#### Piaggio would like to thank you

for choosing one of its products. We have drawn up this booklet to show you all features of our product. Please read the booklet carefully before using your vehicle. It includes information, suggestions and warnings regarding your vehicle. You will also be informed of features, details and devices that will prove the excellence of your choice. We believe that if you follow our suggestions you will soon tune in with your vehicle and use it for a long time at full satisfaction.

This booklet is an integral part of the vehicle, and upon sale, it should be transferred to the new owner.



#### INSTRUCTIONS

The instructions given in this booklet are intended to provide a clear, simple guide to using your scooter; details are also given of routine maintenance procedures and regular checks that should be carried out on the vehicle at an **Authorised PIAGGIO Dealer or Service Centre**. The booklet also contains instructions for simple repairs. Any operations not specifically described in this booklet require the use of special tools and/or particular technical knowledge: to carry out these operations refer to any **authorised PIAGGIO Dealer or Service Centre**. Read this booklet carefully before using your vehicle. Follow the instructions contained in this booklet for your personal safety and to ensure long-lasting use of your vehicle. Failure to observe these instructions may cause personal injury or damage to the vehicle.



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.

The signs indicated on this page are very important, they highlight the parts of the booklet that should be read with particular care. Each sign consists of a different graphic symbol, making it quick and easy to locate the various topics.

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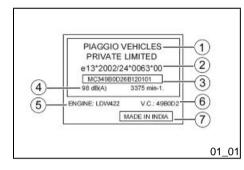
## **Ape Classic**



## VEICOLI COMMERCIALI



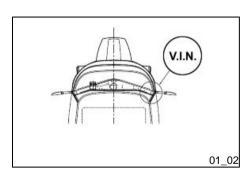
Chap. 01 Identification



#### Manufacturer plate (01\_01)

#### Manufacturer's identification plate

- 1. Manufacturer
- 2. Type-approval number
- 3. Vehicle Identification Number (VIN)
- 4. Noise level (dB) under prescribed engine rpm
- 5. Type of engine
- 6. Vehicle code
- 7. Country of production



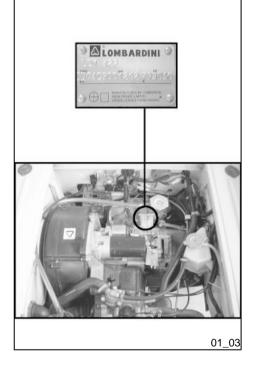
#### Vehicle identification number (01\_02)

Chassis and engine identification registration numbers are made up of a prefix and a number stamped on the chassis and on the engine respectively. These numbers must always be quoted when ordering spare parts.

It is advisable to check that the identification registration numbers on the vehicle correspond with those indicated in the vehicle registration documents.



BE REMINDED THAT ALTERING IDENTIFICATION REGISTRATION NUMBERS MAY LEAD TO SERIOUS PENAL SANCTIONS (IMPOUNDING OF THE VEHICLE, ETC.)



#### Engine identifications numbers (01\_03)

The engine identification number is stamped on the engine.



BE REMINDED THAT ALTERING IDENTIFICATION REGISTRATION NUMBERS MAY LEAD TO SERIOUS PENAL SANCTIONS (IMPOUNDING OF THE VEHICLE, ETC.)

## 1 Identification

## **Ape Classic**



## VEICOLI COMMERCIALI



Chap. 02 Safe riding

#### Safe drive

Follow these simple recommendations to use your vehicle every day, confidently and safely. Your skills and your mechanical knowledge are the basis for safe driving. We recommend practising driving your vehicle in traffic-free zones, in order to get well familiar with it.

- 1. Always drive within the limits of your ability, strictly following the road regulations of the country where you are driving.
- 2. Carefully adjust the position of the rear-view mirrors to easily check the road behind you.
- 3. Ensure nothing hinders the travel of controls or pedals (mats, etc.)
- 4. Ensure that all headlamps and lights are working properly.
- 5. To start the vehicle, with idling engine, engage the 1st gear and gently release the clutch lever, accelerating at the same time.
- 6. Reduce speed and drive carefully when on rough roads.
- 7. Do not brake hard on a wet, unsurfaced or slippery roads.
- 8. Do not downshift with the engine at high speed to avoid damaging the engine or the gear.
- 9. When going downhill, do not keep the gearbox in neutral or the engine off, but decrease speed untwisting the throttle grip. Use the brakes to help slowing down the vehicle, but do not keep them pressed for extended periods, to prevent brake overheating, which could reduce their efficiency. Shift down gears to increase the engine braking effect.
- 10. For rapid «pick-up», e.g. for overtaking, shift down a gear to get the required power.
- 11. When driving up demanding slopes, shift down to employ the maximum power.
- 12. Check that the load is evenly distributed on the loading body, and do not exceed the foreseen loads (see «Technical data» chapter) to prevent tilting while turning on a corner.

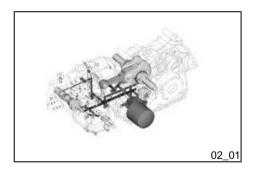


#### ALWAYS DRIVE YOUR VEHICLE WITHIN THE LIMITS OF YOUR ABILITY. DRIV-ING WHILE DRUNK OR UNDER THE EFFECT OF DRUGS OR CERTAIN MEDI-

CINES IS EXTREMELY DANGEROUS AND INFRINGES THE ROAD REGULA-TIONS.



ANY CHANGES TO THE VEHICLE PERFORMANCE, AS WELL AS ALTERA-TIONS TO ORIGINAL STRUCTURE PARTS, RENDERS THE VEHICLE NO LON-GER CONFORMING TO THE APPROVED TYPE AND THEREFORE DANGEROUS FOR DRIVING SAFELY.



#### Running-in period (02\_01)

During the first 1000 km, do not twist the throttle fully open and avoid driving at constant speed over long stretches of roads. After the first 1000 km gradually increase speed until reaching the maximum performance.

2 Safe riding

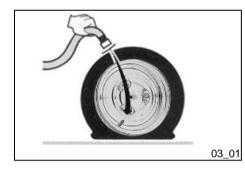
## **Ape Classic**



## VEICOLI COMMERCIALI



Chap. 03 Vehicle use



#### Checks (03\_01)

Before using the vehicle, check:

- 1. Fuel tank and windscreen washer fluid reservoir are full.
- 2. Engine oil/ gearbox oil level.
- 3. Brake oil level.
- 4. Engine coolant level
- 5. Electrolyte level and battery charge status.
- 6. Tyre pressure.
- 7. Brake operation.
- 8. Electrical system operation (lights, stop, turn indicators, windscreen wiper).



#### TYRE PRESSURE SHOULD BE CHECKED WHEN TYRES ARE COLD.

#### **Characteristic**

Rear tyre pressure

4.4 bar

Front tyre pressure

2.4 bar



#### Checks 1 (03\_02)

#### Brake fluid level check

The brake fluid reservoir is located in the cab under the seat, aligned with the brake pedal. Check the level as follows:

1. Stop the vehicle on level ground;

2. Check that the oil level is between the MIN and MAX level.

If the level is below the minimum mark, fill up and take your vehicle to an **Authorised PIAGGIO Dealer or Service Centre** in order to have the braking system thoroughly inspected.

CAUTION



ONLY USE DOT 4 CLASSIFIED BRAKE FLUIDS.

CAUTION



BRAKE FLUID IS HAZARDOUS: WASH WITH WATER IN THE EVENT OF ACCI-DENTAL CONTACT.

CAUTION



BRAKING CIRCUIT FLUID IS VERY CORROSIVE; AVOID CONTACT WITH PAIN-TED PARTS.



THE BRAKING CIRCUIT FLUID IS HYGROSCOPIC, I.E., IT ABSORBS HUMIDITY FROM THE SURROUNDING AIR. IF THE HUMIDITY IN THE BRAKE FLUID EX-CEEDS A CERTAIN VALUE, IT WILL LEAD TO INEFFICIENT BRAKING. NEVER USE BRAKE FLUID FROM PREVIOUSLY OPENED OR PARTLY-EMPTY CON-TAINERS.

#### **Recommended products**

#### AGIP BRAKE 4

*Brake fluid* FMVSS DOT 4

#### Checks 2 (03\_03)

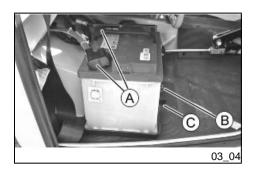
#### Coolant reservoir

The coolant reservoir is located in the engine compartment; if you want to change the fluid or simply fill up the reservoir, remove the cap and fill up according to the procedure described in the specific section.

#### **Characteristic**

Coolant reservoir

3.5 I

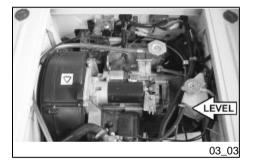


#### Checks 3 (03\_04)

#### **Battery - Status check**

- Check that the electrolyte level is between the upper and the lower limit. If the level lowers, add distilled water.
- Ensure there are no scuff marks, corroded connections or loose terminals. If the battery terminals are dirty, clean them with sodium bicarbonate and protect them with grease.
- If the terminals are loose, tighten them.

Should the battery be removed from its housing to be replaced or charged, disconnect the leads (A), remove the nut (B) and release the battery from the locking bracket.



CAUTION



CLOSE THE BREATHER CAPS AFTER ADDING DISTILLED WATER. BATTERY ELECTROLYTE CAN SPLASH OUT AND DAMAGE THE VEHICLE OR MAY ALSO CAUSE SERIOUS PHYSICAL INJURIES.

THE BATTERY CONTAINS SULPHURIC ACID, WHICH IS DANGEROUS AND CORROSIVE. WEAR PROTECTIVE GOGGLES AND AVOID ANY CONTACT WITH YOUR EYES, SKIN AND CLOTHES. IN CASE OF ACCIDENTAL CONTACT, RINSE WITH ABUNDANT WATER AND SEEK MEDICAL ASSISTANCE IMMEDIATELY.

KEEP THE BATTERY AWAY FROM ANY NAKED FLAMES AS THEY MAY CAUSE IT TO EXPLODE

**KEEP BATTERIES AWAY FROM CHILDREN.** 

IF BATTERY FLUID POURS ONTO PAINTED PARTS, IMMEDIATELY WASH THEM WITH WATER.

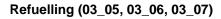
USED BATTERIES ARE HARMFUL FOR THE ENVIRONMENT AND MUST BE COLLECTED AND DISPOSED OF IN COMPLIANCE WITH THE LAW.

**Electric characteristic** 

Battery

12V-55Ah





#### Fuel tank

To refill the fuel tank, introduce the key and turn it anticlockwise, then unscrew the filler cap and refill. To close it, screw the filler cap back in its seat, turn the key clockwise and take it out.

Please note that at low temperatures the paraffin elements contained in diesel spontaneously dissociate, thus decreasing fluidity. If it is not possible to use winter type diesel, mix diesel with a special additive in the amounts indicated on the container. The additive must be poured into the tank before the diesel and before the process described above since a late addition generates no effects.

## CAUTION DIESEL

### $\land \land$

DO NOT CARRY CONTAINERS WITH HAZARDOUS MATERIALS OR FLAMMA-BLE LIQUIDS. FAILURE TO OBSERVE THIS WARNING MAY RESULT IN SERI-OUS DANGER, RISK OF FIRE OR EXPLOSION.

OPEN THE FUEL TANK CAP SLOWLY SO AS TO RELEASE PRESSURE GRAD-UALLY AND REDUCE THE RISK OF SERIOUS INJURY OR FIRE AND DAMAGE TO THE PAINTED SURFACES DUE TO FUEL LEAKS.

DO NOT SMOKE OR USE NAKED FLAMES WHEN REFUELLING.

#### Characteristic

#### FUEL TANK

03 06

14.5 l (reserve: 1.5 l)

20



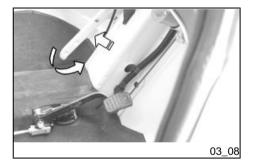
#### Windscreen washer fluid reservoir

The windscreen washer fluid reservoir is located under the instrument panel, left side; remove the cap and refill with specific fluid.

#### **Characteristic**

Windscreen washer reservoir

1.5 I

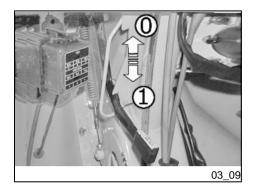


#### Before starting the engine (03\_08, 03\_09)

Make sure that the hand brake is engaged.

Ensure that the reverse gear control lever is lifted to position **«0»** or lowered to position **«1»** according to whether you want to move forward or backward respectively.

Ensure that the gear control lever is in neutral position.

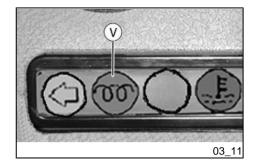




#### Engine start up (03\_10, 03\_11)

Insert the starter key in the ignition switch and turn it to (ON). The glow plug preheating warning light (V) on the instrument panel will turn on; as soon as the warning light turns off, to start the engine, turn the key to (START) while operating the throttle control and accelerating gradually.

After the engine starts up, release the key that will automatically go back to «ON».



#### **Starting difficulties**

- If the engine does not start, do not keep operating the ignition switch for more than 10 seconds; Check fuel level.
- If after several attempts, the engine still fails to start, wait for a few minutes before trying again.
- In particularly cold conditions, repeat the glow plug preheating stage (turning the key to ON/OFF) before start-up.

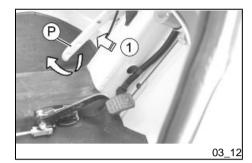
In any case, please contact an Authorised Piaggio Service Centre.



DO NOT OPERATE THE STARTER MOTOR FOR MORE THAN 10 SECONDS.



NEVER STRESS THE ENGINE AT LOW TEMPERATURES IN ORDER TO AVOID POSSIBLE DAMAGE. WHEN DRIVING DOWNHILL, DO NOT EXCEED TOP SPEED OR THE ENGINE COULD BE DAMAGED BY PROLONGED OVERREV-VING.



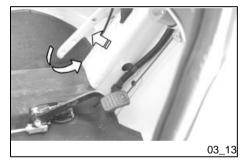
#### Parking brake (03\_12, 03\_13)

Pull the lever to engage the parking brake.

To disengage the parking brake, pull the lever slightly, then press the button and finally release the lever fully to the end of the stroke.



BEFORE STARTING OFF, ENSURE THE PARKING BRAKE IS FULLY DISEN-GAGED. SHOULD THE PARKING BRAKE BE PARTIALLY PULLED, THIS WOULD CAUSE THE BRAKES TO OVERHEAT RESULTING IN LOSS OF BRAK-ING EFFICIENCY AND EARLY WEAR OF THE FRICTION MATERIAL.



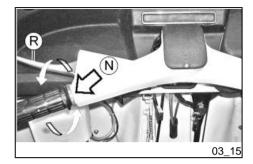
## $\mathbf{A}$

WHEN PARKING THE VEHICLE ON HILL ROADS, ALWAYS PULL THE PARKING BRAKE LEVER FULLY AND MOVE INTO THE LOWEST GEAR OPPOSITE THE DIRECTION FACED BY THE VEHICLE. IN ADDITION, POSITION WEDGES BE-HIND THE WHEELS.



#### Brake pedal (03\_14)

Press the brake pedal to brake. The braking action is transferred immediately, through the hydraulic circuit, to all the wheels according to the need to stop the vehicle or just reduce speed.



# 03\_16

#### Gear (03\_15, 03\_16)

To shift gears, press the clutch and turn the moving part of the handlebar to align the reference of the desired gear with the reference point on the fixed part of the handlebar.

- R = Reverse gear
- N = Neutral gear
- 1 = First gear
- 2 = Second gear
- 3 = Third gear
- 4 = Fourth gear

To engage the first gear, pull the clutch lever fully and select gear 1; if the gear does not engage easily, release and press the clutch again;

align reference 1 with reference point 1 by rotating the handgrip

release the clutch lever slowly to start off.

To shift to the second gear pull the clutch lever again and align reference 2; follow the same procedure to upshift or downshift.

Going downhill, downshift to increase the braking action of the engine according to the road surface and the vehicle speed.

#### WARNING



ENGAGE REVERSE GEAR ONLY WHEN THE VEHICLE IS AT A STANDSTILL. OTHERWISE, THE GEARS COULD BE DAMAGED.

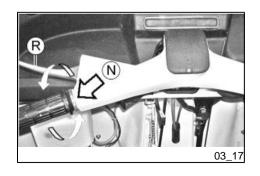
CAUTION



BE CAREFUL WHEN SHIFTING DOWN GEARS ON ICY, SLIPPERY OR WET ROADS. A SUDDEN INCREASE OF THE ENGINE BRAKING COULD CAUSE THE WHEELS TO LOCK OR SLIP WITH CONSEQUENT LOSS OF CONTROL OF THE VEHICLE.

#### **RECOMMENDED SPEEDS FOR SHIFTING GEARS**

1st gear	8 km/h
2nd gear	14 km/h
3rd gear	25 km/h
4th gear	38 km/h



#### Stopping the engine (03\_17, 03\_18, 03\_19)

To stop the engine, proceed as follows: stop the vehicle and engage the neutral gear, position «N» in the gear indicator;

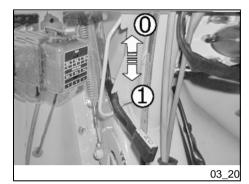
to shut off the engine, rotate the switch key to **«OFF»**;

to engage the steering lock move the handlebar fully to the right, turn the key to "LOCK" and take out the key.

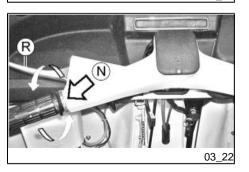
Finally pull the parking brake, before leaving the driver's cab.







# 03.21



#### Gear position (03\_20, 03\_21, 03\_22)

To reverse the vehicle, proceed as follows:

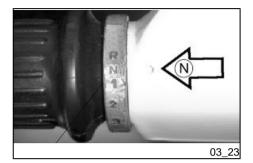
Stop the vehicle completely and turn the gear selector to neutral (position (N) on the gear indicator) and keep the engine idling.

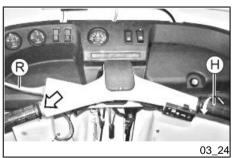
Lower the reverse gear control lever from position «0» to position «1».

Pull the clutch lever and rotate the moving part of the gear selector until the reference point is aligned with the letter **«R».** Now, the reverse gear is engaged. Release the clutch lever slowly and accelerate gradually by rotating the throttle grip **«H»** to move backwards.

To shift from the reverse gear to forward gears, stop the vehicle completely and turn the gear selector to neutral, lift the reverse gear control lever to position **«0**» and repeat the operations described before.

**NB:** Once the reverse gear control lever is lowered to position **«1»**, engaging high gears is disabled until the lever is moved back to **«0»**.





#### Vehicle Start-up (03\_23, 03\_24)

#### Vehicle start-up

To start off, pull the clutch lever  $(\mathbf{R})$  with idling engine and turn the gear lever to the 1st gear position on the gear indicator  $(\mathbf{1})$ .

Disengage the parking brake by pressing the button and lowering the corresponding lever to the end of the stroke.

To start off, release the clutch lever (R) smoothly and accelerate by gradually turning the throttle twist grip(H).



EXHAUST GASES ARE TOXIC. DO NOT START THE ENGINE IN A CLOSED PLACE.

3 Vehicle use

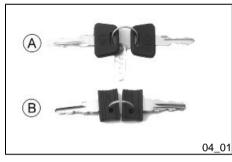
## **Ape Classic**



## VEICOLI COMMERCIALI



Chap. 04 Doors and locks



#### Keys (04\_01, 04\_02, 04\_03)

The vehicle is supplied with two keys plus their copies as shown in the figure: **Key A**, (with an aluminium plate bearing the key code).

- Ignition and start-up switch

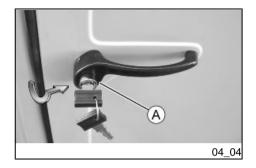




#### Key B

- Door locks,
- Fuel tank cap
- Seat glove compartment
- Instrument panel glove compartment

You should keep duplicated keys and their code in a safe place but never on the vehicle. Actually, the code is the only method to identify keys in case of ordering duplicates.



#### Door locking/unlocking by key (04\_04, 04\_05)

Doors are equipped with antitheft locks. Turn the key clockwise to lock doors and anticlockwise to unlock them. To open the door, grip the handle, press the button «A» and pull.



To open both doors from the inside, act on the corresponding opening control as shown in the figure.



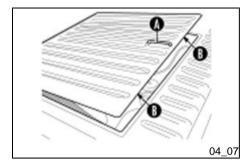
- ENSURE ALL SAFETY CONDITIONS ARE MET BEFORE OPENING THE
  DOORS
- ENSURE THAT ALL THE DOORS ARE CLOSED AND LOCKED BEFORE STARTING. THIS WILL AVOID ACCIDENTAL DOOR OPENING AND THE CONSEQUENT RISK OF PASSENGERS FALLING OUT.
- ON HOT DAYS NEVER LEAVE... CHILDREN OR ANIMALS UNATTEN-DED INSIDE THE VEHICLE. ON HOT DAYS THE INTERIOR OF THE VEHICLE CAN REACH VERY HIGH TEMPERATURES.



#### Front door windows (04\_06)

To open the windows, act on the unlocking lever and turn it so as to release the window for rotation.

To close the windows, move the lever to the opposite position.



#### Engine inspection port (04\_07)

To access the engine compartment, lower the tailboard and grip the handle (A) by pulling it upwards to release the retaining clips (B).



#### Fuel tank (04\_08)

#### Fuel tank

To refill the fuel tank, introduce the key and turn it anticlockwise, then unscrew the filler cap and refill. To close it, screw the filler cap back in its seat, turn the key clockwise and take it out.

Please note that at low temperatures the paraffin elements contained in diesel spontaneously dissociate, thus decreasing fluidity. If it is not possible to use winter type diesel, mix diesel with a special additive in the amounts indicated on the container. The additive must be poured into the tank before the diesel and before the process described above since a late addition generates no effects.

#### CAUTION



DO NOT CARRY CONTAINERS WITH HAZARDOUS MATERIALS OR FLAMMA-BLE LIQUIDS. FAILURE TO OBSERVE THIS WARNING MAY RESULT IN SERI-OUS DANGER, RISK OF FIRE OR EXPLOSION.

OPEN THE FUEL TANK CAP SLOWLY SO AS TO RELEASE PRESSURE GRAD-UALLY AND REDUCE THE RISK OF SERIOUS INJURY OR FIRE AND DAMAGE TO THE PAINTED SURFACES DUE TO FUEL LEAKS.

DO NOT SMOKE OR USE NAKED FLAMES WHEN REFUELLING.

#### **Characteristic**

#### FUEL TANK

14.5 l (reserve: 1.5 l)

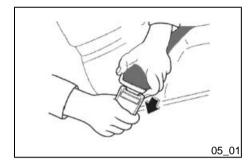
4 Doors and locks



# COMMERCIALI



Chap. 05 Seats and safety belts



# Using the safety belts (05\_01)

Observe the following suggestions for using the seat belts correctly. Failure to follow these instructions may lead to severe injury in the event of an accident or sudden braking. Check the seat belts periodically to ensure proper functioning. If its operation appears faulty, have it checked at an **Authorised PIAGGIO Service Centre** immediately.

**Pregnant women**: PIAGGIO recommends using the seat belt. The waist height seat belt length should adhere snugly to your body as low as possible (on the hips) and not at your waist. Ask your doctor for advice.

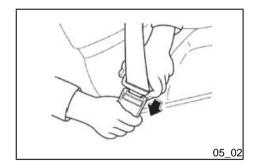
Injured people: PIAGGIO recommends using the seat belt. Ask your doctor for advice.



THE SAFETY BELTS ARE DESIGNED TO EXERT THEIR ACTION ON THE BONE STRUCTURE OF YOUR BODY. THE DIFFERENT BELT SECTIONS SHOULD FIT SNUGLY TO THE PELVIS, THE CHEST AND SHOULDERS. DO NOT WEAR THE LENGTH WHICH IS SUPPOSED TO FIT ON THE HIPS OVER THE ABDOMEN. THE SAFETY BELTS SHOULD BE ADJUSTED TO FIT SNUGLY AND SHOULD BE ADAPTED TO THE PERSON WEARING THEM, SO AS TO OFFER THE PROTEC-TION THEY ARE DESIGNED FOR. A LOOSE BELT WOULD CONSIDERABLY REDUCE PROTECTION TO THE PASSENGER WEARING IT. BE CAREFUL NOT TO DAMAGE BELTS WHEN CLOSING THE DOORS. DO NOT REMOVE BELTS FOR CLEANING. WASH THEM WITH WATER AND NEUTRAL SOAP, RINSE AND LET DRY IN A WARM PLACE. PAY SPECIAL ATTENTION NOT TO DAMAGE THE SEAT BELTS WITH CLEANING PRODUCTS, OIL, ABRASIVE DETERGENTS, CHEMICAL AGENTS OR BATTERY FLUIDS



AFTER A SEVERE ACCIDENT, IT IS ESSENTIAL TO HAVE THE ENTIRE SEAT BELT ASSEMBLY REPLACED, EVEN IF IT MAY NOT APPEAR DAMAGED. DO NOT WEAR A TWISTED SEAT BELT. DO NOT WEAR THE SEAT BELT WITH THE SHOULDER LENGTH UNDER YOUR ARM OR BEHIND YOUR BACK. DO NOT FASTEN THE SEAT BELT OVER HARD OR FRAGILE OBJECTS, SUCH AS GLASSES, JEWELLERY, PENS, KEYS. DO NOT WEAR THE SEAT BELT OVER VERY THICK CLOTHES, AS THIS MAY PREVENT IT FROM BEING POSITIONED CORRECTLY. DO NOT MODIFY OR DISASSEMBLE THE SEAT BELT ASSEM-BLY. AFTER AN ACCIDENT OF A CERTAIN SEVERITY, WE RECOMMEND THAT YOU HAVE THE SEAT BELT WHICH WAS BEING WORN REPLACED AT AN AU-THORISED PIAGGIO SERVICE CENTRE, EVEN IF IT DOES NOT APPEAR DAM-AGED.



# Fasting the safety belt (05\_02)

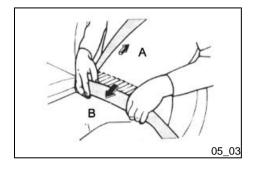
Take the metal tongue from its housing.

Insert the metal tongue in the buckle until it clicks.

### CAUTION



TO GUARANTEE THE OPTIMAL PERFORMANCE OF THE SEAT BELT, AFTER HAVING INSERTED THE METAL TONGUE INTO THE BUCKLE, CHECK IT IS SE-CURELY BLOCKED AND THE SEAT BELT IS NOT TWISTED.



# Adjusting the safety belt (05\_03)

Position the seat belt as low as possible on your hips and not at your waist.

Adjust the seat belt so that you can slide your fist between the belt and your chest.

Hold the anchoring at a right angle with respect to the belt and pull the belt to lengthen or shorten it.

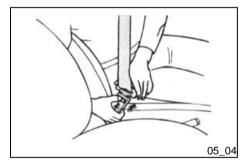
- A: wrong
- B: right

# To release the safety belt (05\_04)

Press the button. Insert the metal tongue in its housing when it is not in use.

# CAUTION

TO PREVENT DAMAGING SEAT BELTS CHECK THEY DO NOT REMAIN PINCHED BETWEEN A DOOR AND THE CAR BODY, OR BEHIND THE SEAT BACK.





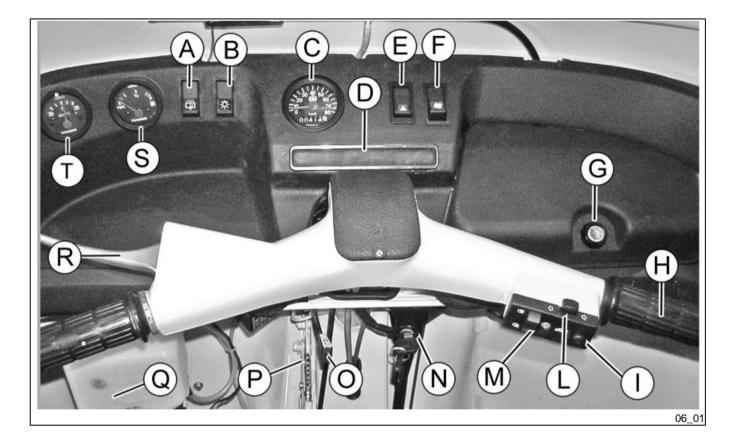


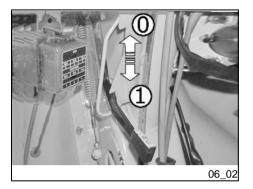
Chap. 06 Instrument panel and controls

# Dashboard (06\_01)

# **INSTRUMENT PANEL**

- A.- Windscreen wiper/washer switch
- B.- Light Switch
- C.- Speedometer and odometer
- D.- Warning light unit
- E.- Emergency light switch
- F.- Heater switch
- G.- Glove compartment lock
- H.- Throttle grip
- I. Horn button
- L.- Turn indicator switch
- M.- High-/low-beam light switch
- N.- Key switch
- O.- Reverse gear control lever
- P.- Parking brake lever
- Q.- Windscreen washer fluid reservoir
- R.- Clutch lever
- S. Fuel gauge
- T. Battery charge indicator





# Controls (06\_02, 06\_03, 06\_04)

# Reverse gear lever «O»

Acting on the lever  $(\mathbf{O})$ , only the reverse gear "**R**" or the first gear "**1st**" can be engaged. This is to avoid engaging high gears when parking.

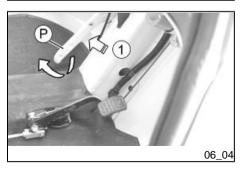


# Clutch lever «R»

Pull the lever before engaging the following gear and release it smoothly to proceed.

# «Neutral» gear reference point

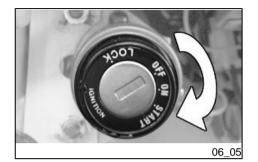
It indicates the point where the grip rotation must be stopped to engage the gear selected previously.



# Parking brake lever «P»

Lift the lever to lock the wheels when stopping or parking.

To disengage, press the button and lower the lever again before restarting.





# Ignition switch (06\_05, 06\_06)

# Key switch«N»

The key can turn to 4 positions:

LOCK = Extractable key, antitheft enabled.

**OFF =** External lights and services pre-installation.

**ON =** Instrument panel and preheating glow plug on.

**START =** Engine start-up. Once the engine starts up, the key automatically goes back to the **«ON»** running position.

Locking the steering (Antitheft):turn the handlebar to the right to the end of stroke, with the key switch set to **«LOCK»** take out the key.

Handlebar unlocking: insert the key again and turn it to «OFF» by slightly pressing the handlebar.

DO NOT TURN THE KEY WHILE RIDING, ONLY WHEN THE VEHICLE IS AT STANDSTILL.

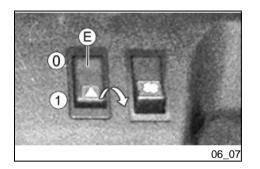
CAUTION

WHEN YOU LEAVE THE VEHICLE, ALWAYS REMOVE THE KEY TO PREVENT SOMEBODY FROM ACCIDENTALLY ACTUATING THE CONTROLS. ENGAGE THE PARKING BRAKE AND THE FIRST OR REVERSE GEAR ACCORDING TO WHETHER THE VEHICLE IS UPHILL OR DOWNHILL. SUITABLY TURN THE HANDLEBAR TO PREVENT BLOCKING THE ROAD IN CASE OF AN ACCIDEN-TAL RELEASE OF THE EMERGENCY OR PARKING BRAKES.

# WARNING



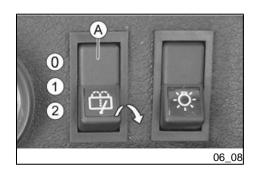
IN CASE OF TAMPERING OF THE START UP DEVICE (E.G. THEFT ATTEMPTS), HAVE IT CHECKED AS SOON AS POSSIBLE BY AN AUTHORISED PIAGGIO DEALER OR SERVICE CENTRE BEFORE REUSING THE VEHICLE.



# Emergency flashing button (06\_07)

Emergency light switch «E»

- 0 = Lights off
- **1** = Flashing emergency lights on.



# Rear window wiper and washer switch (06\_08)

# Windscreen wiper control switch «A»

- **0** = Deactivated.
- 1 = Windscreen wiper activated.
- 2 = Windscreen wiper + sprayer activated.

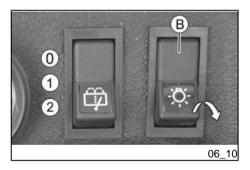


# Claxon (06\_09)

# Horn Button «I»

Press the horn button  ${\ensuremath{\mathsf{*l}}}{\ensuremath{\mathsf{*l}}}$  to activate the sound alarm and to prevent potential dangerous situations.

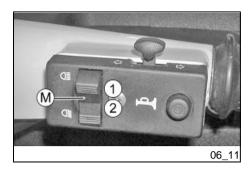
Its operation is enabled by rotating the key to «ON» or with the engine running.



# Headlight switch (06\_10, 06\_11, 06\_12)

# Light switch «B»

- **0** = Lights off;
- 1 = Front and rear tail lights, and instrument panel lightning on;
- **2** = Headlights on; shift from high-beam to low-beam lights using the light switch.

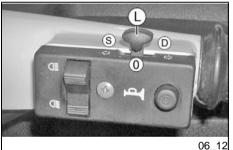


# Headlight switch «M»

1 = High-beam lights.

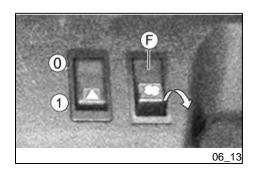
2 = Low-beam lights.

# THE SWITCH POSITIONS ARE SUBJECT TO THE POSITION OF THE EXTERNAL LIGHTS CONTROL SWITCH.



# Turn indicator switch «L»

- **0** = Inactive
- $\mathbf{S}$  = Left-side turn indicators on
- **D** = Right-side turn indicators on



# Heating (06\_13)

# Heater electric fan «F»

Press the button "F" placed on the instrument panel to activate the heater electric fan and to distribute hot air in the driver's cab; with the switch "F" set to:

«0» Heater electric fan off.

«1» - Heater electric fan working.

6 Instrument panel and controls

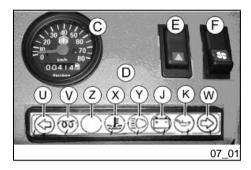
# 6 Instrument panel and controls



COMMERCIALI

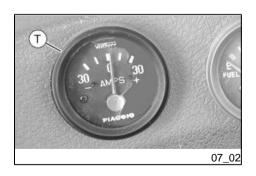


Chap. 07 Gauges and Warning Lights



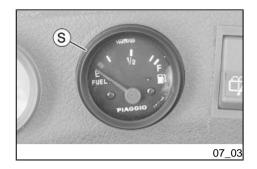
# Instrument unit and indicators (07\_01, 07\_02, 07\_03)

- **C** = Speedometer/Odometer.
- **D** = Warning light unit
- **E** = Emergency turn indicator switch.
- **F** = Heater electric fan switch.
- **U=** Left turn indicator warning light (green).
- **V** = Preheating glow plug warning light (amber).
- **Z** = Warning light disabled.
- **X** = Coolant high temperature warning light (red).
- **Y** = High-beam warning lights on (blue).
- **J** = Low battery recharge warning light (red).
- **K** = Low oil pressure warning light (red).
- **W** = Right turn indicator warning light (green).



# Battery charge indicator «T»

If the needle is at the centre of the analogue dial, it indicates if the vehicle energy balance is positive or negative.



# Fuel gauge «S»

The analogue dial needle indicates the fuel level in the tank.

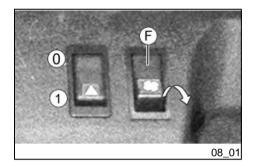
# 7 Gauges and Warning Lights



# VEICOLI COMMERCIALI



Chap. 08 Air control system



# Fan heater (08\_01, 08\_02)

# Heater electric fan switch «F»

- **0** = Heater electric fan off.
- 1 = Heater electric fan working.

08\_02

A working heater produces a jet of hot air that is flown into the cabin through the rubber pipe under the seat.





Chap. 09 Mirrors and Window Glasses



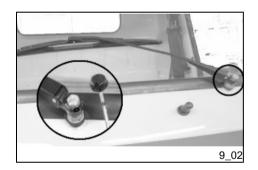
# Adjusting the mirror (9\_01)

Rear-view mirrors are oriented by acting on the mirror body manually until the ideal angle is obtained to guarantee full visibility.

CAUTION



NEVER ADJUST MIRRORS WHILE DRIVING AS YOU MAY LOSE CONTROL OVER THE VEHICLE.



# Wipers and Brushes (9\_02, 9\_03)

# Replacing the windscreen wiper blade

Replace the windscreen wiper blade as follows:

- Remove the locking nut protection cap
- Unscrew the nut
- Take out the whole windscreen wiper blade arm and fit the new one.
- Lock the nut, refit the protection cap and pay attention that the blade on the windscreen is correctly oriented.

# Blade

- Clean regularly the rubber part with specific products.
- Replace the blade if the rubber is misshapen or worn. In any case, blades should be replaced approximately once a year.

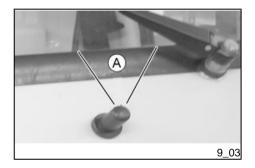
Some simple recommendations can minimise the possibility of damage to the blade:

 If the temperature is below zero, make sure the rubber part is not frozen to the windscreen. If required, use a de-icing product to release the blade.

- Remove any snow from the windscreen: this will protect the blade and avoid overloading and overheating the electric motor.
- Do not operate the windscreen wiper on a dry windscreen.



# DRIVING WITH A WORN WINDSCREEN WIPER BLADE CAN BE EXTREMELY DANGEROUS AS VISIBILITY IS DECREASED IN POOR WEATHER CONDITIONS.



### Nozzles

- If there is no jet of fluid, first of all check whether the windscreen washer reservoir is full.
- Check whether the holes **«A**» are clogged. If so, open them with a pin.
- Direct the windscreen washer nozzles so that the jets are directed towards the highest position of the blade stroke.

9 Mirrors and Window Glasses



# VEICOLI COMMERCIALI



Chap. 10 Electrical system

# **Electrical system**

The power for the lighting and indication system devices is provided in direct current by a special battery.

The engine is equipped with an 18-pole rotor stator unit, three-phase, 330W MAX.

The preheating device for starting the engine, which is fitted with a light indicator, controls the special preheat glow plug.

FOR ESPECIALLY COLD AREAS, WE RECOMMEND INSTALLING A 12V-60AH BATTERY.

WHEN INTERVENING ON THE ELECTRICAL SYSTEM, MAKE ESPECIALLY SURE THAT THE WIRES LEADING TO THE ELECTRONIC CONTROL UNIT ARE CORRECTLY CONNECTED AND RESPECT THE COLOUR CODING GIVEN ON THE CONTROL UNIT.

# **Electric characteristic**

Battery

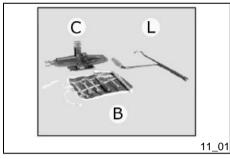
12V-50Ah



# VEICOLI COMMERCIALI



Chap. 11 Emergency



# Tools (11\_01)

TOOL KIT: It is located in the cab, under the seat.

- C Hydraulic jack/Jack
- L Jack lever
- B Wrenches



# If the starter motor does not start

If the sound of the horn is low or if the intensity of the headlights is weak, check the battery first of all (see the «Battery status check» section). If the battery is discharged the vehicle should be started using Emergency cables. If you cannot identify the fault, contact an **Authorised Piaggio Service Centre**.

# If the starter motor works properly

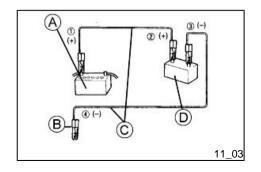
1. Check the fuel gauge needle is above low fuel position. If the needle is below position (E), the fuel tank may be empty.

2. Fill the tank up with fuel. It may be necessary to bleed the fuel supply system before proceeding to start the engine.

3. With the ignition switch set to ON, check that the preheating spark plug warning light goes on and then goes off after a short time (thus indicating that the preheating phase has been completed).

# Start up by cables and clamps (11\_03)

- 1-2 = Positive +
- 3-4 = Negative -
- A = Flat battery
- **B** = Ground connection
- C = Emergency cables
- D = Auxiliary battery



**1**. If the auxiliary battery is fitted in another vehicle, keep both vehicles at a safe distance. Turn all unnecessary lights and various electrical equipment off on both vehicles. Put the vehicle in neutral gear. Pull the parking brake lever fully.

2. Remove all the breather caps of both the auxiliary and the flat battery.

**3** Start the engine with the auxiliary battery and let engine run for a few minutes at medium speed.

4. Make sure that the ignition key on the vehicle with the flat battery is set to OFF.

5. Connect the leads and the terminals in the order shown in the figure. Connect the cable with the auxiliary battery negative terminal on a non-painted solid metal point

far away from the battery Do not rest on the battery when the connections are made. Ensure the connection is safe.

**6**. Start up the engine of the vehicle with the discharged battery. As soon as the engine is started, let it run at medium speed for a few minutes.

7. Carefully, disconnect the cables in opposite order from that in which they were connected; the negative cable first, followed by the positive one.

8. Refit the battery caps in their initial positions.

**9**. Check the battery electrolyte level. Add distilled water up to the right level. If the reason that caused the battery to go flat is unknown, have the electrical system checked by an **Authorised Piaggio Service Centre**.

### CAUTION

OBSERVE THE FOLLOWING INSTRUCTIONS TO AVOID SERIOUS PHYSICAL INJURY AND DAMAGE TO THE VEHICLE. ALSO FOLLOW THE INSTRUCTIONS FOR USE SUPPLIED BY THE MANUFACTURER OF THE EMERGENCY CABLES.

- IF YOU ARE NOT ACCUSTOMED TO USING EMERGENCY CABLES TO START THE ENGINE, CONTACT AN AUTHORISED PIAGGIO SERVICE CENTRE OR A QUALIFIED ROADSIDE ASSISTANCE SERVICE.
- BATTERIES CONTAIN SULPHURIC ACID, WHICH IS DANGEROUS AND CORROSIVE. WEAR PROTECTIVE GOGGLES AND AVOID ALL CON-TACT WITH THE EYES AND SKIN. IN THE CASE OF ACCIDENTAL CONTACT, RINSE THE AFFECTED AREA WITH PLENTY OF WATER AND SEEK MEDICAL ATTENTION AT ONCE.
- KEEP THE BATTERY AWAY FROM FLAMES; THEY COULD CAUSE THE BATTERY TO EXPLODE.
- DO NOT CHARGE A FROZEN BATTERY. ALLOW THE LIQUID IN THE BATTERY TO MELT BEFORE ATTEMPTING TO START THE ENGINE USING JUMP-CABLES, OTHERWISE THE GAS IN THE BATTERY LIQ-UID COULD EXPLODE.
- DO NOT START THE ENGINE USING JUMP-CABLES ON A BATTERY WITH A LOW LEVEL OF LIQUID.
- KEEP BATTERIES AWAY FROM CHILDREN.
- START THE VEHICLE USING EMERGENCY CABLES IN A WELL VEN-TILATED AREA.

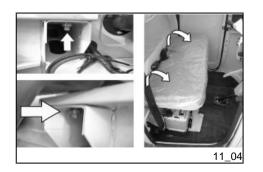
- USE AN AUXILIARY BATTERY WITH VOLTAGE EQUAL TO (12V). US-ING A BATTERY WITH HIGH VOLTAGE MAY SERIOUSLY DAMAGE THE ELECTRICAL SYSTEM (E.G. RELAY AND RADIO).
- THE CAPACITY (AH) OF THE AUXILIARY BATTERY MUST NOT BE LOWER THAN THAT OF THE FLAT BATTERY.

### WARNING

NEVER USE A BATTERY CHARGER FOR THE EMERGENCY START-UP AS IT COULD DAMAGE THE ELECTRONIC SYSTEM AND ESPECIALLY THE CON-TROL UNIT THAT MANAGES THE IGNITION AND POWER SUPPLY FUNCTIONS.

TO AVOID SHORT-CIRCUITS:

- MAKE SURE THAT THE INSULATION OF THE EMERGENCY CABLES IS IN GOOD CONDITIONS.
- DO NOT CONNECT THE CABLE OF THE NEGATIVE TERMINAL OF THE AUXILIARY BATTERY NEAR MOVING PARTS OR NEAR THE NEGATIVE TERMINAL OF THE FLAT BATTERY.
- DO NOT CONNECT ANYTHING TO THE JUMP-CABLES, EXCEPT THE CORRECT TERMINALS OF THE BATTERY OR THE EARTH.
- DO NOT BRING THE ENDS OF THE TERMINALS INTO CONTACT WHEN CONNECTING THE CABLES.



# Replacing a tyre (11\_04, 11\_05, 11\_06)

### SPARE WHEEL

To take out the spare wheel, unscrew the two nuts that anchor the seat to the rear bulkhead, as shown in the figure, and rotate the seat forwards; unscrew the wheel lock-nut and take out the wheel. Once the wheel is replaced, put the seat back to its original position, secure it and make sure the bracket is correctly placed in its seat.

# THE JACK CAN ONLY BE USED TO REPLACE THE WHEELS. NEVER USE THE JACK TO PERFORM REPAIRS UNDER THE VEHICLE. THE VEHICLE MAY FALL IF THE JACK IS NOT POSITIONED CORRECTLY





PERIODICALLY CHECK TYRE PRESSURE ACCORDING TO THE VALUES GIVEN IN THE: «MAINTENANCE».



Replacing a wheel and using the jack require some precautions given below.



SIGNAL THE PRESENCE OF THE VEHICLE AS PRESCRIBED BY THE HIGHWAY CODE IN FORCE.

PLACE THE JACK IN THE POSITIONS SHOWN SO AS NOT TO DAMAGE ME-CHANICAL PARTS OR THE BODY



WHENEVER POSSIBLE, REPLACE TYRES WITH THE VEHICLE ON LEVEL GROUND. IF THE GROUND IS SLOPING OR BADLY SURFACED, PUT WEDGES OR ANY OTHER SUITABLE MATERIAL UNDER THE WHEELS TO BLOCK THE VEHICLE. DO NOT GREASE BOLT THREADS BEFORE REFITTING: THEY COULD COME UNDONE SPONTANEOUSLY.

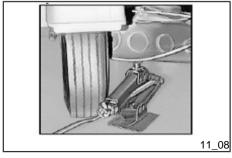
NEVER TAMPER WITH THE INFLATION VALVE. DO NOT PLACE TOOLS BETWEEN RIM AND TYRE.



# Jack positioning (11\_08)

# Positioning a hydraulic jack - jack

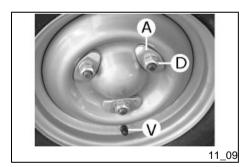
To replace front and rear wheels; use the toolkit located under the seat and position the hydraulic jack respectively, as shown, and respecting safety specifications.



# Replacing a wheel (11\_09, 11\_10)

Replace the wheel as follows:

- Make sure that the vehicle is not a hazard for oncoming traffic and so you can replace the wheel safely. The ground should be flat and adequately compact.
- Stop the engine, pull the hand brake and engage the 1st gear.
- Take out the toolkit and the spare wheel located under the seat:
- Position the hydraulic jack (C) under the vehicle;
- Loosen the wheel nuts (D) but do not remove them;
- Lift the vehicle by rotating the lever (L) of the hydraulic jack (C) clockwise;
- Fully unscrew the three nuts (D), slide off the three spacers (A) and finally remove the damaged wheel;
- Fit the spare wheel and the spacers, and tighten up the nuts;
- · Lower the vehicle by rotating the hydraulic jack lever anticlockwise;
- Tighten the wheel nuts correctly.



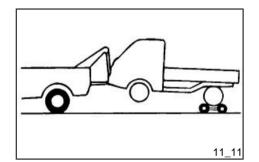
# A = Nut

# D = Spacer

# V = Valve

- Periodically check the inflation pressure of each tyre.
- Tyres feature wear indicators; replace tyres as soon as these indicators become visible on the tyre tread.
- Also check that the tyres do not show signs of splitting at the sidewalls or irregular tread wear; if this occurs, go to an **Authorised Workshop** or at least a workshop equipped to perform the replacement.





# vehicle towing (11\_11)

Should it be necessary to tow the vehicle, have it towed by an **Authorised Piaggio Service Centre** or by a commercial towing service equipped with a maintenance vehicle.

If the wheels or axles are damaged, use a tow-truck.

11 Emergency

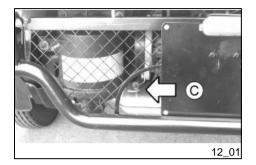
## **Ape Classic**



## VEICOLI COMMERCIALI



Chap. 12 Maintenance



#### Check engine oil level (12\_01, 12\_02)

#### Engine oil level check

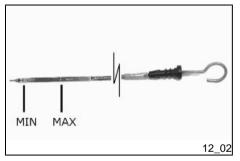
To check the engine oil level proceed as follows:

1. Check with the engine off and the vehicle on flat ground;

**2**. Take out the level check dipstick **«C»** from the rear part of the vehicle and check that the level is between the **MIN** and **MAX** marks. (see figure);

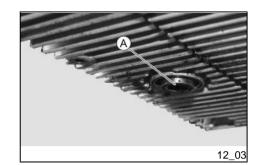
 ${\bf 3}.$  If a top up is required, add new oil through the filler located in the engine compartment;

#### WARNING

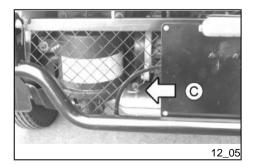


 $\mathbf{A}$ 

TOP UP USING OIL OF THE SAME TYPE ALREADY CONTAINED INTO THE ENGINE.







## Oil change and oil filter replacement (12\_03, 12\_04, 12\_05, 12\_06)

#### ENGINE OIL CHANGE AND OIL FILTER REPLACEMENT

To change the engine oil and replace the filter, proceed as follows:

- Unscrew the drainage plug «A» and fully drain the engine oil;
- Once the drainage is completed, screw the drainage plug **«A**» again, unscrew the oil filter **«F**» and remove it;
- Lubricate the seal of the new filter and screw it in as far as it will go; then tighten it by hand by half a turn.
- Remove the cap «B» and pour in new oil through the filler; the oil level must always be between the MIN and MAX positions marked on dipstick «C»;
- Check the engine oil level frequently.

#### WARNING



#### REPLACE THE OIL WHEN THE ENGINE IS WARM.

CAUTION

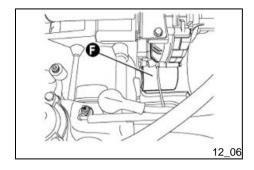


RUNNING THE ENGINE WITH INSUFFICIENT LUBRICATION OR IMPROPER LU-BRICANTS ACCELERATES THE WEAR OF ALL MOVING PARTS AND MAY RESULT IN SERIOUS DAMAGES.

CAUTION



USED OIL CAN HARM THE ENVIRONMENT. FOR OIL REPLACEMENT, CON-TACT ANY AUTHORISED PIAGGIO SERVICE CENTRE AS THEY ARE EQUIPPED WITH LAW-ABIDING ENVIRONMENTALLY- FRIENDLY OIL DISPOSAL SYS-TEMS.



#### **Recommended products**

#### AGIP SUPERDIESEL MULTIGRADE 15W-40

Engine oil SAE 15W-40, API CF-4/SG

#### **Characteristic**

#### Engine oil

3.5 litres (without filter: 2.8 litres)



#### Checking the brake fluid level (12\_07)

#### Brake fluid level check

The brake fluid reservoir is located in the cab under the seat, aligned with the brake pedal. Check the level as follows:

- 1. Stop the vehicle on level ground;
- ${\bf 2}.$  Check that the oil level is between the  ${\bf MIN}$  and  ${\bf MAX}$  level.

If the level is below the minimum mark, fill up and take your vehicle to an **Authorised PIAGGIO Dealer or Service Centre** in order to have the braking system thoroughly inspected.

CAUTION



ONLY USE DOT 4 CLASSIFIED BRAKE FLUIDS.

CAUTION



BRAKE FLUID IS HAZARDOUS: WASH WITH WATER IN THE EVENT OF ACCI-DENTAL CONTACT.

CAUTION



BRAKING CIRCUIT FLUID IS VERY CORROSIVE; AVOID CONTACT WITH PAIN-TED PARTS.



THE BRAKING CIRCUIT FLUID IS HYGROSCOPIC, I.E., IT ABSORBS HUMIDITY FROM THE SURROUNDING AIR. IF THE HUMIDITY IN THE BRAKE FLUID EX-CEEDS A CERTAIN VALUE, IT WILL LEAD TO INEFFICIENT BRAKING. NEVER USE BRAKE FLUID FROM PREVIOUSLY OPENED OR PARTLY-EMPTY CON-TAINERS.

**Recommended products** 

AGIP BRAKE 4

Brake fluid FMVSS DOT 4

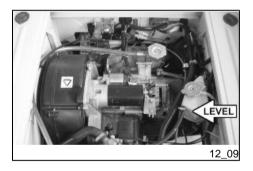


#### Window washer fluid level (12\_08)

#### Topping up windscreen washer fluid

The windscreen washer fluid reservoir is located in the cab, in the left lower section under the instrument panel.

To fill the reservoir, remove the cap and restore the fluid level; use a specific detergent.



#### Changing the engine cooling fluid (12\_09)

#### **Coolant replacement**

Drain off the cooling circuit and refill with recommended coolant.

#### **Recommended products**

#### SPECIAL AGIP PERMANENT fluid

Ready-for-use coolant CUNA NC 956-16

#### Coolant refill

- Unscrew the expansion tank filler cap.
- Pour the fluid until the right level in the reservoir is reached.

- The correct level is between the MIN and MAX marks indicated on the expansion tank.

Circuit de-aeration:

- Start up the engine and let it run at the engine idle rpm (for ~ 15 minutes) so as to allow fluid recirculation and to eliminate any air bubble trapped in the cooling circuit.

- The coolant level will gradually decrease and then settle.
- Stop the engine and top-up the circuit as explained in the previous paragraph.
- After a few hours of regular use, check the level when the engine is cold.

#### **Cooling circuit sleeves check**

Periodically check the sleeves through which the coolant flows for any cracks on the rubber due to ageing. Also check the coupling seals at the intervals specified in the scheduled maintenance chart. If any of the sleeves is worn, please contact your nearest **Authorised Piaggio Service Centre** to have it replaced.

#### Checking and replacing the air cleaner element (12\_10, 12\_11)

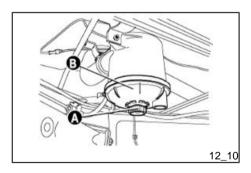
#### Air filter replacement

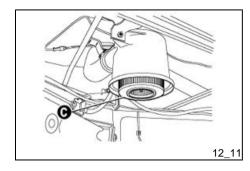
To replace the air filter, proceed as follows:

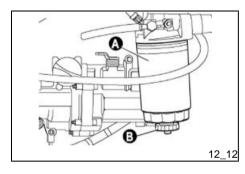
- 1. Loosen the fixing knob «A» and remove the filter box cover «B»;
- 2. Extract the filtering element «C» and replace it with a new one;
- 3. Refit the cover and tighten the knob «A».

#### CAUTION

THE FILTERING ELEMENT MUST BE REPOSITIONED INSIDE THE AIR-BOX PROPERLY, FOLLOWING THE REMOVAL OPERATIONS BUT IN REVERSE OR-DER.







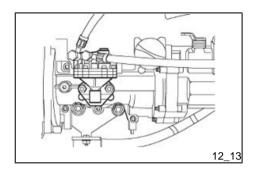
#### Replacing the fuel filter (12\_12)

#### Replacing the diesel filter

The diesel filter «A» can be removed by turning it anticlockwise.

At the bottom of the cartridge there is the screw  ${}^{\mbox{\scriptsize \sc B}}{}^{\mbox{\scriptsize \sc s}}$  for draining condensation water.

To drain the condensation water, loosen the screw  ${}^{\ast}B{}^{\ast};$  tighten it again when diesel without water comes out.



#### Air bleeding (12\_13)

Bleed air once the injection system has been emptied for checking due to running out of fuel.

To this purpose, repeatedly actuate the lever controlling the hand pump, until you feel a resistance during the pumping phase.

Normally, a totally empty system is filled with about 40 pumping actions.

## 12\_14

#### Fuel exhaustion (12\_14)

#### Running out of fuel (diesel version)

If you run out of fuel, refuel and then actuate the lever controlling the hand pump, as described for the air bleeding, until you feel a certain resistance during the pumping phase.

Then, start the engine according to the standard procedure.

If you feel a certain resistance in the pumping and the stroke of the hand pump control lever is not complete, turn the driving shaft by another revolution to return the mark (D) at the reference (E).

Actuate the hand pump again until the injection system is totally bled.

#### N.B.

IN CASE OF AIR BLEEDING AND OF RUNNING OUT OF FUEL, IN ORDER TO OBTAIN THE MAXIMUM CAPACITY OF THE HAND PUMP IT IS NECESSARY TO TURN THE DRIVING SHAFT UNTIL THE MARK «D» PUNCHED ON THE CLUTCH BOX MATCHES THE REFERENCE «E» (TDC) OF THE CRANKCASE.



#### Checking the battery status (12\_15)

#### **Battery - Status check**

- Check that the electrolyte level is between the upper and the lower limit. If the level lowers, add distilled water.
- Ensure there are no scuff marks, corroded connections or loose terminals. If the battery terminals are dirty, clean them with sodium bicarbonate and protect them with grease.
- If the terminals are loose, tighten them.

Should the battery be removed from its housing to be replaced or charged, disconnect the leads  $(A^{A})$ , remove the nut  $(B^{A})$  and release the battery from the locking bracket.

#### CAUTION



CLOSE THE BREATHER CAPS AFTER ADDING DISTILLED WATER. BATTERY ELECTROLYTE CAN SPLASH OUT AND DAMAGE THE VEHICLE OR MAY ALSO CAUSE SERIOUS PHYSICAL INJURIES.

THE BATTERY CONTAINS SULPHURIC ACID, WHICH IS DANGEROUS AND CORROSIVE. WEAR PROTECTIVE GOGGLES AND AVOID ANY CONTACT WITH YOUR EYES, SKIN AND CLOTHES. IN CASE OF ACCIDENTAL CONTACT, RINSE WITH ABUNDANT WATER AND SEEK MEDICAL ASSISTANCE IMMEDIATELY.

KEEP THE BATTERY AWAY FROM ANY NAKED FLAMES AS THEY MAY CAUSE IT TO EXPLODE

KEEP BATTERIES AWAY FROM CHILDREN.

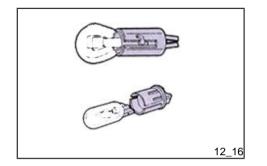
IF BATTERY FLUID POURS ONTO PAINTED PARTS, IMMEDIATELY WASH THEM WITH WATER.

USED BATTERIES ARE HARMFUL FOR THE ENVIRONMENT AND MUST BE COLLECTED AND DISPOSED OF IN COMPLIANCE WITH THE LAW.

#### **Electric characteristic**

Battery

12V-55Ah



#### **BULBS**

High-beam - low-beam bulb	Type: Twin-filament spherical bulb
	Power: 12V / 35 -35W
	Quantity: 1 Rh + 1 Lh
Front turn indicator bulb	Type: Spherical (Amber)
	<b>Power:</b> 12V / 21 W
	Quantity: 1 Rh + 1 Lh
Cab inside light bulb	Type: Cylindrical
	<b>Power:</b> 12V / 5 W
	Quantity: 1
Front tail light bulb	Type: Spherical

**Power:** 12V / 5 W

Quantity: 1 Rh + 1 Lh

Turn indicators unit bulb	Type: All-glass
	<b>Power:</b> 12V / 2 W
	Quantity: 1 + 1 + 1
	<b>Function:</b> Speedometer/ Odometer, Fuel level indicator, Ammeter.
Warning lights unit bulbs	Type: All glass
	<b>Power:</b> 12V / 2 W
	Quantity: 7
	<b>Function:</b> Left turn indicator, Oil pressure, Lights, Battery, Coolant temperature, Preheat glow plug, right turn indicator.
Parking/Stop bulb	Type: Twin-filament spherical bulb
Parking/Stop bulb	<b>Type:</b> Twin-filament spherical bulb <b>Power:</b> 12V / 5 -21W
Parking/Stop bulb	
Parking/Stop bulb	<b>Power:</b> 12V / 5 -21W
	<b>Power:</b> 12V / 5 -21W <b>Quantity:</b> 1 Rh + 1 Lh
	Power: 12V / 5 -21W Quantity: 1 Rh + 1 Lh Type: Spherical
	Power: 12V / 5 -21W Quantity: 1 Rh + 1 Lh Type: Spherical Power: 12V / 21 W
Reverse gear light bulb	Power: 12V / 5 -21W Quantity: 1 Rh + 1 Lh Type: Spherical Power: 12V / 21 W Quantity: 1 Rh + 1 Lh
Reverse gear light bulb	Power: 12V / 5 -21W Quantity: 1 Rh + 1 Lh Type: Spherical Power: 12V / 21 W Quantity: 1 Rh + 1 Lh Type: Spherical
Reverse gear light bulb	Power: 12V / 5 -21W Quantity: 1 Rh + 1 Lh Type: Spherical Power: 12V / 21 W Quantity: 1 Rh + 1 Lh Type: Spherical Power: 12V / 21 W



#### Headlight (12\_17, 12\_18, 12\_19)

#### Front headlights

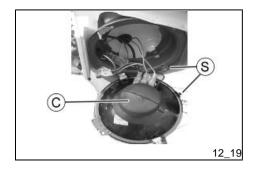
Replace the front headlight and tail light bulbs as follows once the outer frame is removed.

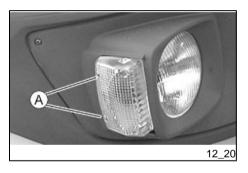
- Lift the fixing spring "M", release the spring "S" from the relevant ring and free the headlight.
- Remove the rubber protection "C". To replace the faulty bulb, slightly press and turn it until the two marks are aligned, then take it out.
- When fitting the bulb carry out the operations described above but in reverse order.

#### N.B.

#### TO REPLACE THE TAILLIGHT BULBS, FOLLOW THE INDICATIONS DESCRIBED FOR REPLACING THE HEADLIGHT BULB.





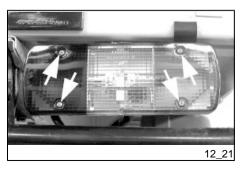


#### Front direction indicator (12\_20)

#### Front turn indicators

Replace the front turn indicator bulbs as follows:

- Remove the plastic lens by removing the four screws.
- Take out the bulb by slightly pressing and turning it until the two marks are aligned, then take it out.
- Follow the process in reverse order to refit.



#### Rear turn signal lights / stop lights / taillights / fog lights (12\_21)

#### **Rear lights**

To replace the bulbs of turn indicator lights, stop lights, taillights and reverse gear light, proceed as follows:

- 1. Remove the plastic lens by removing the four screws.
- 2. Take out the bulb by pressing and turning it.

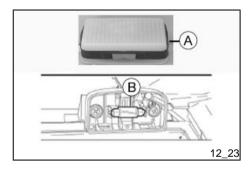


#### Plate lights (12\_22)

#### License plate light

In order to remove the number plate light bulb, proceed as follows:

- 1. Loosen the two screws «A» fixing the transparent bulb cover.
- 2. Replace the bulb and reassemble.

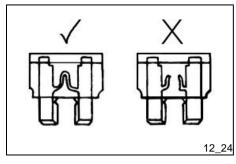


#### Front inside light (12\_23)

#### Internal light

The cab has a courtesy light placed on one side. The switch is on the same light fitting.

To replace the bulb  ${}^{\mathsf{w}}\mathbf{B}{}^{\mathsf{w}},$  remove the snap-on glass  ${}^{\mathsf{w}}\mathbf{A}{}^{\mathsf{w}}$  manually and replace it with a new one.





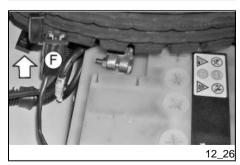
#### Fuses (12\_24)

- Fuse boxes (under the instrument panel); six 10A fuses
- Main (next to the battery) one 30A fuse

The electrical system is protected by six 10A fuses located in the fuse box under the instrument panel.

The battery circuit is also protected by one 30A main fuse  ${}^{\mathsf{w}}F{}^{\mathsf{w}}$  located under the seat, fixed to the chassis.





BEFORE REPLACING THE BLOWN FUSE, TRY TO ELIMINATE THE FAULT THAT HAS CAUSED IT TO BLOW. NEVER ATTEMPT TO REPLACE A FUSE US-ING A DIFFERENT MATERIAL (I.E. A PIECE OF ELECTRIC WIRE). OR A HIGHER AMPERAGE FUSE.



IF YOU WANT TO FIT ADDITIONAL UNITS ON THE VEHICLE (E.G. ADDITIONAL LIGHTS) WE POINT OUT THAT INCORRECT DERIVATIONS ON THE ELECTRIC CONNECTIONS MAY CAUSE DAMAGE TO THE INSTALLATION.

#### FUSES Fuse 1 - 10A Right and left high-beam lights, Warning lights Fuse 2 - 10A Low-beam lights (right and left) Fuse 3 - 10A Cab light - Horn - Stop light -Emergency lights (Hazard)- Heater Fuse 4 - 10A Windscreen wiper - Fuel gauge -Reverse gear light - Turn indicators - Turn indicator warning light - Oil pressure sensor - Preheating glow plug - Preheating glow plug warning light - Battery charge indicator - Coolant temperature -Brake fluid and parking brake sensor - Windscreen washer reservoir Fuse 5 - 10A Front left position light - Fuel gauge, Battery charge indicator, Speedometer/Odometer. License plate light - Rear tail lights Fuse 6 - 10A (right and left) - Right front tail light Main Fuse - 30A Battery



#### Brake pedal (12\_27)

#### Air bleeding from the braking system

In case of anomalies of the brake performance, accompanied by idle pumping, have the system drained by the **Concessionaires or Authorised PIAGGIO Service Centres**.

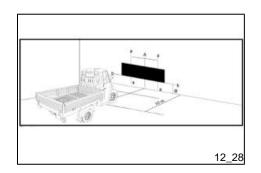
IN FACT, THE BRAKE FLUID IS HIGHLY CORROSIVE AND IT MUST BE DIS-POSED ACCORDING TO PRECISE REGULATIONS. MOREOVER, ANY INTER-VENTION TO THE BRAKING SYSTEM MUST BE CARRIED OUT ONLY BY QUALIFIED PERSONNEL.

#### Checking the clearance

#### Brakes adjustment

The brake shoes are provided with a self-adjustment device that automatically restores the proper clearance between blocks and drums, regardless of the friction material wear, so it is not necessary to perform manual adjustments.

In case of excessive wear, replace the brake shoes. For this operation, turn to a **Concessionaire or to an Authorised PIAGGIO Service Centre**.





#### Headlights adjustment (12\_28)

#### Headlights orientation

Proceed as follows:

**1**. Place the vehicle in conditions of use, without load, with the tyres inflated to the prescribed pressure on flat grounds at 10 m from a white screen placed in the shade. Make sure the vehicle axis is perpendicular to the screen;

2. Draw two vertical lines **«a-a»** at a distance **«A»** corresponding to the distance between headlight axes.

**3.** Draw a horizontal line **«b-b**» at height **«B**» from the ground to correspond to the headlight centre height **(H)** from the ground multiplied by **0.9**;

**4**. Start the engine and lock the throttle twist grip at approximately 1/3 of its travel, turn on the headlights, insert the low beam and aim it so that the horizontal demarcation line between the dark and the lighted area does not fall above the horizontal line «b-b» marked on the screen.

5. Otherwise, adjust the headlight using the two screws indicated in the figure, to correct any possible changes in the light beam.

CAUTION

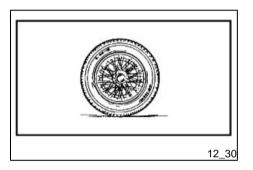


THE ADJUSTMENT OF THE HEADLIGHTS ORIENTATION IS AN OPERATION THAT, IF NOT PERFORMED PROPERLY, INFRINGES A SPECIFIC RULE OF THE ROAD CIRCULATION CODE. TO CHECK AND ADJUST THE HEADLIGHTS ORI-ENTATION, TURN TO THE DEALERS OR AUTHORISED PIAGGIO SERVICE CENTRES.

#### CAUTION



#### BEFORE CARRYING OUT THE OPERATION FOR HEADLIGHTS AIMING, CHECK THAT THE TYRES ARE INFLATED TO THE INDICATED PRESSURES.



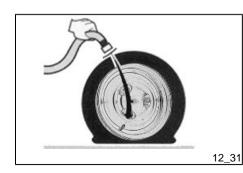
#### Tyres (12\_30)

- Periodically check the inflation pressure of each tyre.
- Tyres feature wear indicators; replace tyres as soon as these indicators become visible on the tyre tread.
- Also check that there are no cuts on the sides of the tyres or irregular tread wear; in such cases, contact an **authorised service centre** for the replacement.

#### **Characteristic**

#### Tyres

4.50 - 10"



#### Pressure (12\_31)



CHECK TYRE PRESSURE WHEN COLD. INCORRECT TYRE INFLATION PRES-SURE WILL CAUSE UNEVEN THREAD WEAR AND MAKE DRIVING DANGER-OUS.THE TYRE MUST BE REPLACED WHEN THE TREAD REACHES THE WEAR LIMITS SET FORTH BY LAW.

	TYRE PRESSURE	
Front tyre pressure	2.4 bar	
Rear tyre pressure	4.4 bar	

#### Rotation (12\_32)

#### Tyre rotation

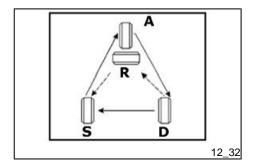
Tyre rotation is recommended to keep a regular tread wear on all tyres and to guarantee a greater vehicle braking stability.

Also check that the suspensions are in good conditions; if they are not, please take your vehicle to an **Authorised Service Centre** to replace the damaged components.

It is advisable to have tyres rotated every 5000 km.



WHEN A WHEEL IS REMOVED FROM OR REFITTED TO THE HUB, PAY SPECIAL ATTENTION NOT TO DAMAGE THE THREADS.



#### Tyre rotation diagram

- F Front wheel
- R Spare wheel
- S Left rear wheel
- D Right rear wheel

#### Periods of inactivity

#### Prolonged inactivity (over a month)

In case the vehicle has not been used for a long period, proceed with the following operations:

- General cleaning vehicle and bodywork;
- Air filter remove it and close the intake and exhaust ducts;
- Fuel tank drain off the fuel left in the tank;
- Not-painted parts cover with antirust spray grease;
- · Hinges and locks grease;
- Battery periodically recharge, bearing in mind that the battery tends to go completely flat in the course of three months. If the battery is removed, make sure you connect the leads correctly upon refitting
- Lift the vehicle and rest it on suitable supports that leave the wheels free.

#### Short period of inactivity (less than a month)

• Run the engine at a low speed for about 15 minutes (at least once a week).

#### WARNING

GIVEN SPECIAL WEATHER CONDITIONS THE FREQUENCY OF THIS OPERATION CAN VARY.

#### START-UP PROBLEMS

Connectors to the glow plug disconnected, or inefficient glow plug	Restore the connection or replace the preheating glow plug
No fuel in tank	Refuel
Air into the injection system	Bleed the air

Water in the diesel	Drain the water and replace the filter, if required, then bleed the air
Injector dirty or faulty	Contact an Authorised PIAGGIO Service Centre

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#### **ENGINE OPERATION FAULTS**

Injector faulty	Contact an Authorised PIAGGIO Service Centre
Air into the injection system	Bleed the air
Diesel filter clogged	Replace the filter and bleed the air

#### LOW PERFORMANCE

Injector faulty	Contact an Authorised PIAGGIO Service Centre
Diesel filter clogged	Replace the filter and bleed the air

#### **BLACK SMOKE AT THE EXHAUST**

Air filter clogged	Replace the air filter
Wrong injection pump calibration	Contact an Authorised PIAGGIO Service Centre

#### WHITE SMOKE AT THE EXHAUST

Injector faulty	Contact an Authorised PIAGGIO Service Centre
Delayed injection	Contact an Authorised PIAGGIO Service Centre

#### THE ENGINE KNOCKS

Injection advanced	Contact an Authorised PIAGGIO Service Centre
Injector faulty	Contact an Authorised PIAGGIO Service Centre

#### **POOR SUSPENSION**

Oil leaks or inadequate spring Contact an Authorised PIAGGIO Service Centre

#### TRANSMISSION IS NOT SMOOTH

Gearbox failure	Contact an Authorised PIAGGIO Service Centre
Gearcase noise	Contact an Authorised PIAGGIO Service Centre

#### **POOR BRAKING ACTION**

Drums greasy, brake shoes worn	Contact an Authorised PIAGGIO Service Centre
Shoe self-adjustment device faulty	Contact an Authorised PIAGGIO Service Centre
Irregular friction material wear	Contact an Authorised PIAGGIO Service Centre
Oil leaks from the circuit	Contact an Authorised PIAGGIO Service Centre
Air in the brake circuit	Bleed the air Contact an authorised PIAGGIO service centre.

#### **ELECTRIC SYSTEM INEFFICIENCY**

Faulty controls (switches) or lightsContact an Authorised PIAGGIOand indicatorsService Centre

Contact an Authorised PIAGGIO Service Centre

## **Ape Classic**



## COMMERCIALI



Chap. 13 Spare parts and accessories



Warnings (13\_01, 13\_02)



WE RECOMMEND THE USE OF "ORIGINAL PIAGGIO SPARE PARTS", THE ON-LY ONES TO OFFER THE SAME GUARANTEE OF QUALITY AS THE ORIGINAL PARTS INSTALLED ON THE VEHICLE. REMEMBER THAT THE USE OF NON-ORIGINAL SPARE PARTS WILL AFFECT YOUR RIGHTS AND INVALIDATE THE TERMS OF THE GUARANTEE

WARNING



PIAGGIO MARKETS ITS OWN LINE OF ACCESSORIES, WHICH ARE COVERED BY A MANUFACTURER'S WARRANTY ON THE BASIS OF THEIR USE. IT IS THEREFORE INDISPENSABLE TO TURN TO AN AUTHORISED PIAGGIO DEAL-ER OR SERVICE CENTRE IN ORDER TO SELECT THEM AND HAVE THEM CORRECTLY ASSEMBLED. USING NON-ORIGINAL SPARE PARTS CAN AF-FECT THE VEHICLE STABILITY AND PERFORMANCE, WITH CONSEQUENT DRIVING HAZARDS AND DRIVER SAFETY HAZARDS.



13 Spare parts and accessories

# 13 Spare parts and accessories

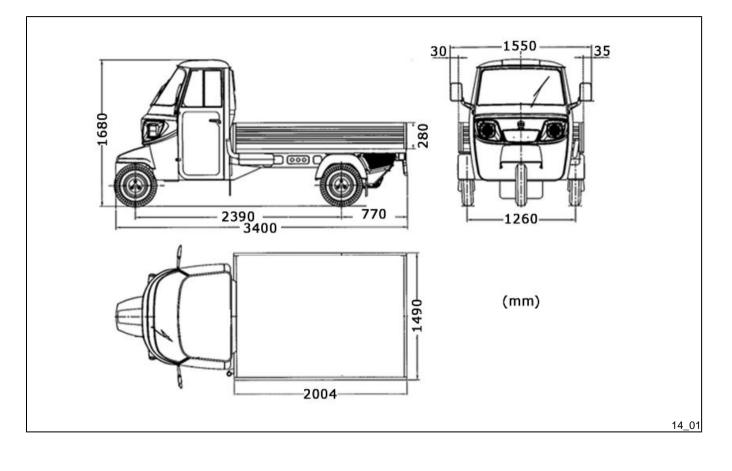
## **Ape Classic**



## VEICOLI COMMERCIALI



Chap. 14 Technical data



#### <u>SIZES</u>

Length	A - 3400 mm
Width	B - 1550 mm
Height	C - 1680 mm
Wheelbase	D - 2390 mm
Loading surface width	F - 1490 mm
Loading surface length	E - 2004 mm
Rear track	G - 1260 mm
Rear cantilever	H - 770 mm
Tailboard height	l - 280 mm

#### <u>WEIGHTS</u>

Empty weight	500 kg
Maximum technically allowable weight	1290 kg
Weight in running order, with driver	590 kg
Capacity	700 kg
Max. surpassable inclination	23%

#### **GENERAL SPECIFICATIONS**

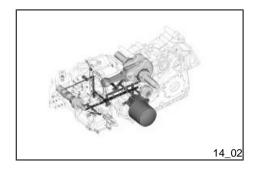
Start-up	electrical, with key switch and starter motor.
Fuel supply	Indirect injection through high pressure pump supplied by a diaphragm fuel pump. The circuit is enabled to operate by the engine stop solenoid valve (QSD) placed on the fuel filter body.
Injection system	In the diesel engine, the fuel is injected at the end of the compression stroke in the pre- chamber through the injection pump. The amount injected for each cycle is adjusted, depending on the power required, through the rotation of the pumping element of the injection pump by the adjustment bar.
Fuel injection pressure	150 bar
Fuel rate regulator	regulator; it is flanged on the side of the cylinder head and is driven by a shaft connected to the camshaft. The main functions of the regulator are:
	<ul> <li>to adjust the engine idle;</li> <li>to limit the maximum engine rpm;</li> <li>to increase capacity at start-up.</li> </ul>
Lubrication	Pressure by lobe pump.

Oil pressure at idle = $1.0 \div 2.0$ bar Oil pressure at full throttle = $3.4 \div 4.4$ bar
With cartridge and total capacity.
Camshaft on the cylinder head, controlled by a toothed belt.
Permanent forced coolant circulation system.
With dry filtering cartridge.
Expansion and absorption-type exhaust muffler.
Steering tube articulated to the arm with front wheel holder swinging hub.
Front suspension with double- acting hydraulic shock absorber and coaxial helicoidal spring.
Independent rear suspensions with swinging triangular arms with rubber pad and variable absorption at each wheel.
Service brake:expansion device on the three wheels, with hydraulic control directly from the pedal to the brake pump, with effect on double circuit. The breaks have a shoe self-regulation device that automatically and continuously restores the correct clearance between the shoes and the drums

regardless of how worn the friction material is.

**Parking brake:** with mechanical control on the rear wheels. The control lever is located on the side of the central stand in the driver's cab.

Wheels	Stamped sheet rim 4.50 - 10"
Tyres	4.50 - 10"
Front tyre pressure	2.4 bar
Rear tyre pressure	4.4 bar
Toolkit	Lifting jack.
	Jack lever.
	Tool pouch
	One twin screwdriver (crosshead and plain slot)
	One 19-mm L-shaped spanner (for wheel nuts).
	One 7x8 double open ended spanner
	One 10x13 double open ended spanner
	One 12x14 double open ended spanner
	One 17x19 double open ended spanner



### ENGINE

Engine	Diesel cycle, 4 strokes, indirect injection, single cylinder	
Bore	83 mm	
Stroke	78 mm	
Engine capacity	422 cm3	
Compression ratio	23 : 1	
Valve clearance (cold engine)	0.30 mm Intake 0.40 mm Exhaust	
Max. Power	7.8 kW at 4500 rpm	
Max. torque	23 Nm at 2750 rpm	
Static start advance	11° - 24° before TDC	
Fuel	Car diesel	

Operation range	~ 420 km (Specifications complying with Directive 2004/3/ EC ).
Maximum speed	~ 65 km/h

### **REFUELLING CAPACITY**

FUEL TANK	14.5 l (reserve: 1.5 l)	
Windscreen washer reservoir	1.5	
Coolant reservoir	3.5	
Engine oil	3.5 litres (without filter: 2.8 litres)	

### TRANSMISSION

Transmission	From crankshaft to the rear wheels via clutch, assembly of gearbox - differential - axle shafts and flexible couplings.	
Clutch	single disc, with manual selection control by means of a lever on the handlebar.	
Gearbox	With 4 direct drive gears.	
Gear ratio - 4 gears version	- 1st Gear = 1/35.4 - 2nd Gear = 1/19.0	

14 Technical data

- 3rd Gear = 1/10.9
- 4th Gear = 1/7.1
- Reverse Gear = 1/35.4

Differential	Connected to the gearbox shaft by cylindrical gears. The planetary and satellite gears are bevel.
	The differential box is connected to the two axle shafts that transmit the motion to the wheels by flexible couplings. The differential is equipped with a gear reversing device.

14 Technical data

# **Ape Classic**





Chap. 15 Scheduled maintenance - Checks

### Checks

#### **Periodical Checks**

**The Scheduled Maintenance Plan** offers a set of checks and operations in order to ensure a suitable maintenance, which is essential for a longer life of your vehicle in optimal performance conditions.

Any minor fault should be reported without delay to an **Authorised Service Centre** without waiting until the next scheduled service to solve it.

It is essential to carry out the Scheduled Maintenance Services at the specified intervals.

The «Warranty» will not apply unless the «Maintenance Services» specified for the prescribed warranty period are carried out. Failure to carry out the scheduled services will automatically invalidate the warranty. For further information regarding Warranty procedures and «Scheduled Maintenance», please refer to the **«SCHEDULED MAIN-TENANCE PLAN»**.

### CHECKS before every ride:

- Fuel level
- Engine oil level
- Transmission oil level
- Brake fluid level
- Coolant level
- Wear in brake discs and drums
- Braking system efficiency
- Electrical system and lights functioning
- Horn functioning
- Tyre pressure and wear
- No coolant, oil or fuel leaks
- Control handling (Levers, Transmission, Steering, etc.)

It is advisable to take your vehicle to an **Authorised Service Centre** that offers a workshop with qualified staff and equipped with the specific tools for top-quality maintenance operations and commissioning.



### Scheduled maintenance service (15\_01)

#### SERVICE SCHEDULE

Adequate maintenance is fundamental to ensure long-lasting, optimal operation conditions and performance.

For this purpose, PIAGGIO offers a series of checks and maintenance operations to be performed at the owner's expense, which are summarised in the table on the next pages.

Any minor faults should be reported without delay to an **Authorised Piaggio Dealer** or **Service Centre** without waiting until the next scheduled service to solve it.

Service the vehicle at the prescribed mileage.

The warranty will not apply unless the Scheduled Services, specified for the guarantee period you choose, are carried out.

Failure to carry out the scheduled services will automatically invalidate the warranty. For further information regarding Warranty procedures and «Scheduled Maintenance», please refer to the «Warranty Booklet».

### AFTER 1,000 км

Braking system - Test drive - Inspection

Brake fluid level - Inspection

External nuts and bolts lock - Inspection

Tappets - Inspection/Adjustment

Gearbox, gas and clutch control - Inspection/Adjustment

Electric system and batteries - Efficiency check

Injection dynamic advance and timing belt tension - Inspection

Tyre pressure - Check

Engine oil - Replacement

Oil filter - Replacement

## <u>ат 5,000 км; ат 15,000 км; ат 25,000 км; ат 35,000 км; ат 45,000 км and ат 60,000 км</u>

Braking system - Test drive - Inspection

Tappets - Inspection/Adjustment

Brake fluid level - Inspection

Preheat glow plug - Inspection

Tyre pressure - Check

Cylinder head, piston head, exhaust pipe, water radiator - Cleaning

Levers and controls engine side - Greasing

### AT 10,000 KM; AT 30,000 KM AND AT 50,000 KM

Braking system - Test drive - Inspection

External nuts and bolts lock - Inspection

Tappets - Inspection/Adjustment

Brake fluid level - Inspection

Gearbox, gas and clutch control - Inspection/Adjustment

Electric system and batteries - Efficiency check

Engine oil - Replacement

Oil filter - Replacement

Preheat glow plug - Inspection

Injection dynamic advance and timing belt tension - Inspection

Tyre pressure - Check

Cylinder head, piston head, exhaust pipe, water radiator - Cleaning

Levers and controls engine side - Greasing

Engine oil level - Check

Hinges, door closures and flexible transmissions - Application of grease

Fuel filter - Replacement

Air filter - Replacement

Coolant circuit tubes- Inspection

### AT 20,000 KM; AT 40,000 KM AND AT 70,000 KM

Braking system - Test drive - Inspection
External nuts and bolts lock - Inspection
Tappets - Inspection/Adjustment
Brake fluid level - Inspection
Gearbox, gas and clutch control - Inspection/Adjustment
Electric system and batteries - Efficiency check
Preheat glow plug - Inspection
Injection dynamic advance and timing belt tension - Inspection
Tyre pressure - Check
Cylinder head, piston head, exhaust pipe, water radiator - Clear
Levers and controls engine side - Greasing

Hinges, door closures and flexible transmissions - Application of grease

Coolant circuit tubes- Inspection

Engine oil - Replacement

Oil filter - Replacement

Fuel filter - Replacement

Air filter - Replacement

Coolant - Replacement

- Cleaning

### **RECOMMENDED PRODUCTS**

Product	Description	Specifications
AGIP SUPERDIESEL MULTIGRADE 15W-40	Engine oil	SAE 15W-40, API CF-4/SG
AGIP CITY HI TEC 4T	Oil for lubricating the flexible transmission lines (brakes, throttle control, odometer, etc.).	Specifications: SAE 5W-40, API SL, ACEA A3, JASO MA
AGIP GREASE PV 2	Multipurpose grease	NLGI 2 specifications; ISO-LXBIB2
AGIP GP 330	Grease for brake transmission control, clutch, gas, door hinges, etc.	Calcium complex soap-based grease with NLGI 2; ISO-L-XBCIB2
AGIP BRAKE 4	Brake fluid	FMVSS DOT 4
SPECIAL AGIP PERMANENT fluid	Ready-for-use coolant	CUNA NC 956-16

15 Scheduled maintenance - Checks

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# VEICOLI COMMERCIALI

old 633658 only Italy

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