

TECHNICAL DATA R35 (1937-40)
(SOURCE OF INFORMATION: B.M.W.)

357

ENGINE

BORE x STROKE 72 x 84 mm
C.C.M. 342
COMP. RATIO 5.4:1
MAX R.P.M. 4500
H.P. (DIN) 14 @ 4500 RPM ANOTHER SOURCE GIVES 14 @ 5200 RPM
ENGINE OIL CAPACITY 1.75 LITRES SUMMER SAE 40 WINTER SAE 20

AR.B

SUM CK 3/22
MAIN JET 65
COMPENSATION JET 60 ANOTHER SOURCE GIVES 55
IDLE JET 30 ANOTHER SOURCE GIVES 30-35

GEARBOX

RATIOS 1ST 3.4:1
2ND 2.18:1
3RD 1.35:1
4TH 1:1
OIL CAPACITY 0.75 LITRES SUMMER SAE 40 WINTER SAE 20

REAR DRIVE

RATIO 5.63:1 GIVES 5.63:1 TOP GEAR
CROWN WHEEL 45 TEETH
PINION 8 TEETH
OIL CAPACITY 0.3 LITRES SUMMER SAE 40 WINTER SAE 20
ANOTHER SOURCE GIVES MOBILON EPW1

WHEELS

DRUM DIAMETER FRONT 160 mm
REAR 180 mm
LINING DIMENSIONS FRONT 170 mm x 20 mm x 4 mm
REAR 200 mm x 20 mm x 4 mm

WHEELS

TYRES FRONT 350 x 19 PRESSURE 1.4 ATMOS
(RIM 3 x 19)
REAR 350 x 19 PRESSURE 1.75 ATMOS
(RIM 3 x 19)

SUSPENSION

FRONT 2 x 0.16 LITRES OIL MOBIL OIL AF

ELECTRICAL

DYNAMO ^{BOSCH} R.D. 47/70 2800 ANOTHER SOURCE GIVES
BOSCH R.D. 45/6/2800 RS21 or S13
IGNITION BATTERY & COIL
BATTERY BOSCH 6 B 7 DIN 72 311 7 AMP HR
COIL ? BOSCH TJ 6/1
CONTACT BREAKER POINTS? BOSCH VU 1 B (S4/3)
PLUG BOSCH W175 T1 OR BERU K175 b 1/14
PLUG GAP 0.6 mm - 0.7 mm
CONTACT BREAKER GAP 0.4 mm

MAIN BEARINGS

REAR BEARING RUNS DIRECT IN HOUSING

HOUSING DIAMETER FRONT $40\text{mm} -0.12 -0.15\text{mm}$ BEARING DIAMETER FRONT $40\text{mm} \pm 0.018$ INTERFERENCE $0.1 - 0.15\text{mm}$ RUNNING CLEARANCE $0.04 - 0.07\text{mm}$ SIDE CLEARANCE BETWEEN CRANKSHAFT WEB & BEARING
OR OK FLINGER RING & HOUSING FRONT $0.5 - 0.8\text{mm}$ REAR $0.6 - 0.9\text{mm}$ CAMSHAFTBORE DIAMETER IN HOUSING OR COVER FRONT $42\text{mm} -0.12 -0.15\text{mm}$ REAR $24\text{mm} -0.09 -0.12\text{mm}$ BEARING OUTER DIAMETER FRONT $42\text{mm} \pm 0.018\text{mm}$ REAR $24\text{mm} \pm 0.01 -0.065\text{mm}$ INTERFERENCE FRONT $0.1 - 0.15\text{mm}$ REAR $0.03 - 0.13\text{mm}$ RUNNING CLEARANCE $0.03 - 0.08\text{mm}$ SIDE CLEARANCE $0.05 - 0.1\text{mm}$ TAPPET DIAMETRAL CLEARANCE $0.03 - 0.05\text{mm}$ TIMING WITH 2mm TAPPET CLEARANCEINLET OPENS 15° AFTER TDCCLOSES 25° AFTER BDCEXHAUST OPENS 25° BEFORE BDCCLOSES 15° BEFORE TDCIGNITION 12mm BEFORE TDCOR 41° ANOTHER SOURCE GIVES WITH
 0.05mm TAPPET CLEAR. 150° OR 2mm 55° OR 14mm 55° OR 14mm 150° OR 2mm ANOTHER SOURCE GIVES $10 - 12\text{mm}$ LUBRICATIONOIL PUMP SIDE CLEARANCE $0.05 - 0.1\text{mm}$ TEST PRESSURE @ 250 RPM $1.5 - 2\text{ATMOS.}$ CARBOX REPAIR DATADRIVE SHAFT SIDE CLEARANCE $0.1 - 0.5\text{mm}$ MAIN SHAFT RUNNING CLEARANCE $0.05 - 0.1\text{mm}$ MAIN SHAFT SIDE CLEARANCE $0.1 - 0.5\text{mm}$ LAY SHAFT RUNNING CLEARANCE $0.02 - 0.05\text{mm}$ FRONT & REARLAY SHAFT SIDE CLEARANCE $0.1 - 0.5\text{mm}$ SHAFT END FLOATS MAXIMUM 0.1mm GEARS 1ST RUNNING CLEARANCE $0.03 - 0.1\text{mm}$ SIDE CLEARANCE $0.1 - 0.3\text{mm}$ 2ND RUNNING CLEARANCE $0.03 - 0.1\text{mm}$ SIDE CLEARANCE $0.1 - 0.3\text{mm}$ 3RD RUNNING CLEARANCE $0.03 - 0.1\text{mm}$ SIDE CLEARANCE $0.3 - 0.5\text{mm}$ } RUN WITH
SAME
CLEARANCES

4TH DIRECT GEAR & DRIVE SHAFT IN ONE PIECE

KICK STARTER SHAFT RUNNING CLEARANCE $0.02 - 0.07\text{mm}$ KICK STARTER SHAFT SIDE CLEARANCE $0.1 - 0.5\text{mm}$ KICK STARTER IDLER WHEEL RUNNING CLEARANCE $0.03 - 0.1\text{mm}$ KICK STARTER IDLER WHEEL SIDE CLEARANCE $0.1 - 0.3\text{mm}$ BEVEL WHEEL SHAFT RUNNING CLEARANCE $0.03 - 0.1\text{mm}$ BEVEL WHEEL SHAFT SIDE CLEARANCE 0.8mm SELECTOR FORK RUNNING CLEARANCE $0.05 - 0.12\text{mm}$

ADDITIONAL TECHNICAL DATA

AVERAGE PISTON PRESSURE 7.15 ATMOS.

TIMING CHAIN 46 OR 42 PITCHES $3/8" \times 7/32"$

FLYWHEEL DIAMETER 200 mm

MAIN BEARINGS - 1 PLAIN 1 BALL RACE

SMALL END BEARING - ROLLER?

PISTON TYPE - FLAT TOP

MAX. OVER-SIZE 73.5 mm

2 COMPRESSION RINGS A 72 x 3 a c DIN 73 102

1 OIL SCRAPER RING A 72 x 4 a c DIN 73 104

OIL PUMP - GEAR TYPE

OIL FILTER - WIRE MESH

AIR FILTER - OIL SOAKED

FUEL FILTER - GAUZE IN PETROL TANK

ALTERNATIVE CARB. BING AJ 1/24

MAIN JET 105

SLIDE? 5

IDLING JET 40

NEEDLE POSITION 2ND GROOVE FROM TOP

AIR SCREW OPEN TURN APPROX.