

Castaic Lifeguards Ticket Us!

By Lee Kinnel

t happened during our meeting March first . . . We were actively engaged in and enjoying our customary raffle when a lifeguard briskly walked up to the front of our meet announcing that he had some "tickets" to give us. Our hearts sunk! (Memories of our last meet at Puddingstone when two of our men received tickets, for trivial violations that should have been warnings, flashed through all of our minds). "Yea. I have about 30 tickets to give to you guys - for FREE SLURPIE DRINKS," he announced. Wow, we couldn't believe the whole thing thanked the lifequard about 1,000 times and said, "What a difference in parks." Castaic actually encourages us to use their facilities. Be assured,

Continued on Page 4

Hixon Show Stoppers

Story & Picture By Greg Mac Donald

Jeff and Lori Hixon, are proud owners of the 1932 Hollycraft pictured at left. The boat was built in Hollywood, California and is a totally original treasure that had been stored in a garage on Balboa Island since the thirties. Would you believe, John Wayne's stuntman was a previous owner.

Resting on a 1931 Chevy front axie, original wooden trailer, the boat possesses original leather seats and is powered by an Evinrude 460 Racing netor.

What a thrill to be behind that big truck steering wheel at speed!

Continued Page 5,
Column 1

Antique Outboard News 37230 Wildwood View Drive Yucaipa, California 92399



DRIVE CAREFULLY
TO MEET US MAY 3RD
"DON'T LOSE YOUR HEAD TO GAIN A MINUTE
YOU NEED YOUR HEAD
YOUR BRAINS ARE IN IT"
Burma Shave

Frank Fowler(2-1-004) 4918 Coldbrook Lakewood, CA 90713

...If There was Ever The Mother of all "Before and Afters" THIS IS IT!

By Greg Mac Donald AOMC Roving Reporter Continued from top Page 1

ook at the large crowd of Club Members admiring Mike & Mary Evans' newly restored 1957 Reinell on top of our front page.

Mike and Mary found the boat in a field in Everett Washington in 1994. The boat was severely cracked down the port side (see picture) and the bottom was rotted out - and this is just for starters! They found this to be a Jetabout 14 foot, and Reinell's first venture into fiberglass after 25 years of building boats of wood. The engine is a Mercury 400, also a thing of beauty. A nine-year restoration project that dazzles with fins and aquamarine - nice work!



1957 Reinell BEFORE Restoration -

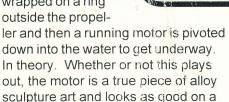
Note huge crack portside -

See front page for AFTER Picture.

David Vaughan and his Rare 1940 Clarke - Right Angle Troller

By Greg Mac Donald

esigned by an M.D. for carrying to hunting and fishing destinations, the motor is truly revolutionary. For example, the engine is in the lower unit! In theory the motor is pivoted up for starting. A starter rope is wrapped on a ring outside the propel-





gallery wall as it does on a boat transom. The little motor to the right is a 1940 Evinrude Mate and check out the stand! Another work of art from Artiest Vaughan the Elder.

Meet Attendance March First, as Follows:

Les Gunnarson Walt Thompson Alan Jarvis Kip Fjeld John Coultas John & Mary Van Dyke Harry Martin Tim & Son Nick Coleman Bill and Christina Newman **lef & Laurie Hixon** Bob Eddy Dennis Byrne **Jack Holtwick** Tom Cabelus George Kent Tom Cove Mary & Mike Evans David Marotta Craig Butcher David Vaughan Paul Brinkman, Jr. **Bob & Meredith Hanover** Ken Hanover Conner Hanover Greg MacDonald Garry Lawson David Woodworth Lee & Jackie Kinnel with Holly Miles Kapper George Kent Charles Morse Darryl Webber Frank Nickel

In Remembrance

erb Maier passed away Friday, March 28, 2003. His daughter stated he had a heart attack last August and had been going down hill since. We all know him as the first member to arrive at the meet and always had a trailer full of outboards to sell or share. He was a long time member, past secretary, and a great friend. We will all miss him very much.

The second big loss was **Paul Rogers**, owner of Icarus Marine. (Sorry, no picture.) Paul went to Greece with his church associates and while there had a heart attack. I will miss stopping by his shop and "talking outboard" with the top man on West Bend motors, as will a whole lot of other Chapter Members.

At this point I wasn't prepared for more bad news, but a note from **Dan Arata's** wife informed us of his passing, also in March 2003. Dan was a new member and a great guy. We enjoyed being with him last October accompanied with his special boat. See picture bottom of this page.

i hope Dan, Herb and Paul are getting together, even as you read this remembrance, starting a new antique outboard club - and we can all be together again some day. I am grateful for their warm friendships and the opportunity of having known each of these men.

Respectfully, Lee Kinnel



"Outboard Happiness" reflected in the faces of Herb Maier and Nels Hanson. Nels has moved to Ridgecrest, California



Herb Maier's array of antique out-boards showing beautifully on his new custom trailer; 1947 Evinrude (ELTO), 1936 Johnson, 1939 Muncie (Neptune), 1940 & 1947 Johnson, 1947 Lawson Sport King





LET'S MEET SATURDAY, MAY 3RD -ENJOY 2 NIGHTS "FREE" CAMPING AT LAKE CASTAIC



CALL LEE @ 909-790-8168 BY APRIL 25TH TO RESERVE YOUR LUNCH

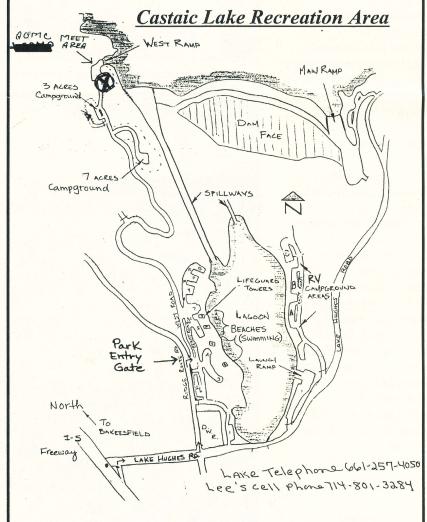
ictured above is a handful of some of our "Best Buddies" - guys you need to get to know and will look forward to being with at each and every meet; Ken and Conner Hanover, Jack Holtwick, Les Gunnarson, Kip Fjeld and Walt Thompson. They are busily checking out a whole trailer load of motors belonging to Walt Thompson. Jack Holtwick is especially happy here as he just purchased a Mercury KG7 with Quicksilver Lower Unit!

We decided on Lake Castaic again because this will be our last meet before school is out. (I'm sorry we can't chance going back to Puddingstone - lifeguards give tickets - never warnings.) "When school is out we can't get close to any lake." **Jack Holtwick** reminded me of this fact saying, "Then we can have a couple dry meets during the summer busy months." Makes sense Jack!

Enjoy 2 nights "FREE" camping, May 2 and 3rd, at the 7 acre campground - this is a <u>new spot</u> directly across the street from our old 3 acres. The two free nights allow you extra days to relax with family and friends.

Our meet will begin at 9:00 a.m. for some and early, early, early for the serious collector. Castaic has three boat ramps and 22 lanes. It offers sailing, water-skiing, power-boating, and fishing. The lake is stocked with bluegill, bass, trout, crappie and catfish. You are welcome to camp as early on Friday as you wish. Lake Castaic has 29 miles of shoreline (with a 35 mph. speed limit) and occupies 2,235 acres. Bring your boat and "LET HER RIP." Remember, the Castaic Hilton Hotel is also close by.

Who knows, maybe **David Vaughan** will show up with his experimental, environmentally safe, fuel efficient, air powered outboard hydroplane. Try to imagine that! Seeing is believing! **CAN EACH OF YOU** please bring motors - even if it is just one. Bee There!



Wishing for That Special Motor? Remember, 80% of Success is Simply "Showing Up at Meets." If its not There - Someone May Know Where . .

Continued from Page 1, Column 1

a letter of appreciation from AOMC

Southern California was mailed this past week to Mika Yamamoto, Park Superintendent, Lake Castaic.

After each meet, my wife, Jackie always says, "You know, that was the best meet yet." And I reply, "You always say that." She is right, this meet had everything! I tried to think of just what made it so special; was it Dennis Byrne and helpers, John Coultas and Al Jarvis pampering us by cooking all morning creating a delightful, enticing aroma barbecuing the brat sausages and the high anticipation of a special lunch, was it the beautiful, sunny weather or the great, unbelievable newly acquired and newly restored boats and motors on display? Maybe it was the anticipation of our new member, David Woodworth, arriving with his 1917 Caille motor - what fun it was to meet and talk with him, or camping 2 nights and solving all the world problems, past and present with David Vaughan, Walt Thompson, Bob and Meredith Hanover, Jack Holtwick, Paul Brinkman, Jr., and Craig Butcher as we snacked on chips and dips and relaxed?

You guessed it! It was

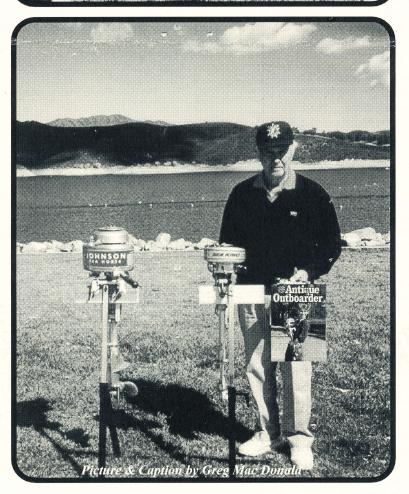
Continued on Page 5

Picture & Caption by Greg Mac Donald



Pictured at left: Bill and Christina Newman with their line-up of oldies: left to right, little Neptune, 1940 K-2 Mercury, 1942 Evinrude Sportsman, 1946 Elgin 2 hp, and Elto Pal.

Thanks for joining us this day Bill and Christina, we more than enjoy your friendship and appreciate seeing your great motors. Look forward to being with you both May 3rd!



David Marotta with his newly restored 1938 Johnson LT on the left and 1 hp Sea King on the right. David is holding the January 2003 issue of The Antique Outboarder Magazine which features the same Sea King model on the cover.

*Also see page 9 for test results of a 1 hp., 1940 Sea King found in the July, 1983 issue Antique Outboarder. (It gave a 2nd page of specifications too. Call Lee Kinnel if you would like a copy)

No one can Give you Back Your Youth. But, With an Old Friend and an Antique Outboard you Never Lose it.

Continued from Page 4

the combination of everything - the whole meet was fabulous! It is still exciting to just recall and write about this event. I hope all of you who attended are smiling with me right now, remembering the priceless friendships new and old, and fun we had just being together at Lake Castaic on March 1, 2003.

Sunday morning, **David Vaughan** discovered a huge, huge, box of cookies and chocolates he forgot to share Saturday. Without hesitation he presented this prize to all the lifeguards at Castaic. **Way to Go David!**

(Meeting picture at top right was taken seconds before we "GOT TICKETED" slurpie drink tickets, that is) We almost fell over at that

point. Do we love Lake Castaic or what - - They treat us like KINGS.

Those of us who are active are enjoying one of the finest social lives that you can find. Each and everyone of you mean a whole bunch to Jackie and me.

I hope you are having just half as much fun as we are in the Southern California Chapter, AOMCI.

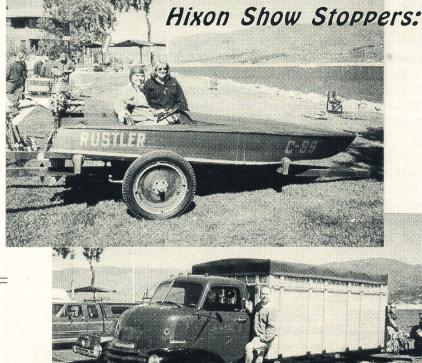
Lee Kinnel, Chapter President

Another Sensation

By Greg Mac Donald
Our favorite roving reporter
describes The Holly Hauler
pictured at bottom right:

Jeff took a 1949 Chevy cab-over and ingeniously transferred it to a new one-ton Chevy chassis and running gear. It has a luxury interior with all options available today, but not in 1949.





Jeff and Laurie Hixon with their spectacular 1932 Hollycraft (top picture) and Holly-Hauler (Bottom Picture)

Pictures & Caption by Greg Mac Donald

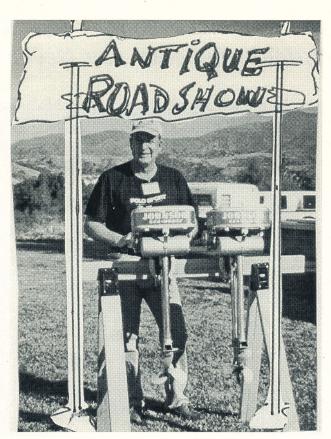
The Holly Hauler continued:

The business end of the truck is just as remarkable. A bed and stake sides of tongue and groove solid oak done by Jeff and his brother who is a cabinet maker.

A power tailgate lift raises the Hollycraft in style. Everything about the rig is impressive. Just the paint: \$400.00 a gallon from Germany!

The combination of these two is almost too much to handle at one time, but we enjoyed trying.

"Yes, what you have here Mr. Kinnel are the two remaining 1936 Johnson Belchfire Twins made at the Minnetoga Egg-Beater Plant. Had you not restored them they would be worth in the neighborhood of \$350.000 each. But ... as they are now: \$2.50 each or \$5.00 for the pair."



Classifieds:

Greg Mac Donald, Roadshow MC, Showing the Worthless Johnson Belchfire Twins

For Sale: David Vaughan visited with JJ Johnson and found that he wishes to sell the following: Hybrid Caille lower unit with a Clinton Lawnmower engine, 1936 Evinrude 4185 Handtwin, 1946/45 Johnson, 1947 Evinrude Speedy Twin, 1947 Evinrude Speedy Four, 1959 Johnson FD-13R, Johnson Large Rotary Valve, Chriscraft Challenger, Merc gas tank, Evinrude Gas Tank, Chrysler metal outboard display stand. Call JJ Johnson: 949-240-8855

For Sale: My 14 foot Chris Craft Runabout is for sale - with 35 hp. motor. Contact Jeff Hixon at 805-642-7151

WANTED: any article pertaining to Hubbell Wildcats and KG7H. You can reach Ron at 760-770-9613 until April 9th and at 715-453-5432 in Wisconsin. HELP! Bob Sacher needs a 4-6 cylinder early Mercury motor, Call: 949-722-8823 For Sale: 1956 & 1957 Evinrude 7 1/2 hp. Fleetwins Restored. 1949 Johnson 10 hp. Restored. 1952 Johnson 10 hp. and gas tank very good original condition. Call Lee: 909-790-8168.

For Sale: Flambeau Model 174050, Evinrude Elto Handy Twin, 12 hp. Sea King (Free), WaterWitch Model MB571-10, Super Elto Rudder Twin Model "C" Call Dennis: 805-498-9621

WANTED: Merc Mark 58 Lower Unit. Call Bob Eddy at 909-371-6386 For Sale: 1940, 2 hp. Sportsman Evinrude, 1947, 2 hp. Evinrude, 1949 5 hp. Scott - Call Gerry at 858-272-3642

For Sale: Dawecraft C-Hydro Plane New hardware, Call John 480-464-5870 FREE GAS CANS - Call Dennis: 805-498-9621

WANTED - 25 hp. serviceable motor or larger. Call Dennis 805-498-9621. WISHING you had a FREE 55 gallon metal barrel? Call Harry at 909-822-5402

Wanted - Martin 66 & 200. Scott Atwater 5, 7 1/2 - gold and green Please call Lee at: 909-790-8311

Wanted - Mercury Outboard Motor KG-7, KG-7H, KG-7Q. Also want 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

What's With the "Burma Shave " Quote on the Bottom Front Page?

From Your Editor

or those of you who never saw the Burma Shave signs, here is a quick lesson in our history of the 1930's and 40's.

Before the interstates, when everyone drove the old 2 lane roads. Burma Shave signs would be posted all over the countryside in farmers' fields.

They were small red signs with white letters. Five signs, about 100 feet apart, each containing 1 line of a 4 line couplet . . . and the obligatory 5th sign advertising Burma Shave, a popular shaving cream.

Hopefully you are having fun reading these funny quotes and will take heed of the messages when traveling to and from our meets. I remember as a kid traveling, having a ball reading these unique signs. If you don't remember, well, your much younger than I.

Remember the unique "Evinrude bicycle" Dave Williams brought to our meet a couple months ago? Well, look forward to his story and a great picture showing the bike in our next Newsletter. Dave did write to Dennis Evinrude announcing that he had one in his possession. Was Dennis surprised?

New member, David Woodworth, not only has a group of antique outboards he is anxious to restore, he is the premiere American collector of early day recreational vehicles or what was once quaintly known as "car camping." Look forward to reading his story in our next issue. In the meantime if you have anything related to early RV history from about 1905 to 1950 give him a call whether it is old sleeping bags, kitchen camping gear from the 20's and 30's or old advertisements at 805-822-3352.

"The Voice" of the Southern California Chapter by Lee Kinnel

e are more than pleased to relate that our friend, Sherry Webber, wife of Darryl Webber, is recovering nicely from a hip replacement operation on March 11th. Amazing, medical advancements have been accomplished in the last few years - Best Wishes to Sherry for a speeeede recovery!

In casual conversation with **David Marotta**, he enjoys driving to Lake
Castaic for our meets. "I get up early
in the morning and really enjoy the
drive - it is 200 miles from my home in
Coronado Island, San Diego and I
drive up the 405 very easily. I love to
drive." David is anxious for a few dry
meets for more buying and selling and
trading of our motors.

Guess who found 2 scale models of the Clarke Troller in a museum in Arizona - Bud Barnett is currently in active pursuit! The museum is relocating to Washington and Bud is in high hopes that they will not want to pack these two prize models. Look on page 180 of your 3rd Edition of the Old Outboard Book and there you will see what he is talking about. They were built in Europe for a small Florida firm and thus not officially "old" outboards. They operate on the glowplug-model airplane engine principle and are the spiting image of the real things. The 1/3 scale single is comparable in size to a \$5.00 bill. The replica of the rare Clarke Twin is about 9 inches, says Peter Hunn. Bud - Go and get them - and let us know if you succeed so we can tell about it in our next Newsletter.

In a letter from **Mary and Mike Evans** before our last meet, they were trying to decide which boat to bring to show, the 1957 Reinell or the 1955 Chris/Capri. Well, we were astonished with the Reinell - it was truly mindboggling! Now we can't wait to see the Chris/Capri. Thanks for sharing with us, Mike and Mary. See picture of Reinell boat top of front page.



Greg Mac Donald named the above "Two Stars of the Show."

Mary Evans on the right is a Star!

Newsletter Editor, Jackie, on Left

Look forward to seeing **Rich and Susan Plavetich** again soon. We have not seen them for a long time because Rich has a new job with Mitsubishi and has been traveling a lot. "Hopefully I will see all of you next time."

Dennis Evinrude, President,
AOMCI National very thoughtfully
sent us a copy of "The Antique
Outboarder Archive 1969 thru 1979 on
CD. These issues are currently
unavailable on back issues from the
National. What a great treat this is for
us! We took a headcount at our meet
and 20 people wanted a copy. I have
15 currently finished. Please call me if
you were not at the meet and wish a
CD of the first Antique Outboarder
Magazines. For a nominal fee you can
have a copy (if I can sit and copy that
long) probably \$5.00 each. Dennis

suggested that the fee collected "is intended to help support your individual chapter and its membership growth." We are more than pleased. Thank you **Dennis Evinrude** for helping us.

I want to thank **Bud Barnett** for all his helpful suggestions, parts and literature toward the restoration of my Clarke Troller. Buds' knowledge is unbelievable!

Ron Leitha and Diana Baacke, National Members from Wisconsin have been "snow birds" visiting Ron's son in Palm Springs since the first of the year. Wisconsin has been a -30 degrees often this winter. They have had a nice warm visit with son, Marc, attended our Puddingstone meet, and visited Lee and Jackie Kinnel in Yucaipa. Homeward bound on April 9th, they will miss our April meet but want all to know they will be thinking of us and had a swell time getting to know us. Ron is interested in any article pertaining to Hubbell Wildcats and KG7H. You can reach him at 760-770-9613 until April 9th and at 715-453-5432 in Wisconsin.

It was swell hearing from **Les Gunnarson** stating that he really
enjoyed the quote from actress *Lauren Bacall* in our last Newsletter, which
reads as follows:

"Those special friends whom I am closest to . . . interest me: how they think, what they feel, how they deal with life - its gifts and its denials. They add to and complete the circle of my life and enrich me. They are what I hang onto."

Got a note from **Miles Kapper** and it reads as follows: Here are my dues for next year! I know of someone with a 1957, 35 hp. Johnson for sale if you know of anyone who is interested. Check out page 4 of the Antique and Classic Boat Magazine. Keep up the good work!

Craig Butcher really did a number on me. He actually found a Martin 200 in California! Everyone knows how much I want one - well, I'll have to dig up two of my money cans from the backyard to bid on it. It looks good and has my tongue hanging out so far I may step on it. Darn outboard bug has bit me again!

Laing's Outboard News March. 2003

here has been much concern recently about how the current and upcoming antipollution regulations will affect the owners of outboard motors. Woven deep within the tangled legislation regarding marine emissions is some heartwarming news for the consumer:

It's not your problem.

If you own a boat and don't understand some or all of the regulations passed in recent years by the EPA or the California Air Resources Board (CARB), you are not alone. Boat owners across the nation are struggling to interpret and predict the impact of

the emissions standards that affect the boating industry. But take heart. It's neither as bad nor confusing as it first appears. In a nutshell, here's the important news:

You will not have to stop using your two stroke engine due to engine emission regulations.

The engine manufacturers - not the consumer are responsible for ensuring the engines you buy conform to EPA and CARB regulations.

If you currently own a boat engine, you will not be penalized by existing legislation as tighter regulations take effect.

CARB rates all marine engines on a four star system. One star ranks an engine as "low emissions", two stars is "very low", three stars is "ultra low", and four stars is "super ultra low". No engines have been built yet that meet the four star requirements.

As of January 1, 2003 all outboard, inboard, and sterndrive engines that are sold in California must be CARB certified and must bear star-rating decals. Observers will note that not all the low emission engines are four stroke. The Mercury 75, 90, 115 and 135 OptiMax two stroke engines meet the CARB three star emissions level.

Seven Myths About Batteries

From Lang's Outboards

Myth #1:

Storing a battery on a concrete floor will cause it to discharge. This may have been true years ago when battery cases were made out of a porous material, but not today.

Myth #2:

A battery will not explode. A battery may explode through the ignition of hydrogen and oxygen gases produced when charging, or may explode internally, so always use caution when near the battery.

Myth #3:

A battery will not lose its charge sitting in storage. Batteries have a natural discharge or internal electrochemical leakage rate of between 1% and 25% per month, hastened by high temperatures.

Myth #4:

Maintenance-free batteries never require maintenance. All batteries require maintenance. Electrolyte can be lost due to high temperatures and excessive charging.

Myth #5:

Pulse chargers or additives will revive sulfated batteries. There is no conclusive evidence that pulse chargers or additives will provide any benefit.

Myth #6:

Cells in lead acid batteries will not reverse polarity. Cell reversal typically occurs when a cell has completely discharged while current is still flowing through the battery.

Myth #7:

Lead acid batteries have a memory. However, continuous undercharging will lower battery capacity, while deep discharges can shorten battery life.

The Antique Outboard Motor Club, Inc., Southern California Chapter Mail this application and \$20.00 to Lee Kinnel @ 37230 Wildwood View Dr., Yucaipa, California 92399

MEMBERSHIP APPLICATION

Address	The state of the s	
City	State	Zip
Date	Telephone	

Our local Chapter Newsletter, rated one of the best in Nation. (Approximately 6 per year)
 Free classified ads in our Newsletter for both Wanted & For Sale items.

3. Postal notification of all local dry and wet meets. (Approximately 6 per year)

4. Members to help you find those difficult parts to locate and help you sell your unused items.

5. A great group of outboard enthusiasts with whom to socialize and have fun!

Questions? Call Lee at 909-790-8168

Test Editor Tests the 1940 Sea King Model 469

by Bob Grubb, Test Editor

I believe the one horsepower Sea King is the smallest gas engine ever offered by Montgomery Ward. The engine is very interesting in that it was built by Evinrude and has many similarities to the Evinrude Scout and Ranger and Elto Pal. Yet it has many differences. It is the same bore and stroke, and basically, the same size and design of the engine. However, it used the front mounted, kidney shaped, fuel tank typical of Sea Kings of the period. The magneto is basically the same except for the high spark level coming up over the tank. Carburetion, crankshaft rod, piston and crankcase seem to be the same. The cylinder block differs in that the spark plug sticks straight up instead of extending straight back. The clamp bracket, torque tube and exhaust pipe are about the same. The lower unit, while using the same shafting, gearing and prop, has a remarkable difference. It used a piston waterpump driven by a drive shaft mounted cam instead of the metal centrifugal pump impellers found on the Evinrude and Eltos.

These engines are decent running, although I find it somewhat difficult to get them to idle down very slowly. Comparing this engine to the 1½ Elgin, tested in prior issue, the Sea King was slightly faster but a fair amount thirstier and would not idle nearly as well.

The carburetors used on these engines are float stabilized poppet valve models. For the engine to perform properly, the float level, valve lift and valve spring tension must be set to the following Evinrude specs. Float level

top of bowl to gasoline 23/32", valve lift 3/32" and spring pressure 3 oz.

When I found this engine it had brass gears in the gear case which were badly worn (probably due to a lack of lubrication). I shimmed them as close as possible but they ultimately failed. I have since installed a set of steel gears found in a parts motor.

The name on the front of the tank was hand painted by a local sign painter due to the non-availability of a decal.

While not terribly outstanding in any respect, this is a cute little engine that draws many compliments.

OUTBOARD DATA

General Information
Motor tested 1940 Sea King Model 469
Rated H.P. @ R.P.M 1 @ 3750 R.P.M.
Layout of Engine2 cycle, 1 cylinder
Horizontal cylinder pointing aft
Serial # of Test Engine04708
Original List Price FOB or POE unknown
Starting System
Ignition System Flywheel Magneto
Carburetion Evinrude Float Stabilized
Poppet Value
Exhaust
Cooling
Dimensions & Specifications
Advertised Weight
Actual Weight of Test Engine 15 lbs.
Overall Height
Overall Width
Overall Length151/2"
Bore & Stroke
Piston Displacement2.0 cu. in.
Gear Ratio
Standard Propeller Dia. & Pitch
6" x 5"
Number of Blades
Shear Pin Material & Size

3/2" x 3/4" Aluminum



LA Twin-the most powerful outboard motor of its weight

POR power and speed per unit of weight, the L-A Twin stands supreme in the outboard field. It develops at least 3 H. P.—drives the ordinary rowboat at least 8 miles or more per hour—and weighs but 52 lbs. complete. And now, with the McNab-Kitchen Manoeuvring Rudder as an extra, you are assured of the last word in control.

Note these additional features: Most powerful magneto in outboard field. Rope and rudder steering. Indestructible gas tank. Float feed carburetor. Under-water parts made of non-corrosive aluminum alloy. Quiet exhaust. Alemite lubrication. See your dealer or write for full particulars.

OCKWOOD -ASH - MOTOR - COMPANY-5116 Jackson St.

Builders of Marine Motors for 22 Years



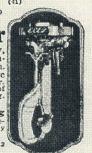
(Designed and built by Ole Evinrude)
Quick Detachable

Rowboat Motor

Powerful, Light Weight, Speedy, Quiet Running, Practically Vibrationless, Starts on a quarter turn. Easily carried with you anywhere you go. No rowing, no work no bother, lust ride and enjoy the greatest of water sports. Slow down for fishing. Speed up for racing. Great power.

Write for FREE Catalog describing all the new features, especially the famous Propello Pump.Only Etto has it. Write today.

ELTO OUTBOARD MOTOR CO. Dept. 42
Ols Evinyade, Pres.
Mant'rers Home Bldg. Milwaukee, Wis.



Ad Compliments of David Vaughan

37

Puts This Motor on Your Boat

Only \$37.00—then no more rowing —no more blistered hands and aching muscles. Our

"Pay as You Play"

plan makes it easy to take care of the balance. Covers any Caille motor. Ask your dealer or write us for details.



Speed changes made mechanically and positively by raising or lowering steering handle in ratchet. Provides high speed forward, trolling speed, fast reverse, slow reverse and neutral. When set at neutral, motor runs while boat stands still. Exclusive Caille feature.

Other Features

Twin cylinders—no vibration. Light weight. Zenith carburetor. Eismann magneto. Motor tilts over obstructions. Rope starter. Beautiful finish. Fully guaranteed. Send for details—now.

THE CAILLE PERFECTION MOTOR CO. 6348 2nd Boulevard Detroit, Mich.

ARROW

2-Cylinder 4-H.P. Detachable Rowboat Motor

A PERFECT TRIO

INBOARD

K-1, Single Cylinder, 2 H.P., 36 lbs. K.2, Double Cylinder, 5 H.P., 60 lbs.



1917

Years of painstaking experiment by two separate companies have been brought together in one company by our outright purchase of all patents, patterns, tools, good will and titles of the Waterman Motor Company's Marine Motors.

In the models shown you will find a type exactly suited to your needs.

If you are confronted with treacherous waters full of hidden reefs and snags, the new Tilting Device of the Arrow Motor absolutely overcomes this peril. This makes it perfect for shallow water or for easy beaching.

For the canoe lover, Model K-1, Single Cylinder, 2 H. P. (36 lbs.) also our Model K-2, 5 H. P. (60 lb.) exactly fill the requirements of a light-weight power plant which strengthens the light craft in whi-9 it is installed. It makes possible an easy home-coming after a day of freedom in the wilds.

The Single-Cylinder, Waterman Porto, is the acme of easy 'automobile' control for motor boats. You can raise or lower the friction clutch propeller lever and adjust it to a nicety for trolling quietly, full speed ahead or any intermediate speed. The independent rudder device means steering from any where in the craft even when the engine is not running.

Catalogs of our complete line of perfect light motors are yours on request. Let us tell you about our A-4 Special Motor of more power for larger boats. Write today.

ARROW MOTOR & MACHINE COMPANY

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Single-Cylinder 3-K.P. Detachable

