

(SOURCE OF INFORMATION - B.M.W.)

ENGINE (AS OR SIMILAR TO R5, R6, R51, R61, R71, R51/2)

BORE x STROKE 69.8 x 78

CCM 597

COMP. RATIO 6.8:1

H.P. (DIN) 30

MAX. R.P.M. 5300

ANOTHER SOURCE GIVES
CONTINUOUS 5400 MAX. 6000
30 32

ENGINE OIL CAPACITY 2 LITRES SUMMER SAE 40 WINTER SAE 20

PISTONS HEPOLITE 7966 6:1 C.R.
7918 10:1 C.R.

CARBS

FISCHER AMAL 6/420/5

MAIN JET 100

SLIDE 6/5

NEEDLE 2.67 2ND GROOVE FROM TOP - ANOTHER SOURCE GIVES 3RD

AIR SCREW OPEN 1 TURN APPROX. - ANOTHER SOURCE GIVES 1 1/2 TURNS APPROX.

GEARBOX (AS OR SIMILAR TO R5, R6, R51, R61, R71, R51/2, R51/3)

RATIOS 1ST 3.6:1

2ND 2.28:1

3RD 1.77:1

4TH 1.3:1

OIL CAPACITY 0.75 LITRES SUMMER SAE 40 WINTER SAE 20

REAR DRIVE (AS OR SIMILAR TO R5, R6, R51, R61, R71, R51/2, R51/3)

RATIO 3.1:1 SOLO - GIVES 4.68:1 TOP GEAR

CROWN WHEEL 36 TEETH

PINION 10 TEETH

RATIO 4.38:1 SIDECAR - GIVES 5.7:1 TOP GEAR

CROWN WHEEL 35 TEETH

PINION 8 TEETH

OIL CAPACITY 0.4 LITRES SUMMER SAE 40 WINTER SAE 20
ANOTHER SOURCE GIVES MOBIL OIL EP40

BRAKES

DRUM DIAMETER 200 mm

LINING DIMENSIONS 180 mm x 25 mm x 4 mm

WHEELS

TYRES FRONT 3.50 x 19 PRESSURE 1.4 ATMOS (1.75 SIDECAR)
(RIM 3.00 x 19)

REAR 3.50 x 19 PRESSURE 1.9 ATMOS (2.6 SIDECAR)
(RIM 3.00 x 19)

SUSPENSION (AS OR SIMILAR R51, R61, R71, R51/2, R51/3)

FRONT 2 x 0.1 LITRES OIL - ANOTHER SOURCE GIVES MOBIL OIL AF

REAR GREASE EVERY 2000 km

ANOTHER SOURCE GIVES

ELECTRICAL

DYNAMO 45 WATT BOSCH RD45/6 2800 R515

IGNITION BATTERY & COIL - BATTERY 7 AMP/HR. VU 2 DL 9 - BOSCH

PLUGS BOSCH W225 T1 OR BERU K225 b 1/14 - ANOTHER SOURCE

PLUG GAP 0.6 - 0.7 mm (FOR SPORTS ENGINE 240)

CONTACT BREAKER GAP 0.4 mm

GIVES BOSCH W175 T1 WITH 0.5 mm GAP

MAIN DIMENSIONS

WHEEL BASE 1400 mm
 GROUND CLEAR. 120 mm
 LENGTH 2130 mm
 WIDTH 815 mm
 HEIGHT 960 mm

WEIGHT

UNLADEN 187 kg
 MAX. LADEN 300 kg - ANOTHER SOURCE GIVES 397 kg.

PERFORMANCE

SOLO CONTINUOUS 115 km/hr.
 SOLO MAX. 140 km/hr. - ANOTHER SOURCE GIVES 130
 SIDECAR CONTINUOUS 95 km/hr.
 SIDECAR MAX. 115 km/hr. - ANOTHER SOURCE GIVES 100
 FUEL CAPACITY 14 LITRES TOTAL 1 LITRE RESERVE - ANOTHER SOURCE GIVES RESERVE 2.5 LITRE APPROX.
 RANGE 270 km SOLO 260 km SIDECAR
 FUEL CONSUMPTION SOLO 5.2 LITRES/100 km @ 95 km/hr.
 SIDECAR 5.4 LITRES/100 km @ 75 km/hr.
 OIL CONSUMPTION 0.1 LITRES/100 km.
 H.P. (DIN)/LITRE 50.

ENGINE REPAIR DATAPISTONS

CLEARANCE 0.05-0.07 mm
 GROOVE CLEARANCES TOP 0.03-0.05 mm
 MIDDLE 0.02-0.04 mm
 BOTTOM 0.02-0.04 mm
 RING GAP 0.2-0.35 mm COMP. RINGS?
 0.25-0.4 mm SCRAPER RINGS?

VALVES

~~ROCKER~~ DIAMETRAL CLEARANCE 0.05-0.1 mm
 SEAT OUTER DIAM. 36 mm
 TAPPET CLEARANCE COLD INLET 0.15 mm - THAT'S WHAT MY INFORMATION SAYS!
 EXHAUST 0.1 mm
 ANOTHER SOURCE GIVES INLET 0.1-0.15 mm
 EXHAUST 0.1-0.15 mm

CRANKSHAFT

MAX. RUN OUT 0.1 mm
 MAX. JOURNAL OVALITY 0.03 mm

BIG END

DIAMETRAL CLEARANCE NONE
 SIDE CLEARANCE 0.05-0.1 mm
 ROLLER CAGE SIDE CLEARANCE 0.1-0.15 mm

SMALL END

GUIDEON PIN RUNNING CLEARANCE 0.01-0.03 mm

MAIN BEARINGS

HOUSING DIAMETER	FRONT	77mm	$+0.03mm$	REAR RUNS DIRECT IN HOUSING
	REAR	77mm	$+0.03mm$	
BEARING DIAMETER	FRONT	77mm	$+0.02mm$ $+0.039mm$	
	REAR	77mm	$+0.02mm$ $+0.039mm$	
INTERFERENCE	FRONT	0.01-0.03mm		
	REAR	0.01-0.03mm		
SIDE CLEARANCE BEARING TO FLYWHEEL 1mm MINIMUM				
SIDE CLEARANCE CRANKSHAFT WEB OR OIL FLINGER RING & HOUSING				
	FRONT	1.6-2.5mm		
	REAR	1.5-2.3mm		

CAMSHAFT

BORE DIAMETER IN HOUSING OR COVER	
FRONT	45mm $+0.009mm$ $+0.034mm$
REAR	26mm $+0.022mm$
BUSH OR BEARING BODY OUTER DIAMETER	
FRONT	45mm $+0.017mm$ $+0.033mm$
REAR	26mm $+0.09mm$ $+0.12mm$
INTERFERENCE	FRONT 0-0.01mm REAR 0-0.01mm
RUNNING CLEARANCE	0-0.02mm
SIDE CLEARANCE	0.07-0.12mm
TIMING WHEEL TOOTH BACKLASH	0.03-0.05mm
TAPPET DIAMETRAL CLEARANCE	0.04-0.07mm

TIMING

WITH 2mm VALVE CLEARANCE
 INLET OPENS 3° AFTER TDC
 CLOSES 37° AFTER BDC
 EXHAUST OPENS 37° BEFORE BDC
 CLOSES 3° BEFORE TDC

ANOTHER SOURCE GIVES WITH
 0.1mm VALVE CLEARANCE

40°	OR	11.3mm
80°	OR	27mm
80°	OR	27mm
40°	OR	11.3mm

IGNITION 12.5mm OR 42° BEFORE TDC.

LUBRICATION

OIL PUMP SIDE CLEARANCE 0.05-0.1mm
 TEST PRESSURE @ 250 RPM 1.5-2 ATMOS MIN.

GEARBOX REPAIR DATA

MAINSHAFT RUNNING CLEARANCE	BALL RACE? IF PLAIN 0.05-0.1mm
MAINSHAFT SIDE CLEARANCE	0.1-0.5mm
LAYSHAFT RUNNING CLEARANCE	FRONT & REAR 0.02-0.05mm
LAYSHAFT SIDE CLEARANCE	0.1-0.5mm
SHAFT END FLOATS	MAXIMUM 0.1mm

GEARS	1ST	RUNNING CLEARANCE	0.03-0.1mm	} RUN WITH SAME CLEARANCES
		SIDE CLEARANCE	0.1-0.3mm	
	2ND	RUNNING CLEARANCE	0.03-0.1mm	
		SIDE CLEARANCE	0.1-0.3mm	
	3RD	RUNNING CLEARANCE	0.03-0.1mm	
		SIDE CLEARANCE	0.1-0.3mm	
	4TH	RUNNING CLEARANCE	0.03-0.1mm	
		SIDE CLEARANCE	0.1-0.3mm	
KICKSTARTER SHAFT				
	RUNNING CLEARANCE	0.02-0.07mm		
	SIDE CLEARANCE	0.1-0.5mm		
KICKSTARTER IDLER WHEEL				
	RUNNING CLEARANCE	0.03-0.1mm		
	SIDE CLEARANCE	0.1-0.3mm		
SELECTOR FORK				
	RUNNING CLEARANCE	0.05-0.12mm		

SUSPENSION REPAIR DATAFRONT FORK

STEERING HEAD BEARINGS 24 OFF 5.5mm DIA
 BUSH RUNNING CLEARANCE TOP 0.025-0.1mm
 BOTTOM 0.025-0.075mm
 SPRING WIRE DIAMETER SOLO 5.5mm
 SIDECAR 6.5mm

REAR PLUNGERS

BUSH RUNNING CLEARANCE 0.04-0.1mm
 SPRING WIRE DIAMETER SOLO 7.25mm
 SIDECAR 8mm - GIVES 7.5mm ANOTHER SOURCE

REAR WHEEL DRIVE REPAIR DATA

CROWN WHEEL FLOAT UPWARDS 0.1mm MAX.
 SIDWAYS 0.05mm MAX.
 TOOTH BACKLASH 0.1-0.3mm

PROP. SHAFT END FLOAT 0.5mm

~~REAR~~ PRESSURE FITTING FLANGE CARRIER OR SHOCK ABSORBER
 TO PROP. SHAFT 1500 kg. MIN.

OTHER USEFUL INFORMATION

BSA DI BANTAM SILENCERS LOOK OK.
 BSA BANTAM BATTERY IS OF CORRECT DIMENSIONS
 NSU CAR HEADLAMP RIM & REFLECTOR SUITABLE?
 GREEVES BRAKE LININGS SUITABLE?
 CONTACT BREAKER POINTS AS 1964 VW VAN
 CONDENSER AS 1964 VW VAN
 R5 R6 R51 R61 RT1^{ENGINE} PARTS SUIT
 R51/2 ENGINE PARTS LESS BARRELS HEADS & PISTONS SUIT.
 MANY M63 URAL PARTS MAY BE INTERCHANGABLE.
 VALVE TIMING - SET CRANKSHAFT & CAMSHAFT SPROCKETS
 SO THAT ARROWS POINT TO CENTRE i.e. → ↑ ←
 OR SHARE OVERLAP.

ADDITIONAL TECHNICAL DATA

AVERAGE PISTON PRESSURE 8.8 ATMOS.

FLYWHEEL DIA. 225 mm

CRANKSHAFT BEARINGS - 2 BALL RACE

SMALL END BEARINGS - ROLLER BEARINGS?

PISTON TYPE - FLAT TOP

MAX. OVERSIZE 71.24 mm DIA.

2 COMPRESSION RINGS 69.8 x 2.5 mm A DIN 73 102

1 OIL SCRAPER RING 69.8 x 4.5 mm A DIN 73 104

OR 3 COMPRESSION RINGS 69.8 x 2 mm A DIN 73 102

1 OIL SCRAPER RING 69.8 x 5 mm A DIN 73 104

OIL PUMP - GEAR TYPE

OIL FILTER - WIRE MESH

AIR FILTER - OIL SOAKED

FUEL FILTER - IN PETROL TAP - GAUZE

ALTERNATIVE CARBS. BING TYPE AJ 1/24

MAIN JET 105

SLIDE ? 5

NEEDLE POSITION 2ND GROOVE FROM TOP

IDLING JET 40

AIR SCREW OPEN 1 1/2 TURNS APPROX.

COIL ? BOSCH TJ 6/1

SADDLE SPRING WIRE DIA 5 mm.

STEERING GEOMETRY

CAMBER (TRAIL ?) 65 mm

HEAD ANGLE 63°

SADDLE HEIGHT 720 mm

WEIGHT ON FRONT WHEEL 87 kg

WEIGHT ON REAR WHEEL 100 kg } UNLOADED