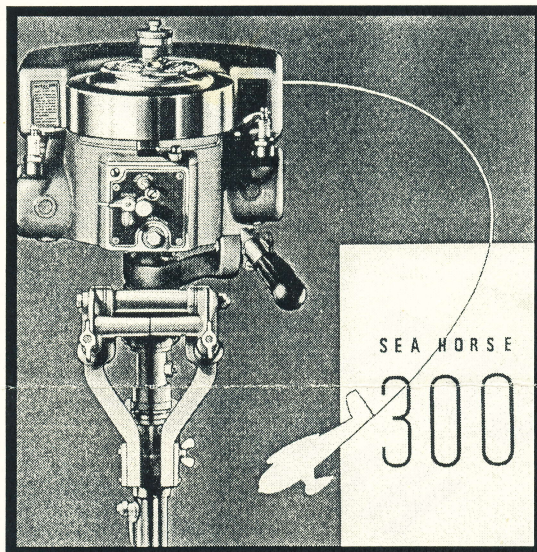
In this publication, Aero-type was utilized about a dozen times to describe various features and materials. Remember this was 1935 and was not written by Aerospace engineers at Boeing or Cape Canaveral. For example, weight was cut by utilizing Aero-type aluminum cylinder blocks, fitted with iron sleeves, to provide a michromatic mirror-glaze cylinder for less friction. Quite a mouthful, "Finger Tip Control Panel" was used to identify the Aero-

Type centralization of controls. A degree in engineering would be most helpful in comprehending various other features and materials.

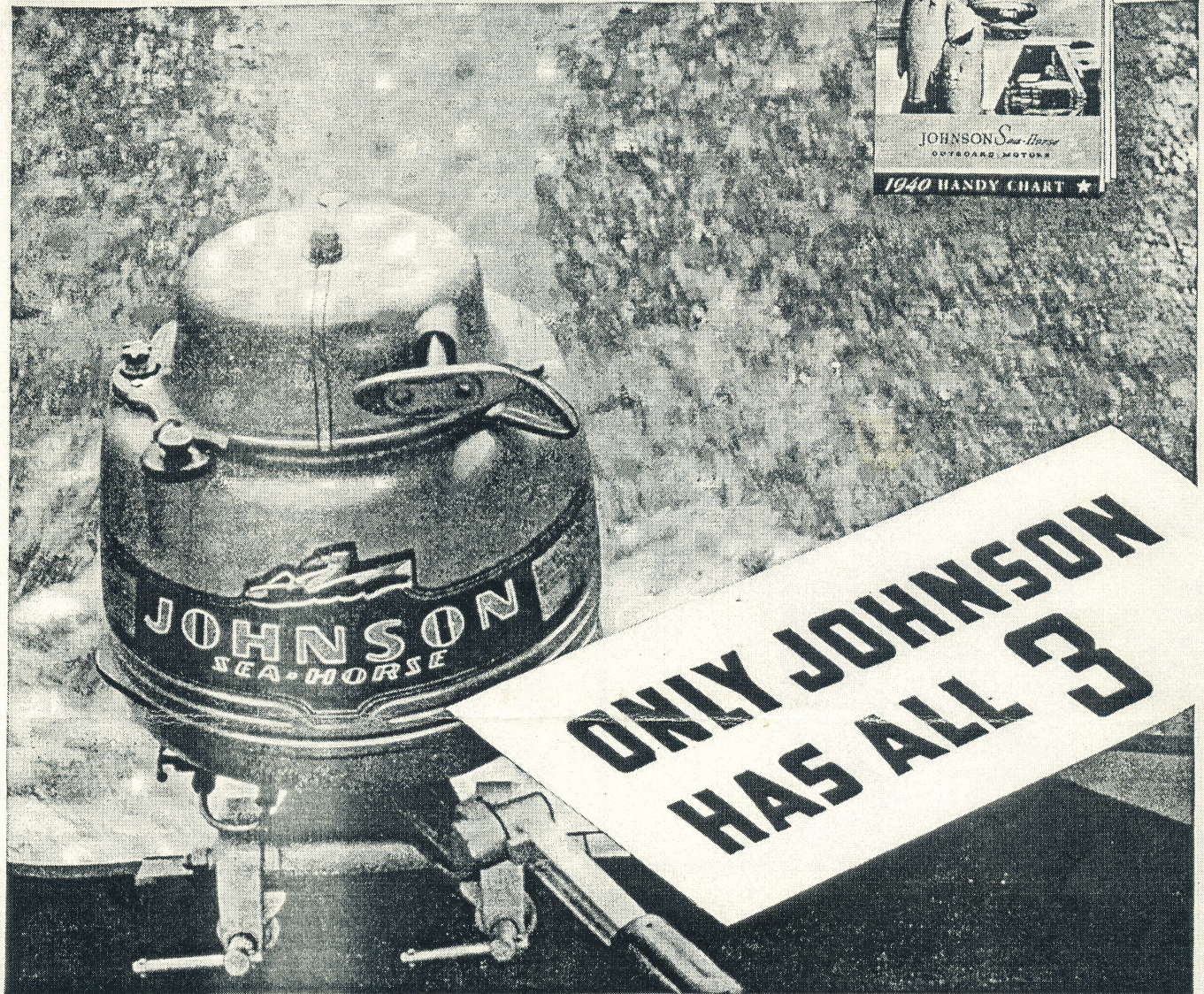
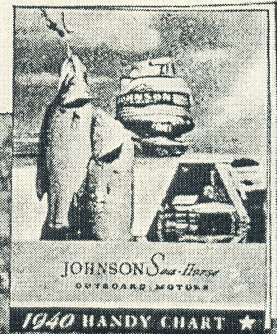
The control panel is the most unusual, visual feature of this motor. It is interesting to note that the carb, choke, high

and low speed adjustments and primer button are all cast and may be removed as one unit. According to the club year/model guide, it sold for \$130.00 in 1935 and was reduced to \$125.00 the following year. None were listed for subsequent years. It was not specifically identified as being a fishing motor however a snap-on trolling plate was provided. When installed, this acted as a drag on forward motion of the boat, enabling the fisherman to run at exceptionally slow trolling speeds without any risk of having the motor die. One must keep in mind that this motor was placed on the market during depression years. It was obviously a luxury item. I would be interested in knowing the exact number manufactured and sold.

*\*Editor's note: Al Jarvis has many beautiful, restored antique outboards. Currently he is cleaning up a 1937 Johnson LS and is waiting for decals. Al is a retired private investigator and got the "outboard bug" while visiting his daughter in Wisconsin. "I went to the local outboard shop for parts for a 1941 Johnson 2 1/2 h.p. motor. The shop owner had numerous antique motors on display. He gave me a membership application to the AOMCI. This was about 16 years ago." We thank Al Jarvis for his contribution to this Newsletter and many previous Newsletters, also his fine friendship and membership in our Chapter. We truly enjoy Al's company and he is there to help all of us whenever needed. He has assisted many new members cultivate the "outboard bug." Below is a picture taken at Lake Staic this past October, 2000 - Al is helping Dennis Byrne cook barbecue for us! Also, same meet, look below at his beautiful display of outboards and a BEAUTIFUL JOHNSON SEA-HORSE:*



**EXTRA!** HOT OFF THE PRESS—the new Sea-Horse Handy-Chart. Packed with news on 1940 developments. Write. It's yours FREE!



**FOR 1940 - 11 BRILLIANT SEA-HORSES..8 PERFECTED ALTERNATE FIRING MODELS..2 NEW BANTAM SINGLES WITH 36% POWER INCREASE..AND A SPECTACULAR HI-POWER ALTERNATE FIRING TWIN!**

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(only 21½ pounds.—with 2.5 h. p.\*) at only \$79.50\*

See your Johnson dealer for a demonstration. You'll find him listed under "Motors, Outboard" in your classified telephone directory. Check (1) The wonderful smoothness of Johnson's *Perfected* Alternate Firing. (2) The hushed purr of a quality engine with Built-in Underwater Exhaust. (3) The priceless advantage of 360° steering and REVERSE. These are the "big three" of outboard motoring—and *only Johnson has all three!*

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*Johnson Motors of Canada, Peterboro, Canada*

\*All prices quoted are f.o.b. factory. All power ratings are accurate—N.O.A. Certified brake h.p. at 4000 r.p.m.

**JOHNSON SEA-HORSE OUTBOARD MOTORS**