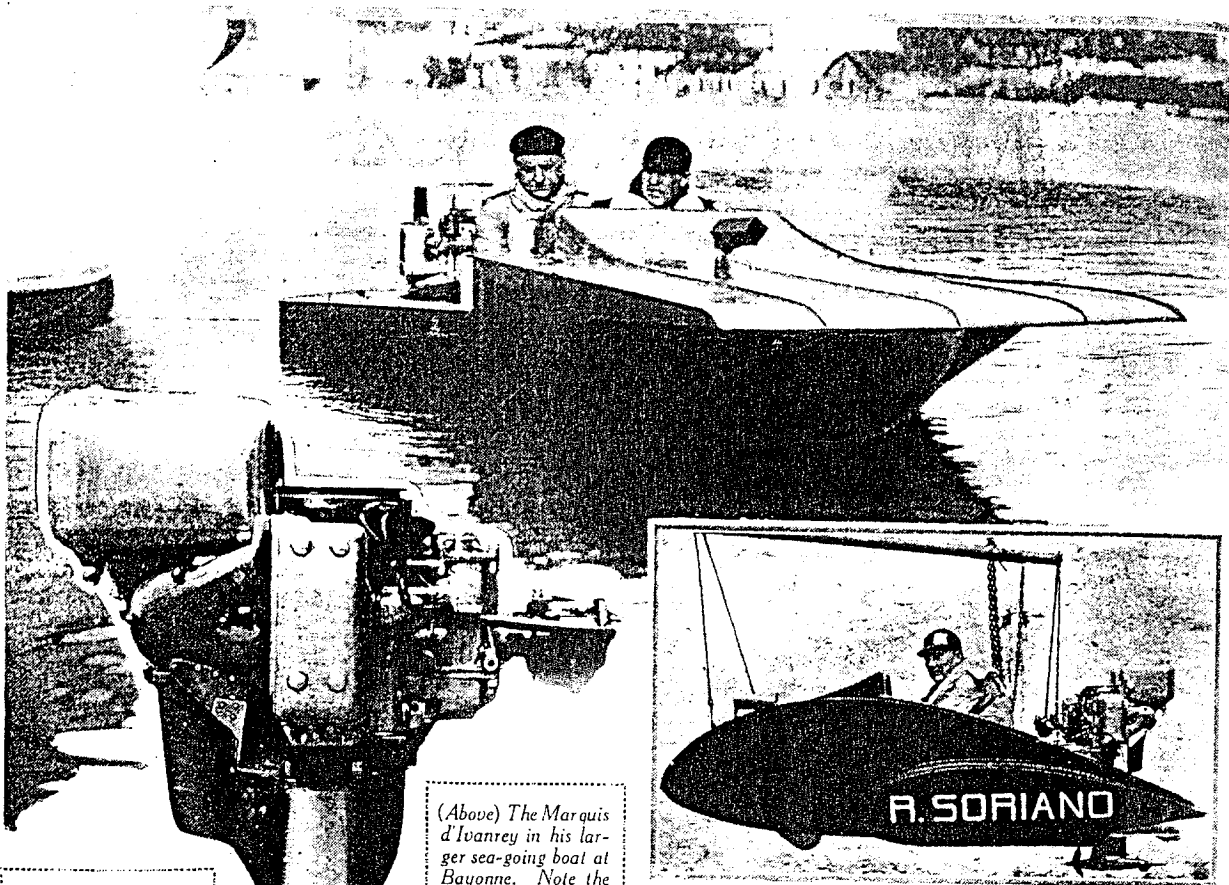


# The Soriano Outboard Engine



The new unit showing the two propellers and the streamlined propeller bracket.

(Above) The Marquis d'Ivanrey in his larger sea-going boat at Bayonne. Note the design of the bows.

The new small outboard hull with a Soriano motor.

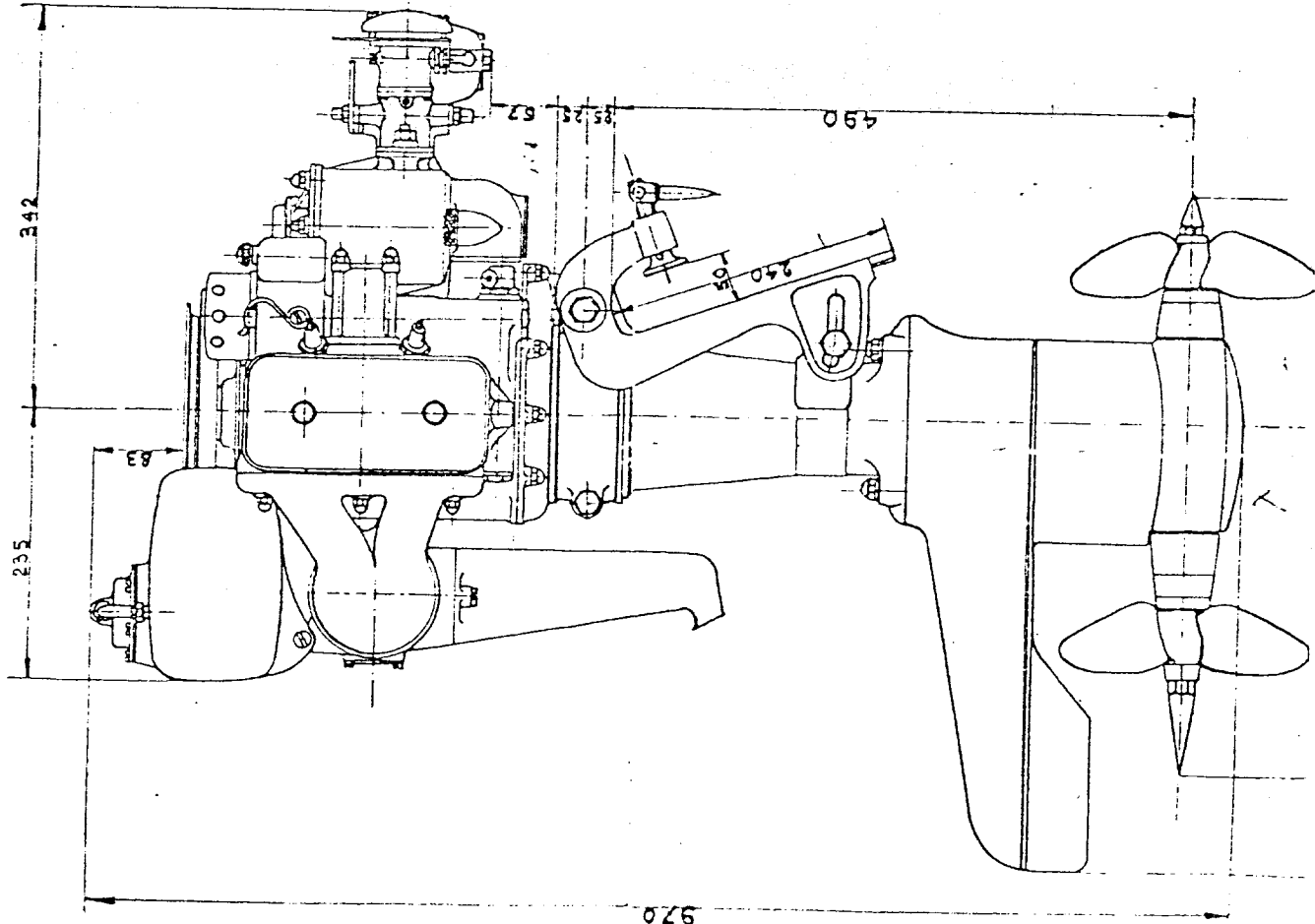
## AN AMATEUR BUILDS HIS OWN MOTORS

IT may be remembered that the Marquis d'Ivanrey, better known, perhaps, as "M. Soriano," put up some remarkable speeds with a tiny outboard at the Bayonne meeting last autumn. During one lap of a race over a course with two turns in the estuary of the Adour, the Soriano boat averaged officially  $85\frac{1}{2}$  k.p.h., or 53 m.p.h. This extraordinary little boat is probably the smallest of her class in the world, as the length of the hull is only 5 ft. 5 ins. and the beam, not counting stabilizers, 2 ft. 7 ins. The engine is a 650 c.c. four-cylinder four-stroke, with valves in the cylinder heads, operated directly by two central overhead camshafts driven by a single cross shaft, with central skew-gearing. The cylinders have a bore of 55.5 mm. and a

stroke of 68 mm. Delco ignition is employed and the carburetter is a Solex. One advantage claimed for the employment of the four-stroke principle in this outboard unit is the fact that dry sump lubrication is rendered possible. The oil pump is of the gearwheel type and the oil reservoir is contained in the aluminium propeller shaft casing. A feature of the design is the employment of two propellers, whilst the propeller bracket shows remarkable streamlining. Roller bearings are employed in the engine and ball bearings for the propeller shaft.

Supercharging is effected by a blower which is an adaptation of the Roots type. This blower has an ingenious adjustment for giving variable compression. Without the compressor the engine is a standard unit and can be used for standard class racing. The weight of the complete power unit is 124 lb., and as the tiny steel outboard hull weighs only 93 lb. the weight of the entire craft is 217 lb. Whilst the interesting Soriano engine will not be put on the market, the Marquis d'Ivanrey is putting in hand a small series of engines for his personal friends. These engines will be built in his private works at Biarritz and some exciting races should be in prospect during the coming season.

**MOTEUR OUTBOARD " R. SORIANO "** (Plan d'encombrement)  
 (Propulseur 4 cylindres 1931)



**MOTEURS OUTBOARDS " R. SORIANO "**

(CLASSE D)

Ces moteurs, de construction française, sont destinés aux réels amateurs de courses, car leur construction (ainsi qu'on le constatera dans les caractéristiques ci-dessous) est de celles où rien n'a été négligé pour obtenir le rendement maximum dans la série des moteurs outboards, classe D.

**CARACTÉRISTIQUES**

**MOTEUR.** — A quatre cylindres opposés, cycle à quatre temps  
 Alimenté par compresseur  
 Alésage: 55,5. — Course: 68. — Cylindrée: 0 lit. 658. Puissance: 65 CV. Régime:  
 T. P. M. de 600 à 6.000.

**CARTER-CYLINDRES.** — En aluminium, chemise rapportée.

**PISTONS.** — En aluminium, alésage spécial.

**BIELLES.** — En acier chrome-nickel, entièrement usinées, montées sur rouleaux.

**VILEBREQUIN.** — En acier nitruré, reposant sur trois paliers.

**CARTER.** — En aluminium entièrement nervuré.

**COMPRESSEUR.** — " Soriano ", à deux pales tournant 1,75 de la vitesse moteur.

**SOUPAPES.** — En tête, commandées directement par arbres à cames.

**POMPE DE GRAISSAGE.** — Graissage sous pression.

**ALLUMAGE.** — Par batterie.

**CARBURATEUR.** — " Solex " spécial.

**REFROIDISSEMENT.** — Par eau.

**TRANSMISSION.** — Par arbre de grand diamètre allégé et percé; monté entièrement sur roulements à billes.

**PROPULSION.** — Par deux hélices (dispositif breveté).

**RÉSERVOIR.** — Avec exhausteur.

Afin de permettre la participation de ces moteurs dans les épreuves réservées aux moteurs standardisés, il a été prévu de pouvoir changer l'arbre à cames et retirer le compresseur.

**PRIX ACTUEL.** — 29.000 francs (1<sup>er</sup> janvier 1931).

**CONDITIONS SPÉCIALES.** — 10 à 30 % de remise aux membres du Canot-Club de Bayonne.