APR, 1979

Lower unit with stream line foot.

Jim Smith and Tiger Shark powerhead and fiberglass shroud

TIGER SHARK, WEST BEND'S BIG IRON

by James L. Smith,

The Beginning

In 1944, The West Bend Aluminum Company, which had been manufacturing top quality housewares since 1911, purchased the Kissel Automotive Industries plant in Hartford, Wisconsin and devoted full time to the war effort. After the war, the company blended past automotive engineering experience with highly trained internal combustion engineers to produce West Bend's first post-war outboard (a 1½ H.P. air cooled model) in 1946. In subsequent years many two cycle engines were produced and sold under various trade names. By 1948 some of these reached the overseas market. IN 1956 outboards bearing the West Bend trade-mark made their debut in the United States. Facilities then underwent considerable expansion and the West Bend engineers are able to claim a surprising list of "firsts" in the industry: fiberglass engine covers, the vacuum fuel system, a really compact design, the three phase super-alternator generator, the low-level reduction gear starter, the cushion mounted outboard motor, the "V-Reed" intake valves, the acoustical leg chamber, and other innovations.

The Motor

In 1960 West Bend's outboard division presented five models ranging from the small 2 H.P. Shrimp to the magnificent 40 H.P. Golden Shark. The next year, in 1961, West Bend joined the "Big League" with its Tiger Shark, a motor truly qualified to be described as big. With a four-in-line cylinder configuration, it stood 5' 2" tall and weighed 212 pounds! Designated Tiger Shark "800" it developed 80 H.P. at 4750 RPM and had a cubic inch displacement of 84.36. The list price of the 1962 Model 80162 pictured was $1,195.00, which did not include the propeller or the gas tank. Beneath the towering and somewhat austere fiberglass protective cover was a powerplant which must have been awe inspiring to the 1961 viewer! Even by today's standards it is impressive to say the least! Presenting a very

"busy" appearance, this powerhead measured almost two feet in height. With its ignition switch, electric starting and single lever synchro-drive remote control, operation of the Shark approached automobile-like simplicity. Featuring forward, neutral and reverse selection, the motor was advertised to have "passing-gear" acceleration with top speed capabilities of 55 MPH. Two way hydraulic shock absorbers located at the mounting bracket protected underwater parts and minimized motor kick up in the event of a collision with a below surface obstacle. At the same time, a cut off switch monentarily stopped ignition and propeller overspeeding out of water. The powerhead was isolated with neoprene "cushion" mountings thereby reducing boat vibration. Within the engine, anti-friction roller bearings were installed to crankshaft journals, pinion and propeller shafts. All underwater parts including shafts, gearshift rods, screws and fasteners were stainless steel.

The Electrical System

In its advertising literature for 1961 West Bend claimed to have the most advanced 12 volt electrical plant in outboarding. This included direct battery ignition, separate coil, condenser and breaker parts for each cylinder and a constant current alternator generator - the first in outboarding. This special 3 phase alternator had a 20 amp. capacity (eliminating the old belt-driven generator) and had charging capability even at very low RPM. The alternator was compactly built around the crankshaft at the very top of the motor just below the rope start pulley. An automotive-type voltage regulator ensured a fully charged battery without the danger of overcharging and a thermal type circut breaker protected the system by stopping power flow in the event of a short. The unique electrical system gave completely independent ignition for each of the four cylinders.

The Fuel System

Two Tillotson float feed model OM 14A carburetors were fitted, one for the top two cylinders and one for the bottom two. These carbs were synchronized with the ignition and with each other on throttle operation and were remotely controlled at the driver's position. Automatic chokes equipped with solenoid were also synchronized. One vacuum-type stage diaphragm fuel pump was provided and it was activated by two cylinders. High speed jets were fixed, but low speed needles could be individually adjusted. Separate fuel tanks with optional 6 or 12 U.S. gallon capacity (5 or 10 Imperial gallon) were available. A 50:1 gas-oil ratio was recommended.

The Cooling System

A circulating-type water pump was located in the lower motor leg. This pump acted as a displacement pump at low engine speeds and as a centrifugal pump at high speeds. A thermostat controlled the cooling to maintain a precise engine temperature at all times.

The Accessories

The lengthy and excellent list of accessories which were available for the Tiger Shark certainly deserves special mention. The motor was sold without a propeller in order that a correct selection could be made to match the boat. Four types of bronze and aluminum propellers were available, ranging from high speed (two blades 12 x 16), light loads, all purpose and heavy duty (3 blades 13 x 10). The sample motor has 3 all purpose bronze blades (12 1/8 x 14). Fuel caddies and fuel lines as described under fuel system were also sold as a "necessary" option. The very pleasing instrument panel provided with five openings could be fitted as follows; Large central opening for either tachometer or speedometer,and four small-

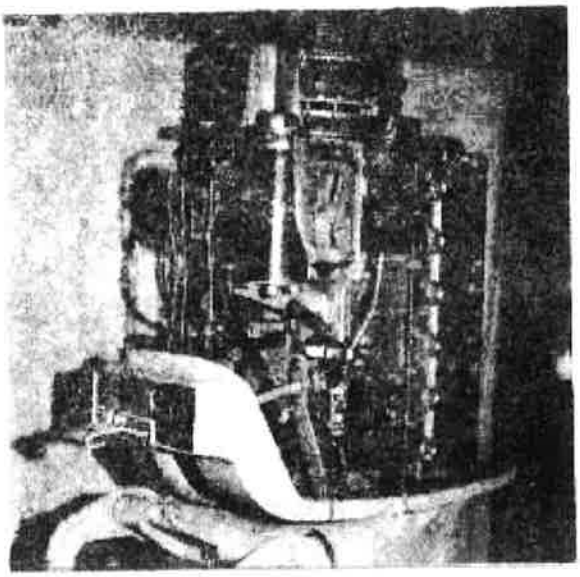
1. Ignition switch
2. Engine temperature (a light which flashed red if engine overheated).
3. Battery charging light (glowed when generator charging properly).
4. All-purpose convenience outlet to accept either cigarette lighter or other switch.

Numerous other options included the synchro-drive remote control box, gearshift cables and remote electric plug in cables with key switch and provisions for all instrument panel accessories.

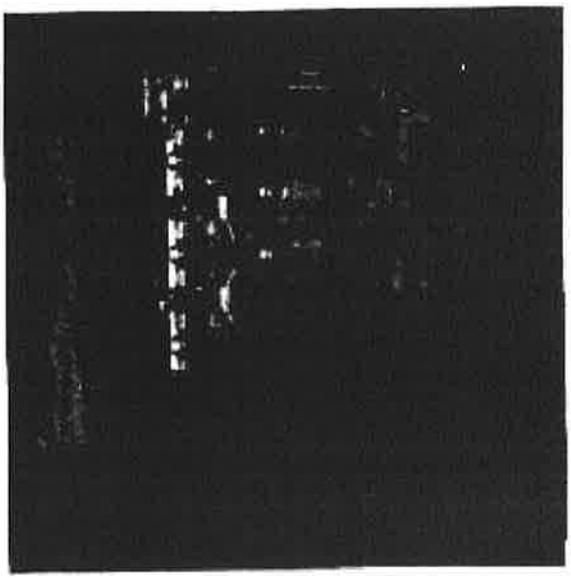
The Ending

The first Tiger Shark introduced in 1961 had a price tag of $1,215.00. This figure was reduced by $20.00 the following season. For four more years, up to and including 1965 (Model 80572), the West Bend 80 was produced with very little change. During 1962 and 1963 it was sold under the brand name of Elgin. As fine an outboard motor as it was, and despite its innovations and up to date features, it could never be regarded as a big seller. Today relatively few are seen.

The West Bend outboard division was taken over after 1965 by the Chrysler Corporation. This marked the last appearance of the Tiger Shark "800". The 1966 line up of Chrysler outboards was headed by a large four cylinder in-line engine, which may have been based on the Tiger Shark. However, many changes were apparent, including an increased displacement to 96.55 cubic inches, 105 H.P., a weight of 240 pounds and a significantly different outward appearance. The superlative Tiger Shark deserved wider acceptance by the boating fraternity, but as a pioneer of its time in the big line class, it will always be held in high regard.



Shows starting motor, voltage regulator, selenium rectifier.



Alternator at top. Note separate coils and condensers.