

POWER

SAIL

# SEACRAFT



2'6

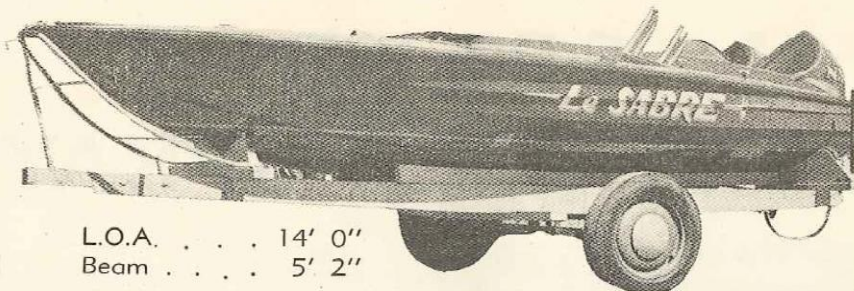
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# Will try for World Record

A 255 CU. IN. CLASS  
SPEEDBOAT OF NOVEL DESIGN



L.O.A. . . . 14' 0"  
Beam . . . . 5' 2"

**L**E SABRE is a speedboat which incorporates many progressive ideas. The hull, designed and built by well-known speedboater, designer and builder Frank Lewis, is of all-cedar clinker construction, with 3/4" reverse clinker on bottom to get best planing results. Internal ribs are more closely spaced than customary to give added strength to hull. A plywood and timber planked deck gives enormous reinforcing strength.

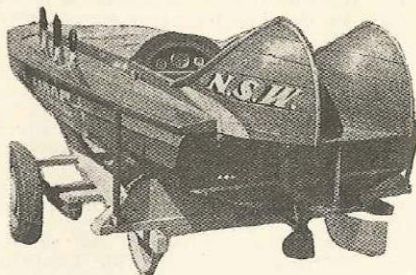
Most unusual features of the hull shape are the lobster-back seats, which have proved a great success, and, despite their somewhat massive appearance, only weigh 25lb. Owner Bob Spike reports that he is more than satisfied with the seats, which give added safety and prevent falling out when rounding turns or hitting bumps at high speeds. Also, owing to the tremendous power output of the motor, the hull needs weight well aft. This can only be counteracted by leaden weights or live ballast.

The Ardun Gear motor is the first ever to be used in Australia and, to give some idea of its performance, Arden Overhead Ford V8 conversions fully souped are giving out 250 h.p. in the U.S.A. in the 255 cu. in. class.

The heads were air freighted from Great Britain last year so that they would arrive in time to be fitted for this season's racing. The owner reports that he is very pleased with the Ardun Gear, but it has caused him a lot of headaches experimenting with the right way to use the motor.

Designer Frank Lewis has set the motor on an 11-degree shaft angle.

*Le Sabre's* first trial run was indeed very satisfying, and she clocked 65 m.p.h. over the mile, a phenomenal effort indeed, considering that the boat had just been taken off the work bench. The second run was the forerunner of an unfortunate series of bad luck for Bob Spike, when *Le Sabre* threw a conrod, completely destroying the bottom half of the engine.



To date, four engines have been fitted to *Le Sabre*, with the same result. The cause is put down to the fact that the heads seem to give more power than the bottom half of the engine can transmit.

This, it is hoped, will be rectified by reducing the engine's horsepower output and using higher revs. Various propeller pitches have been tried, but a 16 pitch prop. seems to be the only one to suit the hull.

The motor was originally made wet sump for experimental purposes, but has now been completely dry sumped with a water jacketed oil tank.

*Special pistons, as well as a new manifold, which gives a straight induction tube to each pot, have been designed and built into the motor. Fuel is supplied from four dual Chandler Grove carburetors, giving each cylinder its own carburettor. On the bottom half, the conrods and the crankshaft have even been polished.*

There is a pressurised tank for fuel delivery, the overhead rocker gear oil lubrication being pressure-fed from a T-piece taken from the block where the oil pressure gauge is supplied from this flow of oil. The whole is controlled by a small regulating valve which controls the pressure of oil circulating through the rocker gear. Experience has shown that any play in this valve, however small, will cause a bad drop in oil pressure, equivalent to a badly-worn main bearing.

Steering is of standard Lewis design, the spear-like points of the exhausts will be altered and swept back, because, in a high-speed spill, a driver and assistant might easily be thrown on to them and get transfixed.

The dashboard is mounted with a hand-pressure pump, tachometer, oil pressure gauge, fuel tank pressure gauge, oil temperature gauge; an auxiliary foot air pump has been fitted to give higher tank pressure.

Higher starting torque is obtained through a 12-volt battery connected to a 6-volt starter motor; starter motor is of the outrigger bearing type to give positive Bendix engagement.

A chrome-plated tie-rod along the top of the dashboard gives the crew something to hang on to when travelling at high speed.

A novel feature is the automatic ejector which throws out a 50 ft. rope with floating marker attached should the boat look like sinking and the crew leave in a hurry. This is controlled from the dashboard through a Bowden wire which, when pulled, releases the spring ejector mechanism in a twinkling.

Of special interest is *Le Sabre's* tailor-made trailer, which has the cradle placed so that the full weight of the engine bed rests on two strong cross-bars. Supporting arms follow the hull shape.

*Le Sabre* has not yet shown what she can do. Every race that she has so far entered has resulted in withdrawal, due to oil pressure.

She has been built with the main objective of breaking the 255 cu. in. Restricted World's Record, but will also be used in championship events, and very seldom appear in club races.

Final adjustments are being made to her motor, and when *Le Sabre* goes into the water next month big things are expected of her. Owner Bob Spike and his chief mechanic, Bob Ingleton, both feel confident that she will exceed 70 m.p.h.

