



**WORKSHOP MANUAL
FOR V7 SPORT - 750 S - 850 T**

Introduction

Purpose of this manual is to give the necessary instructions for overhauling and carrying out repairs in a rational way.

All data herein contained are meant to give a general knowledge on the main checking operations to be made when overhauling the different groups.

To this end, the manual contains many illustrations, drawings, diagrams and tables to assist in the stripping, checking and assembling operations.

This manual will also be a guidance to anybody who wishes to familiarize with the manufacturing characteristics of the various component parts of the V7 Sport. The knowledge of these will be an essential factor for performing a good job.

• **NOTE** - The terms «right» and «left» used in the text are to be considered as seen by the rider astride the machine.

IDENTIFICATION DATA

(See fig. 4)

Each machine is identified with a serial number which is impressed on the frame down tube and on the L/H crankcase.

This number appears also in the certificate of conformity and it is the only one valid for all legal purposes for the identification of the machine.

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MAIN FEATURES

V7 SPORT - S

ENGINE

Cycle:	4 stroke
Number of cylinders:	2
Cylinders disposition:	«V» type, 90°
Bore:	82.5 mm (3.247")
Stroke:	70 mm (2.756")
Displacement:	748.4 cc (45.66 cu.in.)
Compression ratio:	9.8 to 1
Max output:	53 HP at 6300 r.p.m.
Cylinder heads:	in light alloy, hemispherical, with special cast iron inserted seats
Crankshaft:	steel construction
Journal bearings:	AL-TIN alloy
Connecting rods:	steel construction with AL-TIN alloy thin wall bearings
Piston:	in light alloy

Valve gear

OHV, push rod operated via the camshaft.

Ignition

By battery with double contact breaker - automatic advance.

- Initial advance (fixed): 39°
- Automatic advance: 13°
- Total advance: 26°
- Contact breaker gap: 0.37-0.43 mm (.014-.017")
- Spark plugs: n. 240 for normal riding (points gap 0.6 mm = .023")
n. 275 for continued use at high speeds (points gap 0.5 mm = .019")

Fuel feed

Gravity from the tank - 2.5 W electrovalve controlled or in an emergency from a reserve tap on the R/H side of the machine.

Carburettors

2 Dell'Orto carburettors VHB 30 CD (right) and VHB 30 CS (left) with acceleration pump.

Lubrication

Oil pressure 3.8-4.2 kg/cm² = 54-60 lbs sq.in.).

Cooling

By air. Cylinder and cylinder heads are suitably finned.

Clutch

Dry discs, flywheel driven Lever controlled from the handlebar.

Starting

Electric starter with electromagnetic ratchet control and relay.
Starter button on R/H handlebar half.

Exhaust system

Twin pipes and mufflers.

TRANSMISSIONS

Primary

By helical gears in oil bath - engine-gearbox ratio 1 to 1.235 (17/21).

Speed change

5 speeds, constant mesh gears, frontal engagement, cush-drive incorporated, foot controlled.

Internal gear ratios:

- low gear 1 to 2 (14/28)
- second gear 1 to 1.388 (18/25)
- third gear 1 to 1.047 (21/22)
- fourth gear 1 to 0.869 (23/20)
- high gear 1 to 0.750 (24/18)

Secondary

Constant speed double joint cardan shaft.

- Bevel set ratio (gearbox-wheel) 1 to 4.375 (8/35)

Overall gear ratios:

- low gear 1 to 10.806
- second gear 1 to 7.499
- third gear 1 to 5.657
- fourth gear 1 to 4.695
- top gear 1 to 4.052

CYCLE PARTS

Frame:

tubular structure, duplex disassemblable cradle.

Suspensions:

telescopic front fork with hydraulic dampers. Rear swinging arm with externally adjustable springs.

Wheels

Spoked rims:

- Front WM 2/1.85 x 18"
- Rear WM 3/2.15 x 18"

Tyres

Michelin.

- Front 3.25 H 18 ribbed
- Rear 3.50 H 18 studded