

2,5 - 3 mm V.O.  
0,35 mm

Oldtimerworkshop.com



**DUCATI**

TELEF. 49 16 01 (four lines)

**MECCANICA S.p.A. - BOLOGNA**  
(BORGO PANIGALE) POST BOX 313

TELEGRAMS: "DUCATIMEC,, - BOLOGNA

TIPOGRAFIA RIGHI BOLOGNA

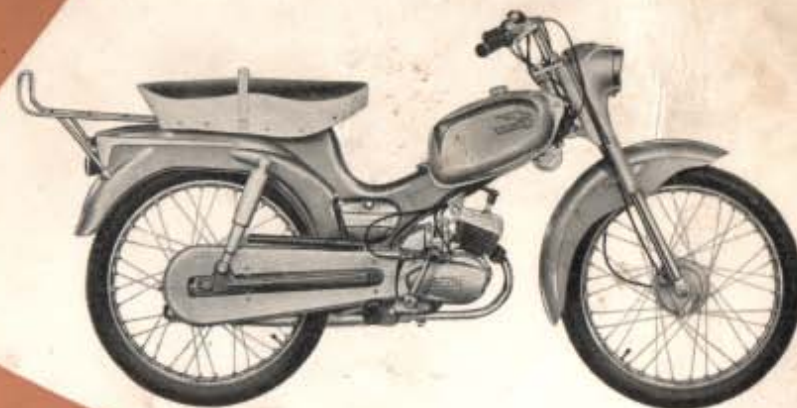


## **Piuma 48 export**

## **Sport 48 export**

**MOTIM**  
EXPORT IMPORT MOTOREN TUBENHOREN  
MAASSLUIS (Holland)

**instructions for the use**  
**and the maintenance**



**DUCATI MECCANICA S.p.A. - BOLOGNA - ITALY**

PRINTED IN ITALY

# DUCATI MOPEDS

MOTO DUCATI  
SPORT 48

= BLAUWE FLITS =

FRAAT NO. 12394

MOTOR NO. 002048

KENTEKEN NO. VE 17-93

WA POLIS NO. 67097.-

**PIUMA 48** (export)

**SPORT 48** (export)

**FEATURES - USE - MAINTENANCE**

---



1st. ISSUE - PRINTED DM - Mod. 566 - DECEMBER 1963 - 10.000

Every moped receives one copy of the present booklet.

### **GUARANTEE CARD**

**Every DUCATI MOPED is supplied with a "Guarantee Card,, which will be found in the toolbox.**

*Dear Sir,*

*We are very glad to welcome you among our clients, and feel sure that you will not fail to appreciate the magnificent performance of the 48 cc. DUCATI MOPEDS.*

*The 48 cc. DUCATI Mopeds are the outcome of long studies and long experience derived either from the production of Four-stroke engines of little and medial cubic capacity, or from the study of frames for light weight motorcycles. The vehicles derived from this experience are known for their stoutness, comfort and their cheap price, harmoniously combined with aesthetical, unmistakable qualities.*

*The 48 cc. DUCATI Mopeds are the vehicles for everybody.*

*The professional, the young sportman, the labourer and, everybody in general who needs, for his works or amusement a vehicle being economical in its purchase and its maintenance as well as sure in its use, will find in the DUCATI mopeds the satisfaction he requires.*

*The cheapness for its using (fuel consumption, tyre wear etc.) eliminates any competitor before the DUCATI moped.*

*Moreover, we wish to outline the current-as-a-proverb stoutness of the frame and the excellent quality of the engine which practically let the maintenance and repair expenses, be irrelevant.*

*The 48 cc. DUCATI Mopeds are extremely easy to use and their roadholding is excellent.*

*The DUCATI MECCANICA assures you that every vehicle delivered by the Factory has been strictly tested and therefore, if the instructions contained in this booklet will be scrupulously followed, the mechanical parts of the engine*

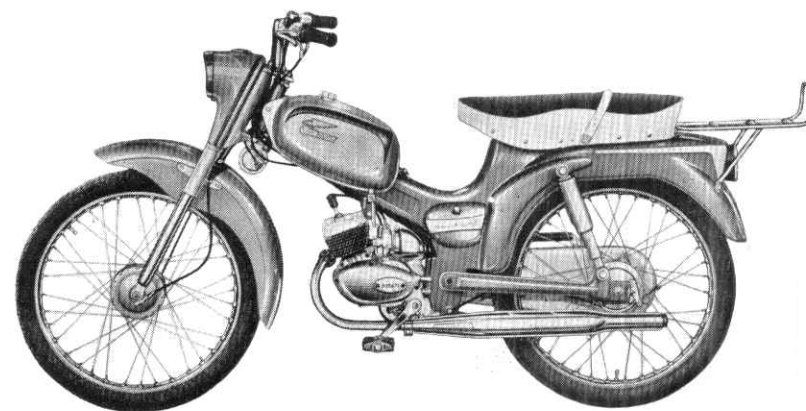
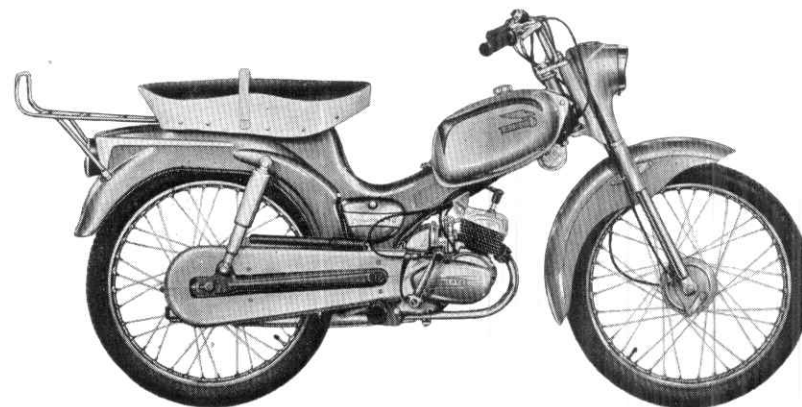
and of the frame should not, normally, undergo damages of a certain importance.

At any rate we warmly recommend always to apply, for any eventual overhauling or repair, to the **DUCATI SERVICE STATIONS** and to the **WORKSHOPS OF THE DUCATI DEALERS.**

If you desire that your vehicle be always efficient, you should — in case of repairs requiring the replacement of spares — always insist to have **DUCATI ORIGINAL SPARES.** With our thanks and congratulations for the happy choice you made with this model, please accept also our best wishes to remain for many years very proud to own a **DUCATI MOPED.**

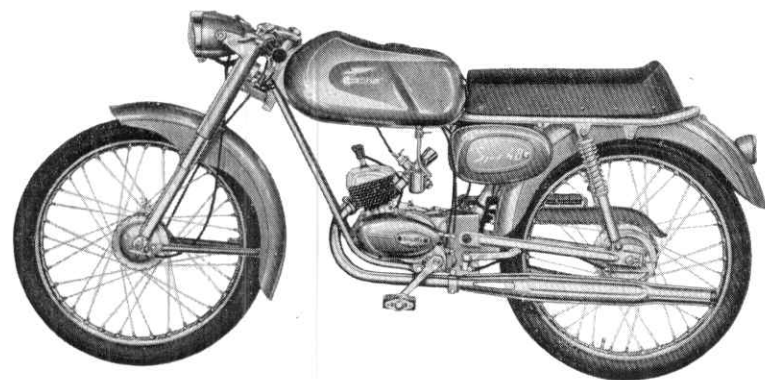
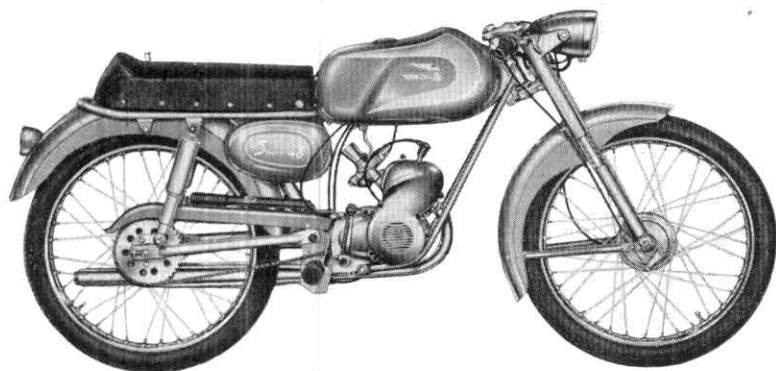
**DUCATI MECCANICA S.p.A.**

## **PIUMA 48 EXPORT DUCATI MOPED**



Blue and aluminium metallized Colours

## SPORT 48 EXPORT DUCATI MOPED



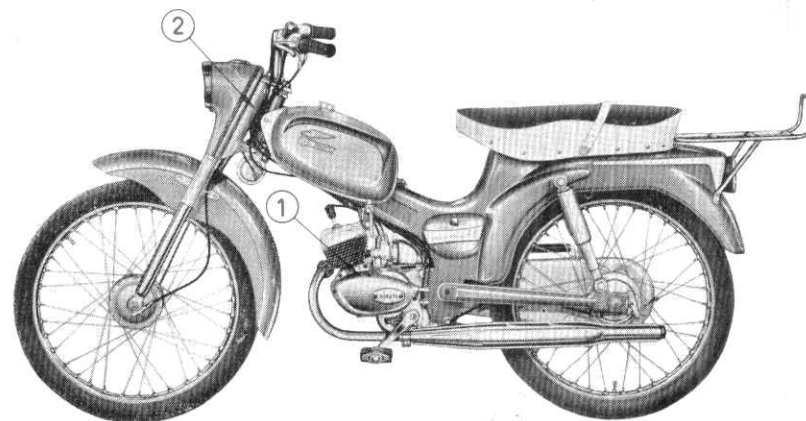
Red and Copper metallized colours

## IDENTIFICATION NUMBERS

Every DUCATI MOPED is identified by its frame and engine serial number.

The frame serial number is stamped on the front side of the steering tube.

The engine serial number is stamped on the half-crankcase, clutch side, near the cylinder.



1 - Engine serial number

2 - Frame serial number

## PRECAUTIONS TO BE FOLLOWED DURING THE INITIAL RUNNING-IN PERIOD

With a view to allow the exact and reciprocal « bedding-in » of all the mechanical parts of the moped and particularly not to interfere the long-lasting good working of the engine main parts, it is advisable, during the first period of use, not to force the engine nor to indulge too long at high revolutions, especially when travelling uphill.

To ensure a proper running-in of all moving parts, it is advisable to keep well within the maximum speeds resulting from the following table:

Distance travelled in Kms. or miles	Maximum speeds allowed in Kms. and Miles per hour		
	in bottom gear	in 2nd. speed	in top speed
Up to 500 Kms.	13	21	30
Up to 300 miles	8	13	19
From 500 to 1000 Kms.	20	32	45
From 300 to 600 miles	12	20	28

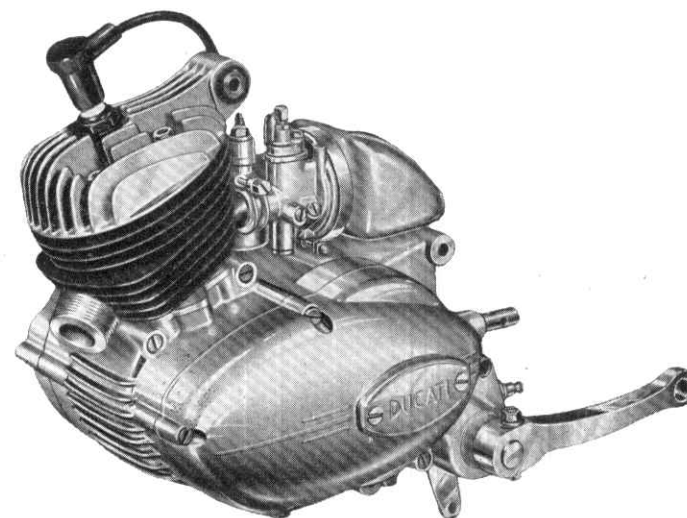
During the engine running-in period, care that the mixture be not lower than 6% of good fluid oil, density SAE 30; after this period a 5% of **Esso** ESSO MIX mixture can be regularly employed.

Moreover, it is recommended, after the first 500 kms. (300 miles):

- to control the tightness of the nuts which fix the cylinder head and the cylinder barrel to the crankcase as well as all the other screws;
- to readjust the contact breaker housed in the flywheel magnet.

*The more regularly and accurately the foregoing recommendations are followed, the longer will be the life of the engine and the fewer the overhauls and adjustments needed.*

## MAIN FEATURES



### ENGINE

- Single cylinder, two stroke; with cylinder axle inclined forward 25° from the vertical;
- bore: 38 mm. (1.4961 in.);
- stroke: 42 mm. (1.6535 in.);
- cylinder cubic capacity: 47.663 cc. (2.9067 cu. in.);
- compression ratio: 1 : 6.3: for P 48 and 1 : 9.5 for S 48;
- effective power: 2,2 HP (2.1699 BHP) at 5,800 revs. for P 48 and 4.2 HP (4.1425 BHP) at 8,600 revs. for S 48;
- combustion chamber with hemispherical ceiling;
- cylinder made of special nickel-cast-iron;
- connecting rod of special steel with SKF rollers at the big-end (crank pin) and with bronze bush at the little-end (gudgeon pin);
- BORG convex topped piston, made of special light alloy,



- with skirt in one piece and two piston rings;
- cylinder head cast in light alloy and closely finned.

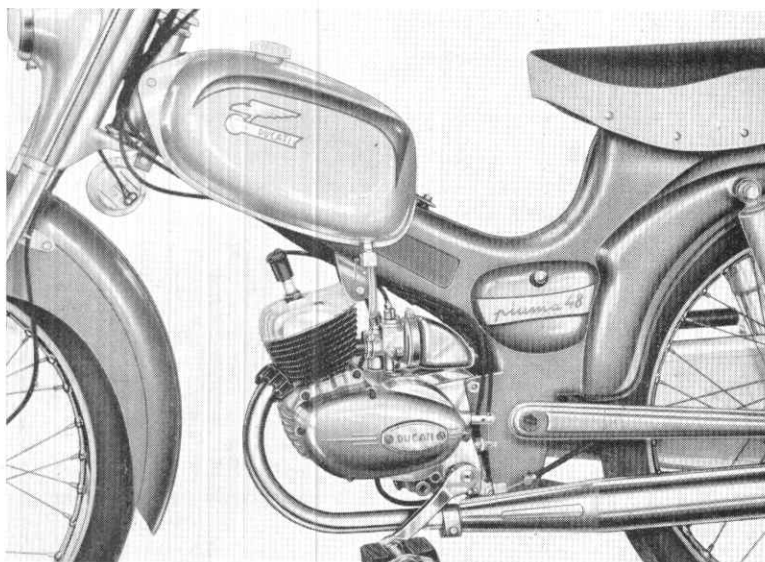
## TIMING

The timing is with crossed lights.

## PETROL FEED

The petrol is fed to the carburettor by gravity. The Carburettors are Dell'Orto, with intake muffler and inserted filter for the PIUMA 48; with bell shaped air intake for the SPORT 48.

Moped	Carburettor	Diffusor mm.	Main jet	Idle jet	Throttle valve	Tapered pin	Tapered pin fixing slot	Atomizer
P. 48	T4-12D1	12	58	—	50	A4	II	1-210
S. 48	UA-15S	15	68	45	65	C1	III	260



The petrol tank (for capacity and fuel stock see the table below) is provided with a three position tap: closed - open - reserve.


Models	Petrol tank capacity			Fuel reserved storage		
	Imp. gal.	lt.	U. S. gal.	Imp. gal.	lt.	U. S. gal.
PIUMA 48 export	1.2319	5.600	1.4793	0.1760	0.8	0.2113
SPORT 48 export	2.1118	9.600	2.5360	0.1760	0.8	0.2113

## LUBRICATION

The gearbox and the clutch are automatically lubricated by the oil contained in the engine crankcase.

The gears of the gearbox and the clutch allow the inner circulation of the oil in such a way as to lubricate all the parts of the engine.

The oil returns by gravity.

When the oil (  ESSO EXTRA MOTOR OIL 20 W - 30-40) is replaced in the crankcase, bear in mind that its oil content is of kgs. 0.250 (0.5512 lb) corresponding to lts. 0.300 approx. (0.0660 imp. gal. - 0.0792 U.S. gal.).

To pour the oil in the crankcase, take out the cover on the left side of the engine. The right level is obtained when the oil is about 5 mm. (0.1968 inch) under the lower rim of the opening.

## COOLING

The cylinder and its head are closely finned in order to promote the cooling of the engine (without centrifugal fan). Cooling by forced air (with centrifugal fan).

## IGNITION

The ignition is made by the flywheel magnet which is of the rotating inductor type.

The ignition advance is equal to  $15^{\circ} \div 18^{\circ}$ .

The gap between the breaker points is  $.3 \div .4$  mm. (0.0118  $\div$  0.0157 in.).

- Sparking plug Marelli CW 225 N or similar type for B 48 and P 48; sparking plug Marelli CW 260 N or similar type for S 48.

0,008 - 0,016 inch  
0,0118 - 0,0157 inch  
0,3 mm 0,4 mm

18° = 1 1/2 mm



## TRANSMISSION

The transmission components consist of a clutch and a gearbox. The clutch is of the multi-plate type steel discs, and steel covered by a special bond, moving in oil bath; it is assembled on the gear change main shaft.

It is operated by the lever applied to the left side of the handlebar.

The transmission from engine to gear change main shaft is by helicoidal gears and the reduction ratio is 3.666 : 1.

The gearbox has 3 speed gears and one for neutral position; gears in constant mesh, operated by a movable handgrip and a speed indicator placed on the left side of the handlebar.

The transmission ratios of the change gears are:

- in bottom speed 2.61 to 1
- in second speed 1.61 to 1
- in top speed 1.14 to 1

The transmission from gearbox to rear wheel is by chain and the speed ratio is 3.250 : 1 for P 48; 3.000 : 1 for S 48.

## STARTING


The starting of the engine is obtained by pedals with a gear in constant mesh with frontal free release, or by lever.

## FRAME

The DUCATI Mopeds frames are of smart appearance.

The PIUMA 48 has almost entirely, a high resisting steel stamped plate single-girder frame, while the SPORT 48 has a strongly resisting tubular frame in the shape of a double cradle.

## SUSPENSIONS

The front fork is long-stroke, telescopic: STAGNI streamlined spring fork in grease bath spring for PIUMA 48 and MARZOCCHI spring fork for SPORT 48 (each leg contains 20 cc. of  ESSO EXTRA SAE 30 oil).

The rear suspension consists of a swinging fork with spring SEBAC shock-absorbers for the PIUMA 48; with uncovered spring MARZOCCHI shock-absorbers for the SPORT 48.

## WHEELS

The wheels are of silver spoke type, with brilliant chromium steel rims, in normal profile, of 1.35" x 19" in size.

Small block tyres, 2.1/4" x 19" for PIUMA 48; ribbed 2.1/4" x 19" the front one, and in block tread 2.1/4" x 19" the rear one, for SPORT 48.

Inflating pressures:

- for the front wheel: 1.75 Kg/cm<sup>2</sup> (24.89 lb/sq. in.); for
- the rear wheel: 2.25 Kg/cm<sup>2</sup> (32.01 lb/sq. inch).

## BRAKES

The brakes are of the expanding type with two brake-shoes; diameter of the drums: 105 mm. (4.1338 inch); width of the shoes: 20 mm. (0.7874 inch), hand operated the front one and rearward pedal operated the rear one (the latter for the models PIUMA 48 with pedals; with pedal operated rear brake for the models PIUMA 48 with lever starting and for the models SPORT 48 with pedals and lever starter).

## SADDLE

Dual seat very comfortable and particularly fit for long distances.

## TOOLBOX

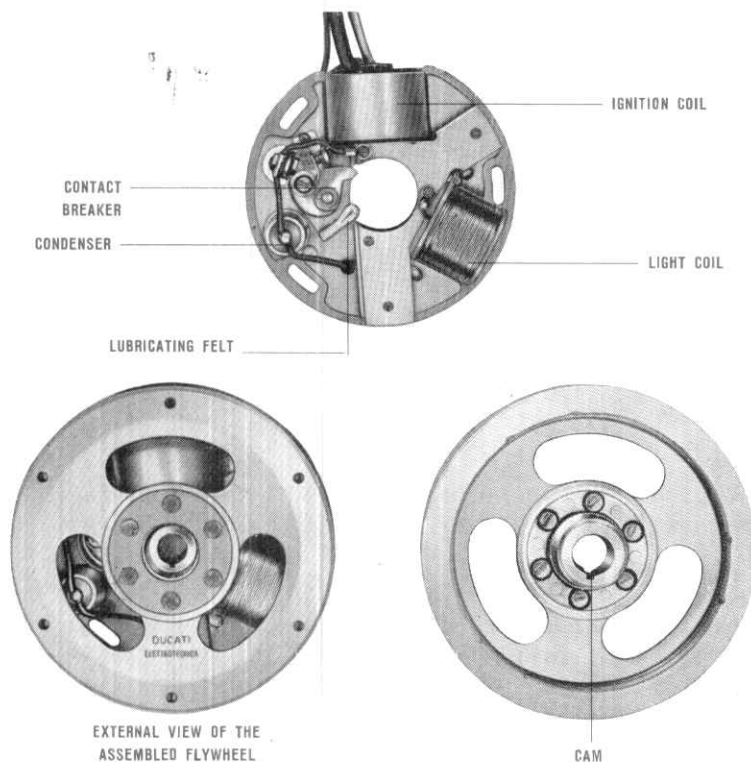
The toolbox is united with the frame, near the lower part of the saddle, in the model PIUMA 48.

A bigger toolbox, removable, in the SPORT 48.

## ELECTRICAL SYSTEM

The engine of the 48 cc. Mopeds has a flywheel magnet which incorporates two distinct generators: the magnet for the High Tension current which is necessary to the sparking plug, and the alternator for the Low Tension current feeding the lighting equipment. The alternator magnet is of the rotating inductor type it is to say the magnets, their polar expansions and the drum which supports them, are employed as a flywheel mass to overpass the engine passive phases. The different parts may be united in the two following groups:  
1) the flywheel itself which comprises: the magnets with

- their polar expansions, the drum which supports them and the hub which retains the cam;
- 2) the stator plate which comprises: the 2 rotors their respective cores, the contact breaker, the condenser and the leaf spring holding the lubricating felt.

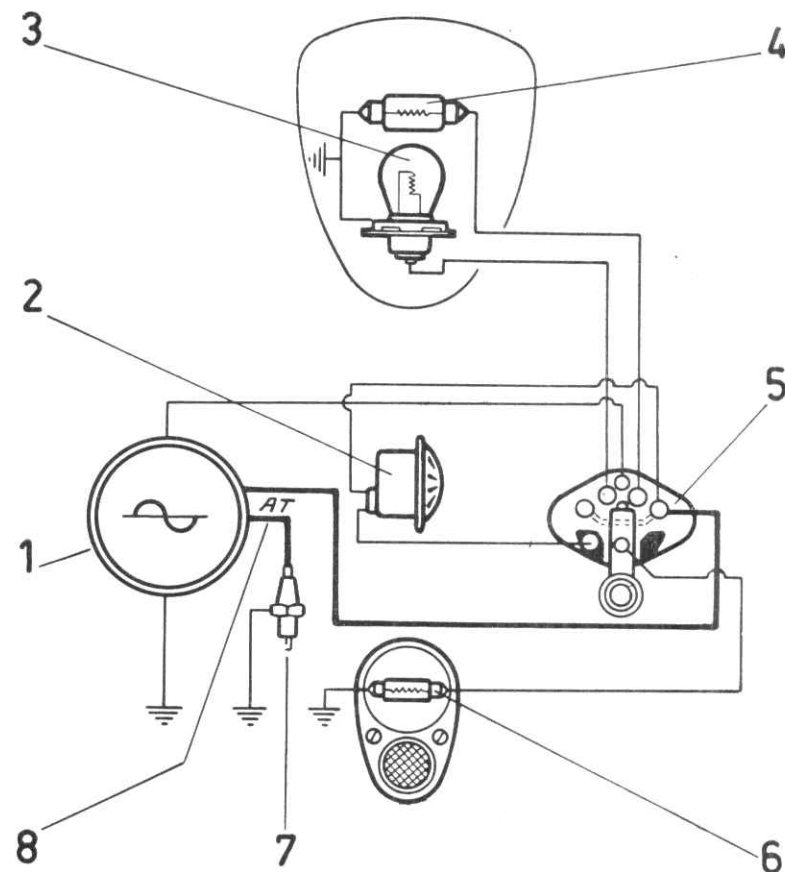


Successively the electrical system has been modified by adding the H.T. outer coil (See plan and legend at page 18). The front headlamp is twin-light: town light (6V - 15W) and anti-dazzling light (6V - 15W). On the handlebar, near the left handgrip, is placed the three-way switch controlling the lights in unit with the horn push button and the mass button stopping the engine. On the rear mudguard is placed the tail light with red light (6V - 3W) and the catarefractor.

## PLAN OF THE ELECTRICAL SYSTEM

Electrical scheme Aprilia (for PIUMA 48)

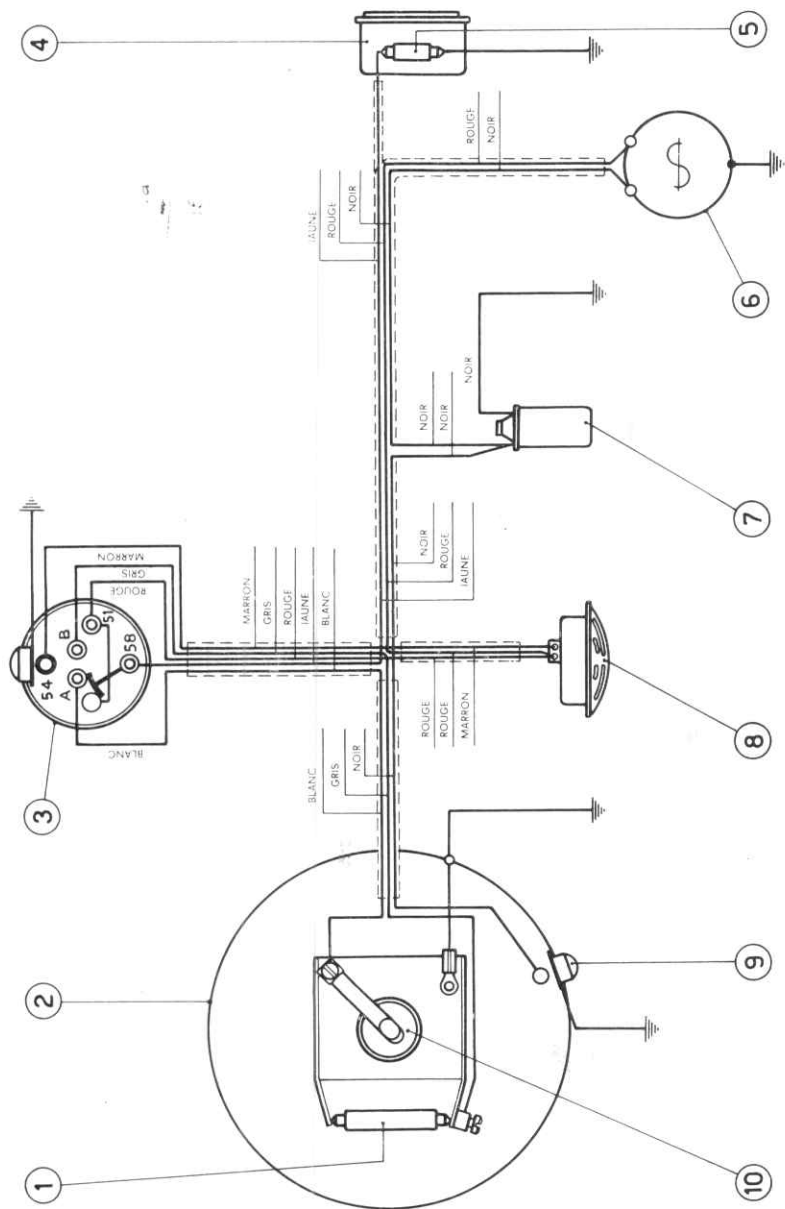
The electrical scheme for the S 48 is CEV and it is almost equal.



### KEY TO PARTS OF THE ELECTRICAL SCHEME

- 1 - Generator DUCATI 6V-18W
- 2 - Horn Aprilia K.A. 15W
- 3 - Anti-dazzling bulb 6V-15W
- 4 - Town light bulb 6V-15W
- 5 - Commutator for lights — horn push button — mass button Aprilia DIP 58
- 6 - Tail light bulb 6V-3W
- 7 - Ignition sparking plug Marelli CW 225 N
- 8 - Ignition cable

# PLAN OF THE ELECTRICAL CEV SYSTEM



## LEGEND

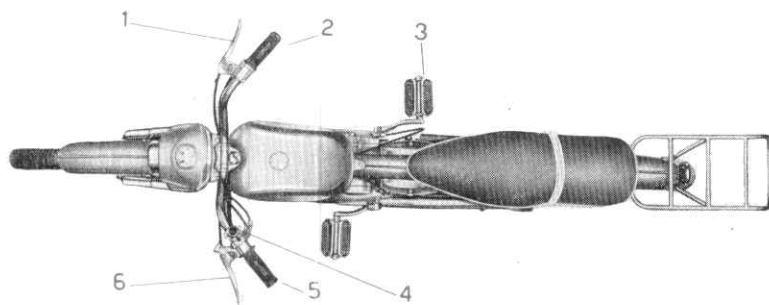
- 1 - Dip beam bulb 6V - 15W
- 2 - Headlight Mod. 115
- 3 - Set Mod. 8040
- 4 - Tail light Mod. 9279
- 5 - Bulb 6V - 3W
- 6 - Flywheel magnet
- 7 - H.T. Coil
- 8 - Horn
- 9 - Ground push button for engine stopping
- 10 - Main beam bulb 6V - 15W

## CONTROLS

On the left side half handlebar is placed the moving handgrip operating the gear change with the indicator of the inserted speed gear and the united clutch operating lever.

Near the gear change handgrip is placed the commutator for lights, the horn push button and the mass button; the right side handgrip is movable and is employed to operate the accelerator; before it, is found the hand lever operating the front brake.

The pedals are employed as a starter when they are moved frontward, and as a rearward pedal to brake the rear wheel, when they are moved in the opposite side (PIUMA 48 with pedals).



## LEGEND

- 1 - Front brake operating lever
- 2 - Accelerator operating handgrip
- 3 - Starter pedals and braking rearward pedal
- 4 - Commutator for lights - horn push button - mass button
- 5 - Gear change operating handgrip
- 6 - Clutch operating lever

## SPEED ADJUSTMENT

The speed adjustment is obtained by operating the little bush and the shagreened sheath deviating tube placed in the lower part of the speed exchange handgrip.

## ADJUSTING OF THE CHAIN TENSION

The chain should be lightly tensioned when the motorcycle is loaded with one person on the rear part of the saddle, or when the rear spring suspension is on half of its stroke.

## OVERALL DIMENSIONS AND WEIGHT

Dimensions	Piuma 48 export		Sport 48 export	
	mt.	ft.	mt.	ft.
Maximum length	1.910	6.2664	1.800	5.9055
Maximum width	0.720	2.3622	0.570	1.8701
Maximum height	0.990	3.2480	0.850	2.7887
Height at the saddle	0.770	2.5262	0.780	2.5591
Wheel base	1.170	3.8385	1.180	3.8713
Weight	Kg. 52.000	lb. 114.640	Kg. 54.000	lb. 119.050

## SUPPLIED TOOLS

Tyre inflator.

Spanner for sparking plug ch. 21 with screwdriver.

## PERFORMANCE

Model	In bottom speed km/h (M/H)	In 2nd. speed km/h (M/H)	In top speed km/h (M/H)
PIUMA 48 export	22 (14)	36 (22)	50 (31)
SPORT 48 export	35 (22)	57 (36)	80 (50)

Consumption at the economical speed of  $35 \div 40$  km/h. ( $22 \div 25$  M/H): 1 litre (0.2200 imp. gal. - 0.2642 U.S. gal.) of mixture at 5% (1 : 20) **Esso** ESSO MIX every 56 kms: (35 miles) for P 48; every 50 kms. (31 miles) for S. 48.

#### MAXIMUM DURATION OF CRUISING WITH ONE TANKFUL:

- PIUMA 48 EXPORT . . . about 314 kms. - 195 miles
- SPORT 48 EXPORT . . . about 480 kms. - 298 miles

Maximum gradient which can be overcome:

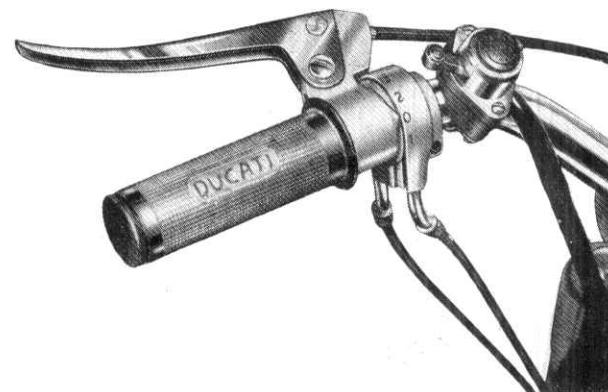
Model	In bottom speed	In 2nd. speed	In top speed
PIUMA 48 export	20%	13%	7%
SPORT 48 export	21%	14%	7%

## HOW TO USE THE 48 cc. MOPEDS

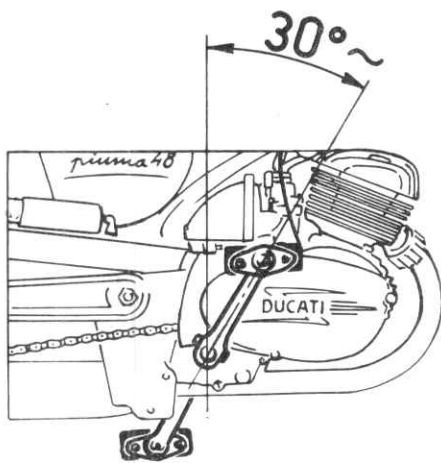
### FILLING UP AND STARTING THE ENGINE

Before starting the engine make sure that there is sufficient petrol in the tank, for the distance you wish to travel. See that the petrol cock is open and that the engine lubricating oil is at the right level, i.e. Kgs. 0.250 (0.5512 lb) corresponding to lts. 0.300 (0.0660 imp. gal - 0.0792 U.S. gal.). We recommend to use **Esso** ESSO EXTRA MOTOR OIL 20W - 30-40.

Having refuelled and checked the oil, see that the gear handgrip is in neutral position (position « 0 » on the handlebar) and press down the carburettor tickler to ensure the arrival of the mixture in the float chamber.



Now ride the vehicle. Draw the clutch lever toward the handlebar and put the pedal in the starting position as showed in the drawing, then cease slowly holding the clutch lever.



Now, turn the throttle handgrip for about one third of its travel, and press down the starter pedal.

If the engine does not start, execute again this operation opening more or less the throttle handgrip, but avoiding to press the carburettor tickler not to cause the carburettor being overflooded and the sparking plug turning dirty.

Once the engine has started, do not let it, at once, run at a very high number of revolutions, especially when it is cold; in this manner you will allow the oil to be warmed up, to easily circulate throughout the ducts and to reach all the moving parts which have to be lubricated.

## STARTING AND SETTING THE VEHICLE IN MOTION

Once the engine is running, it is necessary to set the vehicle in motion by completely drawing the clutch lever, by lightly accelerating the engine and by engaging the first speed gear (the speed indicator should be in the position 1). Then accelerate your engine a bit more and release gradually your hold on the clutch lever: your vehicle will begin slowly to go on under way. Once the clutch lever has been completely released, let your vehicle move at a speed of 5÷10 km/h. (3 to 6 M.P.H.) and then, in order to engage the 2nd. speed, close the throttle by turning back the handgrip fully and

quickly, and draw immediately after, the clutch lever, rotating the gearchange lever on the handlebar till position 2 is reached.

Open again the throttle and release the clutch.

To pass from the 2nd. to the top speed, execute again the operation.

To pass from the top speeds to the bottom ones, proceed as follows: close the throttle, draw the clutch lever, accelerate the engine for a little while so as to allow the inserting gears to be synchronized, engage the lower gear and at last release the clutch lever.

A good mopedrider will make use of the controls in an intelligent manner and at the right time; when riding uphill and the engine tends to slow down, he will change to a lower gear at once; he will not hang on to a high speed when the effort required from the engine, advises to use a lower gear.

The clutch should not be held longly disengaged with a gear engaged, because the clutch plates will become overheated and as a consequence a rapid wear of the material will be caused by friction.

Except in case of emergency, never use the brakes brutally when you are already near behind the obstacle, but throttle down the engine first, and then make use of the brakes. Bear in mind that insufficiently inflated tyres, weaken the roadholding qualities of the moped, cause a greater tyre wear and lower brake efficiency.

## HOW TO STOP THE MOTORCYCLE

In order to stop the vehicle, close the throttle completely (the engine will then act as a gentle brake), disengage the clutch and put the gear change lever on the neutral position; a slight use of the brakes will then stop the vehicle.

To stop the engine press the switch mass button on the handlebar.

Close the petrol cock, if the moped is not to be employed for some time.




## MAINTENANCE

On good maintenance depends the good condition of the vehicle.

By following the hereinafter fundamental directions you can avoid serious trouble and obtain an excellent performance from your vehicle.

The operations to be carried out have been subdivided in such a way as to take into consideration their succession on the basis of the mileage run by the moped. The following recommendations are, of course, merely indicative, because the need of lubrication, checking and adjustment depends from the nature of the road, the seasonal temperature, the length of the intervening period, a.s.o.

### After the first 500 Kms. (310 miles).

- Replace the oil contained in the engine crankcase (  ESSO EXTRA MOTOR OIL 20W - 30-40) in the measure of Kgs. 0.250 (0.5512 lb.) corresponding to lts. 0.300 (0.0660 imp. gal. - 0.0792 U.S. gal.) (to take out the oil, unscrew the lower cock after lightly bending the moped towards the right side);
- check that the fixing nuts secure the cylinder and the head to the crankcase ;
- check if the exhaust union nut is blocked;
- check the distance between the sparking plug electrodes which should be about 0.5 mm. (0.0197 inch.) and clean their points with a small wire brush and some petrol;
- clean the mixture filter in the carburetter;
- adjust the brakes;
- check the tyre pression with a manometer.

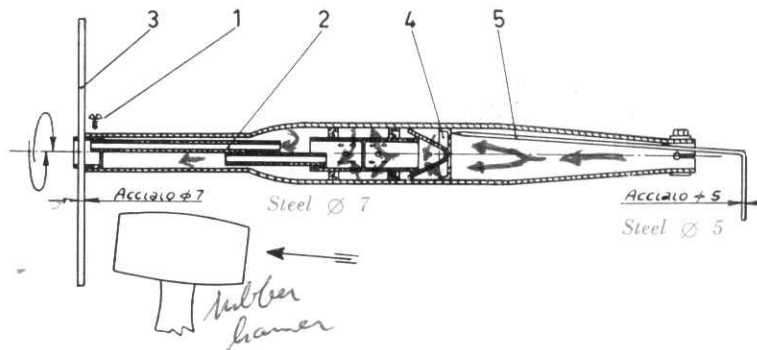
### Every 2,000 Kms. (1240 miles).

- Carry out the same operations mentioned in the preceding paragraph;
- clean the platinum plated points of the ignition contact breaker with a rag damped in petrol and check the distance between the points which should be .3÷.4 mm; (0.0118 to 0.0157 inch.);

- dampen with 2 drops (not more) of thin mineral oil the lubricating wick of the contact breaker cam;
- check the ignition timing which should be  $15^{\circ} \div 18^{\circ}$ ;
- readjust the clutch (the wear on its linings might otherwise let it slip);
- clean and slightly grease the transmission chain and, if necessary, adjust the tension by means of the chain tensioners on the fork.

### Every 4,000 Kms. (2480 miles).

- Disassemble the silencer, the exhaust pipe, the cylinder head and the cylinder;
- Carefully remove the carbon from the head, the piston, the cylinder exhaust duct (this should be done by a DUCATI Service Station); when the piston is assembled again, the arrow carved on its upper side must follow the moving direction, it is to say it must have the same direction of the exhaust duct; when the cylinder head is assembled again, take care to tighten the nuts gradually going many times from one to the diametrically opposite other;
- clean the exhaust silencer and proceed by:
  - a) unscrewing the screw nr. 1;
  - b) remove the inner tube nr. 2 by means of drift nr. 3 introduced in the appropriate hole at the end of the same tube. To carry out this operation strike with a mallet and in the same time rotate the tube nr. 2 in alternate direction as explained in the figure;



- c) remove the carbon on tube 2 employing a flame and a wire brush;
- d) scrape off the scale from the holes on the bottom 4, *not with a flame*, but by the pin 5, as shown in the figure;
- remove the carburetter air filter and wash it in petrol or kerosene so that all impurities may be taken out from the gauze;
- clean the carburetter petrol chamber and the running and pilot jets;
- check and eventually adjust the side clearance of the rear fork joint adjusting its spindle (which threaded end is screwed in the fork hub) and the fixing jam nut.

## GENERAL CLEANLINESS

The vehicle should be washed and dried periodically according to the length of the time it has been employed and the state of the roads. Clean the engine with kerosene and wipe it dry with clean rags; wash down the painted parts of the frame with water, using a sponge for washing and a shammy leather for drying. Never use solvents, petrol, alcohol or parafin, otherwise the paint will look flat; grease the chromium plated parts with vaseline and polish with a shammy leather.

## LOCATING AND REMEDYING FAULTS

The following list contains several faults which may arise and the causes which may have provoked them.

### ENGINE DOES NOT START EASILY

First of all, ascertain that there is enough petrol and that the cock is turned on. (A=open, R=reserve). If these are in order, the fault may be one or more of the following causes:

CAUSE	REMEDY
The petrol pipe is clogged.	Blow through it until the obstacle is removed.
The filter for the petrol arriving in the carburetter is dirty.	Remove the filter and clean the gauze by air blast.
The petrol cock filter is dirty.	Remove the filter and clean the gauze by air blast.
The carburetter float is stuck.	Remove the float and clean out the float chamber (this should be done by a Ducati Service Station).
The float is cracked.	Replace it (this should be done by a Ducati Service Station).
The jet is clogged.	Remove and clean it with strong blows of air.
The cable between the ignition coil and the sparking plug is broken or sparking externally.	Check the cable insulation and, if necessary, replace cable (in a Ducati Service Station).

CAUSE	REMEDY
Defective sparking plug.	Change or clean the plug, making sure that the insulating core is not damaged, that there are no carbon deposits on the electrodes and that the gap between the points of the same electrodes does not exceed 0.5 mm. (0.0197 inch).
The contact breaker points do not open.	Check the position of the fixed contact point (at a Ducati Service Station).
The contact breaker rocker arm is seized on its pivot.	Check the smoothness of the rocker arm and lubricate the pivot (at a Ducati Service Station).
The contact breaker points are dirty.	Clean the points with a rag dampened in petrol (at a Ducati Service Station).
The capacitor is broken or is in short circuit.	Replace the capacitor at a Ducati Service Station.
Compression is lacking.	Check whether the sparking plug is tightly screwed in and the piston rings perfect seal (at a Ducati Service Station).

### THE ENGINE OUTPUT IS LOW

CAUSE	REMEDY
Irregular feed of petrol to the carburetter.	Clean carburetter filter, cock filter and petrol pipe.
The main jet is partially obstructed.	Clean it out by a blow of air.

CAUSE	REMEDY
The carburetter valve does not open completely.	Readjust the valve opening acting on the adjustment screw of the carburetter Bowden cable (at a Ducati Service Station).
The float needle does not close properly.	Clean the carburetter and especially the needle seat (at a Ducati Service Station).
Petrol is of bad quality.	Empty the tank and refill it at a reliable station.
The sparking plug is not of the right type.	If the sparking plug overheats, you will have preignition, knocking and misses, especially at high revolutions; if the sparking plug remains too cold, you will have no ignition because the electrodes will short-circuit. Use a sparking plug of the appropriate thermic degree; we suggest a sparking plug having a thermal figure of 225 on the Bosch international scale for P 48 and 260 for S 48.
The sparking plug works loose.	Tighten the plug down well. A copper washer should always be placed between the sparking plug and its seat in the cylinder head.
The sparking plug cable sparks externally.	Replace the cable or insulate it better (at a Ducati Service Station).
The sparking plug gap is too wide.	Adjust the gap to its proper width (about 0.5 mm.) (0.0197 inch).
The sparking plug electrodes are dirty.	Clean them.
The contact breaker opening is excessive.	Readjust the opening to a maximum of 0.3 ÷ 0.4 mm. (0.0118 to 0.0157 inch.) (at a Ducati Service Station).

CAUSE	REMEDY
The secondary winding of the coil is short-circuited or broken.	Replace the coil (at a Ducati Service Station).
The silencer is almost completely clogged.	Clean the silencer, to ensure the free discharge of the spent gases.

#### IF THE ENGINE BEGINS TO WORK IN 4 STROKES

THE CAUSE MAY BE	REMEDY
The filter of the carburetter air intake is overcovered with dust.	Wash the filter with petrol.
The carburetter is not well regulated.	Regulate the carburetter (in a Ducati Service Station).
The float does not keep its right level.	Repair it (in a Ducati Service Station).
The cylinder gas openings are half clogged.	Scrape off the carbon and wash carefully.
The exhaust pipe and the silencer are clogged.	Scrape off the carbon and wash carefully.

11 April 1967 5340,6 km

Bobine

