

Phil Hawksley's BM Bikes

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BMW R51 Specifications

Start of Production	1938
End of Production	1940
Numbers Produced	3,775
Price	1,595 RM



Engine

Internal Designation	254/1
Motor Type	Four-stroke two cylinder flat twin
Bore x Stroke	68 x 68 mm (2.67 x 2.67 in)
Displacement	494 cc
Max Power	24 hp at 5,600 rpm
Compression Ratio	6.7 : 1
Valves	OHV
Carburation System	2 x carburettor type Amal 5/423
Engine Lubricating System	Forced feed lubrication
Oil Pump	Gear pump

Power Transmission

Clutch	Single plate, dry
Number of Gears	4
Shifting	Foot shifting (+ auxiliary manual lever on the gear block), manual gear lever on request
Gearbox Ratios	3.6 / 2.28 / 1.7 / 1.3
Rear Wheel Ratio	1 : 3.89 (1 : 4.62 with sidecar)
Bevel/Crownwheel	9 / 35 teeth (8 / 37 with sidecar)

Electrical System

Ignition System	Battery ignition
Generator	Bosch RD 50/6 2800RS 15
Spark Plugs	Bosch W 225 T1

Chassis

Designation	251/1
Frame	Twin loop pressed steel frame
Front wheel suspension	Telescopic fork
Rear wheel suspension	Telescopic suspension
Wheel rims	3 x 19 deep bed

Tyres, Front	3.5 x 19
Tyres, Rear	3.5 x 19
Brakes, Front	Drum brake 200 mm / 7.87 in diameter
Brakes, Rear	Drum brake 200 mm / 7.87 in diameter

Dimensions/Weights

Length x Width x Height	2130 x 815 x 960 mm (83.85 x 32.08 x 37.79 in)
Wheel Base	1400 mm / 55.11 in
Fuel Tank Capacity	14 litres / 3.07 gal / 3.69 gal US
Unladen Weight with Full Tank	182 Kg / 400 lb
Load Rating	210 Kg / 462 lb (max overall with original sidecar, 500 Kg / 1101 lb)
Fuel Consumption	4 litres 100 Km approx. / 70 mpg / 58 mpg US
Oil Consumption	1 litre per 1,000 Km approx.
Top Speed	140 Kph / 87 mph (110 Kph / 68 mph with original sidecar)