



THE ZIP ZED 100cc ENGINE UNVEILED

"Mr Zip" — Mark Hines (right) and Robin McGregor-Grieve. (left) of the RAC Kart Committee and top International Scrutineer, contemplate the future of the ZED.

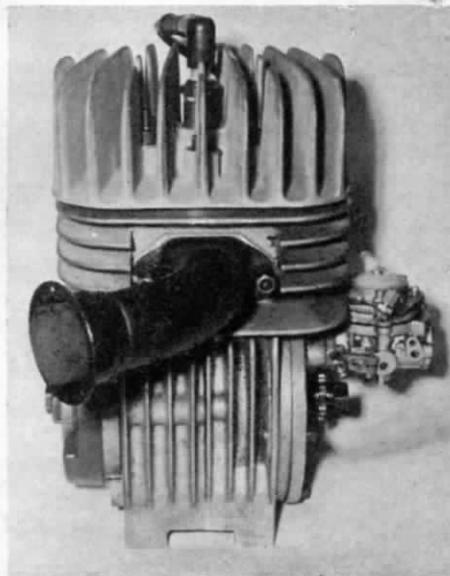
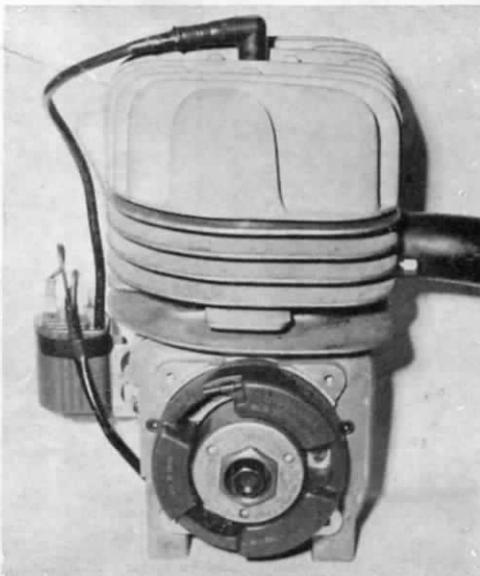
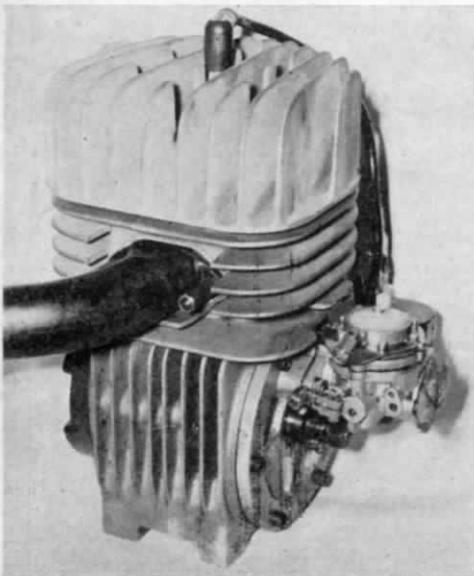
The initial announcement that Zip Karts were to manufacture an all-British 100 c.c. kart engine was greeted by some with derision. Such people paid too much attention to the depressing mortality figures for earlier attempts to produce such a motor. Time and again both individuals and groups have embarked on this apparently simple exercise only for them to fade into obscurity after reaching some obstacle. There are many stages to be tackled before you can take a profit and these include the design, the tooling for manufacture, production and of course—provision of finance. It is extremely hard to find firms in Britain capable and prepared to produce all the necessary components to a reasonable time schedule and materials are getting more and more difficult to obtain. Customers must also be persuaded that their chance of success is not irrevocably tied to the products of Italy in the 100 c.c. classes or to Spain for 250 c.c.

Those with the lack of faith in Zips ability to deliver the goods are in for a rude awakening for the Zip Zed mark 1 is not only in preliminary production but has also undergone considerable testing for evaluation purposes. That they have managed to make the engine at all at a time of three day weeks, strikes etc. is a tribute to their tenacity and it is no wonder that they have strayed past their original schedule. Already considerable interest has been shown in the engine abroad and the considerable number of overseas agents for Zip Karts will provide an almost automatic

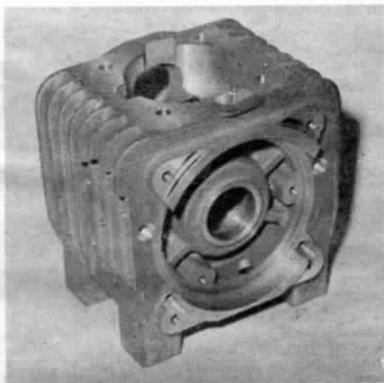
outlet for a fair number of the new engine. Because only the accessory items of the ignition system, carburettor and piston are of non-home manufacture, the engine counts as British and can therefore be homologated for racing in the United Kingdom at any time. We understand that the motor will be eligible for classes 100 Junior, 100 National and 100 International (in events run to British rules) once the RAC have inspected the first batch of ten motors—at about the time this issue hits the news-stands. Incidentally, this latter requirement is apparently now standard practice for the homologation of British motors to ensure that production is genuinely under way. The first 125 motors are expected to be completed by April 1st but Zip are naturally very much in the hands of the foundry to achieve this target. International homologation will be applied for in the autumn of this year so that it can participate in international competition. The many countries that do not require engines to be approved will naturally be able to use it immediately supplies are delivered.

For the Junior and National classes the engine will be sold with CEV ignition and a Tillotson carburettor. A Dell Orto carburettor is an optional extra and electronic ignition will be fitted to the International class units. The bore is 50.8 mm. with a stroke of 48.5 mm. — the classic figures for the modern Komets, the BMFK 96 and the Corsair T 80. The engine capacity is 98.25 c.c.

Despite the use of 'Italian' bore and stroke figures, the external appearance is distinctively new. The cylinder head fins are very high with few barrel fins leaving plenty of space for cooling air flow. The bottom end follows BM practice with a sturdy finned crankcase having integral stumpy feet for mounting the motor.



All the castings are neat with good machining. This is the ignition side of the crankcase which should be both strong and rigid.



a normal flat plate. The rotary valve cover may be functionally very similar to the Italian's but it has not been slavishly copied.

The barrel is secured to the crankcase in the 250 c.c. manner, i.e. studs on the crankcase receive female threaded allen bolts passed through counter bores in the muff. As standard the barrel will have six 7 mm. studs to secure the cylinder head but should these be stripped then the barrel holes can be helicoiled to 8 mm. to take bolts. The combustion chamber is hemispherical with a local Lodge RL 49 sparking plug. The cylinder liner is some 0.1 mm. thicker than a Komet and is centrifugally spun with the ports machined into their correct positions.

The passages are cast into the barrel and the motor comes 3-ported as standard. The booster port follows the I.A.M.E. TT practice in that it is fed from the crankcase and the mixture does not pass through the piston. The exhaust port is bridged and it is possible that the transfer ports will be provided with sloping tops giving a 1 mm. lead to the transfer timing. The piston is of the Asso type with twin chrome rings. The skirt is not notched and there is no booster port window. Clearance is .003 in. and it is thought that the method of clamping the whole engine together will provide a very rigid column that may well permit a reduced piston to barrel clearance. Naturally the exhaust length is very similar to Italian motors and noise output on a par with rival motors.

NO STEP

The chamfer on the crankshaft wheel is similar to the BM and the inlet is arranged so that it aligns to this without any step. The crankshaft is forged and uses normal main bearings and seals. There is room for the fuel pump on the front of the crankcase but an extra charge will be made if the drillings and tappings are to be done by the factory. Rotary valve timing and construction is optional.

The crank shaft is of the three piece type with a phosphor-bronze little end and caged roller big end. The latter is of the floating type and there is a slotted cage. The rod is of girder section and the crank is balanced, fitted with aluminium stuffers and all holes filled. The use of standard tapers on both ends of the crank means that normal ignition flywheels and sprockets can be fitted without any difficulty.

Zip oil is recommended in the ratio of 10:1 or Bardahl can be used at 16:1. The carburettor is not the normal Tillotson 227A but the 250A which provides more pumping action and can be recognised by the absence of the dump tube in the bore. The engine mount holes are the same as BM and the motor is arranged to angle forwards by 12 degrees.

EXTRA PREMISES

Zip Karts are making a serious effort to oust the Italians from their long-established preserve and their target for 1974 is one thousand motors. As part of their forward planning, land has been bought near their kart factory so that a new building can be built where all the equipment for machining and assembling of engines can be concentrated. Already overseas interest is extremely high as foreign kart agents welcome this opportunity to break the Italian monopoly.

MARCH 1974

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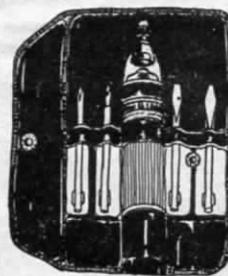
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