

November, 1956  
**SUPPLEMENTARY INSTRUCTIONS FOR 1957**

# Royal Enfield "500 TWIN"

## IGNITION SYSTEM

Current models of the "500 Twin" have ignition and lighting by an alternator, coil and distributor.

The alternator is housed in the primary chain case, the rotor being held to the driving shaft by a single nut with a lock washer. The stator is held to the back of the chain case by three nuts.

On the engine shaft there is an adaptor to take the rotor and it is possible to fit this adaptor in either of two positions, making a difference of half a revolution.

## TIMING THE IGNITION

Fit the stator with the leads from it on the inside, facing the back of the chain case. Turn the engine until the left-hand piston is at top dead centre of the firing stroke. Put the rotor adaptor on the shaft with the keyway in the 12 o'clock position. Fit the rotor. With the parts in these positions easy emergency starting will be achieved.

Slacken the clamp bolt, which holds the distributor to the housing at the back of the timing case. Turn the distributor body until the points are just breaking with the left-hand piston 1/32" before top dead centre. The automatic ignition control gives a fully retarded ignition point when at rest. With the ignition points closed, the ammeter will show a discharge and the point at which they open will be revealed by the ammeter needle returning to zero. This is a more accurate method of determining the breaking of the contact points than using a feeler or piece of paper between the points.

In the event of a general overhaul where complete dismantling has taken place, the distributor driving chain should be fitted as nearly as possible to the position at which the contact points should open. The fine adjustment of the timing may then be carried out as detailed above.

The ignition switch is in the side of the toolbox and shows positions marked Emergency, Off and Ignition. Always switch back to "IGN" when a start has been made on the Emergency position. In the Casquette head is the lighting switch which shows positions marked "OFF", "L", and "H"; these are self explanatory and there is a dipper switch on the left handlebar for dipping the headlight.

This Supplement must be used in conjunction with Instruction Book, ref. 447 (3rd Edition) covering "500 Twin".

**THE ENFIELD CYCLE CO. LIMITED, REDDITCH, WORCS.**  
 585/21M. 11/56  
 PRINTED IN ENGLAND

Extracted from **MOTORCYCLE** Road Test  
 dated 26 June 1958  
 covering  
**ROYAL ENFIELD 496 c.c. METEOR MINOR DE LUXE**

## INFORMATION PANEL

### SPECIFICATION

**ENGINE:** Royal Enfield 496 c.c. (70 x 64.5mm) overhead-valve vertical twin with separate light alloy cylinder heads. Camshafts driven by a single chain. Light-alloy connecting rods with steel-back shell big-end bearings. Crankshaft supported in ball bearing on drive side and roller bearing on timing side. Compression ratio, 8 to 1. Dry-sump lubrication with oil compartment cast integrally with crankcase; oil capacity, 4 pints.

**CARBURETTOR:** Amal Monobloc; air slide operated by handlebar lever. Vokes air filter.

**IGNITION and LIGHTING:** Coil ignition with auto-advance. Lucas RM14 70-watt A.C. generator driven by left end of crankshaft. Lucas 6-volt, 12-ampere-hour battery charged through rectifier. Lucas 7in-diameter headlamp with pre-focus light unit.

**TRANSMISSION:** Albion four-speed gear box bolted to rear of crankcase; positive-stop foot control. Gear ratios: bottom, 13 to 1; second, 8.42 to 1; third, 6.08 to 1; top, 4.67 to 1. Multi-plate clutch with moulded inserts running in oil. Primary chain, 3/8in duplex in cast-aluminium oil-bath case. Rear chain, 3/8 x 3/16in in pressed-steel case. Engine r.p.m. at 30 m.p.h. in top gear, 1,990.

**FUEL CAPACITY:** 3 3/4 gallons.

**TYRES:** Dunlop 3.25 x 17in; front ribbed, rear Universal.

**BRAKES:** Front, 7in diameter x 1 1/2in wide; rear, 7in diameter x 1in wide; finger adjusters.

**SUSPENSION:** Royal Enfield telescopic front fork with hydraulic damping. Pivoted-fork rear springing employing Girling hydraulically damped shock absorbers with three-position adjustment for load.

**WHEELBASE:** 53 1/2in unladen. Ground clearance, 6in unladen.

**SEAT:** Royal Enfield dual-seat; unladen height, 29 1/2in.

**WEIGHT:** 413 lb fully equipped, with full oil compartment and approximately one gallon of petrol.

**MAKERS:** The Enfield Cycle Co., Ltd., Redditch, Worcs.

**DESCRIPTION:** *The Motor Cycle*, 3 April 1958.

### PERFORMANCE DATA

(Obtained at the Motor Industry Research Association's proving ground at Lindley.)

**MEAN MAXIMUM SPEED:** Bottom: \*35 m.p.h.  
 Second: \*55 m.p.h.  
 Third: \*79 m.p.h.  
 Top: 89 m.p.h.  
 \*Valve float occurring.

**HIGHEST ONE-WAY SPEED:** 97 m.p.h. (conditions: strong following wind; rider wearing two-piece plastic suit and overboots).

**MEAN ACCELERATION:** 10-30 m.p.h. 20-40 m.p.h. 30-50 m.p.h.

Bottom	...	...	3 sec.	—	—
Second	...	...	4.7 sec.	4.1 sec.	4.1 sec.
Third	...	...	7 sec.	5.7 sec.	5.9 sec.
Top	...	...	—	9.6 sec.	8.2 sec.

Mean speed at end of quarter-mile from rest: 76 m.p.h.  
 Mean time to cover standing quarter-mile: 17.5 sec.

**PETROL CONSUMPTION:** At 30 m.p.h., 85 m.p.g.; at 40 m.p.h., 82 m.p.g.; at 50 m.p.h., 75 m.p.g.; at 60 m.p.h., 58 m.p.g.

**BRAKING:** From 30 m.p.h. to rest, 32ft (surface, dry tarmac).

**TURNING CIRCLE:** 15ft.

**MINIMUM NON-SNATCH SPEED:** 13 m.p.h. in top gear.

**WEIGHT PER C.C.:** 0.83 lb.