

# ENGINES for COMMERCIAL AIRCRAFT

*Britain's Unique Variety : The Advent of High-octane Fuels :  
More Supercharging*

**I**MPERIAL AIRWAYS will power their new fleets of Empire flying boats and four-engined landplanes with engines operating on fuel of 87 octane number. This will be an innovation for this country and will doubtless precede the general adoption by the major air lines of power plants designed to benefit from the new fuel.

Most of the future commercial engines, excepting some of the smaller types, are likely not only to be designed for use with this fuel, but will incorporate provision for variable pitch airscrews. Two other features which are being demanded by the commercial operator are ease of access and generous provision of accessory drives.

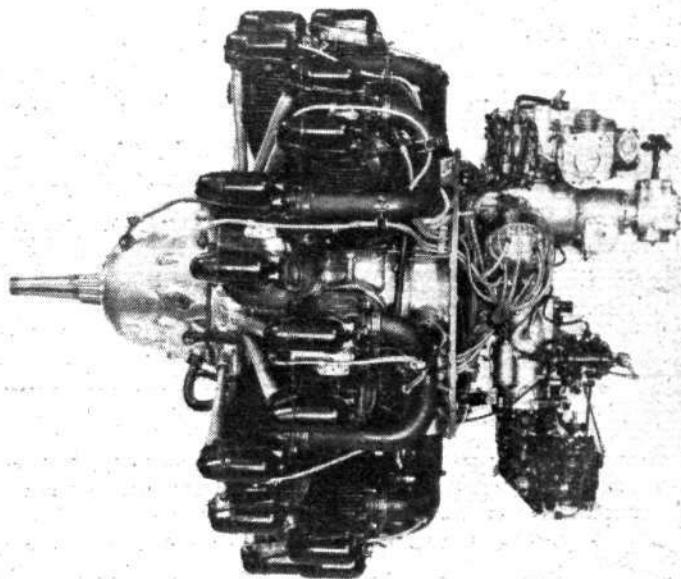
We have lately had demonstrations of the astounding performances which can be attained with a combination of high-efficiency military type engines with a well-designed commercial aeroplane. Where sheer performance is desired there is an extraordinarily wide choice of power plants. For economy and ease of maintenance there are British engines the equals of which are not likely to appear in other countries for some time to come. Reliability is still, as always, one of the principal selling points of British engines.

The following review embraces engines which are available to the commercial operator at the present time.

## ARMSTRONG SIDDELEY

In the whole series of radial engines manufactured by the Armstrong Siddeley Company at Coventry there is not a single type which has not been, or is not being, adopted for commercial operation.

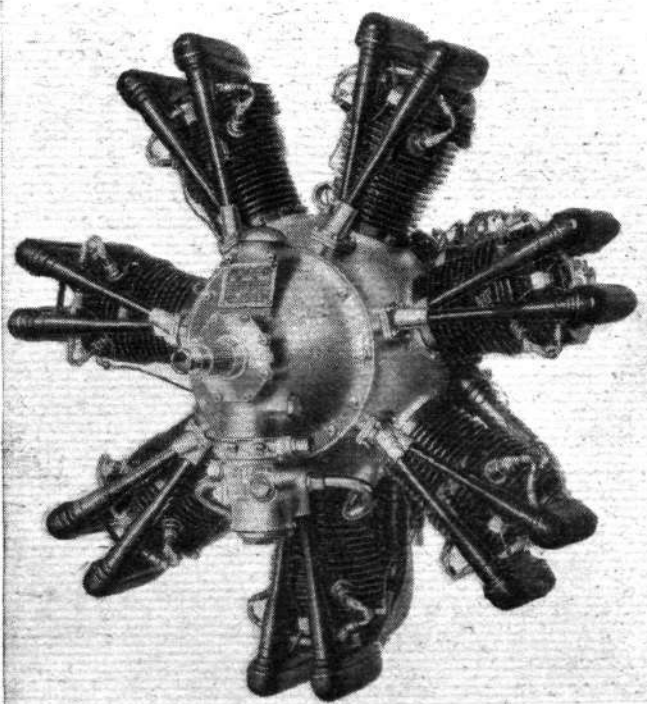
Perhaps the most interesting model at the moment is the big Mk. IX Tiger, a moderately supercharged fourteen-cylinder two-row type specified by Imperial Airways for the new Armstrong Whitworth four-engined landplanes now under construction. The Tiger IX is rated at 790 h.p. at 2,375 r.p.m. at 6,500 ft. For take-off, when the V.P. airscrew for which



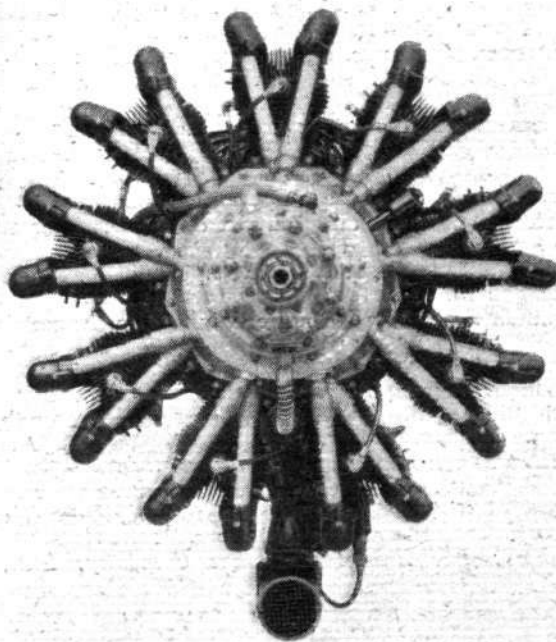
Four of these 790/880 h.p. Siddeley Tiger IX fourteen-cylinder medium supercharged radials driving V.P. airscrews will power Imperial Airways' new fleet of A.W. monoplanes.

the engine is designed permits 2,375 r.p.m., the output is 880 h.p. The maximum power available in level flight is 804 h.p. at 2,450 r.p.m.

A smaller fourteen-cylinder type, the Panther X, is rated at 700 h.p. at 3,000 ft., and another model of the Panther, the Mk. VII (which operates on 77-octane fuel and not 87 as do the types already mentioned), delivers 560 h.p. at 12,000 ft. One of the most popular of the Siddeley types at the moment is the new seven-cylinder Cheetah IX, rated at 310 h.p. at 6,000 ft. This is the only current Siddeley model, apart from



The Siddeley Genet Major is available in direct drive and geared forms. The former version, shown here, is rated at 150 h.p.



This is the new British Salmson A.D.9R. Series III. Its normal output is 80 h.p. at 3,000 r.p.m. and the maximum 86 h.p. at 3,300 r.p.m.