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MOTORCYCLE
SCOOTER & THREE-WHEELER
MECHANICS

THE ILLUSTRATE -IT MAGAZINE

KNOW-YOUR-BIKE RATING CHECK

50 c.c. TUNING

THE MIGHTY ITOM

MORE GET YOU HOME HINTS

SOUNDPROOFING THREE-WHEELER

CHECKING A NORTON BOX

LUBRICATING YOUR CABLES

ROYAL ENFIELD PHOTO OVERHAUL

21 HINTS FOR SIDECAR OWNERS

TUNING

1 Converting the Itom for racing. Start by removing the fuel tank

2 Remove standard cylinder head prior to fitting high compression job

3 Barrel must be removed in order to get at piston for decoke and to polish the ports

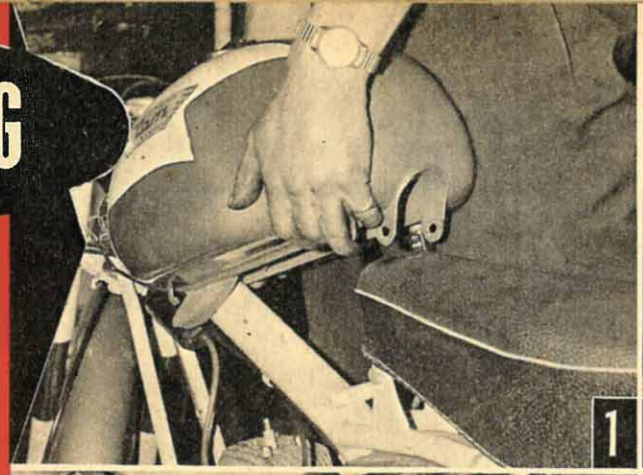
4 Remove all carbon from ports then polish to mirror finish. Use drill or emery. For this race the web in inlet port was not reduced for fear of it warping

5 No engine will give of its best with a piston coated with carbon. Note size of piston compared with hand

6 The ignition was carefully checked, points cleaned, and timing advanced a few degrees

7 The high compression head on the left gives a compression ratio of 10 : 1, and costs 45/-. The standard head (right) gives 8.5 : 1

8 Cycle parts such as brakes, cables and wheels must also receive attention before a race. Tape a nut on end of levers to comply with racing regulations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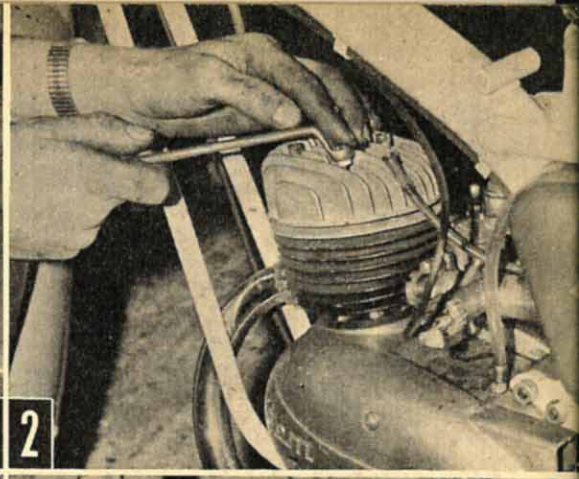
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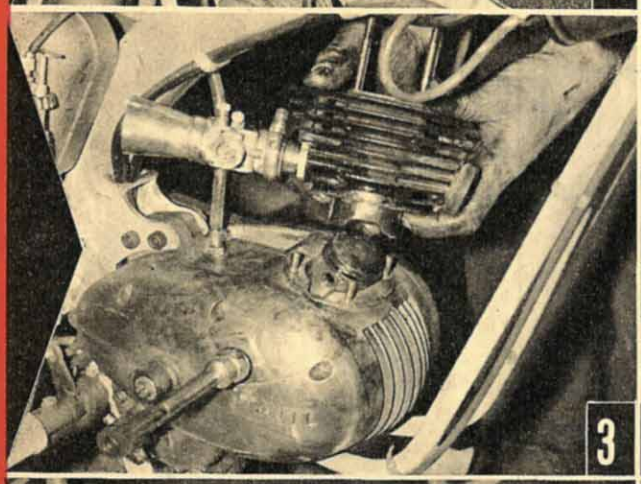
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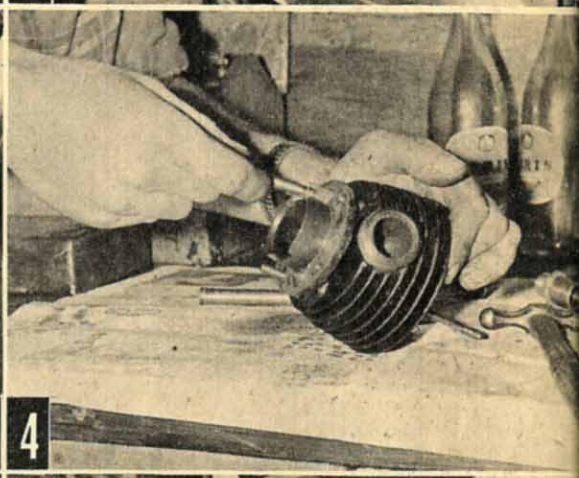
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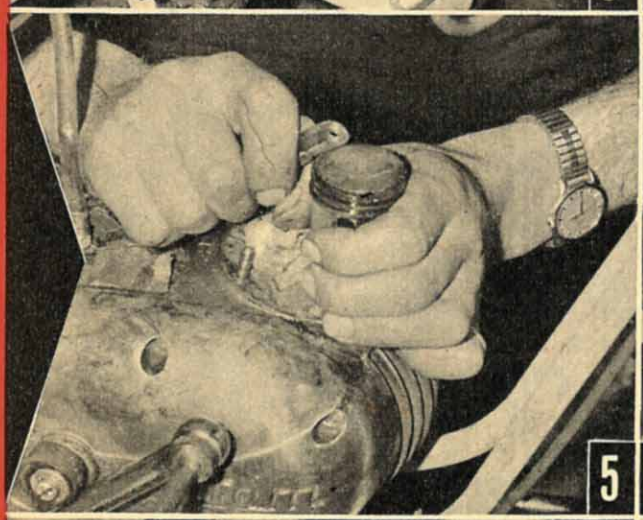
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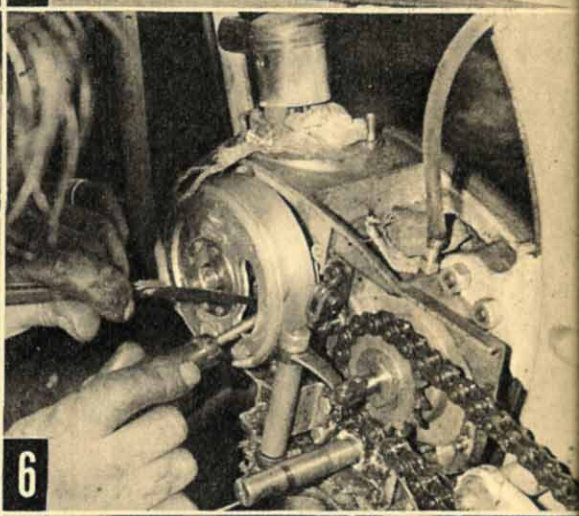
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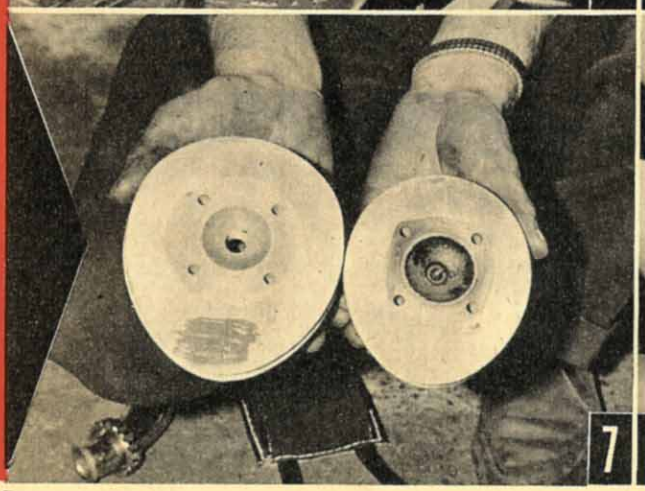
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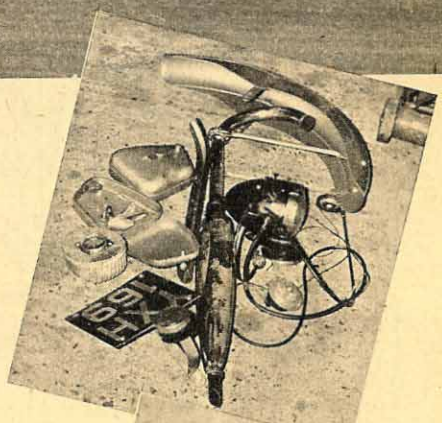
No streamlining—but 6 foot 3 Weightman folds himself round Itom to reduce wind resistance

Riding a standard 50cc Itom MM staff finished third in a 250 mile race. David Frost tells how it was tuned—and why

SOUPING UP A 50 c.c.



Above : a pile of bits and pieces removed from machine to reduce weight. Below : machine can be lifted easily by only one man

My face was buried deep in the foam rubber tank pad. Directly below my head the engine shrieked through a stubby megaphone. All I could see of the machine a few feet in front of me was a rear wheel surmounted by someone's enormous leather-clad backside—rather like a hippopotamous riding a bicycle.

The following lap I slithered to a halt at the pits. I staggered from the machine half deaf and stiff after an hour at the controls. David Weightman leapt into the saddle, and within five seconds he was off on another leg of the Chiltern 250 mile race for 50 cc motorcycles at Snetterton.

What, you may ask, were two members of the staff of MM doing racing at Snetterton ? The answer is quite simple—we set out to prove that a chap with very limited means can buy a machine for everyday transport, and for a modest outlay convert it at weekends for racing.

We borrowed a brand new Itom Super Sports from A. H. Tooley, Station Garage, London, S.E.12—the Itom specialists. It was in full road going trim. It costs just £96, plus another £5 for certain racing bits and pieces if you want them.

The scheme was this. David Weightman and myself were to run it in and generally get the hang of it. We would then take part in the 250 mile race and ride the machine to work all the following week back in road-going trim.

The running-in was not as dull as might be expected. Very soon we were cruising at 40 m.p.h. The semi-racing riding position gave a tremendous impression of speed, and the cornering was quite fantastic. In traffic the little Itom was a real gem—provided you tuck your elbows in you can take it through the narrowest places.

We soon had 900 miles on the clock,

10 Minute Tips

TIGHT NUTS To prevent trouble from seized-up nuts keep a tube of graphite handy. When doing up bolts smear the threads with the graphite and wipe any excess when the nuts are tightened.—C. D. PETTITT, HARROW WEALD.

GREASE GUN *An old syringe of the type used for icing cakes makes an ideal grease gun. The polythene type are best as it is possible to see how much grease they contain without undoing them.*—C. JONES, LEICESTER.

STRING TIDY To prevent that ball of string from becoming tangled procure an old funnel and hang it on a convenient wall. The ball of string can be placed inside and the end fed through the hole. This simple dodge will keep your string clean as well as tidy.—E. BELSHAM, SOUTH SHIELDS.

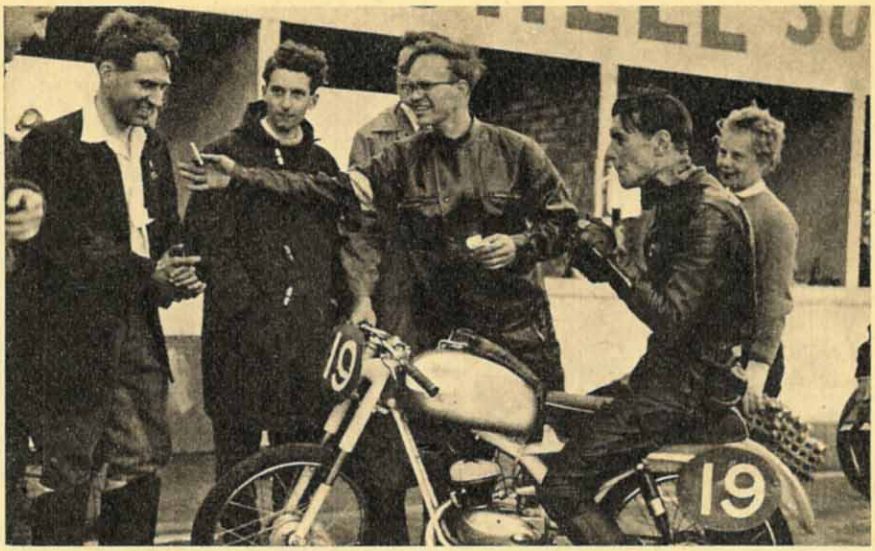
KEY RING *Many motorcyclists carry a spare link on their key ring to keep them out of trouble should the chain stretch or break. Have you realised that the link itself can be used as a key ring yet is always handy for an emergency?* — L. GREEN, DURHAM.

WATERPROOF PANNIERS The best way of improving the appearance and waterproof properties of P.V.C. pannier bags is to coat them with a rubber based paint such as Holt's Tyrewall Black. This is easily applied and does not tend to rub off as is frequently the case with normal preservative solutions.—A. C. COASE, LONDON, S.W.18.

CURING CONDENSATION *Condensation in the pre-focus light unit during damp weather soon destroys the brilliance of the reflector. This unit is expensive to replace but a small muslin bag filled with silica-gel crystals taped inside the headlamp will absorb any moisture which may find its way inside.*—D. BATCHELOR, BANBURY.

ROTPROOF THREAD The usual waxed thread used for repairing dual seats rots in a fairly short time however careful one may be in undertaking subsequent waterproofing. Strong nylon fishing line which may be bought quite cheaply from any tackle shop is an ideal substitute being completely rot free and considerably stronger than thread.—D. M. HANCOCK, NEWPORT.

PUNCTURE TIP *How often have you suffered a puncture in the wilds and found that your inflator would not pump to the required pressure? There is a simple remedy. The washer has probably dried out. Try dipping it in the oil reservoir. This simple dodge has frequently saved me from trouble.* —S. SIMMONS, WOODBRIDGE.



A cigarette at last! Immediately after the finish Frost offers Chalaye of Tooleys a fag whilst Weightman, half deaf, lights up. The Itom ran flat out for 250 miles, and finished third with a perfectly clean motor

and the time came to get it ready for the big race. Two hundred and fifty miles is a long way for any racing machine. Obviously we would not want to run it at anything like maximum revs. We thought that we should aim at a steady 50/55, and hope that any faster opposition would blow itself up.

The work—which only took one afternoon—resolved itself into three clear stages. First, throwing as much away as possible. Second, checking that what was left was in perfect mechanical condition. Lastly, fitting certain special bits and pieces that you would only use on the race track.

Stripping it down

Before long David was surrounded by all the bits and pieces we didn't need—front mudguard, exhaust pipe and silencer, number plates, licence disc, rear chaincase, all the lights and wiring harness, toolboxes, centre stand, kickstart lever, speedo and cable. What was left looked a bit pathetic, to say the least!

We decided to use the same barrel—but did a bit of crafty polishing of the ports. The centre web in the inlet port was not reduced in any way, for fear of it warping during the long race. The piston was polished, and all carbon cleaned out of the ring grooves. The bore was beautifully smooth, which paid tribute to our careful running-in.

While David cleaned the points and advanced the ignition a shade, I checked the wheel bearings and brakes. A piece of rubber bicycle inner tubing was placed over the coil in case it rained, the clutch was adjusted and the gearbox topped up.

The two main alterations we made were the fitting of a high compression cylinder head (cost 45/-) and also a neat little megaphone exhaust pipe shaped like a medieval hunting horn (52/-). A few spare oversize jets for the carburetter cost 1/9 each.

The race was organised by the Racing 50 MCC, and the circuit at Snetterton is 2¾ miles in length. That makes 92 laps. We decided to leave the gearing as standard so that the engine could never be run to its limit—in a race of this nature it is essential to keep going. There is no glory in blowing the motor up on the third lap.

At exactly 12.30 the Union Jack was dropped, and David Weightman was off with 52 other riders on the first leg of this fantastic race. He managed to cram 16 laps into the first hour (43 miles). When he pulled in we changed a plug, refuelled, and then I was off for the next hour. Once again we managed to get 16 laps done in the time.

Cornering flat out

We were getting between 50 and 60 down the straights, and most of the corners could be taken taken flat out—just.

When the leader (No. 7, another Itom shared by W. Ivy and M. Thomas) had completed 240 miles we were amazed to find ourselves lying fourth. (Shades of the hare and the tortoise!) On the last lap but one David Weightman gave it all he had, and managed to squeeze past the third man. No. 7 was a good couple of minutes in front, but the second machine—ridden by V. Dedden and Mick Woolett—was only eight seconds ahead.

But it was too late to pick up the few seconds and we finished third. Which was far better than we had any right to expect.

We did miss one thing, and this undoubtedly cost us second place. For some reason neither of us had checked a little cap on the gearbox for tightness. It came off halfway through the race, and David Weightman had a few interesting moments when oil sprayed on to the rear tyre. Stopping, fitting a new cap and topping up the gearbox cost us a full minute. And at the finish we were only eight seconds behind the second man.

The following day we put the machine back in road-going trim. The fuel consumption on the road is somewhere around the 120 m.p.g. mark, and cruising speed 40/45 m.p.h.

A handsome Trophy reminds us of a very enjoyable day's racing, and the prize money—a cheque for £5—just about covered the cost of the special racing head and megaphone exhaust. ●

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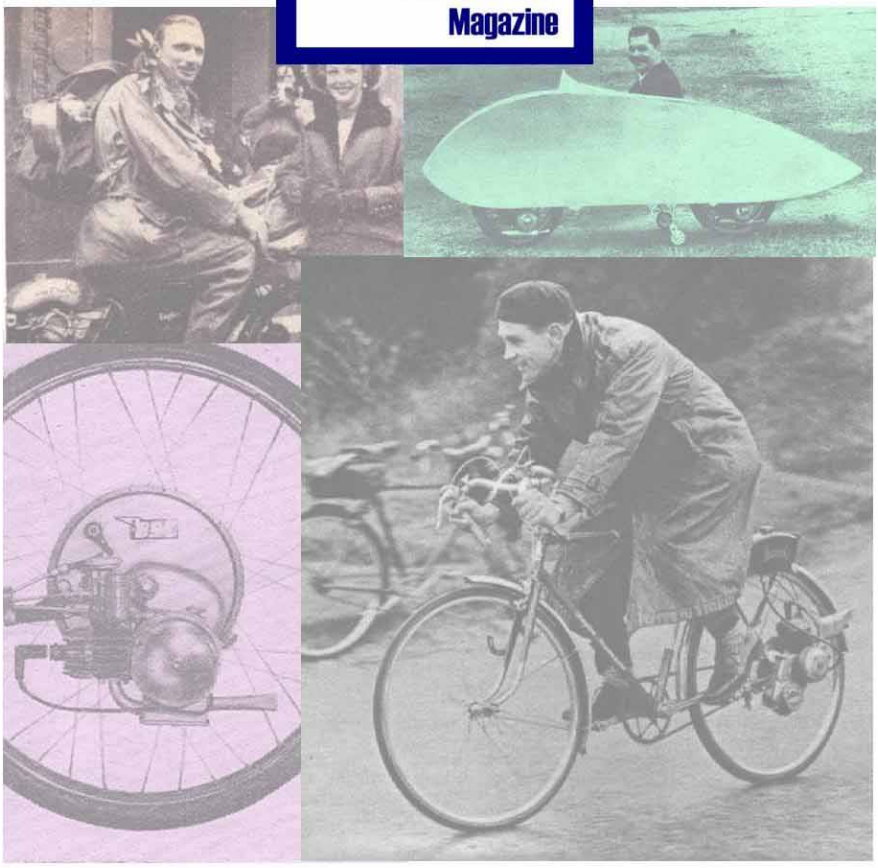

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