Technical Data K S 1936-37

(Source of information - B.M.W.)

ENGINE (As R51 & R51/2 "bottom half" OR SIMILAR)

BORE x STROKE	68 x 68.
C.C.M.	494
COMP. RATIO	6.7
MAX R.P.M.	5500
H.P. (DIN)	24 @ 5800 ? R.P.M.

ENGINE OIL CAPACITY 2 LITRES SUMMER SAE 40 WINTER SAE 20
PISTONS MEPOLITE 8394 OR 9849 HIGH COMP.?

CARBS

FISCHER AMAL 5/423
MAIN JET 100
SLIDE 5/5
NEEDLE 2.67 2ND GROOVE FROM TOP

GEARBOX (As R6, R51, R61, R66, R71, R51/2, R51/3 OR SIMILAR)

RATIOS 1ST.	3.6
2ND	2.28
3RD	1.7
4TH	1.3

OIL CAPACITY 0.75 LITRES SUMMER SAE 40 WINTER SAE 20

REAR DRIVE (AS R6)

RATIO 3.89:1 SOLO GIVES 5.05:1 TOP GEAR
CROWN WHEEL 35 TEETH
PINION 9 TEETH

RATIO 4.62:1 SIDECAR GIVES 6:1 TOP GEAR
CROWN WHEEL 37 TEETH
PINION 8 TEETH ANOTHER SOURCE GIVES MOBILOIL EPIVI
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 3.5 x 19 PRESSURE 1.4 ATMOS (1.75 SIDECAR)
(RIM 3 x 19)
REAR 3.5 x 19 PRESSURE 1.9 ATMOS (2.6 SIDECAR)
(RIM 3 x 19)

SUSPENSION (AS R6)

FRONT 2 x 0.16 LITRES SAE 20 ANOTHER SOURCE GIVES MOBILOIL AF

ELECTRICAL

DYNAMO BOSCH RD 45/6, 2800, RS 15, 45 WATT
IGNITION BATTERY & COIL
PLUGS BOSCH W225 T1
PLUG GAP 0.6 - 0.7 mm

MAIN DIMENSIONS

WHEEL BASE	1400 mm
GROUND CLEAR.	120 mm
LENGTH	2130 mm
WIDTH	815 mm
HEIGHT	950 mm

WEIGHT

UNLADEN	165 kg
MAX. LADEN	300 kg

PERFORMANCE

SOLO CONTINUOUS	105 km/hr.
SOLO MAX.	135 km/hr.
SIDECAR CONTINUOUS	85 km/hr.
SIDECAR MAX.	105 km/hr.

FUEL CAPACITY 14 LITRES TOTAL 1 LITRE RESERVE
OIL CONSUMPTION 0.1 LITRES/100 km
FUEL CONSUMPTION 4.8 LITRES/100 km. @ 90 km/hr. RANGE 290k.
FUEL CONSUMPTION SIDECAR 4.3 LITRES/100 km @ 66 km/hr RANGE 325 km
H.P. (DIN)/LITRE 48

ENGINE REPAIR DATA

PISTONS 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 RING?

VALVES RUNNING CLEARANCE 0.05 - 0.1 mm
SEAT OUTER DIAMETER. 36 mm
TAPPET CLEARANCE COLD INLET 0.15 ?
EXHAUST 0.10 !

CRANKSHAFT MAX. RUNOUT 0.1 mm
MAX. JOURNAL OVALITY 0.03 mm

BIG END SIDE CLEARANCE 0.05 - 0.1 mm
DIAMETRAL CLEARANCE - NONE
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 $^{-0}_{+0.03}$ mm

REAR 77mm $^{-0}_{+0.03}$ mm

BEARING DIAMETER FRONT 77mm $^{+0.020}_{+0.039}$ mm

REAR " " $^{+0.020}_{+0.039}$ mm

INTERFERANCE FRONT 0.01–0.03 mm

REAR 0.01–0.03 mm

SIDE CLEARANCE BEARING TO FLYWHEEL 1.0mm MINIMUM

SIDE CLEARANCE CRANKSHAFT WEB OR OIL FLINGER RING & HOUSING FRONT 1.6–2.15 mm

REAR 1.5–2.3 mm

CAMSHAFT

BORE DIAMETER IN HOUSING OR COVER

FRONT 40mm $^{-0}_{+0.025}$ mm

REAR 38mm $^{-0}_{+0.025}$ mm

BUSH OR BEARING BODY OUTER DIAMETER

FRONT 40mm $^{+0.018}_{+0.035}$ mm

REAR 38mm $^{+0.018}_{+0.035}$ mm

INTERFERANCE FRONT 0–0.01 mm

REAR 0–0.01 mm

RUNNING CLEARANCE 0.03–0.08 mm

SIDE CLEARANCE 0.05–0.10 mm

TAPPET DIAMETRAL CLEARANCE 0.04–0.07 mm

TIMING

WITH 2mm VALVE (TAPPET) CLEARANCE

INLET OPENS 3° AFTER TDC

CLOSES 37° AFTER BDC

EXHAUST OPENS 37° BEFORE BDC

CLOSES 3° BEFORE TDC

IGNITION 12 mm BEFORE TDC

OR 44° BEFORE TDC

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 RUNNING CLEARANCE FRONT 0.02–0.05 mm

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	0·03–0·1 mm	
	SIDE CLEARANCE	0·1–0·3 mm	
2ND	RUNNING CLEARANCE	0·03–0·1 mm	RUN WITH SAME CLEARANCES
	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	

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 24 off 5·5 mm DIA.

BUSH RUNNING CLEARANCE TOP 0·025–0·1 mm

BOTTOM 0·025–0·075 mm

SPRING WIRE DIAMETER SOCO 5 mm

SIDECAR 5·25 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?

PROP. SHAFT FITTING PRESSURE ↑ 1500 kg. MINIMUM

↑ TO FLANGE CARRIER OR SHOCK ABSORBER

OTHER USEFUL INFORMATION

BSA DI BANTAM SILENCERS LOOK OIC

BSA BANTAM BATTERY IS OF CORRECT DIMENSIONS

NSU CAR HEADLAMP RIM & REFLECTOR SUITABLE?

GREEVES BRAKE LININGS SUITABLE

1964 V.W. VAN CONTACT BREAKER POINTS & CONDENSER SUIT?

↑ TO TIME VALVES SET CRANK SHAFT & CAMSHAFT SPROCKETS SO THAT ARROWS POINT TO CENTRE i.e. → ↑ ← (OR SHARE OVER CAP)

R6, R51, R61 R66, R71 ↑ ENGINE PARTS SUITABLE

R51/2 ENGINE PARTS CGSS BARRELS PISTONS RINGS SUIT.

MANY M63 URAL PARTS MAY BE INTERCHANGEABLE

JRC 15/2/76