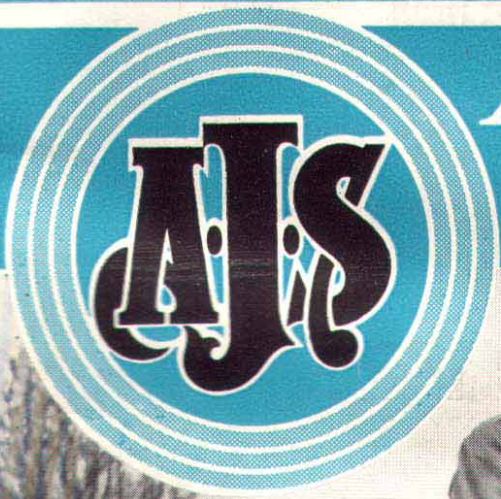


The Motor Cycle
21 FEBRUARY 1957 NINEPENCE

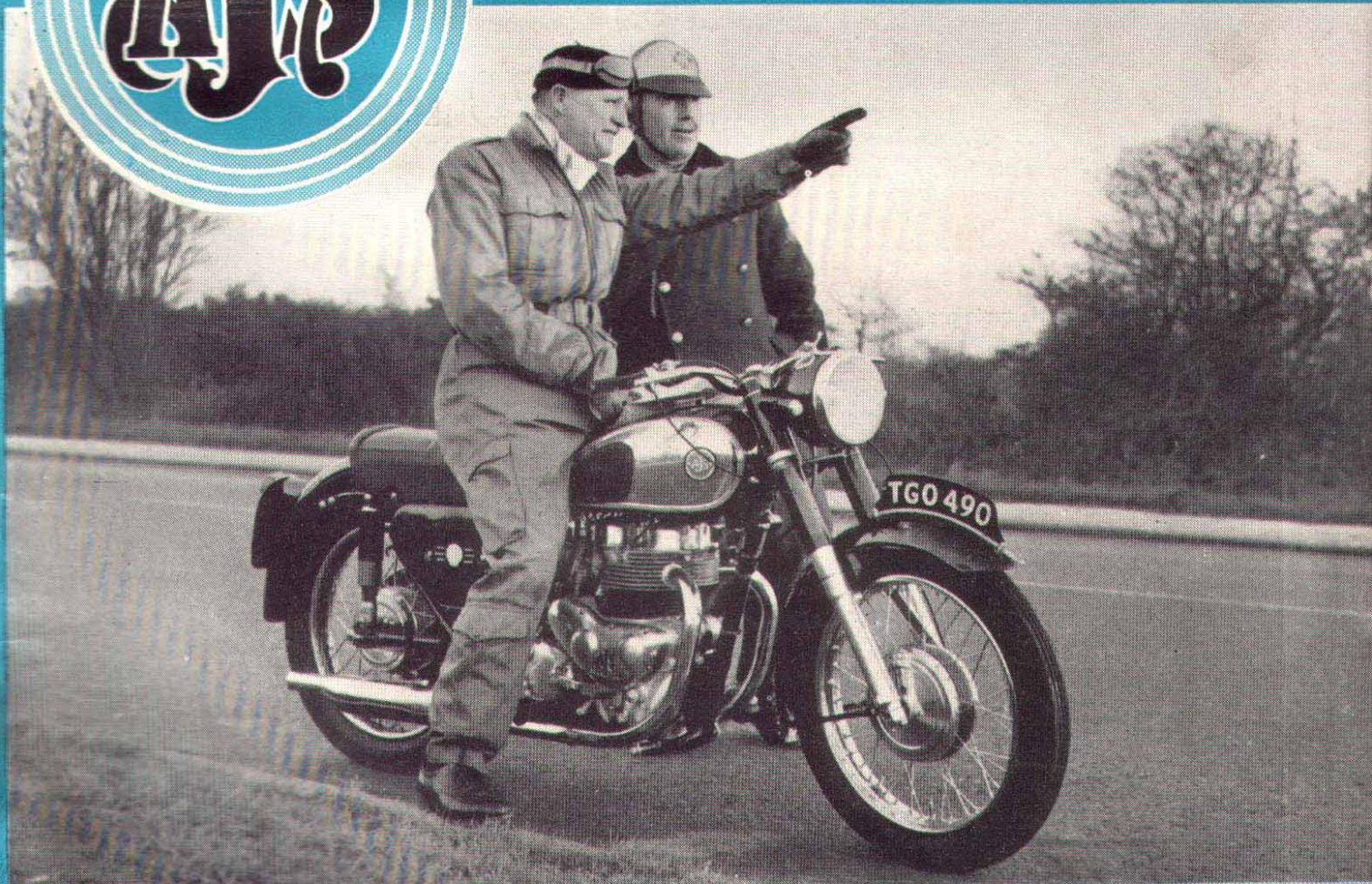
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CALIFORNIA—Here it Comes!

The Story of a Very Special Matchless Used

Temporarily as an Unguided Missile

By VIC WILLOUGHBY

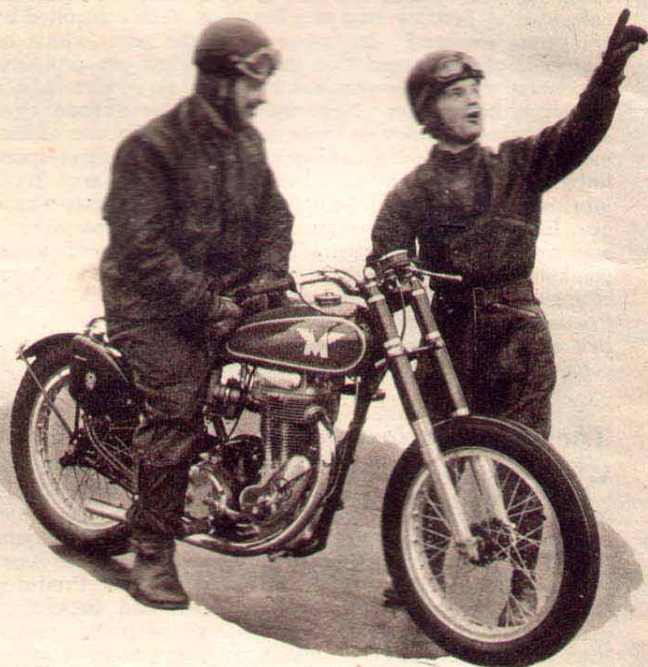
"GET the engine steaming with the clutch out and bottom gear engaged. Then just drop the clutch like a hot brick—let the lever slip out of your fingers, in fact." Who was it gave me that fantastic advice? None other than Bob Manns, one of Britain's most stalwart I.S.D.T. performers and a factory rider for A.J.S. I don't think Bob's finer feelings were any less affronted than mine at the prospect of such ruthlessness for he was at pains to assure me the advice came to him from a friend who dived on the grass.

We were on our way to Brands Hatch with a "sawn-off shot-gun"—that being the irreverent term used by A.M.C. sales director Jock West to describe the special 497 c.c. Matchless single made in strictly limited quantity for the flat tracks of North America. The aptness of West's appellation may be gauged from the twin facts that the model tips the scale at no more than 250 lb while the engine churns out 37.5 lusty horse-power.

But what, you may ask, is that brutal riding technique calculated to achieve. Well, on a loose or smooth surface, it is designed to break rear-wheel traction and produce the slickest of slick getaways—with the normal function of the clutch being taken over jointly by the tyre and the track. On a surface with real bite, however, tyre grip is not so easily overcome and the technique of the red-hot clutch lever is apt to lift the front wheel high in the air. And that, believe it or not, is precisely what we had in mind as part of the day's activities. For the Editor, with a fine sense of symbolism and a brave disregard for my safety and the pristine polish of the Matchless, was dead set on portraying one of the flat-track specials leaping eagerly across the Atlantic to its Yankee destination.

The efficiency of the technique was very soon impressed upon us and may be judged from the illustration at the head of this page—remember, the camera does not lie! Not that we really hoped to leap across the herring pond, though the thought is not so inapposite as it seems. The batch of 50 "shot-guns" exported to sunny California weighs a total of 5½ tons and packs some 1,875 b.h.p. If the machinery had only been made a different shape it might have been possible to fly the order out under its own power.

To revert to the fun at Brands, you may think the 1¼-mile Kent road-race circuit is a singularly inappropriate place to try out a flat-track special. And you wouldn't be far wrong, for the model boasts a solid frame, no front brake or fender (good Yankee idiom, this) and its footrests, in conformity with A.M.A. regula-



Could it be that the author is drawing Bob Manns' attention to a flying Matchless? Or is this just a boasting session concerning front-wheel lifts?

tions, are designed to fold backward and upward when nudged by *terra firma* during a horrifying slide, controlled or otherwise. But life is ever a compromise. In this country we have nothing really comparable to the American flat tracks and trotting tracks so we settled for a hard surface.

Confidentially, I had a yen to play with the Matchless and a stop-watch over a standing quarter-mile on some nice secluded airfield runway, and I remain convinced the model would give a first-rate account of itself in a 440-yard drag. But with petrol scarce, weather unpredictable and neither lights nor muffler on the Matchless, the long safari to a suitable 'drome was out of the question. Brands Hatch, though, is practically on the factory's doorstep and, on arrival at the track, Bob and I took turns to warm up the engine with a few moderate laps. Though we used a braked front wheel for the purpose, we found there was not much call on the brakes but we quickly discovered other reasons why the Matchless is no tool for road racing. The riding position is really upright and behind the hard saddle there is neither back-rest nor pillion pad. Thus the violent acceleration which accom-



panies every tweak on the twistgrip calls for a tight hold if one is to stay with the model. Add the jarring of a solid frame and a modicum of vibration and you'll realize why our forearms were soon aching.

So we turned our efforts to hoicking the front wheel in the air. With squeamish regard for the transmission I felt sure we could perform a Leaping Lena act without being quite so brutal as Bob's friend had suggested. I essayed a few snorting getaways by orthodox methods but, though the Matchless zoomed off the mark right smartly, the front wheel never lifted more than 6in and there was soon a fistful of slack in the clutch cable. Bob tried and the slack increased, so he adjusted the cable, pocketed his conscience and went the whole hog. Sure enough the front end obliged in spectacular fashion.

Obviously, I mused, this aviating is a straightforward business. I circled into position and withdrew the clutch. A flick of the wrist and the rev-meter needle swung past the 5,000 r.p.m. mark. Nonchalantly I let fly the clutch lever. Fortunately the photographer didn't record my effort—otherwise our headline illustration might have depicted the Matchless executing a vertical take-off, straight out of the top of the page! The model lurched forward and the horizon sank rapidly out of sight beneath the handlebar. I had vaguely imagined the front wheel would come back to earth of its own accord but, luckily, as we approached the vertical, an involuntary impulse on my part snapped the throttle shut. A little too harshly, perhaps, for when the wheel landed the unyielding nose of the saddle dealt me a vicious blow which nearly cleaved me in two.

Of course the purists will tell you that a wildly aviating front wheel makes for a sluggish getaway. And they're dead right. For while a small degree of lift is not a bad thing since it assists traction by concentrating all the weight on the rear wheel, a

high lift wastes power and may call for throttle closure. Besides which it's usually easier to steer when the front wheel is on the ground.

Manns told me of an old trials Triumph twin on which he used to lift the front wheel at will when riding slowly in bottom gear with the clutch fully home; because of the rearward distribution of the weight and the lowness of the gear ratio, all that was needed was to flip the throttle wide open. Actually, when playing with the Matchless, we had it rolling at about 2 m.p.h. when we "pulled the trigger." That was to minimize the risk of looping the loop before we could gain control; for we should have been most unpopular at the factory if we had so much as scratched the paint.

So much for our frolics. Now what of the model? To British eyes it seems a strange and slightly incompatible device—but next time you talk of functional machinery just raise your hat to the flat-track Matchless. There's not an ounce of that 250 lb that doesn't do a good job—save, perhaps, the nose of the saddle.

The light weight, which contributes so largely to the almost lethal pick-up, stems from the absence of anything not absolutely necessary, the use of the old bolted-up solid frame and small-tube front fork, and to the generous use of aluminium alloys (cylinder head and barrel, 2-gallon petrol tank, wheel rims and rear fender). The 4-pint oil tank is uncommonly sited alongside the top of the rear wheel—this for the very good reason that the Yanks want it there. A wide-ratio gear cluster is used in the Burman four-speed gear box.

Power—lovely, brutal power—is available, without the least show of temperament, from tick-over to peak, which is 6,250 r.p.m. What's more, the engine rockets up the r.p.m. scale with an alacrity which is scarcely decent. Peak torque occurs at 4,000 r.p.m. (where power is 27 b.h.p.) and, for the No. 8 hats, represents a b.m.e.p. of 176 lb per sq in. Both torque and power curves are creditably flat. The valves don't become obstreperous till around 7,000 r.p.m.

What manner of pushrod single furnishes these traits, so desirable to the flat-track artist? Basically the engine is a five-hundred scrambler. But though it is souped-up a trifle it still performs knock-free on ordinary premium-grade petrol (about 80 octane). Most noticeable departure from scrambles specification is the use of an Amal 10GP carburettor (with a 1½ in choke) on a long extension. From carburettor mouth to inlet-valve head, the induction tract measures no less than 13in. With standard valve and ignition timing, that requires an exhaust-pipe capacity of 1,570 c.c. for the best results—and that, after long and arduous calculation on my part, means an axial length of 45½ in.

The engine has an interesting feature which, though it is standard on the scrambler, may be news to some readers: the sparking plug is positioned vertically in the cylinder head, plumb on the cylinder axis. This permits a higher useful compression ratio than does the more usual inclined position; in this case the ratio is 9 to 1.

All that remains is for 50 intrepid Yanks to pour it to their flat-track Matchlesses—whatever the transatlantic magazines mean by that intriguing phrase. Now that should be a sight worth seeing.

The picture on the left stresses the imposing appearance of the Amal 10GP carburettor and its long adaptor. Right: Plaything for American sportsmen. Though the Matchless is built largely from standard (including racing and scrambles) parts, it has a distinctly "hot-rod" performance

