

ENGINE (AS OR SIMILAR RS, R6, RS1, R61, R66 RS1/2)

BORE X STROKE 78 X 78

CCM 746

COMP RATIO 5.4-5.6:1 ANOTHER SOURCE GIVES 5.7

MAX. R.P.M. 4900

H.P. (DIN) 22

OIL CAPACITY 2 LITRES SUMMER SAE 40 WINTER SAE 20

CARBS

2 GRAETZIN G24

MAIN JET 95

NEEDLE 43 2ND GROOVE FROM TOP

IDLE JET 35

AIR SCREW OPEN 1 3/4 TURNS APPROX.

GEARBOX (AS OR SIMILAR RS, R6, RS1, R61, R66, RS1/2 RS1/3)

RATIOS 1ST 3.6:1

2ND 2.28:1

3RD 1.7:1

4TH 1.3:1

OIL CAPACITY 0.75 LITRES SUMMER SAE 40 WINTER SAE 20

REAR DRIVE (AS OR SIMILAR RS, R6, RS1, R61, R66, RS1/2, RS1/3)

RATIO 3.6:1 SOLO GIVES 4.68:1 TOP GEAR

CROWN WHEEL 36 TEETH

PINION 10 TEETH

RATIO 3.89:1 SIDECAR GIVES 5.05:1 TOP GEAR

CROWN WHEEL 35 TEETH

PINION 9 TEETH

OIL CAPACITY 0.4 LITRES SUMMER SAE 40 WINTER SAE 20

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 ATMOS SIDECAR)

(RIM 3.00 X 19)

REAR 3.50 X 19 PRESSURE 1.9 ATMOS (2.6 ATMOS SIDECAR)

(RIM 3.00 X 19)

SUSPENSION (AS OR SIMILAR RS1, R61, R66, RS1/2 RS1/3)

FRONT 2 X 0.1 LITRES OIL ANOTHER SOURCE GIVES MOBIL OIL AF

REAR GREASE - EVERY 2000 km.

ELECTRICAL

DYNAMO BOSCH RD 45/6 2800 RS 15 45 WATT

IGNITION BATTERY & COIL

BATTERY BOSCH 7 AMP HR 6 BT DIN 72 311

COIL? BOSCH TS 6/1

PLUGS BOSCH W17S T1 OR BERU K17S 1/14

PLUG GAP 0.6-0.7 mm ANOTHER SOURCE GIVES 0.5 mm

CONTACT BREAKER GAP 0.4 mm

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

PERFORMANCE

SOLO CONTINUOUS 105 km/hr.
 SOLO MAX. 130 km/hr.
 SIDECAR CONTINUOUS 85 km/hr.
 SIDECAR MAX. 100 km/hr.

ANOTHER SOURCE
 GIVES RESERVE

FUEL CAPACITY 14 LITRES TOTAL 1 LITRE RESERVE - 2.5 LITRES APPROX.
 FUEL CONSUMPTION SOLO 5.1 LITRES/100 km @ 85 km/hr
 RANGE 275 km

SIDECAR 5.8 LITRES/100 km @ 65 km/hr
 RANGE 240 km

OIL CONSUMPTION 0.1 LITRES/100 km
 H.P. (DIN)/LITRE 29.

ENGINE REPAIR DATAPISTONS

CLEARANCE 0.6-0.8 mm

GROOVE CLEARANCES TOP 0.05-0.07 mm

MIDDLE 0.04-0.06 mm

BOTTOM 0.03-0.05 mm

RING GAP 0.2-0.35 mm COMP RINGS?

0.25-0.4 mm SCRAPER RINGS?

VALVES

DIAMETRAL CLEARANCE 0.05-0.13 mm

SEAT OUTER DIAMETER 38 mm

TAPPET CLEARANCE COLD INLET 0.1 mm

EXHAUST 0.1 mm

VALVE SPRING FREE LENGTHS 45 mm

CRANK SHAFT

MAX RUNOUT 0.1 mm

MAX JOURNAL QUALITY 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

GUDGEON PIN DIAMETRAL CLEARANCE 0.01-0.03 mm

MAIN BEARINGS (RUN DIRECT IN HOUSING OR COVER)HOUSING DIAMETER FRONT 77 ± 0.03 mmREAR 77 ± 0.03 mmREAR RUNS
DIRECT IN
HOUSING.BEARING DIAMETER FRONT 77 ± 0.02 mmREAR 77 ± 0.02 mm

INTERFERENCE FRONT 0.01-0.03 mm

REAR 0.01-0.03 mm

SIDE CLEARANCE BEARING TO FLYWHEEL 1 mm MINIMUM
SIDE CLEARANCE CRANKSHAFT WEB OR OIL FLINGER RING
& HOUSING FRONT 1.6-2.5 mm

REAR 1.5-2.3 mm

CAMSHAFTBORE DIAMETER IN HOUSING OR COVER FRONT 45 ± 0.009 mmREAR 26 ± 0.022 mmBUSH OR BEARING OUTER DIAMETER FRONT 45 ± 0.017 mmREAR 26 ± 0.02 mm

INTERFERENCE FRONT 0-0.02 mm

REAR 0.07-0.12 mm

RUNNING CLEARANCE 0.03-0.08 mm

SIDE CLEARANCE 0.05-0.1 mm

TIMING WHEEL TOOTH BACKLASH 0.03-0.05 mm

TAPPET DIAMETRAL CLEARANCE 0.04-0.07 mm

WITH 2 mm VALVE CLEARANCE

INLET OPENS 14° AFTER TDC

CLOSES 26° AFTER BDC

EXHAUST OPENS 26° BEFORE BDC

CLOSES 14° BEFORE TDC

IGNITION 5-6 mm BEFORE TDC

OR 30° " "

ANOTHER SOURCE GIVES WITH
0.1 mm VALVE CLEARANCE

40° OR 11.2 mm

80° OR 27.3 mm

80° OR 27.3 mm

40° OR 11.2 mm

LUBRICATION

OIL PUMP SIDE CLEARANCE 0.05-0.1 mm

TEST PRESSURE @ 250 RPM 1.5-2 ATMOS. MIN.

GEARBOX REPAIR DATA

MAINSHAFT RUNNING CLEARANCE BACKLASH? IF PLAIN 0.05-0.1 mm

MAINSHAFT SIDE CLEARANCE 0.1-0.5 mm

LAYSHAFT RUNNING CLEARANCE FRONT & REAR 0.02-0.05 mm

LAYSHAFT SIDE CLEARANCE 0.1-0.5 mm

SHAFT END FLOATS MAXIMUM 0.1 mm

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	
KICK STARTER SHAFT				
		RUNNING CLEARANCE	0.02-0.07mm	
		SIDE CLEARANCE	0.1-0.5mm	
KICK STARTER 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

GEAR WHEEL DRIVE REPAIR DATA

CROWN WHEEL FLOAT UPWARDS 0.1mm MAX.
 TOOTH BACKLASH SIDEWAYS 0.05mm MAX.
 0.1-0.3mm
 PROP. SHAFT END FLOAT 0.5mm
 FITTING PRESSURE FLANGE CARRIER OR SHOCK ABSORBER
 TO PROP SHAFT 1500 kg MIN.

OTHER USEFUL INFORMATION

BSA DI BANTAM SILENCERS LOOK O.K.
 BSA BANTAM BATTERY IS OF CORRECT DIMENSIONS
 NSU CAR HEADLAMP RIM & REFLECTOR SUITABLE?
 GREEVES BRAKE LININGS SUITABLE?
 1964 VW VAN CONTACT BREAKER POINTS SUITABLE
 1964 VW ^{WAGON} CONDENSER SUITABLE.
 R5, R6, R51, R61, R66, ENGINE PARTS SUITABLE
 R51/2 ENGINE PARTS LESS BARRELS, PISTONS & HEADS SUIT.
 MANY M63 URAL PARTS MAY BE INTERCHANGEABLE.
 VALVE TIMING. SET CRANKSHAFT & CAMSHAFT SPROCKETS
 SO THAT ARROWS POINT TO CENTRE i.e. → ←
 OR SHARE OVERLAP.

ADDITIONAL TECHNICAL DATA

AVERAGE PISTON PRESSURE 5.3 ATMOS.

FLYWHEEL DIA. 225mm

CRANKSHAFT BEARINGS 2 BALL RACE

SMALL END BEARINGS - ROLLER BEARINGS?

PISTON TYPE - FLAT TOP

MAX. OVERSIZE 79.5mm

2 COMPRESSION RINGS A 78x2.5mm ac DIN 73 102

1 OIL SCRAPER RING A 78x5mm ac DIN 73 104

OR 3 COMPRESSION RINGS A 78x2.5mm ac DIN 73 102

OIL PUMP - GEAR TYPE

OIL FILTER - WIRE MESH

AIR FILTER - OIL SOAKED

FUEL FILTER - GAUZE IN PETROL TAP

ALTERNATIVE CARBS BING Sq 24/3.4

MAIN JET 42/100

SLIDE ?

NEEDLE POSITION 1ST ~~ST~~ GROOVE FROM TOP

IDLING JET 35

AIR SCREW OPEN 1 1/2 TURNS APPROX.

SADDLE SPRING WIRE DIA. 5mm

STEERING GEOMETRY

CAMBER (TRAIL) 65mm

HEAD ANGLE 63°

SADDLE HEIGHT 720mm

WEIGHT ON FRONT WHEEL 87kg

WEIGHT ON REAR WHEEL 100kg } UNLOADED