

**aprilia**

**1149 3**

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**MOJITO 50 - 125 - 150**

www.serviceaprilia.com

**workshop** manual



8140754

INTRODUCTION

0

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## 0.1. FOREWORD

### 0.1.1. FOREWORD

- This manual provides all the most important information on the normal tasks involved in working on this vehicle.
- This publication is intended for **aprilia** dealers and their trained mechanics. Many topics have been intentionally omitted as they have been judged to be superfluous. As not all the mechanical topics could be covered in this publication, those using this manual must have undergone basic mechanical training, and must have a minimum knowledge of the procedures involved in repairing motorcycles. Without this knowledge, repairing and checking the motorcycle could be inefficient or dangerous. As not all the procedures involved in repairing and checking the motorcycle are described in detail, particular care must be taken to avoid harming components or people. To afford the customer greater satisfaction in using their motorcycle **aprilia s.p.a.** is constantly committed to improving their products and the related documentation. The major technical modifications and changes to the procedures for repairing the motorcycle are forwarded to all **aprilia** Points of Sale and Branches around the World. These changes will be made to subsequent editions of this manual. When necessary, or when in any doubt as to repair and checking procedures, contact the **aprilia** ASSISTANCE DEPARTMENT, who will be able to provide any information you require in this regard, as well as providing information on updates and technical modifications to the motorcycle.

The **aprilia s.p.a.** Company reserves the right to make changes to its models at any time, without prejudice to the essential characteristics described and illustrated in this manual.

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0.1.2. REFERENCE MANUALS

50 cc VERSION

WORKSHOP ENGINE MANUALS

aprilia part # (description)
8140433 <b>I</b>
8140436 <b>E</b>
8140434 <b>F</b>
8140435 <b>D</b>
8140437 <b>UK</b>

SPARE PART CATALOGUES

aprilia part # (description)
550X <b>I</b>
551X <b>I</b>

USE AND MAINTENANCE HANDBOOKS

aprilia part # (description)
8104690 <b>I F D</b>
8104784 <b>USA</b>

CYCLE CHARACTERISTICS WORKSHOP MANUALS

aprilia part # (description)
8140750 <b>I</b>
8140751 <b>E</b>
8140752 <b>F</b>
8140753 <b>D</b>
8140754 <b>UK</b>

125-150 cc VERSION

WORKSHOP ENGINE MANUALS

aprilia part # (description)
8140680 <b>I</b>
8140681 <b>E</b>
8140682 <b>F</b>
8140683 <b>D</b>
8140684 <b>UK</b>

SPARE PART CATALOGUES

aprilia part # (description)
6693 <b>I</b>

USE AND MAINTENANCE HANDBOOKS

aprilia part # (description)
8104690 <b>I F D</b>
8104784 <b>USA</b>

CYCLE CHARACTERISTICS WORKSHOP MANUALS

aprilia part # (description)
8140750 <b>I</b>
8140751 <b>E</b>
8140752 <b>F</b>
8140753 <b>D</b>
8140754 <b>UK</b>

**0.1.3. ABBREVIATIONS AND SYMBOLS**

#	= number
<	= less than
>	= greater than
=	= equal to or less than
=	= equal to or greater than
~	= approximately
∞	= infinite
°C	= degrees Celsius (centigrade)
°F	= degrees Fahrenheit
±	= plus/minus
a.c	= alternating current
A	= amperes
Ah	= amperes per hour
API	= American Petroleum Institute
HV	= high voltage
AV/DC	= Anti-Vibration Double Countershaft
bar	= unit of pressure (1 bar =100 kPa)
d.c.	= direct current
cm <sup>3</sup>	= cubic centimetres
CO	= carbon monoxide
CPU	= Central Processing Unit
DIN	= German industrial standards (Deutsche Industrie Norm)
DOHC	= Double Overhead Camshaft
ECU	= Electronic Control Unit
rpm	= revs per minute
HC	= unburnt hydrocarbons
ISC	= Idle Speed Control
ISO	= International Standardisation Organisation
kg	= kilograms
kgm	= kilograms per metre (1 kgm =10 Nm)
km	= kilometres
km/h	= kilometres per hour
kΩ	= kiloOhm
kPa	= kiloPascal (1 kPa =0,01 bar)
KS	= clutch side (Kupplungseite)
kW	= kiloWatt
l	= litres
LAP	= lap (race track)
LED	= Light Emitting Diode
LEFT	
SIDE	= left side
m/s	= metres per second
max	= maximum
mbar	= millibar (1 mbar =0,1 kPa)
mi	= mile
MIN	= minimum
MPH	= miles per hour
MS	= flywheel side (Kupplungseite)
MΩ	= megaOhm
N.A.	= Not Available
N.O.M.M.	= octane rating "motor" method
N.O.R.M.	= octane rating "research" method
Nm	= Newton per metre (1 Nm =0,1 kgm)
Ω	= ohm
PICK-UP	= pick-up
PMI	= bottom dead centre (BDC)
PMS	= top dead centre (TDC)
PPC	= Pneumatic Power Clutch

<b>RIGHT</b>	
<b>SIDE</b>	= right side
<b>SAE</b>	= Society of Automotive Engineers
<b>TEST</b>	= diagnostic test
<b>T.B.E.I.</b>	= crowned head with flush-mounted hexagonal bolt
<b>T.C.E.I.</b>	= cylinder head with flush-mounted hexagonal bolt
<b>T.E.</b>	= hexagonal head
<b>T.P.</b>	= flat head
<b>TSI</b>	= Twin Spark Ignition
<b>UPSIDE-</b>	
<b>DOWN</b>	= upside-down sleeves
<b>V</b>	= Volt
<b>W</b>	= Watt
<b>Ø</b>	= diameter

GENERAL INFORMATION

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## 1.1. STRUCTURE OF THIS MANUAL

### 1.1.1. HOW TO CONSULT THIS MANUAL

- This manual is broken down into sections and chapters, each of which corresponds to a major category of components. To consult the manual, see the contents indicating the sections. Per .
- Unless otherwise stated, reassembly of units is to take place in the opposite order to that used to disassemble the same unit.
- The terms “right” and “left” refer to the driver's position when seated in the normal driving position.
- Consult the “USE AND MAINTENANCE HANDBOOK” for instructions on how to use the vehicle and routine maintenance operations.

Variables in this manual are indicated using the following symbols:

 optional

 catalytic version

- all versions

MP national type approval

SF European type approval (EURO 1 limits)

#### VERSION:

 Italy	 Greece	 Malaysia
 United Kingdom	 Holland	 Chile
 Austria	 Switzerland	 Croatia
 Portugal	 Denmark	 Australia
 Finland	 Japan	 United States of America
 Belgium	 Singapore	 Brazil
 Germany	 Slovenia	 Republic of South Africa
 France	 Israel	 New Zealand
 Spain	 South Korea	 Canada

**1.1.2. SAFETY MESSAGES**

The following warning symbols are used throughout the manual to indicate the following:



**Warning symbol relating to safety.** When this symbol is seen on the motorcycle or in the manual, be careful of the potential risk of injury. Failure to comply with the instructions preceded by this symbol may compromise safety - yours, that of others, and that of the vehicle!

**DANGER**

This indicates a potential risk of serious injury or death.

**WARNING**

This indicates a potential risk of serious slight injury or damage to the vehicle.

**IMPORTANT** In this manual the term "IMPORTANT" appears before important information or instructions.

## 1.2. GENERAL INSTRUCTIONS

### 1.2.1. GENERAL SAFETY RULES

#### CARBON MONOXIDE

If you have to run the engine to be able to complete any task, make sure that this is done in the open air or in a room that is well ventilated.

Never run the engine in closed spaces.

If you have to work in a closed space, use an extraction system to remove the exhaust fumes.



#### DANGER

The exhaust fumes contain carbon monoxide, which is a poisonous gas that can cause loss of consciousness and death.

#### FUEL



#### DANGER

Fuel used to drive internal combustion engines is highly inflammable and may become explosive under certain conditions.

It is best to refuel and carry out maintenance in well ventilated places with the engine switched off. Do not smoke during refuelling or near fuel fumes. Avoid all contact with naked flames, sparks, or any other source that may cause ignition or explosion.

**DO NOT DISPOSE OF THE FUEL INTO THE ENVIRONMENT.**

**KEEP AWAY FROM CHILDREN.**

#### HIGH TEMPERATURE COMPONENTS

The engine and components on the exhaust system get very hot and stay hot for some time after the engine has been switched off.

Before handling these components put on insulating gloves or wait until the engine and the exhaust system have cooled down.

#### SPENT TRANSMISSION OIL AND FORK OIL



#### DANGER

When carrying out maintenance we recommend wearing latex gloves.

Transmission oil may cause serious harm to your skin if handled for long periods of time and on a daily basis.

We recommend washing your hands carefully after having handled this oil.

Deliver this oil to the nearest collection company for spent oil or the supplier, or have them collect it.

When carrying out maintenance we recommend wearing latex gloves.

**DO NOT DISPOSE OF THE OIL INTO THE ENVIRONMENT.**

**KEEP AWAY FROM CHILDREN.**

#### BRAKE FLUID



#### WARNING

Brake fluid can damage painted, plastic, or rubber surfaces. When carrying out maintenance on the braking system cover these components with a clean rag.

Always wear protective glasses when carrying out maintenance on the braking system.

Brake fluid is extremely harmful to the eyes.

In case of accidental contact with the eyes, immediately rinse the eyes with copious amounts of cold, clean water and contact your doctor immediately.

**KEEP AWAY FROM CHILDREN.**

## HYDROGEN GAS AND BATTERY ELECTROLYTE

**DANGER**

Battery electrolyte is toxic and caustic, and if it comes into contact with the skin it may cause burns as it contains sulphuric acid.

Always wear close-fitting gloves and protective clothing when handling battery electrolyte.

If the electrolyte comes into contact with the skin, wash with copious amounts of cold water.

It is particularly important to protect the eyes as even a minute quantity of battery acid can cause blindness. If it does come into contact with the eyes, wash with copious amounts of water for fifteen minutes and contact an eye specialist as soon as possible.

If any electrolyte should be swallowed accidentally, drink copious amounts of water or milk, followed by milk of magnesia or vegetable oil, and contact a doctor as quickly as possible.

The battery emits explosive gas and should be kept away from flames, sparks, cigarettes, or any other heat source.

Make sure the work area is suitable ventilated when carrying out maintenance or recharging the battery.

**KEEP AWAY FROM CHILDREN.**

Battery liquid is corrosive.

Do not spill or spread it around, especially over plastic parts.

Make sure that the electrolytic acid is specifically meant for the battery it is to be used with.

**PRECAUTIONS AND GENERAL INFORMATION**

When carrying out repairs, stripping or reassembling of the vehicle, apply the following instructions rigorously.

**DANGER**

Naked flames are not to be used for any type of operation. Before starting with any maintenance or with inspecting the vehicle, stop the engine, remove the key, wait for the engine and exhaust system to cool down, lift the vehicle if possible, using suitable equipment, and work on a solid, level floor. Be particularly careful of the parts of the engine and exhaust system that are still hot to prevent scalding. Do not hold any mechanical component or other part of the vehicle in your mouth. None of the components can be digested and some of them are harmful or even toxic.

Unless otherwise stated, reassembly of units is to take place in the opposite order to that used to disassemble the same unit. Any overlapping of operations in the various references to other chapters must be interpreted logically, thereby avoiding unnecessary removal of components. Do not polish matt surfaces with abrasive pastes.

Never use fuel as a solvent for cleaning the vehicle.

Do not use alcohol, benzene, or solvents to clean rubber or plastic parts or the saddle – use only neutral soap and water.

Disconnect the negative (-) terminal on the battery if electrical welding has to be done.

When two or more people are working on the vehicle at the same time, pay attention to the safety of each of them.

**BEFORE DISASSEMBLING COMPONENTS**

- Remove dirt, mud, dust and foreign matter from the vehicle before disassembling any components.
- Where provided for, use the special tools designed for this vehicle.

### DISASSEMBLING COMPONENTS

- Do not loosen and/or tighten bolts and nuts using pliers or any other tools – always use the correct spanner.
- Mark the positions of all the connection joints (hoses, cables, etc.) before separating them, and identify them by using different markings.
- Each piece must be clearly marked to allow it to be identified during installation.
- Carefully clean the components removed, using detergent with a low level of inflammability.
- Always keep the parts connected to one another as they “adapt” to each other during normal wear.
- Some components must be used together or replaced altogether.
- Keep away from heat sources.

### REFITTING COMPONENTS



#### DANGER

**Never reuse snap rings. When these are removed they must be replaced with a new ring. When fitting a new snap ring, be careful not to spread its ends further apart than strictly necessary to fit it on the shaft. After fitting a snap ring make sure that it is fully and firmly in its seating. Do not use compressed air to clean bearings.**

**IMPORTANT:** *Bearings must rotate freely without any sticking points and/or noise, otherwise they must be replaced.*

- Only use ORIGINAL **aprilia** SPARE PARTS.
- Use the recommended lubricants and consumables.
- Lubricate parts (where possible) before refitting them.
- When tightening bolts and nuts, start with those of a larger diameter or those on the inside and work diagonally. Tighten in stages before applying the tightening torque.
- Always replace self-locking nuts, gaskets, gasket rings, snap rings, O-rings (OR), split pins, and screws with damaged threads, with new parts.
- When fitting bearings, lubricate them well.
- Check that each component has been fitted correctly.
- After repairs or routine maintenance, carry out the preliminary checks and test the vehicle on private property or in an area with low volumes of traffic.
- Clean all joining surfaces, edges of oil seals, and gaskets before refitting. Apply a thin film of lithium-based grease to the edges of oil seals. Fit oil seals and bearings with the manufacturing mark or number facing outwards (visible side).

### ELECTRICAL CONNECTORS

Electrical connectors are to be disconnected as indicated below. Failure to apply this procedure may result in the connector and the wiring being irreparably damaged.

Where fitted, press down on the relevant safety clips.



#### WARNING

**Do not pull on the wires to disengage the two connectors.**

- Grip the two connectors and disconnect them by pulling them in opposite directions.
- If the connectors are dirty, rusted, wet, etc. clean the inside of the connector carefully using a jet of compressed air.
- Make sure that the wires are properly crimped to the terminals inside the connectors.

**IMPORTANT:** *The two connectors can only be inserted in one direction. Face them the right way to connect them.*

- Then insert the two connectors and make sure that they connect properly (where fitted with a clip, a typical “click” will be heard).

### TIGHTENING TORQUES



#### DANGER

**Remember that the tightening torques for all fixings on wheels, brakes, wheel pins, and components in the suspension are of fundamental importance in guaranteeing the safety of the vehicle, and must be kept at the prescribed torques.**

**Regularly check the tightening torque on the fixings and always use a torque wrench when refitting components.**

**Failure to observe these warnings may result in one of the components coming loose and blocking a wheel or causing other problems that would prejudice handling and cause the rider to fall, resulting in serious injury or even death.**

### 1.3. DANGEROUS ELEMENTS

#### 1.3.1. WARNINGS

##### FUEL



##### DANGER

Fuel used to drive internal combustion engines is highly inflammable and may become explosive under certain conditions.

It is best to refuel and carry out maintenance in well ventilated places with the engine switched off. Do not smoke during refuelling or near fuel fumes. Avoid all contact with naked flames, sparks, or any other source that may cause ignition or explosion.

Also avoid allowing the fuel to spill out of the filler cap as it could catch fire on contact with the very hot surfaces on the engine.

Should fuel be spilled accidentally check that the area is completely dry before starting up the vehicle.

The fuel expands when subjected to heat or the sun's rays.

The fuel tank should therefore never be filled to the brim. Close the filler cap carefully on completing refuelling.

Avoid the fuel coming into contact with your skin, inhaling vapours, ingestion and siphoning from one container to another using a hose.

**DO NOT DISPOSE OF THE FUEL INTO THE ENVIRONMENT.**

**KEEP AWAY FROM CHILDREN.**

Only use super lead-free petrol, with a minimum octane rating of 95 (N.O.R.M.) and 85 (N.O.M.M.).

##### LUBRICANTS



##### DANGER

Adequate lubrication of the vehicle is essential to guarantee the safety of the vehicle.

Failure to keep lubricants at sufficiently high levels or the use of inadequate, new and clean lubricants may cause the engine or gearbox to seize, resulting in accidents, serious injury or death.

Gearbox oil may cause serious harm to your skin if handled for long periods of time and on a daily basis.

We recommend washing your hands carefully after having handled this oil.

Do not dispose of the oil into the environment.

Deliver this oil to the nearest collection company for spent oil or the supplier, or have them collect it.



##### WARNING

When putting oil into the vehicle be very careful not to spill any. Immediately clean off any spilt oil, otherwise it may damage the paintwork on the vehicle.

In addition, any oil that ends up on the tyres will make them extremely slippery, creating a dangerous situation.

If an oil leak should arise, do not use the vehicle. Check and identify the cause of the leak and repair the component involved.

##### ENGINE OIL



##### DANGER

Engine oil may cause serious harm to your skin if handled for long periods of time and on a daily basis.

We recommend washing your hands carefully after having handled this oil.

Do not dispose of the oil into the environment.

Deliver this oil to the nearest collection company for spent oil or the supplier, or have them collect it.

When carrying out maintenance we recommend wearing latex gloves.

##### FORK OIL



##### DANGER

Adjusting the setting on the shock absorbers and/or the viscosity of the oil used in them may partially change the reaction of the suspension. Standard oil viscosity: SAE 20 W. The viscosity grade may be chosen in relation to the type of set-up you want on the vehicle (SAE 5W soft, 20W rigid).

These two products may be used in varying percentages in order to obtain the required reaction.

**BRAKE FLUID**

**IMPORTANT** This vehicle is fitted with front and rear disc brakes with separate hydraulic circuits. The information below refers to a single braking system but is valid for both.

**DANGER**

Do not use the vehicle if the brakes are worn or are not working properly. The brakes are the most important safety devices on the vehicle and using the vehicle with brakes in less than perfect condition means that there is every likelihood of being involved in a collision or accident, with all the related risks of serious injury or death.

Wet conditions significantly reduce the efficiency of the brakes.

**DANGER**

When the road is wet due to rain allow twice the normal stopping distance as both the brakes themselves and the grip of the tyres on the road are greatly reduced in wet conditions.

Water on the brakes, whether it be water left over from washing the vehicle or water coming from a wet road or due to passing through puddles or drains may wet the brakes sufficiently to significantly reduce their efficiency.

Failure to adhere to these warnings may lead to serious accidents, with a risk of serious injury or death.

Brakes are extremely important for your safety. Do not use the vehicle if the brakes are not working perfectly.

Always check that the brakes are working properly before starting off.

Brake fluid can cause irritation if it comes into contact with the skin or eyes.

Wash any parts of the body that come into contact with the liquid carefully and contact an eye specialist or doctor if the liquid comes into contact with the eyes.

**DO NOT DISPOSE OF THE LIQUID INTO THE ENVIRONMENT.**

**KEEP AWAY FROM CHILDREN.**

When using brake fluid be very careful not to spill any on plastic or painted parts as it will damage these.

**DANGER**

Do not use any liquids other than those recommended and do not mix different liquids when topping up, so as not to damage the braking system.

Do not use brake fluid taken from old containers or containers that have been open for a long time.

Irregular variations in play and the elastic resistance on the brake lever are caused by problems in the hydraulic circuits.

Take special care in assuring that the brake discs and friction material are not oily or greasy, especially after carrying out maintenance or checking operations.

Check that the brake hoses are not twisted or worn.

Make sure that no water or dust gets into the circuit inadvertently.

When carrying out maintenance on the hydraulic circuit we recommend wearing latex gloves.

**DISC BRAKES****DANGER**

Brakes are the most important safety devices on the vehicle.

In order to guarantee your personal safety they must be in perfect working order and must therefore always be checked before setting off.

Any oil or other liquids on a disc will dirty the brake pads.

Dirty brake pads must be removed and replaced. A disc that is dirty or that has traces of oil must be cleaned using a high quality degreasing agent.

If the vehicle is often used on wet or dusty sand roads, or when used for racing purposes, halve the frequency of maintenance works.

Check the brake pads for wear.

As the disc pads wear out, the brake fluid level in the tank drops to automatically compensate for the wear.

The tank for the front brake fluid is situated on the handlebar near the lever for the front brake.

The tank for the rear brake fluid is situated under the fairing on the right of the vehicle.

Do not use the vehicle if any part of either of the brake systems is leaking.

## TYRES

**WARNING**

An over inflated tyre will make the ride harder and uncomfortable, compromising riding comfort. In addition road handling will be compromised, especially on bends and on wet roads. A tyre that is under inflated (pressure too low) may slip on the wheel rim causing the rider to lose control of the vehicle. This will also compromise road holding and the vehicles's manoeuvrability, as well as the efficiency of the brakes. Replacing, repairing, maintenance, and balancing are all important operations that must be carried out by trained technicians using suitable equipment. New tyres may be covered in a thin film of protective coating that is slippery. Ride carefully for the first few kilometres (miles). Never use any kind of rubber treatment on the tyres. Especially avoid the tyres coming into contact with liquid fuels, as these would cause the rubber to deteriorate quickly. A tyre that has been in contact with oil or petrol cannot be cleaned and has to be replaced.

**DANGER**

Certain tyres originally supplied with the vehicle are fitted with wear indicators. There are various kinds of wear indicators. Contact your Dealer for the information required on the procedure for checking the tyres. Check the tyres for wear visually and replace them when worn. If a tyre goes flat while you are riding the vehicle do not attempt to continue riding. Avoid rapid braking or manoeuvres and do not decelerate too quickly. Slowly turn the accelerator handle to decelerate and move to the side of the road, using the engine's braking action to slow down to a stop. Failure to adhere to these warnings may lead to accidents, with a risk of injury or death. Do not fit tyres with tubes on rims for tubeless tyres and vice versa.

## 1.4. RUNNING IN

### 1.4.1. RUNNING IN

Running the engine in is fundamentally important for its subsequent lifespan and correct functioning.

If possible ride on roads with a lot of bends and/or hills where the engine, suspension, and brakes are subject to more efficient running in.

Vary your riding speed while running in.

This will make it possible to “load” and subsequently “unload” the work done by components, cooling some parts of the engine.

Although it is important to make the engine’s components work during running in, be careful not to over exert them.



#### WARNING

**The vehicle’s maximum acceleration performance and speed can only be obtained after running in.**

Follow the instructions below:

#### MOJITO 50

- Do not accelerate hard nor open the throttle completely when the engine is running at low rpm both during and after running in.
- **0-100 km (0-62 mi)** For the first 100 km (62 mi) use the brakes carefully and avoid hard or prolonged braking. This will allow the friction material on the disc pads to adjust to the disc properly for the disc brakes and the shoes on the drum for the rear wheel.
- **0-300 (0-187 mi)** Do not keep the accelerator handle turned more than half way for long periods of time.
- **300-500 km (187-312 mi)** Do not keep the accelerator handle turned more than  $\frac{3}{4}$  for long periods of time.

#### MOJITO 125 - 150

- Do not accelerate hard nor open the throttle completely when the engine is running at low revs both during and after running in.
- **0-100 km (0-62 mi)** For the first 100 km (62 mi) use the brakes carefully and avoid hard or prolonged braking. This will allow the friction material on the disc pads to adjust to the disc properly for the disc brakes and the shoes on the drum for the rear wheel.
- **0-500 km (0-312 mi)** Do not keep the accelerator handle turned more than half way for long periods of time.
- **500-1000 km (312-625 mi)** For the first 1000 km (625 mi) do not ride the vehicle at more than 80% of the estimated top speed.
- Do not maintain a constant speed for long stretches of road.
- **After the first 1000 km (625 mi)**, progressively increase speed until maximum performance is reached.



#### WARNING

**After the first 500 km (312 mi) for the Mojito 50 and the first 1000 km (621 mi) for the Mojito 125–150, carry out the checks listed in the “end of running in” column (see ROUTINE MAINTENANCE TABLE), in order to avoid harming yourself, others, and/or the vehicle.**

## 1.5. VEHICLE IDENTIFICATION

### 1.5.1. POSITION OF SERIAL NUMBERS

These numbers are required for registering the vehicle.

**IMPORTANT** Altering these identification numbers may lead to strict penal and administrative fines being incurred. Changing the chassis number result sin the guarantee becoming null and void immediately.

#### CHASSIS NUMBER

The chassis number is stamped on the chassis' central pipe. The cover must be removed to be able to read it.



#### ENGINE NUMBER

The engine number is stamped on the back, near the rear brake adjustment.



50 CC VERSION

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## 2.1. TECHNICAL INFORMATION

## 2.1.1. TECHNICAL DATA

DIMENSIONS	
Max. length	1900 mm
Max. length MOJITO CUSTOM	1950 mm
Max. width	720 mm
Max. width MOJITO CUSTOM	900 mm
Seat height	745 mm
Seat height MOJITO CUSTOM	750 mm
Max. height (headlight included)	1075 mm
Max. height (headlight included) MOJITO CUSTOM	1120 mm
Minimum ground clearance	137 mm
Min. ground clearance MOJITO CUSTOM	140 mm
Weight ready for starting	97 kg
Wheelbase	1300 mm
Wheelbase MOJITO CUSTOM	1285 mm
ENGINE	
Model	-
Type	2 stroke – with controlled ignition
Number of valves	-
Number of cylinders	horizontal one-cylinder
Total displacement	49.38 cm <sup>3</sup>
Bore / stroke	41 mm /37.4 mm
Compression ratio	11.3 ± 0.5: 1
Starting	Electrical + kick starter
Engine rpm when idling	1600 ± 200 rpm
Clutch	Automatic – dry centrifugal
Gearbox	Automatic stepless variator
Lubrication system	-
Cooling system	Forced air
CAPACITY	
Fuel (reserve included)	7.5 litres
Fuel reserve	2 litres
Transmission oil	130 cm <sup>3</sup>
Mixer oil	0,4 l
Seats	1 (2 in countries where transporting passengers is allowed)
Max motorcycle load (rider + luggage)	105 kg
Max motorcycle load (rider + passenger + luggage)	180 kg (in countries where transporting passengers is allowed)
TRANSMISSION	
Variator	Automatic stepless
Primary	Trapezoidal belt
Secondary	Gears
Total engine/wheel ratio	
- Minimum for automatic stepless gearbox	2,9
- Maximum for automatic stepless gearbox	0,75
CARBURETTOR	
Model	KEIHIN PWS 12
Choke tube	Equivalent diameter 12 mm
FUEL SUPPLY	
Type	Vacuum pump
Fuel	Super petrol DIN 51600 (4 stars – UK) with a minimum octane rating of 98 (N.O.R.M.) and 88 (N.O.M.M.).
Fuel (catalytic version)	Super DIN 51607 lead-free petrol, with a minimum octane rating of 95 (N.O.R.M.) and 85 (N.O.M.M.).
CHASSIS	
Type	Double monobeam

SUSPENSIONS	
Front	Hanger fork
Stroke	50 mm
Rear	Hydraulic shock absorber
Stroke	67.5 mm
BRAKES	
Front	Disc - Ø190 mm with hydraulic transmission
Rear	Drum - Ø120 mm with mechanic transmission
WHEEL RIMS	
Type	Light alloy
Front	3.00 x 12"
Rear	4.00 x 10"
TYRES	
Type	Tubeless
Front	120 / 70 - 12" - 51J
Rear	130 / 70 - 10" - 59 J
STANDARD INFLATION PRESSURE	
Front	170 kPa (1.7 bar)
Rear	190 kPa (1.9 bar)
INFLATION PRESSURE WITH PASSENGER (where drive with passenger is allowed)	
Front	190 kPa (1.9 bar)
Rear	210 kPa (2.1 bar)
IGNITION	
Type	C.D.I. / inductive
Spark advance	14 ± 1° - before the T.D.C. at 1600 rpm
SPARK PLUG	
Standard	NGK R BPR8HS
Alternative	NGK R BPR7HS
Spark plug electrode gap	0.6 - 0.7 mm
ELECTRICAL SYSTEM	
Battery	12 V - 4 Ah
Fuses	7.5 A - 10A
Generator (with permanent magnet)	12 V -115 W
BULBS	
Low / high beam	12 V -35/35/ W
Front parking light	12 V -5 W
Direction indicators light	12 V -10 W
Rear parking / stop / licence plate lights	12 V - 5 / 21/ W
Dashboard lighting	12 V - 2 W
Dashboard lighting MOJITO CUSTOM	12 V - 1,2 W
WARNING LIGHTS	
Direction indicators	12 V - 2 W
Oil mixer reserve	12 V - 2 W
Parking lights and dim headlight	12 V - 1,2 W
Bright light	12 V - 1,2 W
Fuel reserve	12 V - 2 W

## 2.1.2. FIXING ELEMENTS

**WARNING**

The fixing elements indicated in the table must be tightened to the torque indicated using a torque wrench and LOCTITE® where indicated.

**Notes:**

L243=apply Loctite® 243

Lub=lubricate

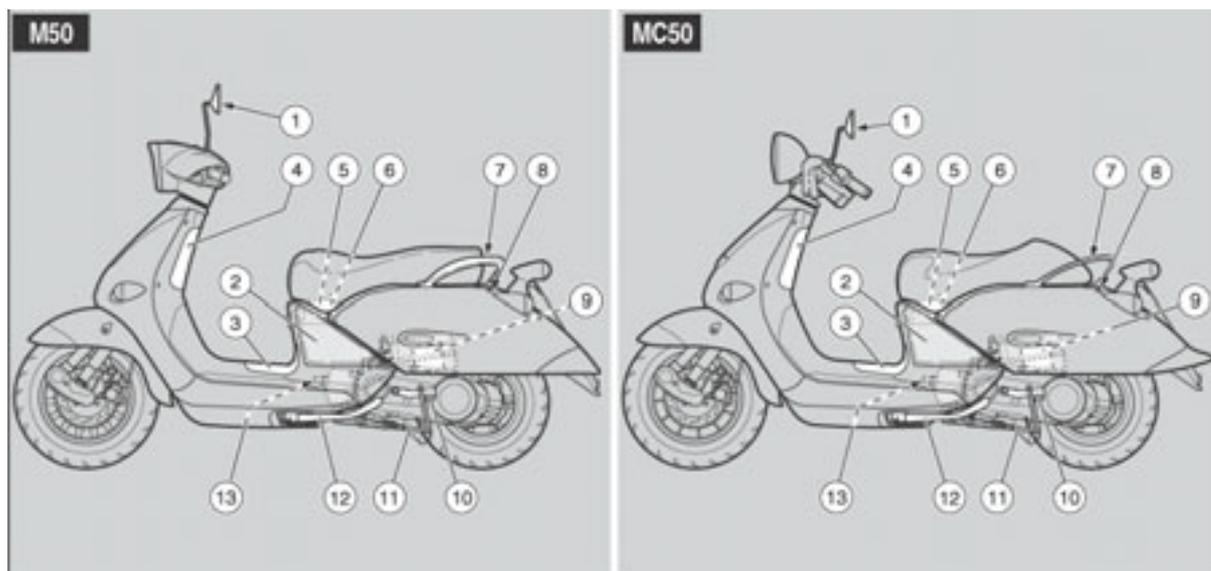
Component	Size	Torque Nm	Notes
Rear wheel positioning pin nut	M12	80	
Rear wheel nut	M14	110	
Nut for fixing the connecting rod to the frame	M10	50	
Nut for fixing the connecting rod to the joint	M12	80	
Nut for fixing the connecting rod to the engine	M10	40	
Screw for fixing the connecting rod silent block to the frame	M10	40	
Screw for fixing the handlebar clamp	M10	40	
Handlebar safety screw	M8	80	
Rear shock absorber connection top screw	M10	40	
Rear shock absorber connection lower screw	M10	40	
Nut for fixing the silencer to the cylinder	M6	9	
Screw for fixing the silencer to the cylinder	M6	9	
Rear brake lever fixing nut	M6	10	
Front brake caliper fixing screw	M8	25	
Brake pump U-bolt fixing screw	M6	9	
Screws for fixing the brake pipe to the brake pump	M10	18	
Screws for fixing the brake pipe to the brake caliper	M10	18	
Fixing bolt for the passenger's handgrip	M6	10	
Screw for fixing the central stand to the engine	M10	35	
Fuel tank fixing screw	M6	7	
Starter lever fixing screw	M6	10	
Coil fixing screw	M6	5	
Electric horn fixing screw	M6	10	
Body fixing screws	M6	5	
Bodywork fixing bolts	M5	4	
Bodywork fixing screws	Self-tapping	3	

**N.B.:** All the torques indicated are nominal values. The tolerance allowed is  $\pm 5\%$ .

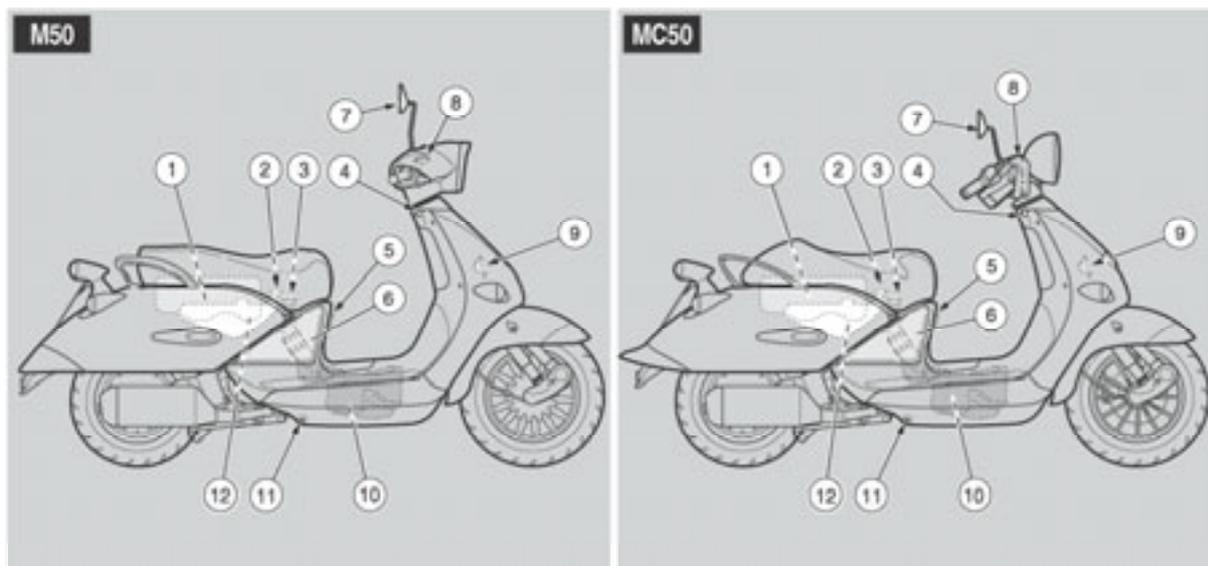
## 2.1.3. LUBRICANT TABLE

LUBRICANT	PRODUCT
Transmission oil	<p>RECOMMENDED:  F.C., SAE 75W 90 or  GEAR SYNTH, SAE 75W - 90</p> <p>As an alternative to the recommended oil, it is possible to use high-quality oils with characteristics in compliance with or superior to the A.P.I. GL-4 specifications.</p>
Mixer oil	<p>RECOMMENDED:  GREEN HIT 2 or  CITY 2T</p> <p>As an alternative to the recommended oil, use high-quality oils with characteristics in compliance with or superior to the ISO – L – ETEC++, A.P.I. TC++ specifications.</p>
Fork oil	<p>RECOMMENDED:  F.A. 5W or  F.A. 20W as an alternative  FORK 5W or  FORK 20W.</p> <p>If you need an oil with intermediate characteristics in comparison with  F.A. 5W and  F.A. 20W, or with  FORK 5W and  FORK 20W, these can be mixed as indicated below:</p> <p>SAE 10W =  F.A. 5W 67% of the volume +  F.A. 20W 33% of the volume, or   FORK 5W 67% of the volume +  FORK 20W 33% of the volume:</p> <p>SAE 15W =  F.A. 5W 33% of the volume +  F.A. 20W 67% of the volume, or   FORK 5W 33% of the volume +  FORK 20W 67% of the volume.</p>
Bearings and other lubrication points	<p>RECOMMENDED:  AUTOGREASE MP or  GREASE 30.</p> <p>As an alternative to the recommended product, use high-quality grease for rolling bearings, working temperature range -30°C to +140°C, dripping point 150°C to 230°C, high protection against corrosion, good resistance to water and oxidation.</p>
Battery poles	Neutral grease or Vaseline
Brake Fluid	<p><b>IMPORTANT</b> Only use new brake fluid. Do not mix different brands or types of fluid without checking that their bases are compatible.</p> <p>The braking system is filled with  Autofluid FR. DOT 4 (compatibility DOT 5) or  BRAKE 5.1, DOT 4 (compatibility DOT 5).</p>
Engine coolant liquid	<p><b>IMPORTANT</b> Only use nitrite-free anti-freeze and corrosion inhibitors with a freezing point of at least -35 °C.</p> <p>RECOMMENDED:  ECOBLU – 40° C or  COOL.</p>

## 2.1.4. ARRANGEMENT OF THE MAIN ELEMENTS

**Key:**

1. Left rear-view mirror (**M50** not provided in the **UK** version)
2. Left inspection cover
3. Central inspection cover
4. Glove compartment
5. Battery
6. Fuse carrier
7. Passenger grab rail
8. Saddle lock
9. Air filter
10. Kick-starter
11. Central stand
12. Side stand (**OPT**)
13. Spark plug

**Key:**

1. Helmet / glove compartment
2. 2 stroke oil tank plug
3. Fuel tank plug
4. Ignition switch / steering lock
5. Bag hook
6. Right inspection cover
7. Right rear-view mirror (**M50** in the countries where required)
8. Brake fluid reservoir (front brake)
9. Horn
10. Fuel tank
11. Anti-theft hook [for the " **aprilia** Body-Guard armoured cable (**OPT**)]
12. 2 stroke oil tank.

**2.2. ROUTINE MAINTENANCE OPERATIONS**

**2.2.1. ROUTINE MAINTENANCE CHART**

Components	After running-in [500 km (312 mi)]	Every 4000 km (2500mi) or 12 months	Every 8000 km (5000 mi) or 24 months
Rear shock absorber	-	-	1
Transmission cables and controls	1	1	-
Battery – Terminal fastening – Electrolyte level	1	1	-
Spark plug	1	1	3
Carburettor – Idling	4	1	-
Variator roller pins and guides	-	-	3
Variator belt	-	-	3
Steering tube bearings and steering slack	1	1	-
Wheel bearings	-	1	-
Brake discs	1	1	-
Piston rings	Every 12000 km (7500 mi): 1		
General running of the vehicle	1	1	-
Braking system / brake discs	1	1	-
Electric start transmission pin greasing	-	-	1
Rear brake cam pin greasing	-	1	-
Exhaust/ silencer/exhaust terminal	-	1	-
Mixer / accelerator operation	1	1	-
Air cleaner	1	2	-
Accelerator operation	1	1	-
Brake locking operation	1	1	-
Light system	1	1	-
Wear on the clutch	-	-	1
Stop light switch	-	1	-
Brake Fluid	-	1	1 every two years: 3
2 stroke oil	Every 500 km (312 mi): 1		
Transmission oil	3	1	Every 12000 km (7500 mi): 3
Rear pulley pins	Every 12000 km (7500 mi): 3		
Mobile/fixed front pulley	Every 12000 km (7500 mi): 3		
Front headlight alignment - operation	-	1	-
Spark plug cap	-	1	-
Wheels - Tyres – Inflation pressure	every month: 1		
Wheels - Tyres	1	1	-
Nut, bolt, screw tightening	1	1	-
2 stroke oil reserve warning light	1	1	-
Cylinder head and cylinder	-	-	2
Front shock absorber pumping element	-	1	-
Fuel pipe	Every 4000 km (2500 mi): 1 / every 4 years: 3		
Braking system pipe	Every 4000 km (2500 mi): 1 / every 4 years: 3		
Mixer oil piping	1	1	Every 2 years: 3
Rear brake shoe wear	1	1	-
Brake pad wear	1	Every 2000 km (1250 mi): 1	

1 = check and clean, adjust, lubricate, or change if necessary. 2 = clean. 3 = change. 4 = adjust.

Carry out the maintenance operations more frequently if you use the vehicle in rainy or dusty areas, over on uneven ground, or on race tracks.

( ) = OPERATIONS WHICH CAN BE CARRIED OUT BY THE USER

### 2.2.2. AIR CLEANER

Clean the air cleaner every 4000 km (2500 mi) or 12 months. If the vehicle is used on dusty or wet roads, the cleaning operations and replacement should be carried out more frequently.

- In this case the air cleaner may be partially cleaned after travelling on these types of roads.



#### WARNING

Partial cleaning of the air cleaner does not exclude or delay replacing the filter.

Do not start the engine while the air cleaner is off.

#### REMOVING

- Position the vehicle on the centre stand.
- Unscrew and remove the four screws.



- Rotate the start pedal completely and keep it down.
- Withdraw the complete filter from below and remove it.



#### CLEANING

- Separate the containing grid (1) from the support (2).
- Remove the filtering element (3).
- Wash the filtering element with clean, non-inflammable solvents, or with solvents with a high volatility point and let it dry thoroughly.
- Apply filter oil on the whole surface of the filtering element.



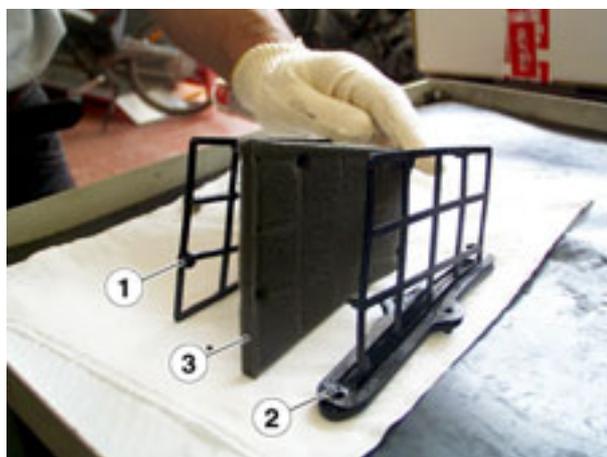
#### DANGER

Do not use petrol or solvents to clean the filtering element as this could cause a fire in the fuel supply system, resulting in serious danger to people and the vehicle.



#### WARNING

While cleaning the filtration element s sure it is not lacerated. If it is, replace the filtration element.



### 2.2.3. IDLING ADJUSTMENT

Adjust the idling after the first 500 km (312 mi) and every time it is irregular.

Before adjusting the carburettor make sure that it is properly lubricated, that the spark plug is in good condition, the air cleaner is clean and airtight, and that the exhaust system is completely airtight.

- Drive for a few miles until the engine reaches the normal running temperature, then stop the engine.
- Remove the central inspection cover.
- Connect an electronic revolution counter to the spark plug cable.



- Start the engine.

The minimum speed of the engine (idling) must be about  $1600 \pm 200$  rpm; in this case the engine does not make the rear wheel rotate.

- Remove the left inspection cover – see 2.5.6 (REMOVING THE RIGHT AND LEFT INSPECTION COVERS

- Act on the adjusting screw (1) positioned on the carburettor. When turned clockwise the engine rotation speed increases, and when turned anticlockwise it decreases.

**IMPORTANT** Do not act on the air adjusting screw (2), to avoid variations on the carburettor setting.

- Turn the twistgrip up and down several times to check for proper operation and ensure that idling is steady.



## 2.2.4. SPARK PLUG

### THIGHTENING TORQUE

Spark plug: 20 Nm (2 kgm).

Check the spark plug after the first 500 km (312 mi) and successively every 4000 km (2500 mi). Change it every 8000 km (5000 mi).

- Periodically remove the spark plug, clean any carbon deposits from it; change it if necessary.

To reach the spark plug:



#### DANGER

Let the engine cool down to ambient temperature.

- Remove the central inspection cover.

To remove and clean the spark plug:



#### DANGER

Never disconnect the spark plug cap when the engine is running as you may suffer a severe electric shock from the ignition system.

- Take off the cap (1) from the spark plug (2).
- Remove all the dirt from the base of the spark plug.
- Put the plug spanner supplied in the tool kit over the spark plug.
- Unscrew the spark plug and remove it from its seating, taking care that neither dust nor other substances enter the cylinder.

- Make sure that there are neither carbon deposits nor corrosion marks on the electrode and on the central porcelain part; if necessary clean them with the special cleaners for spark plugs, and/or a metal brush.
- If the spark plug has any crackings on the insulating material, corroded electrodes or excessive deposits, the central electrode (3) with a rounded top, it must be changed.



#### WARNING

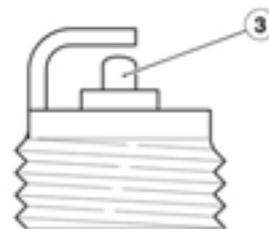
When replacing the spark plug check the pitch and length of the thread.

If the thread is too short the carbon deposits will build up on the thread, resulting in a risk of damaging the engine when a spark plug of the correct size is fitted.

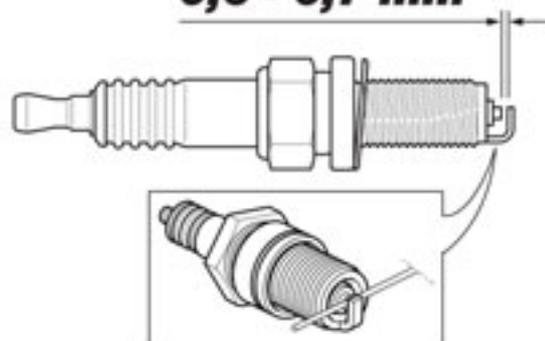
Use the recommend type of spark plug only, otherwise the life and the performance of the engine may be compromised.

To check the gap between the electrodes, use a thread type feeler gauge to avoid damaging the platinum coating.

- Check the gap between the electrodes using a thread type feeler gauge.
- This gap must be 0.6 – 0.7 mm. If necessary, adjust it carefully bending the earth electrode.
- Make sure that the washer is in good condition. With the washer on, screw the spark plug by hand in order not to damage the thread.
- Tighten the spark plug by means of the spanner supplied with the tool kit, giving it a half turn to compress the washer.



**0,6 - 0,7 mm**



**WARNING**

The spark plug must be well tightened, otherwise the engine may overheat and be seriously damaged. Use the recommended type of spark plug only, otherwise the life and performance of the engine may be compromised.

- Position the cap (1) on the spark plug (2) correctly, so that it does not come loose due to the engine vibrating.
- Refit the central inspection cover.

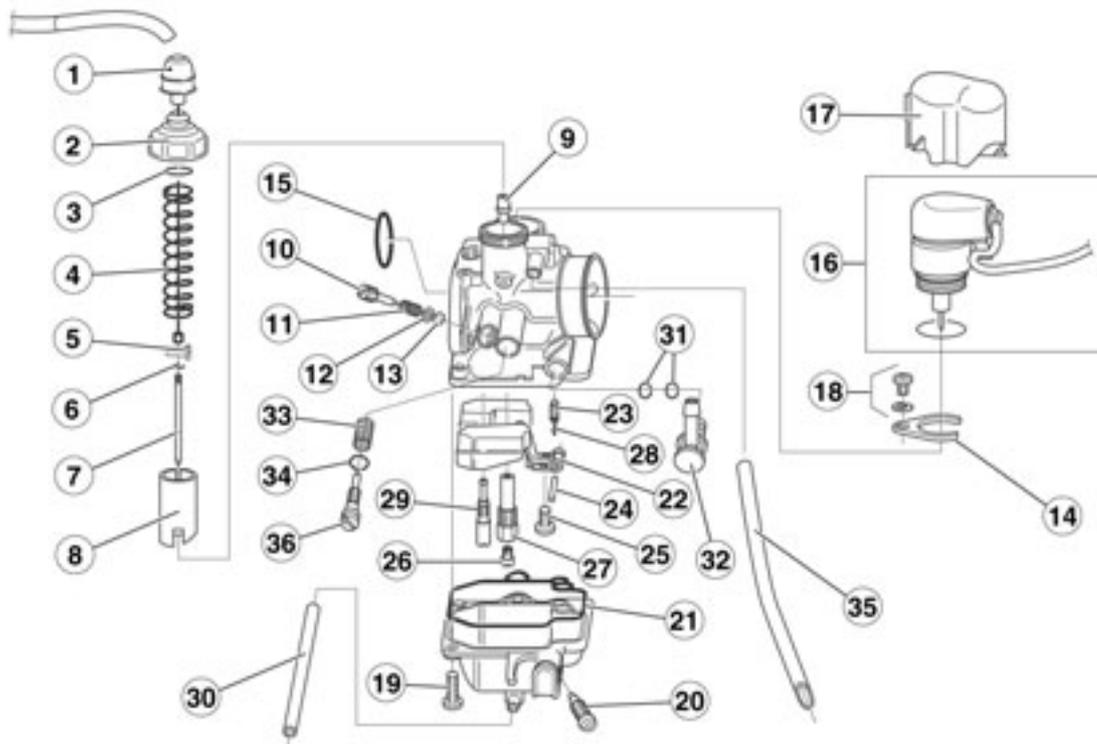
**DANGER**

Make sure that the cap (1) is correctly positioned on the spark plug (2).



## 2.3. FUEL SUPPLY

## 2.3.1. CARBURETTOR DIAGRAM



## Key:

- |                          |                                |
|--------------------------|--------------------------------|
| 1. Cap                   | 27. Jet holder                 |
| 2. Gas valve cover       | 28. Clamp                      |
| 3. Gasket                | 29. Idle jet                   |
| 4. Spring                | 30. Hose                       |
| 5. Plate                 | 31. O-Ring                     |
| 6. Metering rod lock     | 32. Pipe fitting               |
| 7. Pin                   | 33. Spring                     |
| 8. Valve                 | 34. O-Ring                     |
| 9. Needle valve          | 35. Hose                       |
| 10. Air fuel screw       | 36. Adj. Min. eng. speed screw |
| 11. Spring               |                                |
| 12. Washer               |                                |
| 13. O-Ring               |                                |
| 14. Starter fixing plate |                                |
| 15. O-Ring               |                                |
| 16. Choke valve          |                                |
| 17. External cover       |                                |
| 18. Screw                |                                |
| 19. Screw                |                                |
| 20. Fuel unload screw    |                                |
| 21. Gasket               |                                |
| 22. Float                |                                |
| 23. Pin valve            |                                |
| 24. Floating pin         |                                |
| 25. Screw                |                                |
| 26. Main jet             |                                |

**2.3.2. REMOVING THE CARBURETTOR**

- Remove the right and left inspection covers – see 2.5.6 (REMOVING THE RIGHT AND LEFT INSPECTION COVERS)
- Remove the rear cowling – see 2.5.6 (REMOVING THE REAR COWLING)

- Release the hose clamp and disconnect the fuel pipe.



- Unscrew the gas valve cover.



- Remove the gas cable from the carburettor.



- Disconnect the automatic starter connector.



- Release the hose clamp that fixes the carburettor to the filter casing.



- Unscrew and remove the two fixing screws for the intake manifold.
- Remove the carburettor.



**2.3.3. REMOVING THE FUEL LEVEL SENSOR**

- Unscrew and remove the fixing screws for the fuel level sensor cover.
- Remove the cover.



- Disconnect the electrical connector.
- Unscrew and remove the four fixing nuts for the sensor.
- Remove the sensor.



**2.3.4. REMOVING THE FUEL TANK**

- Remove the right and left inspection covers – see 2.5.6 (REMOVING THE RIGHT AND LEFT INSPECTION COVERS)
- Unscrew and remove the fixing screw for the fuel level sensor cover.
- Remove the cover.



- Working on both sides, unscrew and remove the four lower fixing screws for floor panel.



- Working on both sides, unscrew and remove the four upper fixing screws for the floor panel.
- Remove the floor panel.



- Disconnect the electrical connector for the fuel level sensor.



- Release the retention hose clamp and remove the fuel tank breather pipe.



- Working on both sides, unscrew and remove the two front fixing screws for the lower floor panel guards.
- Remove the lower floor panel guards.

**DANGER**

**Danger of fire.**

**Wait for the engine and the exhaust silencer to cool down completely.**

**Fuel vapours are harmful to your health.**

**Before starting work make sure that the room you are working in is adequately ventilated.**

**Do not inhale fuel vapours.**

**Do not dispose of the fuel into the environment.**

- Prepare a container with a capacity that exceeds that of the fuel tank and put it on the ground under the vehicle.
- Release the hose clamp and remove the fuel pipe from the coupling and empty the tank.
- Release the lower retention hose clamp for the upper tank pipe coupling.



- Unscrew and remove the four fixing screws for the tank.



- Working on both sides, unscrew and remove the two fixing screws for the body support bracket.
- Remove the brackets.
- Remove the lower fuel tank.



#### FUEL FILLER CAP

- Remove the fuel cap.
- Remove the mixer oil cap.
- Unscrew and remove the two fixing screws for the filler cap.



- Remove the filler cup guard.



- Pull the fuel filler cap downwards and remove it from the right side.
- Release the hose clamp (1) and disconnect the fuel pipe (2).
- Remove the fuel filler cap.



## 2.4. ENGINE

### 2.4.1. REMOVING THE ENGINE



#### WARNING

Before proceeding with these operations, remember that the engine must be removed downwards from the frame. Arrange the necessary equipment accordingly.

- Remove the rear cowling – see 2.5.6 (REMOVING THE REAR COWLING)

**IMPORTANT** Set up an hoist and belts for lifting and securing the handlebar beforehand.

- Use the belts to secure the handlebar to the board.
- Connect other belts to the rear of the frame.
- Lift the arm of the hoist and until the belts are tensioned.



- Unscrew and remove the lower bolt that fixes the shock absorber to the engine.



- Unscrew the gas valve cover.



- Remove the gas cable from the carburettor.



- Disconnect the automatic starter connector.



- Release the clamp and disconnect the fuel supply piping.

**WARNING**

When removing the fuel supply pipe and the vacuum pipe, mark them to avoid inverting them accidentally when refitting the engine.



- Release the clamp and disconnect the vacuum pipe



- Release the clamp and disconnect the mixer oil pipe.

**WARNING**

Fold the mixer oil pipe over and secure it with a self-locking clamp to prevent the oil spilling.



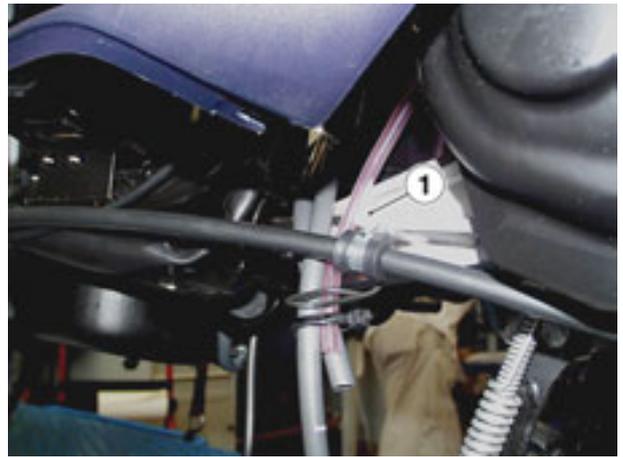
- Remove the battery, fuel tank, and carburettor breather pipes from the guide eyelet.



- Unscrew and remove the brake lever adjuster.
- Remove the rear brake cable.



- Unscrew the screw (1) and remove the brake cable seal hose clamp.



- Unscrew and remove the screw (2).
- Disconnect the earth cable (3).



- Remove the cap (4) from the spark plug (5).



- Disconnect the three connectors (pick-up, starter motor and power) from the ignition unit.



- Working from the right, unscrew and remove the nut (6).



- Remove the pin from the opposite side.

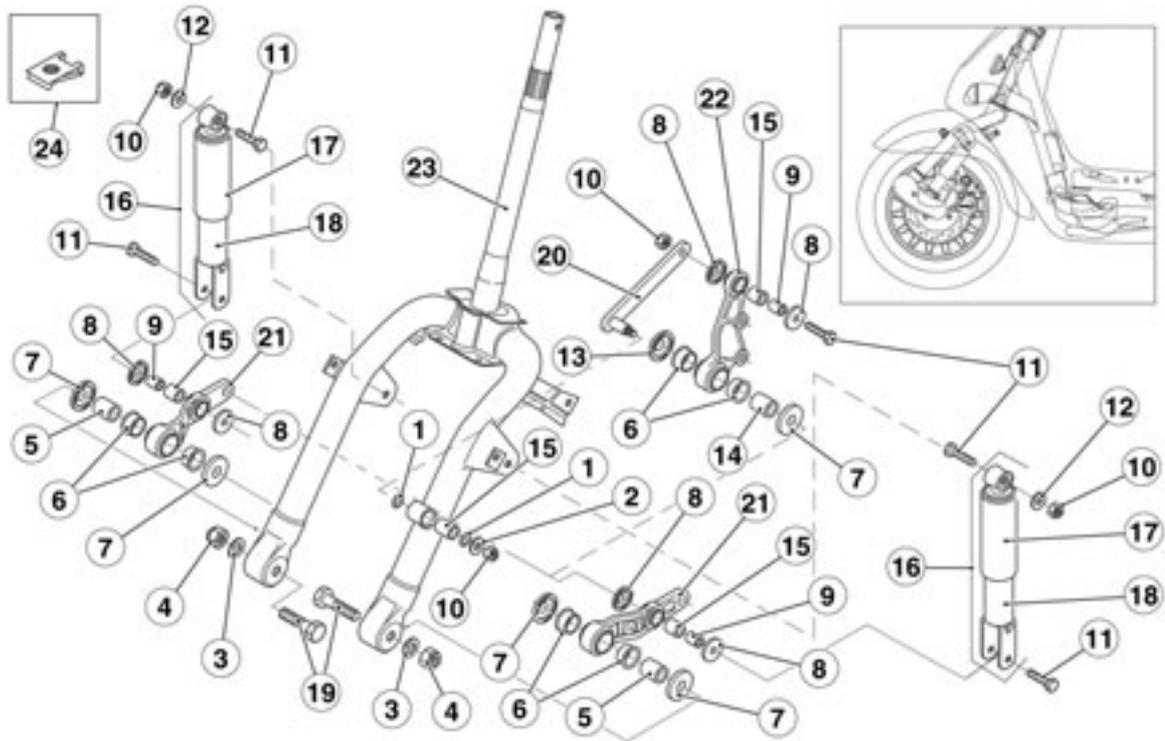


- Remove the engine, complete with the central stand and rear wheel.



2.5. CYCLE CHARACTERISTICS

2.5.1. FRONT FORK DIAGRAM



Key:

1. O-Ring 115
2. Special washer
3. Washer 13x24x2.5
4. M12 low self-locking nut
5. Bush
6. Nylon bush
7. Cup
8. D20 cup
9. Bush
10. M8 low self-locking nut
11. M8x35 hex screw
12. Washer 8.4x17
13. D 28 cup
14. Bush
15. Nylon bush
16. Fork shock absorber
17. Upper shock absorber cover
18. Lower shock absorber cover
19. M12x50 screw
20. Plate
21. Connecting rod
22. Basic fork
23. M5 clip

### 2.5.2. REMOVING THE FORK

- Place the vehicle on the central stand on a hoist with the front wheel protruding beyond the edge of the hoist board.
- Place the vehicle on the central stand on a hoist with the front wheel protruding beyond the edge of the hoist board.
- Tension both the straps so that the front of the vehicle remains raised
- Tension both the straps so that the front of the vehicle remains raised.
- Remove the brake caliper



- Unscrew and remove the wheel pin locking nut along with its washer.



- Support the front wheel and remove the wheel hub altogether.
- Take note of the position of the speedometer transmission in order to be able to refit it correctly.



- Remove the front wheel.
- Take note of the position of the washer and keep it in order to be able to refit it correctly.



If necessary, the front shock absorbers can now be removed.

**REMOVING THE SHOCK ABSORBERS**

- Unscrew and remove the two fixing screws for the shock absorbers.
- Remove the shock absorber.



- To proceed with removing the fork, remove the superstructure.

**WARNING**



**Do not force cables, pipes, wires or electrical connectors.**

**MOJITO RETRO'**

- Headlight ring nut
- Front headlight
- Upper headlight support and dashboard
- Handlebar and lower headlight support

**MOJITO CUSTOM**

- Front headlight
- Dashboard
- Handlebar

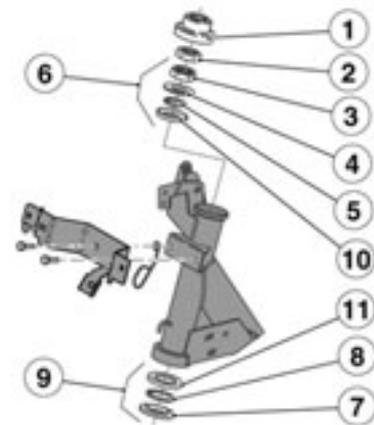
- Remove the rubber gasket (1).
- Unscrew and remove the tightening nut (2).
- Unscrew and remove the adjustment (3)



**WARNING**

**When removing the fork be sure to collect all the balls for the ball bearings. The balls are not trapped and automatically fall out when the fork is removed.**

- Remove the fork from the steering pipe.
- Remove the inner ring (4) and balls (5) from the upper bearing (6).
- Remove the inner ring (7) and balls (8) from the lower bearing (9).
- Carefully wash all the bearing components, including the outer rings (10) and (10) and (11).



- Examine all the components for wear and replace if necessary.
- Put lots of grease on all the bearing components, and use the grease to keep the balls in the outer ring before trying to fit the fork by following the instructions above in reverse order.

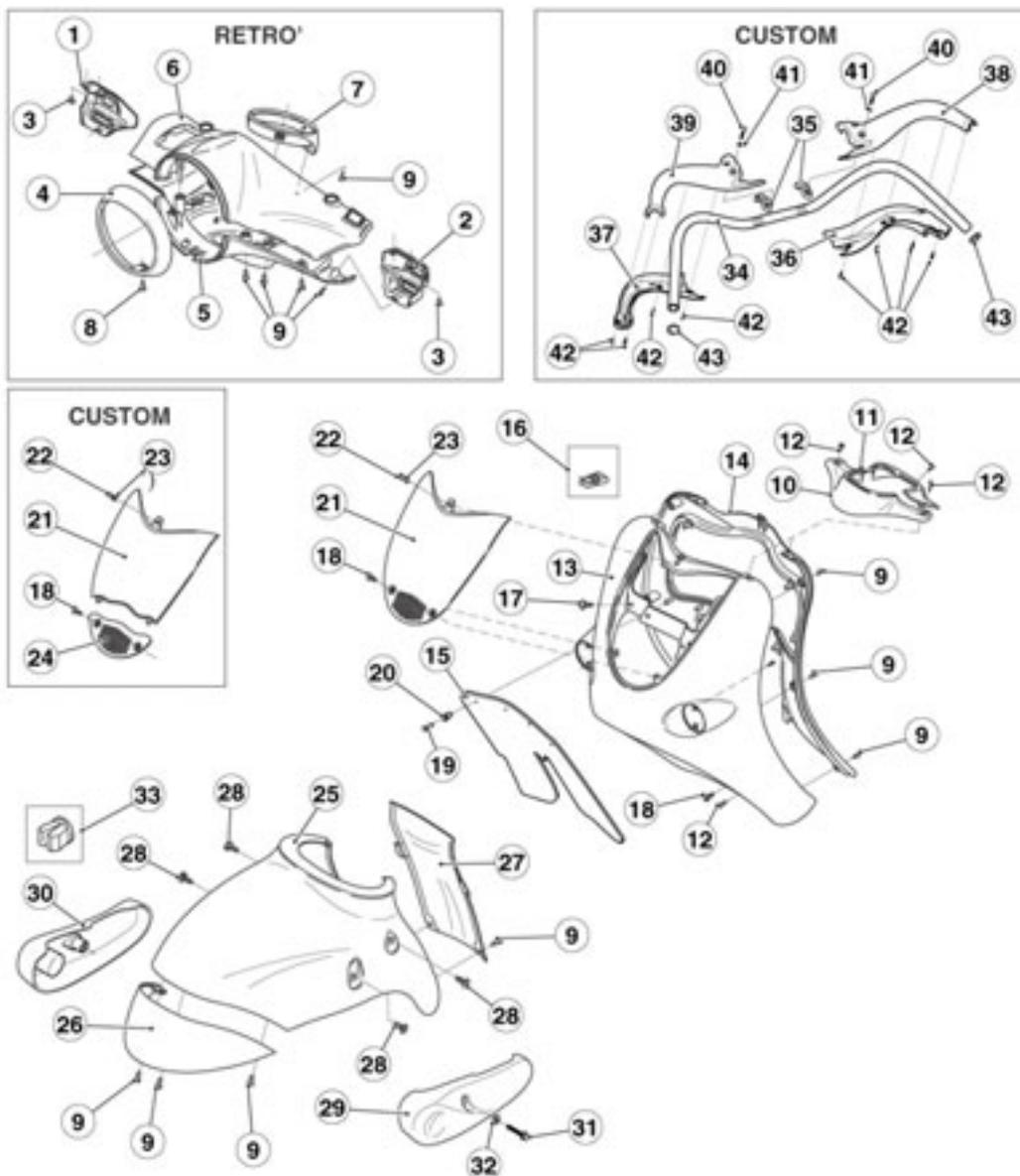


**WARNING**

**When refitting, make sure that the correct number of balls is put in each bearing.**

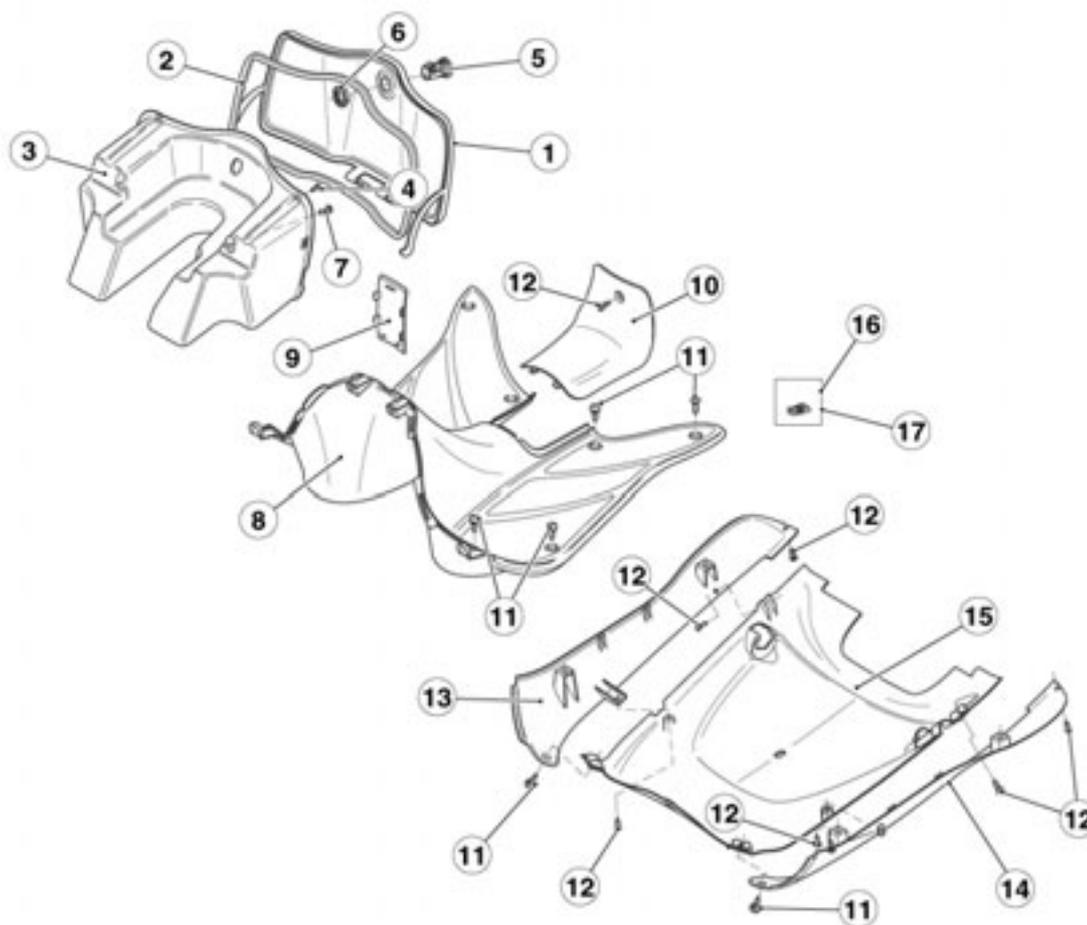
- **21 balls (5) for the upper bearing (6).**
- **25 balls (8) for the lower bearing (9).**

## 2.5.3. FRONT BODY DIAGRAM

**Key:**

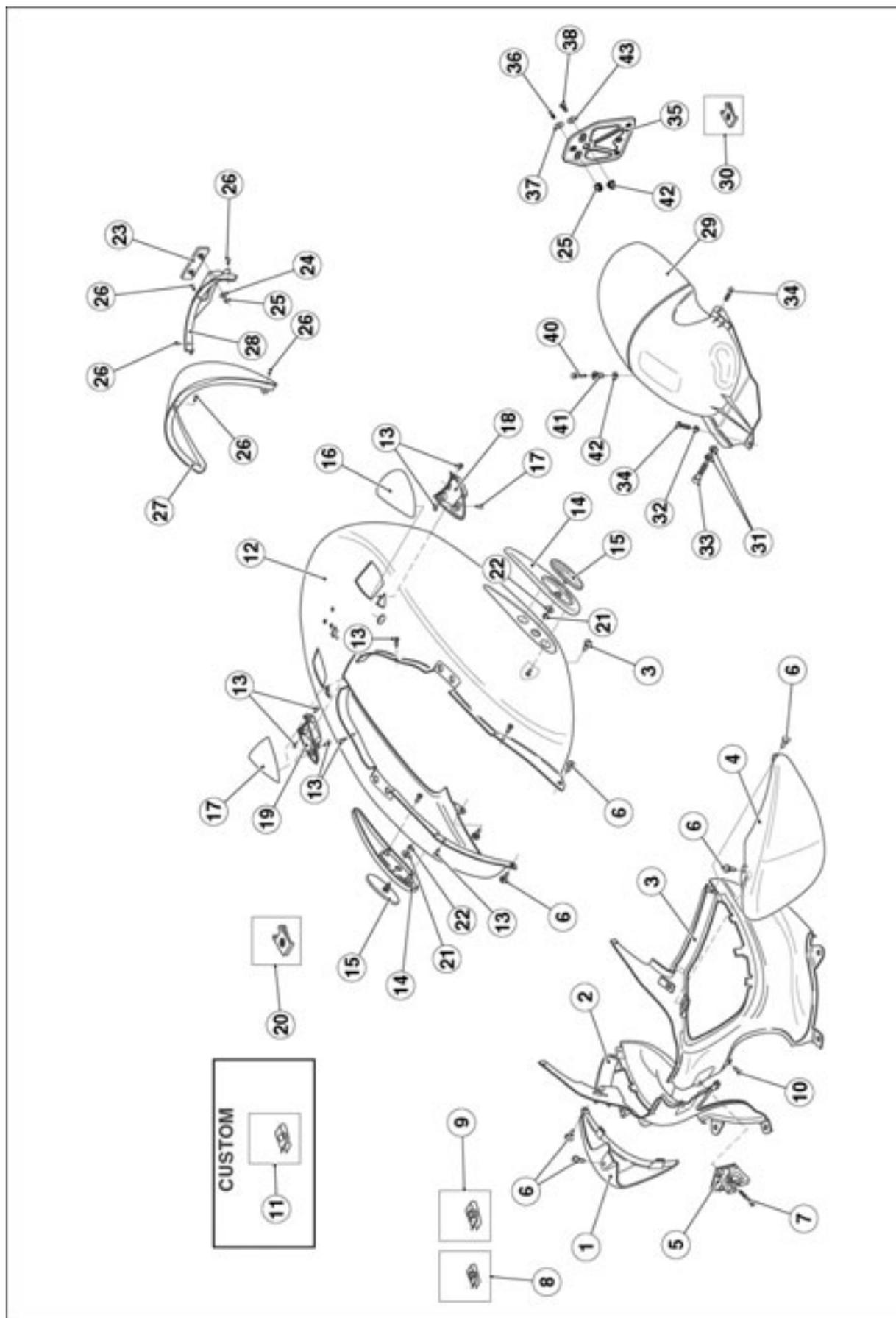
- |  |                                   |
|--|-----------------------------------|
| 1. Right electrical control place            | 22. M4x10 hex socket screw        |
| 2. Left electrical control place             | 23. 4.3x9x0.8 washer              |
| 3. Self-tapping screw .                      | 24. Panel, chr. (Mojito Custom)   |
| 4. Headlight chromed ring nut (Mojito Retrò) | 25. Front mudguard                |
| 5. Headlight support (Mojito Retrò)          | 26. Front mudguard finish, chr.   |
| 6. Dashboard panel (Mojito Retrò)            | 27. Front mudguard lockpup        |
| 7. Dashboard chromed ring nut (Mojito Retrò) | 28. M5x12 screw w/flange          |
| 8. M4x10 hex socket screw (Mojito Retrò)     | 29. LH connecting rod cover, chr. |
| 9. Self-tapping screw .                      | 30. RH connecting rod cover, chr. |
| 10. Front collar, chr.                       | 31. M5x40 screw w/flange          |
| 11. Rear collar, chr.                        | 32. 5.3x10x1 washer               |
| 12. 4.2x16 screw                             | 33. Plastic rivet                 |
| 13. Front shield                             | 34. Handlebar tube                |
| 14. Internal shield                          | 35. Upper U-bolt                  |
| 15. Water protection                         | 36. RH lower handlebar covering   |
| 16. Screw clip D4,2                          | 37. LH lower handlebar covering   |
| 17. M6x16 screw w/flange                     | 38. RH upper handlebar covering   |
| 18. M5x16 screw w/flange                     | 39. LH upper handlebar covering   |
| 19. 4.2x16 cap screw                         | 40. M8x35 hex socket screw        |
| 20. T bush                                   | 41. T bush                        |
| 21. Front cowling                            | 42. Self-tapping screw            |
|  | 43. O-Ring                        |

## 2.5.4. CENTRAL BODY DIAGRAM

**Key:**

1. Glove compartment door
2. Top box gasket
3. Glove compartment
4. Self-tapping screwstic .
5. Front glove compartment lock
6. Lock nut
7. 5.5x15.9 cap screw
8. Black floor panel
9. Type appr. data cover
10. Inspection cover
11. 5.5x20 cap screw
12. 4.2x16 cap screw
13. RH side panel
14. LH side panel
15. Lower protective fairing
16. Clip for self-tapping screw D4,2
17. Clip for self-tapping screw D5,5

2.5.5. REAR BODY DIAGRAM



**Key:**

1. RH undersaddle
2. RH side cover
3. LH side cover
4. LH undersaddle
5. Undersaddle hook
6. 5.5x20 cap screw
7. M4x35 cap screw
8. Clip for self-tapping screw D4,2
9. Clip for self-tapping screw D5,5
10. 4.2x16 cap screw
11. Gripper clip (Mojito Custom)
12. Rear fairing
13. Self-tapping screw .
14. Oval finish
15. Amber oval reflector
16. LH turn indicator
17. RH turn indicator
18. LH direction light place
19. RH direction light place
20. M4 clip
21. 4.3x16 washer
22. Low self-locking nut
23. Rear reflector
24. 4.3x12x1 washer
25. M4 low self-locking nut
26. M4x12 cap screw
27. Rear bumper
28. Rear splash guard
29. Rear mudguard
30. M6 clip
31. Mudguard bush
32. T bush
33. M4x40 hex socket screw
34. M6x16 screw w/flange
35. Number plate support
36. M4x10 hex socket
37. 4.3x9x0.8 washer
38. Special M5x16 hex socket screw
39. M5 low self-locking nut
40. M5x25 screw w/flange
41. T bush
42. Heat protection washer
43. 15x5.5 washer

**2.5.6. REMOVING THE RIGHT AND LEFT INSPECTION COVERS**

- Lift the saddle.
- Working on both sides, unscrew and remove the two fixing screws for the left and right inspection covers.
- Remove the covers



### 2.5.7. REMOVING THE REAR COWLING

- Lift the saddle.
- Unscrew and remove the five fixing rear handle screws.
- Remove the handle from the rear engine cowling.



#### WARNING

Handle chromed and painted components carefully so as not to scratch or ruin them.

- Remove the side inspection covers – see 2.5.6 (REMOVING THE RIGHT AND LEFT INSPECTION COVERS)
- Working on both sides, unscrew and remove the two upper fixing screws for the engine cowling.
- Working on both sides, unscrew and remove the two fixing screw for the front engine cowling.



- Unscrew and remove the two screws that fix the reflector to the support.



- Unscrew and remove the three fixing screws for the reflector support.
- Remove the support.



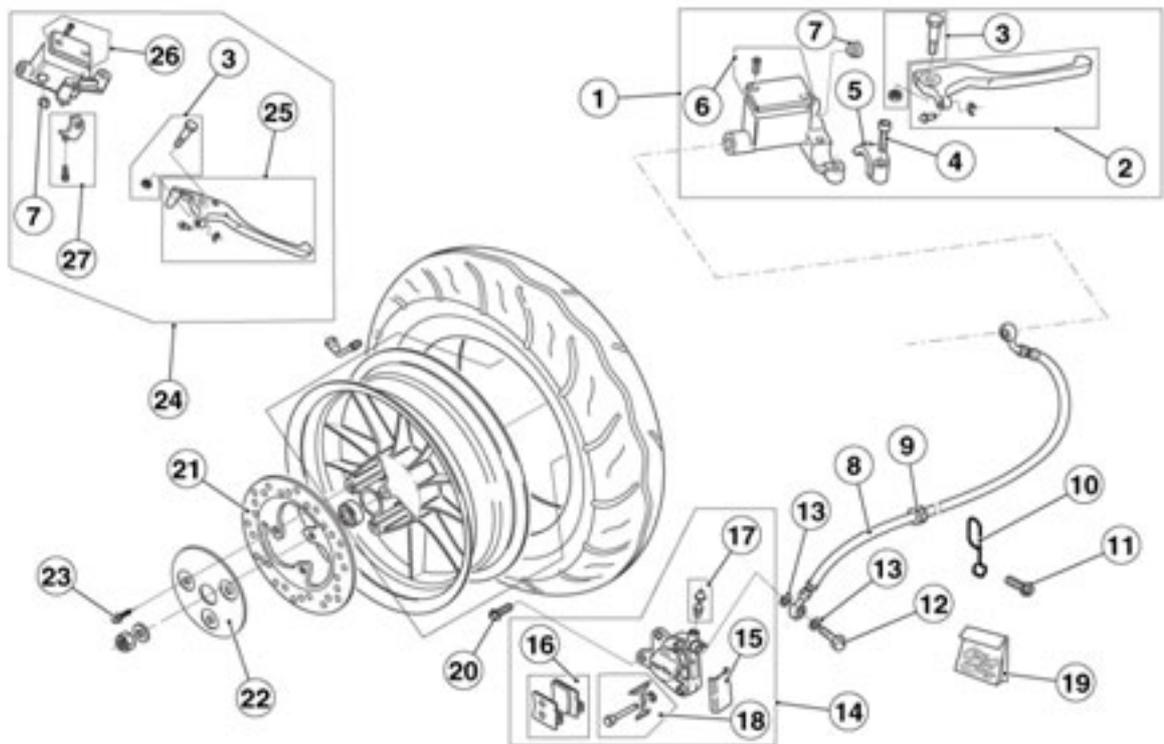
- Unscrew and remove the rear fixing bolt for the engine cowling.



- Disconnect the taillight wiring connector.
- Disconnect the two wiring connectors of the rear turn indicator.
- Remove the engine cowling.



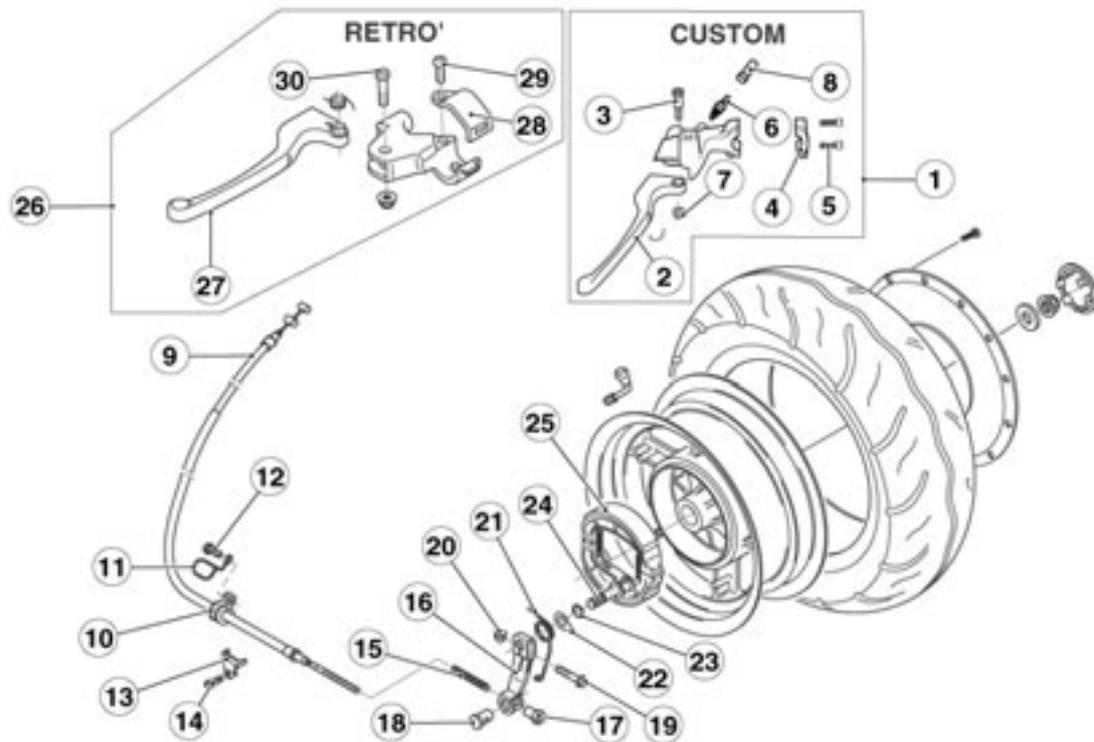
2.5.8. FRONT BRAKING SYSTEM DIAGRAM



**Key:**

1. Front brake pump D12 (Mojito Retrò)
2. Brake lever (Mojito Retrò)
3. Brake lever pin
4. Cap screw (Mojito Retrò)
5. Brake lever stand (Mojito Retrò)
6. Pump cover (Mojito Retrò)
7. Brake pump portlight
8. Front brake pipe
9. Rubber ring
10. Cable guide (Mojito Custom)
11. Screw (Mojito Custom)
12. Oil pipe screw
13. 10x14x1.6 washer
14. Front brake caliper
15. Brake caliper cover
16. Pads pair
17. Bleeder + cap
18. Pin + brake spring
19. Brake caliper rev. kit
20. M8x25 screw w/flange
21. D190 brake disc
22. Disc cover cup (Mojito Custom)
23. Screw
24. D13 front brake pump (Mojito Custom)
25. Brake lever (Mojito Custom)
26. Oil tank plug (Mojito Custom)
27. Stand (Mojito Custom)

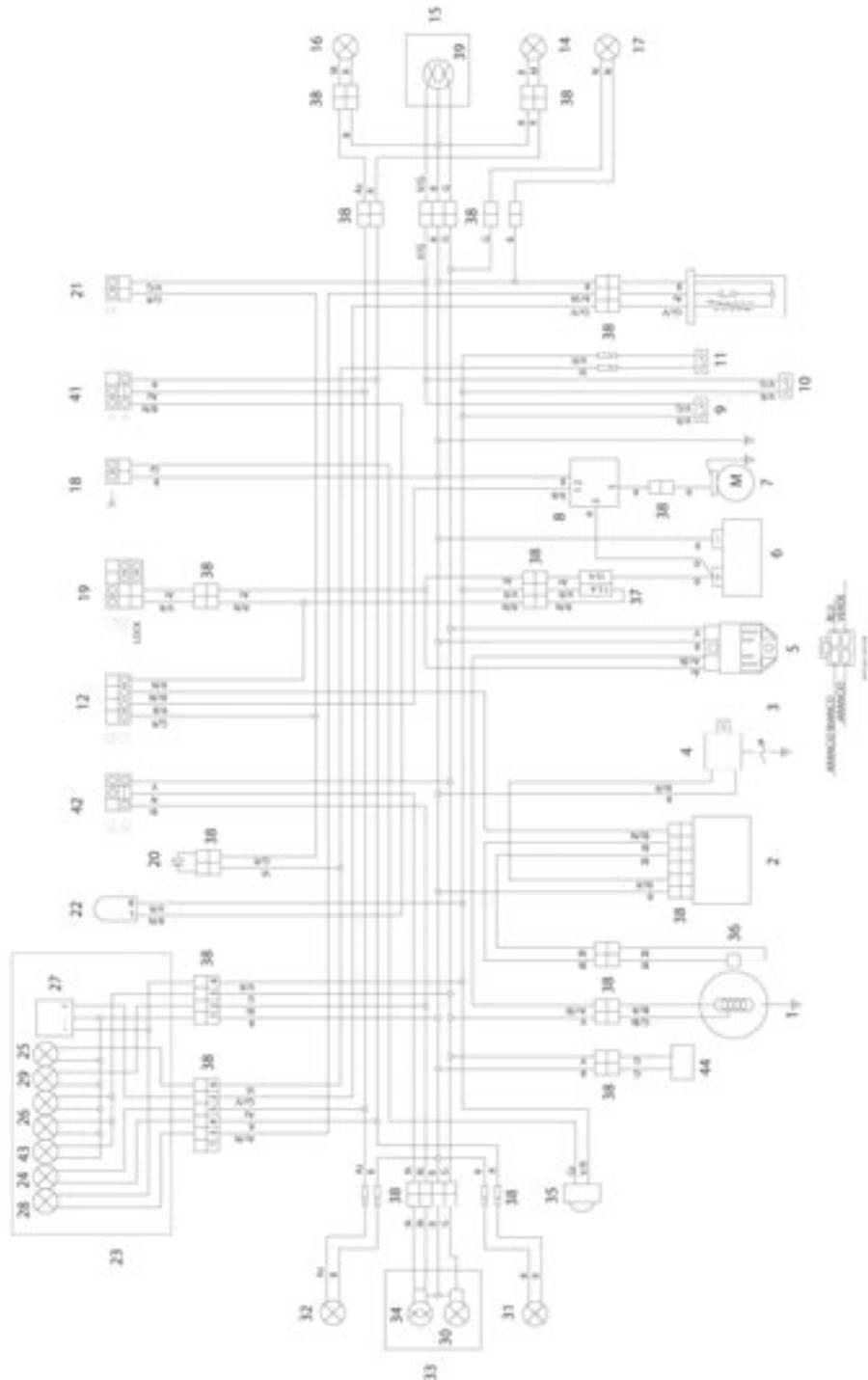
## 2.5.9. REAR BRAKING SYSTEM DIAGRAM

**Key:**

1. Rear brake lever complete (Mojito Custom)
2. Rear brake lever (Mojito Custom)
3. Brake lever pin (Mojito Custom)
4. U-bolt (Mojito Custom)
5. Screw (Mojito Custom)
6. Brake light switch
7. Nut
8. Rubber spacer
9. Rear brake cable
10. Brake pipe hanger
11. Cable guide
12. M6x16 screw w/flange
13. Plate
14. M6x16 hex socket screw
15. Coil compress. spring
16. Rear brake lever
17. Rear brake lever register
18. Brake cable retainer
19. M6x35 screw w/flange
20. M6 flanged self-locking nut
21. Lever return spring
22. Lining wear indicator
23. Antidust gasket
24. Rear brake cam
25. Brake shoes + springs
26. Rear brake lever complete (Mojito Retrò)
27. Rear brake lever (Mojito Retrò)
28. Brake lever U-bolt (Mojito Retrò)
29. Screw (Mojito Retrò)
30. Brake lever pin (Mojito Retrò)

2.6. SYSTEM DIAGRAM

2.6.1. WIRING DIAGRAM – MOJITO 50



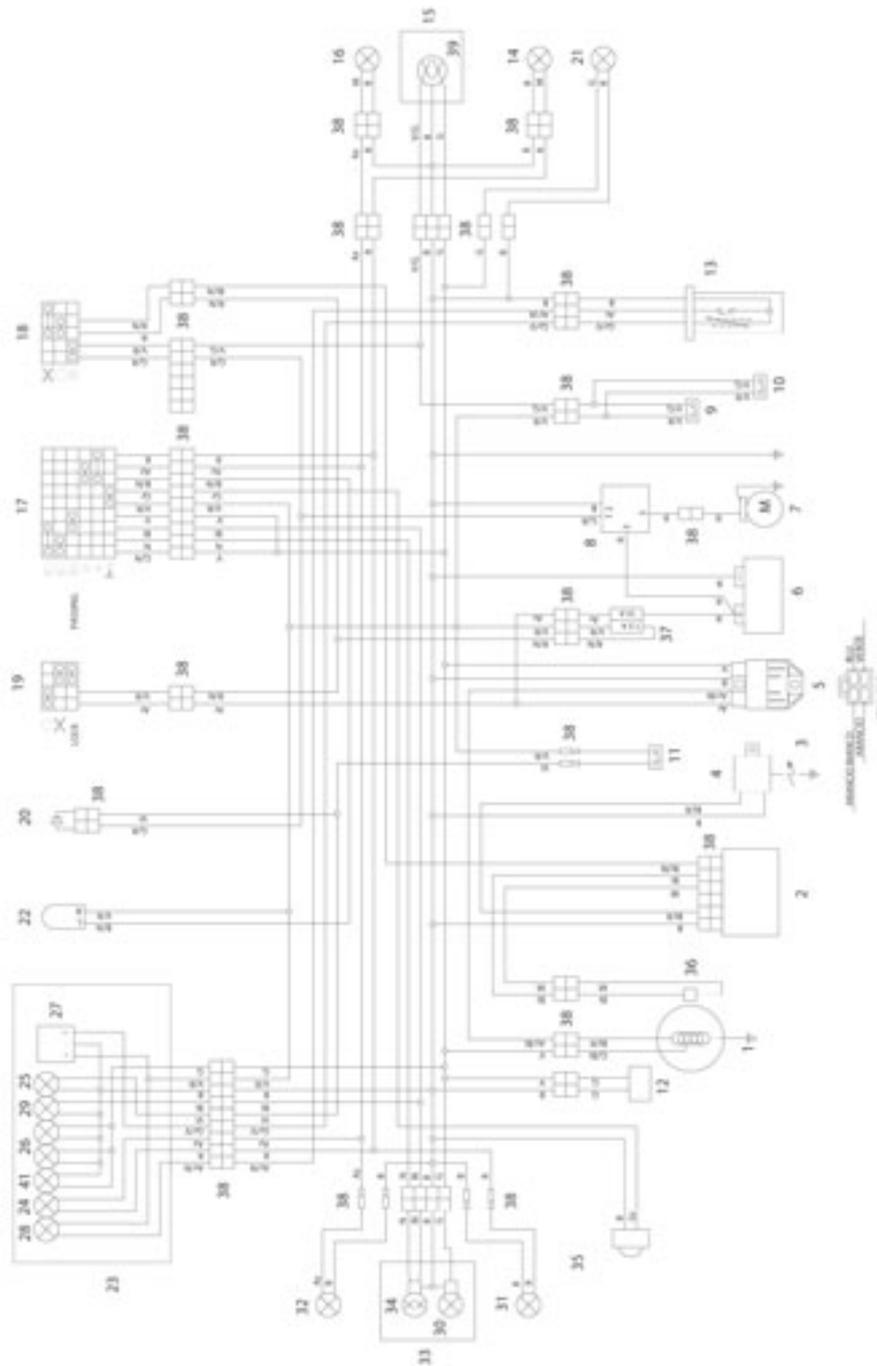
**Key:**

1. Generator
2. CDI
3. Spark plug
4. HT Coil
5. Voltage Regulator
6. Battery
7. Starter motor
8. Start Relay
9. Front stoplight switch
10. Rear stoplight switch
11. 2 stroke oil reserve switch
12. Engine kill
13. Fuel level sensor
14. Rear right direction indicator
15. Tail light
16. Rear left direction indicator
17. Plate light
18. Horn push button
19. Ignition switch / steering lock
20. Control diode
21. Start push button
22. Blinking
23. Dashboard
24. Direction indicator warning light
25. 2 stroke oil reserve warning light
26. Dashboard lights
27. Fuel level instrument
28. Low fuel warning light
29. High beam warning light
30. Front parking light
31. Front right direction indicator
32. Front left direction indicator
33. Front light
34. Low / high beam bulb
35. Horn
36. Pick-up
37. Fuses
38. Multiple connectors
39. Rear parking light / stop light / number plate light
40. -
41. Direction indicator deviator
42. Left dimmer switch
43. Low beam and parking light warning light
44. Automatic starter

**WIRE COLOURS**

<b>Ar</b>	orange
<b>Az</b>	light blue
<b>B</b>	blue
<b>Bi</b>	white
<b>G</b>	yellow
<b>Gr</b>	grey
<b>M</b>	brown
<b>N</b>	black
<b>R</b>	red
<b>V</b>	green
<b>Vi</b>	violet
<b>Ro</b>	pink

2.6.2. WIRING DIAGRAM – MOJITO CUSTOM 50



**Key:**

1. Generator
2. CDI
3. Spark plug
4. HT Coil
5. Voltage Regulator
6. Battery
7. Starter motor
8. Start Relay
9. Front stoplight switch
10. Rear stoplight switch
11. 2 stroke oil reserve switch
12. Automatic choke
13. Fuel level sensor
14. Rear right direction indicator
15. Taillight
16. Rear left direction indicator
17. Left dimmer switch
18. Right dimmer switch
19. Ignition switch / steering lock
20. Control diode
21. Plate light
22. Blinking
23. Dashboard
24. Direction indicator warning light
25. 2 stroke oil reserve warning light
26. Dashboard lights
27. Fuel level instrument
28. Low fuel warning light
29. High beam warning light
30. Front parking light
31. Front right direction indicator
32. Front left direction indicator
33. Front light
34. Low / high beam bulb
35. Horn
36. Pick-up
37. Fuses
38. Multiple connectors
39. Rear parking light / stop light / number plate light
40. -
41. Low beam and parking light warning light

**WIRE COLOURS**

<b>Ar</b>	orange
<b>Az</b>	light blue
<b>B</b>	blue
<b>Bi</b>	white
<b>G</b>	yellow
<b>Gr</b>	grey
<b>M</b>	brown
<b>N</b>	black
<b>R</b>	red
<b>V</b>	green
<b>Vi</b>	violet
<b>Ro</b>	pink

125 - 150 CC VERSION

3

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### 3.1. TECHNICAL INFORMATION

#### 3.1.1. TECHNICAL DATA

DIMENSIONS	
Max. length	1980 mm
Max. width	720 mm
Max. width for the MOJITO CUSTOM	920 mm
Seat height	780 mm
Seat height for the MOJITO CUSTOM	755 mm
Max. height (headlight included)	1090 mm
Max. height (headlight included) for the MOJITO CUSTOM	1135 mm
Min. ground clearance	85 mm
Weight ready for starting	115 kg
Distance between centres	1350 mm
ENGINE	
125 cc Version	M192
150 cc Version	M191
Type	4 stroke – with controlled ignition
Number of valves	2
Number of cylinders	Horizontal one-cylinder
Total displacement 125 cc	124.0 cm <sup>3</sup>
Total displacement 150 cc	149.58 cm <sup>3</sup>
Bore / stroke 125 cc	57.0 mm /48.6 mm
Bore / stroke 150 cc	62.5 mm /48.6 mm
Compression ratio	from 10.1 to 11.1 : 1
Starting	Electric
Engine rpm when idling	1600 ± 200 rpm
Clutch	Automatic – dry centrifugal
Change gear	Automatic stepless variator
Lubrication system	With wet sump, forced circulation by a mechanical pump, level check using dipstick with cap.
Cooling	With forced air
CAPACITY	
Fuel (reserve included)	8 litres
Fuel reserve	2 litres
Engine oil – only changing oil and oil filter	1000 cm <sup>3</sup>
Transmission oil	85 cm <sup>3</sup>
Seats	2
Max motorcycle load (rider + luggage)	105 kg
Vehicle max. load (driver + passenger + luggage)	180 kg
TRANSMISSION	
Speed change gear	Automatic and stepless
Primary	V-belt
Secondary	with gears
Ratios	minimum for stepless change: 2.701 maximum for stepless change 0.809
CARBURETTOR	
Model	WALBRO WVF - 6
Choke tube	Equivalent diameter 24 mm
FUEL SUPPLY	
Fuel	Leaded or unleaded premium grade petrol (4 stars UK), min. O.N. 95 (N.O.R.M.) and 85 (N.O.M.M.).
FRAME	
Type	One beam split in two at the rear
Steering inclination angle	24°15'
Forepart	52 mm

SUSPENSIONS	
Front	Fork with connection elements
Stroke	50 mm
Rear	Hydraulic mono-shock absorber
Stroke	72 mm
BRAKES	
Front	Disc brake, Ø 190 mm with hydraulic transmission
Rear	Drum brake, Ø 140 mm with mechanic transmission
WHEELS	
Type	Light alloy
Front	3.00 x 12"
Rear	4.00 x 10"
TYRES	
Type	Tubeless
Front	120 / 70 – 12" – 51 P Pirelli
Front	120 / 70 – 12" -58 P Sava
Rear	130 / 70 - 10" – 59 P Pirelli
Rear	130 / 70 - 10" – 59 P Sava
STANDARD INFLATION PRESSURE	
Front	170 kPa (1.7 bar)
Rear	190 kPa (1.9 bar)
INFLATION PRESSURE WITH PASSENGER	
Front	170 kPa (1.7 bar)
Rear	210 kPa (2.1 bar)
IGNITION	
Type	C.D.I. / inductive
Spark advance	10 ± 1° – before the T.D.C. at 1600 rpm
SPARK PLUG	
Standard	CHAMPION RG6YC
Alternative	NGK CR7EB
Spark plug gap	0.7 – 0.8 mm
ELECTRICAL SYSTEM	
Battery	12 V -7 Ah
Fuses	7,5 A -15A
Generator (with permanent magnet)	12 V -160 W
BULBS	
Low / high beam (halogen)	12 V – 55 /60 W H4
Front parking light	12 V -3 W
Direction indicators	12 V -10 W
Rear parking light / stop light	12 V – 5 / 21 W
Number plate light 150 cc	12 V - 5 W
Dashboard light	12 V – 1.2 W
WARNING LIGHTS	
Direction indicators	12 V -2 W
Engine oil pressure	12 V -2 W
Low beam and parking light	12 V –1.2 W
High beam	12 V –1.2 W
Low fuel	12 V -2 W

## 3.1.2. FIXING ELEMENTS

**WARNING**

The fixings indicated in the table must be tightened to the torque indicated using a torque wrench and LOCTITE® where indicated.

**Notes:**

L243=apply Loctite® 243

Lub=lubricate

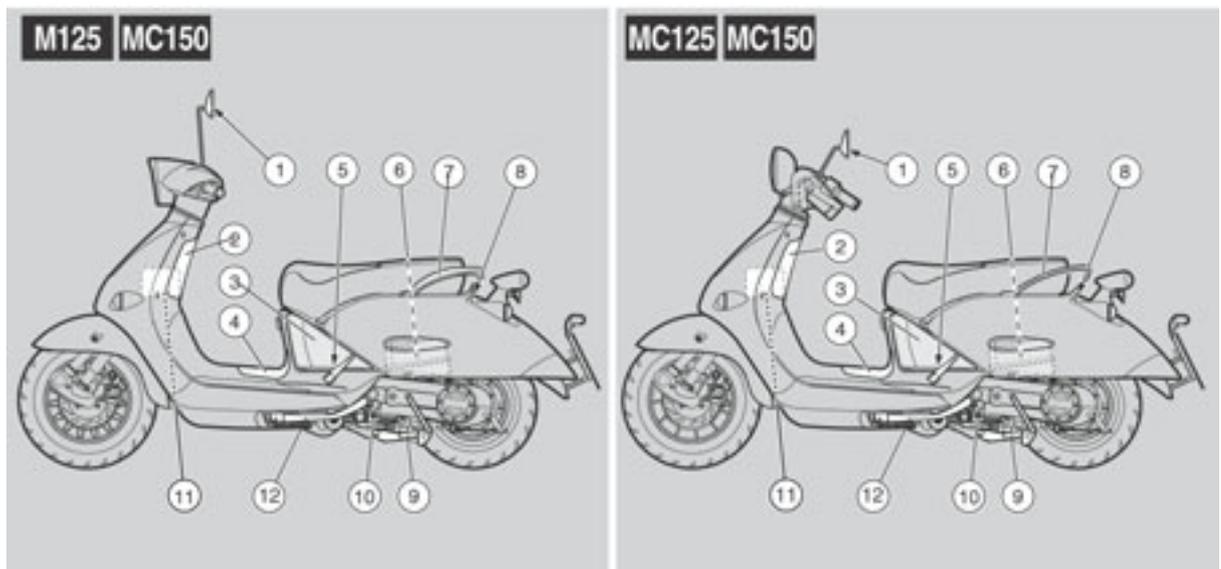
Componene	Size	Torque Nm	Notes
Rear wheel positioning pin nut	M12	50	
Rear wheel nut	M16	120	
Nut for fixing the connecting rod to the frame	M10	50	
Nut for fixing the connecting rod to the joint	M10	50	
Nut for fixing the connecting rod to the engine	M10	50	
Screw for fixing the connecting rod silent block to the frame	M8	35	
Screw for fixing the handlebar clamp	M10	40	
Handlebar safety screw	M8	15	
Rear shock absorber connection top screw	M10	40	
Rear shock absorber connection lower screw	M10	30	
Nut for fixing the silencer to the cylinder	M6	10	
Screw for fixing the silencer plate to the engine	M8	25	
Front brake calliper fixing screw	M8	25	
Brake pump U-bolt fixing screw	M6	9	
Screws for fixing the brake pipe to the brake pump	M10	18	
Screws for fixing the brake pipe to the brake caliper	M10	18	
Fixing bolt for the passenger's handgrip	M6	10	
Bolt for fixing the central stand to the engine	M10	35	
Fuel tank fixing screw	M6	10	
Coil fixing screw	M5	5	
Electric horn fixing screw	M6	10	
Body fixing screws	M6	5	
Body fixing screws	M5	4	
Body fixing screws	Self-tapping	3	

**N.B.:** All the torques indicated are nominal values. The tolerance allowed is  $\pm 5\%$ .

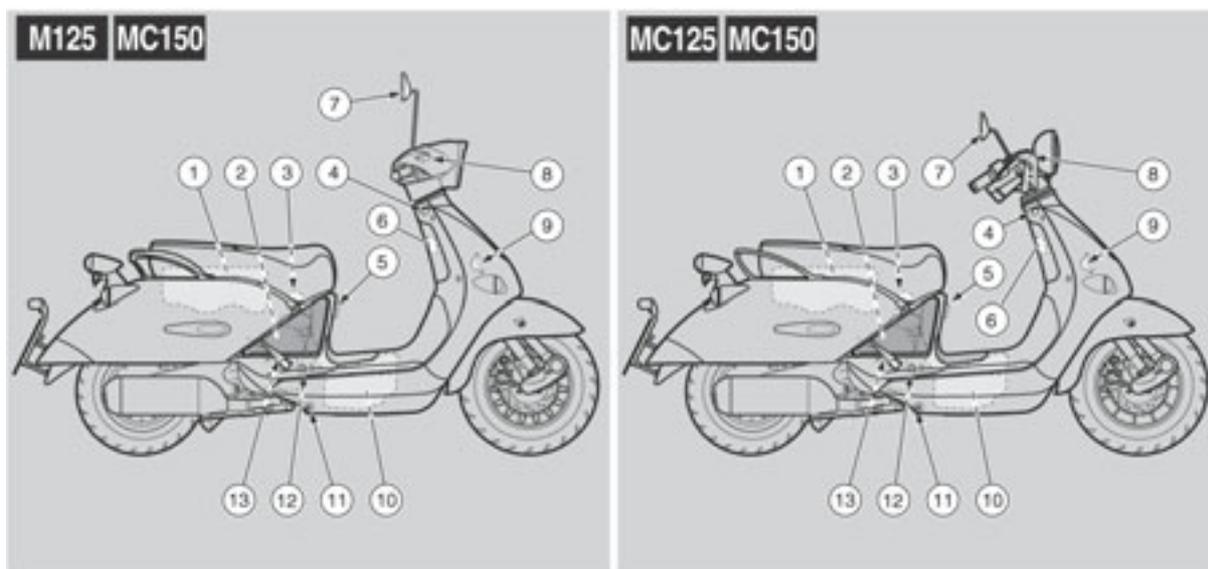
## 3.1.3. LUBRICANT TABLE

LUBRICANT	PRODUCT
Transmission oil	<p>RECOMMENDED:  F.C., SAE 75W 90 or  Agip GEAR SYNTH, SAE 75W - 90</p> <p>As an alternative to the recommended oil, it is possible to use high quality oils with characteristics in compliance with or superior to the A.P.I. GL-4 specifications.</p>
Engine oil	<p>RECOMMENDED:  EXTRA RAID 4, SAE 5W - 40 or  Agip TEC 4 T, SAE 5W - 40.</p> <p>As an alternative to the recommended oils, top brand oils meeting or exceeding the CCMC G-4, A.P.I. SG. specifications can be used.</p>
Fork oil	<p>RECOMMENDED:  F.A. 5W or  F.A. 20W. as an alternative  Agip FORK 5W or  Agip FORK 20W.</p> <p>If you need an oil with intermediate characteristics in comparison with the  F.A. 5W and  F.A. 20W, or  Agip FORK 5W and  Agip FORK 20W, these can be mixed as indicated below:</p> <p>SAE 10W =  F.A. 5W 67% of the volume +  F.A. 20W 33% of the volume, or   Agip FORK 5W 67% of the volume +  Agip FORK 20W 33% of the volume:</p> <p>SAE 15W =  F.A. 5W 33% of the volume +  F.A. 20W 67% of the volume, or   Agip FORK 5W 33% of the volume +  Agip FORK 20W 67% of the volume.</p>
Bearings and other lubrication points	<p>RECOMMENDED:  AUTOGREASE MP or  Agip GREASE 30.</p> <p>As an alternative to the recommended product, use high quality grease for rolling bearings, working temperature range -30°C to +140°C, dripping point 150°C to 230°C, high protection against corrosion, good resistance to water and oxidation.</p>
Battery poles	Neutral grease or vaseline
Brake Fluid	<p><b>IMPORTANT</b> Only use new brake fluid. Do not mix different brands or types of fluid without checking that their bases are compatible.</p> <p>The braking system is filled with  Autofluid FR. DOT 4 (compatibility DOT 5) or  Agip BRAKE 5.1, DOT 4 (compatibility DOT 5).</p>

## 3.1.4. ARRANGEMENT OF THE MAIN ELEMENTS

**Key:**

1. Left rear-view mirror
2. Glove compartment
3. Left inspection cover
4. Central inspection cover
5. Passenger left footrest
6. Air cleaner
7. Passenger grab rail
8. Saddle lock
9. Central stand
10. Engine oil filler cap
11. Battery
12. Side stand (OPT)

**Key:**

1. Helmet / glove compartment
2. Right inspection cover
3. Fuel tank plug
4. Ignition switch / steering lock
5. Bag hook
6. Fuse box
7. Right rear-view mirror
8. Brake fluid reservoir (front brake)
9. Horn
10. Fuel tank
11. Anti-theft hook [for the “**aprilia** Body-Guard armoured cable (OPT)]
12. Spark plug
13. Passenger right footrest

**3.2. ROUTINE MAINTENANCE OPERATIONS**

**3.2.1. ROUTINE MAINTENANCE CHART**

Components	After running- in [1000 km (625 mi)]	Every 6000 km (3750 mi) or 12 months	Every 12000 km (7500 mi) or 24 months
Rear shock absorber	-	-	1
Carburettor – CO value	4	4	-
Transmission cables and controls	1	1	-
Battery – Terminal fastening – Electrolyte level	1	1	-
Spark plug	1	1	3
Carburettor – Idling	4	1	-
Variator roller pins and guides	-	1	-
Variator belt	1	3	-
Steering tube bearings and steering slack	1	1	-
Wheel bearings	-	1	-
Brake discs	1	1	-
Engine oil filter	3	Every 3000 km (1875 mi): 3	
General running of the vehicle	1	1	-
Valve clearance	4	Every 18000 km (11250 mi): 1	
Speed change gear grease	-	-	3
Braking systems	1	1	-
Exhaust silencer / exhaust terminal	-	-	1
Air cleaner	-	2	-
Accelerator operation	1	1	-
Brake locking operation	1	1	-
Light system	1	1	-
Clutch wear	-	1	-
Stop light switch	-	1	-
Brake Fluid	-	1	1 every two years: 3
Engine oil	3	Every 3000 km (1875 mi): 3	
Transmission oil	3	Every 12000 km (7500 mi): 1 / every 24000 km (15000 mi): 3	
Headlight beam direction - operation	-	1	-
Spark plug cap	-	1	-
Wheels/Tyres – Inflation pressure	every month: 4		
Wheels - Tyres – Inflation pressure	1	1	-
Nut, bolt, screw tightening	1	1	-
Engine oil pressure warning light (operation)	1	-	-
Cylinder head nut fastening and silencer/exhaust manifold fastening.	1	1	-
Front shock absorber pumping element	-	1	-
Fuel pipe	-	1	every 4 years: 3
Braking system pipe	-	1	every 4 years: 3
Rear brake shoe wear	1	Every 2000 km (1250 mi): 1	
Rear brake pad wear	1	Every 2000 km (1250 mi): 1	

1 = check and clean, adjust, lubricate or change, if necessary. 2 = clean. 3 = change. 4 = adjust.  
Carry out the maintenance operations more frequently if you use the vehicle in rainy and dusty areas or on uneven ground, or on race tracks.

( ) = OPERATIONS WHICH CAN BE CARRIED OUT BY THE USER

### 3.2.2. AIR CLEANER

Clean the air filter every 6000 km (3750 mi) or 12 months. If the vehicle is used on dusty or wet roads, the cleaning and replacement operations should be carried out more frequently.

- In this case the air cleaner may be partially cleaned after travelling on these types of roads.

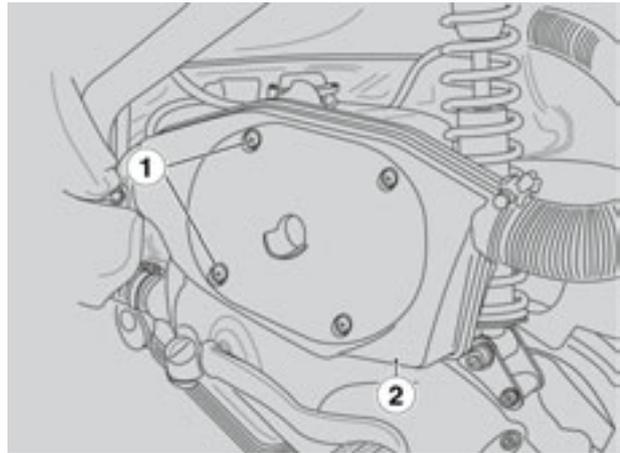


#### WARNING

**Partial cleaning of the air cleaner does not exclude or delay replacing the filter. Do not start the engine while the air cleaner is off.**

#### REMOVING

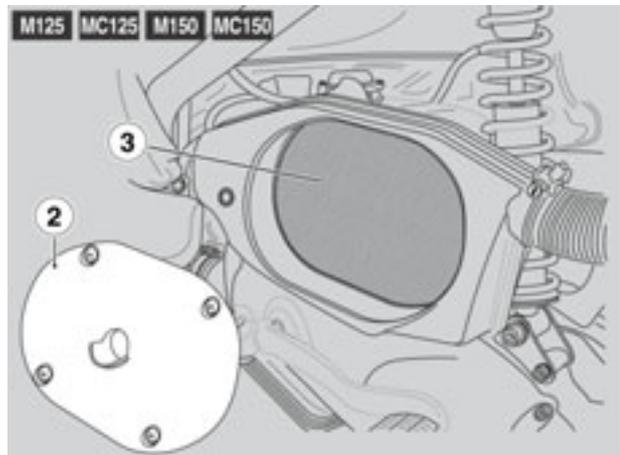
- Position the vehicle on the central stand.
- Remove the rear cowlings – see 3.5.7 (REMOVING THE REAR COWLING)
- Unscrew and remove the four screws (1).



- Remove the filter housing cover (2).
- Remove the filtering element (3).

#### CLEANING

- Wash the filtering element with clean, non-flammable solvents, or with solvents with a high volatility point, and let it dry thoroughly.
- Apply filter oil on the whole surface of the filtering element.



#### DANGER

**Do not use petrol or solvents to clean the filtering element as this could cause a fire in the fuel supply system, resulting in serious danger to people and the vehicle.**



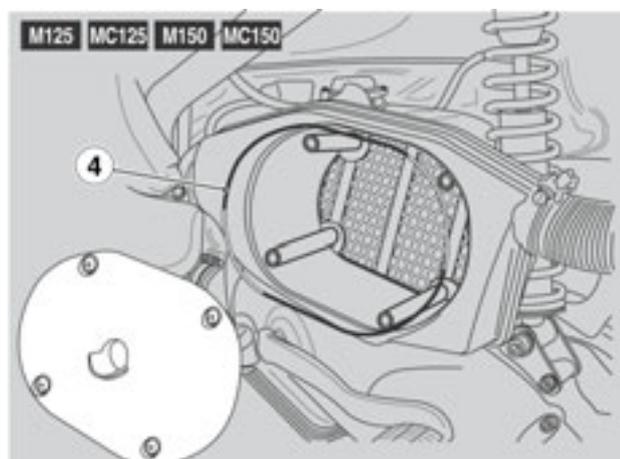
#### WARNING

**While cleaning the filtering element check that it is not lacerated. If it is, replace the filtering element**



#### WARNING

**When refitting, make sure that the filtering element (3), the filter housing cover (2) and the gasket (4) are all positioned correctly.**



### 3.2.3. IDLING ADJUSTMENT

- Idling does not have to be adjusted on the engine very often, but when this is done, it must be carried out in full compliance with a few standards.
  - Before adjusting the carburettor make sure that it is properly lubricated, the valve clearance and the distribution timing conforms, that the spark plug is in good condition, the air cleaner is clean and airtight, and that the exhaust system is completely airtight.
- 
- Warm the engine up by driving the vehicle at about 50 km/h for at least five minutes.
  - Connect the motorcycle to an exhaust gas analyser, and put the analyser sensor into an extension pipe fitted to the outlet of the silencer.

Optimum pipe size: Ø 40 mm  
length 500 - 600 mm

**IMPORTANT** *The extension pipe is indispensable to prevent taking in exhaust gas polluted by the ambient oxygen.*

*An exhaust gas analyser that has been preheated must be used, on which the gas reading can be zeroed and the correct gas flow rate indicated. Failure to comply with this practice will lead to incorrect readings.*

- Lift the saddle.
- Unscrew and remove the two fixing screws of the carburettor cover.
- Remove the cover.



- Connect the multimeter thermometer to the sump, using the oil-loaded cap, specifically set up to allow the sensor to be inserted.
- Start the engine and before setting idling make sure that the oil temperature is between 70 - 80 °C.

- Using the analyser revolution counter or a separate revolution counter, turn the idling screw until an engine speed of 1600 - 1700 rpm is obtained.

**IMPORTANT** The ignition system works on a spark advance and provides significant power. It may be difficult to read the engine speed with non-dedicated revolution counters. The revolution counter must be considered as being connected up properly when it is also able to read high revolutions, 6000 - 8000 rpm.



- Adjust the flow screw until the percentage of carbon monoxide (CO) is  $3.5\% \pm 0.5\%$ . When the screw is slackened the CO value increases (rich mixture), and when tightened the CO value is reduced (lean mixture).
- When correcting the position of the flow screw leads to an increase in revolutions, adjust the engine speed again and if necessary turn the flow screw until stable values are obtained.



- Idling carburation can be considered as correct when the oil temperature, engine speed, and carbon monoxide percentage values are all correct.
- Further information can be taken from the analyser:
  - percentage of carbon dioxide (CO<sub>2</sub>) – the percentage of carbon dioxide changes inversely to the percentage of (CO), with values exceeding 13.8% being considered correct. Incorrect values indicate that the exhaust system is not airtight.
- Unburnt hydrocarbons (HC) are measured in parts per million (PPM). The HC value decreases as the engine speed increases. When the engine is idling 200 – 400 PPM is normal. These values should be considered as normal for an engine with a motorcycle distribution layout. Much higher values are the result of missed beats in the engine due to a mixture that is too lean (CO low), ignition problems, incorrect distribution timing, of an exhaust valve that is not working smoothly or that is not airtight.

Should any difficulty be experienced in setting CO check the following carefully:

- Cleanliness of the carburettor.
- Efficiency of the automatic starter.
- Efficiency of the conical needle – seating.
- Setting of the float chamber level.

**3.2.4. SPARK PLUG**

**TIGHTENING TORQUE**

Spark plug: 12-14 Nm (1.2-1.4 kgm).

Check the spark plug after the first 1000 km (625 mi) and successively every 6000 km (3750 mi). Change it every 12000 km (7500 mi).

- Periodically remove the spark plug, clean any carbon deposits from it; change it if necessary.

To reach to the spark plug:



**DANGER**  
Let the engine cool down to ambient temperature.

- Remove the right inspection cover.

To remove and clean the spark plug:



**DANGER**  
Never disconnect the spark plug cap when the engine is running as you may suffer a severe electric shock from the ignition system.

- Take off the cap (1) from the spark plug (2).
- Remove all the dirt from the base of the spark plug.
- Put the plug spanner supplied in the tool kit over the spark plug.
- Unscrew the spark plug and remove it from its seating, taking care that neither dust nor other substances enter the cylinder.

- Check that the electrode and porcelain part at the centre of the spark plug are free of carbon deposits or signs of corrosion. Clean using a spark plug cleaner and/or a small metal brush.
- If the spark plug has any cracks on the insulating material, corroded electrodes or excessive deposits, the central electrode (3) with a rounded top, it must be changed.



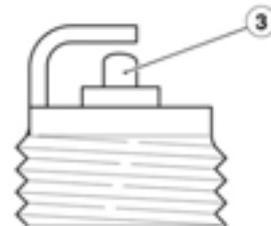
**WARNING**  
When replacing the spark plug check the pitch and length of the thread.

If the thread is too short the carbon deposits will build up on the thread, resulting in a risk of damaging the engine when a spark plug of the correct size is fitted.

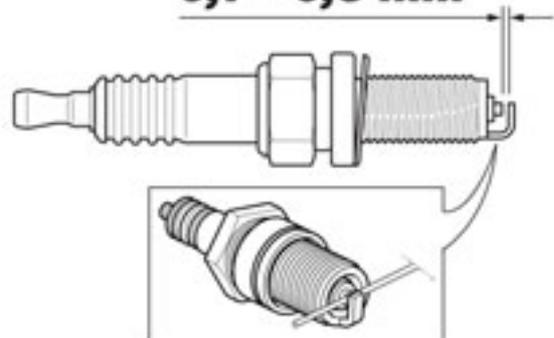
Use the recommended type of spark plug only, otherwise the life and the performance of the engine may be compromised.

To check the gap between the electrodes, use a thread type feeler gauge to avoid damaging the platinum coating.

- Check the gap between the electrodes using a thread type feeler gauge.
- This gap must be 0.7 -0.8 mm. If necessary, adjust it carefully bending the earth electrode.
- Make sure that the washer is in good condition. With the washer on, screw the spark plug in by hand in order not to damage the thread.
- Tighten the spark plug by means of the spanner supplied with the tool kit, giving it a half turn to compress the washer.



**0,7 - 0,8 mm**



**WARNING**

The spark plug must be well tightened, otherwise the engine may overheat and be seriously damaged.

Use the recommend type of spark plug or otherwise the life and performance of the engine may be compromised.

- Position the cap (1) on the spark plug (2) correctly, so that it does not come loose due to the engine vibrating.
- Refit the right inspection cover.

**DANGER**

Make sure that the cap (1) is correctly positioned on the spark plug (2).



### 3.2.5. CHECKING THE ENGINE OIL LEVEL AND TOPPING UP

Check the engine oil level from time to time. Change it after the first 1000 km (625 mi) and successively every 3000 km (1875 mi) see 3.2.6 (CHANGING THE ENGINE OIL AND THE ENGINE OIL FILTER).

**IMPORTANT** Only use the oils recommended – see 3.2.3 (LUBRICANT TABLE).

When topping up the engine oil, the “MAX” level should not be exceeded.

#### CHECKING

- Position the vehicle on a firm, flat ground.
- Position the vehicle on the centre stand.



#### WARNING

Wait a few minutes for the engine and the exhaust system to cool down.

- Stop the engine and let it cool down in order to allow the oil to flow into oil pan and to cool down.

**IMPORTANT** If this cannot be done there is a risk of the level of the engine oil being read incorrectly.

- Unscrew and remove the dipstick (1).
- Clean the part that is in contact with the oil using a clean cloth.
- Put the dipstick (1) back in the hole (2) and tighten completely.

- Remove the dipstick (1) again and read the level of the oil on the dipstick.

**MAX** = maximum level

**MIN** = minimum level

- The difference between “MAX” and “MIN” is about 300 cc (18.3 cu.in).
- For correct level, oil should be close to the “MAX” marking.



#### DANGER

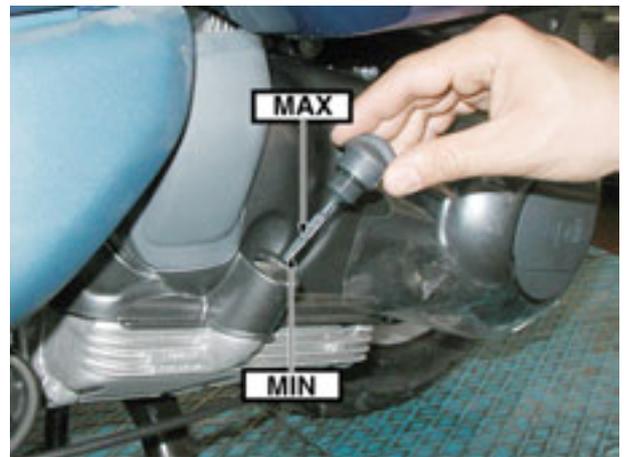
Never fill over “MAX” mark and never allow oil level to drop under “MIN” otherwise the engine may seriously damage.

Top up, if necessary.

#### TOPPING UP

- Pour a small amount of oil through the filler hole (2) and then wait about a minute to allow the oil level to even out in the sump.
- Check the oil level and top up if necessary.
- Top up by pouring small amounts of oil to the specified level.
- When this operation has been completed, put the dipstick (1) in position and tighten.

**IMPORTANT** Do not run the vehicle with insufficient lubrication, when the lubricants are contaminated, or with the incorrect oil as this will accelerate wear on the moving parts and may result in irreparable damage.



### 3.2.6. CHANGING THE ENGINE OIL AND THE ENGINE OIL FILTER

Change the engine oil filter after the first 1000 km (621 mi), that is, on completing running in, and then every 3000 km (1875 mi).

- Position the motorcycle on a firm, flat ground.
- Place the motorcycle on the centre stand.



#### WARNING

Wait a few minutes for the engine and the exhaust system to cool down.

- Stop the engine and let it cool down in order to allow the oil to flow into the oil pan and to cool down.

**IMPORTANT** If this cannot be done there is a risk of the level of the engine oil being read incorrectly.

- Unscrew and remove the dipstick (1).



- Remove the exhaust pipe.
- Place a container under the engine oil filter.
- Unscrew and remove the engine oil cartridge filter (2).



#### WARNING

Spent oil contains substances that are hazardous to the environment. Dispose of spent oil in compliance with the regulations in force.

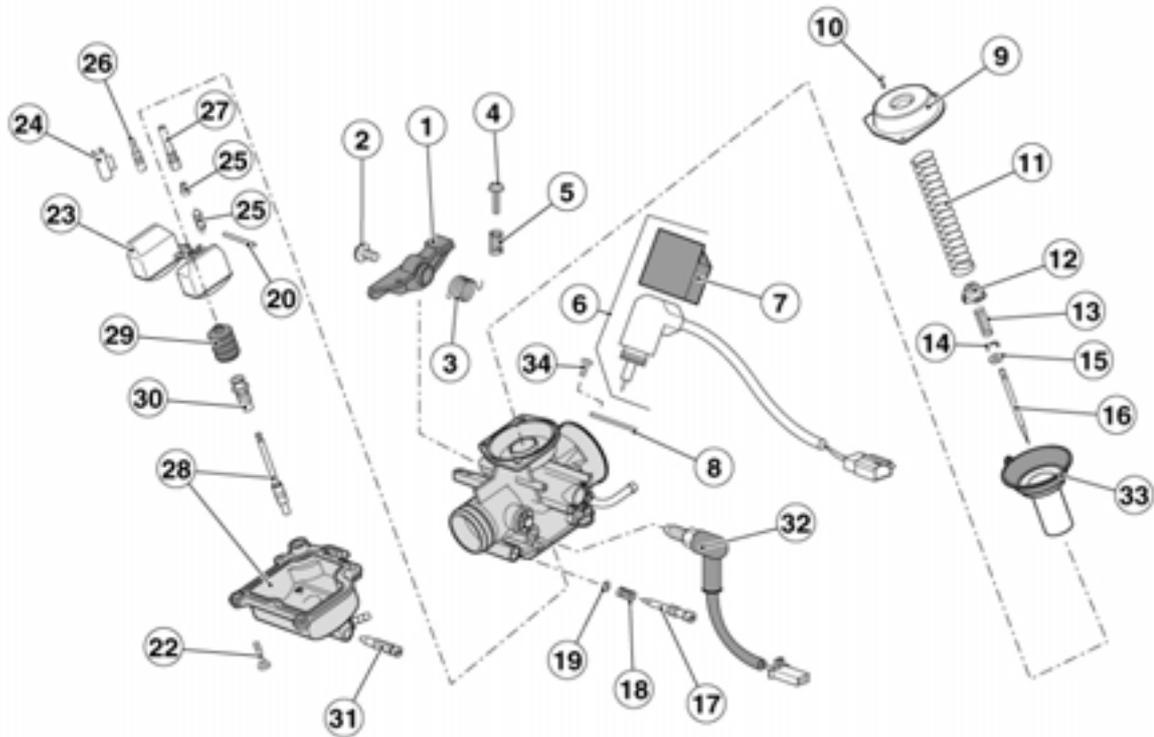
- Unscrew and remove the oil drain cap (3) and let all the engine oil flow out.
- Fit a new cartridge oil filter (2) being sure to lubricate the o-rings on the filter with oil.
- Screw on and tighten the engine oil drain cap (3).



- Refit the exhaust pipe.
- Fill the lubrication system through the engine oil filler hole, by adding about
  - 1000 cm<sup>3</sup> (61 cu.in)
- Screw in and tighten the dipstick (1).
- Start the motorcycle and allow it to run for a few minutes. Switch it off and let it cool down.
- Check the engine oil level, see 3.2.5 (CHECKING THE ENGINE OIL LEVEL AND TOPPING UP).

3.3. FUEL SUPPLY

3.3.1. CARBURETTOR DIAGRAM



Key:

- |  |                      |
|--|----------------------|
| 1. Lever   | 28. Complete sump    |
| 2. Screw   | 29. Bellows          |
| 3. Spring  | 30. Bush             |
| 4. Screw   | 31. Sump drain screw |
| 5. Spring  | 32. Heater kit       |
| 6. Complete automatic starter                          | 33. Membrane         |
| 7. Starter cover                                       | 34. Special screw    |
| 8. Plate   |                      |
| 9. Cover   |                      |
| 10. Screw  |                      |
| 11. Spring   |                      |
| 12. Cup  |                      |
| 13. Spring   |                      |
| 14. Circlip  |                      |
| 15. Washer   |                      |
| 16. Conical pin DCK – 125 cc, Conical pin 52K – 150 cc |                      |
| 17. Idling adjustment screw                            |                      |
| 18. Spring   |                      |
| 19. Washer   |                      |
| 20. Float pin  |                      |
| 21. Fuel closing needle                                |                      |
| 22. Screw  |                      |
| 23. Float  |                      |
| 24. Cap  |                      |
| 25. Main jet 84 – 125cc, Main jet 82 – 150 cc,         |                      |
| 26. Idle jet 33 – 125cc, Idle jet 34 – 150 cc          |                      |
| 27. Idle emulsion jet – 125 cc                         |                      |

### 3.3.2. REMOVING THE CARBURETTOR

- Lift the saddle.
- Unscrew and remove the two fixing screws for the carburettor cover.
- Remove the cover.



- Release the two clamps that attach the carburettor to the air filter housing and the intake manifold.



- Disconnect the automatic starter and heater connectors.



- Release the clamp on the carburettor and disconnect the fuel pipe.



- Remove the carburettor from its seating.
- Disconnect the gas cable.
- Remove the carburettor.



**3.3.3. REMOVING THE FUEL LEVEL SENSOR**

- Unscrew and remove the fixing screws for the fuel level sensor cover.
- Remove the cover.



- Disconnect the electrical connector.
- Unscrew and remove the four fixing nuts for the sensor.
- Remove the sensor.



**3.3.4. REMOVING THE FUEL TANK**

- Remove the lower guard – see 3.5.4 (BODY DIAGRAM).
- Unscrew and remove the fixing screws for the fuel level sensor cover.
- Remove the cover.



- Working on both sides, unscrew and remove the five fixing screws for the floor panel.
- Remove the floor panel.



- Disconnect the electrical connector for the fuel level sensor.



- Release the retention hose clamp and remove the fuel tank breather pipe.



**DANGER**

**Danger of fire.**

**Wait for the engine and the exhaust silencer to cool down completely.**

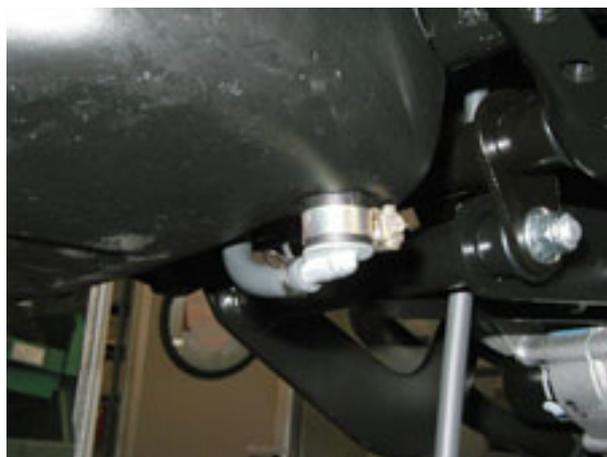
**Fuel vapours are harmful to your health.**

**Before starting work make sure that the room you are working in is adequately ventilated.**

**Do not inhale fuel vapours.**

**Do not dispose of the fuel into the environment.**

- Prepare a container with a capacity that exceeds that of the fuel tank and put it on the ground from the left of the vehicle.
- Disconnect the fuel pipe on the pump side and put it into the container set up and empty the fuel tank.
- Release the clamps and disconnect the fuel supply and vacuum hoses from the fuel pump.



- Release the lower hose clamp on the upper tank.



- Unscrew and remove the four fixing screws for the tank.



- Working on both sides, unscrew and remove the two fixing screws for the fairing support bracket.
- Remove the lower fuel tank.



#### UPPER TANK

- Remove the fuel cap (1).
- Unscrew and remove the locking nut on the filler pipe (2).
- Remove the upper fuel tank.



### 3.4. ENGINE

#### 3.4.1. REMOVING THE ENGINE



##### WARNING

Before proceeding with these operations, remember that the engine must be removed downwards from the frame. Arrange the necessary equipment accordingly.

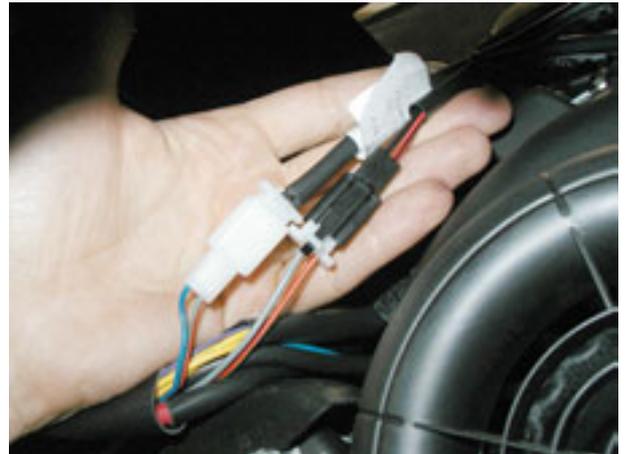
- Remove the rear fairing – see 3.5.7 (REMOVING THE REAR COWLING).
- Unscrew and remove the lower bolt that fixes the shock absorber to the engine.
  
- Unscrew and remove brake lever adjuster.
- Remove the rear brake cable
  
- Disconnect the gas cable.
  
- Release the clamps and disconnect the fuel supply and vacuum pipes from the fuel pump.



- Disconnect the pick-up



- Disconnect the heater connector.
- Disconnect the automatic starter connector



- Disconnect the starter motor connector.
- Unscrew and remove the screw (1) and disconnect the earth cable.



- Disconnect the spark plug cap.



**IMPORTANT** Set up a hoist and belts for lifting beforehand.

- Connect the belts to the rear of the frame.
- Lift the arm of the hoist until the belts are tensioned.



- Remove the circlip.
- Remove the connecting rod support spring.



- Unscrew and remove the rear fixing screw for the left underpanel.



- Unscrew and remove the lower fixing screw for the silent-block support plate



- Move the left underpanel.
- Unscrew and remove the upper screw.
- Remove the silent-block support plate.



- Working from the left, unscrew and remove the nut (2).

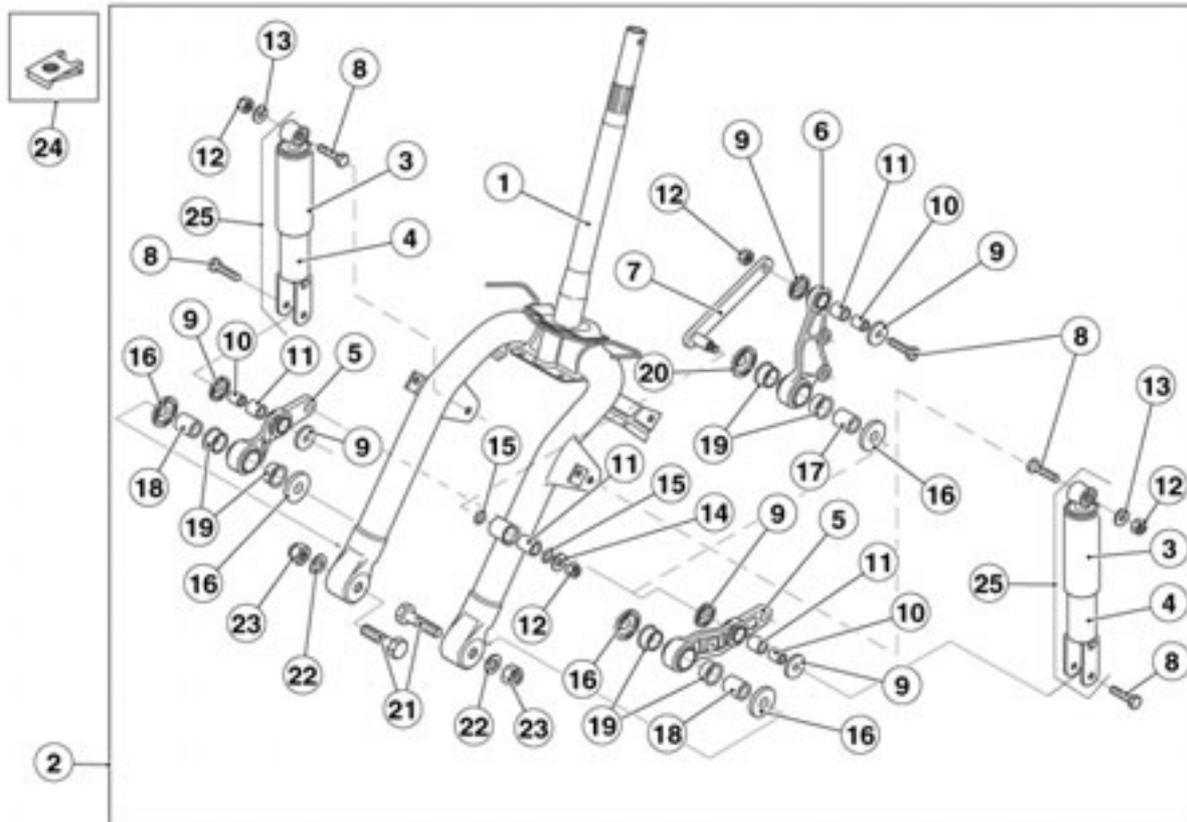


- Remove the pin (3) from the opposite side.
- Remove the engine, complete with the centre stand and rear wheel.



## 3.5. CYCLE CHARACTERISTICS

## 3.5.1. FRONT FORK DIAGRAM

**Key:**

- |                               |                              |
|-------------------------------|------------------------------|
| 1. Front fork                 | 13. Washer 8.4x17            |
| 2. Complete fork              | 14. Special washer           |
| 3. Upper shock absorber cover | 15. O-Ring 115               |
| 4. Lower shock absorber cover | 16. Cap                      |
| 5. Connecting rod             | 17. Bush                     |
| 6. Caliper support plate      | 18. Bush                     |
| 7. Plate                      | 19. Nylon bush               |
| 8. M8x35 TE screw             | 20. Cap D28                  |
| 9. Cup                        | 21. M12x50 screw             |
| 10. Bush                      | 22. Washer 13x24x2.5         |
| 11. Nylon bush                | 23. M12 low self-locking nut |
| 12. M8 low self-locking nut   | 24. M5 clip                  |
|                               | 25. Fork shock absorber      |

### 3.5.2. REMOVING THE FORK

- Place the vehicle on the central stand on a hoist with the front wheel protruding beyond the edge of the hoist surface.
- Secure the back of the vehicle to the hoist using straps.
- Tension both the straps so that the front of the vehicle remains raised
- Unscrew and remove the two fixing screws for the brake caliper.
- Remove the brake caliper.



- Unscrew and remove the wheel pin locking along with its washer.



- Take note of the position of the speedometer transmission in order to be able to refit it correctly.



- Support the front wheel and remove the wheel spindle altogether.
- Take note of the position of the washer and keep it in order to be able to refit it correctly.
- Take note of the position of the washer and keep it in order to be able to refit it correctly.



If necessary the front shock absorbers can now be removed.

### REMOVING THE SHOCK ABSORBERS

- Unscrew and remove the two fixing screws for the shock absorbers.
- Remove the shock absorber.



- To proceed with removing the fork, remove the superstructure.

#### WARNING



Do not force cables, pipes, wires or electrical connectors.

#### MOJITO RETRO'

- Headlight ring nut
- Front headlight
- Upper headlight support and dashboard
- Handlebar and lower headlight support

#### MOJITO CUSTOM

- Front headlight
- Dashboard
- Handlebars

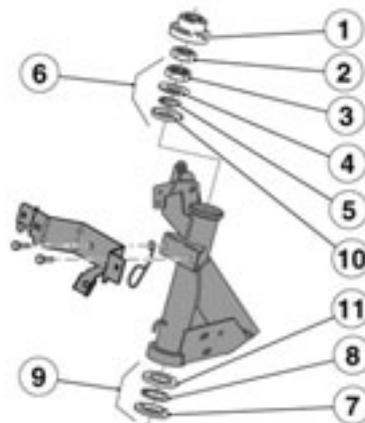
- Pull off and remove the rubber gasket (1).
- Unscrew and remove the locking nut (2).
- Unscrew and remove the adjustment nut (3).



#### WARNING

When removing the fork be sure to collect all the balls for the ball bearings. The balls are not trapped and automatically fall out when the fork is removed.

- Remove the fork from the steering pipe.
- Remove the inner ring (4) and balls (5) from the upper bearing (6).
- Remove the inner ring (7) and balls (8) from the lower bearing (9).
- Carefully wash all the bearing components, including the outer rings (10) and (11).
- Examine all the components for wear and replace if necessary.
- Put lots of grease on all the bearing components, and use the grease to keep the balls in the outer ring before trying to fit the fork by following the instructions above in reverse order.

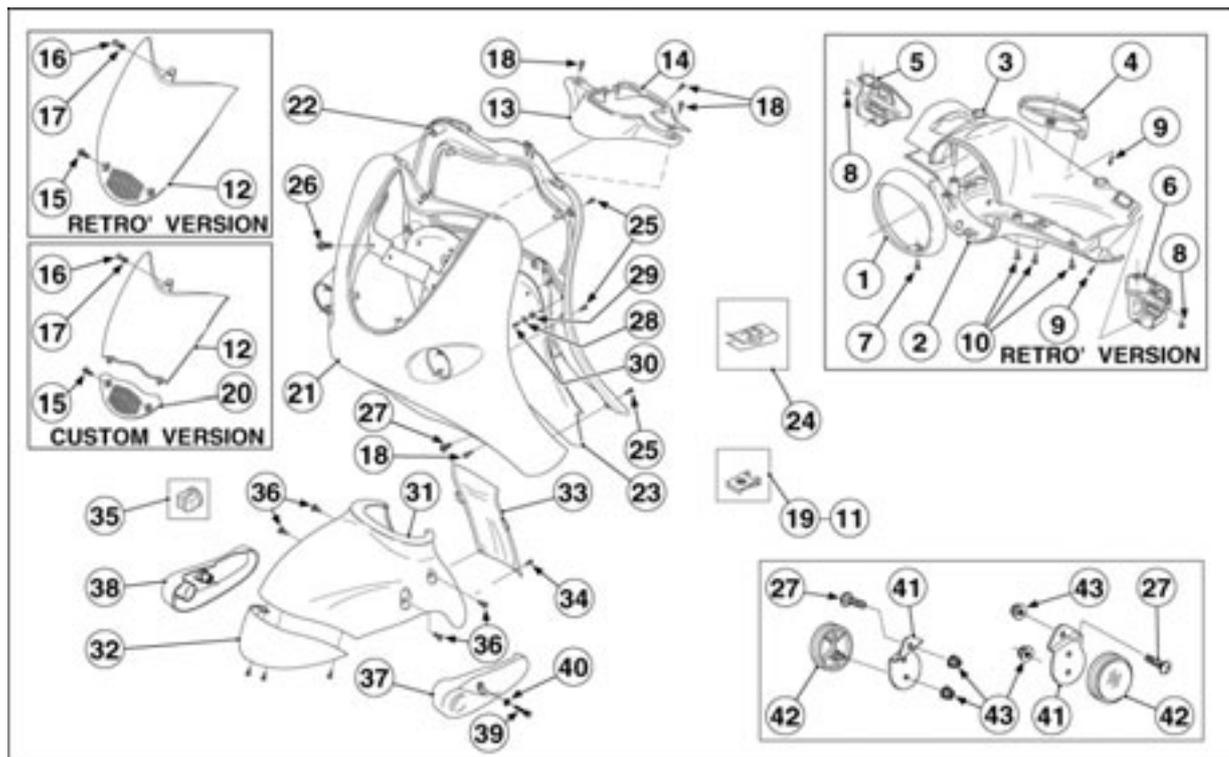


#### WARNING

When refitting make sure the correct number of balls is put in each bearing.

- 21 balls (5) for the upper bearing (6).
- 25 balls (8) for the lower bearing (9).

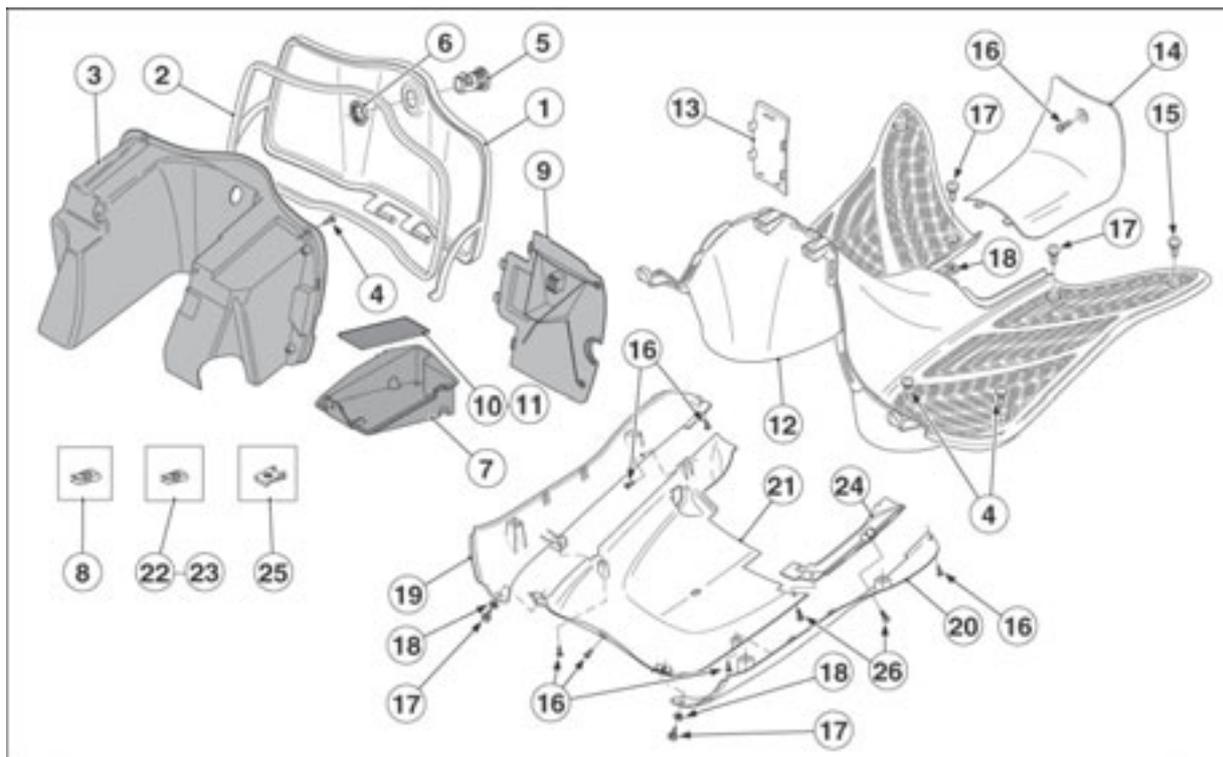
3.5.3. FRONT BODY DIAGRAM



**Key:**

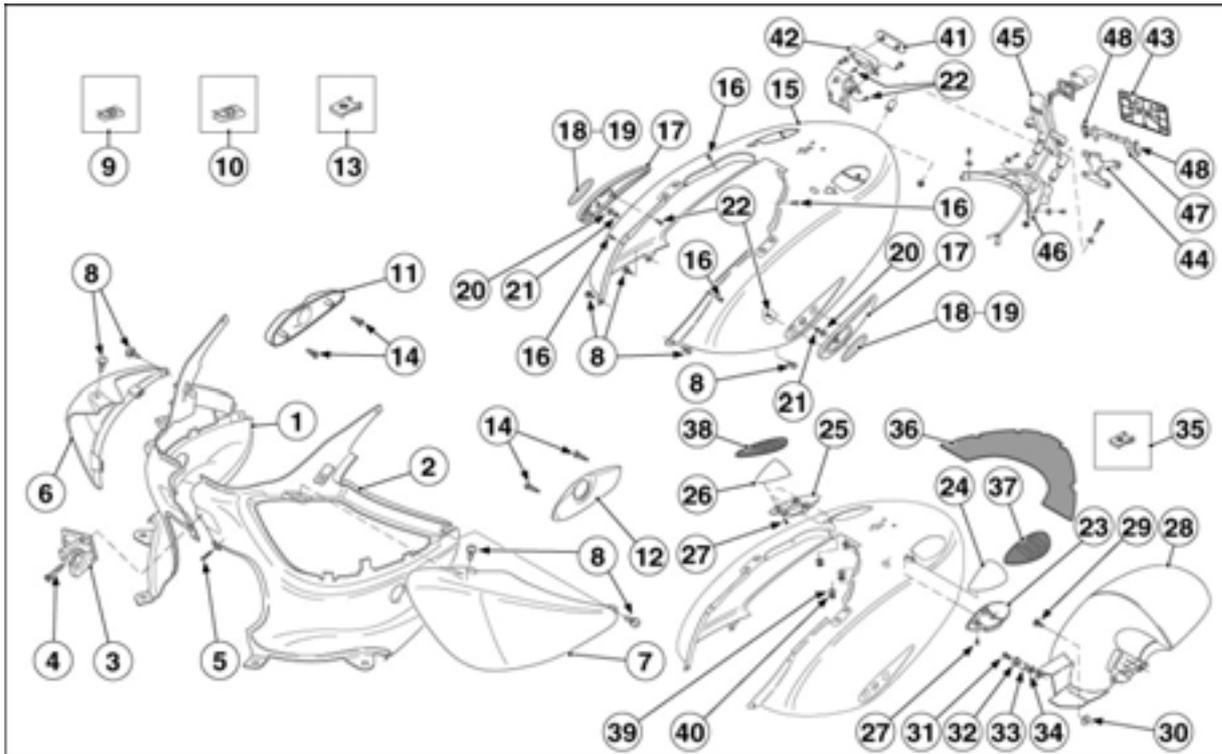
- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>1. Headlight chromed ring nut</li> <li>2. Headlight support</li> <li>3. Dashboard panel</li> <li>4. Dashboard chromed ring nut</li> <li>5. RH electrical control housing</li> <li>6. LH electrical control housing</li> <li>7. M4x10 hex socket screw</li> <li>8. Self-tapping screw</li> <li>9. Self-tapping screw</li> <li>10. Self-tapping screw</li> <li>11. M4 clip</li> <li>12. Front cowling</li> <li>13. Front collar, chr.</li> <li>14. Rear collar, chr.</li> <li>15. M5x16 screw w/flange</li> <li>16. M4x10 hex socket screw</li> <li>17. 4.3x9x0.8 washer</li> <li>18. 4.2x16 cap screw</li> <li>19. M5 clip</li> <li>20. Panel, chr.</li> <li>21. Front shield</li> <li>22. Internal shields</li> <li>23. Water protection</li> <li>24. Screw clip D4,2</li> <li>25. Self-tapping screw</li> </ul> | <ul style="list-style-type: none"> <li>26. M6x16 screw w/flange</li> <li>27. M5x16 screw w/flange</li> <li>28. 4.3x12x1 washer</li> <li>29. T bush</li> <li>30. Self-tapping screw</li> <li>31. Front mudguard</li> <li>32. Front mudguard finish</li> <li>33. Front mudguard lockup</li> <li>34. Self-tapping screw</li> <li>35. Plastic rivet</li> <li>36. M5x12 screw w/flange</li> <li>37. LH connecting rod cover, chr.</li> <li>38. RH connecting rod cover, chr.</li> <li>39. M5x40 screw w/flange</li> <li>40. 5.3x10x1 washer</li> <li>41. Rear reflector support</li> <li>42. Amber reflector</li> <li>43. Flanged self-locking nut M5</li> </ul> |
|---|---|

## 3.5.4. CENTRAL BODY DIAGRAM

**Key:**

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1. Glove compartment door</li> <li>2. Top box gasket</li> <li>3. Glove compartment</li> <li>4. Self-tapping screw .</li> <li>5. Front glove compartment lock</li> <li>6. Lock nut</li> <li>7. Battery holder</li> <li>8. Clip for self-tapping screw D5,5</li> <li>9. Battery cover</li> <li>10. Black adhesive sponge 6x60</li> <li>11. Adhesive sponge</li> <li>12. Floor panel</li> <li>13. Type appr. data cover</li> <li>14. Inspection cover</li> <li>15. 5.5x20 cap screw</li> <li>16. 4.2x16 cap screw</li> <li>17. 5.5x22 cap screw</li> <li>18. 15x5.5 washer</li> <li>19. RH side panel</li> </ol> | <ol style="list-style-type: none"> <li>20. LH side panel</li> <li>21. Lower protective fairing</li> <li>22. Clip for self-tapping screw D4,2</li> <li>23. Clip for self-tapping screw D5,5</li> <li>24. LH rear stand masking</li> <li>25. M4 clip</li> <li>26. M4x12 cap screw</li> </ol> |
|--|--|

3.5.5. REAR BODY DIAGRAM



**Key:**

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>1. RH side cover</li> <li>2. LH side cover</li> <li>3. Under saddle hook, cpl.</li> <li>4. M4x35 cap screw</li> <li>5. 4.2x16 cap screw</li> <li>6. RH undersaddle</li> <li>7. LH undersaddle</li> <li>8. 5.5x20 cap screw</li> <li>9. Clip for self-tapping screw D4,2</li> <li>10. Clip for self-tapping screw D5,5</li> <li>11. RH rear footrest cover</li> <li>12. LH rear footrest cover</li> <li>13. M4 clip</li> <li>14. M4,2x20 cap screw</li> <li>15. Fairing</li> <li>16. Self-tapping screw .</li> <li>17. Oval finish</li> <li>18. Amber oval reflector (AU-DK-EU)</li> <li>19. Reflector decal (USA)</li> <li>20. 4.3x16 washer</li> <li>21. M4 low self-locking nut</li> <li>22. Self-tapping screw</li> <li>23. LH direction light place</li> <li>24. LH turn indicator</li> <li>25. RH direction light place</li> <li>26. RH turn indicator</li> <li>27. 4.2x16 cap screw</li> <li>28. Rear mudguard</li> <li>29. M5x12 screw w/flange</li> </ul> | <ul style="list-style-type: none"> <li>30. Insulating washer</li> <li>31. M6x16 screw w/flange</li> <li>32. 8.4x13 washer</li> <li>33. Bush</li> <li>34. 6.6x18x1.6</li> <li>35. M4-M5-M6 clip</li> <li>36. Water protection</li> <li>37. LH turn indicator</li> <li>38. RH turn indicator</li> <li>39. 7x15x1.5 washer</li> <li>40. Washer for D5 shafts</li> <li>41. Red reflector</li> <li>42. Reflector support</li> <li>43. Number plate holder (Mojito Custom USA)</li> <li>44. Number plate holder plate (Mojito Custom USA)</li> <li>45. Number plate support (AU-DK-EU)</li> <li>46. Rear splash guard</li> <li>47. Reflector support (Mojito Custom USA)</li> <li>48. Red reflector (Mojito Custom USA)</li> </ul> |
|--|--|

**3.5.6. REMOVING THE RIGHT AND LEFT INSPECTION COVERS**

- Lift the saddle.
- Working on both sides, unscrew and remove the two fixing screws for the left and right inspection covers.
- Remove the covers



### 3.5.7. REMOVING THE REAR COWLING

- Lift the saddle.
- Unscrew and remove the five screws.
- Remove the rear handle from the engine cowling.



**WARNING**  
Handle chromed and painted components carefully so as not to scratch or ruin them.

- Remove the side inspection covers – see 2.5.6 (REMOVING THE RIGHT AND LEFT INSPECTION COVERS)

- Working on both sides, unscrew and remove the two fixing screws for the upper engine cowling.

- Working on both sides, unscrew and remove the two fixing screw for the front engine cowling.

- Unscrew and remove the two screws that fix the reflector to the support.



- Unscrew and remove the three fixing screws for the reflector support.
- Remove the support.



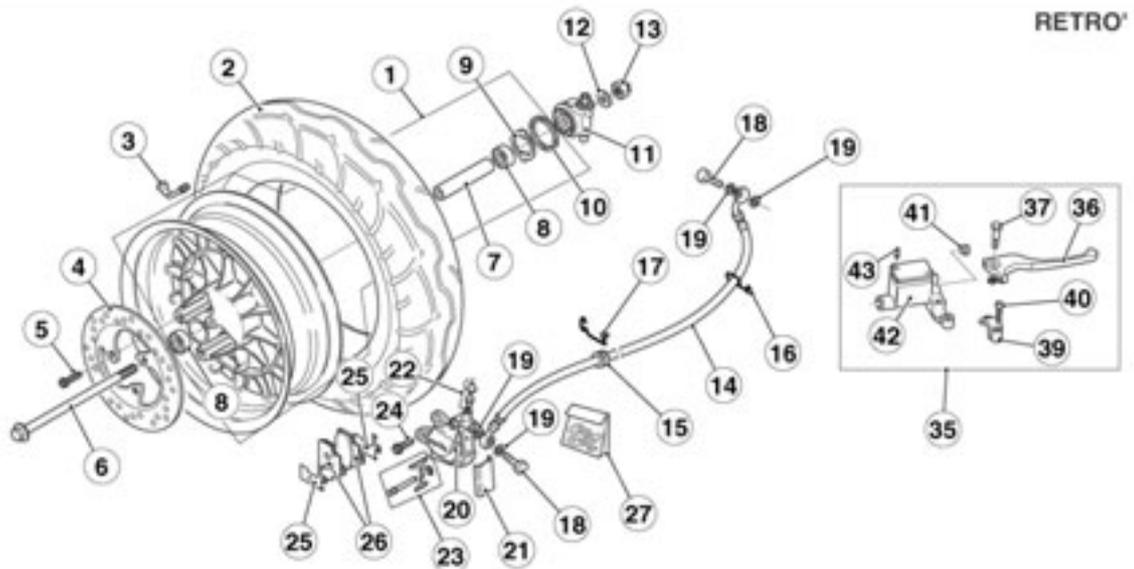
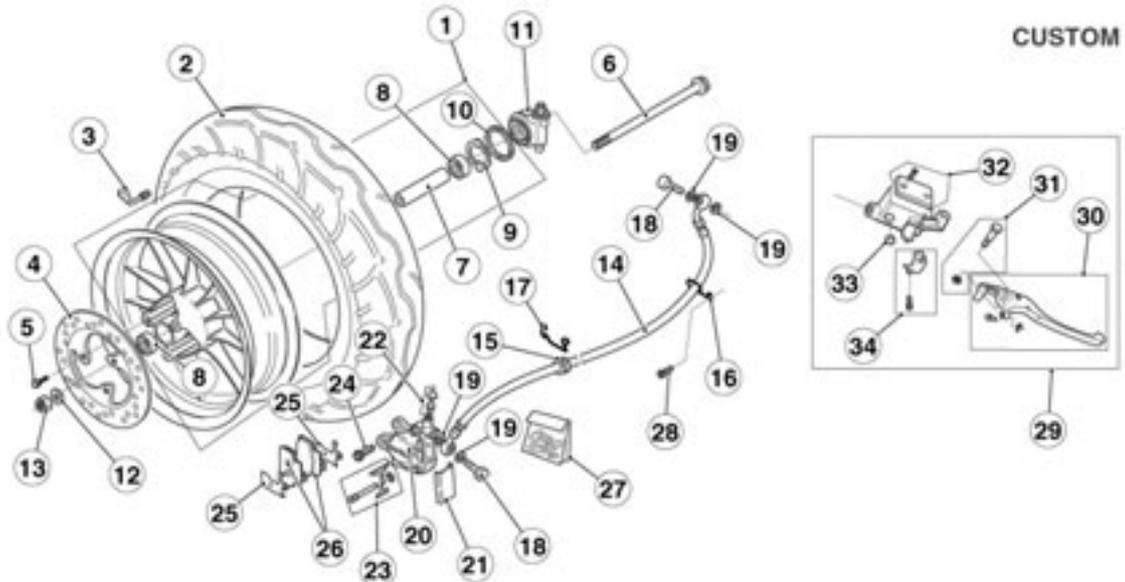
- Unscrew and remove the rear fixing bolt for the engine cowling.



- Disconnect the taillight wiring connector.
- Remove the engine cowling.



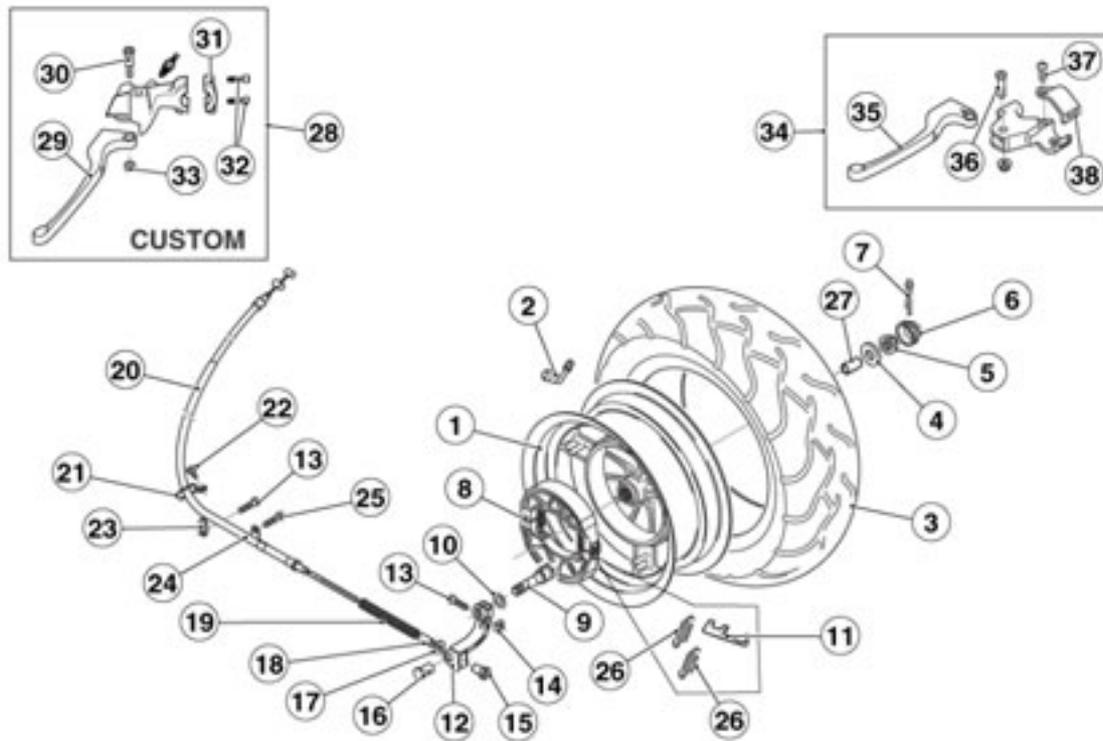
3.5.8. FRONT BRAKING SYSTEM DIAGRAM



**Key:**

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>1. Front wheel</li> <li>2. Front tyre 120/70-12</li> <li>3. Tubeless valve</li> <li>4. Brake disc D190</li> <li>5. Screw</li> <li>6. Front wheel spindle</li> <li>7. Front wheel spacer</li> <li>8. Bearing</li> <li>9. Drive key</li> <li>10. Seal ring D40x50x4</li> <li>11. Odometer gear</li> <li>12. 12.2x22x2 flat metal washer</li> <li>13. M12x1,25 low self-locking nut</li> <li>14. Front brake pipe</li> <li>15. Rubber spacer</li> <li>16. Cable guide</li> <li>17. Cable guide</li> <li>18. Oil pipe screw</li> <li>19. 10x14x1.6 washer</li> <li>20. Front brake caliper</li> <li>21. Brake caliper cover</li> </ul> | <ul style="list-style-type: none"> <li>22. Bleeder +cap</li> <li>23. Caliper pin + spring</li> <li>24. M8x25 screw w/flange</li> <li>25. F. anti-whistle plate-pair</li> <li>26. Pads pair</li> <li>27. Caliper revision kit</li> <li>28. M4x10 hex socket screw</li> <li>29. Front brake pump D13 (Mojito Custom)</li> <li>30. Front brake lever (Mojito Custom)</li> <li>31. Lever pin cpl. (Mojito Custom)</li> <li>32. Oil tank cap (Mojito Custom)</li> <li>33. Brake pump portlight (Mojito Custom)</li> <li>34. U-bolt (Mojito Custom)</li> <li>35. Front brake pump D12 (Mojito Retrò)</li> <li>36. Front brake lever (Mojito Retrò)</li> <li>37. Lever screw (Mojito Retrò)</li> <li>38. Nut (Mojito Retrò)</li> <li>39. U-bolt (Mojito Retrò)</li> <li>40. Cap screw (Mojito Retrò)</li> <li>41. Oil level cap (Mojito Retrò)</li> <li>42. Tank cap (Mojito Retrò)</li> <li>43. Pump cover screw (Mojito Retrò)</li> </ul> |
|---|--|

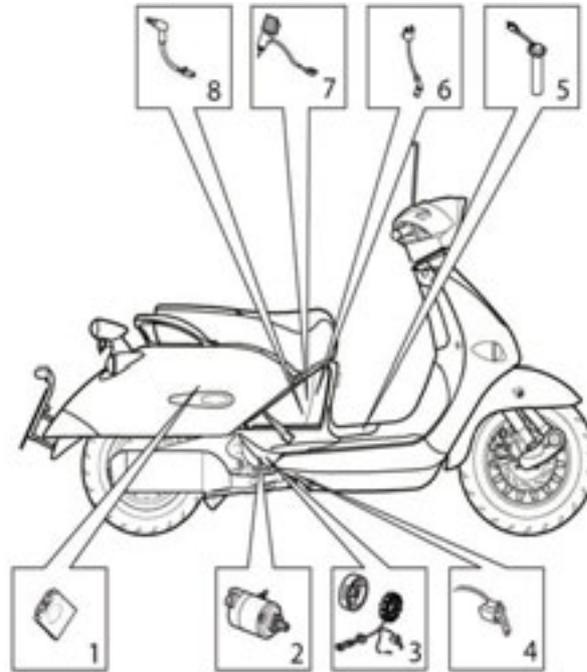
## 3.5.9. REAR BRAKING SYSTEM DIAGRAM

**Key:**

- |                                  |   |
|----------------------------------|---|
| 1. Rear wheel                    | 28. Rear brake lever complete (Mojito Custom) |
| 2. Tubeless valve                | 29. Rear brake lever (Mojito Custom)          |
| 3. Rear tyre 130/70-12"          | 30. Brake lever pin (Mojito Custom)           |
| 4. Ring                          | 31. U-bolt (Mojito Custom)                    |
| 5. Rear wheel nut                | 32. Screw (Mojito Custom)                     |
| 6. Cap                           | 33. Nut (Mojito Retrò)                        |
| 7. Split pin                     | 34. Rear brake lever complete (Mojito Retrò)  |
| 8. Brake shoes + springs         | 35. Rear brake lever (Mojito Retrò)           |
| 9. Rear brake cam                | 36. Brake lever pin (Mojito Retrò)            |
| 10. Seal ring                    | 37. Screw (Mojito Retrò)                      |
| 11. Plate                        | 38. U-bolt (Mojito Retrò)                     |
| 12. Rear brake lever             |   |
| 13. M6x30 screw w/flange         |   |
| 14. Square nut                   |   |
| 15. Rear brake lever adjuster    |   |
| 16. Brake cable retainer         |   |
| 17. 6.6x18x1.6 washer            |   |
| 18. 6.5x10x19 spacer             |   |
| 19. Coil compress spring         |   |
| 20. Rear brake cable             |   |
| 21. Cable guide                  |   |
| 22. Self-tapping TE screw 4.8x12 |   |
| 23. Plate                        |   |
| 24. Clamp                        |   |
| 25. M6x35 screw                  |   |
| 26. Brake shoes return spring    |   |
| 27. Rear wheel spacer            |   |

**3.6. ELECTRICAL SYSTEM**

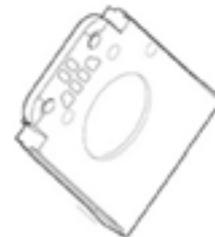
**3.6.1. COMPONENT CHECK**



**1. Control Unit:**

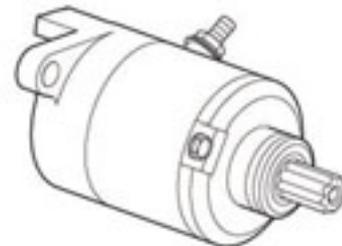
The ignition control unit is of a capacitive discharge type, with the ignition advance being controlled digitally in relation to the engine speed. The control unit has two connectors, of which the eight-way connector is used.

PIN	SERVICE
1	Direction indicator light control
2	Not connected
3	Ignition coil control
4	Not connected
5	Inlet +15
6	Pick-up inlet
7	Starter control
8	Earth



**2. Starter motor:**

Current absorbed at normal operating speed 45A



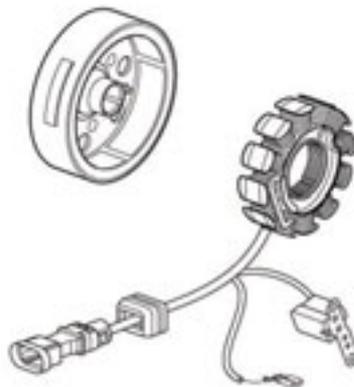
**3. Generator:**

three-phase alternator

winding resistance 1  $\Omega$

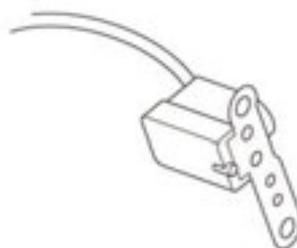
output voltage 40Vac (measured with the generator disconnected from the electrical system and the engine at 3000 rpm)

charging voltage: 13.8 V to be measured at the battery poles (with the engine at 3000 rpm).

**4. Pick-up:**

inductive type sensor

winding resistance 110  $\Omega$

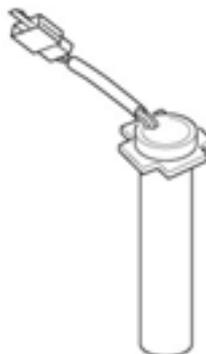
**5. Fuel level sensor:**

resistance between terminals 1 and 3

- 5  $\Omega$  for full tank

-38  $\Omega$  for tank half full

-100  $\Omega$  with tank empty

**6. Ignition coil:**

primary resistance 0.4  $\Omega$

secondary resistance 8.2  $\Omega$

tolerance  $\pm 10\%$



**7. Automatic starter:**  
resistance 25-30  $\Omega$



**8. Fuel heater:**  
resistance 10-15  $\Omega$





**Key:**

1. Fuel level sensor
2. Multiple connectors
3. Low fuel warning light
4. Turn indicator pilot light
5. Parking light pilot light
6. Instrument panel lights
7. Hi-beam pilot light
8. Oil warning light
9. Fuel level instrument
10. Instrument panel
11. Key-operated switch
12. Left light switch
13. Horn
14. Right light switch
15. Bridge (Europe version only)
16. Flasher (USA version only)
17. –
18. Rear left turn indicator
19. Rear twin-light lamp
20. Tail light
21. Rear right turn indicator
22. Plate light
23. Front stop switch
24. Rear stop switch
25. Start Relay
26. Starter motor
27. Battery
28. Fuses
29. –
30. Carburettor heater
31. Coil
32. Spark plug
33. C.D.I.
34. Pick-up
35. Three-phase generator
36. Oil pressure sensor
37. Automatic choke
38. Regulator
39. Front right turn indicator .
40. Parking light lamp
41. Front twin-light lamp
42. Headlight
43. Front left turn indicator .

**WIRE COLOURS**

<b>Ar</b>	orange
<b>Az</b>	light blue
<b>B</b>	blue
<b>Bi</b>	white
<b>G</b>	yellow
<b>Gr</b>	grey
<b>M</b>	brown
<b>N</b>	black
<b>R</b>	red
<b>Ro</b>	pink
<b>V</b>	green
<b>Vi</b>	violet



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