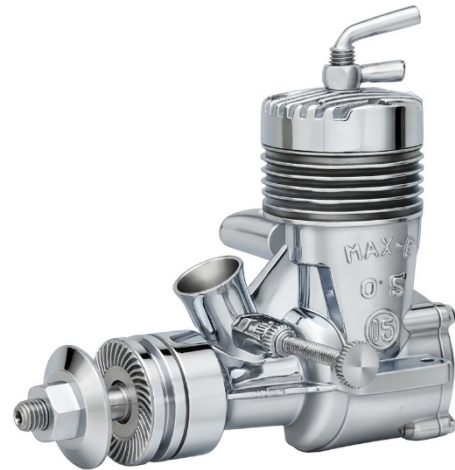
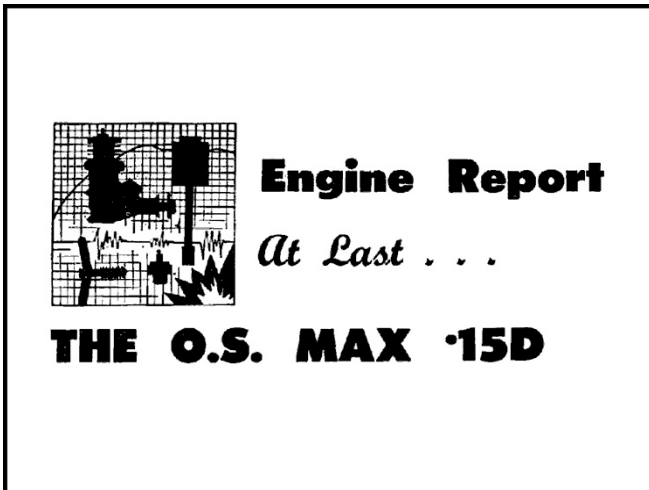


O.S Max .15D



For several years now, the Oliver Tiger, has reigned supreme as the World's most powerful 2.5 cc diesel engine. Now a serious challenge has been issued, by the arrival in Australia (the first country to receive stocks), of the much heralded O.S. MAX .15D.

Unlike the reversed flow systems used on Olivers and most other diesels, the Max .15D is loop scavenged and in many respects is the most elaborate development seen so far in competition diesel design. Unlike the one or two loop-scavenged engines already on the market, using a normal conical piston head shape, the O.S. has taken things a stage or two further and employs a deflected-type piston having a baffle on the transfer side in the manner of glow engines of the loop scavenged type. The difficulty of using a baffle piston in a diesel is that the contra piston must, like a fixed cylinder head, be recessed to accept the baffle, in order to maintain a sufficiently small combustion space. Also, having done this, the contra piston must be so fitted that it can only move up and down and cannot rotate. In the Max .15 D, this latter has been neatly achieved by cutting a slot, 2mm. deep, in the upper rim of the contra piston which engages a peg "formed in the underside of the pressure-cast alloy cylinder head. Apart from an overall increase in power, the deflector-type piston with baffle provides far more economical running, a point which will be quickly realised by keen team race enthusiasts. The piston itself, is extremely light and made especially from a new anti-obliteration meehanite. The cylinder wall has been made extremely thick, the two combining to form a long

wearing unit not troubled by expansion, thus giving instant starts, hot or cold. Whilst running in, and they do take over an hour, it was found that a small prime in the exhaust, was a sure means of two flick starts.

From a design standpoint, the Max .15D is certainly one of the most interesting and advanced diesels to appear in the last decade. Apart from its baffle type piston, it is unique among diesels in that it also uses a Desaxe cylinder—ie., the cylinder is offset to the exhaust side, relative to the crankshaft axis. It is clear that, instead of copying existing diesel features, the manufacturer has made a commendable effort to break fresh ground in diesel design. Not surprising, perhaps is that the basic layout and appearance is quite similar to the O.S. Max Glow engines. Integral cooling fins on the cylinder replace the separate alloy barrel usually found on diesels, and even the Max skirt transfer ports in the piston and liner are retained.

One of the best features of the Max .15D is the crankshaft and bearing assembly. This has an oversized journal, made possible by the use of a special 10.5 mm i.d. inner ball-bearing, and results in an extremely robust shaft (actually world's largest), which would be proof against breakage across the induction port, a frequent source of trouble with high performance shaft valve B.B. 2.5 diesels. Actual porting is quite conservative and gives a shaft wall thickness of 2.5 mm approximately 1/10 in. and only about 17 per cent, of the shaft circumference is taken up by the elongated valve port. The shaft, which has the wet flanks milled away each side of the crank-pin

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to provide counterbalancing, is of heat-treated nickel-chromium steel and is highly finished. Actually the standard of workmanship is equal to the best yet seen on any competition engine, and with a performance when fully run-in of over .3 b.h.p. on nitrated fuel, this engine will certainly make its mark in Australian competitions.

A rather interesting feature, is the fact that a special multi speed throttle will soon be available for radio control enthusiasts who prefer the power and performance of a diesel. Australian selling price of the O.S. Max .15D is £9/17/6, being more than £4 cheaper than the highly fancied Oliver. This lower price, plus the fact that all spares are immediately available in Australia, will perhaps influence many enthusiasts. Our verdict...“an advanced modern design, extremely powerful, and possessing amazing economy.” In fact it runs on the bench half a minute longer than the Oliver Tiger with the same tank and prop.

