



Zero hour! Precisely at 7 p.m., "Cyclops" starts the engine of the Super-Clubman Matchless at the beginning of the 1,000-miles non-stop run.

FIVE or six weeks ago one of our readers asked a question in connection with our system of conducting road tests. He wanted to know whether we carried out our standard acceleration experiments at the beginning of the test, in the middle of it, or at the end. The answer is that we have no set rule about it; sometimes we put a machine through its paces immediately the running-in period is completed; sometimes we wait until the end of the road part of the test is finished before putting the model through its paces at Brooklands—and sometimes we sandwich the acceleration tests between two periods of road riding. As I say, we have no set rule about it, nor would it be practicable for us to have, for, naturally, we like to choose a fine day for the Brooklands business and, unfortunately, we have no authority with the Clerk of the Weather.

We explained all this—or, rather, A. McAnnick did—to the reader who questioned us. He wasn't satisfied.

"That's all wrong," he said (the awkward fellow!). "You ought always to do the acceleration tests as a final effort, because modern machines lose their tune after a few hundred miles' riding."

"Rats!" said A. McAnnick, or words to that effect.

But he pondered over the suggestion in the way he has, and he was still pondering when a telephone call came through from Mr. D. S. Heather, director of Associated Motor Cycles, Ltd.

"What about carrying out a road test of the Super Clubman Matchless?" he asked, adding, with a note of pride in his voice: "It's rather a pet of ours, this model, and I'd rather like you to think out something special in the way of a test."

"Delighted," said McAnnick. "You don't mind how stiff it is?"

A4

1000 MILES

An Ambitious Test of a "38"

Described by

"Gaudeamus"



"Not a bit," said Heather quite cheerfully.

So our man, still ruminating about the reader's objection, plotted out a scheme which was no less ambitious than this:—

(a) The machine should be put through its paces against the stop-watch *after* the road portion of the test had been finished, and

(b) The road portion of the test should consist of 1,000 miles' running *without stopping the engine for a moment.*

"That suit you?" he asked Mr. Heather.

"Perfectly," said the latter, without a tremor.

"Bear in mind that if the engine stops—if the plug cooks or a valve-spring breaks—the test's a wash-out," McAnnick warned.

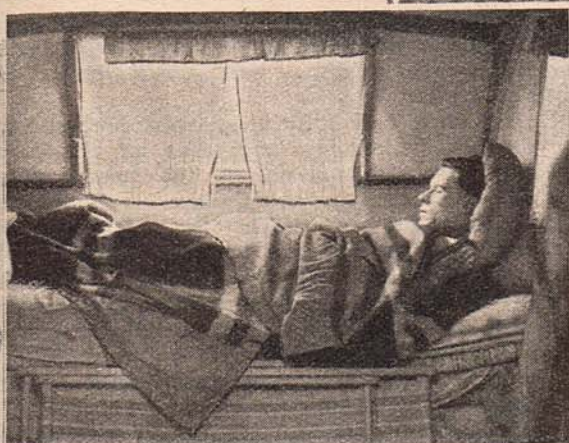
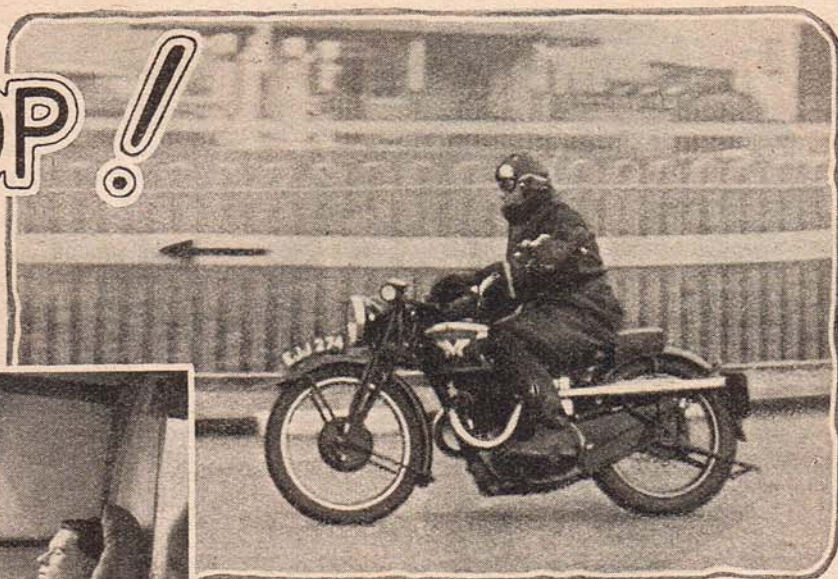
"Agreed!" replied the manufacturer. "I'm willing to take the risk."

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The next thing was to consider the details of the test. If the machine was to be kept motoring for 1,000 miles non-stop it was obvious that a team of riders would have to perform in relays. It was evident, too, that a suitable road circuit would have to be found and that a headquarters, dump, petrol-filling station and dormitory would have to be established in some convenient spot.

NON-STOP!

of a "38/G.90" Matchless



(Left) A snap taken at one of "Tornapress's" stops-to-report. "Cyclops," "Tappitz" and Peter Barrett are in the picture. (Above) Not a Crusader's tomb, but "Tornapress" fast asleep in the caravan. (Top, right) "Cyclops" negotiating a roundabout.



"Tappitz" acting as pit-attendant for "Cyclops" while Peter Barrett logs the mileage on a special chart.

"Cyclops" suggested that we used the Editor's house for a dormitory and dump. But the Editor said "No" after he found out that the plan would entail the arrival and departure of a motorcycle every three-quarters of an hour, day and night.

So we left it to the Editor to think of an alternative (if any).

The Editor, in sheer self-defence, had a brainwave. He called Peter Barrett, the office touring fan.

"Find me a caravan," said the Chief. "A fine, big, comfortable, warm caravan, with bunks and beds and pots and pans and stoves and heaters and things."

Whereupon Peter made all the necessary arrangements with the London Caravan Co., Ltd., of 18, Dering Street, W.1—most charming people, who entered into the spirit of the adventure and made no bones when we told them what we proposed to do with one of their "Raven" models.

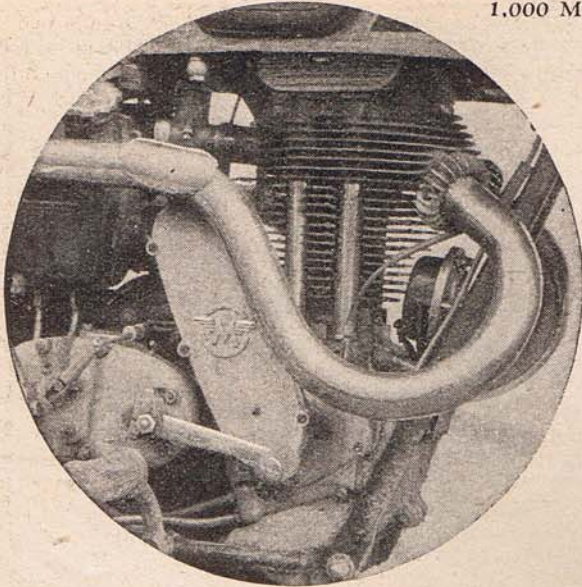
That done, the Editor and Peter went into committee on the question of food and its relation to the inner man (a question on which the Editor is an undoubted authority), and the upshot was that Barrett was commissioned to buy large quantities of comestibles, which the Editor said he could cook.

As the next step, the Chief, along with "Cyclops" and A. McAnnick, sallied forth on three machines to survey the course. It was a closed circuit embracing part of the Watford By-pass, part of the North Orbital Road and part of the Barnet By-pass, a lap measuring 27.4 miles, this figure being arrived at by taking the average reading of three speedometers after lapping six times, adding the total miles recorded by the three machines and dividing the answer by 18. Then we calculated that, if the testers left the circuit to report at the caravan once every lap, the total distance per round could be stretched to exactly $27\frac{1}{2}$ miles by the simple expedient of placing the caravan exactly where we wanted it. Thus, by being certain of our distance, we should have a perfect check on the speedometer fitted to the Matchless to be tested.

Meanwhile, A. McAnnick and I had prepared an elaborate schedule and checking card, so that whoever was on duty at the caravan could tell the rider from time to time how nearly he was keeping to his set average.

Supplies of petrol and oil were bought and taken to the caravan, and, to avoid the risk of a flare-up while

1,000 MILES NON-STOP.....(Continued)



Really remarkable cleanliness was exemplified by the Matchless engine as shown in this absolutely untouched photograph taken on completion of the test.

filling up with the engine running, we sought (and obtained) the co-operation of Antifyre, Ltd., of Golden Square, W.1, who provided us with beautifully business-like fire-extinguishers, to be kept handy in the "pits."

Nothing was left undone in the way of preparation, and we were all rather looking forward to the riding and the sojourn in the caravan.

* * *

Zero hour approached. At 6.55 p.m. a little knot of us grouped ourselves at the caravan in the London Caravan Co.'s park at Stirling Corner, while George Rowley gave the model a last-minute look-over.

At 7 p.m. precisely "Cyclops" started on his first lap.

And woe betide any poor unfortunate who should happen to stall the engine ere it had driven the Matchless for a full thousand miles!

"Cyclops" was scheduled to take the first three-hour spell of riding, and away he sped on his first lap, while we others set about installing ourselves and our belongings in the very comfortable caravan. We were by no means shipshape when "Cyclops" came in to report "Everything O.K."

On Icy Roads

As McAnnick made a note of the speedometer reading "Cyclops" kept the engine ticking over, while he told us that he had encountered no fog on the course. This was an encouraging beginning, for the weather reports had been most depressing—"Fog, sleet or occasional rain, becoming colder."

And, indeed, the weather did grow colder as "Cyclops" continued with his ride, and when he came in after a further lap he reported patches of fog. The machine, however, was settling into its stride and was motoring beautifully, a delight to handle and steering magnificently.

When his turn—four laps—was over, "Cyclops" handed the machine to "Tornapress"—the engine still running, of course—and came in for a bowl of soup and to report his impressions.

He was full of admiration for the Matchless. Even on the icy roads—and they were icy by that time—the

mount felt as safe as houses. The brakes, he said, were very good indeed, working smoothly but positively—particularly the front one, which, said "Cyclops," was a really excellent anchor. There was scarcely any mechanical clatter from the engine, and our man felt that the enclosure of the valves—hairpin springs—was helpful in this respect.

The ground covered during the "innings" totalled 112 miles, and "Cyclops's" average speed worked out at 39.5 m.p.h., including three stops to report at the caravan.

This average was an improvement on the schedule, and "Tornapress," when he took over, had been advised to take things more cautiously, in view of the fact that weather conditions were getting worse as the night grew older.

He had never been round the course before and the fog did not make things any easier for him. Like "Cyclops," he was impressed with the smooth running of the engine and, again like "Cyclops," was filled with admiration for the brakes. The course included about a mile of 30 m.p.h. limit and the Editorial instructions about the observation of this were strict and unequivocal. Nevertheless, "Tornapress" covered his first lap in 45 mins. and improved on this by cutting down his second-lap time to 40 mins.

The night was growing colder and parts of the road were covered with a film of ice. The front of the rider's coat was a plastron of frost and goggles were useless. Conditions could scarcely have been much worse for the job in hand. Fortunately, at that hour of the night there was practically no other traffic on the roads and the countryside was deserted.

Lap after Lap

Each rider's tour of duty amounted to four laps, with a stop to report at the end of each and a refuelling stop between the riders' spells. "Tornapress" finished his "innings" at 12.45 a.m., and five minutes were spent topping up the tanks and checking over the machine (with the engine still running) before the next rider set off.

One "Tappitz," a newcomer to *Motor Cycling's* staff but a well-known performer in the "International" and at Donington, was the man involved. He, too, was unfamiliar with the circuit, but he managed to cover his first lap in 40 mins. and reported that the Matchless was behaving beautifully, whiffing along in its sixties on a mere quarter-throttle. The footrest position, however, was not quite suitable, as it had been adjusted for "Cyclops" and "Tornapress," both men of more impressive stature. It was obviously impracticable to readjust matters in the course of a non-stop run, so "Tappitz" had to make the best of it. The only other complaint related to the dimming switch, which had managed to work loose on the handlebar. It was easily tightened up with a screwdriver at the end of a lap.

Before the machine set out on another circuit, our Editor, who by that time had come on night duty as checker, spent a few minutes looking over the machine by the aid of a torch. He found nothing amiss and expressed himself as agreeably surprised by the complete absence of any oil stains anywhere.

When "Cyclops" took over again at 3.32 a.m. (having been aroused from heavy sleep by the Editor's simple expedient of spilling some hot soup in his face as he lay in his berth), the running average, from the time the machine started, and including two fuel stops and

ten other stops to report, worked out at 38.8 m.p.h., which was exactly 8.8 m.p.h. higher than the schedule that had been set—a most remarkable fact in view of the road conditions. Yet at no time were any risks run—a point which speaks volumes for the Super-Clubman's handling.

It was sleeting dimly at Hatfield by that time and riding was distinctly unpleasant. Yet by the time "Cyclops" was due to hand the Matchless over to "Tornapress" he had put the average up to 39 m.p.h.

As if that were not high enough, our Scottish colleague had piled a further point six m.p.h. on to the aggregate at the end of his spell, and "Tappitz," who came next, put the figure at 40 m.p.h. precisely, only to have even this achievement surpassed by "Cyclops," who, in daylight, increased the running average to 40.8 m.p.h. for a distance of 773 miles including all stops!

Then, at 1.58 p.m., "Tornapress" took over again, and at 4.28 p.m. had raised the running average to 41.06 m.p.h. for 883 miles!

Choked Jet!

After that, however, when "Tappitz" took over, there came a hint of trouble! As he was accelerating away from the 30-m.p.h. limit the engine showed signs of cutting out!

Was it going to die on us? Were we going to be beaten after all—almost on the last lap?

Fortunately, "Tappitz" diagnosed the trouble in a flash—a partially choked main jet. And fortunately, too, he realized that it might be cured without stopping the engine. Tricking along on the pilot jet until he reached a down-grade, he let the Matchless accelerate to 45 m.p.h., and, by dint of closing the air, sticking his fingers up the intake and opening the throttle wide, a certain amount of the "foreign matter" became dislodged and the model surged ahead!

The trouble was evidently only partly cured, however, for the engine would not respond to anything like full throttle and acceleration was necessarily curtailed. Still, the normal 55-60 cruising speed was not impaired and the average had only dropped by about 1½ m.p.h. when "Tappitz" was due to hand the model over to A.

McAnnick, who, having but recently risen from a bed of sickness, was not adjudged fit enough to take a full-length spell. Actually, poor McAnnick was left with only six miles to go to finish the thousand, and this he accomplished by batting up the road and back.

And when he turned the model in it was seen that he had exceeded his duties to the extent of riding seven miles instead of six, so that the non-stop portion of the test totalled 1,001 instead of 1,000!

This distance had been covered in 24 hrs. 38 mins. 15 secs.—an average speed, inclusive of all stops, of, roughly, 40.6 m.p.h.

Only one quart of oil had been used during the 1,001 miles and the petrol consumption worked out at 66.6 m.p.g., 15.03 gallons of fuel having been used in all.

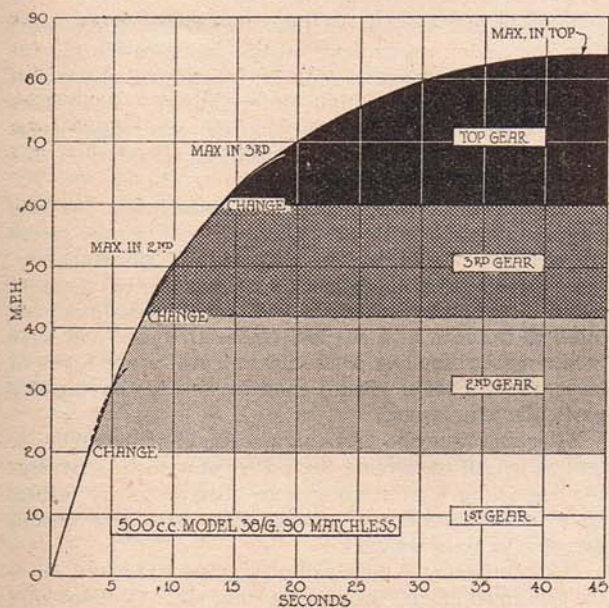
Following the non-stop test the carburetter was cleaned (without dismantling) and a new plug was fitted, the original one having suffered somewhat while the mixture was weak owing to the partly choked jet. Nothing further was done to the machine ere it was taken to the measured quarter-mile for the customary acceleration and braking tests. The results of these are given in our usual table, so there is no need to quote them again.

What must be said, however, is that at the end of the whole business the Matchless was just as good as when it started. Everything—engine, gearbox, ignition, lighting, tyres, wheels, frame—just everything, had behaved splendidly and the riders concerned, though dog-tired after their efforts, were full of praise for a mount the virtues of which would be difficult to exaggerate.

Just one of these virtues must be mentioned as an epilogue:—

When the machine was thoroughly examined after the test there was not an oil stain anywhere.

The Editor gratefully acknowledges help given by Associated Motor Cycles, Ltd., who lent the machine, the London Caravan Co., Ltd., who provided the caravan and site, Antifire, Ltd., who arranged for fire-fighting apparatus and A. W. Gamage, Ltd. of Holborn, who provided batteries for the illumination of the caravan.



The figures from which this graph was drawn were obtained after the machine had completed its 1,001 miles non-engine-stop run.

MOTOR CYCLING

TESTER'S ROAD REPORT

500cc 38/690 Matchless Super Clubman

PERFORMANCE

Maximum Speeds in:—

Top Gear	84 m.p.h.	=	5440	r.p.m.	
Third Gear	68 m.p.h.	=	5210	r.p.m.	
Second Gear	52 m.p.h.	=	6110	r.p.m.	
First Gear	Not ascertained	m.p.h.	=	—	r.p.m.

Acceleration to above Maximum Figures:—

From Standing Start:

Top Gear (Ratio 4.85 to 1)	14.2	secs.
Third Gear (Ratio 6.4 to 1)	18.5	secs.
Second Gear (Ratio 8.8 to 1)	10.5	secs.
First Gear (Ratio 13.3 to 1)	—	secs.

Speeds over measured Quarter Mile:—

Flying Start (Road conditions unsuitable)	m.p.h.
Standing Start	49.45 m.p.h.

Braking Figures (Stopping Distances in Feet):—

ROAD SURFACE — DRY TARRD ROAD

From 30 m.p.h. (Both Brakes)	34 ft.
From 30 m.p.h. (Front Brake)	41 ft.
From 30 m.p.h. (Rear Brake)	65 ft.

Fuel Consumption 66.6 m.p.g.

Oil Consumption No appreciable loss m.p.g.