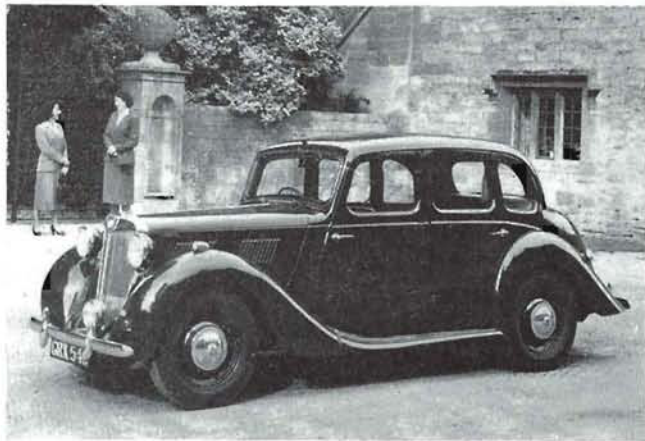


## MG CAR DATA SHEET—No. 14

### THE Y TYPE



*The YB Saloon.*

**Production period:** 1947-1953.

**Total built:** 16,268.

With the end of hostilities in 1945, car production at Abingdon, centred around the TC Midget, but plans had already been made for a small saloon to replace the series built in the late 1930s. This car the YA appeared in 1947 and was an immediate success. It was somewhat different to previous M.G.s that it had a new type box member chassis, with independent front suspension and rack and pinion steering. Power was supplied by a single carburetter version of the XPAG engine used in the TC which endowed this car with a degree of sprightliness, missing from many of the small saloons of that era. The saloon type body was standard in the U.K. but for export a tourer version was made available in 1948. This tourer, the YT had the same basic mechanical specification as the YA, but with twin carburetters as fitted to the TC.

The YB which was introduced in 1951 was an even greater success than the YA. It incorporated several improvements such as twin leading shoe, front brakes, an anti-roll bar, smaller wheels, a larger (8 in.) clutch and a hypoid back axle. The body was only changed slightly, the valences being deeper and over riders were fitted.

Although not a car with a brilliant performance, it was extremely pleasant to drive, and mechanically it served as a basis for the TD Midget which appeared in 1949 and ran concurrently with the Y-Types.

#### SPECIFICATION

**Chassis:** Steel box section. **Wheelbase:** 8ft. 3in. **Track:** Front 3 ft. 11½ in.; Rear 4 ft. 2 in.

**Suspension:** Front—Independent, with coil springing and wish-bone. Rear—half elliptical leaf springs, one-piece axle case.

**Steering:** Rack and pinion 2.625 turns lock to lock. Column adjustable for length. **Oil:** Hypoid "90" e.g. Castrol "Hypoy".

**Turning Circle:** 35 ft. **Castor Angle:** YA 1 deg. ± 5 deg.; YB 2 deg. ± 5 deg. **Kingpin Angle:** 10 deg. -11½ deg. YA; 9 deg. -10½ deg. YB. **Toe-in:** Nil.

**Brakes:** Lockheed hydraulically operated system with cable operated hand brake to rear wheels only. 9 in. dia. cast iron drums. Single master cylinder. YB had 2 leading shoe brakes on front.

**Wheels:** Dunlop ventilated disc 3.00 x 16 YA; 4J x 15 YB.

**Tyres:** 5.25 x 16 YA; 5.50 x 15 YB. **Pressures:** YA front 23 lb. sq. in. rear 25 lb. sq. in.; YB front 22 lb. sq. in., rear 24 lb. sq. in.

**Engine:** XPAG Type. 4 cylinder O.H.V. counter balanced, three main bearing crankshaft. Camshaft located on near-side of block, chain driven. Valve operated through bucket type tappets, push rods and rockers provided with screw

adjustment. Six port head; four exhaust, two inlet on offside. All bearings pressure fed by externally mounted gear type oil pump with full flow filter, crank shaft bearings of the shell type. Coil ignition 12 volt system. Belt driven dynamo CVC charging circuit. The YA and YB had a single SU 1½ in. carburetter, the YT two of the same size. **Bore:** 66.5 mm. **Stroke:** 90 mm. **Capacity:** 1250 cc. **Power output:** 46 b.h.p. at 4,800 r.p.m. **Volume of Combustion Chambers:** 45.5 c.c. **Compression ratio:** 7.2/7.4. **Firing Order:** 1,3,4,2. **Ignition set at:** TDC, points just about to break. **Contact breaker gap:** YA .012 in.; YB .014 in. - .016 in. **Sparking Plugs:** Champion L.10. **Gap:** .020 in. (Champion NA 8 on later Model). **Valve Timing:** I.O. YA 11 deg. BTDC; YB 5 deg. BTDC. I.C. YA 57 deg. ABDC; YB 45 deg. ABDC. E.O. YA 52 deg. BBDC; YB 45 deg. BBDC. I.C. YA 57 deg. ABDC; YA 6.5 mm.; YB 8 mm. **Valve Seat Angle:** 30 deg. **Valve** 45 deg. OBDC. E.C. YA 24 deg. ATDC; YB 5 deg. ATDC. **Springs:** Double. **Seat Tension:** 93 lb. shut. 125 lb. open. **Cam Lift:** YA 4.334 mm.; YB 5.334 mm. **Valve Lift:** YA **Tappet Clearances (set hot):** .019 in. inlet and exhaust. From engine XPAG/SC2/18/097. .012 in. clearance (hot) inlet and exhaust. **Pistons:** 45 mm. **Compression height:** consult manufacturers regarding a suitable type, and fit according to his instructions. **Oil pressure:** YA 40-70 p.s.i. at all speeds when hot; YB 40-45 p.s.i. at all speeds when hot. **Grade of Oil:** Multigrade 20/50. **Sump capacity:** YA 9 pints; YB 10½ pints.

**Carburetters:** YA and YB single Y8 Twin SU 1½ in. S/down-draught H2. Standard F1; Richer DK, Weaker EF.

**Supercharger:** Nil.

**Clutch:** Borg and Beck Single dry plate 7½ in. dia. (8 in. dia. after engine XPAG/SC/2 16916). Carbon thrust block. No. of springs 6, setting fixed.

**Gearbox:** 4-speed and reverse; synchromesh on upper 3 ratios.

**Ratios:** Top 1:1, Third 1:385:1, Second 2:07:1, First 5:50:1, Reverse 3:50:1. **Oil:** Hypoid "90" e.g. Castrol Hypoy. **Capacity:** 1½ pints.

**Propeller Shaft:** Hardy Spicer with needle roller bearing couplings.

**Rear Axle:** YA Spiral bevel final drive with four star differential. YB Hypoid final drive, 2 star differential. **Ratio:** YA 5:143:1, YB 5:125:1. YA 14:5 m.p.h./1,000 r.p.m.; YB 14:5 m.p.h./1,000 r.p.m. **Oil:** Hypoid "90". **Capacity:** 1½ pints.

**Body Types:** Saloon and Tourer.

**Fuel Tank:** Mounted internally at rear of body. **Capacity:** 8 gallons (no reserve).

**Lubrication:** Use soft grease e.g. Castrol "Castrolase" LM on all chassis points at 1,000 mile intervals. Drain engine back axle every 6,000 mils. Oil steering rack every 12,000 miles using "Hypoid 90" oil. Check level of oil in carburetter(s) and level of fluids in brake master cylinder and Jackall system (where fitted) every 1,000 miles. Fluid level in shock absorbers should be checked every 12,000 miles.

**Weights:** Chassis, 10-3-22. YA/B 19-2-0. YT 18-3-20

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