

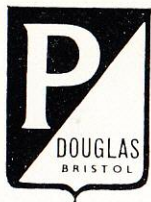
By Appointment
To His Royal Highness The Duke of Edinburgh
Suppliers of Vespa Scooters

Vespa

150 c.c.

**G.L., SPRINT &
SUPER MODEL**

SUPPLEMENT TO VESPA 150 c.c. STANDARD
SERVICE STATION MANUAL FOR MACHINES
PREFIXED V.L.A.I., V.L.B.I. AND V.B.C.I.



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DOUGLAS (SALES & SERVICE) LTD., KINGSWOOD, BRISTOL

Telephone **67-1881**

DIVISION OF THE WESTINGHOUSE BRAKE AND SIGNAL COMPANY LIMITED

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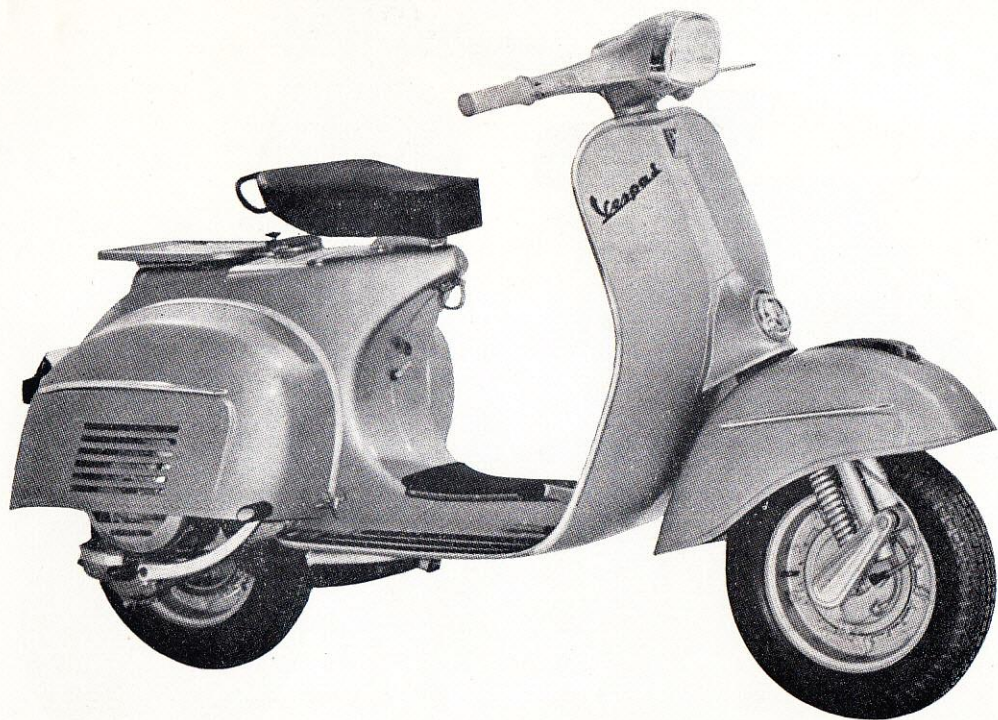
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In accordance with Douglas (Sales & Service) Ltd. policy of progressive improvement, the right is reserved to alter any details of price, specification, accessories and equipment, without notice, and without incurring any obligation.

This supplement is for insertion in the Vespa 150 c.c. Standard Service Station Manual and refers to Machines Prefixed VLA1, VLB1 and VBC1.



Vespa GL Model. Prefixed VLA1



Vespa "Sprint" Model. Prefixed VLBI



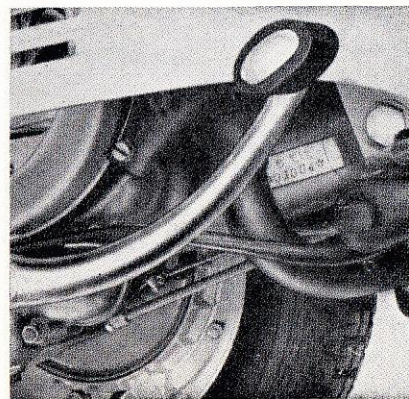
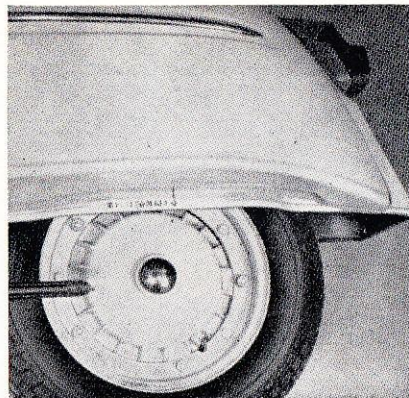
Vespa 150 c.c. Super. Prefixed VBC1

IDENTIFICATION DATA

The Serial Nos. consist of the prefix letters VLA1 (G.L. model), VLB1 ("Sprint" model) and VBC1 (Super model).

The chassis number is stamped below the N.S. cowl and the engine number on the crankcase. See adjacent illustration.

These serial numbers identify the machine as prescribed by the law and must appear on all documents pertaining to the scooter. **THESE NUMBERS MUST ALWAYS BE QUOTED WHEN ORDERING SPARE PARTS.**



TECHNICAL DESCRIPTION

G.L. Model Prefixed VLA1

Fuel consumption at economic speed	128 m.p.g.
Max. speed	55 m.p.h.
Carrying capacity	2 persons and 22 lbs. luggage
Range	230 miles
Fuel tank capacity	1.7 galls.
Reserve fuel included	0.3 galls.
Wheel base	47.2"
Handlebar width	25"
Maximum length	70"
Maximum height	41"
Ground clearance	8.7"
Minimum turning circle	55"
Weight (without fuel)	195 lbs.

Engine

Bore: 57 mm. (2.240").

Stroke: 57 mm. (2.240").

Displacement: 145.45 c.c. (8.88 cu. in.).

Compression ratio: 7.2:1.

Ignition

By an external H.T. coil with primary winding fed by another coil inside the flywheel magneto.

Spark Plug: *K.L.G.* F.70 or F.75, Champion L.86 or L.81.

Ignition Timing: With spark advance of $22^{\circ} \pm 1^{\circ}$ b.t.d.c.

Carburettor

Del'lorio type SI 20/17 C embodied in the silencing air cleaner case, fitted with a plate-shaped slide valve, immersed jets and starting device.

Main Jet 100/100. Pilot Jet 42/100. Starter Jet 60/100. Main Jet Air Vent 140/100. Air bleed on mixer top 185/100. Diffuser E.1. Throttle Valve 0.

TECHNICAL DESCRIPTION

"Sprint" Model Prefixed VLBI

Fuel consumption at economic speed	129 m.p.g. approx.
Max. speed	58 m.p.h. approx.
Carrying capacity	2 persons and 22 lbs. luggage
Range	230 miles
Fuel tank capacity	1.7 galls.
Reserve fuel included	0.3 galls.
Wheel base	47.2"
Handlebar width	26.3"
Maximum length	69.6"
Maximum height	41"
Ground clearance	8.7"
Minimum turning circle	55"
Weight (without fuel)	195 lbs.

Engine

Bore: 57 mm. (2.240").

Stroke: 57 mm. (2.240").

Displacement: 145.45 c.c. (8.88 cu. in.).

Compression ratio: 7.5:1.

Ignition

By an external H.T. coil with primary winding fed by another coil inside the flywheel magneto.

Spark Plug: *K.L.G.* F.70 or F.75, Champion L.81 or L.86.

Ignition timing: With spark advance of $22^{\circ} \pm 1^{\circ}$ b.t.d.c.

Carburettor

Del'orto type SI 20/17 C embodied in the silencing air cleaner case, fitted with a plate-shaped slide valve, immersed jets and starting device.

Main Jet 103/100. Pilot Jet 42/100. Starter Jet 60/100. Main Jet Air Vent 140/100. Air bleed on mixer top 185/100. Diffuser E.1. Throttle Valve 0.

TECHNICAL DESCRIPTION

“Super” Model Prefixed VBC1

Fuel consumption at economic speed	129 m.p.g. approx.
Max. Speed	... 55 m.p.h. approx.
Carrying capacity	2 persons and 22 lbs. luggage
Range	... 217 miles
Fuel tank capacity	... 1.7 galls.
Reserve fuel included	... 0.3 galls.
Wheel base	... 47.24"
Handlebar width	... 26.38"
Maximum length	... 68.5"
Maximum height	... 39.96"
Ground clearance	... 5.12"
Minimum turning circle	... 59.05"
Weight (without fuel)	... 191.8 lbs.

Engine

Bore: 57 mm. (2.240").
 Stroke: 57 mm. (2.240").
 Displacement: 145.45 c.c. (8.88 cu. in.).
 Compression ratio: 7.4:1

Ignition

By an external H.T. coil with primary winding fed by another coil inside the flywheel magneto.

Spark Plug: *K.L.G.* F.70 or F.75, Champion L.81 or L.85.

Ignition Timing: With spark advance of $22^{\circ} \pm 1^{\circ}$ b.t.d.c.

Carburettor

Del'orto type SI 20/15 D embodied in the silencing air cleaner case, fitted with a plate-shaped slide valve, immersed jets and starting device.

Main Jet 88/100. Pilot Jet 42/100. Starter Jet 60/100. Diffuser E1. Air bleed on mixer top 120/100. Throttle Valve No. 1.

TRANSMISSION RATIOS

(Engine to driving wheel)

	G.L. VLA1 MODEL	"Sprint" VLB1 MODEL	150 Super VBC1 Model
1st Speed	14.46:1	14.46:1	13.35:1
2nd Speed	10.28:1	10.28:1	9.32:1
3rd Speed	7.46:1	7.31:1	6.64:1
4th Speed	5.48:1	5.36:1	4.73:1
Wheel Size	3.50 × 10"	3.50 × 10"	3.50 × 8"

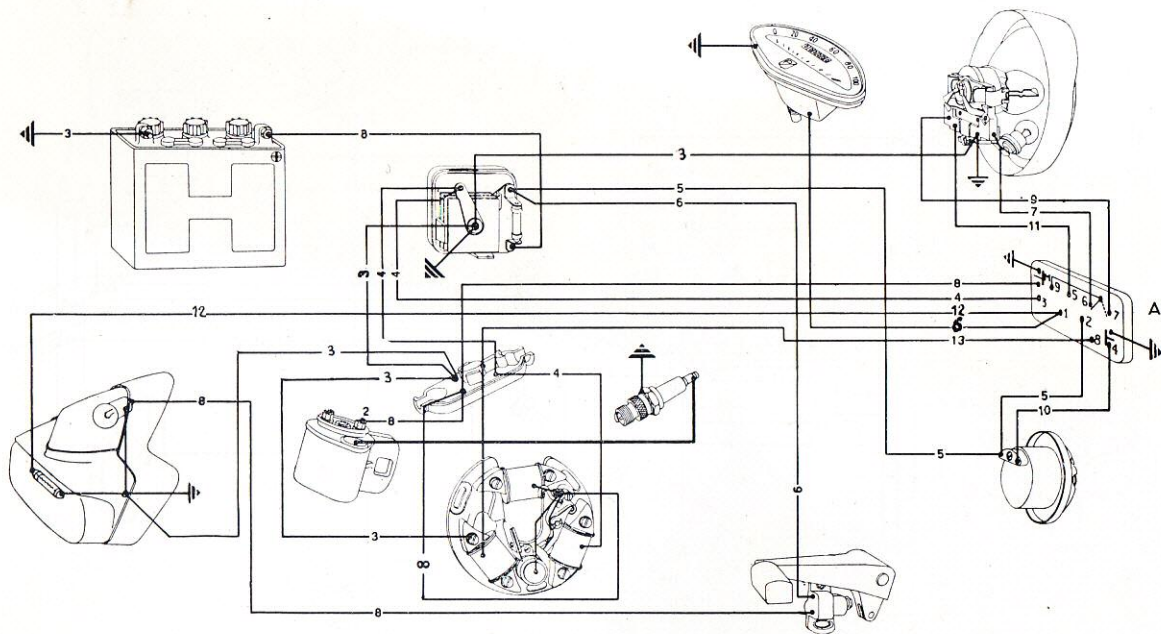
TYRE PRESSURES

	Solo	Pillion		Solo	Pillion		Solo	Pillion
Front	17psi	17psi	Front	17psi	17psi	Front	16psi	16psi
Rear	25psi	35psi	Rear	25psi	35psi	Rear	19psi	33psi

Note: The fuel consumption and maximum speed figures must not be accepted as binding. Many factors outside our control can considerably affect them once the machine is in the hands of the owner and in service.

Bulbs : Headlamp 6V 25W/25W; Pilot Lamp 6V 3W; Rear Lamp 6V 3W; Stop Lamp 6V 10W; Speedometer 6V 0.6W.

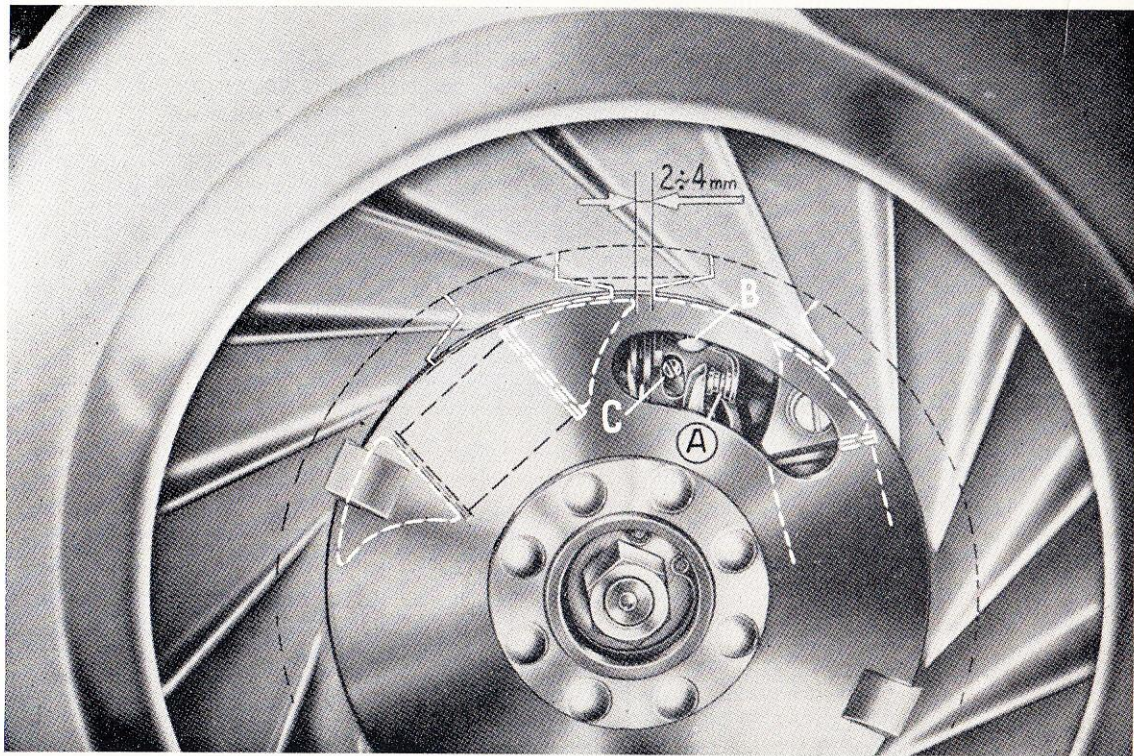
WIRING DIAGRAM G.L. Model from Ser. No. VLA1T 079010. "SPRINT" and SUPER models



A: Switch board – 2: External ignition coil connector – 3: Black – 4: Yellow – 5: Green – 6: Sky blue – 7: Brown – 8: Red – 9: Violet – 10: White – 11: Pink – 12: Grey – 13: Yellow-black.

Bulbs: Headlamp 6V 25W/25W; Pilot Lamp 6V 3W; Rear Lamp 6V 3W; Stop Lamp 6V 10W; Speedometer 6V 0.6W.

CHECKING AND SETTING THE FLYWHEEL MAGNETIC TIMING
ALL MODELS



See Following Page

To check the Magnetic Timing "Phasing" of the flywheel magneto carry out the following operations:—

1. Remove Inspection plate or rubber plug from face of flywheel.
2. Rotate flywheel until C.B. points can be seen through inspection hole.

Note: On early type flywheels, G.L. model, ensure that the piston is near T.D.C.

3. With the points "A" about to separate the pole shoe should be 2 mm.—4 mm. from the extreme edge of the feed coil (See figure on preceding page).
4. The maximum contact breaker gap should be checked and must be between 0.011"—0.019".
5. If conditions 3 and 4 are not achieved slacken the screw "B" and rotate the cam "C" accordingly.

Caution: It is not advisable to disturb the coil securing screws unless the replacement of the coil becomes necessary.

LUBRICATION CHART

All Models

Part to be lubricated			Lubrication				
After 600	Every 2,500	Every 5,000	*Shell	*B.P.	Esso	Castrol	Mobil
Gear-box change oil	Gear-box topping-up	Gear-box change oil	Shell 2T Two-Stroke Oil or Shell X-100 30	Energol Two-Stroke Oil or Energol SAE. 30	Esso Extra Motor Oil 20W/30	Castrol XL	Mobiloil A
	Front suspension Felt pad on fly-wheel cam Joints on brake control Speedo flexible drive	Control cables Gear change quadrant	Retinax A	Energrease L.2	Esso Multi-Purpose Grease H	Castrol XL	Mobilgrease M.P.
	Engine at each refuelling		Shell 2T Two-Stroke Oil in ratio of 2% or $\frac{1}{4}$ -pint to $1\frac{1}{2}$ galls. petrol.	Energol Two-Stroke Oil in ratio of 2% or $\frac{1}{4}$ -pint to $1\frac{1}{2}$ galls. petrol.	Essolube 30 in ratio of 2% or $\frac{1}{4}$ -pint to $1\frac{1}{2}$ galls. petrol. Esso Two-Stroke Motor Oil in ratio of $\frac{1}{4}$ -pint to 1 gall. petrol.	Castrol XL in ratio of 2% or $\frac{1}{4}$ -pint to $1\frac{1}{2}$ galls. petrol. Castrol Two-Stroke Oil in ratio of $\frac{1}{4}$ -pint to 1 gall. petrol.	Mobiloil A in ratio of 2% or $\frac{1}{4}$ -pint to $1\frac{1}{2}$ galls. petrol. Mobil-Mix in ratio of $\frac{1}{4}$ -pint to 1 gall. petrol.

*Marketed also by National Benzole Co. Ltd., by arrangement with Shell-Mex & B.P. Ltd.

APPROVED PETROL/OIL MIXTURE

Make	Description
Shell	2B Two-Stroke Mixture
B.P.	B.P.-Zoom
National Benzole Co. Ltd.	Hi-Fli

To be used with equal parts of neat petrol.

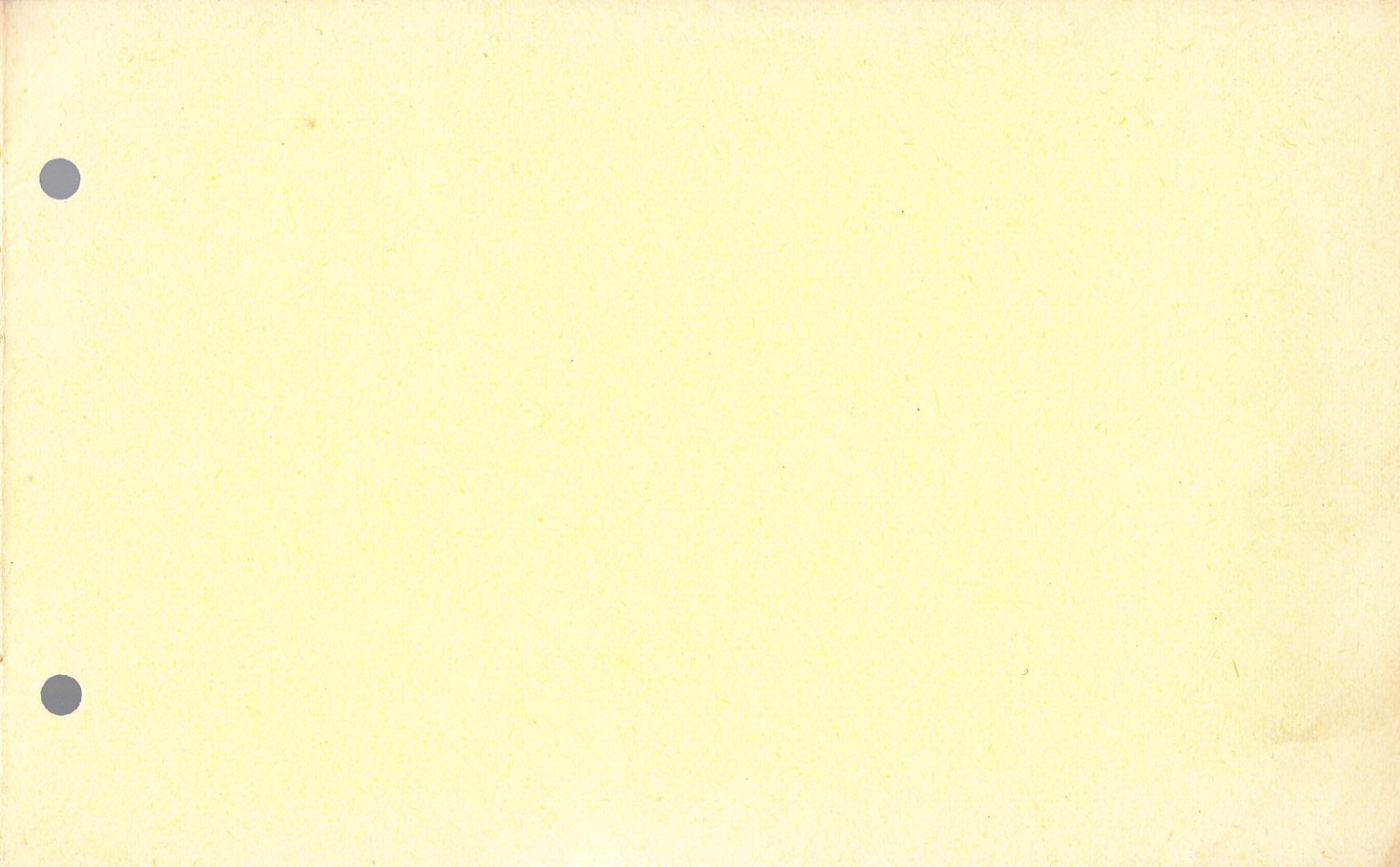
Hydraulic Dampers

When not working efficiently consult your Dealer. If servicing is required, they should always be returned to the Works.

ADDITIONAL TOOLING

Tool No.	Previous Tool still in use	TOOL NAME	Group	NOTE
T.0031760	T.0013964	Flywheel Holding Tool		This tool is required for machines on which the flywheel is provided with only one inspection hole.

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