

ARIEL 3

OPERATIONS MANUAL

1971 Warranty labour allowance and defect codes

00-5729

The bottom half of the cover features a decorative pattern of diagonal stripes. The stripes are a vibrant magenta color and are set against a white background. The pattern consists of three parallel diagonal bands that run from the bottom-left towards the top-right, creating a sense of movement and depth.

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February 1971

WARRANTY REIMBURSEMENT SCHEME

B.S.A. dealers are entitled to reimbursement for labour and parts utilised during Warranty repair work provided that:—

- The motor-cycle is still under warranty;
- The pre-delivery check has been completed;
- The 500 mile service check has been completed (when applicable).

WARRANTY CLAIM INSTRUCTIONS

The B.S.A. warranty credit claim form must be completed accurately by the Dealer. The claim form allows two guarantee faults to be entered when necessary, the major problem to be entered in the upper section. (See "Completing the Second Problem" section).

IT MUST ALSO BE COMPLETED LEGIBLY IN THE FOLLOWING DETAILS:—

- (1) Indicate the correct labour code for the model in the space(s) provided, the major claim in the upper problem section.
- (2) Refer to the Defect Code appropriate to the fault requiring rectification, and enter into the space(s) marked Defect Code, the major fault in the upper problem section.
- (3) If further explanation is needed, indicate in writing in the space marked "Description of Warranty Problem", the major fault in the upper section.
- (4) Enter parts used in the repair by part number, quantity and description. GREAT ACCURACY MUST BE APPLIED TO PART NUMBERING. These are the basic factors used in the calculation of the appropriate dealer reimbursement. DO NOT ENTER HOURS EXPENDED, LABOUR OR PARTS COST. THIS IS A COMPUTER FUNCTION DURING CLAIM PROCESSING.

ADDITIONAL REQUIREMENTS

In order to validate the form for computer processing, the following detailed information is required:—

- (1) Engine number and model. (The model type is incorporated at the end of the engine number).
- (2) Frame number.
- (3) Date of purchase (day / month / year).
- (4) Type of claim. (Circle the numeral indicating the major claim type — e.g. ② Transit Damage).
- (5) Mileage completed at time of rectification.
- (6) Owners name and address.

Space is provided on the form for the dealer to signify his own approval in accepting the repair under warranty from the customer, also to record issue of an internal work order and record the date of commencement of work involved.

ACCOUNT NUMBER

Unless the Dealer or Distributor has been allocated an account number by the factory Service Department, completion of this section is not required.

OWNERS SIGNATURE

The owner MUST sign in the "satisfaction" space under the heading "Owners Signature" indicating the work has been carried out to his satisfaction. In the case of a Distributor completing a claim form on behalf of a Dealer, the space will be left OPEN. The Distributor must ensure that his Dealer understands the need to obtain and retain his customers signature of satisfaction before releasing the repaired machine to his customer.

COMPLETING SECOND PROBLEM SECTION

The lower section allows a second defect on the same machine to be rectified on the Warranty Credit claim form at the same time. Note that if the two defects are complementary, i.e. one operation, or part of one operation allows both defects to be rectified, the labour allowance must be adjusted accordingly. If there is no EXACT claim code appropriate to such a calculation, take the nearest GREATER figure and code.

HOLD DEFECT PARTS

For 60 days or until claim is settled by receipt of Credit Note, unless otherwise advised.

CREDIT

- (1) Dealers claims must be submitted within 10 days of completion of work to the Distributor (to the factory Service Department in the case of U.K. Dealers).
- (2) Distributors claims must be submitted to the factory Service Department for the issue of credit.
- (3) Copy No. 1 is the factory Service Department copy. We will process only this copy.
- (4) Copies No. 2 and 3 are sent by the Dealer to the Distributor.
- (5) Copy No. 4 is kept by the Dealer for his own records. (In U.K. copies No. 1 and 4 are returned to the factory, and copies No. 2 and 3 are kept by the Dealer).
- (6) The Distributor retains copy No. 2 and returns copy No. 3 to the Dealer duly endorsed with appropriate credit.

PROPRIETARY PARTS

Parts not manufactured by B.S.A. (i.e. Lucas, Amal, Girling, Dunlop etc.) are not covered by the B.S.A. warranty, unless they have been damaged in transit. Claims for replacement must be placed through the manufacturers' Distributor concerned. B.S.A. however will meet the labour claims involved in replacement, provided the defect code, customer satisfaction and all other sections are completed as appropriate.

CONDITIONS

The codes contained in the B.S.A. Warranty Operations Handbook are effective for all B.S.A. models subject to the terms of B.S.A. Distributor/Dealer agreements and supplements.

Always use genuine B.S.A. factory replacement parts, and complete repairs according to factory specification. The use of non-genuine parts may cause the warranty to become null and void.

TERMS OF GUARANTEE

The minimum terms of warranty operable in most countries of the world are as under:—

- PARTS — Replacement F.O.C. within ninety (90) days or 4,000 miles (6,500 Km) from the date of purchase, whichever occurs first.
LABOUR — Reimbursement at laid down scales for a period of ninety (90) days or 4,000 miles (6,500 Km) from date of purchase, whichever occurs first.

However, the dealer must be fully conversant with the terms operating in his area at the time of claim, in order to provide his customer with the maximum benefit, and to ensure his claim is valid.

WARRANTY LABOUR SCHEDULES

OPERATION DESCRIPTION	Labour Code No
ENGINE UNIT	
ENGINE UNIT CHANGE — REMOVE FROM FRAME, REPLACEMENT, PREPARATION FOR ROAD TEST AND ADJUSTMENT. HANDLING AND SHIPMENT	08
CYLINDER HEAD	
CYLINDER HEAD ASSEMBLY — REMOVE AND REPLACE	02
CYLINDER DECOMPRESSOR — REMOVE AND REPLACE	02
CYLINDER BARREL	
CYLINDER BARREL ASSEMBLY — REMOVE AND REPLACE	05

DEFECT CODE

DEFECT DESCRIPTION

Defect Code No.

REFER TO APPROPRIATE DEFECT CODE	as applicable
ENGINE CONTAMINATED	1301
ENGINE VIBRATION	1302
CYLINDER HEAD LEAK	1107
CYLINDER HEAD CRACKED	1108
CYLINDER HEAD DISTORTED	1109
CYLINDER HEAD POROUS	1110
CYLINDER HEAD SPARK PLUG THREAD STRIPPED	1111
DECOMPRESSOR LEAKING	3811
CYLINDER BARREL WORN	1101
CYLINDER BARREL SCORED	1102
CYLINDER BARREL CRACKED	1103
CYLINDER BARREL POROUS	1104
CYLINDER HOLDING STUDS BROKEN	1107
OIL LEAK BARREL CRANKCASE JOINT	2205

WARRANTY LABOUR SCHEDULES

<i>OPERATION DESCRIPTION</i>	<i>Labour Code N</i>
PISTONS	
REMOVE AND FIT NEW PISTON RINGS	06
REMOVE AND FIT NEW PISTON AND RINGS	07
CONNECTING RODS, CRANKSHAFT AND FLYWHEEL ASSEMBLY	
ENGINE UNIT — COMPLETE DIS-ASSEMBLY, EXAMINATION OF PARTS, CLEAN AND RELUBRICATE. REASSEMBLE WITH NEW PARTS WHERE NECESSARY. INCLUSIVE OF OPERATIONS SHOWN UNDER "ENGINE UNIT CHANGE"	23

DEFECT CODE

DEFECT DESCRIPTION

Defect Code No.

PISTON RINGS WORN	2701
PISTON RINGS BROKEN	2702
PISTON CRACKED	2705
PISTON GUDGEON PIN BROKEN	2706
PISTON NOISY	2707
PISTON CROWN BURNED	2708
PISTON BROKEN UP	2709
PISTON CIRCLIP OMITTED	2710
PISTON SCORED	2711
PISTON SEIZED	2712
CONNECTING ROD BIG-END BEARING SCORED	0601
CONNECTING ROD BIG-END BEARING WORN	0602
CONNECTING ROD BIG-END BEARING SEIZED	0603
CONNECTING ROD SMALL-END BEARING WORN	0604
CONNECTING ROD SMALL-END BEARING SEIZED	0605
CONNECTING ROD BROKEN	0606
CONNECTING ROD BENT	0607
CRANKSHAFT OUT OF BALANCE	0816
CRANKSHAFT BROKEN	0817
ROTOR NUT LOOSE	0818

WARRANTY LABOUR SCHEDULES

OPERATION DESCRIPTION	Labour Code N
CRANKCASE AND MAIN BEARINGS	
ENGINE UNIT — COMPLETE DIS-ASSEMBLY, EXAMINATION OF PARTS, CLEAN AND RELUBRICATE. REASSEMBLE WITH NEW PARTS WHERE NECESSARY. INCLUSIVE OF OPERATIONS SHOWN UNDER "ENGINE UNIT CHANGE"	23
PRIMARY DRIVE AND CHAINGUARD	
DRIVE BELT — ADJUST	02
DRIVE BELT — REMOVE AND REPLACE	04
DRIVE CHAIN — REMOVE AND REPLACE	05
FAN PULLEY ASSEMBLY — REMOVE AND REPLACE	06
CHAINGUARD — REMOVE AND REPLACE	05

WARRANTY LABOUR SCHEDULES

OPERATION DESCRIPTION	Labour Code
CLUTCH	
CLUTCH ASSEMBLY — REMOVE AND REPLACE	08
FAN PULLEY ASSEMBLY — REMOVE AND REPLACE	06
REAR PIVOT ASSEMBLY	
TORSION BARS — REMOVE AND REPLACE BOTH	08
TORSION BARS — REMOVE AND REPLACE ONE	07
TORSION BAR TRUNNION — REMOVE AND REPLACE	08
REAR PIVOT BLOCK — REMOVE AND REPLACE	11

DEFECT CODE

DEFECT DESCRIPTION

Defect Code No.

CLUTCH SLIP	0501
CLUTCH DRAG	0502
CLUTCH SCREWS LOOSE	0503
CLUTCH CENTRE LOOSE	0504
CLUTCH BEARING SEIZED	0505
CLUTCH BEARING WORN	0506
CLUTCH BALL SPRING STRETCHED	0512
CLUTCH HOUSING LOOSE ON BELT PULLEY	0513
CLUTCH KEY SHEARED	0509
CLUTCH SPRING BROKEN	0511
FAN LOOSE ON BELT PULLEY	2911
FAN CIRCLIP ADRIFT	2912
TORSION BAR BROKEN	5701
TORSION BAR TRUNNION BROKEN	5702
REAR PIVOT BLOCK BROKEN	5703
REAR PIVOT KING-PIN SEIZED	5704
REAR PIVOT SILENT BLOC COLLAPSED	5705
TORSION BAR TENSION LOST	5706

WARRANTY LABOUR SCHEDULES

OPERATION DESCRIPTION	Labour Code N
FRAME — FRONT FORKS	
FORK ASSEMBLY — REMOVE AND REPLACE	08
FORK ASSEMBLY — REMOVE AND REPLACE SUSPENSION UNIT	05
FRAME — REMOVE AND REPLACE	23
REAR SUB-FRAME — REMOVE AND REPLACE	06
STEERING HEAD BEARINGS — REMOVE AND REPLACE	08
FAIRING, REAR — REMOVE AND REPLACE	04
FAIRING, FRONT — REMOVE AND REPLACE	02

DEFECT CODE

DEFECT DESCRIPTION

Defect Code No.

FRAME WELD POOR FINISH	1601
FRAME WELD CRACKED	1602
FRAME CRACKED	1603
FRAME MISALIGNED	1607
FRAME HEAD CUPS LOOSE	1608
FRAME HEAD CUPS CRACKED	1609
FRAME HEAD CUPS PITTED	1610
SUB-FRAME BROKEN	1614
FRONT FAIRING CRACKED	1615
REAR FAIRING CRACKED	1616
REAR FAIRING HINGE CRACKED	1618
REAR FAIRING FASTENER DEFECT	1619
FORKS STIFF	1503
FORKS FLEXING	1507
STEERING HEAD STIFF	3502
FRONT FORK MEMBER BROKEN	3505
FRONT SUSPENSION SOFT	3508

WARRANTY LABOUR SCHEDULES

OPERATION DESCRIPTION	Labour Code No
HANDLEBARS AND CONTROLS	
HANDLEBAR — REMOVE AND REPLACE	04
HANDLEBAR STEM — REMOVE AND REPLACE	05
HAND LEVER, BRAKE — REMOVE AND REPLACE	01
TWIST GRIP — REMOVE AND REPLACE	02
CABLE, REAR BRAKE — REMOVE AND REPLACE	02
CABLE, FRONT BRAKE — REMOVE AND REPLACE	02
CABLE, AIR SLIDE — REMOVE AND REPLACE	02
CABLE, DECOMPRESSOR — REMOVE AND REPLACE	02
CABLE, THROTTLE — REMOVE AND REPLACE	02

DEFECT CODE

DEFECT DESCRIPTION

Defect Code No.

HANDLEBAR AND LEVER INSECURE	1901
HANDLEBAR AND LEVER CHROME LIFT	1902
HANDLEBAR STEM BROKEN	1904
HANDLEBAR STEM CHROME LIFT	1905
BRAKE CABLE WIRE BROKEN	0201
BRAKE CABLE NIPPLE ADRIFT	0202
BRAKE CABLE OUTER CASE DAMAGE	0203
THROTTLE CABLE NIPPLE ADRIFT	0211
THROTTLE CABLE OUTER CASE DAMAGED	0212
THROTTLE CABLE WIRE BROKEN	0213
CHOKE CABLE NIPPLE ADRIFT	0214
CHOKE CABLE OUTER CASE DAMAGED	0215
CHOKE CABLE WIRE BROKEN	0216
DECOMPRESSOR CABLE BROKEN	0218
DECOMPRESSOR CABLE DISCONNECTED	0219

WARRANTY LABOUR SCHEDULES

OPERATION DESCRIPTION	Labour Code No
FUEL TANK AND SEAT	
FUEL TANK ASSEMBLY — REMOVE AND REPLACE	02
SEAT ASSEMBLY — REMOVE AND REPLACE	02

DEFECT CODE

DEFECT DESCRIPTION

Defect Code No.

FUEL TANK LEAK	1702
FUEL TANK CAP BROKEN	1705
FUEL TANK PAINT LIFTED	1706
FUEL TANK PAINT STAINED	1707
FUEL TANK PAINT FADED	1708
FUEL TANK TAP DEFECTIVE	1712
FUEL PIPE LEAK	1713
FUEL PIPE OBSTRUCTED	1714
FUEL TANK MOUNTING BRACKETS BROKEN	1717
FUEL TANK SCALING INTERNALLY	1718
SEAT PAN CRACKED	3301
SEAT FABRIC DEFECT	3302
SEAT MOUNTING LOOSE	3303
SEAT FORK DISTORTED	3304

WARRANTY LABOUR SCHEDULES

OPERATION DESCRIPTION	Labour Code No
FRONT MUDGUARD	
MUDGUARD, FRONT — REMOVE AND REPLACE	04
REAR CHAINGUARD	
CHAINGUARD — REMOVE AND REPLACE	05
EXHAUST PIPE AND SILENCERS	
EXHAUST PIPE — REMOVE AND REPLACE	04
SILENCER — REMOVE AND REPLACE	04

DEFECT CODE

DEFECT DESCRIPTION

Defect Code No.

MUDGUARD (FRONT) MISALIGNED	2101
MUDGUARD (FRONT) CRACKED	2102
MUDGUARD (FRONT) INSECURE	2103
MUDGUARD (FRONT) FOULING	2104
CHAINGUARD CRACKED	1001
CHAINGUARD BRACKET BROKEN	1002
EXHAUST PIPE BRACKET BROKEN	1201
EXHAUST PIPE LEAKING	1205
SILENCER NOISY	3401
SILENCER MOUNTING BROKEN	3402
SILENCER BODY CRACKED	3403
SILENCER BAFFLES LOOSE	3404

WARRANTY LABOUR SCHEDULES

OPERATION DESCRIPTION

Labour Code N

FRONT WHEEL — FRONT BRAKE

WHEEL ASSEMBLY, FRONT — REMOVE, EXCHANGE BEARINGS AND REPLACE 05

WHEEL ASSEMBLY, FRONT — REMOVE, EXCHANGE BRAKE PARTS AND REPLACE 04

DEFECT CODE

DEFECT DESCRIPTION

Defect Code No.

WHEEL HUB (FRONT) CRACKED	3905
WHEEL BEARINGS (FRONT) WORN	3907
WHEEL OUT OF BALANCE	3912
WHEEL SPINDLE (FRONT) BROKEN	3913
WHEEL (FRONT) BUCKLED	3917
WHEEL (FRONT) FRACTURED	3922
TYRE TREAD LIFTING	5501
TYRE WALL CRACKED	5502
TYRE PUNCTURED	5504
BRAKE SHOE SPRING (FRONT) BROKEN	0101
BRAKE (FRONT) SQUEAL	0103
BRAKE (FRONT) FADE	0104
BRAKE (FRONT) SNATCH	0105
BRAKE SHOE (FRONT) FOULS PLATE	0111
FRONT BRAKE LEVER CRACKED	0113

WARRANTY LABOUR SCHEDULES

<i>OPERATION DESCRIPTION</i>	<i>Labour Code No</i>
REAR WHEEL — REAR BRAKE — AXLE BEAM	
WHEEL ASSEMBLY, REAR — REMOVE, EXCHANGE BEARINGS AND REPLACE (EITHER OR BOTH)	06
WHEEL ASSEMBLY, REAR — REMOVE, EXCHANGE BRAKE PARTS AND REPLACE	04
REAR AXLE BEAM — REMOVE AND REPLACE	10

DEFECT CODE

DEFECT DESCRIPTION

Defect Code No.

WHEEL HUB (REAR) CRACKED	3906
WHEEL BEARINGS (REAR) WORN	3908
WHEEL SPROCKET WORN	3909
WHEEL SPROCKET ECCENTRIC	3910
WHEEL SPROCKET DRIVE SPLINES WORN	3911
WHEEL SPINDLE (REAR) BROKEN	3914
WHEEL STUB SPINDLE (REAR) BROKEN	3915
WHEEL (REAR) BUCKLED	3918
WHEEL (DRIVE) FRACTURED	3919
WHEEL (NON-DRIVE) FRACTURED	3920
AXLE BEAM BROKEN	3921
TYRE TREAD LIFTING	5501
TYRE PUNCTURED	5504
TYRE WALL CRACKED	5502
BRAKE SHOE SPRING (REAR) BROKEN	0102
BRAKE (REAR) SQUEAL	0106
BRAKE (REAR) FADE	0107
BRAKE (REAR) SNATCH	0108
BRAKE LEVER CRACKED	0109

WARRANTY LABOUR SCHEDULES

OPERATION DESCRIPTION

Labour Code

PEDAL DRIVE ASSEMBLY

PEDAL CHAIN — REMOVE AND REPLACE	04
PEDAL CHAIN TENSIONER — REMOVE AND REPLACE	04
PEDAL — REMOVE AND REPLACE (EACH)	01
PEDAL CRANK — REMOVE AND REPLACE (EACH)	01
PEDAL CRANK CHAINWHEEL — REMOVE AND REPLACE	04

DEFECT CODE

DEFECT DESCRIPTION

Defect Code No.

PEDAL CHAIN WORN	3103
PEDAL CHAIN BROKEN	3104
PEDAL CRANK (RIGHT-HAND) BROKEN	3105
PEDAL CRANK CHROME LIFT	3106
PEDAL CRANK (LEFT-HAND) BROKEN	3107
PEDAL BENT	3114
PEDAL BROKEN	3108
PEDAL CHAIN TENSIONER ROLLERS SEIZED	3109
PEDAL CHAIN TENSIONER SPRING BROKEN	3110
PEDAL CHAIN TENSIONER BROKEN	3111
PEDAL CRANK CHAINWHEEL BROKEN	3112
PEDAL CHAIN FREEWHEEL BROKEN	3113

WARRANTY LABOUR SCHEDULES

OPERATION DESCRIPTION

Labour Code

ELECTRICAL EQUIPMENT

MAGNETO — REMOVE AND REPLACE	05
CABLE HARNESS — REMOVE AND REPLACE	04
HEADLAMP ASSEMBLY — REMOVE AND REPLACE	01
REAR LAMP ASSEMBLY — REMOVE AND REPLACE	01
HORN ASSEMBLY — REMOVE AND REPLACE	01
HORN AND HEADLIGHT SWITCH — REMOVE AND REPLACE	01
IGNITION CONTACT BREAKER ASSEMBLY — REMOVE AND REPLACE	04

DEFECT CODE

DEFECT DESCRIPTION

Defect Code No.

ALTERNATOR NO OUTPUT	4101
ALTERNATOR COILS LOOSE	4102
ALTERNATOR FOULING STATOR	4103
ALTERNATOR N.C.D.	4104
COIL MISFIRES	4401
COIL DAMAGED	4402
COIL NO SPARK	4403
COIL N.C.D.	4404
CONTACT BREAKER N.C.D.	4504
CONDENSER DEFECT	4601
HORN NO NOTE	4801
HORN N.C.D.	4802
HORN BRACKET BROKEN	4803
HARNESS OPEN-CIRCUIT	4901
HARNESS SHORT-CIRCUIT	4902
HARNESS N.C.D.	4904
HEADLAMP CONNECTION DEFECT	5001
HEADLAMP N.C.D.	5002
REAR LAMP DEFECT	5505
LIGHTING SWITCH OPEN-CIRCUIT	5204
LIGHTING SWITCH N.C.D.	5205
MAIN BULB BURNT OUT	5601
TAIL BULB BURNT OUT	5603

WARRANTY LABOUR SCHEDULES

OPERATION DESCRIPTION

Labour Code

CARBURATION

CARBURETTER — REMOVE, EXCHANGE DETAIL PARTS AND REPLACE 05

CARBURETTER — REMOVE AND REPLACE 03

CARBURETTER AIR FILTER ASSEMBLY — REMOVE AND REPLACE 01

SPEEDOMETER AND DRIVE

SPEEDOMETER INSTRUMENT — REMOVE AND REPLACE 02

SPEEDOMETER CABLE — REMOVE AND REPLACE 02

SPEEDOMETER DRIVE — REMOVE AND REPLACE 02

DEFECT CODE

DEFECT DESCRIPTION	Defect Code No.
CARBURATION WEAK	0401
CARBURATION RICH	0402
CARBURATION ERRATIC	0403
CARBURETTER SLIDE STICKS	0404
CARBURETTER LEAKING	0405
AIR FILTER BROKEN	0406
CARBURETTER REED VALVE DEFECT	0407
CARBURETTER INDUCTION STUB MISALIGNED	0408
SPEEDOMETER ERRATIC	5401
SPEEDOMETER NIL READING	5402
SPEEDOMETER N.C.D.	5403
SPEEDOMETER DRIVE SEIZED	5405
SPEEDOMETER DRIVE N.C.D.	5406
SPEEDOMETER CABLE WIRE BROKEN	0209
SPEEDOMETER CABLE OUTER CASE DAMAGE	0210
SPEEDOMETER BRACKET BROKEN	5407

WARRANTY LABOUR SCHEDULES

<i>OPERATION DESCRIPTION</i>	<i>Labour Code</i>
AS APPROPRIATE FOR TASK INVOLVED.	

DEFECT CODE

DEFECT DESCRIPTION	Defect Code No.
MISCELLANEOUS	
PACKING SHORTAGE	2601
PACKING LOSS IN TRANSIT	2602
PACKING CONTENT DAMAGE	2603
PACKING CASE AND CONTENTS DAMAGE	2604
FASTENER BOLTS LOOSE	1401
FASTENER BOLTS STRIPPED	1402
FASTENER BOLTS BROKEN	1403
FASTENER BOLTS MISSING	1404
FASTENER WASHERS WRONG	1405
FASTENER WASHERS MISSING	1406
FASTENER NUTS LOOSE	1407
FASTENER NUTS STRIPPED	1408
FASTENER NUTS MISSING	1409
FASTENER RIVETS LOOSE	1410
NON-CODED DEFECT	4001
DEFECTIVE SPARE PART	2605

