MORRIS EIGHT SERIES E



SPECIFICATION

GENERAL CONSTRUCTION. The new Morris Eight (Series "E") consists of a powerful side-valve engine built in unit construction with a four-speed synchromesh gearbox, mounted on a chassis of advanced design, with double-box section side members of exceptional strength.

Transmission is by Spicer tubular propeller shaft with needle type universal joints and the rear axle is of the three-quarter floating type with spiral bevel final reduction gears and differential. Suspension is by improved semi-elliptic springs, controlled by piston type hydraulic shock absorbers. The wheelbase is 7 ft. 5 in. and the track 3 ft. 8 g in. at the front and 3 ft. 104 in. at the rear.

ENGINE. The four-cylinder side-valve engine of the Morris Eight (Series "E") possesses a bore of 57 mm. and a stroke of 90 mm. (3.54 in.), giving a cubic capacity of 918 c.c. and a Treasury rating of 8.05 h.p. with a tax of £6.

The cylinders are cast in one with the skirt of the crankcase, which is liberally reinforced with internal webs to provide a structure of great strength and rigidity. The crankshaft is of the counterbalanced type with three large bearings ensuring freedom from vibration. Every crankshaft is carefully balanced to very close limits, and the main bearings have steel backed white metal liners.

The connecting rods are of steel with full-ring steel backed replaceable white metal bearings. They are carefully balanced individually and the complete assemblies of connecting rods and pistons are equalised in weight to within 0.2 oz., as in best aero engine practice.

The pistons are of low expansion aluminium alloy, and they are fitted with three ringstwo compression and one oil control. The pistons are tin-coated to ensure freedom from

"pick-up" and have split skirts.

The valves are operated from a three-bearing camshaft situated in the upper portion of the crankcase. The camshaft is driven by a silent duplex roller chain which provides a trouble-free drive possessing very long life. Hollow chill cast tappets of large diameter are fitted.

Valve adjustment is by adjustable screws on the valve tappets.

There is a large breather pipe discharging well below the body which ensures perfect crankcase ventilation and avoids condensation.

The engine is mounted on the chassis by floating rubber connections which effectively damp out the least trace of engine vibration, and the one-piece exhaust system is also rubber insulated.

SYNCHROMESH GEARBOX. The four-speed gearbox is provided with synchromesh engagement for second, third and fourth gears, which are of the silent helical type. The gearbox is fitted with an accessible filling orifice and a dipstick oil level indicator. gear ratios are: 1st, 20.88; 2nd, 12.158; 3rd, 8.140; 4th, 5.286; reverse, 20.88.

LUBRICATION SYSTEM. A large spur gear pump located in the sump and driven by helical gears from the camshaft supplies oil under pressure to all main bearings, big-end bearings and camshaft bearings. The delivery from the oil pump is sufficiently large to ensure adequate lubrication, even under unfavourable conditions.

The oil intake in the sump is protected by a metal shield and extended oil intake pipe, and also provided with a cylindrical gauze filter. The pump is fitted with a non-adjustable relief valve. The chassis is lubricated by high pressure oilgun and accessibly located nipples.

COOLING SYSTEM. The cooling water is circulated by thermo-syphon action. The water passages are carefully proportioned to ensure even cooling. A cooling fan is fitted.

CARBURATION. An S.U. automatic piston type carburetter, with adequate control over mixture strength for easy starting, supplies the working mixture. The mixture control is conveniently mounted on the facia board and is inter-connected with the throttle control so that the correct throttle opening for slow running when cold is obtained automatically. The carburetter is provided with an efficient air silencer.

Particular attention has been given to the carburation system with a view to giving maximum economy without the sacrifice of performance. The improved induction manifold provides better distribution and is provided with an adequate "hot-spot." The fuel feed is by S.U. automatic electric pressure petrol pump.

PETROL TANK. The petrol tank is mounted at the rear of the chassis and has a capacity of $5\frac{1}{2}$ gallons. Its contents are clearly indicated by an electrically operated gauge on the facia board, and the tank is fitted with a large vent to facilitate rapid filling.

TRANSMISSION. A single-plate dry clutch with cushion hub and single-point adjustment provides smooth engagement with light action and the minimum attention. A Spicer tubular propeller shaft with needle type universal joints at each end serves to transmit the drive to the rear axle.

REAR AXLE. The rear axle is of the three-quarter floating type with spiral bevel final reduction gears.

A scientific system of gear selection and assembly is employed to ensure maximum efficiency.

FOUR-WHEEL BRAKES. Fully compensated foot brakes of the internally expanding type, operated by the Lockheed hydraulic system, ensure the maximum possible braking efficiency. Their certainty of action is maintained under all conditions, as there are no bearings to wear or need lubrication, or cables to stretch. The brake-shoes are of steel, and lined with high efficiency linings.

The hand brake is provided with adjustment from the driver's seat and operates on the rear wheels by cables totally enclosed in grease packed conduits.

Special provision has been made to protect the brake gear against the weather.

STEERING. The steering gear is of the cam type and careful design of all the steering components has resulted in exceptionally light steering which is particularly suited to lady drivers. In spite of the lightness of the steering, it is precise in action and free from any tendency to wander.

The steering is also particularly free from road shock reaction.

SUSPENSION. Semi-elliptic springs of great length are fitted fore and aft and are controlled by hydraulic piston-type shock absorbers. The front spring eyes are fitted with silent-bloc bushes, and the shackle pins at the rear ends of the springs are fitted with screwed bushes, ensuring long life and the minimum of service attention.

WHEELS. Five detachable spoked-disc easy-clean wheels with Dunlop tyres (4.50—17) are fitted. The wheels are held in position by six studs with nuts of the reversible type and are fitted with snap-on hub covers.

The spare wheel is carried in a separate compartment at the rear and is completely protected from the weather. It is easily removed.

VENTILATION. Special care has been taken to ensure adequate ventilation. The windscreen on the saloons has top hinges and is adjustable up to a wide opening by a single central control of the winding type. The windscreen can be opened to a wide angle for clear vision in fog.

On the saloons all door-windows are of the winding type. On the open models the windscreen can be folded flat on to the top of the scuttle for clear vision.

SEATING ACCOMMODATION. The front seats are built on a steel framework with a floating spring foundation for the upholstery, ensuring the maximum riding comfort. The driving seat of the four-door saloon is mounted on flush type runners and has a simple and positive means for adjusting the position. The passenger's seat is also adjustable for position.

Exceptionally good leg room is provided for the rear passengers, while the wide rear seat is upholstered on particularly generous lines and has an elbow width of 47 in.

In the case of the two-door saloon and open models both front seats are hinged in addition to being adjustable.

JACKING SYSTEM. The standard jack equipment consists of a special corner jack adapted to hook under the bumper bar brackets and is equipped with a screwed shaft which can be actuated by the wheel brace. This jack is conveniently housed on the dash.

LUGGAGE ACCOMMODATION. The new Morris Eight (Series "E") is fitted with a large inbuilt luggage compartment with external access by a large hinged lid. With the lid closed, the space available for storage is nearly 5½ cubic feet.

Special provision has been made to render the luggage compartment watertight. In addition there is a large parcel tray beneath the facia board which extends the full width of the car. This parcel tray has a level floor.

ELECTRICAL EQUIPMENT. The electrical equipment is of the 6-volt type. The distributor has automatic advance and retard control and is driven from the camshaft by helical gears.

The large dynamo is belt driven and is fitted with compensated voltage control.

The positive earth system of wiring is employed.

The starter motor is of ample capacity to ensure an instantaneous start under the most trying conditions, and its engagement is by sliding pinion. The starter switch is hand operated and located on the facia board.

Special three-lamp equipment is provided, including sunk headlamps with dip and switch mechanism operated by a single-acting foot-controlled switch which dips the lights on one depression and raises them on the next. The sidelamp bulbs are incorporated in the headlamps.

The horn push and self-cancelling Trafficator switches are mounted in the centre of the steering wheel, while all other switches are accessibly mounted on the facia board within easy reach of the driver.

An easily controlled windscreen wiper with silent drive and motor located on the engine side of the dash is fitted to the saloons. On the open models the electric wiper is mounted

at the top of the windscreen. The single large 6-volt battery is mounted under the bonnet on the dash bulkhead. It is easily accessible and is provided with non-spilling vents.

An automatically actuated stop light is part of the equipment.

LUGGAGE ACCOMMODATION. The new Morris Eight (Series "E") is fitted with a large inbuilt luggage compartment with external access by a large hinged lid. With the lid closed, the space available for storage is nearly $5\frac{1}{2}$ cubic feet.

Special provision has been made to render the luggage compartment watertight. In addition there is a large parcel tray beneath the facia board which extends the full width of the car. This parcel tray has a level floor.

THE BODY. The floor is devoid of footwells and the interior is unusually spacious for a car of this horse-power.

Great care has been taken to prevent noise, draughts and the ingress of water. The body is scientifically lined with sound-deadening material, and the front of the body is constructed so as to isolate the body from engine heat and fumes.

The doors are fitted with an efficient rubber draught sealing strip, and the roof guttering is carried right down in front of the door opening to discharge rain water well below the door. Door-window garnish frames are prepared in modern plastic material of attractive appearance and great durability, with facia board to match.

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Pile carpets of the anti-fraying rubber inserted type cover the floor, while the interior upholstery is carried out in simple but pleasing style, and is particularly comfortable.

The instrument equipment includes oil gauge, speedometer and electric petrol gauge, all of which are provided with translucent indirect illumination.

The open models are provided with a neat hood and detachable sidescreens which are conveniently housed in a carrier in the boot when not in use.

The tourer body has spacious accommodation for luggage in the boot behind the rear seat, and in the two-seater body exceptional space is available for luggage.

The two-seater model is provided with a tonneau cover.

The sliding head saloons are fitted with a flush fitting roof and concealed drainage ducts which discharge rain water below the car.

GENERAL EQUIPMENT. Lockheed hydraulic brakes; pile carpets; gearbox draught excluder; dial-type speedometer; oil gauge; S.U. electric pressure petrol pump; dash-reading electric petrol gauge; electric windscreen wiper; licence holder; pressure chassis lubricating pump; electric horn; electric lighting and starting; headlamps with dipping mechanism and pilot bulbs; stop lamp; self-cancelling Trafficators; bumpers front and rear; hydraulic shock absorbers; five detachable spoked disc easy-clean wheels; five Dunlop cord tyres; tyre pump; kit of tools; spare tin of oil.

Supplementary Equipment on Two-Door Saloon (F.H.). Single-panel adjustable windscreen and winding door-windows of toughened Triplex glass, interior driving mirror, rear blind with remote control, easy-chair type tip-up adjustable front seats, private locks to doors, inbuilt luggage container.



DATA

Bore 57 mm. 2.24 in. Stroke 90 mm. 3.54 in. Cubic capacity ... 918 c.c. 56.02 cu. in. Treasury rating ... 8.057 Tax £,6 Wheelbase 2.26 metres 89 in. Track (Front) 1.14 metres 445 in. (Rear) 46¼ in. 1.175 metres Tyre size ... 4.5-17

Wheel size 2.5 × 17 Gear ratios: 20.88 to 1 and 12.158 to 1 Synchromesh-8.14 to 1 3rd 5.286 to 1 20.88 to 1 Sparking plugs .. 14 mm. Champion L.10 Petrol tank capacity 5½ gailons Overall length ... 12 ft. o in. Overall width 4 ft. 8 in.

5 ft. 2 in.

Overail height ...

