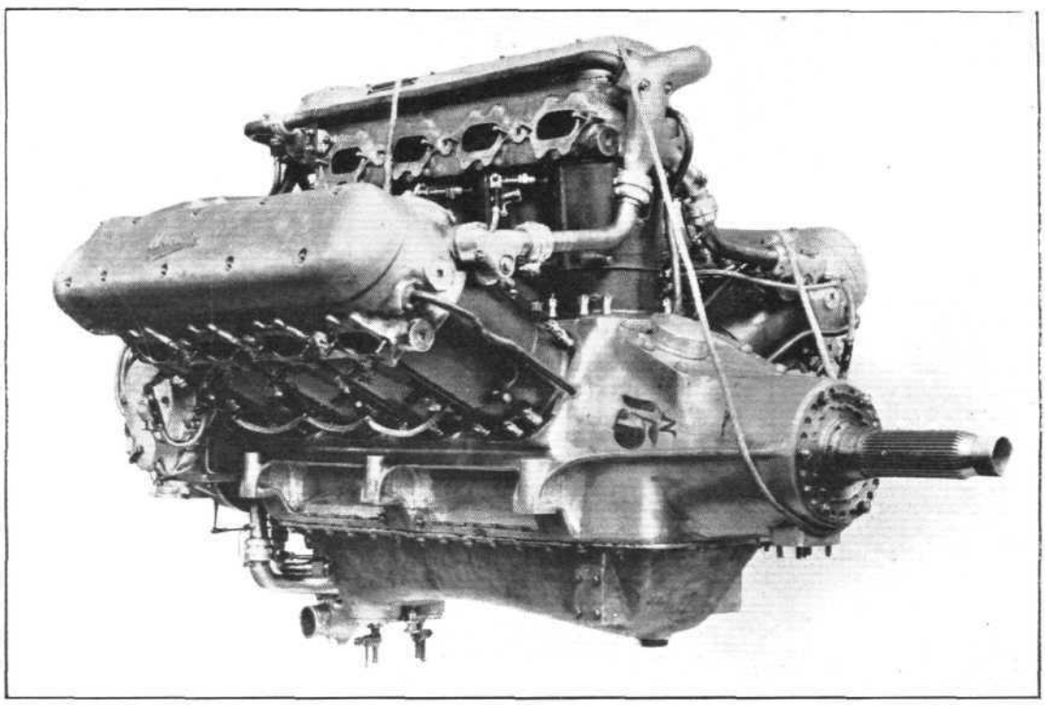
FLIGHT
AIRCRAFT ENGINEER AIRSHIPS

THE NAPIER "LION" SERIES 8

The Latest, Direct Drive, Model

PARTICULARS have just come to hand of the latest product of the famous aero engine firm of D. Napier and Son, Ltd., of Acton. This is the Napier "Lion" Series 8, a direct drive version of the well-known and successful "Lion," with reduction gear, that has achieved such a remarkable reputation for reliability and efficiency during the last few years.



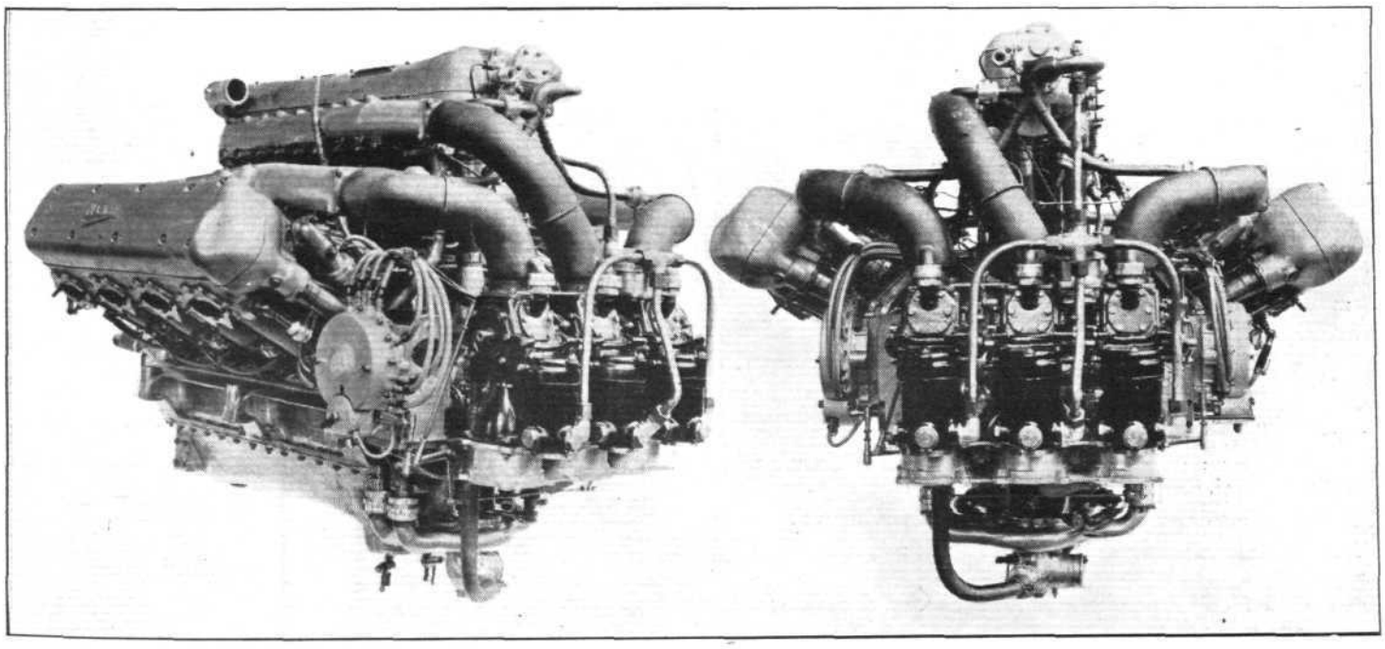
The Napier "Lion" Series 8: Three-quarter front view of the new direct-drive aero engine.

The new Series 8 model embodies all the main characteristics of the previous "Lions," and differs—apart from having direct drive for the airscrew—only in a few minor details. Constructionally, the "8" is virtually the same as before, and the original "broad arrow" formation is retained; we need not, therefore, do more here than just briefly enumerate the main characteristics of this engine.

It has 12 cylinders, in three blocks of four (one vertical and two at 60°), having a bore and stroke of $5\frac{1}{2}$ ins. and $5\frac{1}{8}$ ins. respectively. The normal rating is 525 b.h.p. at 2,350 r.p.m., and the average actual power is 543 b.h.p. at 2,350 and 567 b.h.p. at 2,585 r.p.m.

The weight of the engine is approximately 920 lbs., complete with airscrew boss, carburettors, induction pipes, and hand-turning gear, subject to a plus tolerance of 10 lbs. Thus the weight per horse-power, on normal power, comes out at 1·75 lbs. per horse-power, or on average power at 2,585 r.p.m., 1·62 lbs. per horse-power.

It will be noticed from the accompanying illustrations of the Napier "Lion" 8, that all "accessories," such as magnetos, carburettors, pumps, etc., are now located together at the rear end of the engine, and that owing to the absence of the reduction gear the front end is much cleaner and not so "blunt," which should help in obtaining efficient streamlining



THE NAPIER "LION" SERIES 8: Three-quarter rear, and side views, showing the carburettors, magnetos, pumps, etc.