

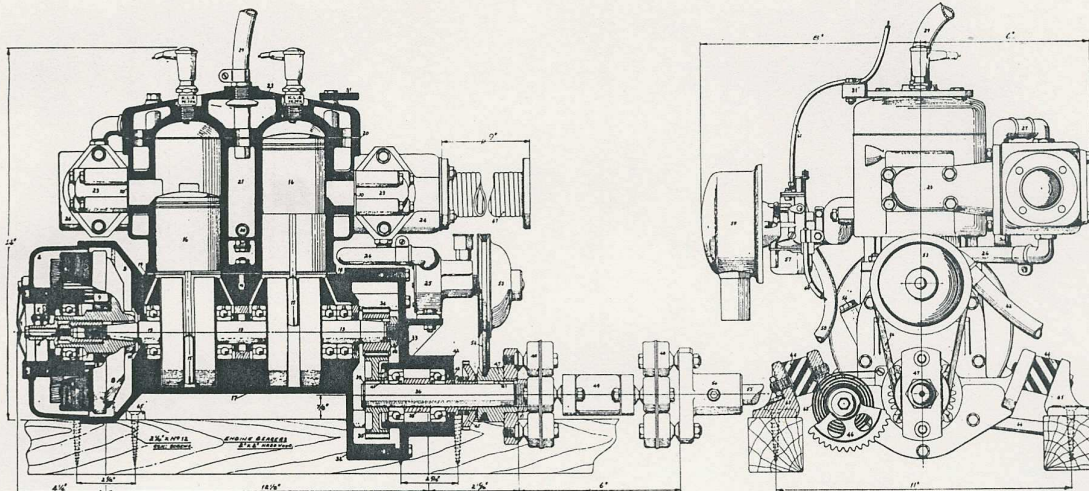
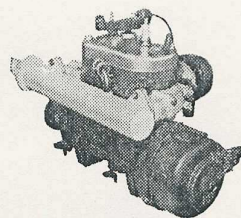
2 to 1 reduction gear BUT NO NEUTRAL. (3 MADE)

Reprinted from "Yachting Monthly" March 1964 issue

Marine Engines Surveyed—10

by BILL MISON

RCA Dolphin Mk V



TAKING the Schnurler three-port type of two-stroke engine, R. Christoforides and Associates have developed a marine two-cylinder motor and eliminated most of all two-stroke vices, erratic starting, spark-plug oiling and others accentuated under marine conditions. By research into the shape of the combustion chamber, transfer port, induction manifold and timing, this company has evolved a compact, easily installed unit with all the qualities required in an auxiliary to enable a 10-tonner to breast a sudden surge of ebb when making harbour or to maintain consistent running for hours without falter. On trial, immediate starting was accomplished by hand and starter under various conditions of weather; slow running was rhythmically regular as was full speed.

The owner of a 10½ ton T M sloop with a Mark IV engine reported that last summer on passage from Dover to West Mersea owing to weather and head winds he had to motor the whole course, which was accomplished in 10 hours with a fuel consumption of just under four gallons. From enquiries made, owners of 20 to 34ft sailers and many twin and single-screw powered cabin cruisers have expressed entire satisfaction with their installations.

Manufacture is of top specification; the cylinder block is of close-grain cast iron, the crankcase and cylinder heads of Y alloy, the crankcase is fully machined internally and half bearer arms are cast integral with the crankcase. The mountings between these arms and the brackets for securing to the bearers are of shear-rubber cylindrical blocks in diametrical line with the crankshaft and absorb any torque effect and vibration.

The built-up crankshaft and the con rods are of EN 34 steel hardened and ground, the crankshaft runs on five 2in ball journals with permanent oil seals at each end and the big end bearings are roller. Pistons are 22½ per cent silicon alloy with two compression rings and the gudgeons float in bronze small ends. The Siba Dynastart on the forward end of the crankshaft also carries out the duties of a flywheel. Straight-cut gears in EN 8 steel on the after end of the crankshaft in a box flush on the crankcase give a 2 to 1 reduction drive and the lay or drive shaft runs on two angled bearings which form an efficient thrust block. The drive shaft is fitted with a universal flexible

coupling complete for attaching a variable pitch and feathering propeller drive.

Excellent feature of the design are the symmetrical dimensions of many components which allow the water-cooled exhaust manifold to be reversed, and the cylinders for handed rotation in twin fixed-drive installations.

Cooling is by raw water with a Jabsco pump belt driven from the drive shaft, engine lubrication is petrol, one part oil to 24 of petrol, and the gearbox splashed with ½ pint of lubricating oil. Ignition is by individual coil to each cylinder and the Zenith carburetter is fitted with flexible wire control.

Emergency hand starting is by quadrant rack and free-wheel pinion abaft the gearbox and the quadrant spindle is brought forward port side to a removable handle.

Weighing only 100lb, as compact as a portable sewing machine, it runs just as sweetly and quietly.

DATA

Bore	...	...	...	63mm
Stroke	...	...	...	56mm
Overall height	...	...	...	14½in
width	...	...	...	14in
length to half coupling	...	...	...	19½in
Depth from bearer top to sump bottom	...	...	...	1½in
Width between bolt hole centres of bearer arms	...	...	each side	11in
Length between above	...	...	each side	12½in
Weight	...	...	...	100lb

Makers: R. Christoforides & Associates Ltd, 59-61 Palermo Road, London NW10 (Tel: ElGar 4999).

Performance rpm	bhp	consumption in pints/hour
1,600	4.9	1.80
2,000	7.0	3.19
2,500	9.7	4.62
3,000	11.6	6.70
3,400 max	12.25	8.60

maximum torque 19ft/lb at 2,600rpm