

large capacity, which is fitted with two long pieces of transparent fuel tubing, and may be compressed to any reasonable shape to conform to the internal fuselage structure.

World Engines, P.O. Box 905, Warren, Ohio
David Andersen 2.5cc Diesel (.15)

There are people in this world who derive keen pleasure from handling and examining something that is superbly made. To such people anything is a rare and beautiful jewel, whether it be a queen's tiara or a mere can opener, provided it has penultimate quality and workmanship. Such an object is the David Andersen Diesel, and to those who understand the above sentiments, this engine will be a most satisfying possession. We have extolled the quality of certain engines in these columns on several occasions, but the David Andersen excels them all; indeed, it excels the quality of most of the manufactured goods any of us is ever likely to own. Modern thinking will say, "So what! Is it the hottest of engines? Does it do the job better?" The answer is no. The manufacturer claims .2 bhp at 9,500 rpm, which is honest and courageous, and the only job it does better is that of swinging large props in comparison with most modern .15's. It is not a competition motor.

The design layout of this engine is old fashioned, with small bore intake, separate jet and needle assembly, long stroke, conservative front rotary timing and small area opposed twin exhaust and intake ports, and the size and weight of a .29. The piston and cylinder are also old fashioned, inasmuch as they will hold compression for many minutes when set at tdc, and the engine will start hot or cold without priming.

The crankcase casting and prop driver are etched aluminum pressure die castings machined internally with tools which, judging from the finish, must have been ground and honed on their cutting edges by a master craftsman who enjoys his job. The main bearing housing has a similar finish and the bearing bore is honed dead parallel with just the right surface finish for long life and adequate oil retention. The 3/8 in. dia. shaft is so smoothly finished that a magnifying glass is necessary to see the wear pattern after running. The crankpin is hollow and 9/32 in. dia. with a similar finish and is fully counterbalanced.

Both rod bearings are honed, the small end being bronze bushed and connected to the piston by a hardened and ground wrist pin. Contrary to the instruction leaflet, a hardened steel cylinder and cast iron piston are used, with parallel bore and unrelieved piston skirt. The ports are rectangular in the case of the exhaust, and upward inclined elliptical, with a flat topped piston, in the case of the bypass. Again the standard of machining, grinding and honing is outstanding, and the contra-piston is an ideal fit. The cylinder head, incorporating a very sturdy and accessible compression lever, is machined to a push fit on the ground upper portion of the cylinder, and is retained by four long screws running into tappings in the crankcase port belt. The machining of the head is so good that it is difficult to see the tool marks and the fins have the appearance of being chrome plated.

Large sturdy mounting lugs are located slightly above the shaft center line and twin exhaust stacks extend across the width of the mounting lugs. Prop retention is by means of a 3/16 Allen screw and steel washer.

There is a saying that you would not harness a racehorse to a plow, and for those who want pulling power with low bearing loadings in an engine that will be a lasting pleasure, the David Andersen is a plowhorse of the finest pedigree.

World Engine's, P.O. Box 905, Warren, Ohio

END