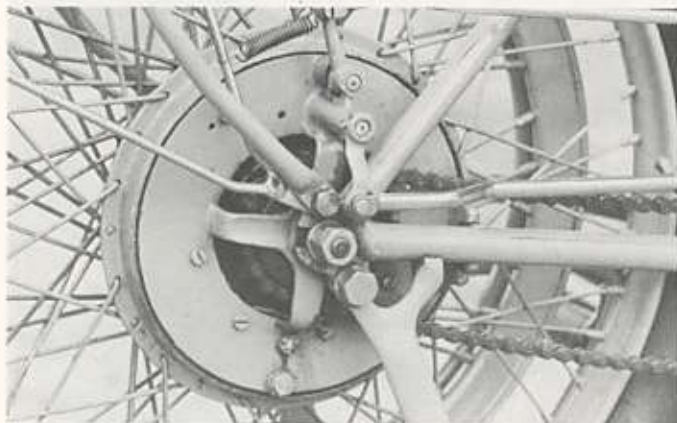


1911 Matchless 770cc V-twin TT Roadster

PIONEERS tend to appear larger than life in the eye of the historian. So, in the world of bye-gone motorcycling, the Collier brothers seem giants. As founders of the Matchless marque — which formed the hub of the once all-powerful Associated Motor Cycles group embracing Matchless, AJS, Norton, Francis-Barnett and James — they deserve a large niche in a Motorcycle Hall of Fame. Not only did they build some of the first successful machines in the country but they rode them with a skill and determination which brought them success in the IoMTT races before WW1 and at Brooklands at the dawn of racing. Designer-manufacturer-riders like Charlie and Harry Collier are no more. Technology has nowadays escalated to the point when the design team, working with a computer, may never even see the finished racer and will most certainly never ride it.

But the Colliers, controlling fierce contraptions with big V-twin engines in glorified push-bike frames, with no more protection than cord breeches, woollen stockings and a pullover topped with a cap with a peak at the back plus early aviator type goggles, did their research and development the hard way.

I like to think that is how they hit on the stunning idea on this



(Top) No, you're not seeing double. It is Bob Lines again and the bike is much like, very much like, his Clyno featured earlier. Rear hub (above) houses 2-speed epicyclic gear and the massive internal-expanding rear brake has bronze shoes. Chain is of course for starting engine.

test machine of having two belts in parallel. Now anyone who has tangled with belt drive knows that, like a chain, it is as only as strong as its weakest link and the weakest link in a belt is the link that joins the two ends (or was 'til a man named Brammah, there must have been a Mr Brammah? produced the belt which is all links and made belt drive bearable for today's vintage enthusiasts). But way back in 1911 the belt was the limiting factor. It limited engine development because you could not get a low enough gear to let an engine rev and it limited engine power because belts were not just up to transmitting large lumps of torque.

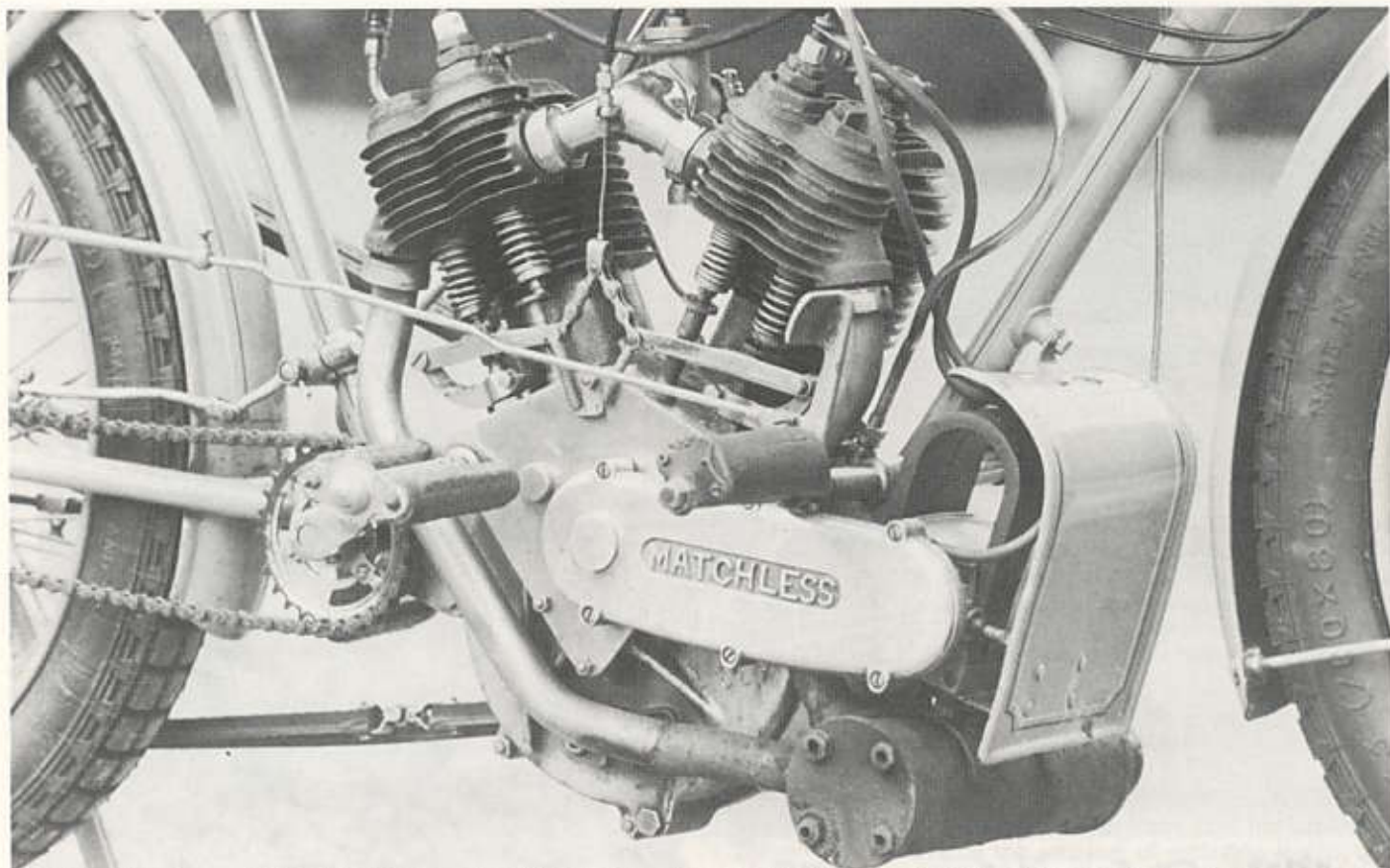
Brace of belts

To the best of my knowledge only the Colliers came up with the deliriously simple dodge of using twin belts and this is the only example of it I have ever encountered. If there is a snag that prevented its widespread adoption I have not found it. Perhaps the idea was outdated by the introduction of change-speed hubs and countershaft gears which put up the belt speed and therefore eased its load. As a matter of fact this Matchless is also unusual to me for the additional reason that it has a change-speed device in the rear hub. The design is loosely based on the excellent Roc gear, being an epicyclic reduction gear situated in the rear hub.

Unlike the Roc however, the Colliers opted for a dog rather than a friction clutch to make top gear a really direct drive. It seems to me that with this model the Colliers had heavy-duty sidecar work in mind. The 770 cc sidevalve JAP engine of the period was a slogger. It was not the kind of motor they themselves used for racing. Those were usually the fast but fragile JAP's with vertical ohv.

But this one is fast enough for me thank you. Perched precariously on this machine, which feels like a mobile five-bar gate, and unable to more than tip-toe the road beneath me, I am accepting owner Bob Lines' word for it that it will do getting on for sixty miles per hour. It can cruise comfortably at 35 when the JAP is just ticking over and the click and clack of the valve gear is no louder than granny's knitting needles.

Count me out of any tests of high-speed cornering. I would not mind trying the thing out for speed with a sidecar attached — but solo never! They were brave and fearless men who rode these big



Matchless by nature and Matchless by timing chest but it's still a sidevalve JAP. Note the chain-like whiffletree for the decompressors. The cylinderhead taps seen opposite are not repeat not half-compression devices but tap-taps. Purpose? To allow the injection of paraffin to dilute the thick oil of by-gone days, the cylinder-wall drag of which was stupendous for a cold start in frosty weather where a big engine was concerned.

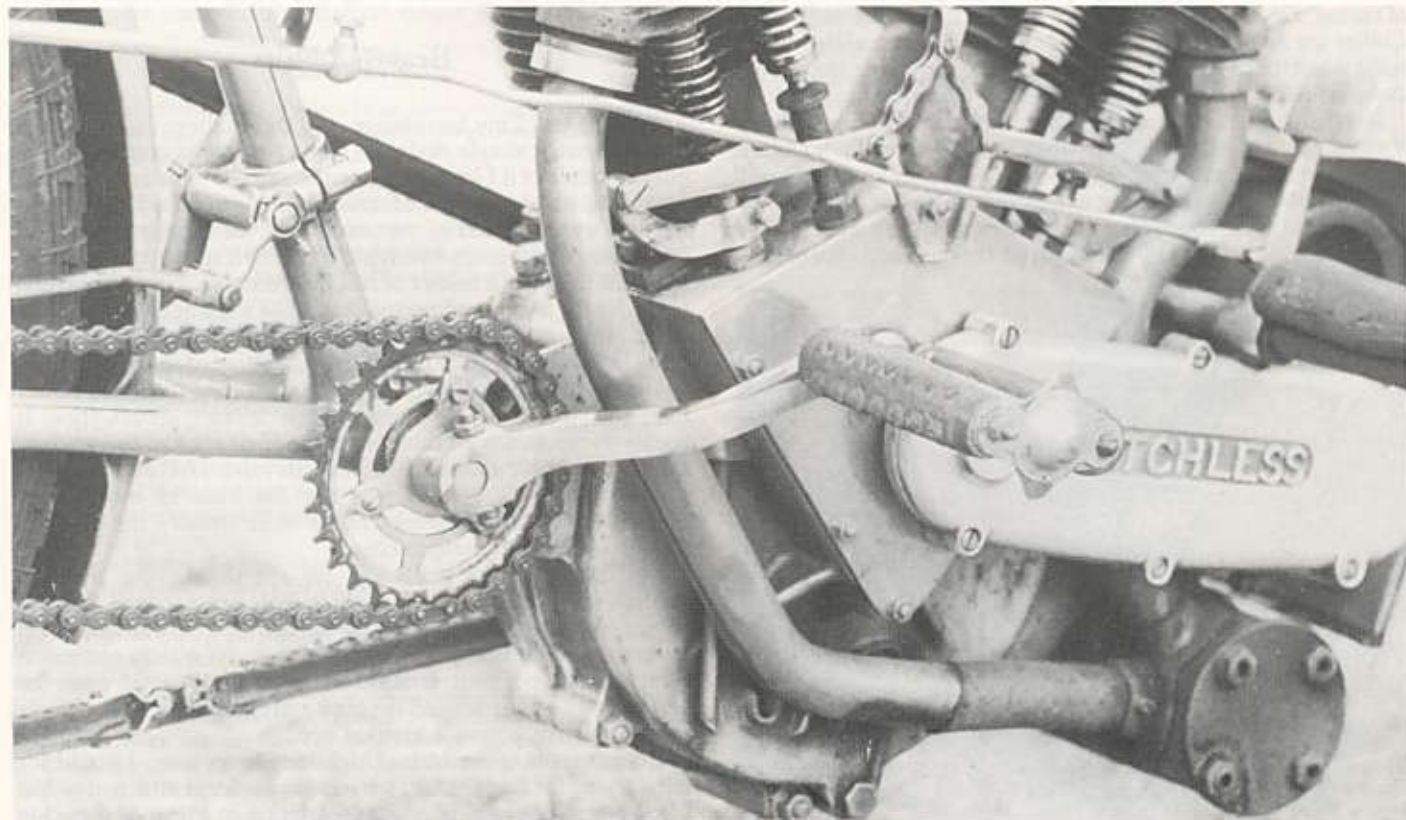
veterans on rutted roads with grass up the middle, who rode them from London to Lands End and other such routes in long-distance trials. I am not at all surprised that when war came they nearly all opted for the Flying Corps...

I suppose it's what you are used to. Like brakes. The Matchless relies on an internal-expanding metal-to-metal drum brake in the back wheel. The epicyclic gear needs copious greasing. The brake does not. But it's bound to get to it sooner or later! So most of the time it doesn't work. Back to the old valve lifter which kills the engine with a sniff and a snort. The front

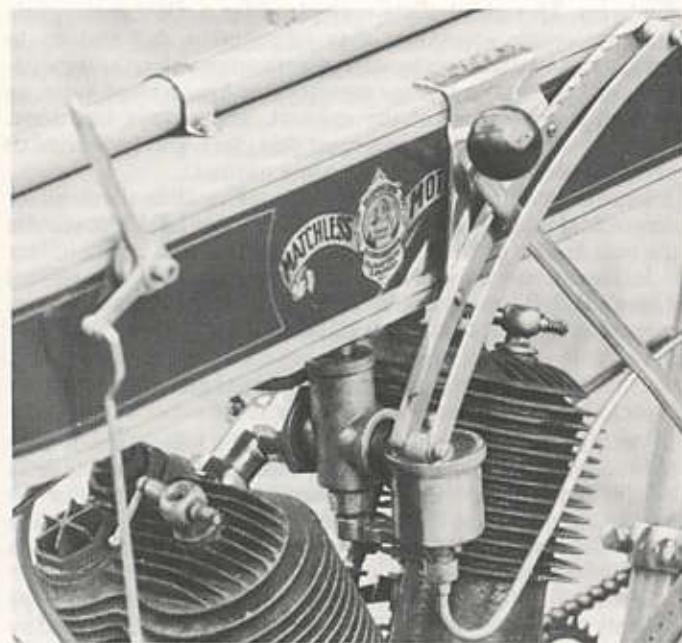
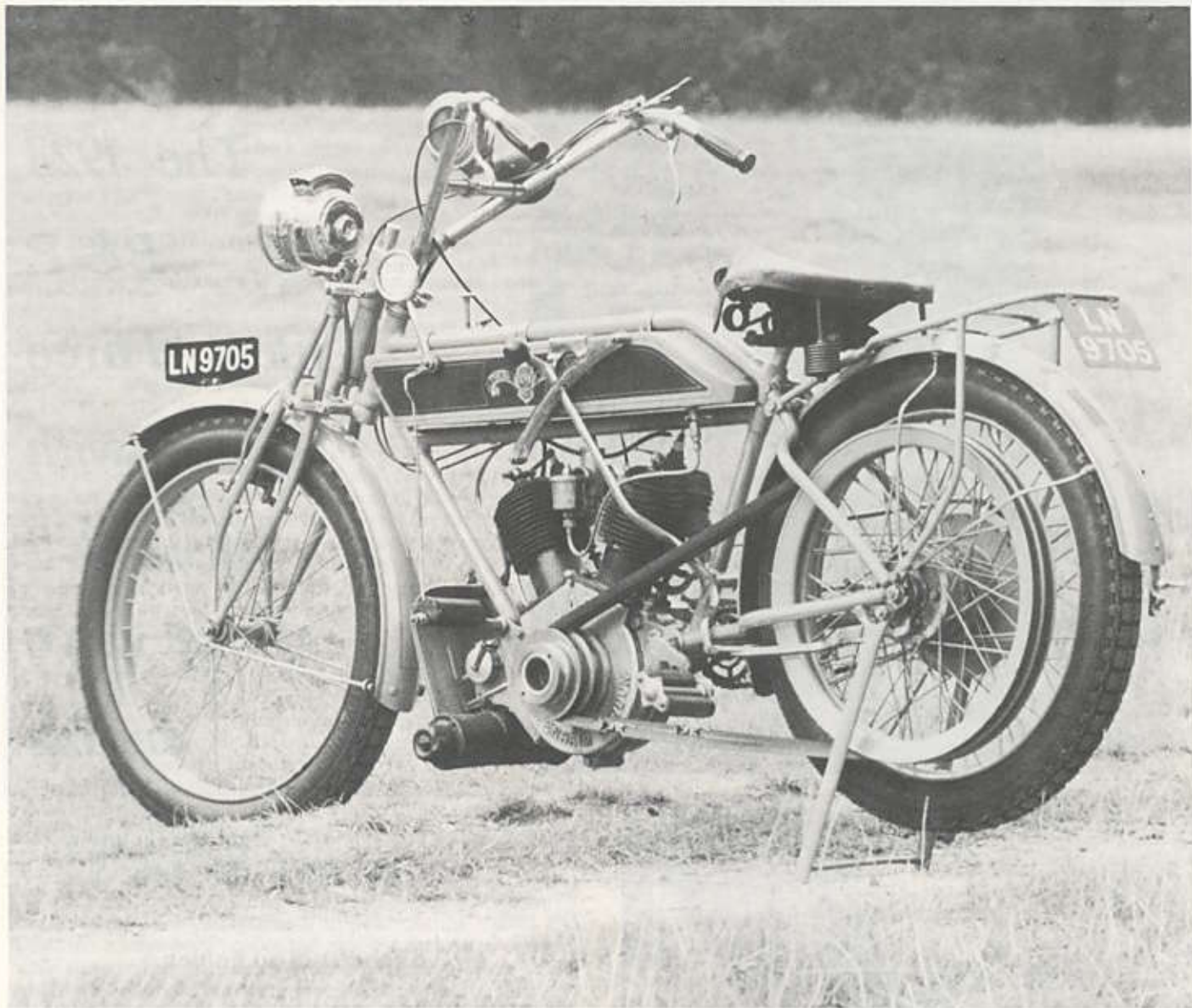
brake is ornamental, no more. Slow down one can. But stop? Actually stop. Ah, there's the rub.

There is a tremendous gap between the low-low and the direct top gear. And, despite all its torque, the Prestwich V-twin is not too happy about the switch. So you have to get up to full rattle in low before you shove the lever into top and then wait for the revs to die on a closed throttle before the dog clutch engages. Thank heaven for the silky belt drive to take the shock out of this brutal business...

Bikes fit for heroes I say about veteran big twins.



Lines appropriately has period registration LN which was a London number used from 1905 to 1915. Nearly a decade for Britain's capital to use 9999 numbers! The double pulley setup is clearly seen here. And from this side there's no chance of Matchless disguising it's a JAP and, just in case you don't know where they were made, Tottenham, London, is cast in for good measure. Note the pepperpot silencer under the magneto which has a dung-dodger splash shield, very necessary in those horsey times and on often unsealed roads. Colour scheme is khaki lined green and gold.



The operational end of this fearsome gear lever is in the back hub; it is shown here in the free-engine position. Carburetter is an Amac spray job. Both oil-dilution taps can be plainly seen.

DATA

Engine: 770cc JAP aircooled four-stroke V-twin. Side valves. 76 x 85 mm bore and stroke. Cast iron heads and barrels.

Lubrication: Constant-loss replenished by drip feed.

Ignition: High-tension Bosch magneto in front of engine.

Carburation: Amac two-lever spray carburetter.

Transmission: Twin V-velts to 2-speed epicyclic rear hub, operated by tankside lever.

Frame: Diamond type with Matchless girder forks.

Wheels: Beaded-edge type for 26 x 2½-inch tyres. Internal-expanding rear brake with bronze shoes. Stirrup-type front brake.

Tanks: Flat tank between frame top tubes. Petrol capacity 1½ Imperial gallons. Oil capacity 2 pints.

Dimensions: Saddle height 31 inches. Handlebar width 20 inches. Weight 220 pounds.

Original finish: Matchless khaki frame, mudguards, wheels and tank. Green and gold lining to tank. Small parts and handlebars nickel plated.

Performance: On top gear 55 mph plus. On low gear 20 mph. Petrol consumption 80 miles per Imperial gallon.