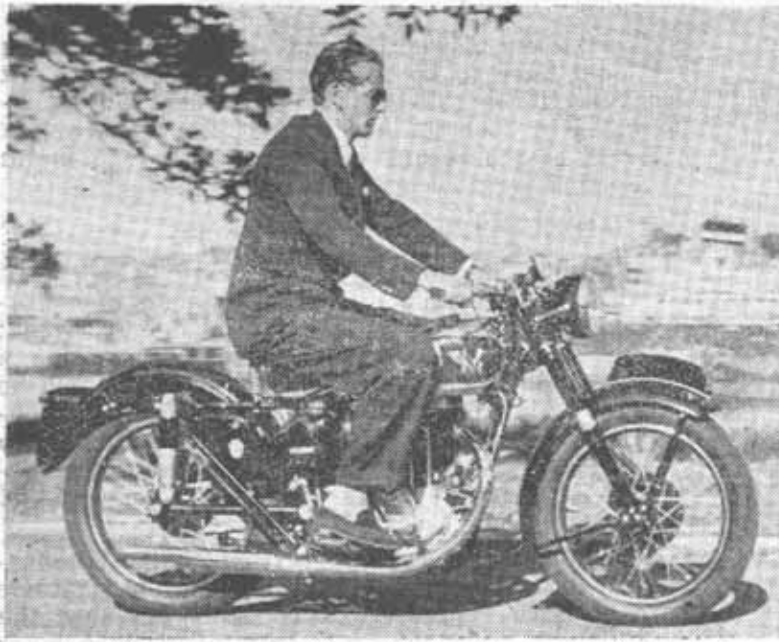


*The compact and handsome lines of the Matchless G80/s are shown to advantage in this picture.*



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The Matchless G80 S handed to Motor Cycling in Australia for road test was a machine that is in daily use as a demonstrator. It had obviously been carefully run in and had, at the time of the commencement of tests, done 2369 miles. During the course of testing, 360 miles were covered over — going that varied between Sydney peak-hour traffic jams and 70 m.p.h. cruising on a country highway. The machine was the de-luxe model, i.e. that fitted with the chromium-plated tank, and the only extra fitting was that of a Lycett sprung pillion seat.

#### ROAD TESTS

Externally at least, this Matchless follows along as being the refined and logical development of a type that has already been on the roads some years. Its appearance and finish are of the highest order, the manufacturers having gone to much trouble to clean up finer points. This model has not, however, suffered from the axe as yet, in that the handlebars still retain the full assortment of levers, that one has come to accept as inevitable with semi-sportive motor cycles. The A.M.C. rear suspension with its massive trailing arms and vertical, telescopic springing units add to the machine's appearance as well as its comfort, and the deep valances on the top section of the rear mudguard successfully camouflage the necessary gap between the tyre and the mudguard. Provision for parking the model and wheel removal are cared for by both centre and swing-out prop-stands; both being standard fittings. The effort to raise the machine on to the centre machine is not great, whilst the convenience of the prop stand is such that the tester will be probing an absent-minded toe under the chain-case of many a future machine!

#### RIDING POSITION

Of this there could be no criticism. The saddle is high and comfortable, the footrests placed so that the rider's legs were not bent sharply; this doing much to prevent fatigue on long runs. The handlebars were within easy and comfortable reach for the tester and gave a wrist

## Refined and Orthodox

The Road Test of:

## Matchless G80s DeLuxe

angle that permitted great leverage to be applied. The rider's position is suggestive of trials practise where a high "standing" position gives an effortless and amazingly accurate degree of control. It does not follow this to the extreme noticed on specialized trials mounts however; but rather effects a compromise between this and the uncomfortably low touring positions inflicted on us by manufacturers in earlier years.

#### ON THE ROAD

Starting the Matchless was an easy matter provided that one refrained from flooding the carburettor. In common with many modern machines, where an air filter is fitted, this point has to be watched closely. Closing the air control and a good swinging kick is all that is required to secure a first or second-kick start from cold; whilst with the engine warm, all that was necessary to start the machine was to lift it from the prop-stand and it would start at first kick. Both warm and cold, having the throttle in the "all but closed" position gave the surest results. Some effort is required to spin the motor over; but after all, it is a big engine and does not differ in this respect from the majority of other 500's. It was found to be necessary to half retard the spark, particularly when starting from cold, for this engine, again in common with others of its type, can kick-back lustily.

From the first instant that the machine commences to roll, one realizes why the manufacturers have continued to produce this model in such large quantities. There is no familiarization period at all, there is nothing to "become accustomed to", no allowances to make, and the machine immediately becomes part of the rider. Several points jump into prominence, the first, occurring during the initial acceleration is that, at all lowish engine speeds, pinking can be caused by a quite normal opening of the throttle. Use of the ignition control stopped this immediately, but it is the tester's opinion that use of ignition controls, as an aid to performance, is something that belongs to the 1920's not the 1950's and therefore, rode the entire test with the ignition control in the fully advanced position. As the engine could be assumed to be free from carbon and as the compression plate had not been removed, it was assumed that the petrol used was the cause of this trouble.

Smoothness of controls, superb brakes, and absolute comfort are other points that make themselves felt from the first, and the almost entire absence of mechanical noise also contributed much toward endearing the machine to the tester.

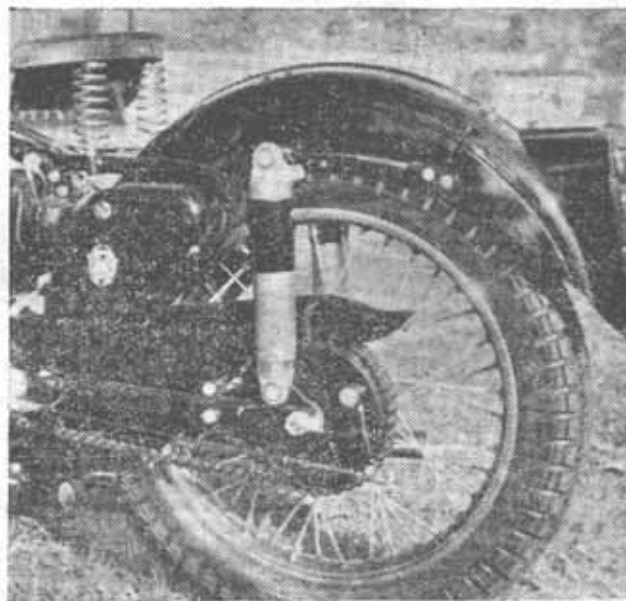
Taking the machine down-town into the traffic gave it its first opportunity to prove itself. Long waits at intersections where one, anxious to be ready to move when the opportunity offered, kept the machine in gear with the clutch disengaged, continually abusing the clutch by worming in and out of the stationary streams of traffic, and prolonged running at very low speeds in the gears made no difference to the machine at all. The clutch showed no signs of the bad time it was getting and the engine temperature did not rise to a point where it could be felt. Lightness of handling made itself noticeable, and the degree of control forthcoming from the riding position was all that could be wished for. Occasional calls for acceleration resulted in the speed rising from a virtual standstill to the upper thirties in what seemed to be only a few yards, all of which made one's progress both rapid and sure.

The gear-change was a thing that came to notice as being light and smooth with positive engagement a certainty. However, the changes were best when the operation was done slowly; rapid changing sometimes resulting in a harsh engagement with a slight noise.

Gravitating into the suburbs where the going is more open but where, never-the-less, the speed is very much restricted, the Matchless still further enhanced the high opinion that the tester was now starting to form of it. Now showing the quality of its suspension, the machine didn't have to be ridden in the accepted sense at all. It was guided by the rider who sat on it with the degree of comfort associated more with motor cars than with motor cycles. It was so docile, comfortable and quiet, that the tester, who gains much of his pleasure from motorcycles in extracting from them all that they have to offer in the way of potency; actually found that he was thoroughly enjoying being "taken" along at a sedate thirty-five by this versatile mount. The suspension definitely "bottoms" whenever a bump of any magnitude is encountered. When carrying a pillion passenger, the bottoming of the rear suspension becomes noticeable to a degree that could be annoying. The design is obviously intended to smooth EVERY small bump found on a good road to a degree not a usual feature of motor cycle suspensions. S.A.E. 20 oil was in use in the shock-absorber units and it is obvious that the replacement of this with an oil of greater viscosity would do much toward improving matters. May it be made quite clear, that this, a minor point, is the only criticism that can be made of the Matchless suspension — either fore or aft. Once a bump has been felt, then that is all there is to it . . . there is no secondary effect at all. The machine can be banked over to a degree more commonly associated with T.T. mounts and remains absolutely stable whilst doing it. Cornering on a rough surface can be undertaken at speeds hitherto confined to smooth surfaces and even on wet-wood-block road surfaces, the machine requires abusive handling to provoke anything that resembles trouble. The brakes, aided no doubt by the suspension, are, as already stated, superb. Their action can not only stop the machine dead in its tracks, but the response to

varying pressures on the controls enable the rider to accurately regulate the braking so that, where the road surface is slippery or loose, the rider may continue to use the brakes with full knowledge that everything is going to remain under control.

On the open road, the machine immediately showed its willingness to cruise at practically any speed within its range. Quarter throttle, two-up, gave a quiet and vibrationless 55, whilst there was a slight period of vibration at 62 m.p.h., this only covered a range of about 3 m.p.h. and then faded out again. At 70, the machine is rock steady, the absence of a steering damper does not make itself felt and severe bumps do not cause either discomfort or directional instability. Fast curves can be taken with every confidence, there is no weave from the rear end, and the general feeling is that the machine simply asks to be ridden hard. On one occasion, two-up and in the rain, the machine was driven rather rapidly down a hill with a wooden planked bridge at its foot. Heavy trucks had taken a lot of slimy mud on to the bridge with the result that, for two-wheeled vehicles, this was a tight spot. The Matchless became involved in an episode of snaking that made the tester wish he was somewhere else. From the end of the bridge, the road dropped sharply for a few feet and then went into a left-hand turn. The snaking business was working itself up to the inevitable climax when the drop was encountered. Arriving at the bitumen, wet as it was, the machine simply straightened up and went on as though it had never been off dry road! Another occasion which gave cause for wonder was during the braking tests, the tester twice locked the front wheel at 30 m.p.h. in an effort to procure the best "front brake only" figures and bought tearing front wheel slides as a result. At the stage where all was lost and the steering had banged itself over on to full lock, the front brake was released and

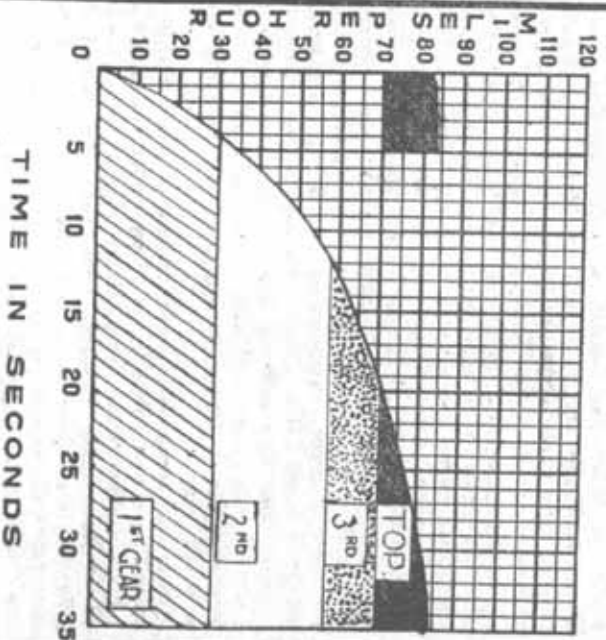


*The A.M.C. hydraulically damped rear suspension gave a particularly comfortable ride. The valancing of the rear guard also strikes a pleasing note.*

# Motor Cycling IN AUSTRALIA

Road Test Data: Test No. 1.  
 Make MATCHLESS Model 498cc C80/s Year 1950

SPEED and ACCELERATION GRAPH



the machine flicked upright and straightened out without further complication! This would indicate that the machine has a factor built into it that makes it inherently safe. The tester has nothing but the highest praise for the Matchless on this score.

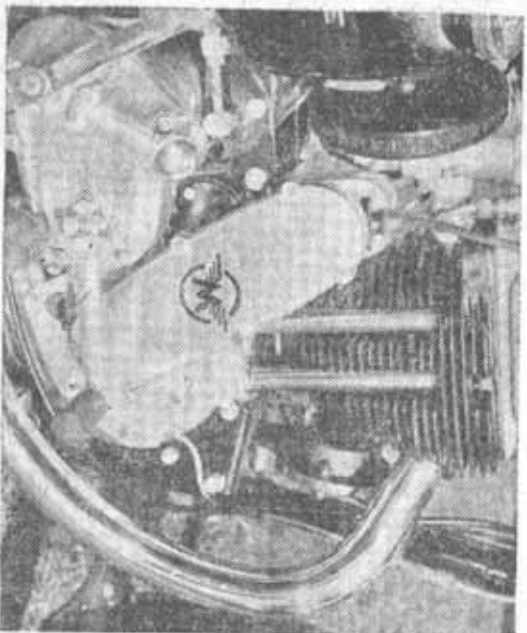
Attention is drawn to the braking figures shown in the data panel. These are not freak figures, were repeated a number of times and were accurately measured. They speak for themselves. At high speeds, the brakes were all that could be desired. A small amount of fade was encountered in crash stops from maximum speed, but this was far less than is to be expected from anything short of ventilated racing brakes.

### AT NIGHT

Riding at night, the beam from the Lucas 8-inch headlamp was more than adequate. It's beam was confined to a flat bar by the diffuser-type, curved lens. It lit up the oncoming road with a brilliance that made fast motoring the rule rather than the exception. Little glare seemed to be transmitted to other road users, whilst the dipped position brought the beam down to approximately thirty yards in front of the machine. The Lucas generator is regulator controlled, and for the most part, charged at three to four amps.

At the conclusion of the tests, petrol consumption worked out to exactly 75 miles to a gallon. Oil consumption would be something less than half a pint and can, therefore, be deemed to be negligible. Tappet rattle was still absent although when cruising, there was a slight ticking that could have been anything in the timing chest or valve gear.

There were a number of small oil leaks by the time the tests ended; the worst coming from the upper pushrod-tube seals, and another from the bottom of the primary chain case. A slight weep was also noticed at the rear of the magneto chain cover and also from the gear pedal and kick-start lever bosses. Of these, the pushrod-tube leaks and the one at the bottom of the primary chain case could be said to require attention. The others could be taken as being the ordinary-rule of things. There was no sign of leakage from either the front or rear suspension units.



Showing the heavy tuning on the cylinder, the carburettor air-filter, and the generator mounted below the magneto at the rear of the engine.

WEIGHT OF MACHINE AS TESTED 385 lbs.

PLUS

WEIGHT OF TESTER 140 lbs.

Compression Ratio: 5.97 to 1; Fuel: POOL

MAX. SPEEDS:

1st. Gear	2nd. Gear	3rd. Gear	Top Gear	(Average of four 1/4-mile timed runs)	Fastest run over 1/4 mile	Accelerated 1/4-mile time	Speedometer read	Miles Equalled	M.P.H.	Ratio.
—	62	75	81.8		83.3 M.P.H.	17.6 Sec.	90	75	83	to 1.
								1/4		to 1.

1st. Gear — M.P.H. 13.4 to 1.

2nd. Gear 62 M.P.H. 8.8 to 1.

3rd. Gear 75 M.P.H. 6.4 to 1.

Top Gear 81.8 M.P.H. 5.0 to 1.

(Average of four 1/4-mile timed runs)

Fastest run over 1/4 mile 83.3 M.P.H.

Accelerated 1/4-mile time 17.6 Sec.

Speedometer read 90 at 83 M.P.H.

Petrol Consumption over 300 Miles Equalled 75 M.P.G.

Oil Consumption over 300 Miles Equalled 1/4 Pint.

Braking:

Stopping distance from 30 m.p.h. Both brakes (Av. three stops) 24' 1"

Front brake only: 45' Feet.

Rear brake only: 69' Feet.

Surface on which brake test was conducted:

*Dry Bitumen (Smooth).*

TESTER'S REMARKS:

*Clutch did not make top with no adjustment prior to speed test.*

Initials *JK*