THE MORRIS TEN FOUR TOURER

Coachwork. Green cellulose with green leather upholstery ; Black cellulose with green leather upholstery ; Red cellulose with red leather upholstery.

Interior Woodwork. Polished mahogany.

Additional Equipment. Hood, hood bag, bumpers front and rear, double-panel adjustable windscreen, detachable side-screens, external driving mirror, single-piece adjustable front seat, luggage grid.

TOURER .. **£169 10s.**

The Ten-four .... even finer cars than the enormously popular 1934 models....

www.morris-archive.co.uk

It was not without good reason that the sales of the Morris Ten Four were greater last year than those of any other Ten Four on the market. For the Morris Ten represents the ideal " happy medium " between the small car and the large. It offers full saloon comfort in its most economical form. The word economy used in connection with this car is more than a vague, airy claim—as thousands of Morris Ten owners have been able to prove for themselves. The engine has been carefully designed for economical running at attractive road speeds. Steering and suspension have been planned to minimise fatigue and tyre wear. For the man who wants a good-looking, full-sized, amply-powered car, but whose motoring expenditure must be limited, a Morris Ten is unquestionably the car to give him the most pleasure for his money. And whether his tastes incline to the closed or open type of car, there is a specialist-produced Morris Ten to fit in exactly with his ideas.

GENERAL EQUIPMENT. Toughened Triplex glass throughout ; finger-tip controls for ignition, lamps and horn ; direction indicators ; Lockheed hydraulic brakes ; pile carpets ; pedal rubbers ; gearbox draught excluders ; pedal draught excluders ; speedometer ; oil gauge ; S.U. electric pressure petrol pump ; dash-reading electric petrol gauge ; electric windscreen wiper ; licence holder ; pressure chassis lubricating pump ; calormeter and wings ; high-frequency electric horn ; electric lighting and starting ; stop and tail-light ; headlamps with dip and switch mechanism ; sidelamps ; battery master switch ; scuttle side ventilators ; hydraulic shock absorbers ; door pockets ; five detachable Magna type wire wheels ; five Dunlop cord tyres ; spare wheel carrier ; jack ; tyre pump ; kit of tools ; spare tin of oil.

General. The design consists of a four-cylinder water-cooled engine built in unit construction with a four-speed synchromesh gearbox and single-plate clutch with cork inserts. This power unit is mounted on a deep sectioned downswept frame with generous " X " stiffening members on a resilient equipoise mounting which reduces engine vibrations. The frame is supported front and rear on long semi-elliptic springs controlled by Armstrong hydraulic shock absorbers. The track is 4 ft. 0 in. (1.22 m.) and the wheelbase 8 ft. 0 in. (2.43 m.).

Engine. The four-cylinder engine has a bore of 63.5 mm. (2.5 in.), a stroke of 102 mm. (4.0 in.) and a cubic capacity of 1292 c.c. (78.84 cu. in.). Treasury rating 10 h.p. Tax £10 (1935 Tax £7 10s.). The cylinders are cast in one with the skirt of the crankcase, which is extended well below the crankshaft centre, and liberally reinforced with internal webs to provide a structure of great strength and rigidity. The crankshaft is of the three-bearing type, with bearings of large diameter and generous length. Every crankshaft is carefully balanced to very close limits. The main bearings are die-cast white metal. The steel connecting rods are equipped with white metal big-end bearings of the full-ring type, and are individually balanced to a very high degree of accuracy. The aluminium pistons are fitted with four rings, individually balanced, and the complete assemblies of rods and pistons are equalised in weight to within .2 oz. (best aero engine practice). The side-by-side valves are operated by a large diameter three-bearing camshaft through adjustable tappets carried in removable guides. The combustion chambers are completely machined to ensure equality of compression and the minimum of carbon deposits, the cylinder head being detachable. The camshaft is driven by duplex roller chain from the crankshaft. The induction and exhaust manifolds are cast integral and provided with adequate hot spots. An important feature of the induction system is the combined air preheating cover and cleaner, which also collects and consumes all fumes discharged from the crankcase breather, so that they are prevented from finding their way into the car interior.

Synchromesh Gearbox. The four-speed gearbox is provided with synchromesh mechanism for top and third gears, which are, in addition, of the silent constant mesh type. The gearbox is provided with an accessible filling orifice and dipstick oil level indicator.

Lubrication. A spur gear pump, mounted externally on the side of the crankcase and driven from the camshaft by a diagonal shaft and helical gearing, supplies oil under pressure to all main and big-end bearings, camshaft bearings and clutch. The oil is filtered before recirculation by a generous tray type filter covering the full area of the sump. Chassis lubrication is by Enots high-pressure oilgun in conjunction with accessible nipples.

Cooling System. The cooling water circulates by thermo-syphon action. It is passed from the cylinder head through two carefully positioned ports which ensure an even temperature distribution and absence of steam pockets. The radiator is fan assisted.

Electrical Equipment. The distributor for the coil and battery ignition is driven from the upper end of the diagonal oil pump drive shaft, and has semi-automatic advance and retard. The dynamo is belt driven. The starter motor is of the sliding pinion type and located on the side of the gearbox. Full five-lamp equipment is provided, including headlamps with dip and switch mechanism, sidelamps, and tail-light with automatic stop light. All switches are accessibly mounted on the instrument panel with the exception of the headlight dipping switch and horn push, which are conveniently mounted in the centre of the steering wheel, and the battery master switch which is close to the driver's seat. An easily controlled electric windscreen wiper ensures clear vision in bad weather, and concealed type traffic indicators are fitted, except on the open models, where they are mounted on the screen pillar.

Carburation. An S.U. automatic piston-type carburetter with adequate control over mixture strength supplies the mixture. The controls are conveniently situated on the facia board.

Petrol Tank. The petrol tank is mounted at the rear of the chassis and has a capacity of 6½ gallons (29½ litres). Its contents are clearly indicated to the driver by an electrically-operated dial gauge on the instrument panel. The petrol feed is by S.U. automatic electric pressure pump.

Transmission. A cushioned hub single-plate clutch, with cork inserts, automatically fed with oil from the engine, ensures a smooth clutch action and the minimum of attention. An open tubular propeller shaft, carefully balanced and of large diameter, transmits the drive to the rear axle through fabric disc universal joints with centring steadies. The final drive is by silent spiral bevel gears and differential housed in a pressed-steel axle casing. The axle shafts are three-quarter floating.

The Four-wheel Brakes. Fully compensated four-wheel brakes of the internally expanding type operated by the Lockheed hydraulic system ensure the maximum braking efficiency. Their certainty of action is maintained under all conditions as there are no bearings to wear or need lubrication. The centrally disposed horizontal hand brake lever operates on the rear wheels by independent mechanism, and is provided with instantaneous adjustment from the driver's seat.

Steering. The steering gear is of the Bishop cam type, providing extremely light and safe operation with a high degree of accurate controllability. Road shocks on the steering wheel are particularly absent.

Controls. The accelerator pedal is located on the extreme right, and the brake pedal and clutch pedal are positioned to provide ample clearance between the clutch pedal and the gear lever turret.

Suspension. Long semi-elliptic springs are fitted fore and aft and are controlled by Armstrong hydraulic shock absorbers with improved cold weather regulation.

Wheels. Five detachable Magna type wire wheels fitted with 4.75—18 Dunlop cord tyres are provided.

Tool Kit. A kit of tools is provided with every car and housed in an accessible toolbox on the dash under the bonnet.

GENERAL DATA

	Morris Eight	Morris Ten Four	Morris Ten Six	Morris Twelve Four	Morris Fifteen Six	Morris Oxford Sixteen Six	Morris Oxford Twenty Six	Morris Isis Eighteen Six	Morris Twenty-five
Number of Cylinders	Four	Four	Six	Four	Six	Six	Six	Six	Six
Bore	2.24 in. (57 mm.)	2.5 in. (63.5 mm.)	2.24 in. (57 mm.)	2.73 in. (69.5 mm.)	2.5 in. (63.5 mm.)	2.58 in. (65.5 mm.)	2.87 in. (73 mm.)	2.72 in. (69 mm.)	3.23 in. (82 mm.)
Stroke	3.54 in. (90 mm.)	4.01 in. (102 mm.)	3.54 in. (90 mm.)	4.01 in. (102 mm.)	4.01 in. (102 mm.)	4.01 in. (102 mm.)	4.01 in. (102 mm.)	4.33 in. (110 mm.)	4.33 in. (110 mm.)
Cubic Capacity	56 cu. in. (918 c.c.)	78.84 cu. in. (1292 c.c.)	84.1 cu. in. (1378 c.c.)	94.59 cu. in. (1550 c.c.)	117.27 cu. in. (1938 c.c.)	125.84 cu. in. (2062 c.c.)	156.28 cu. in. (2561 c.c.)	150.61 cu. in. (2468 c.c.)	209.5 cu. in. (3485 c.c.)
Valve Position	Side	Side	Side	Side	Side	Side	Side	Overhead	Side
R.A.C. Rating	8.05	10	12	11.9	15	16	20	17.7	25
Tax	£8 (1935 £6)	£10 (1935 £7 10s.)	£12 (1935 £9)	£12 (1935 £9)	£15 (1935 £11 5s.)	£16 (1935 £12)	£20 (1935 £15)	£18 (1935 £13 10s.)	£25 (1935 £18 15s.)
Number of Gears	Three and Rev.	Four and Rev.	Four and Rev.	Four and Rev.	Four and Rev.	Four and Rev.	Four and Rev.	Four and Rev.	Four and Rev.
Gear Ratios First	17.13	20.88	22.2	20.88	20.88	21.08	21.08	19.6	18.56
Second	9.729	12.32	13.09	12.32	11.9	12.0	12.0	11.17	10.458
Third	5.375	7.986	8.49	7.976	7.75	7.79	7.79	7.252	6.586
Fourth	—	5.22	5.55	5.22	5.22	5.27	5.27	4.9	4.45
Reverse	22.84	26.845	28.54	26.845	26.1	26.35	26.35	24.5	23.85
Clutch	Single dry plate	Single plate (cork inserts)	Single plate (cork inserts)	Single plate (cork inserts)	Single plate (cork inserts)	Single plate (cork inserts)	Single plate (cork inserts)	Single plate (cork inserts)	Single plate (cork inserts)
Steering Gear	Bishop cam	Bishop cam	Bishop cam	Bishop cam	Bishop cam	Bishop cam	Bishop cam	Bishop cam	Bishop cam
Turning Circle	37 ft. (11.28 m.)	38 ft. 1 in. (11.6 m.)	40 ft. 6 in. (12.34 m.)	40 ft. 10 in. (12.45 m.)	42 ft. 0 in. (12.8 m.)	45 ft. 4 in. (13.8 m.)	45 ft. 4 in. (13.8 m.)	49 ft. 3 in. (15 m.)	48 ft. 8 in. (14.8 m.)
Wheel Type	Magna Wire	Magna Wire	Magna Wire	Magna Wire	Magna Wire	Magna Wire	Magna Wire	Magna Wire	Magna Wire
Wheel Size	2.5×17	3.0×18	3.0×18	3×19	3×19	3.25×17	3.25×17	3.25×19	3.75×19
Tyre Size	4.50—17	4.75—18	4.75—18	5.0—19	5.0—19	5.5—17	5.5—17	5.50—19	6.00—19
Wheelbase	7 ft. 6 in. (2.29 m.)	8 ft. 0 in. (2.435 m.)	8 ft. 6 in. (2.59 m.)	8 ft. 6 in. (2.59 m.)	8 ft. 10 in. (2.692 m.)	9 ft. 6 in. (2.896 m.)	9 ft. 6 in. (2.896 m.)	10 ft. 0 in. (3.048 m.)	10 ft. 0 in. (3.048 m.)
Track	3 ft. 9 in. (1.14 m.)	4 ft. 0 in. (1.219 m.)	4 ft. 0 in. (1.219 m.)	4 ft. 0 in. (1.219 m.)	4 ft. 4 in. (1.321 m.)	4 ft. 8 in. (1.422 m.)	4 ft. 8 in. (1.422 m.)	4 ft. 8 in. (1.422 m.)	4 ft. 8 in. (1.422 m.)
F.W.B. Brake Actuation	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Hand Brake Actuation	On rear wheels	On rear wheels	On rear wheels	On rear wheels	On rear wheels	On rear wheels	On rear wheels	On rear wheels	On rear wheels
Brake-drum Diameter	8 in. (203 mm.)	10 in. (254 mm.)	10 in. (254 mm.)	10 in. (254 mm.)	10 in. (254 mm.)	12 in. (305 mm.)	12 in. (305 mm.)	14 in. (356 mm.)	14 in. (356 mm.)
Ignition	Coil	Coil	Coil	Coil	Coil	Coil	Coil	Coil	Coil
Final Drive	Spiral Bevel	Spiral Bevel	Spiral Bevel	Spiral Bevel	Spiral Bevel	Spiral Bevel	Spiral Bevel	Spiral Bevel	Spiral Bevel
Front Springs	Half Elliptic	Half Elliptic	Half Elliptic	Half Elliptic	Half Elliptic	Half Elliptic	Half Elliptic	Half Elliptic	Half Elliptic
Rear Springs	Half Elliptic	Half Elliptic	Half Elliptic	Half Elliptic	Half Elliptic	Half Elliptic	Half Elliptic	Half Elliptic	Half Elliptic
Shock Absorbers	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Tank Capacity	5½ gallons (25 litres)	6½ gallons (29½ litres)	6½ gallons (29½ litres)	7½ gallons (34 litres)	10 gallons (45 litres)	14 gallons (63½ litres)	14 gallons (63½ litres)	17 gallons (77 litres)	17 gallons (77 litres)
Petrol Feed	S.U. Electric Pump	S.U. Electric Pump	S.U. Electric Pump	S.U. Electric Pump	S.U. Electric Pump	S.U. Electric Pump	S.U. Electric Pump	S.U. Electric Pump	Autovac

a word on the Special Morris Features....

Here are a few examples of Morris *modernity*. From stem to stern, every Morris car is up-to-the-minute in design. No worth-while detail is omitted from Morris specifications. The best safety features . . . the best easy-driving features . . . the best comfort features . . . Morris has them all!

Reinforced Coachbuilt Bodies. All Morris bodies are coachbuilt and reinforced with steel facings, thus combining the best features of the coachbuilder's craft and steel bodywork technique, retaining the advantages of both without their individual disadvantages.

Durable Fabrics. All materials used in the production of Morris cars are tested for quality in special ageing machines to ensure their complete suitability.

Rubber-backed Carpets. All carpets on Morris cars have a rubber layer between the pile and the backing in which each individual fibre is thoroughly embedded. This positively prevents draughts, fraying, and ensures maximum wearing qualities.

Rollsvisor. All Morris closed models except the Eight are fitted with easily controlled anti-glare visors of the roller blind type, which can instantly be adjusted to suit the requirements of the driver.

Rear Blinds with Remote Control. All Morris closed models are fitted with concealed rear blinds with remote control actuated by the driver.

Electric Windscreen Wipers. All Morris cars are equipped with electric windscreen wipers.

Adjustable Windscreens. All Morris closed models are fitted with windscreens opening from the bottom and provided with infinitely variable adjustment.

Cellulose Finish. Only cellulose lacquers of the highest quality are used on Morris cars, and unusual care is employed in their selection and application. The coachwork on Morris cars therefore possesses exceptionally high finish and unquestioned durability.

Sliding Heads. All Morris closed models can be obtained with sliding heads of the easily operated and thoroughly proved Pytchley type.

Chromium Finish. All internal and external bright parts on Morris cars are treated with chromium finish to our own specification, ensuring long life and the minimum of labour in cleaning.

Controlled Semi-elliptic Springs. All Morris cars are fitted with long semi-elliptic springs front and rear, controlled by hydraulic shock absorbers with improved cold weather automatic control.

Sturdy Frames. All Morris cars, with the exception of the Eight, which has a special form of box frame, are provided with particularly deep frames having sturdy cross members of "X" formation.

Safety. Good brakes are an essential for road safety. All Morris cars are equipped with fully compensated Lockheed hydraulic brakes, which not only provide the maximum possible retarding effect, but the lightest actuation, smallest service attention, and longest effective life.

Driving Ease. All Morris cars are fitted with Bishop cam steering, giving delightful steering lightness associated with absolute accuracy of control.

Easy Gear Changing. All Morris cars are fitted with gearboxes having synchromesh mechanism to ensure easy and quiet gear changes. The Morris Sixteen and larger models are provided in addition with a controllable free wheel which further simplifies gear changing.

Automatic Ignition Control. All Morris models are fitted with automatic advance and retard control; that on the Morris Eight and Morris Oxford Sixteen and Twenty is fully automatic, on the remaining models it is semi-automatic.

Right-hand Accelerator Pedals. All 1935 Morris cars, with the exception of the Eighteen and Twenty-five, are fitted with right-hand accelerator pedals.

Direction Indicators. All 1935 Morris cars are fitted with concealed traffic indicators, with the exception of some of the open models which have them fitted to the windscreen pillar. From the Morris Oxford upwards the Trafficators are provided with an automatic cancelling switch.

Safety Battery Master Switch. All Morris models, with the exception of the Morris Eight, are provided with a safety battery master switch which provides an effective method of dealing with electrical fires.

Cushion Drives. All Morris cars are fitted with single-plate clutches having a cushioned hub on the driven plate, thus ensuring perfectly smooth clutch action at all times.

Smoothness. Exceptional care is taken in balancing all the components on Morris engines; this, coupled with their sturdy construction, ensures very smooth running at all speeds with a notable absence of vibration periods.

Power. Advanced design and improved manufacturing methods ensure that all Morris engines develop the highest possible sustained output.

No Fumes. All Morris engines, with the exception of the Eight, are fitted with fume consuming air cleaner heads which burn up all the objectionable fumes usually discharged into the body.

Finger-tip Controls. On all the Morris models the more frequently used controls are conveniently placed on the steering column or steering wheel, where they are readily to hand when required.

Real Leather Upholstery. With the exception of the very cheapest models, all Morris cars have the finest leather upholstery —no split hides are used.

Compensated Voltage Control. All Morris models from the Twelve Four upwards are fitted with compensated voltage control, which automatically regulates the dynamo output to suit the exact requirements of the electrical equipment.

Stabilising Bumpers. All Morris cars from the Ten Six upwards are fitted with front bumpers of the stabilising type which damp out all periodic vibrations arising from road unevenness.

Draughtless Ventilating Windows. The larger saloon models, from the Twelve Four upwards, are fitted with anti-draught ventilating windows to the front doors.

Single-pedal Control with Automatic Clutch Actuation. The Morris Oxford Sixteen and larger models are fitted as standard with Bendix Automatic Clutch Control, which enables these cars to be driven entirely by simple actuation of the accelerator pedal, and which, in conjunction with the free wheel, renders gear changing a ridiculously simple operation.

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