

# THE 1919 PROGRAMME OF MORRIS MOTORS.

Two and Four-seater Morris-Oxford—Cheaper Model Two-seater Morris-Cowley.

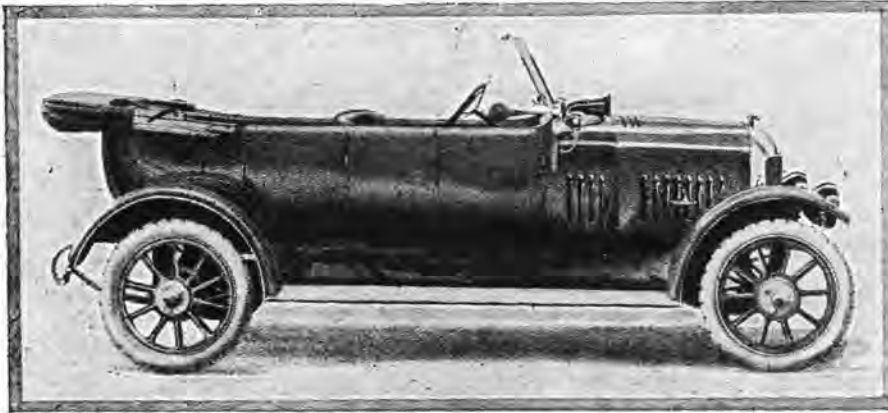
**A** PRELIMINARY announcement issued by Morris Motors, Cowley, Oxon, indicates the broad lines upon which the post-war model Morris light cars will be produced, the idea being to turn out these cars on the plan of concentration on one chassis only, but in the general finish, producing two cars, of which the superior model will be the Morris-Oxford, and the cheaper model the Morris-Cowley—the latter turned out as a two-seater only. In both models the following points in construction are exactly the same: Frame, suspension, control, engine, carburetter, lubri-

a test cock in order to show if the pump is working, whilst in addition a dipper gauge is provided in order to indicate how much oil there is in the sump.

The magneto, a high-tension British machine of the variable type, is situated high up at the front of the engine, and is driven by a cross-shaft, which in turn is operated by skew gearing from the timing wheel. The advance and retard lever is attached to the steering column so that it can be easily operated by the driver. The carburetter will be a Zenith, fixed direct to the offside of the cylinder and controlled by an accelerator pedal in the usual manner.

The whole clutch, which is of the four-plate type, runs in a separate compartment formed between the engine and the gearbox, and is practically dry. In order to facilitate inspection a large cover is fitted immediately above the clutch, and by removing this the various adjustments, to the clutch springs for instance, can be easily carried out. A ball thrust is provided for the withdrawal motion.

The gearbox is bolted to the flywheel housing of the engine, and forms a complete unit with the engine. Three forward speeds and reverse are provided, and the gearbox wheels are of ample proportions running on short, stiff, castellated shafts mounted on ball bearings.

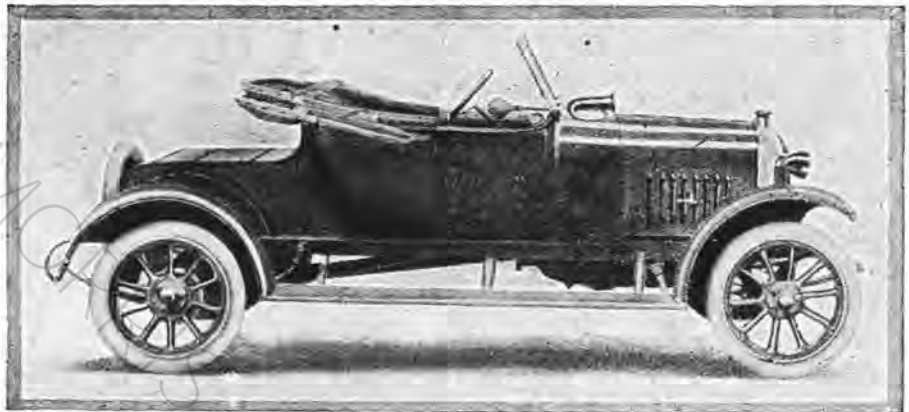


The new Morris-Oxford. It will be made as a four and two-seater and will be fully equipped.

cation, gearbox, clutch, universal joints, transmission, steering gear, front axle, back axle and brakes.

The bore and stroke of the engine have not been altered, and are 69 mm. by 100 mm., giving a cubic capacity of 1,496 c.c. The cylinders are cast en bloc integrally with the top half of the crankcase and engine supporting arms, whilst the bottom half of the crankcase is constructed from cast aluminium, and is detachable. It carries a starting handle, and provides the sump and troughs for the oiling system. A pleasing feature of the cylinder design is a detachable head. Large diameter valves are provided, all arranged on the near side of the engine, and operated by a solid camshaft running in large bearings. The valve tappets are adjustable, and enclosed by quick-detachable cover plates.

A strong job has been made of the crankshaft, which runs in three bearings: the flywheel is enclosed in the housing to which the gearbox is bolted. Oil is supplied to the working parts by means of a plunger pump, driven off an eccentric on the camshaft. This pump is submerged in the bottom half of the crankcase, and the oil is effectually strained by an easily-detachable gauze filter. The big-ends dip into troughs, but the pistons and main bearings are lubricated by splash, the bearings being provided with galleries to trap the oil. The crankcase is fitted with



The 1919 Morris-Cowley will be made as a two-seater only, and will be turned out at a slightly-reduced cost compared with the Morris-Oxford.

There is only one universal joint, which is situated within the spherical housing immediately behind the gearbox and entirely enclosed, its lubrication being derived from the gearbox and any surplus oil returning to this chamber. The drive from the gearbox is taken by means of a propeller shaft, which is castellated into the universal joint at one end and enclosed within a torque tube, transmitting the final drive by helical bevel gear, giving a reduction of 4.75 to 1.

Turning to the general features of the car, we find that a channel-section pressed-steel frame, straight from end to end, and designed to give maximum rigidity, is provided. Suspension is by semi-elliptic

*1919 MORRIS MOTORS PROGRAMME (contd.).*

springs at the front, and three-quarter elliptic springs at the rear, the back axle being underslung. Lubrication is allowed for by detachable oil cups, and the springs themselves are well protected by means of Wilcot spring gaiters. Pressed-steel detachable wheels are provided, and they are shod with 710 mm. by 90 mm. grooved Dunlop tyres, the same applying to the spare wheel. A distinctive feature of the Morris-Oxford in future will be central or left-hand control.

Irreversible and adjustable steering of the worm and worm wheel type is standard, and bolted directly to the side of the engine.

The front axle is an "H" section forging of high tensile steel, the swivel axle arms working on hardened and ground pins. The front wheels run on ball bearings, well protected and of large diameter. The back axle is of the three-quarter floating type, and is so arranged that the driving shafts can be withdrawn without disturbing the brakes, brake drums or shaft bearings, thus facilitating the removal of the differential without necessitating the dissembling of the back axle entirely. Special load and thrust ball bearings and castellated driving shafts are used.

The radiator has been re-designed, and is still of the distinctive Morris type. Cooling is assisted by

means of a fan driven off the engine camshaft by a leather link belt. The foot and hand brakes both operate on the back wheels by internal-expanding shoes placed side by side. Dust shields are provided, and the brake drums are of ample size. The body is of the flush-sided torpedo type, well finished, painted dark sage green, and upholstered in leather to match.

A single unit dynamotor mounted above the fly-wheel with enclosed drive and eccentric adjustment for the silent chain provides the lighting and starting equipment. This has been fitted after careful and extensive tests, and should give every satisfaction.

The principal dimensions of the Morris cars are as follow:—Wheelbase, 8 ft. 6 ins.; track, 4 ft.; length overall, 12 ft. 9 ins.; width, 4 ft. 10 ins.; and body space, 6 ft. 4 ins. The weight of the two-seater is 15 cwt. approximately, that of the four-seater being about 16 cwt. Anything up to 45 m.p.h. can be obtained, the consumption of petrol being from 30 m.p.g. to 35 m.p.g. At the moment it is possible to give the prices approximately only. The two-seater will be £335, the four-seater £385, the coupé £425.

As pointed out, the Morris-Cowley is practically the same as the Morris-Oxford, but it will be turned out in a modified form in order to cater for the purchaser who wants all the essentials without any of the additional refinements found on the Morris-Oxford. The price will be about £285.



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