

Martin Motor History

by George Martin

This is a brief factual history of the Martin Outboard Motor.

The basic mechanical feature of the Martin motor was the mechanically controlled poppet valve. The poppet valve was not new art as it had been used for years and is still used in our finest engines. However, the application of this in a two cycle engine was new and I was able to get a patent with something over twenty claims.

By the late 1930's I had built several engines incorporating the valve and was able to prove the value of this design: an exceptionally good idle, unusually good horsepower, and good starting under adverse conditions.

Shortly after this the war was to curtail any possibility of producing the engine. As the war began to lessen several manufacturers, looking forward to the post-war period, were interested in an outboard and my design. Sometime before the end of the war an agreement was consummated and I was able to start tentative plans for post-war production.

Shortly after the war ended we were able to go into limited production on the Martin 60, an 11 CI - 7.2 HP - 2 CYL outboard incorporating mechanically controlled valves and a number of other new and patented features such as a new simple recoil starter, power head swivel, filler cap, flood proof starting, and new exhaust system, to name a few.

This new outboard weighed approximately 37 pounds, had the weight and idle speed of the better known 5 HP motors and a top performance approaching that of the better known 8 to 10 HP outboards, which gave us a weight advantage of 10 or more pounds. In short, as nationally advertised, "One outboard that would do what you would expect it would take 2 to do."

Our first outboards were produced in 1946. These were to carry the year first and serial number to follow: Example 46-6001. As I recall, we started the Martin 60 with serial #6000, the 20 with #2000, the 40 with #4000, etc.

The first production of the 60 was distinctive by an all black top and aluminum lower unit, soon to be referred to as the "black top". Later the color was changed to a combination of black and aluminum top. This was carried through on the new models in later production.

Martin motors were made in sizes - Model 20, single 2 1/3 HP - Model 40, small twin 4 1/2 HP - Model 60, twin 7.2 HP - Model 100, twin 10 HP - Model 200, twin 20 HP.

I left the company in the late 1940's and, as I recall production of all Martin outboards came to a sad end in 1955 or 1956.

MARTIN "60" SPECIFICATIONS

| | |
|--------------------------------------|-------------------------------------|
| Bore & Stroke.....2 x 3/4 | Propeller Diameter & Pitch...8 x 8½ |
| Number of Cylinders.....2 | Fuel Capacity.....1 gallon |
| Brake H.P. at 4000 RPM..Approx 7 HP | Number hours cruising..... |
| Weight.....Approx 42 lbs | 2½ hours at cruising throttle |
| Piston Displacement..11 cubic inches | Gear Ratio.....13 to 20 |

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1946 - 1948

| | | | | | | |
|----|------------|---|---------|-----|-----|--------|
| 60 | 25000 Plus | 2 | --1 3/4 | 7.2 | J8J | 184.45 |
|----|------------|---|---------|-----|-----|--------|

1947 - 1948

| | | | | | | |
|----|------------|---|--------------|-----|-----|--------|
| 40 | 15000 Plus | 1 | 9/16 --1 1/2 | 4.5 | J8J | 145.45 |
|----|------------|---|--------------|-----|-----|--------|

1948

| | | | | | | |
|----|-----------|---|--------------|-------|-----|--------|
| 20 | 5000 Plus | 1 | 9/16 --1 1/2 | 2 1/3 | J8J | 114.50 |
|----|-----------|---|--------------|-------|-----|--------|

1949

| | | | | | | |
|----|------------|---|--------------|-------|-----|--------|
| 20 | 5000 Plus | 1 | 9/16 --1 1/2 | 2 1/3 | J8J | 119.45 |
| 40 | 15000 Plus | 1 | 9/16 --1 1/2 | 4.5 | J8J | 150.45 |
| 60 | 25000 Plus | 2 | --1 3/4 | 7.2 | J8J | 189.50 |

1950

| | | | | | | |
|-------------|------------|---|--------------|-------|-----|--------|
| 20 | 5000 Plus | 1 | 9/16 --1 1/2 | 2 1/3 | J8J | 123.50 |
| 40 | 15000 Plus | 1 | 9/16 --1 1/2 | 4.5 | J8J | 154.45 |
| 60 | 25000 Plus | 2 | --1 3/4 | 7.2 | J8J | 192.20 |
| 66 | 25000 Plus | 2 | --1 3/4 | 7.2 | J8J | 202.20 |
| 100 | 55000 Plus | 2 | 3/16 --1 3/4 | 10 | J8J | 269.50 |
| 60 Hi-Speed | 25000 Plus | 2 | --1 3/4 | 7.2& | J8J | 275.00 |

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The Martin 200 Silver Streak

by J. L. Smith

Built by speed experts, for speed lovers, this great motor with its special Torpedo Lower Unit skims the waves like a breeze, gives you thrill after thrill as you show your wake. Martin "Twist-Grip" Control lets you "go ahead as you look ahead"—a necessary safety feature for high speed operation. Equipped for remote speed and steering controls. Exclusive "big motor" built-in gas tank. Six gallon auxiliary tank optional or standard.

For 1953, Martin Motors Division of National Presto Industries, Inc., Eau Claire, Wisconsin had a notable breakthrough from its traditional line of "fishing motors." From 1946, when its first outboards were introduced, the company had kept a relatively low profile in the outboard motor field and produced a series of dependable quiet-running machines ranging from 2 HP to 10 HP. From the first their advertising appealed to the average user, such as the fisherman, the emphasis being on lightness, quiet operation, and dependability, rather than speed; and over a period of time Martin owners became very loyal.

It was somewhat of a surprise when the Martin Company announced the Model 200 Silver Streak. Such

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attention. Using an almost square gear ratio of 15-16, very fast propeller speeds could be obtained with the two-blade 6¾" × 9½" racing bronze wheel. For general purposes, the standard engine came equipped with a two-blade 7½" × 8" aluminum or bronze propeller. Michigan had available as numbers AM420 and AM421 three-blade bronze props for heavier boats and for towing skis. These props were 7¾" × 6" and 7¾" × 7" respectively. However, the idea of using this machine for such a purpose, with its frictionless internal construction, special lower unit, and gear ratio, appears unrealistic. It was more suited for use on high-speed planing hulls.

All Martin 200s were equipped with 10-pint capacity black and silver gas tanks attached to the motor. Auxiliary 6-gallon remote tanks were available as an accessory, together with a fuel pump kit which bolted to the intake port side of the lower cylinder. The fuel selector valve on the front panel has three positions: off, motor, and auxiliary. The motor-mounted tank has a visual fuel gauge mounted vertically at the front. The motorcycle-type twist grip throttle on the steering handle has an intricate system of rods, gears, and flexible shafts to operate the spark advance and throttle simultaneously. The accessory sheet lists remote control kits with cable lengths varying from 6 to 15 feet for use with either front or rear mounted steering bars when wheel steering is desired.

Particularly characteristic of the Martin outboard motors are the mechanically controlled intake poppet valves. Placed in a housing between the crankcase and carburetor, these valves have stems activated by cams or eccentrics integral with the crankshaft. Sturdy springs ensure prompt valve return after intake. The Martin 200 has four such valves, two for each cylinder. Since only one lobe is provided on the crankshaft for each cylinder, one valve will open slightly in advance of the other.