

BSA - SECTION GD

D14/4 GENERAL DATA GD1

INDEX

SUPREME MODELS

ENGINE:

Piston GD3

Piston Rings GD3

Cylinder Barrel GD3

Ignition Timing GD3

Carburetter GD3

Bearing Dimensions GD4

TRANSMISSION:

Clutch GD4

Sprockets GD4

Chain Size GD4

Gear Ratios GD5

FRAME AND FITTINGS:

Front Forks GD5

Rear Dampers GD5

Swinging Arm GD5

Bushes GD5

WHEELS, BRAKES AND TYRES:

Wheels GD6

Wheel Bearings GD6

Brakes GD6

Tyres GD6

ELECTRICAL EQUIPMENT GD6

CAPACITIES GD7

BASIC DIMENSIONS GD7

WEIGHTS GD7

D14/4 GENERAL DATA GD2

INDEX continued

Page

SPORTS MODELS

ENGINE:

Carburetter GD8

FRONT FORKS:

BL Motorcycles Ltd

Professional Workshop Manual - English Translation

Bushes GD8

WHEELS GD8

BASIC DIMENSIONS GD8

WEIGHT GD8

BUSHMAN MODELS

ENGINE:

Bearing Dimensions GD9

Forks GD9

Carburettor GD9

TRANSMISSION:

Gear Ratios GD9

Chain Sizes GD9

BUSHMAN PASTORAL MODELS

TRANSMISSION:

Gear Ratios GD9

Sprockets GD9

Chain Sizes GD9

WHEELS, BRAKES AND TYRES:

Wheels GD9

Tyres GD10

ELECTRICAL EQUIPMENT GD10

BASIC DIMENSIONS GD10

WEIGHTS GD10

D14/4 GENERAL DATA GD3

ENGINE

PISTON

Material "Lo-ex" aluminium

Compression ratio 10 : 1

Clearance (bottom of skirt) 0.00380-0039" (0.0960-0.099 mm.)

Clearance (top of skirt) 0.00770-0078" (0.1950-0.198 mm.)

(both measured on major axis)

PISTON RINGS

Material Cast-Iron

Width 0.0970-0.102" (2.4632-2.590 mm.)

Depth 0.06150-0.0625" (1.5621-1.587 mm.)

Clearance in groove 0.0025" (0.0635 mm.)

Fitted gap (maximum)013" (.3302 mm.)

BL Motorcycles Ltd

Professional Workshop Manual - English Translation

Fitted gap (minimum)009" (.2286 mm.)

CYLINDER BARREL

Material Close-grained cylinder iron

Bore size (standard) 61.5 mm.

Stroke 58 mm.

Oversizes020" & .040" (.508 mm. & 1.016 mm.)

Inlet port size 1" (25.4 mm.)

Exhaust port size 1¼" (32 mm.)

IGNITION TIMING (Fixed)

Crankshaft (before top dead centre) 16.5°

Piston (before top dead centre) 0.060" (1.524 mm.)

CARBURETTER (Concentric)

Type Amal R626/12

Main jet 160

Pilot jet 25

Needle jet size105" (2.667 mm.)

Needle position 3

Throttle valve 3

Nominal choke size 26 mm.

Throttle slide return spring (free length) 3-1/16" (78 mm.)

D14/4 GENERAL DATA GD4

BEARING DIMENSIONS

Crankshaft bearing (left- and right-hand)75 × 1.875 × .5625"

(19.05 × 47.625 × 14.2875 mm.)

Crankshaft bearing outer (right-hand) 17 × 40 × 12 mm.

Layshaft bush, left- and right-hand (bore)6105-6115" (15.50715-532 mm.)

Gearbox sleeve pinion bearing875 × 1.875 × .375"

(22.225 × 47.625 × 9.525 mm.)

Mainshaft final drive gear bush (bore)4965-4975" (12.61112-636 mm.)

Mainshaft diameter (gear-side)6247-6250" (15.86715-944 mm.)

Mainshaft diameter (drive-side)498-499" (12.64912-675 mm.)

Layshaft diameter (left- and right-hand)6095-6100" (15.48115-608 mm.)

Gearbox mainshaft bearing625 × 1.5625 × .4735"

(15.875 × 39.6875 × 11.1125 mm.)

Big-end roller (18) 4 × 8 mm.

Small-end bearing5625 × .75 × .625"

(14.2875 × 19.05 × 15.875 mm.)

Gudgeon pin diameter5617-5620" (14.26714-275 mm.)

TRANSMISSION

CLUTCH

BL Motorcycles Ltd

Professional Workshop Manual - English Translation

Type Multi-plate
Number of plates 7
Driving (bonded segments) 4
Driven (plain) 3
Overall thickness of driving plates and segments . . "(3 m m .)
Clutch springs 6
Free length of springs 1-9/64" (29 mm.)
Clutch push rod, short (length) 1-9982-002" (50-7550-85 mm.)
Clutch push rod, short (diameter)186-188" (4-72444-7752 mm.)
Clutch push rod, long (length) 5-7785-782" (146-76146-86 mm.)
Clutch push rod, long (diameter)180-182" (4-574-62 mm.)

SPROCKETS

Engine 17 teeth
Clutch 38 teeth
Gearbox 16 teeth
Rear wheel 47 teeth

CHAIN SIZE

. 0-500 × 0-205 × 120 links

D14/4 GENERAL DATA GD5

GEAR RATIOS

Gearbox(top) 1-0 :1
(third) 1-301 :1
(second) 1-831 :1
(first) 2-843 :1
Overall (top) 6-57 :1
(third) 8-55 :1
(second) 12-03 :1
(first) 18-68 :1

FRAME AND FITTINGS

FRONT FORKS

Type Coil spring, hydraulically-damped
Springs:
(free length) 17¼" (43.8 cm.)
(spring rate) 35 lb./in.
(number of coils) 82
Shaft diameter (top) 1-0451-046" (26-54326-568 mm.)
Shaft diameter (base) 1-0001-001" (25-425-425 mm.)
Sliding tube bore 1-1251-129" (28-57528-677 mm.)
Upper bush (outer diameter) 1-1211-122" (28-47328-499 mm.)
Upper bush (bore) 1-0581-059" (26-87326-899 mm.)
Working clearance 0-013" (0-330 mm.)

BL Motorcycles Ltd

Professional Workshop Manual - English Translation

Lower bush (outer diameter) 1.1181-119" (28.39728-425 mm.)
Lower bush (bore) 1.0001-001" (25.425-425 mm.)
Working clearance 0.0060-011" (0.1520-279 mm.)
Length (upper and lower) 1" (25.4 mm.)

REAR DAMPERS

Type Coil spring, hydraulically-damped

Springs:

(fitted length) 5.7" (144.78 mm.)
(spring rate) 100 lb./in.
(colour identification) Yellow/tan

SWINGING ARM

Bush material Phosphor-bronze
Bush (outside diameter)993-994" (25.2225-24 mm.)
Bush (bore)860-865" (21.8421-97 mm.)
Housing diameter.990-991" (25.1425-17 mm.)
Interference fit on spindle0085-014" (.215-355 mm.)
Spindle diameter8735-8740" (22.18722-200 mm.)

D14/4 GENERAL DATA GD6

WHEELS, BRAKES AND TYRES

WHEELS

Rim size and type (front and rear) WM1-18

Spoke sizes:

(front, left-hand) 12 s.w.g. x 8-1/16" (2.641 x 204.78 mm.)
(front, right-hand, inner) 12 s.w.g. x 6½" (2.641 x 165.1 mm.)
(front, right-hand, outer) 12 s.w.g. x 6-9/16" (2.641 x 166.69 mm.)
(rear, right-hand) 10 s.w.g. x 7-5/16" (3.251 x 201.612 mm.)
(rear, left-hand, inner) 10 s.w.g. x 6½" (3.251 x 165.1 mm.)
(rear, left-hand, outer) 10 s.w.g. x 6½" (3.251 x 165.1 mm.)

WHEEL BEARINGS

Front:

(left-hand) 15 x 35 x 11 mm.
(right-hand) 17 x 40 x 12 mm.
Spindle diameter (at ground portions):
(right-hand)6687-6692" (16.98516-998 mm.)
(left-hand)5899-5904" (14.983514-9962 mm.)

Rear:

(left- and right-hand) 17 x 40 x 12 mm.
Spindle diameter (at ground portions):6687-6692" (16.98516-998 mm.)

BRAKES

Front and rear (diameter) 5½" (139.7 mm.)

BL Motorcycles Ltd

Professional Workshop Manual - English Translation

Front and rear (width) 1" (25.4 mm.)
Lining thickness 5/32" (.4 mm.)
Total lining area (front and rear) 20 sq. in. (129 sq. cm.)

TYRES

Size (front and rear) 3.00 x 18"
Pressure (front) 17 p.s.i. (1.2 atm)
Pressure (rear) 22 p.s.i. (1.5 atm)
(see also page F12)

ELECTRICAL EQUIPMENT (6 volt)

Battery Lucas 6 volt PUZ5E/11
Alternator type Wipac 1G1768
Contact breaker unit Wipac S0584
Ignition coil Wipac S0769
Rectifier. Wipac S2642
Bulbs:
 (headlight, main) 30/24 watt pre-focus
 (headlight, pilot) 3 watt M.E.S.
 (stop/tail light) 6/18 watt S.B.C. staggered pin
 (speedometer light) 0.6 watt B.A. 7S lug cap
Horn Clearhooter HF900

D14/4 GENERAL DATA GD7

CAPACITIES

Petrol proportion. See page A3
Fuel tank 1.875 gallons or
2.25 U.S. gallons(8.5 litre)
Gearbox ¾-pint (0.5 litre)
Front fork (each leg) -pint (0.07 litre)

BASIC DIMENSIONS

Wheelbase