

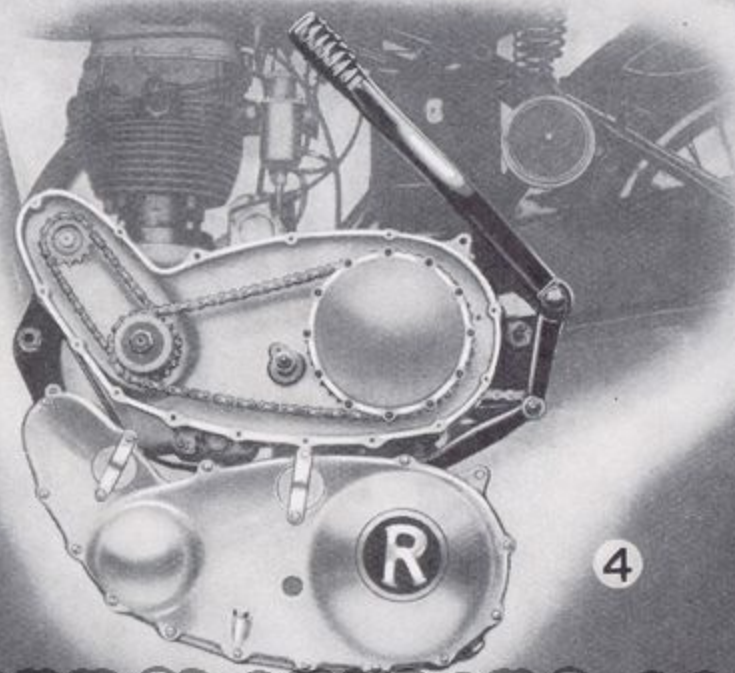
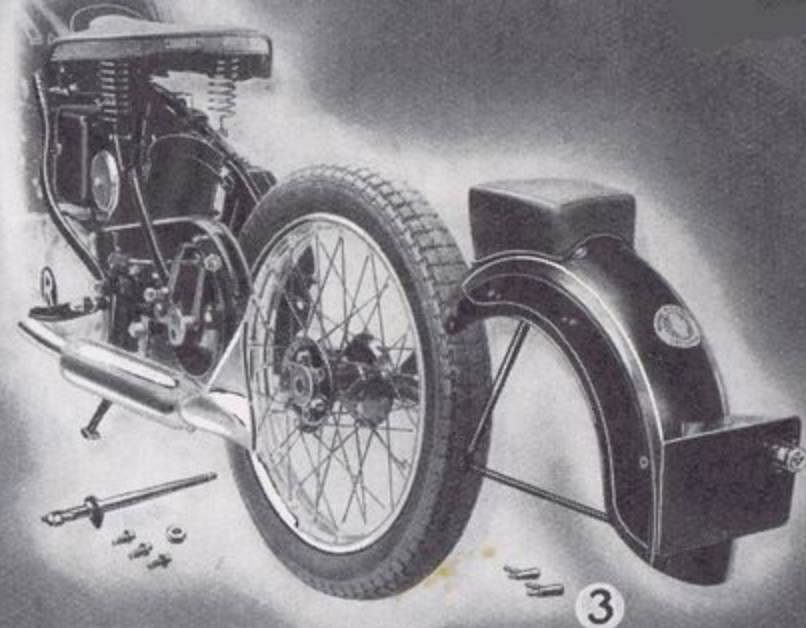
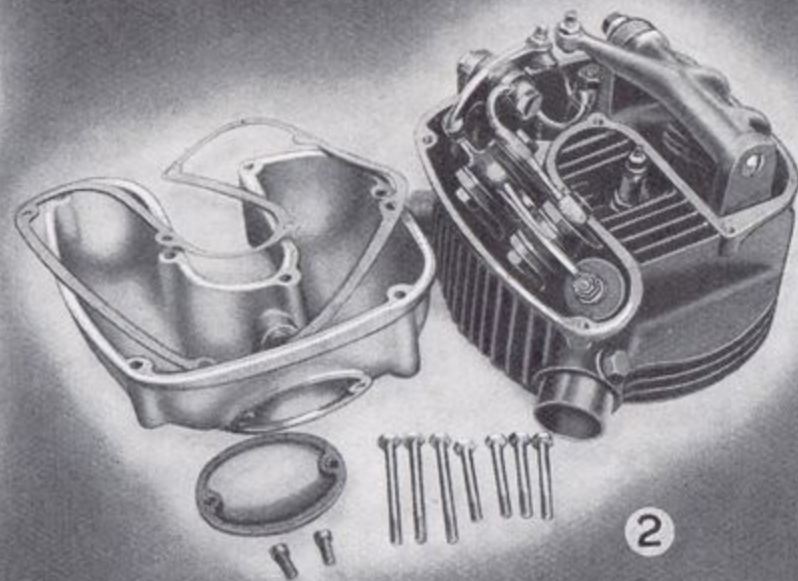
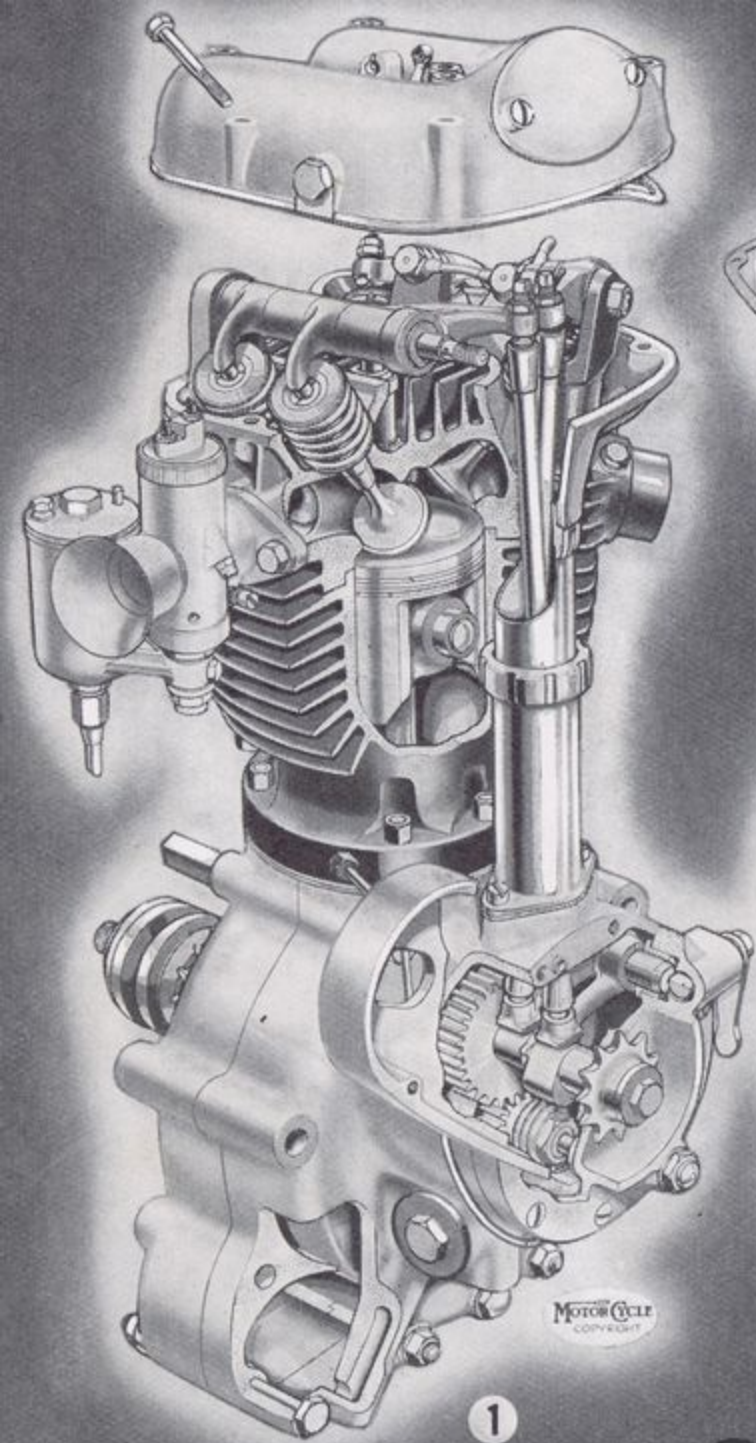
# RUDGE

*Motor Cycles*



SAFE • SILENT • SPEED

[BARNSTORMERS.CO.NZ](http://BARNSTORMERS.CO.NZ)



EVERY RUDGE HAS THE FOLLOWING  
COMPLETE EQUIPMENT AS STANDARD

ELECTRIC LIGHTING — 8" HEAD LAMP.  
HIGH FREQUENCY ELECTRIC HORN.  
ILLUMINATED TRIP SPEEDOMETER  
(500 c.c. only)

LICENCE-HOLDER — PILLION PAD.  
FULL KIT OF TOOLS.

ALL INCLUDED IN LIST PRICE

BARNSTORMERS.CO.NZ

# RUDGE SPECIAL FEATURES

**OVERHEAD VALVE ENCLOSURE.**—The valves and operating mechanism on 500 c.c. models are totally enclosed by an oil-tight aluminium cover bolted to the cylinder head (See Fig. 2).

Oil is delivered under pressure to the cylinder head, and each rocker has its individual oil feed. The tubular push rods operate direct on to the cam followers, and are enclosed in an oil-tight telescopic housing (See Fig. 1). The resultant mechanical silence and absence of wear is remarkably good.

Overhead rocker adjustment is required very infrequently and is easily accessible via the inspection cap in the aluminium head cover (See Fig. 1).

For the "Ulster" model, probably the fastest standard 500 c.c. model in current production, a four-valve cylinder head in aluminium bronze with polished ports is retained, with the well-known arrangements of parallel inlet valves, radial exhaust valves and a central sparking plug. The valves and operating mechanism on this head also are totally enclosed and all rockers are pressure lubricated.

**CYLINDER BARREL.**—All Rudge cylinder barrels are made of chrome nickel cast-iron. The method of bolting down the cylinder head renders the operation of removal remarkably simple—**THE PETROL TANK NEED NOT BE DISTURBED.**

**LUBRICATION.**—The capacity of the oil pump provides a copious flow of oil to the cylinder head while ensuring an adequate feed to the big end. An additional lead is now taken to the rear of the cylinder (See Fig. 1). The area of the filter is remarkably generous.

**QUICK DETACHABLE REAR WHEEL.**—All 500 c.c. models are fitted with a really quickly detachable rear wheel (See Fig. 3). The brake drum and sprocket remain in position

when the wheel is removed. The knockout spindle is fitted with a tommy bar. The wheel bearings are of the adjustable taper roller type, which have proved extremely efficient during arduous tests. The special system of cam adjustment for the rear chain is retained together with detachable mudguard, including such refinements as jack-plug for the rear lamp cable.

**FRONT FORK.**—The Rudge enclosed-spring type fork has proved extremely satisfactory since its inception. A bronze bush in the outer telescopic sheath fitted with a grease gun nipple obviates all wear. Developments for 1938 consist of increased bearing areas and a reduction of total weight, thus improving the already exceptional steering and road-holding qualities.

**FOUR-SPEED GEARBOX.**—The roller bearing four-speed box with T.T. type positive foot change is standard throughout the range. The extended gearbox filler makes routine maintenance a matter of moments.

**OIL BATH CHAIN CASE.**—Every model in the range is fitted with a handsome cast aluminium oil bath chain case (See Fig. 4). There is no rattle and no resonance. On the 500 c.c. models the clutch is enclosed in an oil-tight cover.

**RUDGE HANDLEFT STAND.**—This patented Rudge feature (Patent No. 359089) see Fig. 4, is fitted to 500 c.c. models and enables the machine to be placed on the stand without effort, even with the rider remaining seated.

**RUDGE COUPLED BRAKES.**—Every model is fitted with the unique Rudge system of proportionally coupled brakes. This method of operation gives the highest braking efficiency known to Road Transport, and ensures a

correct proportion of braking to each wheel whatever the speed. Skidding is eliminated under any conditions.

Aluminium brake shoes are used throughout the range.

**SILENCERS.**—The large cubic capacity of the silencers, together with the specially designed absorber tubes, ensures a quiet exhaust note without impairing the performance.

**TYRES.**—Dunlop "Universal" tyres are fitted throughout the range. Tyre sizes and tread design have been selected to suit each individual model.

**CARRIER.**—On request a strong luggage carrier can be supplied in place of pillion pad against a small extra charge.

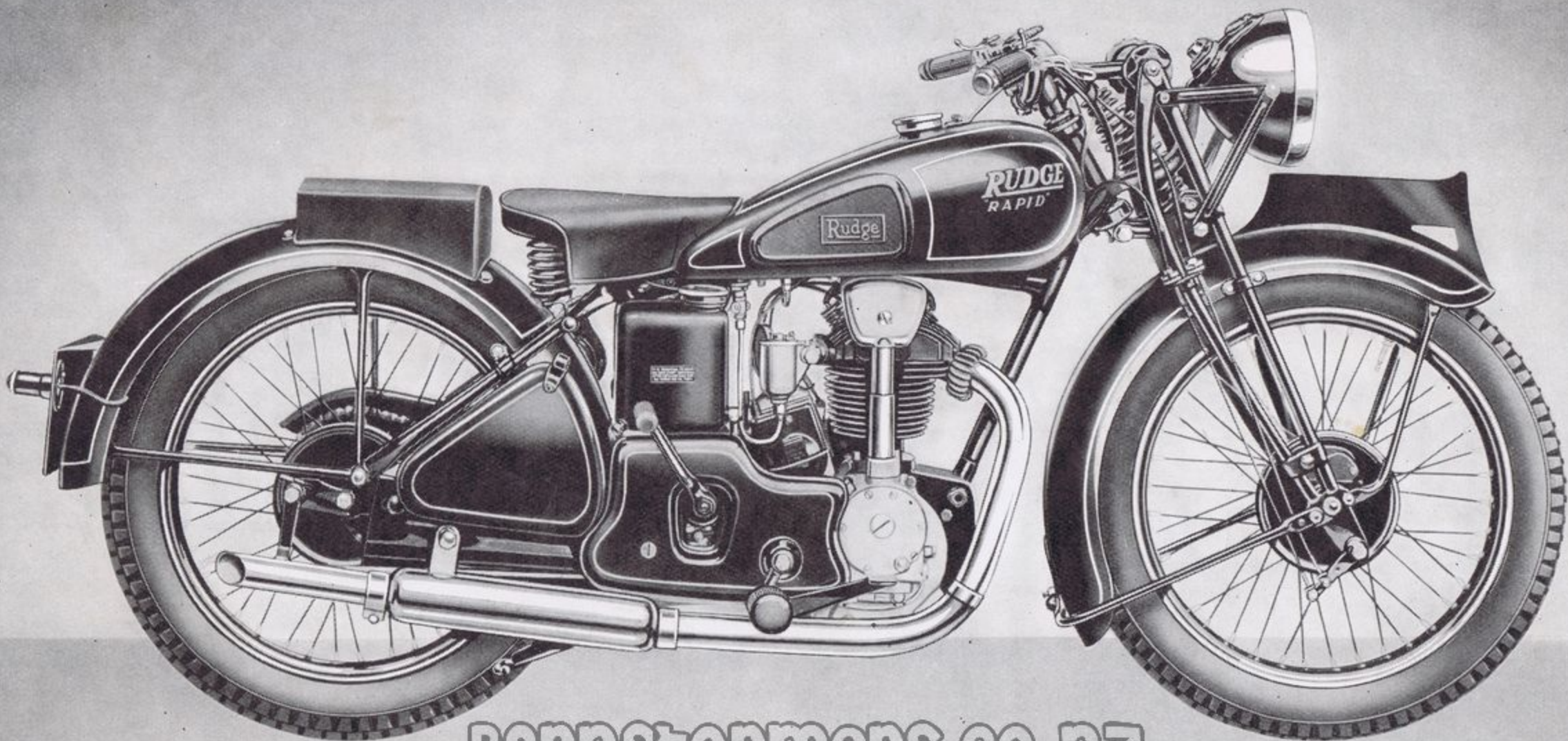
## STANDARD ON ALL MODELS

3½ gallon petrol tank with reserve supply tap.  
RUDGE roller bearing four-speed gearbox.  
T.T. type positive foot gear change.  
RUDGE proportionately coupled brakes.  
Enclosed battery.  
Mechanism shield.  
Aluminium oil bath chain case.  
Large pillion pad.  
Quickly detachable rear mudguard.  
Electric lighting set with 8in. head lamp.  
High frequency electric horn.  
Licence holder.  
Pump and tool kit.

## STANDARD ON 500 c.c. MODELS

Quickly detachable rear wheel.  
Hand lift central stand (Patent No. 359089).  
Fully enclosed and pressure lubricated valve gear.  
Smith's illuminated chronometric trip speedometer.  
Decompressor for easy starting.  
Folding kick starter.  
Improved front fork.  
Fully enclosed oil tight clutch.

250 c.c. 'RAPID'



BARNSTORMERS.CO.NZ

# THE 250 cc "RAPID" MODEL

## SPECIFICATION

**ENGINE.**—245 c.c. Bore 62 mm. Stroke 81 mm. Two overhead valves operated by rockers mounted upon roller bearings. New and improved design of detachable cylinder head with spherical combustion chamber, 14 mm. plug. Redesigned inlet port giving greater efficiency. Double row roller big end bearing with duralumin cage. Cylinder of wear-resisting, NICKEL-CHROME IRON to Rudge special specification has deeper finning and much improved appearance.

DETACHABLE CYLINDER HEAD MAY BE REMOVED WITH THE PETROL TANK IN POSITION.

**LUBRICATION.**—Dry sump entirely automatic designed to operate without adjustment. The oil is circulated by a duplex pump through a Tecalemit filter of large area.

**ELECTRICAL EQUIPMENT.**—Specially designed Lucas Maglita provides ignition and supplies current for large 8 in. head lamp, tail light and high frequency horn. Lucas battery.

**CARBURETTER.**—Amal, needle type. Twist grip throttle control. Handlebar lever air control. Fitted with triple gauze flame arrester.

**BRAKES.**—RUDGE PATENTED (Patent No. 260656) PROPORTIONAL COUPLED BRAKES, 6 $\frac{3}{4}$  in. diameter. Die cast aluminium shoes.

**PETROL TANK.**—Rudge "Aero" model, furnished with central filler cap and handsomely finished in black and gold. Fitted with large pneumatic knee grips. Capacity 3 $\frac{1}{2}$  gallons. 2-level petrol tap, providing an emergency reserve supply sufficient for 30 miles.

**OIL TANK.**—Separate oil tank with large filler and drain plug, provides efficient cooling. Capacity half-gallon.

**FOOT RESTS.**—Easily adjustable. Fitted with thick rubber pads. Lugs incorporated in chain stays for pillion foot rests.

**HANDLEBARS.**—Adjustable semi-Sports type,  $\frac{7}{8}$  in. diameter with black celluloid covering, fitted with external levers. Adjustable steering damper.

**WHEELS AND TYRES.**—Built on steel shell, with RUDGE SYSTEM OF OFFSET SPOKING—strong and light. Adjustable bearings. Fitted with new pattern Dunlop "Universal" Tyres, 3.25/19 (26 $\times$ 3.25).

**MUDGUARDS.**—Of deep section giving ample tyre clearance, yet providing full protection from mud. The rear guard is IMMEDIATELY DETACHABLE for ease of wheel removal.

**STANDS.**—Tubular stand or front wheel. Parking stand central spring-up type of sturdy construction.

**GEARBOX.**—Rudge-Whitworth patent four-speed (Patent No. 331643). Gears in CONSTANT MESH. Kick starter mechanism ENCLOSED. Mechanism shield particularly neat and instantly detachable. Positively operated foot change. Multi-plate clutch. Solo gear ratios : 6.39 to 1 ; 8.2 to 1 ; 11.2 to 1 ; 15.95 to 1.

**EXHAUST SYSTEM.**—Large diameter downswept exhaust pipe and cylindrical silencer with absorber tube in the tail pipe. Heavily chromium plated throughout.

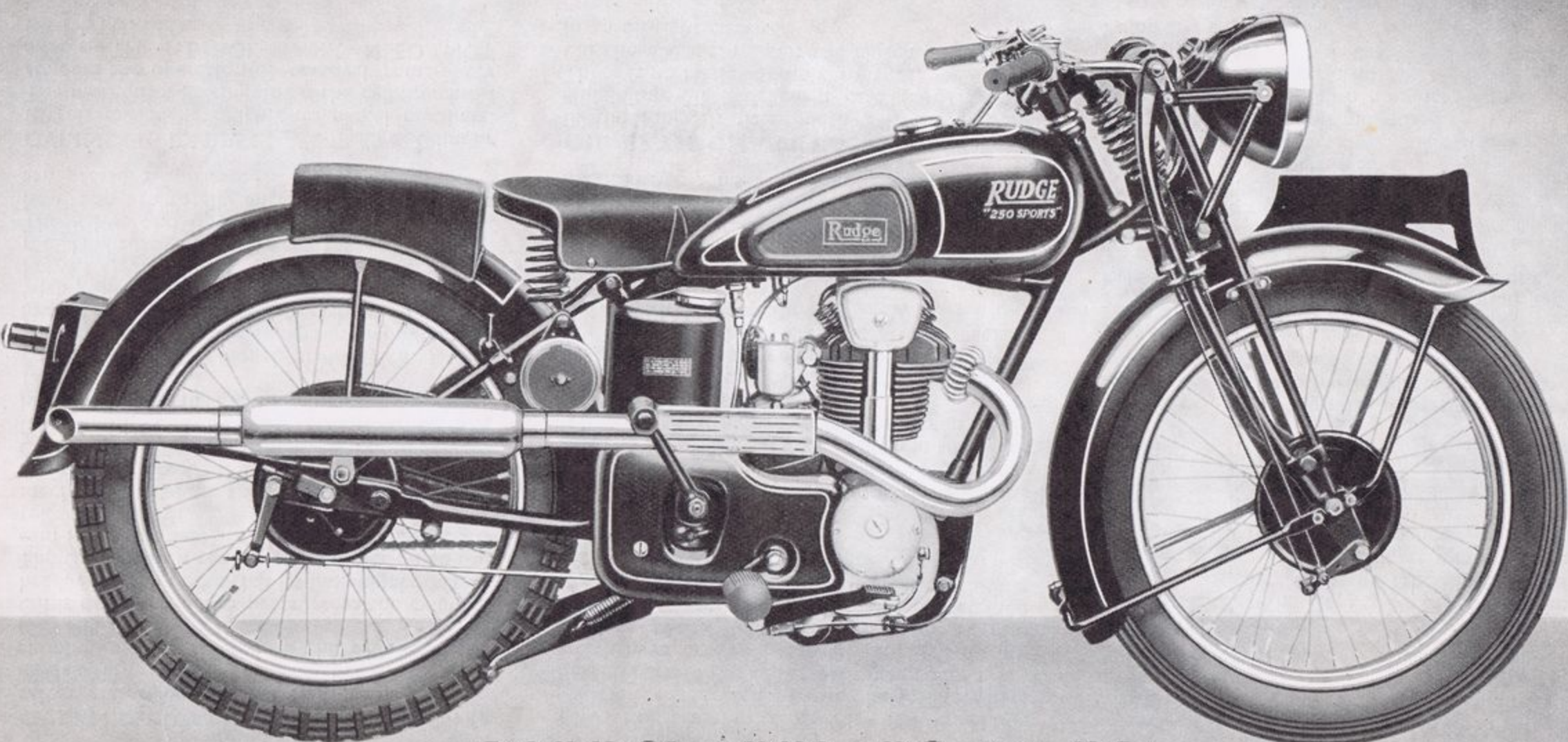
**FINISH.**—The outstanding Rudge Quality finish, multi-coat superfine black enamel on RUSTPROOF UNDERCOAT, lined brilliant bronze. Bright parts heavily chromium plated on nickel. ALL PROMINENT BOLTS ARE CAPPED WITH DOMED NUTS. Blue or Maroon enamel extra. Chromium plated panel tank extra.

**"ALL ON" PRICE** includes : Lucas electric lighting, with 8 in. head lamp. High frequency electric horn. Licence-holder. Pillion pad. Large toolbox with comprehensive tool kit.

**EXTRAS.**—Smith's illuminated trip chronometric speedometer, extra.



250 C.C. 'SPORTS'



BARNSTORMERS.CO.NZ

# THE 250 cc SPORTS MODEL

## SPECIFICATION

**ENGINE.**—245 c.c. Bore 62 mm. Stroke 81 mm. Two overhead valves operated by rockers mounted upon roller bearings. New and improved design of detachable cylinder head with spherical combustion chamber, 14 mm. plug. Double row roller big end bearing with duralumin cage. Cylinder of wear-resisting, NICKEL-CHROME IRON to Rudge special specification has deeper finning and much improved appearance.

DETACHABLE CYLINDER HEAD MAY BE REMOVED WITH THE PETROL TANK IN POSITION.

**LUBRICATION.**—Dry sump entirely automatic designed to operate without adjustment. The oil is circulated by a duplex pump through a Tecalemit filter of large area.

**ELECTRICAL EQUIPMENT.**—Specially designed Lucas Maglita provides ignition and supplies current for large 8in. head lamp, tail light and high frequency horn. Lucas battery.

**CARBURETTER.**—Amal, needle type. Twist grip throttle control. Handlebar lever air control. Fitted with triple gauze flame arrester.

**BRAKES.**—RUDGE PATENTED (Patent No. 260656) PROPORTIONAL COUPLED BRAKES, 6 $\frac{3}{4}$ in. diameter. Die cast aluminium shoes.

**PETROL TANK.**—Rudge "Aero" model, furnished with central filler cap and handsomely finished in black and gold. Fitted with large pneumatic knee grips. Capacity 3 $\frac{1}{2}$  gallons. 2-level petrol tap, providing an emergency reserve supply sufficient for 30 miles.

**OIL TANK.**—Separate oil tank with large filler and drain plug, provides efficient cooling. Capacity half-gallon.

**FOOT RESTS.**—Easily adjustable. Fitted with thick rubber pads. Lugs incorporated in chain stays for pillion foot rests.

**HANDLEBARS.**—Adjustable semi-Sports type,  $\frac{7}{8}$ in. diameter with black celluloid covering, fitted with long front brake lever and Binks quick action twist grip. Adjustable steering damper.

**WHEELS AND TYRES.**—Built on steel shell, with RUDGE SYSTEM OF OFFSET SPOKING—strong and light. Adjustable bearings. Fitted with new pattern "Universal" Tyres, 3.25/19 (26 $\times$ 3.25). Front ribbed; rear studded.

**MUDGUARDS.**—Sports section guards, with flared ends. The rear guard is IMMEDIATELY DETACHABLE for ease of wheel removal.

**STANDS.**—Tubular stand for front wheel. Parking stand central spring-up type of sturdy construction.

**GEARBOX.**—Rudge-Whitworth patent four-speed (Patent No. 331643). Gears in CONSTANT MESH. Kick starter mechanism ENCLOSED. Mechanism shield particularly neat and instantly detachable. Positively operated foot change. Multi-plate clutch. Solo gear ratios: 6.39 to 1; 8.2 to 1; 11.2 to 1; 15.95 to 1.

**EXHAUST SYSTEM.**—Large diameter up-swept exhaust pipe and cylindrical silencer, with absorber tube in the tail pipe. Heavily chromium plated throughout.

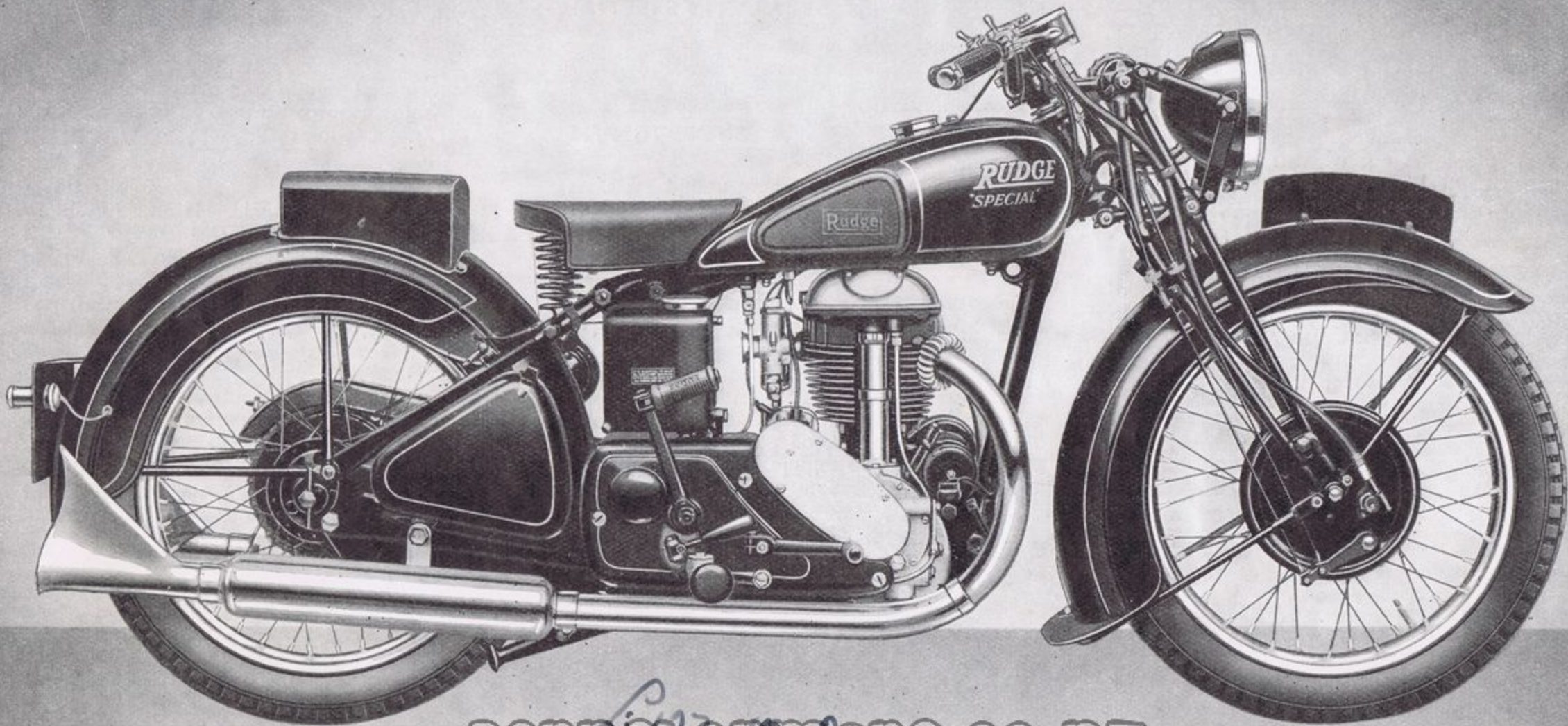
**FINISH.**—The outstanding Rudge Quality finish, multi-coat superfine black enamel on RUSTPROOF UNDERCOAT, lined brilliant bronze. Bright parts heavily chromium plated on nickel. ALL PROMINENT BOLTS ARE CAPPED WITH DOMED NUTS. Blue or Maroon enamel, extra. Chromium plated panel tank extra.

**"ALL ON" PRICE** includes: Lucas electric lighting, with 8 in. head lamp. High frequency electric horn. Licence-holder. Pillion pad. Large toolbox with comprehensive tool kit.

**EXTRAS.**—Smith's illuminated trip chromometric speedometer, extra.



500 c.c. 'SPECIAL'



*1927*  
BARNSTORMERS.CO.NZ



# THE 500 cc "SPECIAL" MODEL

## SPECIFICATION

**ENGINE.**—495 c.c. Bore 84.5 mm. Stroke 88 mm. Rudge system FOUR OVERHEAD VALVES, with completely enclosed and pressure lubricated operating gear. Tubular valve operating rods. Double row roller big end bearing with Duralumin cage. Polished Ports. Piston, "Aerolite" close clearance, non slap. Cylinder of wear-resisting NICKEL-CHROME IRON, to Rudge special specification, has deeper finning and much improved appearance. Engine bench tested and stripped for inspection before road test.

DETACHABLE CYLINDER HEAD MAY BE REMOVED WITH THE PETROL TANK IN POSITION.

**LUBRICATION.**—Dry sump entirely automatic, designed to operate without adjustment. The oil is fed under pressure to the big end cylinder head and cylinder, and returned to the oil tank through a Tecalemit filter of large area.

**ELECTRICAL EQUIPMENT.**—B.T.H. Magneto and Miller Dynamo, driven by chains running in an oil bath. 8 in. head lamp. Exide battery. High frequency electric horn.

**CARBURETTER.**—Amal, needle type. Twist grip throttle control. Handlebar lever air control.

**BRAKES.**—RUDGE PATENTED (Patent No. 260656) PROPORTIONAL COUPLED BRAKES, 8 in. diameter front, 7½ in. diameter rear, FINGER ADJUSTMENT TO BOTH FRONT AND REAR. Die cast aluminium shoes.

**PETROL TANK.**—Rudge "Aero" model

furnished with central filler cap, and handsomely finished in black and gold. Fitted with large pneumatic knee grips. Capacity approximately 3½ gallons. 2-level petrol tap, providing an emergency reserve supply sufficient to cover 25 miles.

**OIL TANK.**—Separate oil tank, with large filler and drain plug, provides efficient cooling. Capacity half-gallon.

**FOOTRESTS.**—Easily adjustable. Serrated hangers, giving wide range of adjustment. Fitted with thick rubber pads. Lugs incorporated in stays for pillion footrests.

**HANDLEBARS.**—Adjustable semi-Sports type. ¾ in. diameter with black celluliod covering, fitted with adjustable steering damper.

**WHEELS AND TYRES.**—Quickly detachable rear wheel. Wheel may be removed, leaving chain and brake adjustment untouched. Positive drive through three driving studs and three bolts. Adjustable taper roller bearings. Rear spindle fitted with tommy bar. New pattern Dunlop "Universal" tyres (3.25/19 (26×3.25) studded, front and rear), are standard on this model.

**MUDGUARDS.**—Deep large section and valanced, giving ample tyre clearance, yet providing full protection from mud. The rear guard is fastened to the frame by wing bolts, making it easily detachable.

**STANDS.**—Tubular stand for front wheel, parking stand central spring-up type, with easy-

to-operate hand lever. Rudge-Whitworth patent (Patent No. 359089).

**GEARBOX AND CLUTCH.**—Rudge-Whitworth patent four-speed (Patent No. 331643). Gears in CONSTANT MESH. Kick starter mechanism ENCLOSED. Mechanism shield particularly neat and instantly detachable. Foot-change positively operated on right hand side of machine. Multi-plate clutch, enclosed in oil-tight cover to eliminate slip or drag. Solo gear ratios : 4.74 to 1 ; 5.87 to 1 ; 7.65 to 1 ; 13.9 to 1. Sidecar gear ratios : 5.5 to 1 ; 6.82 to 1 ; 8.9 to 1 ; 16.0 to 1.

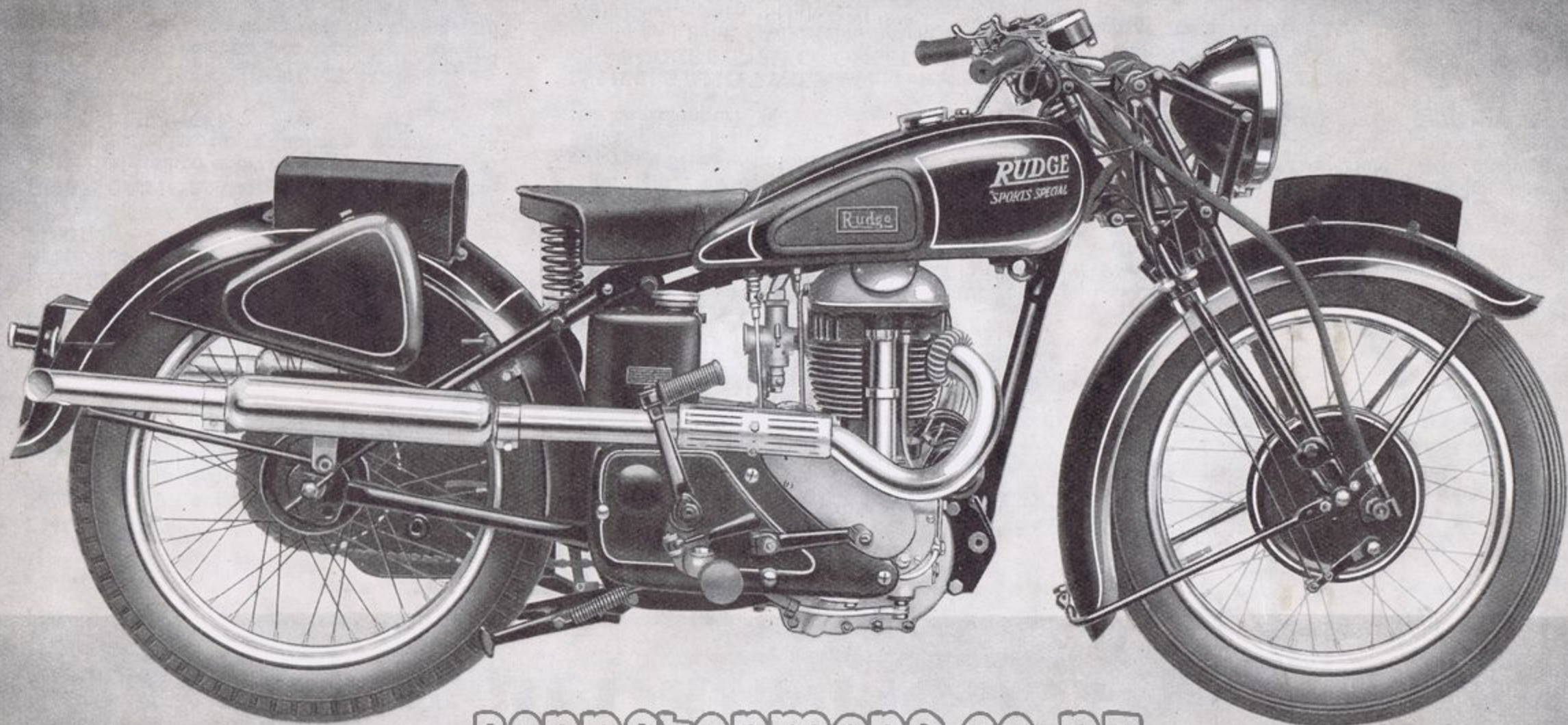
**EXHAUST SYSTEM.**—Advanced design, permitting very high performance, with improved silencing. Two large diameter wide angle radial low level exhaust pipes from cylinder head to two large cylindrical silencers with flared fish tails, incorporating absorber tubes. Heavy chromium plate throughout. Upswept exhaust pipes, extra.

**FINISH.**—The outstanding Rudge Quality finish, multi-coat, superfine black enamel on RUSTPROOF UNDERCOAT, lined brilliant bronze. Bright parts heavily chromium plated on nickel. ALL PROMINENT BOLTS ARE CAPPED WITH DOMED NUTS. Blue or Maroon enamel, extra. Chromium plated panel tank, extra.

**" ALL ON " PRICE** includes: Miller Dynamo lighting, with 8in. Head lamp. High frequency electric horn. *Smith's trip chronometric speedometer.* Licence-holder and tool box, with comprehensive tool kit.



# 500 c.c. 'SPORTS SPECIAL'



[Barnstormers.co.nz](http://Barnstormers.co.nz)

# THE 500<sup>cc</sup> "SPORTS-SPECIAL" MODEL SPECIFICATION

**ENGINE.**—495 c.c. Bore 84.5 mm. Stroke 88 mm. Rudge system FOUR OVERHEAD VALVES, with completely enclosed and pressure lubricated operating gear. Tubular valve operating rods. Polished Ports. Double row roller big end bearings with duralumin cage. Piston "Aerolite" close clearance, non slap. Cylinder of wear-resisting NICKEL-CHROME IRON to Rudge special specification, has deeper finning and much improved appearance. Engine bench tested and stripped for inspection before road test.

DETACHABLE CYLINDER HEAD MAY BE REMOVED WITH THE PETROL TANK IN POSITION.

**LUBRICATION.**—Dry sump entirely automatic, designed to operate without adjustment. The oil is fed under pressure to the big end cylinder head and cylinder, and returned to the oil tank through a Tecalemit filter of large area.

**ELECTRICAL EQUIPMENT.**—B.T.H. Magneto and Miller Dynamo, driven by chains running in an oil bath. 8in. head lamp. Exide battery. High frequency electric horn.

**CARBURETTER.**—Amal, needle type. Twist grip throttle control. Handlebar lever air control.

**BRAKES.**—RUDGE PATENTED (Patent No. 260565) PROPORTIONAL COUPLED BRAKES, 8in. diameter front, 7½in. diameter rear, FINGER ADJUSTMENT TO BOTH FRONT AND REAR. Die cast aluminium shoes.

**PETROL TANK.**—Rudge "Aero" model

furnished with central filler cap and handsomely finished in black and gold. Fitted with large pneumatic knee grips. Capacity approximately 3½ gallons. 2-level petrol tap providing an emergency reserve supply sufficient for 25 miles.

**OIL TANK.**—Separate oil tank, with large filler and drain plug, provides efficient cooling. Capacity half-gallon.

**FOOT RESTS.**—Easily adjustable. Serrated hangers, giving wide range of adjustment. Fitted with thick rubber pads. Lugs incorporated in chain stays for pillion footrests.

**HANDLEBARS.**—Adjustable semi - Sports type, 7⁄8in. diameter, with black celluloid covering, fitted with long front brake lever, and Binks quick action twist grip. Adjustable steering damper.

**WHEELS AND TYRES.**—Quickly detachable rear wheel. Wheel may be removed, leaving chain and brake adjustment untouched. Positive drive through three driving studs and three bolts. Adjustable taper roller bearings. Rear spindle fitted with tommy bar. New pattern Dunlop "Universal" tyres (front 3.25/19 (26×3.25) ribbed, rear studded), are standard on this model.

**MUDGUARDS.**—Sports section guards with flared ends. The rear guard is fastened to the frame by wing bolts, making it easily detachable.

**STANDS.**—Tubular stand for front wheel, parking stand central spring-up type, with easy-

to-operate hand lever. Rudge Whitworth patent. (Patent No. 359089).

**GEARBOX AND CLUTCH.**—Rudge-Whitworth patent four-speed (Patent No. 331643). Gears in CONSTANT MESH. Kick starter mechanism ENCLOSED. Positively operated foot-change on right hand side of machine. Multi-plate clutch enclosed in oil-tight cover to eliminate slip or drag. Solo gear ratios: 4.74 to 1; 5.89 to 1; 7.65 to 1; 13.9 to 1.

**EXHAUST SYSTEM.**—Advanced design, permitting very high performance with commendable degree of silence. Two large diameter wide angle upswept exhaust pipes from cylinder head to two cylindrical silencers, with tail pipes incorporating absorber tubes. Heavy chromium plate throughout. Low level exhaust pipes optional.

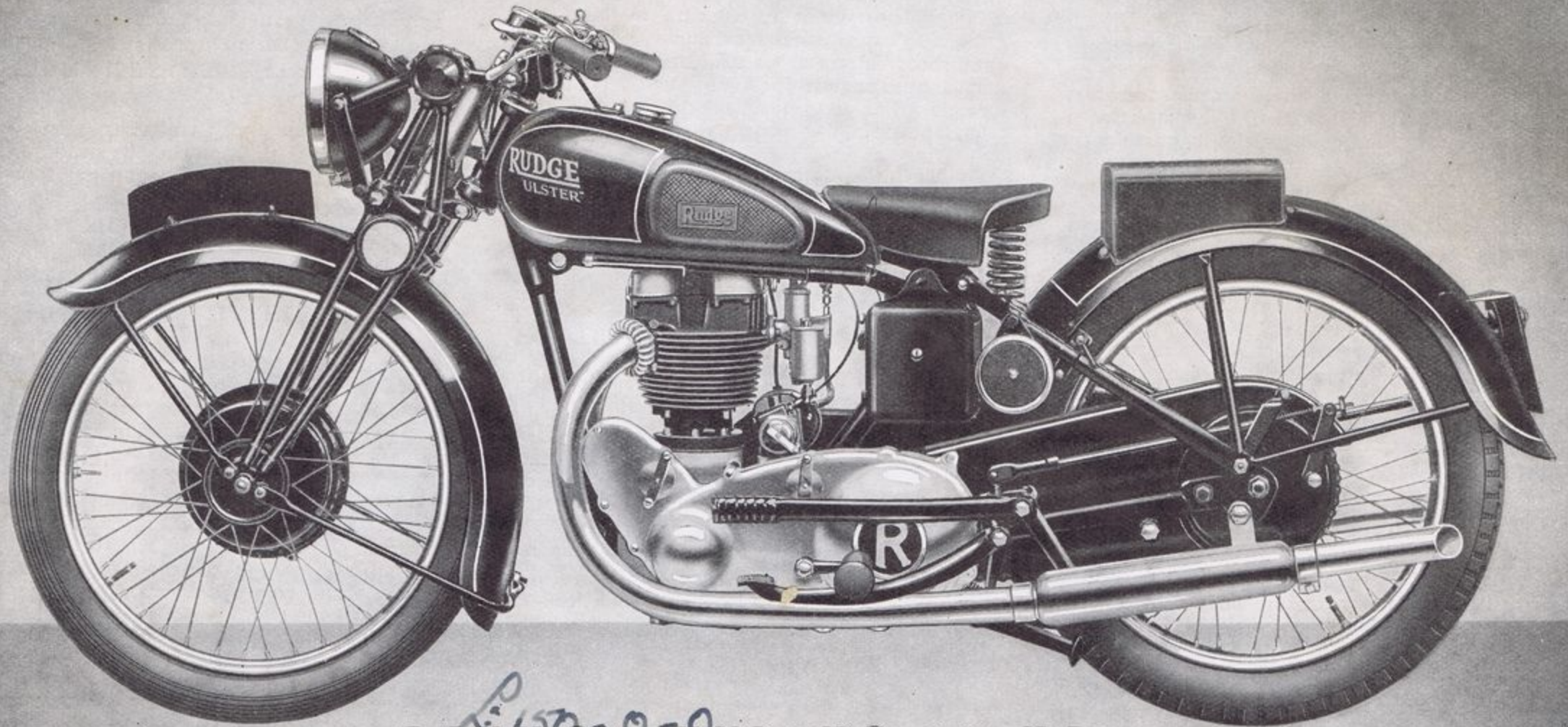
**FINISH.**—The outstanding Rudge Quality finish, multi-coat, superfine black enamel on RUSTPROOF UNDERCOAT, lined brilliant bronze. Bright parts heavily chromium plated on nickel. ALL PROMINENT BOLTS ARE CAPPED WITH DOMED NUTS. Blue or Maroon enamel extra. Chromium plated panel tank extra.

**"ALL ON" PRICE** includes: Miller Dynamo lighting, with 8in. Head Lamp. High frequency electric horn. *Smith's trip chronometric speedometer.* Licence-holder, and two tool boxes with comprehensive tool kit.

**EXTRAS.**—Rudge-Whitworth International Six Days' type rear hub. "ONE NUT RELEASE." Extra.



500 c.c. 'ULSTER'



*150*  
Barnstormers.co.nz

# THE 500<sup>cc</sup> "ULSTER" MODEL

**ENGINE.**—499 c.c. Bore 85 mm. Stroke 88 mm. Well-known RUDGE system high efficiency arrangement of FOUR OVERHEAD VALVES—two radial exhaust and two parallel inlet—fitted in an aluminium bronze cylinder head with 14 mm. central plug. PORTS AND COMBUSTION CHAMBER POLISHED. Completely enclosed and pressure lubricated valve operating gear, tubular valve operating rods. THREE-ROW ROLLER BIG END BEARING with duralumin cage. Designed for VERY HIGH PERFORMANCE, with SLIPPER TYPE PISTON, HIGH LIFT CAM, and RACING VALVE SPRINGS. Cylinder of special wear-resisting, NICKEL-CHROME IRON to Rudge specification, has deeper finning and much improved appearance. Engine bench tested and stripped for inspection before road test.

DETACHABLE CYLINDER HEAD MAY BE REMOVED WITH THE PETROL TANK IN POSITION.

**LUBRICATION.**—Dry sump entirely automatic, designed to operate without adjustment. The oil is fed under pressure to the big end cylinder head and cylinder, and returned to the oil tank through a Tecalemit filter of large area.

**ELECTRICAL EQUIPMENT.**—B.T.H. Magneto and Miller Dynamo driven by chains running in an oil bath. 8in. head lamp. Exide battery. High frequency electric horn.

**CARBURETTER.**—Amal, needle type. Twist grip throttle control. Handlebar lever air control.

**BRAKES.**—RUDGE PATENTED (Patent No. 260656) PROPORTIONAL COUPLED BRAKES. 8 in. diameter front, 7½ in. diameter rear.

FINGER ADJUSTMENT TO BOTH FRONT AND REAR. Die cast aluminium shoes.

**PETROL TANK.**—Rudge "Aero" model, furnished with central filler cap and handsomely finished in black and gold. Fitted with large pneumatic knee grips. Capacity approximately 3½ gallons. 2-level petrol tap, providing an emergency reserve supply sufficient for 25 miles.

**OIL TANK.**—Separate oil tank with large filler and drain plug, provides efficient cooling. Capacity half-gallon.

**FOOTRESTS.**—Easily adjustable. Serrated hangers, giving wide range of adjustment. Fitted with thick rubber pads. Lugs incorporated in chain stays for pillion foot rests.

**HANDLEBARS.**—Adjustable semi-Sports type, 7⁄8 in. diameter with black celluloid covering, fitted with long front brake lever, and Binks quick action twist grip. Adjustable steering damper.

**WHEELS AND TYRES.**—New type detachable rear wheel. Wheel may be removed leaving chain and brake adjustment untouched. Positive drive through three driving studs and three bolts. Adjustable taper roller bearings. Rear spindle fitted with tommy bar. New pattern Dunlop "Universal" tyres (front 3.00/21 (27×3 in.) ribbed, rear 3.25/20 (27×3.25 in.) studded), are standard on this model.

**MUDGUARDS.**—Sports section guards with flared ends. The rear guard is fastened to the frame by wing bolts, making it easily detachable.

**STANDS.**—Tubular stand for front wheel.

## SPECIFICATION

parking stand central spring-up type, with easy to-operate hand lever. Rudge-Whitworth Patent. (Patent No. 359089).

**GEARBOX AND CLUTCH.**—Rudge-Whitworth patent four-speed (Patent No. 331643). Gears in CONSTANT MESH. Kick starter mechanism ENCLOSED. Positively operated foot-change on right hand side of machine. Multi-plate clutch enclosed in oil-tight cover to eliminate slip or drag. Solo gear ratios: 4.53 to 1; 5.62 to 1; 7.36 to 1; 13.28 to 1. Sidecar gear ratios: 5.5 to 1; 6.82 to 1; 8.9 to 1; 16.0 to 1.

**EXHAUST SYSTEM.**—Advanced design, permitting very high performance with commendable degree of silence. Two large diameter wide angle low level exhaust pipes from cylinder head to two cylindrical silencers, with tail pipes incorporating absorber tubes. Heavy chromium plate throughout. Upswept exhaust pipes, extra.

**FINISH.**—The outstanding Rudge Quality finish, multi-coat, superfine black enamel on RUSTPROOF UNDERCOAT, lined brilliant bronze. Bright parts heavily chromium plated on nickel. ALL PROMINENT BOLTS ARE CAPPED WITH DOMED NUTS. Blue or Maroon enamel extra. Chromium plated panel tank extra.

**"ALL ON" PRICE** includes: Miller dynamo lighting, with 8in. Head Lamp. High frequency electric horn. *Smith's trip chronometric speedometer.* Licence-holder and tool box, with comprehensive tool kit.

**EXTRAS.**—Rudge-Whitworth International Six Days' type rear hub. "ONE NUT RELEASE" extra.