are either of the Series F.2 or F.3. The
4, 8, 44, 50, 57, and 64 These engines
clone" F's are fitted in machines Nos.
both in America and abroad. "Cy-
poration, produces also the famous
Australia race, this company, which is
 extremely fast civil and military types,
which may be cooled
stermed in a very wide variety of ex-
wned, and few data are at
available. It is believed, how-
ever, that the bore is 5.75in. and the stroke 6.5in.

GERMANY
Hirth
Produced by the Hirth Motoren
Gesellschaft of Stuttgart for the Inter-
national Touring Competition, the Hirth
H.M.8 U, is an eight-cylinder inverted
air-cooled engine of 8,000 c.c. capacity,
with a bore of 105 mm. and a stroke of
115 mm. The compression ratio is
6.5:1, and at a speed of 3,000 r.p.m.
the engine develops 225 b.h.p. A reduc-
tion gear brings the airscrew speed down
to 1,000 r.p.m.
In the England-Australia Race this
engine will be fitted in the B.F.W-
Messerschmitt 108 monoplane. Provi-
dation has been made for mounting a three-
bladed airscrew. In its general con-
struction the H.M.8 U follows standard
Hirth practice, except, of course, for the V
arrangement of the cylinders.

ITALY
Fiat
A Fiat A.59, which is a Pratt &
Whitney "Hornet" built under licence
by the Fiat Co., is fitted in the Berga-
maschi P.L.3. The main dimensions
are similar to those given for the Pratt
& Whitney "Hornet," and the power
is 675 h.p. at 6,000 ft.

Piaggio
Three Piaggio "Stella" IX air-cooled
radials giving 360 h.p. at 13,000 ft.
are installed in the big Savoia-Marchetti S.70
monoplane. This engine has but recently
been developed, and few data are at
present available. It is believed, how-
ever, that the bore is 5.75in. and the stroke 6.5in.

FRANCE
Hispano Suiza
A very powerful Hispano Suiza
water-cooled engine, the 12 Ybrs.,
is fitted in the Wibault 366. This engine,
a 12-cylinder "V" type, has caused
considerable discussion in aeronautical
circles during the past few months,
moving the fact that it delivers a very high power for an extra-
ordinarily low weight. It is fitted in
numerous French "prototype" military
types and in a few new commercial air-
craft. Bore and stroke are 5.9in. and
6.5in., respectively, and the compres-
sion ratio is 5.8:1. The weight dry is
946 lb. At ground level the power is
800 h.p., but at 13,120 ft. this is raised to
890 h.p. Fuel consumption is given as
0.49 lb. per b.h.p./hr. and oil con-
sumption as 0.017 lb. per b.h.p./hr. A
Hispano-built Wright "Cyclone" was
have been installed in Michel
Detrevat's Lockheed "Orion," which
has been withdrawn from the race.

Gnome-Rhône
A wide range of air-cooled engines
known as the "K" series has been
developed by this company in recent
years. Most powerful of these engines
is the 14 Krs. two-row 14-cylinder radial
as installed in the Bleriot III mono-
plane. This type is proving very popular
in France and other European
countries for use in machines ranging
from single-seater fighters to "gros por-
teurs." The capacity of the engine is
3,280 cubic inches, and the power 810 h.p.

The "Two Row": The big Gnome-
Rhone 14 Krs. radial.