

WAR CHARIOT

after the war, before these vehicles were passed into civilian hands Army mechanics removed the Norton sidecar drives, simply cutting them through with a hacksaw or oxy-acetylene torch.

Dave found that an Austin Seven propshaft, complete with its two universal joints, needed only slight modification to create a new live axle. Taking dimensions from borrowed originals a dog clutch was fabricated by a local engineer, and an operating lever, complete with locking device to prevent accidental engagement of the drive, was made in Dave's own workshop.

The 82mm x 120mm engine wasn't in bad condition. "I renewed the big and small ends and had it rebored with a new piston but there wasn't a lot wrong," says Dave, who also needed to replace one pinion in the gearbox. Since putting the Norton on the road first gear has shown a tendency to desert its post unless the selector is pulled firmly home, a problem to be tackled during the winter, along with the clutch which begins to drag as it gets warm. Dave has also raised the gearing, finding it too low and buzzy for road use. The military engines used a high compression cylinder head designed by Ricardo, gaining extra power to cope with heavy loads over rough terrain.

In *The Motor Cycle's* leader of April 6th 1944 it was acknowledged that "the sidecar is not an ideal military vehicle," and with the arrival of American Jeeps, the Big 4 outfit took a back seat, more commonly used in the Western Desert; with the Home Guard or for such tasks as pulling 'trains' of bomb-loading trailers in Australia. Sidecar markings on Dave Walters' Norton are those of the Northumberland Fusiliers — incidentally the first troops to land in Belgium — and the unit numbers on the tank are correct for the year of manufacture.

Norton's Big 4 had been a successful sidecar puller in civilian life — minus its drive to the third wheel — and in 1939 *Motor Cycling* carried out a road test on one such model hitched to a single seat sidecar, referring to the Norton's "steamy power, which in most cases was quite good enough to show a clean pair of heels to family cars." This was qualified by the statement that "if any serious endeavours were made to raise the speed to 55mph over any prolonged periods, things became a bit warm and the sparking plug objected."

Comfort was said to be excellent, a statement that might have raised envy in sidecar passengers of the military version. Often there was no upholstery on the steel bucket seat, unlike that which Dave has borrowed from a friend's military vehicle until the correct item can be found. He is also hoping to come across a pair of friction dampers for the rear sidecar springs.

Early examples such as this did not suffer problems with rubber shortages



Sidecar mounted spare fits all three wheels. Quick change requires removal of three sleeve nuts and wheel spindle.

Norton's simple 633cc side valve motor combined longevity with easy maintenance.

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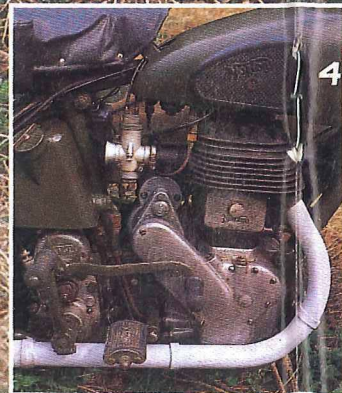
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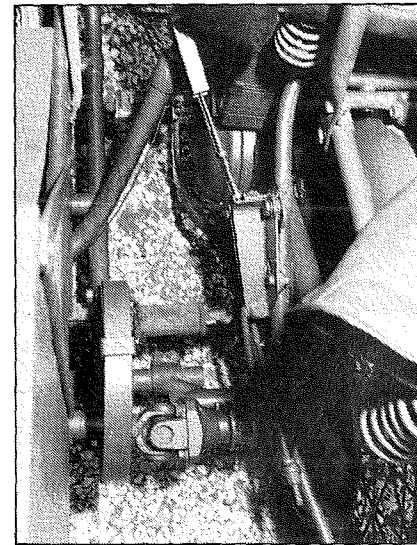


Norton's simple 633cc side-valve motor combined longevity with easy maintenance.



J.J. is a little high under the sidecar wheel, but passenger Dave Walters loses neither grip nor grin.

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Inward movement of lever beneath the saddle engages the sidecar drive dogs. Operation demands precise co-ordination when on the move.

and Dave has the luxury of knee grips and the footrest rubbers which gave way to rudimentary steel pegs later in the war. One of the unobtainable canvas covered handlebar grips was missing, so brass ferrules were turned up and a replacement made.

With the project going so well it was almost inevitable that the rebuild should suffer a setback. That much is written into the rules of the restoration game. When Dave pulled some insulation tape from the front forks he discovered that it had a structural function. At some juncture the Norton had been used with a 'fully-floating' front mudguard, and vibration had caused its sharp edges to cut almost half way through the fork tubes!

Replacement was the obvious cure and Dave was fortunate in finding a pair of 16H Norton forks, which required only slight modification to accept the QD wheel; all four wheels of the Big 4 being interchangeable. An unfinished exhaust downpipe, also for a 16H, was found at an autojumble and slightly modified to mate with a silencer from Armours, also supplied unplated. This was then coated with heat-resistant paint as a substitute for the dull cadmium finish.

Dave had arranged for us to make use of nearby farm land for the test and, with photographer Jim and his paraphernalia in the sidecar and myself and notebook on pillion, we set off. The Big 4 coped admirably with the load, hauling us across a couple of fields and along a wooded hillside. Jim suggested that there would be plenty of time for riding after he'd finished work, and we gave in with good grace until a black cloud curtailed his activities and presented us with our opportunity.

I sampled the sidecar first and it proved surprisingly well sprung, if a



The thunder and dust of sixty side-valve singles. A War Office photograph of the Northumberland fusiliers mobile unit in 1941.

touch bouncy in its undamped state. The canvas side screen, another item bought through the MVT, gave good protection from flying cow-pats, as did the deep valance on the nearside front mudguard. In the event, with Dave's ambitious forays into the blackberry bushes, one of which drew first blood, I was also quite glad of the passenger grab rails.

The engine, which runs on SAE 40 monograde oil, was a treat to start thanks to its reconditioned magneto. It ran with that woolly sound that is peculiar to side-valve singles, hardly raising its voice even when pointed at inclines greater than one in four, despite the higher than standard gearing. With Dave at my mercy as sidecar ballast it was time to get my own back, and I had the sidecar wheel airborne a couple of times with no problems. Common to all outfits, power on left handers resulted in the smartest pirouettes, with a tendency for the front wheel to slide on equivalent right hand turns.

The handlebars, re-mounted using rubber suspension unit bushes, provided plenty of leverage, which was useful under normal conditions and downright essential when the sidecar wheel drive was engaged. That drive might be a boon in slippery conditions but on dry grassland, with plenty of grip, the Norton preferred to follow its nose regardless of which way the front wheel was facing.

With the drive disengaged, cornering was altogether easier and the lumpy 400 x 18 tyres kept things moving until we collided square on with an ancient and extremely solid mole-hill. We came to a halt with the sump resting on its substantial bash plate and even the two-wheel drive couldn't help us then!

Good sport, and I couldn't help feeling sorry for the Tommies. We faced nothing more dangerous than cow pats and brambles but, for them, the threat of people taking pot-shots must have taken the edge off the fun. Nice bike, shame about the war.

