FLIGHT, NOVEMBER 16, 1933

ECONOMICAL FLYING

The Ramor K.E. 14

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H E .Ramor Aircraft Factory of St. Peter, near Gras (Austria), has built a. four-seater travel aircraft,
type K.E. 14, which was designed by the German engineer Kalkert, of Weimar. This aeroplane is a cantilever low-wing monoplane of good flying qualities. Wing : The wing is of the two-spar type. The centre portion forms an integral part of the fuselage. The two extension planes are attached to the centre section by means of four bolts on each side. The wing is of wooden structure and covered with plywood so as to make it stiff in torsion. Only the ends of the elliptic wing have fabric covering. The two extension wing portions can be hung lengthwise on the fuselage for road transport and garaging. Fuselage : The fuselage, of rectangular cross-section, is also of wooden structure with plywood covering. It has a four-seater cabin with six small windows on each side.

Empennage : Of wooden structure with plywood cover-ing ; the rudder and elevator are covered with fabric. The fin and tailplane, of cantilever type, are easily detach-able. The incidence of the tail can be adjusted on the ground. The control surfaces are operated by means of torsion rods and cables.

Undercarriage : The landing gear, of bent-axle type, has
a track of 1.9 m. The two wheels are suspended by rubber cables.

Poiver Plant : The aircraft is equipped with an air-cooled four-cylinder 100-h.p. " Gipsy I " engine, arranged on a steel-tube framework which is attached to the fuselage by means of four bolts.

The 60-litres fuel tank is mounted in the fuselage behind a fireproof bulkhead. A 35-litres fuel tank is located in the wing centre-section.

Dimensions and Performance : Span, 11.14 m. (36 ft.
7 in.) ; length overall, 7.5 m. (24 ft. 7 in.) ; height over-all, 2.3 m. (7 ft. 6 in.) ; wing area, 17 sq. m. (183 sq. ft.) ; weight empty, 450 kg. (990 lb.) ; useful load, 330 kg. (726 lb.) ; total weight, 780 kg. (1,716 lb.) ; wing loading, 45.88 kg./sq. m. (9.4 lb./sq. ft.) ; loading, 7.8 kg.-h.p. (17.2 lb./h.p.); maximum speed, 162 km./hr.
(100 m.p.h.) ; cruising speed, 140 km./hr. (87 m.p.h.) ;
landing speed, 72 km./hr. (45 m.p.h.); normal range,
700 km. (435 miles).

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25 H.P. PER OCCUPANT : This Austrian Ramor K.E.14 carries four people on a de Havilland
" Gipsy I " engine.

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THE GRAND PRIX AND THE ARMAND ESDERS CUP
ing to the CINA must have a certificate from a competent
authority stating that the planes have satisfied all the
conditions required by the CINA certificate.
Single-seater planes must have a luggage compartment
of the minimum volume of 70 cubic decimetres (4,271.7
cu. in.), the door of which shall have a surface of 10 square decimetres (155 sq. in.). The smallest dimension of this opening should not be less than 25 centimetres (10 in.). The form of this compartment should be such that all parts of the bottom can be reached by one's arm, and the door open outwards toward the exterior of the plane. The pilot should be able to open it from his seat. Single-seater machines must carry a load of 30 kg-(66 lb.) solely for ballast in this compartment during tin races. Multi-seater machines must transport at least one adult passenger.
The planes will be sent away from a stationary start the engines turning if desired. The order of taking c will be determined by lot. Repairs, changes of crews and landings during the races are permitted.
The contestant making the best average time over tin course Deauville-Cannes-Deauville will be adjudged the winner, and will receive a cash prize of 100,000 francs. The machine finishing second will receive 30,000 francs. Ten prizes of 5,000 francs each will also be distributed as follows: —Five of these for the best speeds made the stretch Deauville-Cannes (515 miles). The other five of these prizes will be awarded for the highest speeds made in the stretch Cannes-Deauville. The winner ana the plane finishing second in the race will not be eligiW for these additional prizes. The multi-seater macnim making the best time over the course will receive a specw prize of 20,000 francs. . . Entries at a single fee of 1,000 francs will be receiver by the Aero Club of France up to 6 o'clock. May J-next. One half of this will be refunded to macnuu*

starting in the race. Entries at a double fee close a 6 o'clock on June 30 next.

R. ARMAND ESDERS, the well-known Paris dry-
goods merchant and member of the Board of Governors of the Aero Club of France, has pre-
sented cash prizes to the amount of 200,000
francs, together with an organisation fund of 20,000 francs, for each one of three races, to be termed " the Grand Prix of the Aero Club of France," to be flown during 1934, 1935, and 1936 respectively. A cup of the value of 15,000 francs has also been presented by Mr. Esders. It will be awarded at the finish of the third race (1936) to the contestant having made the best speed during any of these three contests.

These races will consist of speed competitions each year over a course Deauville to Cannes, a distance of 829 km. (515 miles) and return, making a course of 1,658 km. (1,030 miles) in all to be flown. They will be open to international entries and be governed by the code of rules established by the F.A.I, and the Contest Committee of the Aero Club of France. The regulations are similar to those under which the Deutsch Cup Contest and the Twelve Hours of Anger Competition are flown.
A brief summary of the regulations is as follows: The races will be open to landplanes, single or multi-seater machines, equipped with an engine or engines having a total maximum cylinder displacement limited to 8 litres (488.2 cu. in.). The 1934 race will be flown during July 21 and 22. The planes will take off from the Deauville Air-port at one o'clock in the afternoon of the 21st, and be required to arrive at Cannes (515 miles) within a limit of 5 hours. The return flight will be started at the correspond-ing hour of the following day from the Cannes Airport, and contestants will be obliged to reach Deauville under
the same 5-hr. limit. During 1935 and 1936 the races will
be flown between July 1 and August 30, the exact dates
to be published eight months in advance.

The planes entered must have a certificate of naviga-
bility issued by the CINA (Commission International de
Navigation Aerienne). Machines of countries not belong- R. C. W.

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