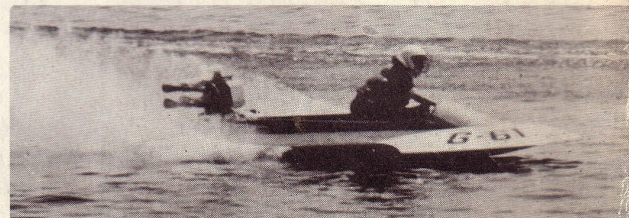
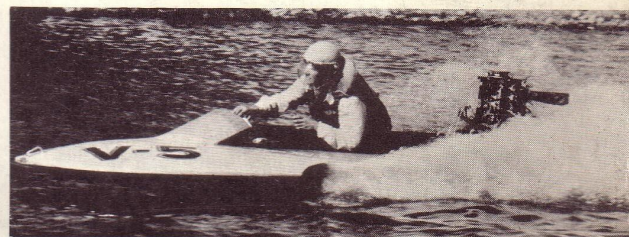
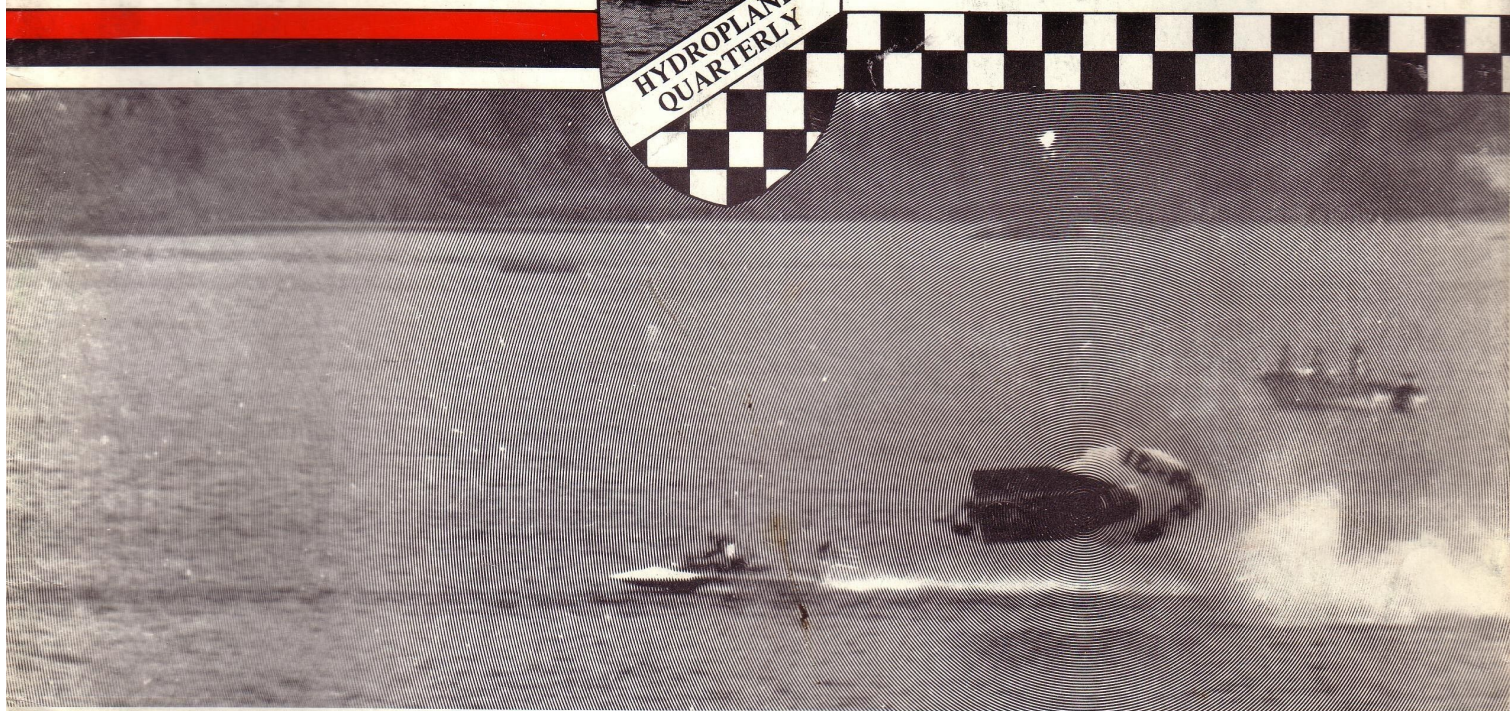
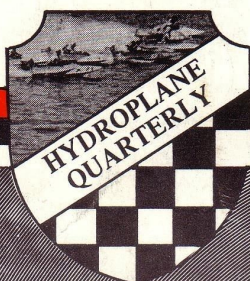


HYDROPLANE

QUARTERLY

SPECIAL
COMPLIMENTARY
ISSUE

BOAT RACING HANDBOOK



THE ONLY COMPLETE, ACCURATE, AND FACTUAL HANDBOOK ON THE SPORT OF BOAT RACING

THE BOAT RACING HANDBOOK

Why did I undertake a venture such as this book? Not for monetary gain, because a speciality publication such as this does not have a market large enough to offer financial reward. My reason is nearly impossible to explain. I have enjoyed the sport of boat racing since I was twelve years old. I had my first taste of competition at the age of fourteen. Now, years later I have the opportunity to bring others behind the scene so they can understand the sport in depth. Perhaps this book can answer the questions that arise in the spectators mind, convey the thrill of competition to the potential racer, or just explain the many facets of the sport.



The common lack of knowledge on boat racing is understandable - and yet it isn't. Racing in general is one of the most popular spectator sports in the nation. Recreational boating is high on the list as a participation sport. Put the two together and nine people out of ten are completely unaware of it's existence. Worse yet, they may have conjured something up in their mind that is completely unrelated to the sport.

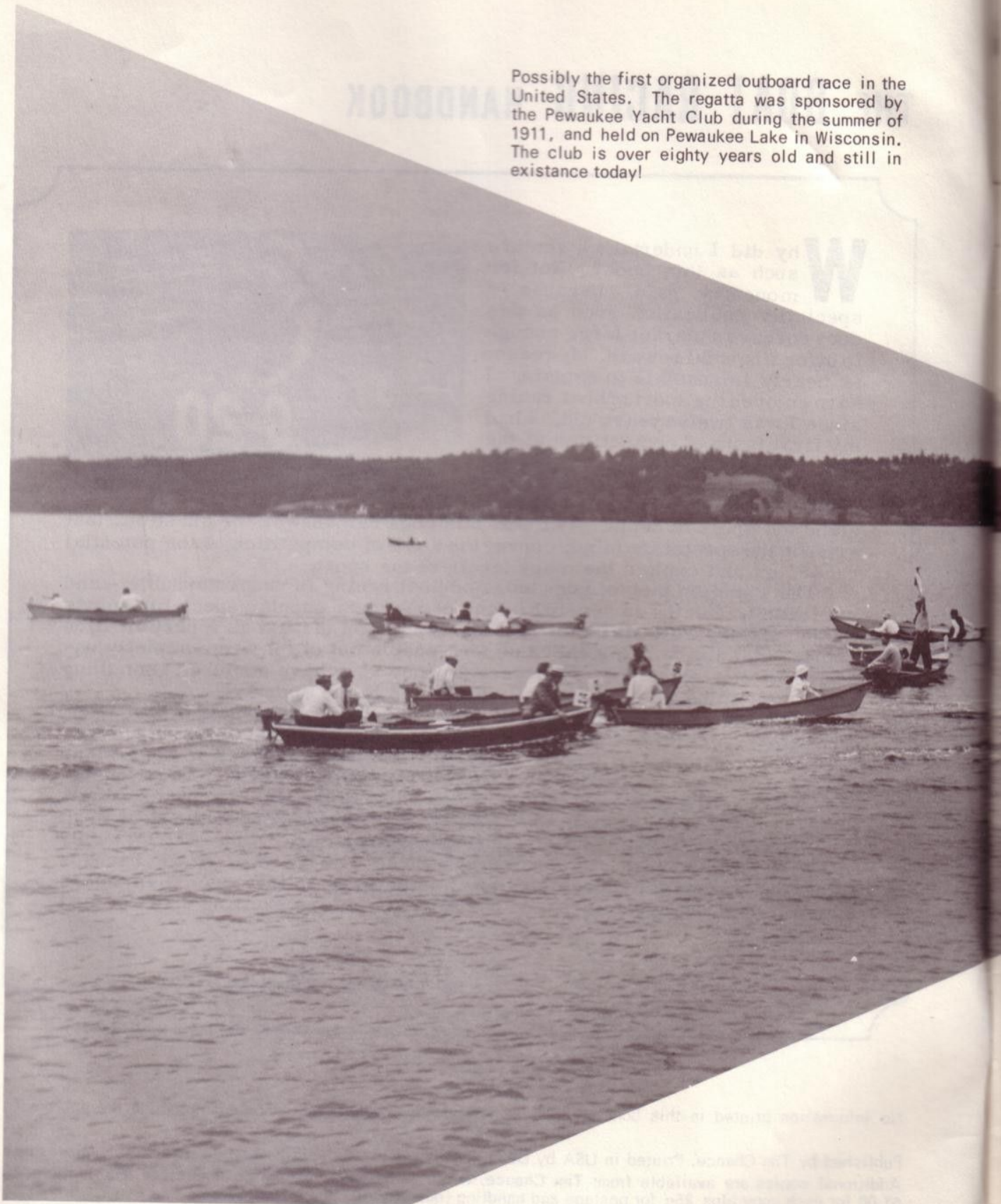
At a race a first-time spectator is probably unbelievably bewildered. Even after watching a day of racing some spectators have only a vague idea of the procedures involved. True, boat racing is difficult to understand but so are most contests when viewed for the first time. To the casual observer boat racing is exciting. They can see the whole course, mingle with the drivers in the pits, watch the breath-taking dash to the first turn, and look at the winner receive the checkered flag. But, all this only scratches the surface. Almost everyone wants to know why? How? Perhaps this book can answer those questions and in doing so introduce many more people, both as spectators and participants, to the exciting sport of boat racing.

Tim Chance

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Possibly the first organized outboard race in the United States. The regatta was sponsored by the Pewaukee Yacht Club during the summer of 1911, and held on Pewaukee Lake in Wisconsin. The club is over eighty years old and still in existence today!



BOAT RACING

FROM THEN - TO NOW



There has probably been boat racing as long as there have been boats, and competitive spirit being what it is, there has probably been power boat racing as long as there have been power boats. The first power boat race can be pictured as two skippers racing at the breakneck speed of two or three knots with their little one cylinder inboard launches. The advent of the outboard motor changed all this. Now the potential racer had a lightweight power plant which could be matched to various hulls for maximum speed.

The fledgling outboard motor industry found racing as an ideal method of sales promotion. Johnson, Evinrude, Elto, Lockwood, Caille and others campaigned factory racing teams on the aquatic battlegrounds. These gladiators of the water barnstormed around the country, sometimes traveling thousands of miles between racing weekends. This heyday of outboard racing was back in Model A Ford times when roads were bad



Racing Boats - Vintage 1940

and automobiles were unreliable. Yet, the pioneer outboard racer's dedication to his newfound pastime started this great sport on its way.

The oldest national association in the United States is the American Power Boat Association, 415 Burns Drive, Detroit, Michigan. APBA is the national authority for the Union of International Motorboating. UIM, with headquarters in Belgium, is the internationally recognized organization governing boat racing. Following is a reprint* from the APBA yearbook:

"Just before the end of the nineteenth century, a few boats fitted with internal combustion engines were putt-putting around in the Long Island Sound waters of the United States. By 1902 there were enough of these craft around to stimulate an interest among their owners as to which boat could travel fastest over a given distance with a given handicap . . . in short, people wanted to race their boats.

Since these early propeller driven craft were of many varieties and capabilities, there were as many differing opinions as to a practicable method of equalizing the opportunity for all boats competing as there were owners. It was agreed that 'rating and time allowance' rules would be necessary to handicap all boats equally.

Accordingly, the Columbia Yacht Club, through the efforts of a member, W. H. Ketcham, issued a call to all interested yacht clubs to meet and arrange suitable racing rules. At a fourth and final organizational meeting on April 22, 1903 representatives of twenty clubs attended, adopted the name American Power Boat Association, set up a constitution, adopted rules and elected officers. The official family for the new fledgling group consisted of W. H. Ketcham, president; J. H. McIntosh, secretary; Anson Cole, treasurer; and Henry Gielow, measurer.

Early APBA rules, although adequate, gave rise to disputes among member clubs (as the rules sometimes do today!). To settle these disputes, the Association established in 1913 the first Racing Commission whose duties were to 'cooperate with race committees of individual clubs in racing matters, issue interpretations of racing rules when disputes arose, and grant sanctions for races'. The powers delegated to this first commission are the backbone of the present day functions of APBA.

* Copyright by American Power Boat Association
Reprinted with permission.

Modern regatta programs offer a great variety of racing classes to spectators and participants in the sport. Thirty years ago, however APBA racing was composed strictly of six recognized divisions of racing craft: Cruisers, Express Cruisers, Speed Cruisers, Open boats, Displacement Racers and Hydroplanes. Rating formulas classified the Cruisers and Open Boats, and Displacement Racers were categories for boats not fitting into these other divisions.

At the annual APBA meeting on October 25, 1923, the Association adopted in entirety the rules of the Mississippi Valley Power Boat Association limiting the displacement for the following hydro classes: 1-1/2 litre, 151's, 215's, 340's, 510's, 610's, 725's, 1100's and all runabouts up to 625 cu. in. In establishing this concept of limited classes, APBA provided itself with the means for rising to its present dominant position as a governing body for organized boat racing.

In 1924 the emergence of outboard motors efficient enough to stimulate racing interest prompted the Association to put into print a set of rules for boats propelled by 'Outboard Detachable Motors'. Classes were set up for motors under 12 cu. in. (Class A); 12 to 17 cu. in. (Class B); 17 to 30 cu. in. (Class C); and over 30 cu. in. (Class D). During the next two decades additional classes were added and by 1948 regattas were being staged for Stock Outboards as well as Racing Outboards.

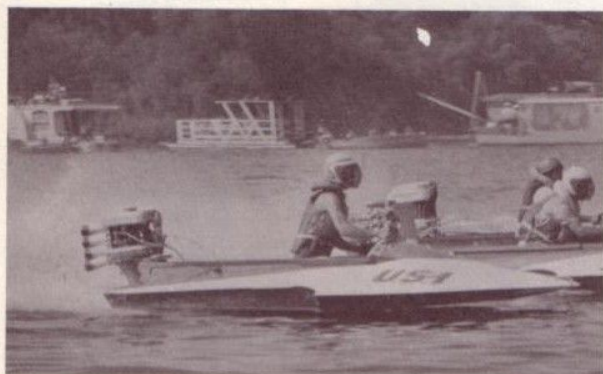
Recognizing the need for a rules-making system that would allow the driver and owner to participate in formulating the rules by which they must abide, the Association, at a special meeting in Philadelphia in 1949, delegated equal voting power to the individual member as well as the clubs, which enjoyed this privilege solely heretofore. Significant actions of that 'reorganization' meeting were: (1) Council was taken out of racing rule formulation; (2) individual owners were allowed to set up and vote on racing rules; (3) the disbursement of funds and the composition of the administration were tied to the relative strengths of inboarders and outboarders on the membership lists.

Today, APBA conducts organized racing for all types of power boats. Approximately 500 regattas are sanctioned annually in the United States and Canada. Over 4,500 racing boats are registered by the racing members. Clubs, officials and other classifications bring the total membership to approximately 6,000.

The other major racing organization is the National Outboard Association. NOA was originated about 1930. The formation of NOA followed the American Outboard Association which was organized about 1927. NOA operated in cooperation with American Power Boat Association up until the beginning of World War Two. At that time the Chicago office was closed for the duration of the war.

In 1952 NOA was reactivated with headquarters in Knoxville, Tennessee. The offices have remained at 707 Market Street, Knoxville, since the reactivation. W. Claude Fox has been the Executive Director since that time.

The National Outboard Association is the only organization that devotes all its time and efforts exclusively to the promotion of outboard racing and outboard boating in general. NOA



US-1 - National Hi-Point Champion

sanctions most of the professional outboard races in this country.

The race-of-the-year for NOA is the World Championships which are held in late summer each year. The comparable APBA race is the APBA Outboard Nationals. NOA winners are crowned as World Champions, while APBA winners are awarded the title of National Champion. Another big NOA race is the annual North/South Regatta, which is presented each spring in Knoxville. Here it is North versus South with the Grand Champion of each camp battling for the title "General Grant" or "General Lee".

There are numerous local racing clubs throughout the nation. Midwest Power Boat Association is such a local racing organization. Midwest Power Boat Association was formed in 1930 in Vinton, Iowa. The first



Midwest Power Boat Association Pit Area



Midwest Power Boat Association Pit Area

regattas were held in Iowa and Illinois on the Mississippi River. At that time the club had a membership of 32 drivers with a few homemade runabouts. Gradually the majority of the members joined from the north until the Association was based in the Twin Cities. Today the club is the oldest, most stable, and largest boat racing organization in this area with over one hundred drivers that own well over three hundred boats. The ultra large membership, time proven organization, and modern up-to-date equipment are some of the reasons that MPBA is the mainstay of professional power boat racing in this part of the country.

MPBA is the only boat racing organization in the area that is affiliated with both NOA and APBA. The two major governing bodies give national sanction, publicity and recognition to all events produced by MPBA.

Due to the fact that most of the members live in the Minneapolis/St. Paul area, most of the races are held in Minnesota, Northern Iowa, and Western Wisconsin. However, in recent years the club has raced in such distant spots as Selkirk, Manitoba and Meyer, Illinois. The dedicated racing membership attends these "far-away" races as diligently as those that are staged "close-to-home".

MPBA requires a driver to be a minimum of fifteen years of age for professional competition, although most of the racers are in their late 20's or early 30's. Safety is a paramount consideration of boat racers, and each new driver is encouraged to sit on the sidelines and observe a few races before trying out his own skill. All members are reminded constantly that racing is a serious sport and there are heavy penalties for regarding it in any other fashion.

RACING ENGINES

Racing engines are somewhat different from standard production models. They produce three to four times the horsepower of their stock counterparts. Currently there are five motor manufacturers campaigning on the race course. Three models are produced in foreign countries; two are manufactured in the United States. The foreign brands are Crescent (Sweden), Anzani (England), and Konig (West Germany). Domestic varieties are Mercury and Harrison. The Crescent and Konig are built at the factory as racing models. Anzani is produced as a stock racing engine for the British market. Former racing-great, Bill Tenney, Crystal Bay, Minnesota, imports the stock Anzani and modifies them for American racing. Crescent is imported by race driver Dick O'Dea from Patterson, New Jersey. Overseas Dealers, Dallas, Georgia, distributes Konig to a network of dealers throughout the USA.

Kiekaeffer Corporation manufactured stock racing Mercurys during the 1950's. Quincy Welding, Quincy, Illinois, under the guidance of O. F. Christner, began modifying the Mercury engine at that time. Today they use basic Mercury parts and assemblies of their own design in their highly competitive Quincy/Merc. Birmingham Metal Products (Birmingham, Ohio) offers the Harrison, an engine they produce that is similar to the Anzani.

Engines which have been raced in the past but are not competitive any longer include Champion Hot Rod, Johnson, Evinrude, Scott Atwater, and Martin. McCullough and Chrysler are building stock racing models now. They are occasionally modified by individual drivers for professional racing.

An often asked question is "How do such little motors go so fast?" First of all, they are designed strictly for speed. A production engine will turn a maximum of 4,000 to 5,000 revolutions per minute. It is common for a racing model to exceed 10,000 r.p.m. That is the answer. The racing engine spins faster. How it spins at such a high rate of speed is determined by slight differences in design.

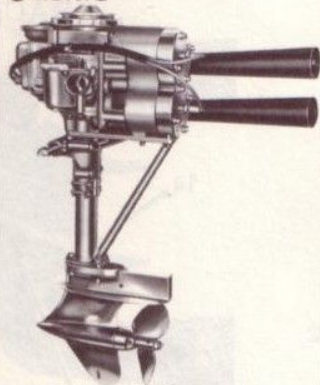
Primarily, a racing engine needs much more fuel, and the fuel must be a powerful mixture. Standard engines burn gasoline and petroleum oil; their racing cousin gulps great quantities of alcohol, castor oil, and nitro methane. Racing carburetors and all internal passageways are extremely large and polished to a mirror finish. A stock model buries its exhaust under water, while a competition engine capitalizes on the efficiency and power of tuned exhaust pipes. Lower units used for racing bear no resemblance to the pleasure variety. They are of a much higher gear ratio with stronger gears, and hydrodynamically streamlined with a scoop type forced water

● EVINRUDE



World Class X speed record holder

● KONIG



German-built racing engine

● JOHNSON



1924 Racing model - first mass production outboard racing engine

● ANZANI



British racing engine

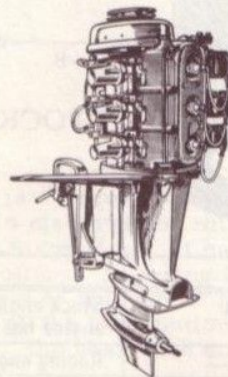


intake which eliminates the need for a friction producing water pump. Racing propellers are hand crafted from stainless steel. Propellers offered for general use are cast from aluminum, brass, or bronze.

Internally the powerheads are quite different. The major dissimilarity is in the pistons, intake and exhaust ports, cylinder head, crankshaft, and valve assembly. A stock engine uses a block with intake ports on one side of the cylinder and exhaust on the other. The piston has a baffle or deflector on top to keep the fuel mixture from escaping across the piston without entering the combustion chamber. In marked contrast, a racing engine has a flat top piston with one exhaust and two intake ports spaced at approximately equal distance around the cylinder. The flow pattern of the incoming charge of fuel is such that it swirls up to the high compression combustion chamber. The result is a lighter piston, more powerful ignition features, and greater efficiency. Firing the potent fuel mixture are special racing spark plugs which are offered by all major spark plug companies.

Crankshafts, connecting rods, wrist pins, and bearings used for racing are all super strong alloys balanced to the finest degree. But in a standard production engine it is not necessary to design these items for the stress

● CRESCENT



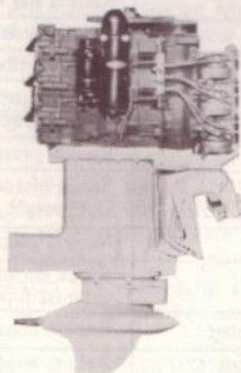
Swedish racing engine

● MERCURY



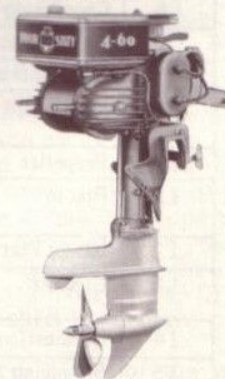
Fastest American racing engine

● McCULLOUGH



Class F racing engine

● EVINRUDE



Model 4-60 (1930's) - fastest in its day

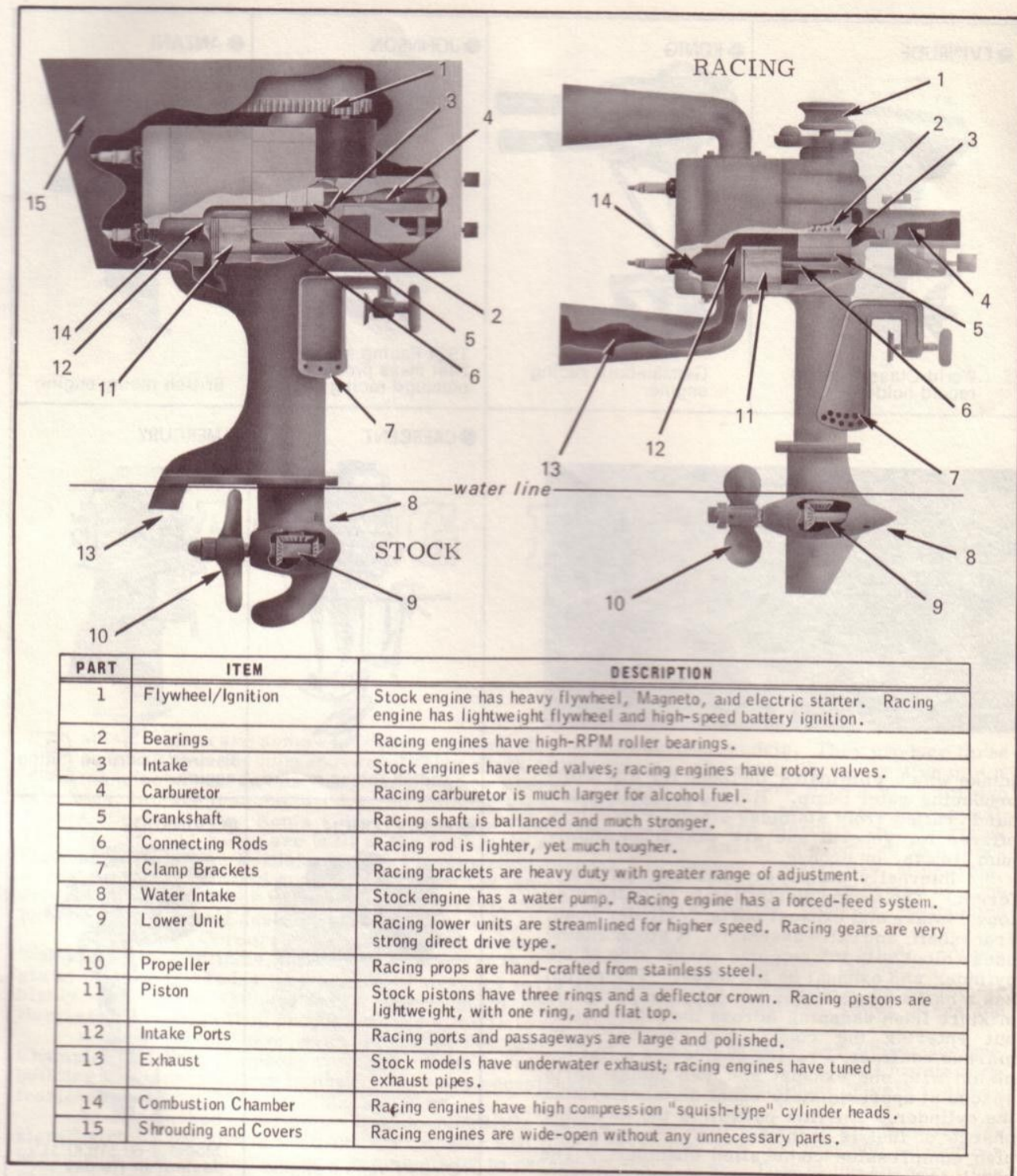
● PROPELLERS

Stock



Racing





of high performance. Valve assemblies in a pleasure motor are usually of the reed "flapper type" valve. Racing engines use a positive acting rotary valve or a piston timed valve arrangement. Stock magneto ignitions are replaced by lightweight flywheels with transistorized ignition systems.

These are the prime differences between a pleasure engine and the racing variety. True, boat design is also a factor; but without the super tuned powerplants, racing boats today would not be traveling at such unbelievable speed.

RACING BOATS

As defined in Webster's dictionary, a hydroplane is "a motorboat that glides on water, and when in motion raised partly out of the water". To elaborate on this definition, a three-point hydroplane (hydro) is a boat designed exclusively for racing. It has two sponsons (steps) in about the middle of the boat—one on each side of the bottom. Tapering from the rear of the sponsons to the boat's transom are airtraps which are a set of wooden or metal runners. Design is such that at high speed air is trapped under the front of the boat bottom and funneled toward the rear. Then rather than rising partly out of the water, the boat lifts completely out of the water. Even the top blade of the propeller will break surface.

Due to the high-flying characteristics of contemporary hydroplanes it is impossible to turn a corner without letting up on the power. When beginning a turn, first the throttle is released. Momentarily the hydro still remains suspended in mid-air—inches above the waves. Then it loses a bit of speed and slams down to the surface. At this point control is regained. Now the steering wheel can be turned and power reapplied. Centrifugal force hurls the driver against the outside cowl. The fin bites deep into the water and the boat speeds through the turn. After accelerating a few short feet down the straightaway, aerodynamic styling again lifts the hydro into the air, and actually flies it to the next corner. At this point the boat is aimed, not steered.

Not too many years ago a hydroplane was any lightweight racing-type shell. Now a hydro is a specialty boat designed for a specific function. It is built as light and strong as possible. Depending on size, a bare hull will weigh from 100 to 175 pounds. The eight-foot hydro is only a memory as today's speeds dictate that length be from 10-1/2 to 14 feet. Construction is of mahogany plywood, sitka spruce, and aircraft fabric. Cockpits are only large enough for one person, although several drivers have managed to squeeze in a wife, girlfriend, or what have you for a thrill ride. Controls consist of a steering wheel and a spring-loaded (dead-man's) throttle.

Driving is done from a kneeling position. The reason for kneeling is that a hydro is so flighty that it requires extreme balance to keep it right side up. And a person can shift his weight much more rapidly if kneeling rather than sitting down.

Most hydros are factory built. Perhaps custom-built is a better word. One of the most popular hydros today is Marchetti. Nick Marchetti is designer/builder; his shop is in Bristol, Pennsylvania. Another up-and-coming model is Soderstrom. Virgil Soderstrom, from Inver Grove Heights, Minnesota, is designer/builder/racer. Although he is relatively new in the boat building field, his products have won the NOA B hydro Hi-point title and the APBA C-hydro National Championship. In addition, his boats have won several championships in the Midwest area. Along with complete boats, he offers full-sized plans and patterns for the home hobbyist.

Without a doubt the most popular built-at-home hydros are creations from Hal Kelly's drawing board. Hal Kelly is a commercial artist from Fort Pierce, Florida. To quote a noted authority on boat racing, the late Hank Wieand Bowman, "If you decide to build your own boat select your plans just as carefully as you would select a factory-built boat. . . . be sure the plans



An outboard hydroplane throwing lots of "roostertail" as it flies into a corner

you choose are practical and easy to follow;... pictures and drawings help. I have watched boats from Hal Kelly designs raced to many wins at major national sanctioned regattas". Another supplier of boat plans is Ray Ojier from Canada.

The typical hydro of today is the three-point style where the racer drives from about the center of the hull. An additional type of racing craft is the "cabover" hydro. Here the racer drives from a position up in the bow of the boat. A cabover is not as likely to blow over backwards, so it is only popular in the larger classes where high speed warrants the over balanced effect.

An obsolete design is the "conventional" hydro. This boat has only a single step, so it lacks the air tunnel and resultant aerodynamic lift. It is not capable of high speed, although it has superior turning characteristics. An unusual style of hydro is the European "lay down" type. Here the driver, rather than kneeling, lies on his stomach behind a transparent windshield-like cowl. This reduced frontal area allows a higher top speed. But visibility is impaired while cornering, and cornering techniques are not as versatile as with standard designs.

Water speed records are being rewritten, as all classes of the current breed of hydroplanes are capable of speed in the 80 to over 100 mph range. However, a boat will not go faster simply by adding more power. There is a point where additional power only causes a dangerous handling problem. So, the ultra-powerful engines of today would be useless if

the advanced style hydros had not been able to accept the increase in horsepower and the rise in top speed.

Racing Runabouts can be summarized in one word: DeSilva. Ralph and Bill DeSilva build their successful DeSilva Racing Runabouts in Culver City, California. They manufacture boats on a custom order basis for all classes.

The runabouts are "strictly designed for racing"; however, they derive their origin from pleasure boats. Driving is done from the same kneeling position as in a hydro. The cockpit is also only large enough for one person. Controls consist of a steering wheel and hand throttle. But when compared to a hydro, a runabout is longer, narrower, and heavier. Also, a flat bottom is mandatory. Because there can be no breaks in the surface of a runabout bottom, aerodynamic lift as in a hydro is unattainable. So, a runabout can only skim on top of the water rather than fly over it. With identical engines for power, a runabout is about 10 mph slower than a hydro.

A runabout will "bank" through a turn. This is because a nontrip chine is incorporated where the slide joins the bottom. These chines are angled or beveled in a manner so the boat will tip toward the inside while cornering. On rough water a runabout will offer a wild ride down the straightaway and through the turn as it will bob and bounce with the waves rather than fly above them.

Runabouts range in length from 10-1/2 to 15 feet. Most running surfaces are 24 inches wide. When underway, the boat will ride on the

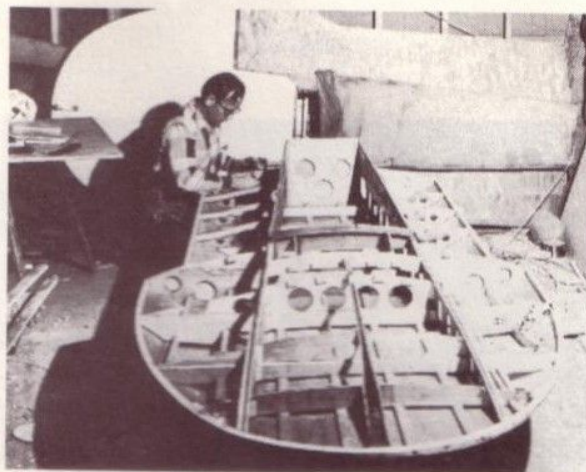
last few inches of this two-foot strip. Beveling up from the flat part of the bottom at an angle of about 15° is the first chine. This chine is around eight inches wide. Next is a chine at approximately 45° . These angles are situated so there are no sharp corners in contact with the water, as at top speed a sharp corner, or hard chine, can catch a wave and cause the boat to flip. It should be understood that all angles and bevels are incorporated into the width of the boat. There is no break from stem to stern, as any irregularity from a smooth surface would transform a runabout into a hydroplane.

Also, a recently adopted rule states: the design, styling, and fabrication of a runabout must be such that they are readily distinguishable from a hydro. A style of runabout that was not easily identified is the old "needle-nose runabout". Here the boat had a true runabout bottom. But the top looked like a long, pointed hydro. In the past, many spectators have asked, "Why is that hydroplane racing with the runabouts?" The new rule has eliminated that problem.

As stated earlier, DeSilva is the foremost manufacturer of runabouts. Second in popularity are homemade copies of DeSilva's design. DeSilva does not sell any plans of kits, but some of the amateur boat builders are pretty good with a ruler and protractor. It is often hard to tell the copies from the original. Another manufacturer is Pabst Boats of LaCrosse, Wisconsin. Norm Pabst had built highly successful racing craft in the 1950s, but



Needlenose Runabout (obsolete)



Hydroplane under construction

Racing Runabouts





DeSilva



Sid Craft



Pabst



Marchetti



Soderstrom



Kelly

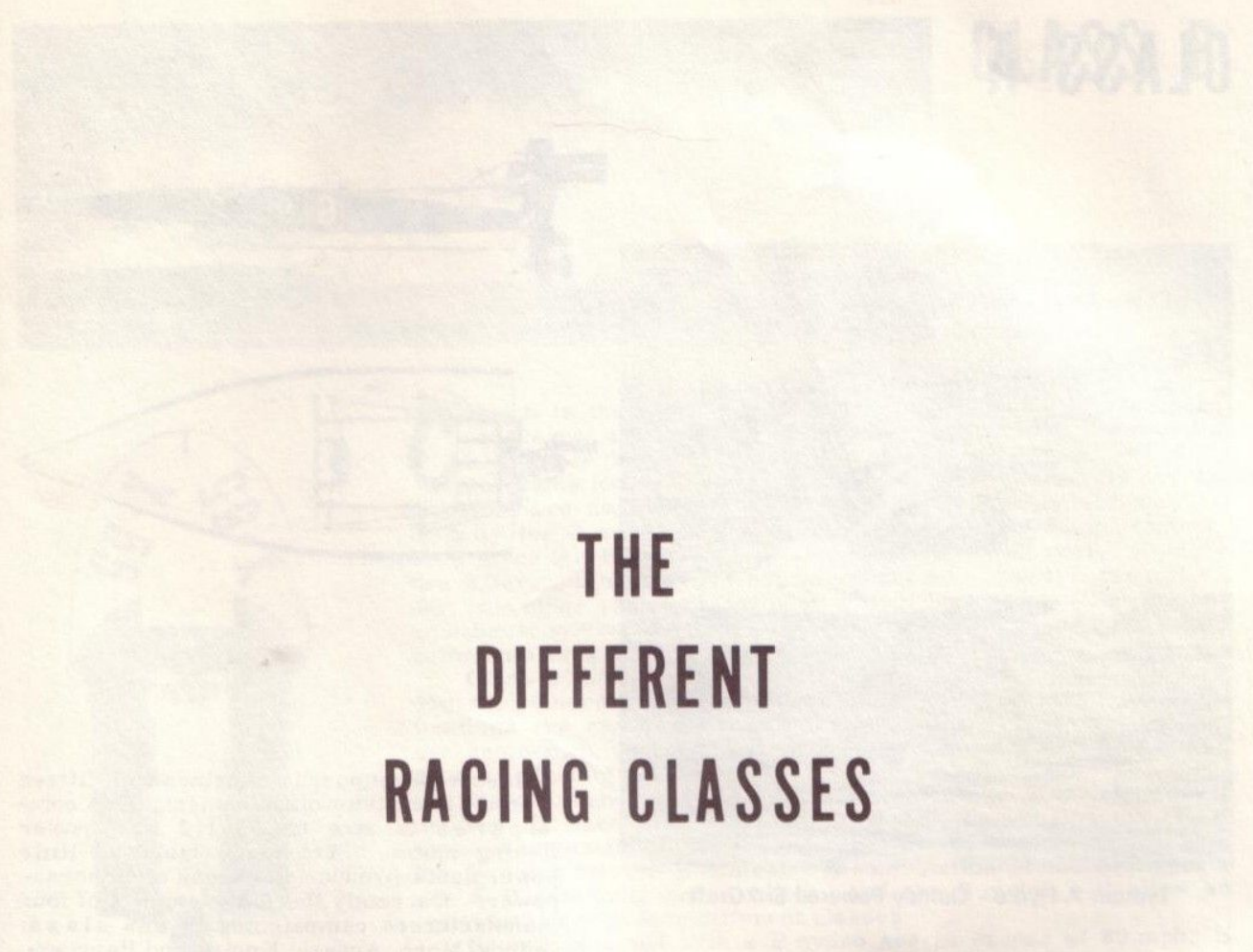
entry into the pleasure boat field curtailed his racing effort. Now he has re-entered the alcohol burning outboard market with a line of competition runabouts and a hydroplane prototype.

Hal Kelly and Soderstrom Marine both supplement their hydroplane designs with runabout patterns. In addition, Soderstrom will, on special order, build a runabout that is complete and ready to race.

Construction of a runabout is similar to a

hydro with the absence of aircraft fabric. A runabout's decking is all plywood. The lighter weight cloth decks are not necessary, as class-for-class runabouts are required to weigh 25 pounds more than a hydro.

Runabouts, even though they are somewhat slower than a hydro, are nevertheless real racing boats. Although they are not as prone to tip over, they are more apt to spin out; they offer all the thrills necessary for their section of an action-packed regatta.



THE DIFFERENT RACING CLASSES

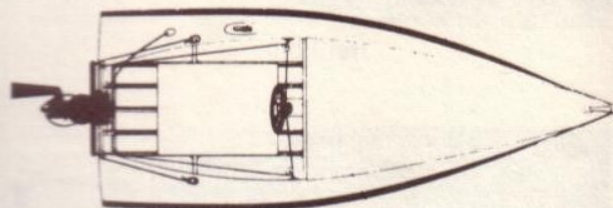
Boat racing is divided into different classes according to the style of boat and size of the engine. Horsepower is not a factor as classifications are determined by the cubic-inch piston displacement of the motor. A large motor does not race against a small motor. Also runabouts and hydroplanes do not compete in the same heat. The result is equal competition in each event. At a typical regatta there are ten different classes scheduled - five runabout and five hydroplane. The classes are designated by the letters A, B, C, D, and F (class E has fallen by the wayside some years back). Class A is the smallest; F is the largest. The following section gives a brief description of each class.

CLASS A



Typical A Hydro - Quincy Powered Sid Craft

A pair of A Runabouts: G-37 a DeSilva with an Anzani; G-20 a DeSilva/Konig



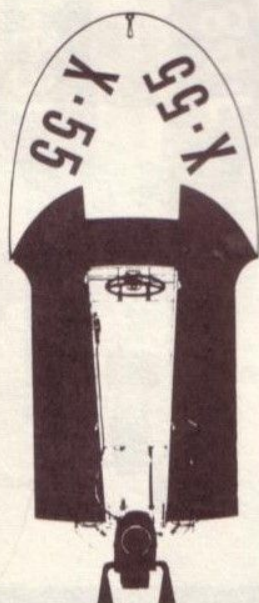
Class A is composed of engines with fifteen cubic inch piston displacement. This compares in size to a 7-1/2 horsepower fishing motor. Yet these fantastic little powerplants produce in excess of 40 horsepower. Currently there are engines of four manufacturers campaigning in this class: Quincy/Merc, Anzani, Konig, and Harrison. All are 2-cylinder inline models. Each engine is readily recognized by its own exclusive characteristic exhaust system. Quincy A engines have two megaphone stacks protruding from the center of the block to the rear. One each on both right and left sides. Anzani megaphone pipes extend to the rear from the top and bottom of the block. Harrison also emits exhaust from the top and bottom but the lower pipe outlet is near water level while the upper pipe wraps around to the bottom of the block. Also, Harrison pipes are not of megaphone style. Konig has two tuned mufflers each about three feet long. Shape is the familiar megaphone but is capped and finished with a short piece of straight pipe. All of the engines, regardless of manufacturer, used in class A racing are nearly equal in power output.

Hydroplanes competing in this class are usually 10 - 11 feet long, about 5 feet wide, and weigh around 135 pounds. A top speed of over 80 m.p.h. can be achieved with a properly set-up A hydro. A runabouts are from 10-1/2 to 11 feet long. Speeds of 70 m.p.h. are common among front running rigs. Class A is often selected as the beginning point in a drivers career.



CLASS B

B Hydro sweeping through a turn



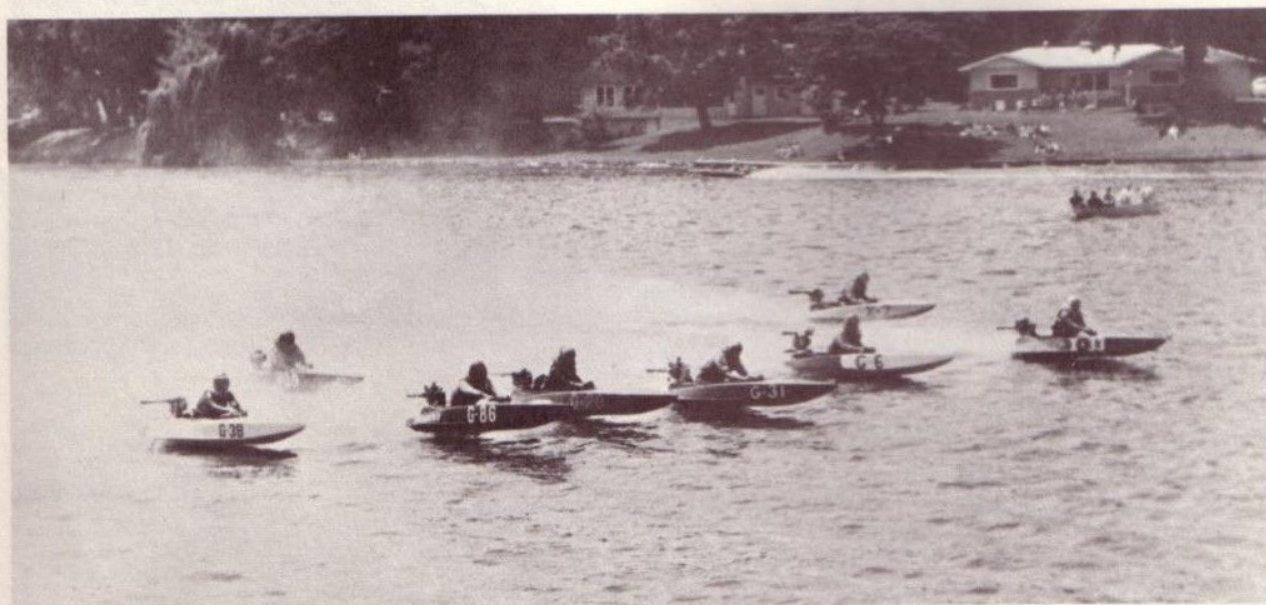
Class B is the most popular class in outboard racing. More racers own a B hydro than any other outfit. For this reason B hydro is the most competitive class in existence.

The same four manufacturers that produce As build Bs and the B motors are nearly identical to the class A models, although internally the B motors have five more cubic inches displacement. This gives the B motor about 10 additional horsepower. Konig's two different B motors are not bored-out As. One is a two-cylinder, the other is a four-cylinder. Both have tuned silencers for an exhaust system. The muffler looks somewhat like an elongated coffee can hung on the side of the motor.

Class B motors if related to a fishing model would compare with the 10 horsepower variety. But here again, painstaking modifications are realized with a power output of over 2-1/2 horsepower-per-cubic-inch. There is also a ratio of over one horsepower per pound, including the lower unit!

B hydros and runabouts are the same as the A models. Most drivers that race A also compete in B with the same boat. The A motor can be used in the A race, then removed and replaced with the B motor for the B contest. A combination of one A-B hydro, one A-B runabout, one A motor, and one B motor will allow an individual to race four different classes.

Speeds obtained with a B hydro are in excess of 80 mph. B runabouts are close behind with a potential of over 75 mph.



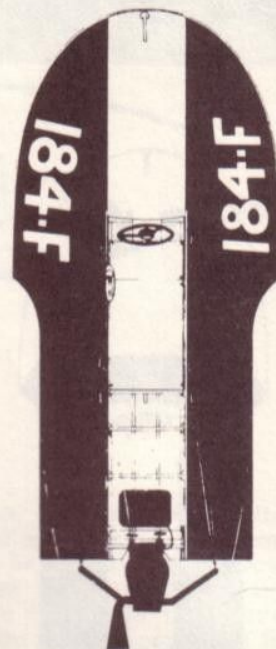
B Runabouts hit the starting line

CLASS C

Class C has four 30 cubic inch engines available. Four-cylinder models include Quincy/Merc, Konig, and Anzani. Anzani C motors are custom built using two race proven A powerheads mounted on a single lower unit. The Konig C is identical to the four-cylinder B except it has a larger bore. Previous Konig Cs are a different type four-cylinder, two styles of two-cylinder and a three-cylinder. Another three-cylinder is Crescent, although it is not too prevalent in racing as of yet. It has won the NOA C-hydro Hi-point title in both APBA and NOA for 1966. It has won the 1967 European C-hydro championship which was held in England. A Crescent C has been officially clocked at 93.9 mph. Quincy/Merc models are basically the same as production four-cylinder Mercs except for the addition of Quincy modifications. Occasionally an old prewar Johnson will compete in this class. But the old motors cannot compete on an equal basis because horsepower ratings today of 60 to 75 horsepower are not unusual. This is from a motor that in stock trim produced only 30 horsepower.

Hydroplanes used for C racing are considerably larger than A-B boats. They average a length of about 12-1/2 feet. Also the weight is heavier than the A-Bs. Runabouts are in the 13-15 foot range. Speeds are over 90 mph with a hydro and around 80 mph with a runabout. Considering these fabulous speeds it is hard to imagine that less than 10 years ago a good C hydro was capable of a top speed around 60 mph.

Another C class is C Service or C-1. This is an alcohol burning, professional division, but motors are restricted to certain models of Johnson, Evinrude, and Elto that were built around 1930. C-1 is not raced at all regattas. It is the slowest class of racing, even though displacement is 30 inches. Top speed is around 60 mph.



C Runabout

C Hydro



CLASS D



Class D Hydro on Display

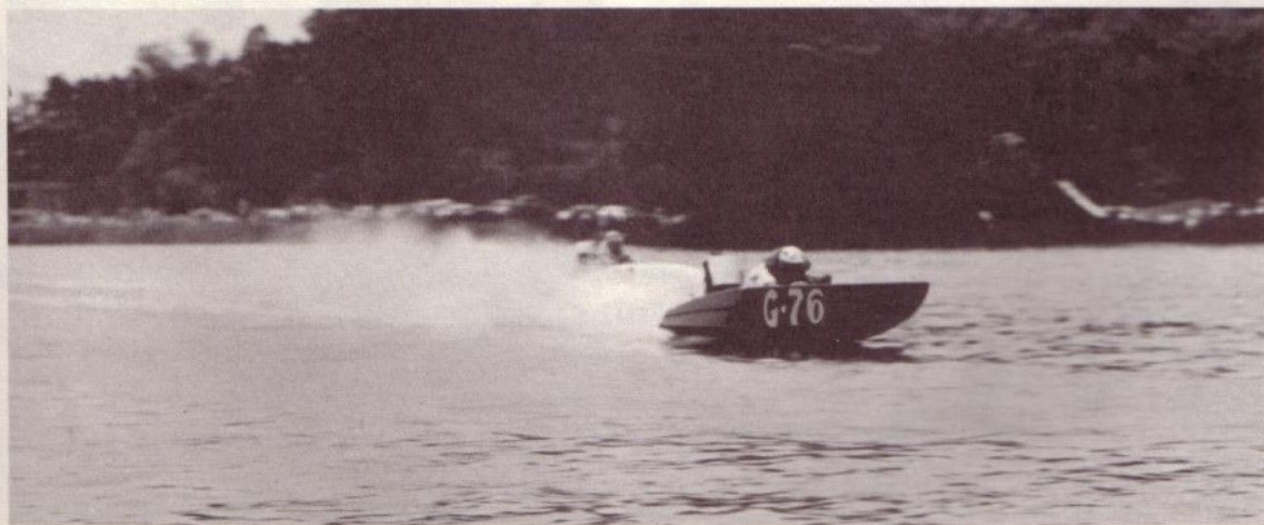
Class D is much the same as Class C. Ten inches larger displacement of the motors nets them a total of 40 cubic inches. Output is around 100 horsepower. Standard production engines of this size are around 35 - 40 hp. Engine manufacture and appearance are the same as Class C with the exception of Crescent which does not build a D.

Hydroplanes and runabouts are interchangeable with Class C, although ideally a D boat should be larger than a C boat, because the motor is 25 percent larger. But, most boats for this class are referred to as C-D models (there are some D-F and C-D-F models also). But, like the A-B drivers, most of those who race D also have a C or F motor. So the desire to race requires that a driver get "double-duty" from his equipment and race first Class C; then later in the day, Class D; and then maybe even Class F - all on the same boat!

Class D has been steadily increasing in top speed. Less than 10 years ago D Hydros were traveling around 70 mph. Today the record for five miles in competition, which includes slowing down for the corners and racing against other boats, is near 90 mph. Even a D Runabout will reach straightaway speeds in the neighborhood of 95 miles-per-hour, while a D Hydro, when flying down the straights, can easily top the century mark.

Possibly resulting from the thrill of such high speed, D Hydro is the second (behind B Hydro) most popular class in outboard racing.

D Runabout



CLASS F



Class F Hydro with Mercury engine - speed potential: over 125 MPH



Class F is the largest and fastest outboard racing division. Displacement is restricted to over forty and under sixty cubic inches. Quincy/Merc's running in this class are a 44 c.i. 4-cylinder and a 60 inch 6-cylinder. The "six" has a faster top speed while the "forty-four" has better acceleration. The 4-cylinder model is just an over-size D engine.

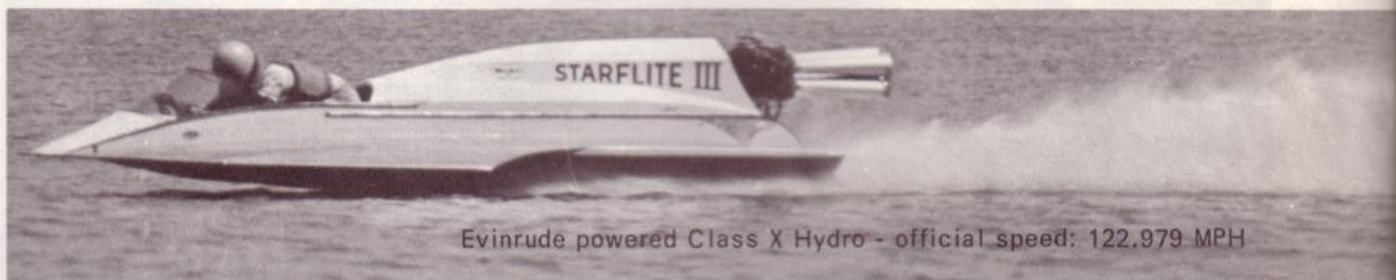
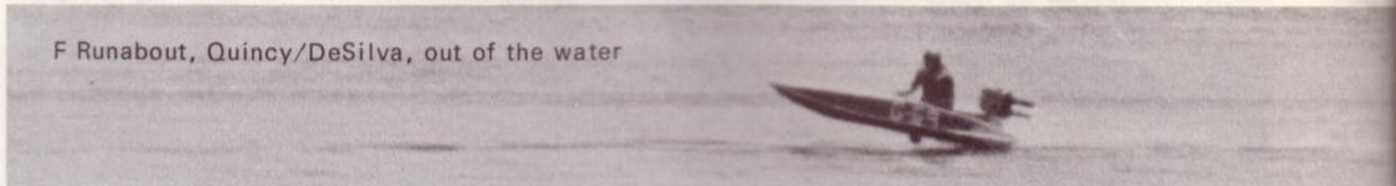
Konig has filed specifications on an F but there are not any running in this country as of yet. Modified standard production Mercurys include a 44 c.i. 4-cylinder, 60 c.i. 4-cylinder and 60 c.i. 6-cylinder. Three-cylinder McCullough 60 c.i. models are also used for racing in Class F. Another engine that should have potential is the 48-inch, three-cylinder Evinrude. This engine is patterned after actual racing models as it has the competition tested flat-top pistons with loop scavenging intake and exhaust system. This is the only motor offered for general use that utilizes this efficient system.

Speeds obtained with F Hydros are over 125 miles-per-hour. An F Runabout will easily break 100 mph. F Runabout is an exciting race to watch as the boats are the same used for C and D and are overpowered with the F motors.

Similar to Class F is Class X, which is the unlimited outboard class. Generally, F and X boats are interchangeable, while X motors are large production engines, converted to burn alcohol and mounted on a racing lower unit. The rule for Class X states that an engine has to end up as an outboard motor, not start out as one. Some resourceful racers have mounted aircraft drone engines on lower units and run them in Class X.

Class F horsepower is in the one to two hundred bracket. A comparison to production models would be with the 45 - 60 horsepower engines. Class X horsepower is generally 75 - 110 horsepower ski-type engines modified to give a 25 - 30 percent increase in power. Even though the X class has much larger engines, the speed is somewhat slower than F because the X motors are "homemade hybrids", not factory designed racing engines.

F Runabout, Quincy/DeSilva, out of the water



Evinrude powered Class X Hydro - official speed: 122.979 MPH

RACE PROCEDURE

Almost everyone is familiar with the race procedure at an automobile race. The fastest car wins the pole position, they line up on the grid, follow the pace car for a lap, hit the starting line, and race. But a boat race is completely different.

Following is a pictorial description of one heat at a typical boat race. The sequence is duplicated for all classes racing during the day.



1. The equipment is hauled to the races on special trailers.



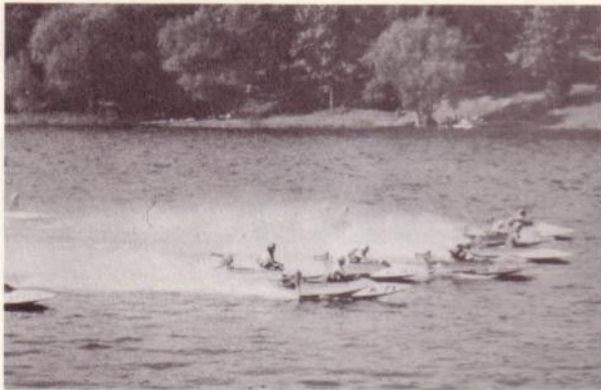
2. The racing rigs are set up at the race site. Spectators are invited into the pit area for a better view.



3. The three-minute-gun is fired and the balky engines are lifted out of the water for starting.



4. The one-minute-gun is sounded and the giant clock on the judges stand is set in motion.



5. As the clock nears zero, the drivers skillfully approach the starting line. One second early - disqualification. One second late - too far behind.



6. Spray flies in the first turn. It is as though someone had turned a fire hose on the drivers towards the rear.



7. Eighty, ninety, one hundred miles-per-hour down the straightaway.



8. Lap-after-lap they race. Skill and courage is the byword.




9. Side-by-side they maneuver through the last corner.



The winner!

CHAMPIONS



There isn't a race driver who doesn't desire to be a champion. There are several championships to win. Some of which are: American Power Boat Association National Championships for each class at their annual championship race, National Outboard Association titles per class at the year end NOA race, and high-point honors (compiling a better record at any and all races than all other drivers in the country) in both national organizations. Each nationwide club also has championship honors bestowed upon their member who sets straightaway or competition speed records.

Along with national recognition each local racing club has its own champions. Midwest Power Boat Association, for example, awards Hi-Point Championship status to the top driver in each class at the MPBA annual meeting at the end of the racing season. In addition there is an MPBA overall Hi-Point Champion for the best results in all classes. There is also one race per year which is considered the Midwest Championship race. This one race offers the opportunity for a driver to win a title.

Nevertheless Championships and Records are hard to win. It takes a devoted racer, equipment that is groomed to perfection, exceptional driving ability and a little smattering of luck to become one of the chosen few.

Today's Champion may become tomorrow's also-ran, as the fierce competition allows no one to rest on his laurels. However, some of the race drivers have won titles consistently year-after-year.

Following are the Hi-Point Class Champions, and the second place finishers, from the Midwest area. Also listed are some of the drivers who race with Midwest Power Boat Association who have won World or National titles in recent years.

A HYDRO

1st

The Class A Hydro Midwest Hi-Point Championship was won by Dave Nelson from Bloomington, Minnesota. In his fourth year of professional competition he drove his Quincy powered Sid Craft to many first places in winning this championship. Nelson won the title with a score of 2702 points.



2nd



Runner-up in Class A Hydro was taken by another relatively new boat racer. Frank Earl, Austin, Minnesota, who has been racing since 1962 scored 2644 points in his second place finish. He is the protege of 66 year old Cliff Johannsen, also from Austin who finished third in this class with 1729 points. Earl also drove a Quincy engine, however his boat was built by Fred Schletty of Saint Paul, Minnesota.

A RUNABOUT

1st

Frank Earl, along with his second place finish in the hydro division, won the A Runabout Class with a total of 1981 points. He used the same Quincy engine as he used in the A Hydro Class, but this time it was powering an Olson Runabout.



2nd

Loren Kaus, a buyer for Univac from Roseville, Minnesota, finished second with 1500 points. Quincy again was the powerplant while his runabout was manufactured by DeSilva. Kaus has been racing in the A and B Classes for several years.

B HYDRO

Dale Kaus from Austin, Minnesota (Loren Kaus' older brother) won the Class B Hydro championship with an even score of 3200 points. The 32 year old driver has been racing outboards for over half his life and has won many Local, National, and World Titles in his racing career. His record setting outfit is a Quincy engine and a Marchetti hydro.

1st



2nd

Second in Class B Hydro was won by the A Hydro champion, Dave Nelson, with a score of 1888 points. Inplacing second he drove a Quincy engine on a Soderstrom hydro.

B RUNABOUT

1st

Class A Runabout runner-up, Loren Kaus, was the B Runabout Champion with a 3225 point total. He used the DeSilva Runabout he drove in Class A and the same Quincy engine his brother Dale used in capturing the B Hydro Championship.



Alan Feddersen, Belle Plaine, Iowa, finished second with a Konig powered DeSilva. Feddersen who has been racing since 1956 and has many Midwest Championships to his credit scored a total of 1844 points.

2nd

C HYDRO

Bruce Allman from White Bear Lake, Minnesota gained the Midwest C Hydro Championship circle by scoring 2496 points with a Konig engine and Schletty hydro. Allman drives for Fred Schletty who custom builds the Schletty racing craft.

1st



Mike Franck, Minneapolis, Minnesota, finished a close second with a score of 2314 points. His engine was a Mercury; his boat a Bay Craft. Franck has been racing for the past decade. In addition his father and mother have both raced in the past, his brother has started his racing career last year, and his father-in-law (Stan Dotseth, boat number G-99) has been racing for many years.

2nd

C RUNABOUT

1st

Mike Franck also won the C Runabout Championship with his Mercury powered Warren Runabout. His total score for this win was 2094 points.



2nd



Tim Chance, Excelsior, Minnesota, finished second with 1400 points. Chance, who has been racing since 1956 also competes in Classes A and B and has added a D for 1968. This second place was obtained with a DeSilva runabout and a Mercury engine.

D HYDRO

Supplementing his C Hydro Championship with a first in the D Hydro Class, Bruce Allman, scored 2594 points with a Quincy engine and a Schletty hydro.

1st



Wally Roman, Minneapolis, Minnesota, won five first places during the season netting him 2000 points for an over all second finish. Roman builds most of the racing engines in this area. His outfit is his own hand built Quincy engine and a Soderstrom hydro. He has, in the past, won the D Hydro National Hi-Point Title.

2nd

D RUNABOUT

1st

The D Runabout winner was Mike Franck driving the same 13 foot Warren runabout he used in Class C. A score of 2544 points with his Mercury powered D runabout and the point totals from his other classes won the 1967 Midwest Hi-Point Championship for all classes with a combined score of 8990 points.



2nd

Bob Smith, a teacher at Lino Lakes Boys School, from Coon Rapids, Minnesota finished second by accumulating 1919 points. He drove a Quincy/Schletty combo in this class last season. Smith also drove C and F Runabout during the 1967 season. In the past he has competed in hydroplane classes.

F HYDRO

1st

Dick Zywiec totaled 2450 points with a Quincy engine and a Marchetti hydro to win the Hi-Point Title in F Hydro. Zywiec, from Prescott, Wisconsin, has competed in all classes in his driving career, which dates from 1958. During 1967 he raced in C, D, and F Hydro and Runabout classes.



Eighteen hundred and fifty-five points by C and D Hydro Champion, Bruce Allman, was the total needed for the runner-up spot in Class F Hydro. He used a Mercury powered Schletty.

2nd

F RUNABOUT

The 1968 Commodore of Midwest Power Boat Association, Floyd Harris Jr., from St. Louis Park, Minnesota, won the Class F Runabout Championship with 3325 points. Harris, a building materials executive, has been racing for 17 years and won the coveted National Hi-Point Championship in 1960. In winning this F Class he drove a ten-year-old DeSilva and a Quincy engine.

1st



2nd

Another Schletty Racing Team member, Pete Gryskiwicz, finished second with 1977 points. This was only the second year of competition for Gryskiwicz, who lives in St. Paul, Minnesota.

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Highlands, Texas



Defending Champion
A Hydro
Armand Herbert
Delery, Quebec



Defending Champion
B Hydro
Bob Hering
Sheboygan, Wisc.



Defending Champion
C-1 Hydro
Bob Murphy
Springfield, Illinois

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D Runabout
B Runabout
Bill Seebold Jr.
St. Louis, Mo.

C-1 Hydro
A Runabout
B Hydro
C Runabout
D Hydro
F Runabout
A Hydro
B Runabout
C Hydro
D Runabout
F Hydro
C-1 Runabout
X Hydro



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X Hydro
Jerry Waldman
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