(SOURCE OF INFORMATION B.M.W.)

ENGINE (AS R11/5)

BORE x STROKE 78x78
CCM 746
COMP. RATIO 5.7:1 (5:1 - 5.2:1 for 74 OCTANE FUEL)
MAX RPM 4300
H.P. (DIN) 20
ENGINE OIL CAPACITY 2.5 LITRES SUMMER SAE 50 WINTER SAE 30
HEPOLITE 7495 PISTONS

CARBS

FISCHER AMAL 6/406/407
MAIN JET 110
SLIDE 6/4
NEEDLE 2.67 2ND GROOVE FROM TOP

GEARBOX (AS R17 & R11/4⇒)

RATIOS 1ST 3.18
2ND 2.06
3RD 1.42
4TH 1.09
OIL CAPACITY 0.75 LITRES SUMMER SAE 50 WINTER SAE 30

REAR DRIVE (AS R17 & R11/2⇒)

RATIO 4.07:1 SOLO GIVES 4.44:1 TOP GEAR
CROWN WHEEL 57 TEETH
PINION 14 TEETH
RATIO 4.75:1 SIDECAR GIVES 5.18:1 TOP GEAR
CROWN WHEEL 57 TEETH
PINION 12 TEETH ANOTHER SOURCE GIVES MOBILOIL EPW1
OIL CAPACITY 0.4 LITRES SUMMER SAE 50 WINTER SAE 30

BRAKES

DRUM DIAMETER 200 mm
LINING DIMENSIONS 170 mm x 25 mm x 4 mm

WHEELS - INTERCHANGEABLE

TYRES FRONT 3.50x19 PRESSURE 1.4 ATMOS (1.75 SIDECAR)
(RIM 3x19)
REAR 3.50x19 PRESSURE 1.9 ATMOS (2.6 SIDECAR)
(RIM 3x19)

SUSPENSION (AS R17)

FRONT 2x 0.125 LITRES SHOCK ABSORBER OIL
ANOTHER SOURCE GIVES MOBILOIL AF

ELECTRICAL

45 WATT BOSCH DYNAMO B 245 RS 108
IGNITION - MAGNETO
PLUG GAP 0.6-0.7 mm.
SPARKING PLUGS 18 mm BOSCH M 175 T1
14 mm BOSCH W 175 T1

MAIN DIMENSIONS

WHEEL BASE	1380 mm
GROUND CLEAR.	120 mm
LENGTH	2100 mm
WIDTH	900 mm
HEIGHT	940 mm

WEIGHT

UNLADEN 188 kg. ANOTHER SOURCE GIVES 162 kg
MAX. LADEN 300 kg.

PERFORMANCE

SOLO CONTINUOUS 100 km/hr.
SOLO MAX. 120 km/hr.
SIDECAR CONTINUOUS 80 km/hr.
SIDECAR MAX. 95 km/hr.
FUEL CAPACITY 14 LITRES TOTAL 1.5 LITRES RESERVE
OIL CONSUMPTION 0.1 LITRES / 100 km.
H.P. (DIN) / LITRE 26.6.

ENGINE REPAIR DATA

PISTONS

CLEARANCE 0.06 - 0.08 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

ROCKER DIAMETRAL CLEARANCE 0.03 - 0.05 mm
RUNNING DIAMETRAL CLEARANCE 0.05 - 0.10 mm
SEAT OUTER DIAM. 38 mm
TAPPET CLEARANCE COLD INLET 0.05 - 0.1 mm
EXHAUST 0.05 - 0.1 mm
VALVE SPRING LENGTH OUTER 42 mm
INNER 38 mm

CRANKSHAFT

MAX. RUN OUT 0.1 mm
MAX. JOURNAL OVALITY 0.03 mm
MAX. END FLOAT 0.4 - 1.0 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 RUNNING CLEARANCE 0.01 - 0.03 mm

MAIN BEARINGS

HOUSING DIAMETER FRONT 77mm $^{-0.013}_{-0.035}$ mm

REAR 77mm $^{-0.013}_{-0.035}$ mm

BEARING DIAMETER FRONT 77mm $^{+0}_{-0.02}$ mm

REAR 77mm $^{+0}_{-0.02}$ mm

INTERFERANCE FRONT 0.01 – 0.03 mm

REAR 0.01 – 0.03 mm

SIDE CLEARANCE BEARING TO FLYWHEEL 1.0mm MAN.

SIDE CLEARANCE CRANKSHAFT WEB OR OIL FLINGER RING & HOUSING FRONT 0.6 – 0.8mm

REAR 0.8 – 1.0 mm

CAMSHAFT

BORE DIAMETER IN HOUSING OR COVER

FRONT 28mm $^{-0.04}_{-0.075}$ mm

REAR 22mm $^{-0.04}_{-0.075}$ mm

BUSH OR BEARING BODY OUTER DIAMETER

FRONT 28mm $^{+0}_{-0.15}$ mm

REAR 22mm $^{+0}_{-0.15}$ mm

INTERFERANCE FRONT 0.02 – 0.07 mm

REAR 0.02 – 0.07 mm

RUNNING CLEARANCE 0.03 – 0.08mm

SIDE CLEARANCE 0.05 – 0.1 mm

TAPPET DIAMETRAL CLEARANCE 0.04 – 0.07mm

TIMING

WITH 2mm VALVE (TAPPET) CLEARANCE

INLET OPENS 17° AFTER TDC ——— 20° OR 13mm

CLOSES 23° AFTER BDC ——— 60° OR 16mm

EXHAUST OPENS 23° BEFORE BDC ——— 60° OR 16mm

CLOSES 17° BEFORE TDC ——— 20° OR 13mm

IGNITION 12mm OR 42° BEFORE TDC.

ANOTHER SOURCE GIVES WITH 0.1mm TAPPET CLEAR.

LUBRICATION

TEST PRESSURE @ 250 RPM 1.5 – 2 ATMOS. MINIMUM.

OIL PUMP SIDE CLEARANCE 0.05 – 0.1 mm

GEARBOX REPAIR DATA

MAINSHAFT SIDE CLEARANCE 0.1 – 0.5 mm

LAYSHAFT SIDE CLEARANCE 0 – 0.3 mm

SHAFTS END FLOAT 0.1 mm

GEARS

1ST.	RUNNING CLEARANCE	0.03–0.1 mm
	SIDE CLEARANCE	0.1–0.3 mm
2ND.	RUNNING CLEARANCE	0.03–0.1 mm
	SIDE CLEARANCE	0.1–0.3 mm
3RD	RUNNING CLEARANCE	0.03–0.1 mm
	SIDE CLEARANCE	0.1–0.3 mm
4TH	RUNNING CLEARANCE	0.03–0.1 mm
	SIDE CLEARANCE	0.1–0.3 mm

} RUN WITH SAME CLEARANCES

KICK STARTER SHAFT

RUNNING CLEARANCE	0.02–0.07 mm
SIDE CLEARANCE	0.1–0.5 mm

KICK STARTER IDLER WHEEL

RUNNING CLEARANCE	0.03–0.1 mm
SIDE CLEARANCE	0.1–0.3 mm

SELECTOR FORK

RUNNING CLEARANCE	0.05–0.12 mm

SUSPENSION REPAIR DATA

FRONT FORK

STEERING HEAD BEARINGS ZO OFF 6.5 mm DIA.

BUSH RUNNING CLEARANCE TOP 0.025–0.1 mm

BOTTOM 0.025–0.075 mm

SPRING WIRE DIAMETER SOLO 5.5 mm

SIDECAR 6 mm

REAR WHEEL DRIVE REPAIR DATA

CROWN WHEEL FLOAT UPWARDS 0.1 mm MAX.

SIDEWAYS 0.05 mm MAX.

TOOTH BACKLASH 0.1–0.3 mm

PROP SHAFT END FLOAT 0.5 mm

AXIAL CLEARANCE OF PROP SHAFT 1–3 mm?

OTHER USEFUL INFORMATION

BSA DI BANTAM SILENCERS COOK OK.

BAS BANTAM BATTERY IS OF CORRECT DIMENSIONS

NSU CAR HEADLAMP RIM & REFLECTOR SUITABLE?

GREEVES BRAKE LININGS SUITABLE?

1947–53 490 SV STD. NORTON PISTONS ARE +.040" & ONLY NEED GUDGEON PIN BOSSES TO BE BUSHED FROM 7/8" DIA TO 18 mm DIA.

1954–58 1200 VW BEETLE PISTONS SUIT BUT STD. IS −1 mm THEREFORE USE +1 mm (+.040") UPWARDS

HONDA CX PISTONS FIT

KNECHT DRGM OIL FILTER FITS

BSA B40 PISTONS CAN BE USED (79.1 mm STD)

LISTER H8 DIESEL VALVES ARE NEAR ENOUGH

AUDI 100 GL INLET VALVES ARE SUITABLE

TIMING CHAIN IS A CAR SIZE

R80 CENTRE STAND SPRING FITS

JRL 17/6/76