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**PIAGGIO**

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# WORKSHOP MANUAL

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## MSS Fly 50 4T

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# WORKSHOP MANUAL

## MSS Fly 50 4T

The descriptions and illustrations given in this publication are not binding. While the basic specifications as described and illustrated in this booklet remain unchanged, PIAGGIO-GILERA reserves the right, at any time and without being required to update this publication beforehand, to make any changes to components, parts or accessories, which it considers necessary to improve the product or which are required for manufacturing or construction reasons.

Not all versions shown in this publication are available in all countries. The availability of single models should be checked at the official Piaggio sales network.

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PIAGGIO & C. S.p.A. - After sales  
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# WORKSHOP MANUAL

## MSS Fly 50 4T

This workshop manual has been drawn up by Piaggio & C. Spa to be used by the workshops of Piaggio-Gilera dealers. This manual is addressed to Piaggio service mechanics who are supposed to have a basic knowledge of mechanics principles and of vehicle fixing techniques and procedures. Any important changes made to the vehicles or to specific fixing operations will be promptly reported by updates to this manual. Nevertheless, no fixing work can be satisfactory if the necessary equipment and tools are unavailable. It is therefore advisable to read the sections of this manual relating to specific tools, along with the specific tool catalogue.

**N.B.** Provides key information to make the procedure easier to understand and carry out.

**CAUTION** Refers to specific procedures to carry out for preventing damages to the vehicle.

**WARNING** Refers to specific procedures to carry out to prevent injuries to the repairer.



**Personal safety** Failure to completely observe these instructions will result in serious risk of personal injury.



**Safeguarding the environment** Sections marked with this symbol indicate the correct use of the vehicle to prevent damaging the environment.



**Vehicle intactness** The incomplete or non-observance of these regulations leads to the risk of serious damage to the vehicle and sometimes even the invalidity of the guarantee.

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## INDEX OF TOPICS

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## INDEX OF TOPICS

CHARACTERISTICS

CHAR

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## **Rules**

This section describes general safety rules for any maintenance operations performed on the vehicle.

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### **Safety rules**

- If work can only be done on the vehicle with the engine running, make sure that the premises are well-ventilated, using special extractors if necessary; never let the engine run in an enclosed area. Exhaust fumes are toxic.
  - The battery electrolyte contains sulphuric acid. Protect your eyes, clothes and skin. Sulphuric acid is highly corrosive; in the event of contact with your eyes or skin, rinse thoroughly with abundant water and seek immediate medical attention.
  - The battery produces hydrogen, a gas that can be highly explosive. Do not smoke and avoid sparks or flames near the battery, especially when charging it.
  - Fuel is highly flammable and it can be explosive given some conditions. Do not smoke in the working area, and avoid open flames or sparks.
  - Clean the brake pads in a well-ventilated area, directing the jet of compressed air in such a way that you do not breathe in the dust produced by the wear of the friction material. Even though the latter contains no asbestos, inhaling dust is harmful.
- 

### **Maintenance rules**

- Use original PIAGGIO spare parts and lubricants recommended by the Manufacturer. Non-original or non-conforming spares may damage the vehicle.
  - Use only the appropriate tools designed for this vehicle.
  - Always use new gaskets, sealing rings and split pins upon refitting.
  - After removal, clean the components using non-flammable or low flash-point solvents. Lubricate all the work surfaces, except tapered couplings, before refitting these parts.
  - After refitting, make sure that all the components have been installed correctly and work properly.
  - For removal, overhaul and refit operations use only tools with metric measures. Metric bolts, nuts and screws are not interchangeable with coupling members with English measurement. Using unsuitable coupling members and tools may damage the vehicle.
  - When carrying out maintenance operations on the vehicle that involve the electrical system, make sure the electric connections have been made properly, particularly the ground and battery connections.
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## Vehicle identification

### VEHICLE IDENTIFICATION

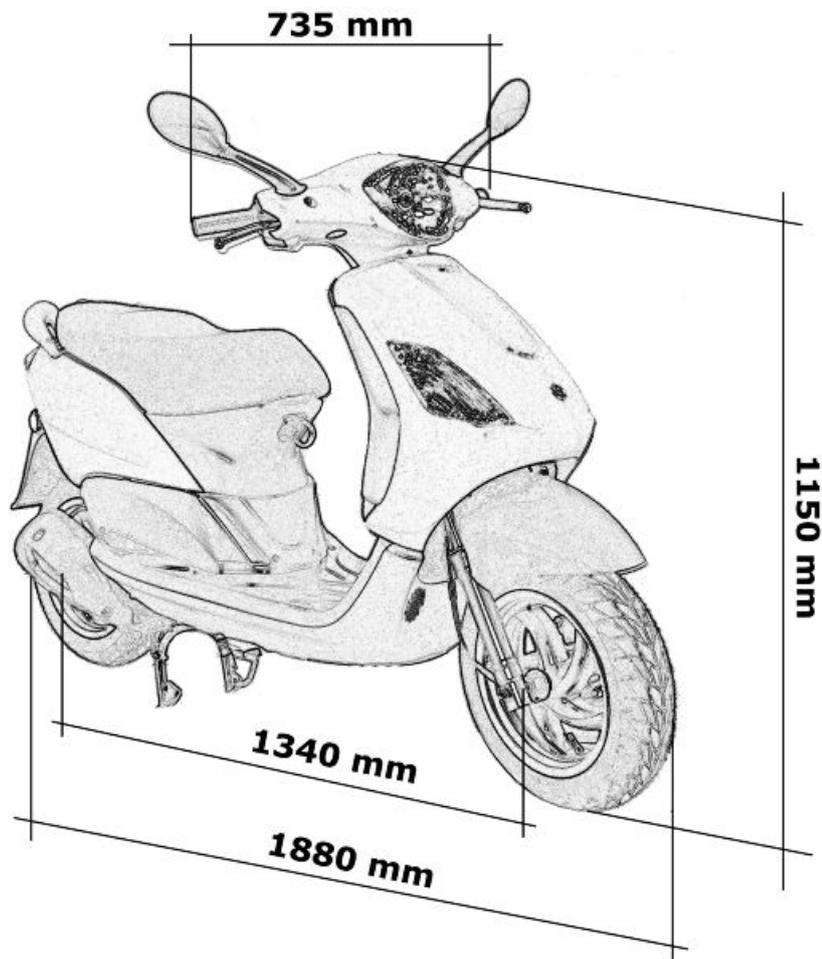
Specification	Desc./Quantity
Engine prefix	C442M ÷ 1001
Chassis prefix	ZAPM44200 ÷ 1001



## Dimensions and mass

### WEIGHT AND DIMENSIONS

Specification	Desc./Quantity
Length	1,880
Maximum height	1150 mm
Seat height	785
Width	735
Wheelbase	1,340
Kerb weight	105 kg



**Engine**

**ENGINE**

Specification	Desc./Quantity
Engine type	Single cylinder 4-stroke Piaggio Hi-PER4
Bore x stroke	39 X 41.8 mm
Cubic capacity	49.93 cm <sup>3</sup>
Compression ratio	11.5 :1
Timing system	single overhead camshaft, driven by a chain to the left side.
Depression carburettor	KEIHN CVK 18
CO adjustment	3,2% ± 0,5
Engine idle	1900 ÷ 2000 rpm.
Air filter	Sponge, soaked in a mixture (50% SELENIA Air Filter Oil and 50% unleaded petrol).
Starting system	electric starter/kick-starter
Lubrication	Engine lubrication with lobe pump (inside the crankcase), chain-driven, and double filter: mesh and centrifugal.
Fuel supply	Gravity feed, with unleaded petrol (with a minimum octane rating of 95) with carburettor.
Max. power (crankshaft)	2,5 KW (3,4 CV) at 6500 rpm.
Cooling system	forced coolant circulation system
Valve clearance	intake: 0.10 mm discharge: 0.15 mm

## Transmission

### TRANSMISSION

Specification	Desc./Quantity
Transmission	With automatic expandable pulley variator, torque server, V-belt, automatic clutch, gear reduction unit.

## Capacities

### CAPACITY

Specification	Desc./Quantity
Rear hub oil	Quantity: approx. 85 cc
Engine oil	Capacity: approx. 850 cm <sup>3</sup>
Fuel tank capacity	approx. 7.2 litres (of which 1.5 l is reserve)

## Electrical system

### IMPIANTO ELETTRICO

Specification	Desc./Quantity
Type of ignition	Capacitive discharge type electronic ignition, with incorporated high voltage coil
Ignition advance variable, with microprocessor (before T.D.C.)	10° at 1800-2000 rpm 26° at 5000-6000 rpm
Spark plug	Champion RG 4 PHP Champion RG 4 HC
Alternative spark plug	DENSO U24ESR-NB
Battery	12V-9Ah
Fuse	10A
Generator	single-phase alternating current

## Frame and suspensions

### FRAME AND SUSPENSION

Specification	Desc./Quantity
Type of chassis	Welded tubular steel chassis with stamped sheet reinforcements.
Front suspension	Telescopic mechanical fork, 76-mm travel.
Rear suspension	Single hydraulic shock absorber, 72.5-mm travel

## Brakes

### BRAKES

Specification	Desc./Quantity
Front brake	Disc brake (Ø 200 mm) with hydraulic control (lever on the right end of the handlebar) and floating calliper.
Rear brake	drum brake (Ø 140 mm) with mechanical linkage.(l.h. brake lever).

## Wheels and tyres

### WHEELS AND TYRES

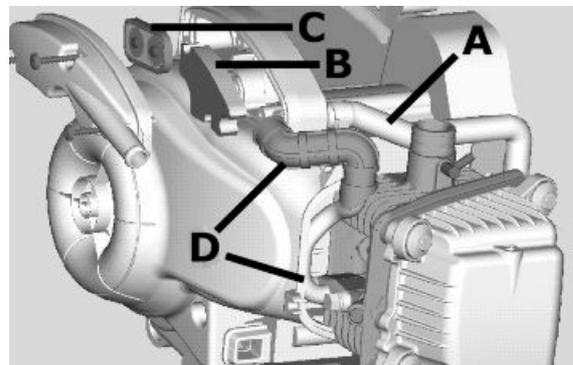
Specification	Desc./Quantity
Front wheel rim	Die-cast aluminium alloy 3.50 x 12"
Front tyre	Tubeless, 120/70-12"
Rear wheel rim	Die-cast aluminium alloy: 3.00"x12"
Rear tyre	Tubeless, 120/70 - 12"
Front tyre pressure	1.8 bar
Rear tyre pressure	2 bar
Rear wheel pressure (rider and passenger):	2.3 bar

**N.B.**

**CHECK AND ADJUST TYRE PRESSURE WITH TYRES AT AMBIENT TEMPERATURE. ADJUST PRESSURE ACCORDING TO THE WEIGHT OF RIDER AND ACCESSORIES.**

## Secondary air

- The SAS (Secondary air housing) operating principle for 50 4T engines is similar to that for 50 2T engines; the only difference lies in how air is sucked in the external and the external side of the transmission compartment.
- Air is taken in along tube «A» (to the cylinder side) and, after been cleaned through the filter «B», gets into the reed valve «C» to be directed towards the head through a flexible pipe and then a rigid one «D» flanged to the head. In this way, the air reaches the discharge pipe to increase the amount of oxygen in the unburned gases before the catalytic converter, thus helping a better reaction of this device.



## Carburettor

## 50cc Version

## Kehin

### KEHIN CARBURETTOR

Specification	Desc./Quantity
Type	CVK 18
Throttle valve diameter:	Ø 18,5
Choke diameter	Ø 17
Marking on body:	Z61B
Maximum thrust	75
Maximum air thrust (on body)	Ø 1,1
Marking on conical needle:	NGBA
Throttle spring:	100 ÷ 159 gr
Minimum thrust	35
Idle air jet (on body):	Ø 1,4
Initial opening - idle mixture screw:	1 3/4
Starter jet	40
Starter air nozzle (on the body):	Ø 1.5
Choke needle travel:	11,5 mm

## Tightening Torques

### FRONT BRAKE

Name	Torque in Nm
Brake fluid pump - hose fitting	16 ÷ 20 Nm
Brake fluid pipe-calliper fitting	19 ÷ 24
Calliper tightening screw	24 ÷ 27
Disc tightening screw	8 ÷ 10
Oil bleed screw	7 ÷ 10

### FRONT SUSPENSION

Name	Torque in Nm
Lower fork fixing screw	15 ÷ 20
Front wheel axle nut	45 - 50

### STEERING ASSEMBLY

Name	Torque in Nm
Upper steering ring nut	35 ÷ 40
Steering lower ring nut	8 ÷ 10
Handlebar fixing screw	50 ÷ 55

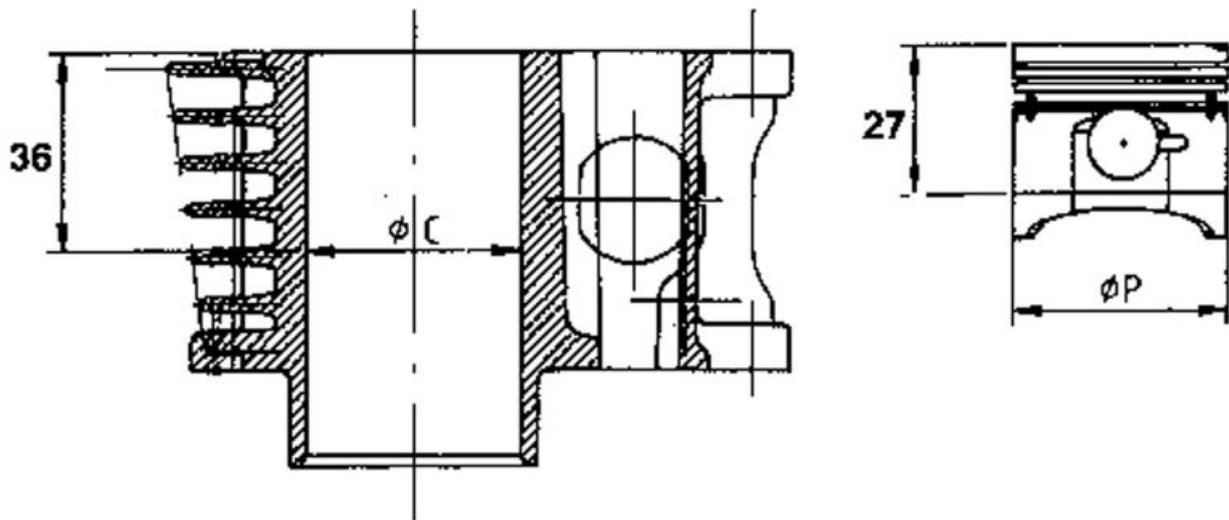
### CHASSIS

Name	Torque in Nm
Swinging arm - engine pin*	33 ÷ 41
Frame/swing-arm bolt (*)	64÷72
Shock absorber - chassis nut (*)	20 to 25 Nm
shock absorber - engine pin (*)	33 to 41 N·m
Rear wheel axle (*)	104÷126 N·m
Centre-stand mounting bracket bolt	25÷30 N·m
Centre-stand mounting bracket screw	20÷25 N·m
Side stand fixing screw	12 ÷ 20
Side stand bracket fixing screw	15 ÷ 20

## Overhaul data

## Assembly clearances

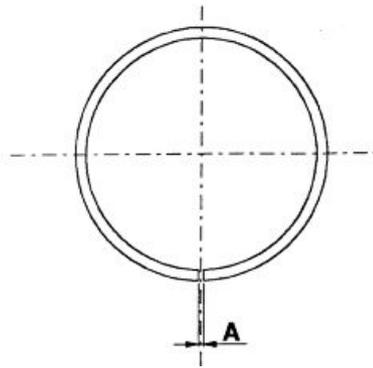
## Cylinder - piston assy.



## CONNECTION PISTON AND CYLINDER

Name	Initials	Cylinder	Piston	Play on fitting
Cylinder (with asso piston/right way)	A	38,993 ÷ 39,000	38,954 ÷ 38,961	0.032 ÷ 0.046
Cylinder (with shiram piston)	A	38,993 ÷ 39,000	38,949 ÷ 38,956	0.037 ÷ 0.051
Cylinder (with asso piston/right way)	B	39,000 ÷ 39,007	38,961 ÷ 38,968	0.032 ÷ 0.046
Cylinder (with shiram piston)	B	39,000 ÷ 39,007	38,956 ÷ 38,966	0.037 ÷ 0.051
Asso piston/right way (with asso cylinder/right way)	C	39,007 ÷ 39,014	38,968 ÷ 38,975	0.032 ÷ 0.046
Asso piston/right way (with shiram cylinder)	C	39,007 ÷ 39,014	38,963 ÷ 38,970	0.037 ÷ 0.051
Shiram piston (with asso cylinder/right way)	D	39,014 ÷ 39,021	38,975 ÷ 38,982	0.032 ÷ 0.046
Shiram piston (with shiram cylinder)	D	39,014 ÷ 39,021	38,970 ÷ 38,977	0.037 ÷ 0.051
Cylinder 1st oversize	A1	39.193 ÷ 39.200	39.154 ÷ 39.161	0.032 ÷ 0.046
Cylinder 1st oversize	B1	39.200 ÷ 39.207	39.161 ÷ 39.168	0.032 ÷ 0.046
Piston 1st oversize	C1	39.207 ÷ 39.214	39.168 ÷ 39.175	0.032 ÷ 0.046
Piston 1st oversize	D1	39.214 ÷ 39.221	39.175 ÷ 39.182	0.032 ÷ 0.046
Cylinder 2nd oversize	A2	39.393 ÷ 39.400	39.354 ÷ 39.361	0.032 ÷ 0.046
Cylinder 2nd oversize	B2	39.400 ÷ 39.407	39.361 ÷ 39.368	0.032 ÷ 0.046
Piston 2nd oversize	C2	39.407 ÷ 39.414	39.368 ÷ 39.375	0.032 ÷ 0.046
Piston 2nd oversize	D2	39.414 ÷ 39.421	39.375 ÷ 39.382	0.032 ÷ 0.046
Cylinder 3rd oversize	A3	39.593 ÷ 39.600	39.554 ÷ 39.561	0.032 ÷ 0.046
Cylinder 3rd oversize	B3	39.600 ÷ 39.607	39.561 ÷ 39.568	0.032 ÷ 0.046
Piston 3rd oversize	C3	39.607 ÷ 39.614	39.568 ÷ 39.575	0.032 ÷ 0.046
Piston 3rd oversize	D3	39.614 ÷ 39.621	39.575 ÷ 39.582	0.032 ÷ 0.046

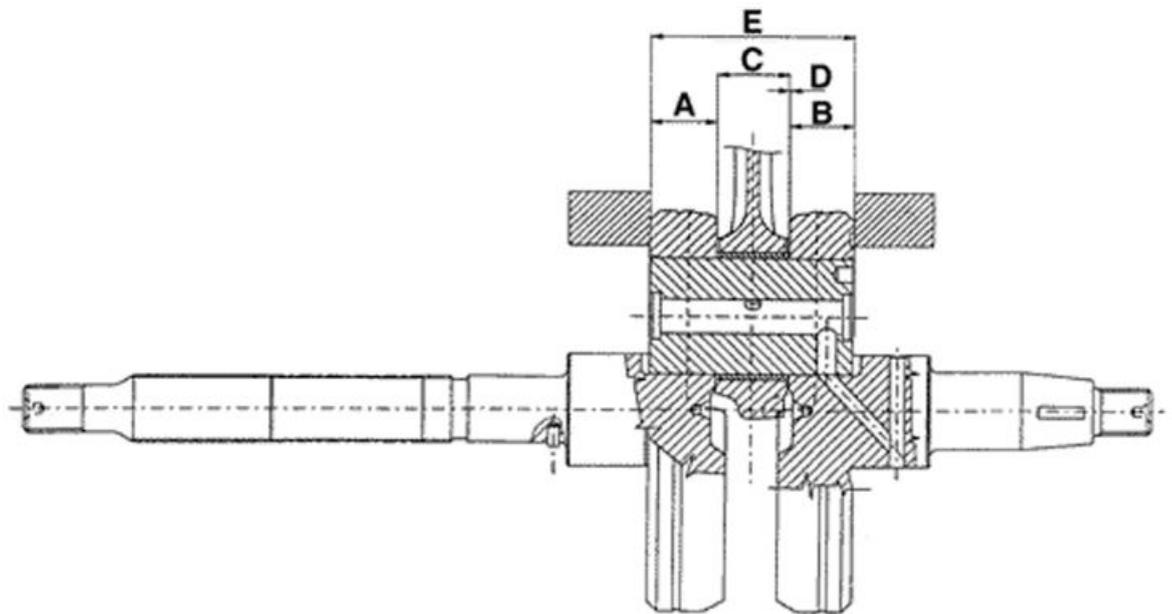
**Piston rings**



**SEAL RINGS**

<b>Name</b>	<b>Description</b>	<b>Dimensions</b>	<b>Initials</b>	<b>Quantity</b>
1st Compression ring		39 x 1	A	0.08 ÷ 0.20
2nd Compression ring		39 x 1	A	0.05 ÷ 0.20
Oil scraper ring		39 x 2	A	0.20 ÷ 0.70
1st Compression ring 1st Oversize		39.2 x 1	A	0.08 ÷ 0.20
2nd Compression ring 1st Oversize		39.2 x 1	A	0.05 ÷ 0.20
Oil scraper ring 1st Oversize		39.2 x 2	A	0.20 ÷ 0.70
1st Compression ring 2nd Oversize		39.4 x 1	A	0.08 ÷ 0.20
2nd Compression ring 2nd Oversize		39.4 x 1	A	0.05 ÷ 0.20
Oil scraper ring 2nd Oversize		39.4 x 2	A	0.20 ÷ 0.70
1st Compression ring 3rd Oversize		39.6 x 1	A	0.08 ÷ 0.20
2nd Compression ring 3rd Oversize		39.6 x 1	A	0.05 ÷ 0.20
Oil scraper ring 3rd Oversize		39.6 x 2	A	0.20 ÷ 0.70

**Crankcase - crankshaft - connecting rod**



**END PLAY BETWEEN DRIVING SHAFT AND CONNECTING ROD**

Name	Description	Dimensions	Initials	Quantity
Half-shaft, transmission side		14 +0 -0.005	A	
Flywheel-side half-shaft		16 +0 -0.005	B	
Connecting rod		14.8 +0.05 -0	C	
Spacer tool		45.00 / Fits and clearances D = 0.15 ÷ 0.30	E	

**Slot packing system**

N.B.

MEASUREMENT "A" TO BE TAKEN IS A VALUE OF PISTON RE-ENTRY, IT INDICATES BY HOW MUCH THE PLANE FORMED BY THE PISTON CROWN FALLS BELOW THE PLANE FORMED BY THE TOP OF THE CYLINDER. THE FURTHER THE PISTON GETS INSIDE THE CYLINDER, THE THINNER THE HEAD GASKET TO BE APPLIED SHOULD BE (TO RECOVER THE COMPRESSION RATIO) AND VICE VERSA.

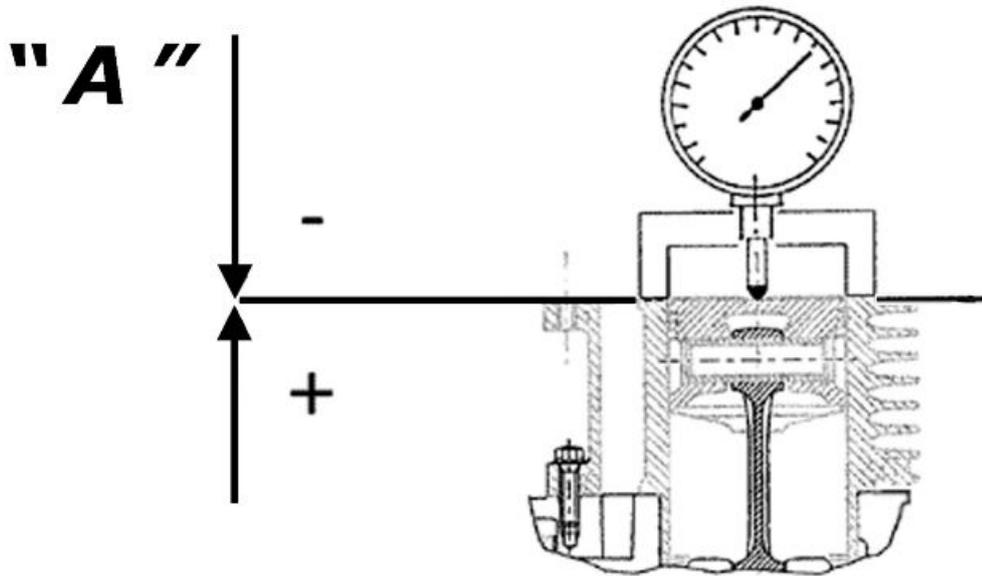
**Characteristic**

Shimming system to control the compression ratio

CR: 11.1 ÷ 12.9

**PISTON PROTRUSION CHECK**

Name	Measure A	Thickness
shimming_1	0.05 ÷ 0.25	0.35
shimming_2	0.25 ÷ 0.40	0.25



**Products**

**TABLE OF RECOMMENDED PRODUCTS**

Product	Description	Specifications
AGIP ROTRA 80W-90	rear hub oil	SAE 80W/90 Oil that exceeds the requirements of API GL3 specifications
AGIP CITY HI TEC 4T	Oil to lubricate flexible transmissions (brakes, throttle control and odometer)	Oil for 4-stroke engines
AGIP FILTER OIL	Oil for air filter sponge	Mineral oil with specific additives for increased adhesiveness
AGIP GP 330	Grease (brake control levers, throttle grip)	Calcium complex soap-based grease with NLGI 2; ISO-L-XBCIB2
AGIP CITY HI TEC 4T	Engine oil	SAE 5W-40, API SL, ACEA A3, JASO MA Synthetic oil
AGIP BRAKE 4	Brake fluid	FMVSS DOT 4 Synthetic fluid
MONTBLANC MOLYBDENUM GREASE	Grease for driven pulley shaft adjusting ring and movable driven pulley housing	Grease with Molybdenum disulphide
AGIP GREASE PV2	Grease for the steering bearings, pin seats and swinging arm	White anhydrous-calcium based grease to protect roller bearings; temperature range between -20 C and +120 C; NLGI 2; ISO-L-XBCIB2.
AGIP GREASE SM 2	Grease for odometer transmission gear case	Lithium grease with NLGI 2 molybdenum disulphide; ISO-L-XBCHB2, DIN KF2K-20

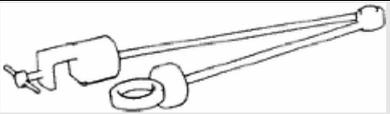
## INDEX OF TOPICS

TOOLING

TOOL

**TOOLS**

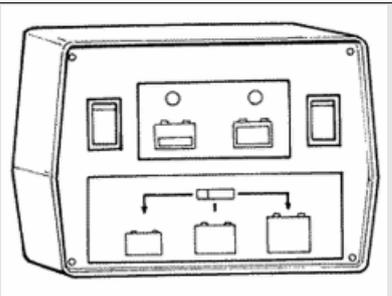
Stores code	Description	
001330Y	Tool for fitting steering seats	
001467Y008	Pliers to extract 17 mm ø bearings	
001467Y009	Driver for OD 42-mm bearings	
004499Y	Camshaft bearing extractor	
005095Y	Engine support	
008119Y009	Tube to assemble shafts and axles	

Stores code	Description	
020004Y	Punch for removing fifth wheels from headstock	
020055Y	Wrench for steering tube ring nut	
020150Y	Air heater support	
020151Y	Air heater	
020162Y	Flywheel extractor	
020171Y	Punch for Ø 17 mm roller case	

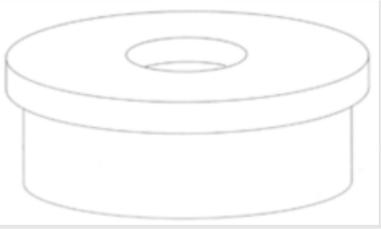
Stores code	Description	
020265Y	Bearing fitting base	
020288Y	Fork to assemble piston on cylinder	
020291Y	Valve fitting/ removal tool	
020306Y	Punch for assembling valve sealing rings	
020329Y	MityVac vacuum-operated pump	
020330Y	Stroboscopic light to check timing	

Stores code	Description	
020331Y	Digital multimeter	

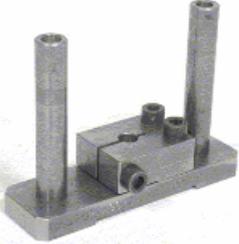
020332Y	Digital rev counter	
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020333Y	Single battery charger	
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020334Y	Multiple battery charger	
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Stores code	Description	
020335Y	Magnetic support for dial gauge	
020340Y	Flywheel and transmission oil seals fitting punch	
020358Y	37x40-mm Adaptor	
020359Y	42x47-mm Adaptor	
020360Y	52x55-mm Adaptor	
020362Y	12 mm guide	

Stores code	Description	
020363Y	20 mm guide	
020364Y	25-mm guide	
020376Y	Adaptor handle	
020431Y	Valve oil seal extractor	
020432Y	Tool to fit the start-up sector spring	
020439Y	17 mm guide	

Stores code	Description	
020448Y	Pin lock fitting tool	
020449Y	Piston position check support	
020450Y	Camshaft fitting/removal tool	
020452Y	Tube for removing and refitting the driven pulley shaft	
020456Y	Ø 24 mm adaptor	
020565Y	Flywheel lock calliper spanner	

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Stores code	Description
494929Y	Exhaust fumes analyser



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# INDEX OF TOPICS

**MAINTENANCE**

**MAIN**

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**Maintenance chart**
**AFTER 1,000 KM OR 4 MONTHS**

90'

**Action**

Hub oil - change
Valve clearance - check
Idle speed (*) - adjustment
Throttle lever - adjustment
Steering - adjustment
Brake control levers - greasing
Brake pads - check condition and wear
Brake fluid level - check
Safety locks - check
Electrical system and battery - check
Tyre pressure - check
Vehicle and brake test - road test

(\*) See instructions in «Idle speed adjustment» section

**AT 6000 KM OR 12 MONTHS, 18000, 30000, 42000, 54000 AND 66000 KM**

60'

**Action**

Engine oil - replacement
Hub oil level - check
Spark plug / electrode gap - check
Oil filter (net filter) - clean
Variable speed rollers - check or replacement
Brake pads - check condition and wear
Brake fluid level - check
Electrical system and battery - check
Tyre inflation and wear - Check
Vehicle and brake test - road test

**EVERY 12000 OR 24 MONTHS AND AT 60000 KM**
**Action**

Engine oil - replacement
Hub oil level - check
Spark plug / electrode gap - check / replacement
Air filter - clean
Oil filter (net filter) - clean
Idle speed (*) - adjustment
Throttle lever - adjustment
Variable speed rollers - check or replacement
Driving belt - replacement
Odometer gear - greasing
Steering - adjustment
Brake control levers - greasing
Brake pads - check condition and wear
Brake fluid level - check
Transmission elements - lubrication
Emergency blockings (°) - Check
Suspensions - check
Electrical system and battery - check
Headlight - adjustment
Tyres condition and wear - Check
Tyre pressure - check
Vehicle and brake test - road test

(\*) Refer to rules (Check to CO)

(°) Refer to predelivery operations

**EVERY 24000 KM OR 48000 KM****Action**

Engine oil - replacement
Hub oil level - check
Spark plug / electrode gap - check / replacement
Air filter - clean
Oil filter (net filter) - clean
Valve clearance - check
Idle speed (*) - adjustment
Throttle lever - adjustment
Variable speed rollers - check or replacement
Driving belt - replacement
Cylinder ventilation system - check
Odometer gear - greasing
Steering - adjustment
Brake control levers - greasing
Brake pads - check condition and wear
Brake fluid level - check
Transmission elements - lubrication
Emergency blockings (°) - Check
Suspensions - check
Electrical system and battery - check
Headlight - adjustment
Tyres condition and wear - Check
Tyre pressure - check
Vehicle and brake test - road test

(\*)Refer to rules (Check to CO)

(°) Refer to predelivery operations.

**EVERY 36000****Action**

Engine oil - replacement
Hub oil level - check
Spark plug / electrode gap - check / replacement
Air filter - clean
Oil filter (net filter) - clean
Idle speed (*) - adjustment
Throttle lever - adjustment
Variable speed rollers - check or replacement
Driving belt - replacement
Odometer gear - greasing
Steering - adjustment
Brake control levers - greasing
Brake pads - check condition and wear
Brake fluid hoses - replacement
Brake fluid level - check
Transmission elements - lubrication
Emergency blockings (°) - Check
Suspensions - check
Electrical system and battery - check
Headlight - adjustment
Tyres condition and wear - Check
Tyre pressure - check
Vehicle and brake test - road test

(\*)Refer to rules (Check to CO)

(°) Refer to predelivery operations.

**EVERY 72000****Action**

Engine oil - replacement
Hub oil level - check
Spark plug / electrode gap - check / replacement
Air filter - clean
Oil filter (net filter) - clean

**Action**

Valve clearance - check
Idle speed (*) - adjustment
Throttle lever - adjustment
Variable speed rollers - check or replacement
Driving belt - replacement
Cylinder ventilation system - check
Odometer gear - greasing
Steering - adjustment
Brake control levers - greasing
Brake pads - check condition and wear
Brake fluid hoses - replacement
Brake fluid level - check
Transmission elements - lubrication
Emergency blockings (°) - Check
Suspensions - check
Electrical system and battery - check
Headlight - adjustment
Tyres condition and wear - Check
Tyre pressure - check
Vehicle and brake test - road test

(\*)Refer to rules (Check to CO)  
 (°) Refer to predelivery operations.

**EVERY 2 YEARS**

**Action**

Brake fluid - change
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**EVERY 3,000 KM**

10'

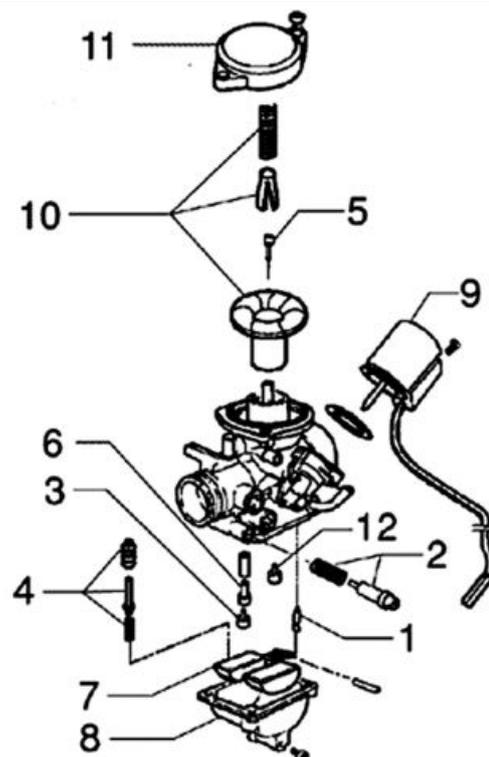
**Action**

Engine oil - level check/ top-up
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**Carburettor**

- Disassemble the carburettor in its parts, wash all of them with solvent, dry all body grooves with compressed air to ensure adequate cleaning.
- Check carefully that the parts are in good condition.
- The **throttle valve** should move freely in the chamber. Replace valve in case of wear due to excessive clearance.
- If there are wear marks in the chamber causing inadequate tightness or a free valve slide (even if it is new), replace the carburettor.
- It is advisable to replace the gaskets at every refit.

**WARNING**  
**PETROL IS HIGHLY EXPLOSIVE ALWAYS REPLACE THE GASKETS TO AVOID PETROL LEAKS**



1. Needle valve - 2. Idle speed adjustment screw - 3. Max jet - 4. Accelerating pump - 5. Tapered pin - 6. Jet holder - 7. Float - 8. Chamber - 9. Starter device - 10. Vacuum valve - 11. Cover - 12. Minimum jet.

## Checking the spark advance

The vehicle is provided with a variable spark advance electronic device. Two reference marks for the timing can be found on the flywheel cover as to find out with more precision the reference mark on the fan. To check, use a stroboscopic gun Tecnotest 130/P or similar type. Start the engine and let it run at 1900 revs/min, act on the phase shifter to align the reference mark on the flywheel fan in between the two reference marks on the casing; at the same time, read the spark advance value on the stroboscopic gun display. The value should be 10°.

Repeat the above operation with engine running at 5000-6000 revs/min, spark advance should be 26°.

### CAUTION

**SHOULD THE FLASH INDICATIONS BE UNSTABLE AND THE RPM INDICATION DOES NOT CORRESPOND WITH THE TRUE ENGINE SPEED VARIATION (FOR EXAMPLE, VALUES SHOWN ARE HALVED), INSTALL A 10 ÷ 15 KΩ RESISTIVE CABLE CONNECTED IN SERIES TO AN HV CABLE. IF THE IRREGULAR READING CONTINUES AFTER THIS OPERATION, CHECK THE COMPONENTS OF THE IGNITION SYSTEM.**

### N.B.

**WHEN THE INDUCTION CLAMP READS THE SIGNAL CORRECTLY, A READING CAN BE CARRIED OUT AT OVER 6000 RPM.**

### RPM LIMITER

Specification	Desc./Quantity
1 spark out of 7	8200 Revs/min
1 spark out of 3	8300 Revs/min
Suppression of all sparks	8500 Revs/min

