DOUGLAS
BRISTOL

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

Vespa Super Sport

MODEL VSC 1 (180 c.c.)

SUPPLEMENT TO VESPA G.S. V.S.B. 1 MODEL SERVICE STATION MANUAL FOR MACHINES PREFIXED "V.S.C. 1."

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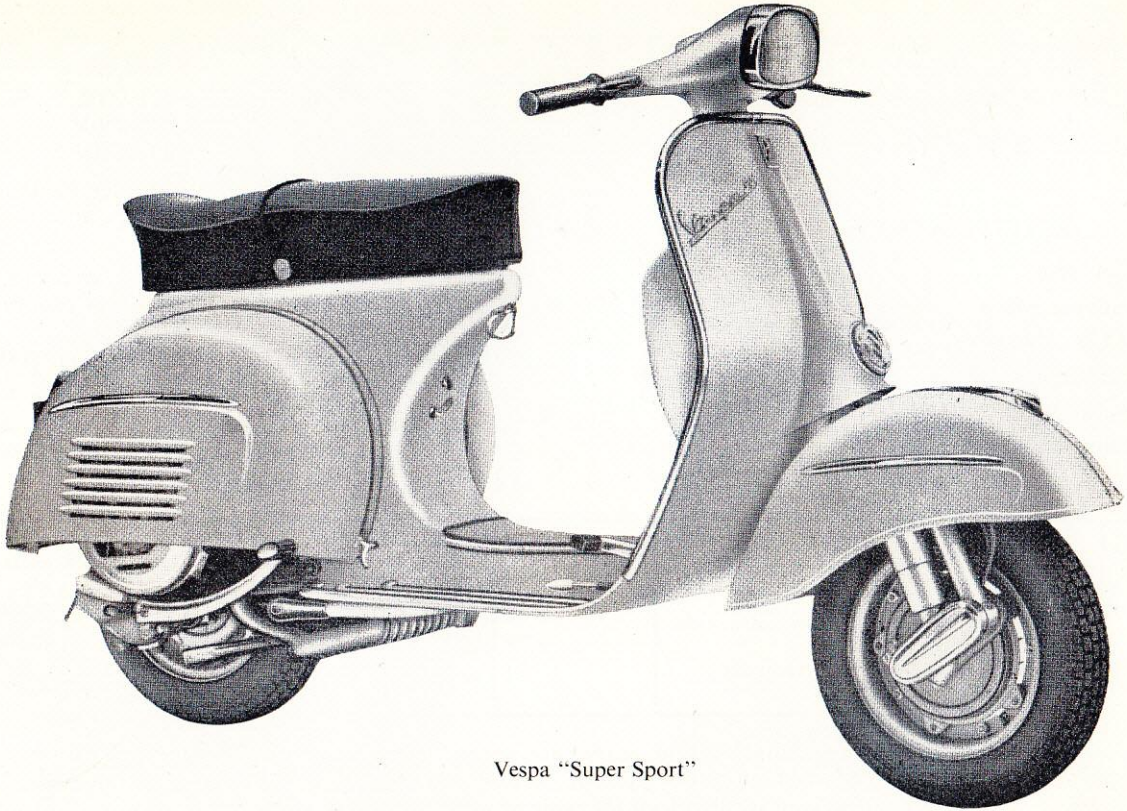
DOUGLAS (SALES & SERVICE) LTD., KINGSWOOD, BRISTOL

Telephone: Bristol 67-1881

A DIVISION OF THE WESTINGHOUSE BRAKE AND SIGNAL COMPANY LIMITED



Vespa "Super Sport"

PERFORMANCE AND SPECIFICATION

Consumption (according to CUNA Standards): 2.8 Lt/100 Km. (85 mls./U.S. gal.; 102 mls./imp. galls. approx.). Petrol-oil mixture i.e. 5% oil.

Max. Speed (CUNA Standards) 105 Km/h (65.3 m.p.h. approx.).

MAIN SPECIFICATIONS

Wheel base	1230 mm. (48.4″)
Handlebar width	670 mm. (26.3″)
Total length	1770 mm. (69.6″)
Max. height	1065 mm. (41.9″)
Min. ground clearance ...	120 mm. (4.7″)
Turning radius	1400 mm. (55.0″)
Total dry weight	99.5 Kg. (219.3 lbs.)

Engine-wheel transmission ratio:

1st Gear	1:14.466
2nd Gear	1:10.088
3rd Gear	1: 7.461
4th Gear	1: 5.710

ENGINE: single horizontal cylinder two stroke engine with cross flow scavenging and flat top piston.

Bore 62 mm. (2.44″). Stroke 60 mm. (2.36″). Cylinder displacement 181.145 c.c. Compression ratio 7.7:1.
H.T. Flywheel external coil **ignition.**

Spark advance: 26° ±1° before T.D.C.

Sparking plug types: Marelli CW 250 L-T, CW 240 G or CW 240 B; Champion NA 8; Bosch W 240 T2; K.L.G. FE 80; Lodge 2 H LN.

Model Prefix	Year	Engine Stroke mm.	Bore mm.	Capacity cm.	Mixture	Carburettor Del'lorto	Timing ±1°	Sparking Plug	Tyre Pressure F.	Tyre Pressure R.
VSC I	1965	60	62	181.14	5% Pure mineral oil	SI 27/23	26°	Champion NA8 KLG FE80 Lodge 2 HLN	Dunlop 16 Pirelli 16	Dunlop Solo 20 Pirelli 22 Dunlop with Pillion 32 Pirelli 32
		4 Speed gear box			See Lubrication Chart				Tyres - 3.50–10″	

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.

LUBRICATION CHART

Part to be lubricated		Lubrication				
Every 2,500	*Every* 5,000	*Shell	*B.P.	Esso	Castrol	Mobil
See	over	Shell 2T Two-Stroke Oil or Shell X–100 30	Energol Two-Stroke Oil or Energol SAE 30	Esso Extra Motor Oil 20W/30	Castol 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	Castrolease L.M.	Mobilgrease M.P.
Engine at each re-fuelling		Shell 2T Two-Stroke Oil in ratio of 5% or ½-pint to 1¼-galls. petrol	Energol Two-Stroke Oil in ratio of 5% or ½-pint to 1¼-galls. petrol	Essolube 30 in ratio of 5% or ½-pint to 1¼-galls. petrol. Esso Two-Stroke Motor Oil in ratio of ¾-pint to 1¼-galls. petrol	Castrol XL in ratio of 5% or ½-pint to 1¼-galls. petrol. Castrol Two-Stroke Oil in ratio of ¾-pint to 1¼- galls. petrol	Mobiloil A in ratio of 5% or ½-pint to 1¼-galls. petrol or Mobil-Mix in ratio of ¾-pint to 1¼-galls. petrol

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

The greases specified on this chart should also be used for the speedometer pinion and front wheel bearings and for the main bearing of the F/side of c/shaft during overhaul.

APPROVED PETROL/OIL MIXTURE

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

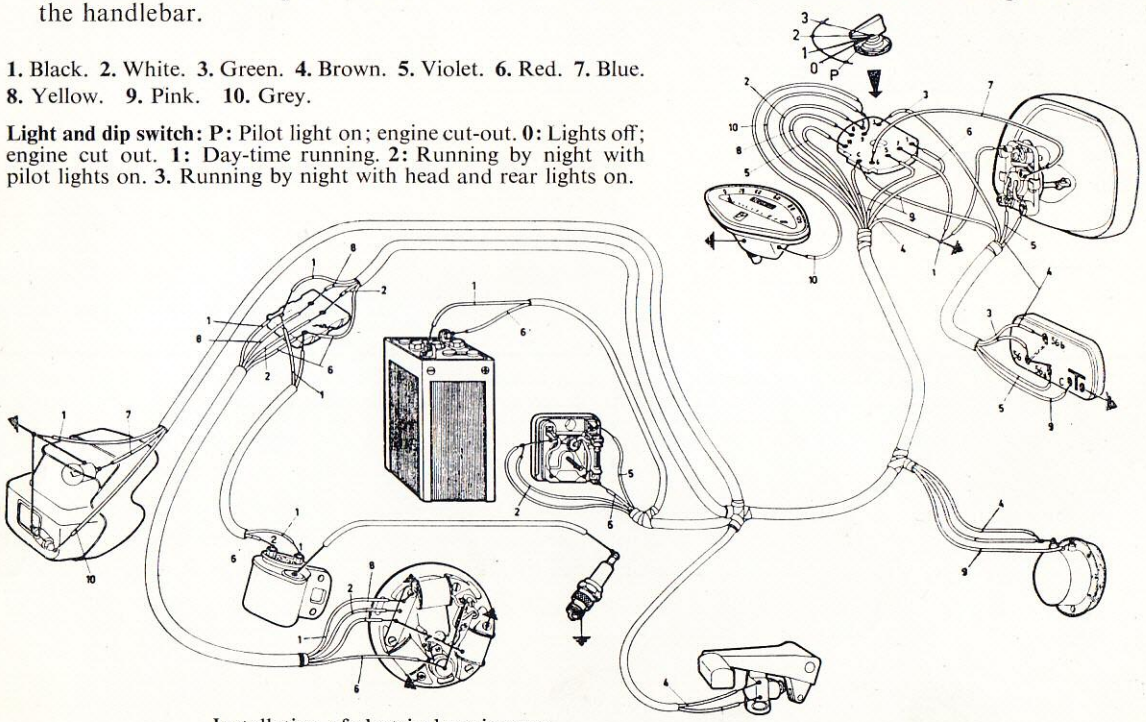
Hydraulic Dampers	When not working efficienlty, consult your Dealer. If servicing is required, they should always be returned to the Works.

ELECTRICAL EQUIPMENT

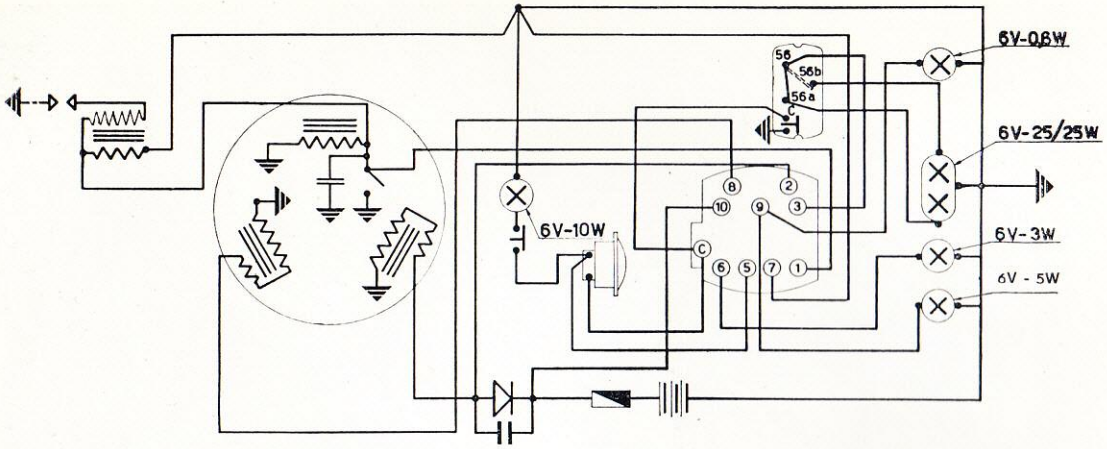
On this machine the electrical plant is provided with a 6V. 12 Ah battery, which feeds the horn, stop light and pilot lights; the battery is fed by the flywhell magneto by means of a rectifier-diode. On the handlebars, located on the headlamp housing, there is a 5 way lighting switch which includes an ignition switch. A dip switch which includes the horn button, is mounted on the right hand side of the handlebar.

1. Black. **2.** White. **3.** Green. **4.** Brown. **5.** Violet. **6.** Red. **7.** Blue. **8.** Yellow. **9.** Pink. **10.** Grey.

Light and dip switch: P: Pilot light on; engine cut-out. **0:** Lights off; engine cut out. **1:** Day-time running. **2:** Running by night with pilot lights on. **3.** Running by night with head and rear lights on.



Installation of electrical equipment.



Wiring diagram.

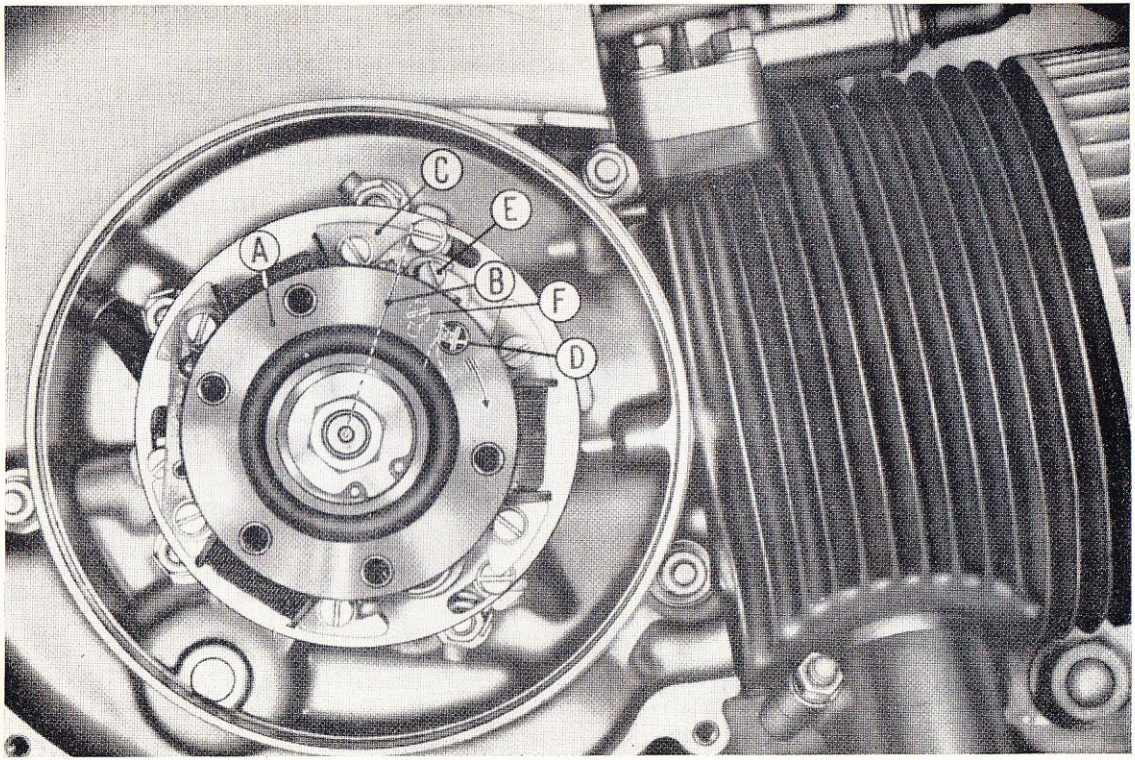
Connections on Switch Unit. **P:** contacts 1–3 and separately 10–9–6. **0:** contacts 1–7. **1:** contacts 10–5. **2:** contacts 10–9–5–6 and separately 2–8. **3:** contacts 10–5 and separately 2–3–8–9.

Following lighting and signalling devices are supplied:

— with a.c. (from the six pole flywheel magneto) in the position **3** of the main switch (p. 6) for feeding: a 25/25 W bulb (main and dipped beam); a 5W bulb (number plate light); a 0.6W bulb (speedo. light).

— with d.c. (6V 12Ah battery fed by the flywheel magneto by means of a rectifier-diode) for feeding the horn; a 3W bulb (pilot light); a 5W bulb (number plate light); a 0.6W bulb (speedo. light); a 10W bulb (stop light), in the position **2** of the main switch (p. 6).

CHECKING AND SETTING THE FLYWHEEL MAGNETIC TIMING



See Following Page.

To check the Magnetic Timing (Phasing) of the flywheel Magneto carry out the following operations:—

1. Remove rotor "A" from centre hub.

2. Position gearbox in neutral, rotate hub until line "B" if extended, coincides with the extreme edge of coil "C".

3. In this position the C.B. points "D" should just separate. The maximum point gap must be between 0.011″ and 0.019″.

4. To adjust points, slacken screw "E" and rotate eccentric cam "F" using small screwdriver.

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

CARBURETTOR DATA

Type	Del'lorto S.I. 27/23.
Main Jet	120
Pilot Jet	50
Starter Jet	60
Diffuser	BE. 3
Main Air Bleed	160

TOOLING

Same as for VSB 1 160 c.c. model G.S. with exception of the flywheel holding tool Pt. No. TOO 27383. An additional 3 holes of 19 mm. dia. must be drilled equidistant between the existing holes to accommodate the 6 rotor securing bolts which this model incorporates.

STEERING LOCK

To withdraw steering lock it is not necessary to remove steering column. Carefully prise off chrome cover and rivet. Insert key and rotate anti-clockwise and slide barrel unit out from housing.

If key is not available the barrel unit must be drilled out using a 9 mm.—10 mm. drill.

Caution: Take care when carrying out this operation to ensure drill is at 90° to chassis, otherwise lock housing can be damaged rendering the chassis U/S.

Note:

Replacement keys can be obtained from:

DOUGLAS (SALES AND SERVICE) LIMITED
Spares Department,
Kingswood,
Bristol

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