BSA - D1_D3_D5

00-4036
Instruction Manual
Models
D1 125 c.c. Bantam
D3 150 c.c. Bantam Major
D5 150 c.c. Bantam Major

Instruction Manual
for
D Models

B.S.A. MOTOR CYCLES LTD., BIRMINGHAM 11
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This Instruction manual is intended to acquaint the B.S.A. owner with details of the controls, general maintenance and technical data which may be required for normal operation of the machine. It does not contain the information necessary to carry out complete stripping for major overhauls, but if any owner feels he is competent to carry out this type of work, a service manual and an illustrated, priced, spares catalogue for this machine can be obtained from his B.S.A. spares stockist or local distributor. Owners in the British Isles can obtain these publications direct from B.S.A. Motor Cycles Ltd., Service Department, Armoury Road, Birmingham 11. Always quote full engine and frame numbers when ordering these publications.

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FIG. 1. The Controls.
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TECHNICAL DATA

Engine Number on top of crankcase below cylinder.
Frame Number at top of steering head tube.

ENGINE: Model	D1 Model	D3 Model	D5
Capacity	123 c.c	148 c.c	174 c.c
Cylinder bore	52 mm.	57 mm.	61.5 mm.
Stroke	58 mm.	58 mm.	58 mm.
Compression ratio	6.5 : 1	6.4 : 1	7.4 : 1
Piston ring gap (minimum) ...	.009 in.	.009 in.	.009 in.
(maximum)	.013 in.	.013 in.	.013 in.
Sparking plug	L10S (L7)	L10S (L7)	L10S (L7)
Plug points gap (minimum) ...	.018 in.	.018 in.	.018 in.
(maximum)	.020 in.	.020 in.	.020 in.

TRANSMISSION:

Gear ratiostop	7.0	7.0	6.48
second	11.7	11.7	10.74

first 22.0 22.0 20.2
Clutchfriction plates ... 3 3 3
Chain size and pitch:
(front) × .250 in. ... 50 50 50
(rear) ½ × .335 in. 117 121 121
Teeth onengine sprocket ... 17 17 17
gearbox sprocket ... 15 15 16
clutch sprocket ... 38 38 38
rear chainwheel ... 47 47 46

CAPACITIES:
Fuel tank ... ... 1¾ gall. 1¾ gall. 2 gall.
Petroil mixture ... ... See page 18 See page 18 See page 18
Gearbox ... ... ¾ pint ¾ pint ¾ pint

WHEELS:
Rim size (front) WM119 WM119 WM118
(rear) WM119 WM119 WM118
Tyre size (front) 2.27519 2.7519 3.0018
(rear) 2.7519 2.7519 3.0018
Tyre pressure (front) ... 16 p.s.i. 16 p.s.i. 16 p.s.i.
(rear) ... ... 22 p.s.i. 25 p.s.i. 24 p.s.i.
Brake sizediameter ... ... 5 in. 5 in. 5 in.
wide ... ... in. in. in.
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TAKING OVER THE MACHINE
Before running the machine make sure that the fuel tank contains the correct mixture of oil and petrol, that the gearbox is properly topped up with oil and that the battery (when fitted) is filled and charged. (See appropriate chapters for filling instructions). Normally these preparations will be carried out by the dealer who is selling the machine and the new owner has only to arrange the controls to his liking and the machine is ready for the road.
The Controls
The new rider should make sure that he is quite familiar with all the controls before attempting to ride the machine. Most of the controls are adjustable and should be positioned so that they can be reached without moving the hands from the grips or the feet from the footrests. Handlebars should be adjusted so that a comfortable and natural riding position is achieved. Make sure that the bolts retaining the handlebar clamps are tight after completing any adjustment. Badly positioned controls cause poor control of the machine and will bring discomfort on long journeys.
HANDLEBAR CONTROLS
Twist Grip
Mounted on the right handlebar it controls the throttle opening. To open the throttle (i.e. to increase the engine speed) turn the grip so that the top moves towards the rider. Full movement is about a quarter of a turn.

Front Brake
Hand lever mounted on the right handlebar in front of the twist grip. Squeeze the lever towards the bar to operate the brake.
Clutch
Hand lever mounted on the left handlebar in front of the grip. Squeeze the lever towards the bar to free the clutch, i.e. to disengage the drive between the engine and the rear wheel.
Horn (Battery Equipment)
The horn button is mounted on the right handlebar on the top of the front brake lever bracket.
Headlamp Dipper Switch
On the left handlebar attached to the rear of the clutch lever. It controls the switching from main to dipped headlamp filaments.
FOOT CONTROLS
Rear Brake
This is a toe pedal on the left-hand side of the machine and it OPERATES THE REAR BRAKE ONLY.
Gearchange Pedal
On the right-hand side there are two pedals one of which projects forward, this being the gearchange pedal. To engage first gear from the neutral position, the pedal is moved downwards. To change to a higher gear move the pedal upwards. To change to a lower gear depress the pedal. The pedal automatically returns to central position, ready for next gearchange.
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Kickstarter Pedal
This is the other pedal on the right-hand side of the engine. Depression of the pedal rotates the engine.
OTHER CONTROLS
Petrol Tap
This is located under the rear end of the tank. To turn on the petrol, pull the serrated button out and lock in position by turning anti- clockwise. To turn off the petrol, turn the button in a clockwise direction and push in.
Lighting Switch
This is operated by a switch on the headlamp, and has three positionsOFF, LOW, and HEAD respectively. The LOW position is also for use when the machine is stationary. On direct lighting models the parking bulb draws its current from a dry battery accommodated in the headlamp behind the reflector.
On battery lighting models turn the lighting switch to LOW if the battery is discharged as this will deliver the maximum charging current to the battery when the engine is running.
Carburetter Tickler
This is a small plunger in the top of the carburetter float chamber. Pressing it down pushes down the float and frees the needle valve thus permitting the carburetter to receive excess petrol.
Steering Lock

Mounted underneath the bottom fork yoke. To operate the lock turn the forks to the left then turn the key in the lock to release the plunger. This prevents the machine being driven or wheeled.

DRIVING

To Start the Engine

Set the gear in neutral (i.e., between the first and second gear positions).

If cold, first depress the carburetter tickler momentarily and close the strangler.

Open the twist grip control a small amount and give the kickstarter a vigorous kick downwards, whereupon the engine should fire at once.

During normal running the strangler must always be kept fully open and it should be opened immediately the engine fires, or should the weather be cold, at the earliest possible moment.

NOTE:While it is necessary to close the strangler when starting from cold, this may not be necessary when the engine is warm and should certainly not be so if the engine is restarted after a short wait only.

To Stop the Engine

Close the throttle and disengage the clutch. If the engine does not stop it indicates that the throttle is not closing properly.

To Engage First Gear

Declutch and move the gearchange pedal downwards to its limit. If difficulty is experienced in engaging first gear when stationary, rock the machine backwards and forwards maintaining slight pressure on the gearchange pedal, until the gear is felt to engage.

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To Move Off

Open the throttle slightly and gently release the clutch lever. As the clutch engages open the throttle a little further.

To Change Gear (Up)

Disengage the clutch and immediately thereafter raise the gearchange pedal upwards to its limit, at the same time easing the throttle back. Engage the clutch and re-open the throttle together immediately after changing.

To Change Gear (Down)

Disengage the clutch, open the throttle slightly, and press the gearchange pedal downwards to its limit, all these operations being performed in rapid succession. Reengage the clutch immediately.

NOTE:Violent pressure on the gearchange pedal is neither necessary nor desirable.

To Select Neutral

Neutral is situated between first and second gear. To select neutral from