

# Phil Hawksley's BM Bikes

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## BMW R90S Specifications

<b>Start of Production</b>	<b>1973</b>
<b>End of Production</b>	<b>1976</b>
<b>Numbers Produced</b>	<b>17,465</b>
<b>Price</b>	<b>9,130 DM</b>



### Engine

Motor Type	Four-stroke two cylinder horizontally opposed "Boxer" engine, air cooled
Bore x Stroke	90 x 70.6 mm (3.54 x 2.77 in)
Displacement	898 cc
Max Power	67 hp (49.3 KW) at 7,000 rpm
Max Torque	76 Nm / 56 ft lb at 5,500 rpm
Compression Ratio	9.5 : 1
Valves Per Cylinder	2
Valve Control	OHV, using push rod and rocker arm
Carburation System	2 slide carburetors, Dellorto PHM 38 AS-AD or 38 BS-BD
Engine Lubricating System	Wet sump

### Power Transmission

Clutch	Dry single plate, with diaphragm spring
Number of Gears	5
Gear Selection	Dog type gearbox (ratchet foot lever)
Gearbox Ratios	4.4 / 2.86 / 2.07 / 1.67 / 1.50 (optional sport version: 3.38 / 2.43 / 1.93 / 1.67 / 1.50 : 1)
Rear Wheel Ratio	1 : 3.00 or 1 : 2.91
Bevel/Crownwheel	11 / 33 or 11 / 32 teeth

### Electrical System

Ignition System	Battery ignition
Alternator	Bosch 12 V/280 W
Starter	Bosch 0.5 hp
Spark Plugs	Bosch W 200 T 30 / Beru 200/14/3 A / Champion N7Y

### Chassis

Type of Frame	Double loop tubular frame with bolt on rear
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Front wheel suspension	section Telescopic fork with hydraulic shock absorber
Rear wheel suspension	Long swinging arm with adjustable strut
Spring Travel Front/Rear	208 / 125 mm (8.18 x 4.92 in)
Wheel Rims, Front	1.85 B 19
Wheel Rims, Rear	2.15 B 18
Tyres, Front	3.25 H 19
Tyres, Rear	4.00 H 18
Brakes, Front	Dual disc brake 260 mm / 10.23 in diameter. ATE 1 piston caliper
Brakes, Rear	Simplex drum brake 200 mm / 7.87 in diameter
<b>Dimensions/Weights</b>	
Length x Width x Height	2180 x 740 x 1210 mm (85.82 x 29.13 x 47.63 in)
Wheel Base	1465 mm / 57.67 in
Fuel Tank Capacity	24 litres / 5.27 gal / 6.34 gal US
Unladen Weight with Full Tank	215 Kg / 473 lb
Max. Permissible Weight	398 Kg / 876 lb
Ground Clearance	165 mm / 6.49 in
Seat Height (Unladen)	820 mm (32.2 inches)
Fuel Consumption	5.0 litres 100 Km (at constant 90 Kph) / 56 mpg / 47 mpg US
Top Speed	200 Kph / 124 mph
Acceleration 0 - 100 Kph / 62 mph	4.8 seconds