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0.1. INTRODUCTION

0.1.1. FOREWORD

NOTE *This manual must be considered as an integral part of the vehicle and must always accompany it, even in case of resale.*

aprilia has drafted this manual with the maximum attention, in order to supply the user with correct and updated information.
However, since aprilia constantly improves the design of its products, there may be slight discrepancies between the characteristics of your vehicle and those described in this manual. Such modifications will be entered in subsequent editions of the manual. Should you need assistance or clarifications about the inspection and repair procedures, please contact the aprilia SERVICE DEPT., they will be glad to give you any information on the matter, or supply you with any detail on updates and technical changes applied to the vehicle.
For inspections and repair operations not expressly described in this publication, for the purchase of aprilia genuine spare parts, accessories and other products, as well as for specific advice, contact exclusively aprilia Authorised Dealers and Service Centres, which guarantee prompt and accurate assistance.
Thank you for choosing aprilia. We wish you a nice ride.

NOTE *In some countries the antipollution and noise regulations in force require periodical inspections.*

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0.1.2. ABBREVIATIONS/SYMBOLS/CONVENTIONS

= number
< = less than
> = greater than
≤ = less than or equal to
≥ = more than or equal to
~ = approximately
∞ = infinity
°C = degrees Celsius (centigrade)
°F = degrees Fahrenheit
± = plus or minus
a.c = alternating current
A = Ampere
Ah = Ampere per hour
API = American Petroleum Institute
AT = high voltage
AV/DC = Anti-Vibration Double Countershaft
bar = pressure measurement unit (1 bar = 100 kPa)
d.c. = direct current
cc = 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 = revolutions 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 = kilo Ohm
kPa = kiloPascal (1 kPa = 0.01 bar)
KS = clutch side (from the German "Kupplungsseite")
kW = kilowatt
ℓ = litres
LAP = racetrack lap
LED = Light Emitting Diode
LEFT SIDE = left side
m/s = metres per second
max = maximum
mbar = millibar (1 mbar = 0.1 kPa)
mi = miles
MIN = minimum
MPH = miles per hour
MS = flywheel side (from the German "Magnetoseite")
MΩ = MegaOhm
N.A. = Not Available
N.O.M.M. = Motor Octane Number
N.O.R.M. = Research Octane Number
Nm = Newton metre (1 Nm = 0.1 kgm)
Ω = ohm
PICK-UP = pick-up
BDC = Bottom Dead Centre
TDC = Top Dead Centre
PPC = Pneumatic Power Clutch

RIGHT SIDE	= right side
SAE	= Society of Automotive Engineers
TEST	= diagnostic check
T.B.E.I.	= crown-head Allen screw
T.C.E.I.	= cheese-head Allen screw
T.E.	= hexagonal head
T.P.	= flat head screw
TSI	= Twin Spark Ignition
UPSIDE-DOWN	= inverted fork
V	= volt
W	= watt
Ø	= diameter

GENERAL INFORMATION 1

SUMMARY

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1.1. STRUCTURE OF THE MANUAL

1.1.1. CONVENTIONS USED IN THE MANUAL

- This manual is divided in sections and subsections, each covering a set of the most significant components. Refer to the index of sections when consulting the manual.
- Unless expressly specified otherwise, assemblies are reassembled by reversing the dismantling procedure.
- The terms "right" and "left" are referred to the rider seated on the vehicle in the normal riding position.
- Motorcycle operation and basic maintenance are covered in the "OWNER'S MANUAL".

In this manual any variants are identified with these symbols:

OPT	optional
✽	catalytic version
-	all versions
MP	national certification
SF	European certification (EURO 1 limits)
SXV	motard version (if displacement is not indicated, the information is valid for all displacements)
RXV	enduro version (if displacement is not indicated, the information is valid for all displacements)

VERSION:

I	Italy	GR	Greece	MAL	Malaysia
UK	United Kingdom	NL	Netherlands	RCH	Chile
A	Austria	CH	Switzerland	HR	Croatia
P	Portugal	DK	Denmark	AUS	Australia
SF	Finland	J	Japan	USA	United States of America
B	Belgium	SGP	Singapore	BR	Brazil
D	Germany	SLO	Slovenia	RSA	South Africa
F	France	IL	Israel	NZ	New Zealand
E	Spain	ROK	South Korea	CDN	Canada

1.1.2. DANGEROUS ELEMENTS

FUEL

DANGER
The fuel used to operate engines is highly flammable and becomes explosive under particular conditions.
Refuelling and engine service should take place in a well-ventilated area with the engine stopped.
Do not smoke when refuelling or in the proximity of sources of fuel vapours, avoid flames, sparks and any element that could ignite fuel or provoke explosions.
Take care not to spill fuel out of the filler, or it may ignite when in contact with hot engine parts.
In the event of accidental fuel spillage, make sure the affected area is fully dry before starting the engine. Fuel expands from heat and when left under direct sunlight.
Never fill the fuel tank up to the brim. Tighten the filler cap securely after each refuelling.
Avoid contact with skin. Do not inhale vapours. Do not swallow fuel. Do not transfer fuel between different containers using a hose.
DO NOT DISPOSE OF FUEL IN THE ENVIRONMENT.
KEEP AWAY FROM CHILDREN.

Use only premium grade unleaded petrol, min. O.N. 95 (ROM) and 85 (MON).

LUBRICANTS

DANGER
A good lubrication ensures the vehicle safety.
Failure to keep the lubricants at the recommended level or the use of a non-suitable new and clean type of lubricant can lead to the engine or gearbox seizure, thus causing serious accidents, personal injury or even death.
Gear fluid may cause serious damage to the skin if handled daily and for long periods.
Wash your hands carefully after use.
Do not dispose of oil in the environment.
Take it to the filling station where you usually buy it or to an oil salvage centre.

WARNING
When filling the vehicle with this oil, take care not to spill it out. Immediately clean spilt oil, or it might damage the vehicle paintwork.
In case of contact with oil, the tyres surface will become very slippery, thus becoming a serious danger for your safety.
In case of leaks, do not use the vehicle. Check and trace the cause of leaks and proceed to repair.

ENGINE OIL

DANGER
Engine oil may cause serious damage to the skin if handled daily and for long periods.
Wash your hands carefully after use.
Do not dispose of oil in the environment.
Dispose of it through the nearest waste oil reclamation firm or through the supplier.
Wear latex gloves when servicing.

FRONT FORK FLUID

DANGER
Front suspension response can be modified to a certain extent by changing damping settings and/or selecting a particular grade of oil. Standard oil viscosity: SAE 20 W. Different oil grades can be selected to obtain a particular suspension response (choose SAE 5W for a softer suspension, 20W for a stiffer suspension).
The two grades can also be mixed in varying solutions to obtain the desired response.

BRAKE FLUID

NOTE *This vehicle is fitted with front and rear disc brakes. Each braking system is operated by an independent hydraulic circuit. The information provided below applies to both braking systems.*

DANGER
Do not use the vehicle in case brakes are worn out or do not work properly. The brakes are the parts that most ensure your safety and for this reason they must always be perfectly working. Failure to comply with these recommendations will probably lead to a crash or an accident, with a consequent risk of personal injury or death.
A wet surface reduces brakes efficiency.

DANGER
In case of wet ground the braking distance will be doubled, since both brakes and tyre grip on the road surface are extremely reduced by the water present on the road surface.
Any water on brakes, after washing the vehicle or driving on a wet road surface or crossing puddles or gips, can wet brakes so as to greatly reduce their efficiency.
Failure to comply with these recommendations may lead to serious accidents, with a consequent risk of severe personal injuries or death.
Brakes are critical safety components. Do not ride the vehicle in case brakes are not working at their best.
Check for brakes proper operation before every trip.
Brake fluid is an irritant. Avoid contact with eyes or skin.
In the event of accidental contact, wash affected body parts thoroughly. In the event of accidental contact with eyes, contact an eye specialist or seek medical advice.
DO NOT RELEASE BRAKE FLUID INTO THE ENVIRONMENT.
KEEP AWAY FROM CHILDREN.
When handling brake fluid, take care not to spill it onto plastic or paint-finished parts or they will damage.

DANGER
Do not use any brake fluids other than the specified type. Never mix different types of fluids to top up level, as this will damage the braking system.
Do not use brake fluid from containers which have been kept open or in storage for long periods.
Any sudden changes in play or hardness in the brake levers are warning signs of problems with the hydraulic circuits.
Ensure that the brake discs and brake linings have not become contaminated with oil or grease. This is particularly important after servicing or inspections.
Make sure the brake lines are not twisted or worn.
Prevent accidental entering of water or dust into the circuit.
Wear latex gloves when servicing the hydraulic circuit.

DISC BRAKES

DANGER
The brakes are the parts that most ensure your safety
and for this reason they must always be perfectly working; check them before every trip.
A dirty disc soils the pads.
Dirty pads must be replaced, while dirty discs must be cleaned with a high-quality degreaser.
Halve maintenance intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used in competitions.
Check brake pads for wear.
When the brake pads wear out, the level of the fluid decreases to automatically compensate for their wear.
The front brake fluid reservoir is located on the right handlebar, near the front brake lever.
The rear brake fluid reservoir is located under the right fairing.
Do not use the vehicle if the braking system leaks fluid.

COOLANT

DANGER
Coolant is toxic when ingested, contact with eyes or skin may cause irritation.
In the event of contact with your skin or eyes, rinse repeatedly with abundant water and seek medical advice. In the event of ingestion, induce vomiting, rinse mouth and throat with abundant water and seek medical advice immediately.
DO NOT RELEASE INTO THE ENVIRONMENT.
KEEP AWAY FROM CHILDREN.

DANGER
Take care not to spill coolant onto hot engine parts. It may ignite and produce invisible flames. Wear latex gloves when servicing.
Do not ride when coolant is below the minimum level.

Coolant mixture is a 50% solution of water and antifreeze. This is the ideal solution for most operating temperatures and provides good corrosion protection.
This solution is also suited to the warm season, as it is less prone to evaporative loss and will reduce the need for top-ups.
In addition, less water evaporation means fewer minerals salts depositing in the radiator, which helps preserve the efficiency of the cooling system.
When the temperature drops below zero degrees centigrade, check the cooling system frequently and add more antifreeze (up to 60% maximum) to the solution, if needed.
Use distilled water in the coolant mixture. Tap water will damage the engine.
Refer to the chart given below and add water with the quantity of antifreeze to obtain a solution with the desired freezing point:

Freezing point °C (°F)	Coolant % of volume
-20°C (-4°F).	35
-30°C (-22°F).	45
-40°C (-40°F).	55

NOTE *Coolants have different specifications. The protection degree is written on the label.*

WARNING
Use only nitrite-free antifreeze and corrosion inhibitors with a freezing point of -35°C (-31°F) as a minimum.

DRIVE CHAIN

Check drive chain operation, wear, slack and lubrication at regular intervals.
The vehicle is equipped with an endless chain with a joint link.

WARNING
If too slack, the chain can come off the front or rear sprockets thus leading to serious accidents and damage to the vehicle, with consequent serious personal injury or death.
Do not use the vehicle if the chain slack has not been correctly adjusted.
To check the chain, take it with your hand where it turns on the rear sprocket and pull it as to separate it from the sprocket itself.
If you can move the chain apart of the front sprocket for more than 3 mm (0.125 in), change chain, front and rear sprocket.

DANGER
If not properly maintained, chain can early wear out and lead to the damage of both front and rear sprockets.
Perform chain maintenance operations more frequently if the vehicle is used on rainy or dusty areas.

TYRES

WARNING
If tyres are excessively inflated, the vehicle will be hard, difficult and uncomfortable to ride.
In addition, the roadworthiness, mainly on wet surfaces and during cornering, will be impaired.
Flat tyres (insufficient pressure) can slip on the rim and make you lose the control of the vehicle.
In this case too, both vehicle roadworthiness, manoeuvrability and brake efficiency will be impaired.
Tyres changing, repair, maintenance and balancing must be carried out by specialised technicians using suitable equipment.
When new, tyres can have a thin slippery protective coating. Drive carefully for the first kilometres (miles).
Never use rubber treating substances on tyres.
In particular, avoid contact with fluid fuels, leading to a rapid wear.
In case of contact with oil or fuel, do not clean but change the tyres.

DANGER
Some of the original equipment tyres of this vehicle are provided with wear indicators.
There are several kinds of wear indicators.
For more information on how to check the wear, contact your Dealer.
Visually check if the tyres are worn and in this case have them changed.
If a tyre deflates while driving, stop immediately.
Avoid hard brakings or moves and do not close throttles too abruptly.
Slowly close the throttle grip, move to the edge of the road and use the engine brake to slow down until coming to a halt.
Failure to comply with these recommendations may lead to accidents, with a consequent risk of personal injuries or death.
Do not install tyres with air tube on rims for tubeless tyres and vice versa.

1.1.3. SAFETY WARNINGS

The following precautionary warnings are used throughout this manual in order to convey the following messages:

Safety warning. This symbol appears, whether in the manual or on the vehicle itself, to indicate a personal injury hazard. Non-compliance with the indications given in the messages preceded by this symbol may result in serious risks for your and other people's safety and for the vehicle!

DANGER
Indicates a potential hazard which may result in serious injury or even death.

WARNING
Indicates a potential hazard which may result in minor personal injury or damage to the vehicle.

NOTE *The word "NOTE" in this manual precedes important information or instructions.*

1.1.4. BASIC SAFETY RULES

CARBON MONOXIDE
Should it be necessary to perform some operations with the vehicle running, make sure to work outdoors or in a well-aerated room.
Avoid starting the engine indoors.
In case you are working indoors, use a gas exhaust system.

DANGER
Exhaust gases contain carbon monoxide, which is extremely toxic if inhaled and may cause loss of consciousness or even lead to death by asphyxia.

FUEL

DANGER
The fuel used to operate engines is highly flammable and becomes explosive under particular conditions.
Refuelling and engine service should take place in a well-ventilated area with the engine stopped. Do not smoke when refuelling or in the proximity of sources of fuel vapours, avoid flames, sparks and any element that could ignite fuel or provoke explosions.

DO NOT DISPOSE OF FUEL IN THE ENVIRONMENT.

KEEP AWAY FROM CHILDREN.

HIGH-TEMPERATURE COMPONENTS
The engine and the exhaust system parts become hot and continue to be hot even for some time after the engine has been stopped.
Before handling these parts, wear insulating gloves or wait for the engine and the exhaust system to cool completely down.

USED GEARBOX AND FORK FLUIDS

DANGER
Wear latex gloves when servicing.
Gear fluid may cause serious damage to the skin if handled daily and for long periods.
Wash your hands carefully after use.
Take it to the filling station where you usually buy it or to an oil salvage centre.
Wear latex gloves when servicing.

DO NOT DISPOSE OF OIL IN THE ENVIRONMENT

KEEP AWAY FROM CHILDREN.

BRAKE FLUID

WARNING
When handling the brake fluid, take care not to spill it on the plastic, rubber or painted parts, since it can damage them. When carrying out the maintenance operations on the braking system, use a clean cloth to cover these parts.
Always wear safety goggles when working on the braking system.
The brake fluid is highly irritant. Avoid contact with your eyes.
If the brake fluid gets in contact with your eyes, carefully wash them with fresh water and immediately seek medical advice.

KEEP AWAY FROM CHILDREN.

COOLANT
Coolant contains ethylene glycol that is flammable, under certain conditions. When ignited, ethylene glycol produces invisible flames that might cause burns.

DANGER
Take care not to spill coolant onto hot engine parts and exhaust system. It may ignite and produce invisible flames.
In case any maintenance operation should be required, it is advisable to use latex gloves.
Although toxic, it has a sweet taste that might attract animals. Never leave coolant in an open container or in a position easily reachable by animals.

KEEP AWAY FROM CHILDREN.

Do not remove radiator cap when engine is still hot. Coolant is under pressure and might cause burns.

HYDROGEN GAS AND BATTERY ELECTROLYTE

DANGER
The battery electrolyte is a toxic, caustic substance containing sulphuric acid and thus able to cause severe burns in case of contact with the skin.
Always wear tight gloves and protective clothes when handling this fluid.
If the electrolyte gets in contact with the skin, carefully wash the parts of your body that get in contact with the fluid with abundant fresh water.
Always use a protection for your eyes since even a very small amount of the battery fluid can cause blindness. In the event of contact with your eyes, carefully wash them with water for fifteen minutes and then consult immediately an eye specialist.
Should you accidentally drink some fluid, drink abundant water or milk, then drink magnesia milk or vegetable oil and immediately seek medical advice.
Battery releases explosive gases. Keep flames, sparks, cigarettes and any other heat source away from the battery.
Make sure the room is well-aerated when servicing or recharging the battery.

KEEP AWAY FROM CHILDREN.

The battery fluid is corrosive.
Do not spill it, especially on the plastic parts.
Make sure that the electrolyte acid is suitable for the type of battery used.

GENERAL PRECAUTIONS AND INFORMATION
Follow these instructions closely when repairing, disassembling or reassembling the motorcycle or its components.

DANGER
Using bare flames is strictly forbidden when working on the motorcycle. Before servicing or inspecting the motorcycle: stop the engine and remove the key from the ignition switch; allow for the engine and exhaust system to cool down; where possible, lift the motorcycle using adequate equipment placed on firm and level ground. Be careful of any parts of the engine or exhaust system which may still be hot to the touch to avoid scalds or burns.
Do not put any vehicle parts into your mouth: vehicle components are not edible and some of them are harmful or even toxic.
Unless expressly specified otherwise, assemblies are reassembled by reversing the dismantling procedure. Where a procedure is cross-referred to relevant sections in the manual, proceed sensibly to avoid disturbing any parts unless strictly necessary. Never attempt to polish matte-finished surfaces with lapping compounds.
Never use fuel instead of solvent to clean the motorcycle.
Do not clean any rubber or plastic parts or the seat with alcohol, petrol or solvents. Clean with water and neutral detergent.
Always disconnect the battery negative (-) lead before soldering any electrical components.
When two or more persons service the same motorcycle together, special care must be taken to avoid personal injury.

BEFORE DISASSEMBLING ANY COMPONENTS
- Clean off all dirt, mud, and dust and clear any foreign objects from the vehicle before disassembling any components.

Use the model-specific special tools where specified.

DISASSEMBLING THE COMPONENTS

- Never use pliers or similar tools to slacken and/or tighten nuts and bolts. Always use the suitable spanner.
- Mark all connections (hoses, wiring, etc.) with their positions before disconnecting them. Identify each connection using a distinctive symbol or convention.
- Mark each part clearly to avoid confusion when refitting.
- Thoroughly clean and wash any components you have removed using a detergent with low flash point.
- Mated parts should always be refitted together. These parts will have seated themselves against one another in service as a result of normal wear and tear and should never be mixed up with other similar parts on refitting.
- Certain components are matched-pair parts and should always be replaced as a set.
- Keep away from heat sources.

REASSEMBLING THE COMPONENTS

DANGER
Never reuse a circlip or snap ring. These parts must always be renewed once they have been removed.
When fitting a new circlip or snap ring, take care to move the open ends apart just enough to allow fitting to the shaft.
Make it a rule to check that a newly-fitted circlip or snap ring has located fully into its groove.
Never clean a bearing with compressed air.

NOTE *All bearings must rotate freely with no hard spots or noise. Replace any bearings that do not meet these requirements.*

- Use ORIGINAL **aprilia** SPARE PARTS only.
- Use the specified lubricants and consumables.
- Where possible, lubricate a part before assembly.
- When tightening nuts and bolts, start with the largest or innermost nut/bolt and observe a cross pattern. Tighten evenly, in subsequent steps until achieving the specified torque.
- Replace any self-locking nuts, gaskets, seals, circlips or snap rings, O-rings, split pins, bolts and screws which have a damaged thread.
- Lubricate the bearings abundantly before assembly.
- Make it a rule to check that all components you have fitted are correctly in place.
- After repairing the motorcycle and after each service inspection, perform the preliminary checks, and then operate the motorcycle in a private estate area or in a safe area away from traffic.
- Clean all mating surfaces, oil seal edges and gaskets before assembly. Apply a thin layer of lithium grease along the edges of oil seals. Fit oil seals and bearings with the marking or serial number facing outwards (in view).

ELECTRICAL CONNECTORS

To disconnect the electrical connectors, follow the procedures below. Failure to comply with these procedures may lead to irreparable damage to the connector and the wiring as well.
If present, press the special safety hooks.

WARNING
Do not pull cables to disconnect the two connectors.

- Grasp the two connectors and disconnect them by pulling them in the two opposite directions.
- In case of dirt, rust, moisture, etc.., thoroughly clean the inside of the connectors with compressed air.
- Make sure that the cables are correctly fitted inside the connector terminals.

NOTE *The two connectors have just one correct positioning. Make sure to position them in the right direction.*

- Then fit the two connectors. Make sure they are correctly coupled (a click will be heard if hooks are present).

TIGHTENING TORQUE SETTINGS

DANGER
Always remember that the tightening torque settings of all wheel, brake, wheel shaft and other suspension parts play a fundamental role to ensure vehicle safety. Make sure that these values are always within the specified limits.
Check fastening parts tightening torque settings at regular intervals. Upon reassembly, always use a torque wrench.
Failure to comply with these recommendations could lead to the loosening and detachment of one of these parts with a consequent locking of the wheel or other serious troubles affecting the vehicle manoeuvrability, and thus the risk of falls and serious injuries or death.

IDENTIFICATION DATA 2

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2.1. IDENTIFICATION DATA

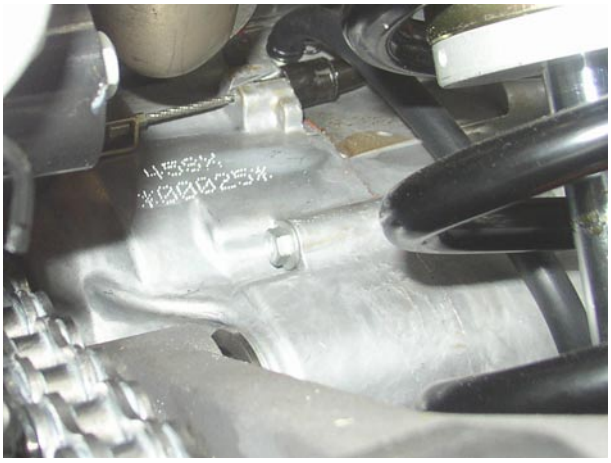
2.1.1. IDENTIFICATION DATA

It is a good rule to write down the frame and engine numbers in the space provided in this manual.
The frame number can be used for the purchase of spare parts.

WARNING
Do not alter the identification numbers if you do not want to incur in severe penal and administrative sanctions. In particular, the alteration of the frame number results in the immediate invalidity of the warranty.

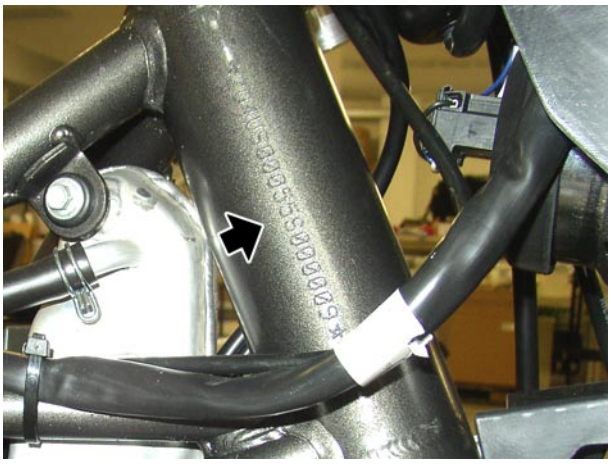
ENGINE NUMBER
The engine number is stamped on the left side of engine block.

Engine no.



FRAME NUMBER
The frame number is stamped on the right side of the steering column.

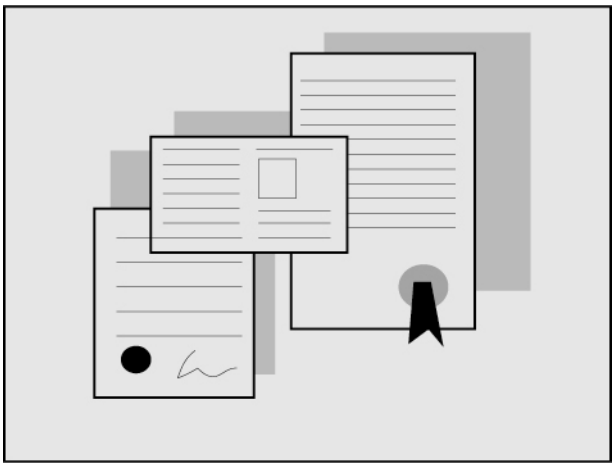
Frame no.



2.2. SAFE DRIVE

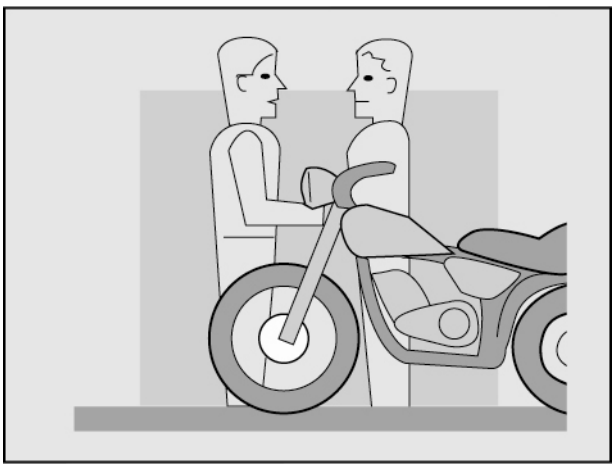
2.2.1. BASIC SAFETY RULES

To ride the vehicle it is necessary to be in possession of all the requirements prescribed by law (driving licence, minimum age, psychophysical ability, insurance, state taxes, vehicle registration, number plate, etc.).
Gradually get to know the vehicle by driving it first in areas with low traffic and/or private areas.

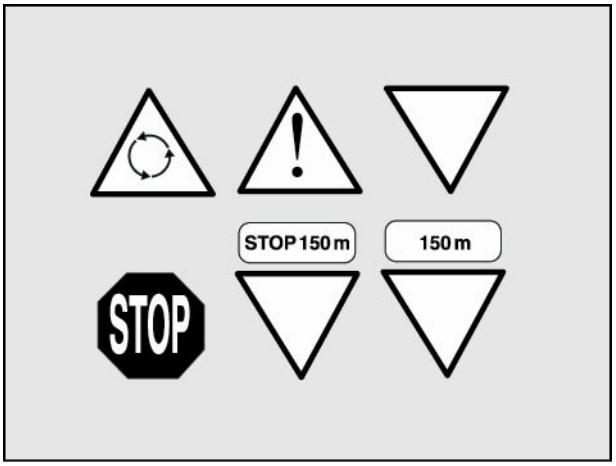


The use of medicines, alcohol and drugs or psychotropic substances notably increases the risk of accidents.
Be sure that you are in good psychophysical conditions and fit for riding and pay particular attention to physical weariness and drowsiness.

Most road accidents are caused by the rider's lack of experience.
NEVER lend the vehicle to beginners and, in any case, make sure that the rider has all the requirements for driving.

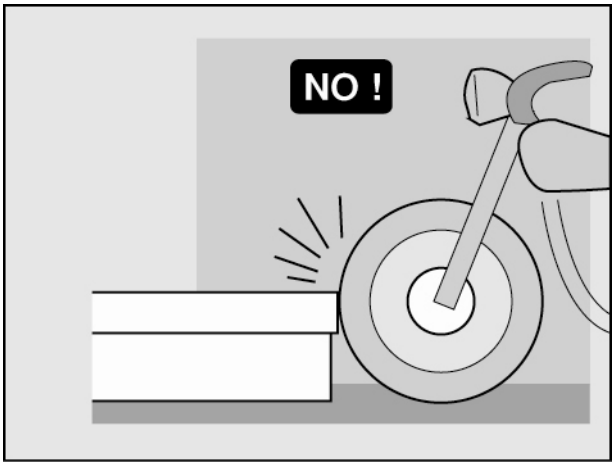


Rigourously observe all road signs and national and local road regulations.
Avoid abrupt movements that can be dangerous for yourself and other people (for example: wheeling, speeding, etc.); and give due consideration to the road surface, visibility and other driving conditions.



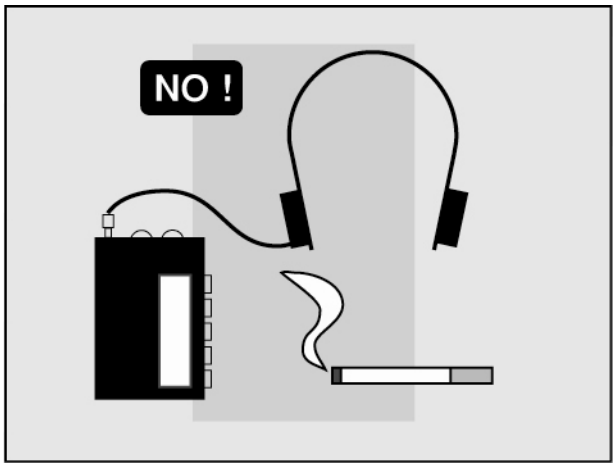
Avoid obstacles that could damage the vehicle or make you lose control.

Avoid riding in the slipstream created by preceding vehicles in order to increase your speed.

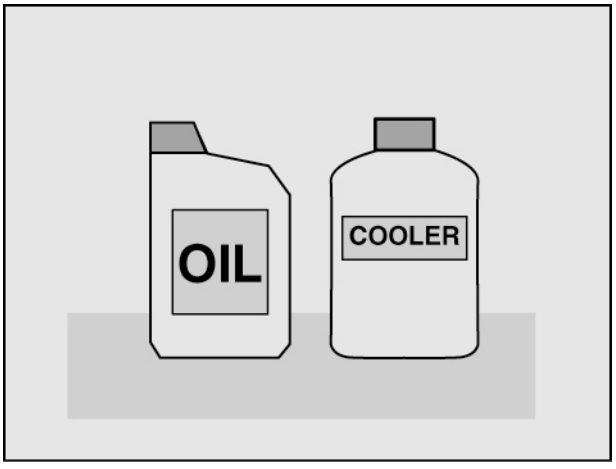


DANGER
Always drive with both hands on the handlebars and both feet on the footrests (or on the rider's footrests), in the correct driving posture.
Avoid standing up or stretching your limbs while driving.

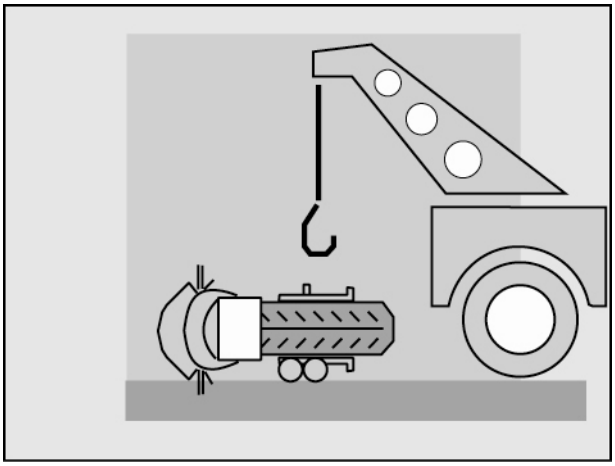
The rider should pay attention and avoid distractions caused by people, things and movements (never smoke, eat, drink, read, etc.) while driving.



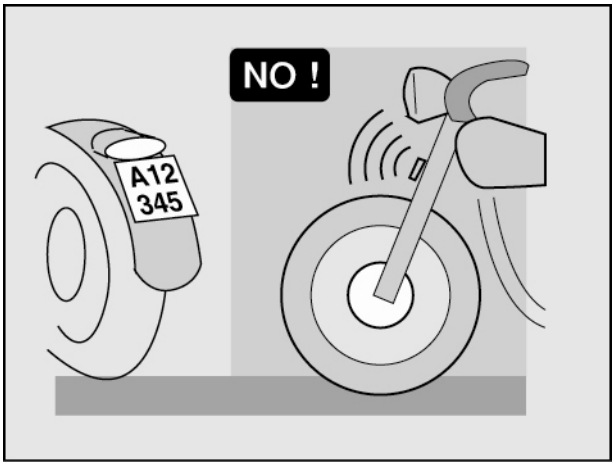
Use only the vehicle's specific fuels and lubricants indicated in the "LUBRICANT TABLE"; check all oil, fuel and coolant levels regularly.



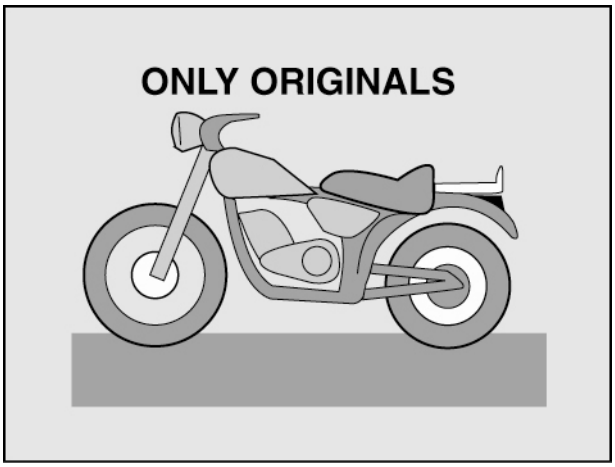
If the vehicle has been involved in an accident, make sure that no damage has occurred to the control levers, pipes, wires, braking system and vital parts.
If necessary, have the vehicle inspected by an **aprilia** Authorised Dealer who should carefully check the frame, handlebars, suspensions, safety parts and all the devices that you can not check by yourself.
Always remember to report any malfunction to the technicians to help them in their work.
Never use the vehicle when the amount of damage it has suffered endangers your safety.



Never change the position, inclination or colour of: number plate, turn indicators, lights and horns.

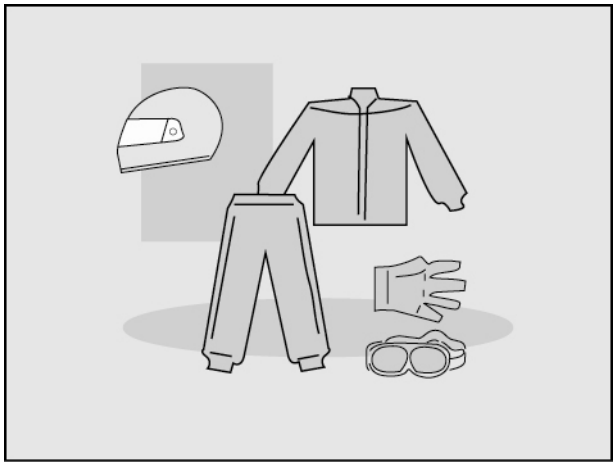


Any modification of the vehicle will result in the invalidity of the guarantee.
Any modification of the vehicle and/or the removal of original components can compromise vehicle performance levels and safety or even make it illegal to ride.
We recommend respecting all regulations and national and local provisions regarding the equipment of the vehicle.
In particular, avoid all modifications that increase the vehicle's performance levels or alter its original characteristics.

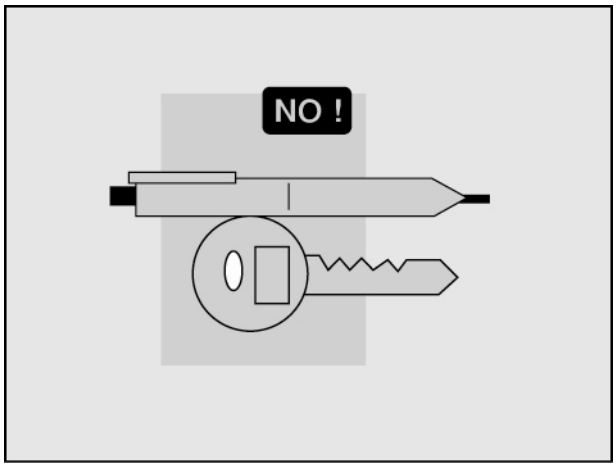


2.2.2. CLOTHING

Before starting, always wear a correctly fastened crash helmet. Make sure that it is homologated, in good condition, of the right size and that the visor is clean.
Wear protective clothing specific for off-road, preferably in light and/or reflecting colours. In this way you will make yourself more visible to the other riders, thus notably reducing the risk of being knocked down, and you will be more protected in case of fall.
This clothing should be very tight-fitting and fastened at the wrists and ankles; strings, belts and ties should not be hanging loose; prevent these and other objects from interfering with driving by getting entangled with moving parts or driving mechanisms.



Do not keep objects that can be dangerous in case of fall, for example pointed objects like keys, pens, glass vials etc. in your pockets (the same recommendations also apply to a possible passenger).



2.2.3. ACCESSORIES

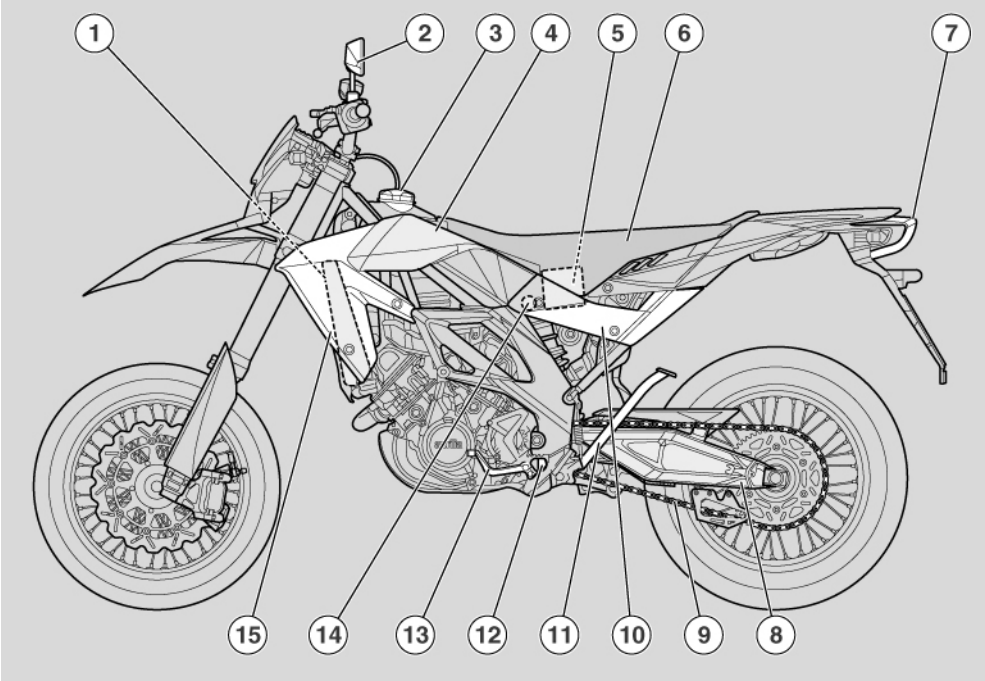
The owner of the vehicle is responsible for the choice, installation and use of any accessory. Avoid installing accessories that cover horns or lights or that could impair their functions, limit the suspension stroke and the steering angle, hamper the operation of the controls and reduce the ground clearance and the angle of inclination in turns. Avoid using accessories that hamper access to the controls, since this can prolong reaction times during an emergency. Big fairings installed on the vehicle may produce aerodynamic forces that affect the stability of the vehicle, especially when riding at high speed.

Make sure that the equipment is well fastened to the vehicle and not dangerous during driving. Do not install electrical devices and do not modify those already existing to avoid electrical overloads, because the vehicle could suddenly stop or there could be a dangerous current shortage in the horn and in the lights. aprilia recommends the use of genuine accessories (aprilia genuine accessories).

2.3. CONTROLS

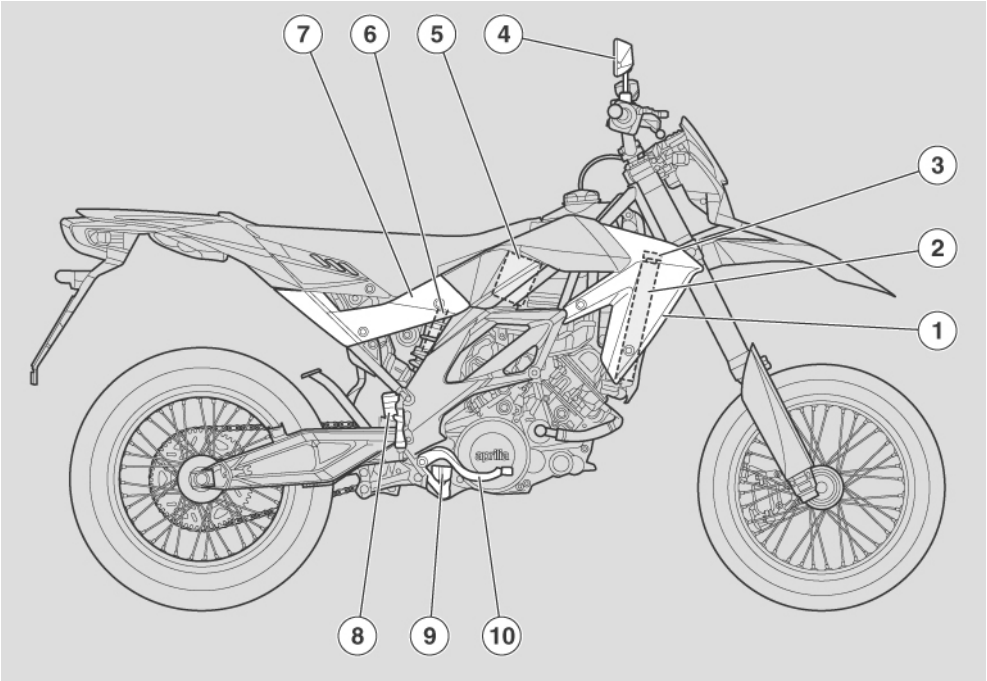
2.3.1. LOCATION OF KEY COMPONENTS

SXV



Key:

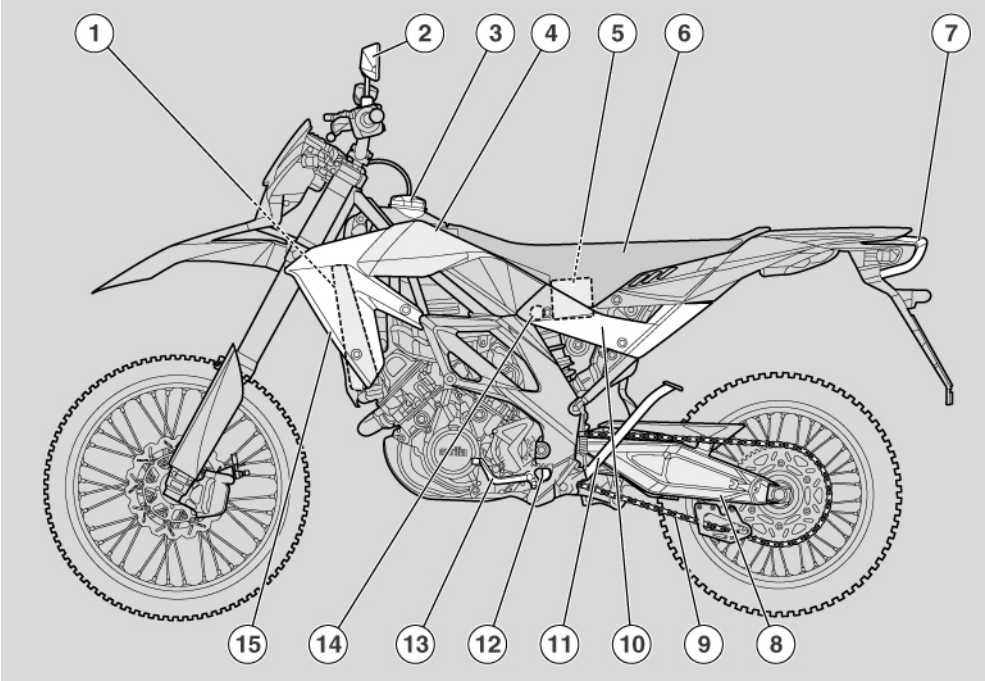
1. Left coolant radiator
2. Left rear-view mirror
3. Fuel tank filler cap
4. Fuel tank
5. Battery
6. Seat
7. Tail light
8. Swinging arm
9. Drive chain
10. Rear left side body panel
11. Side stand
12. Rider left footrest
13. Gearbox control lever
14. Main fuse carrier (30A)
15. Front left side body panel



Key:

1. Front right side body panel
2. Right coolant radiator
3. Coolant expansion tank cap
4. Right rear-view mirror
5. Air box
6. Auxiliary fuse box
7. Rear right side body panel
8. Master cylinder w/ rear brake fluid tank
9. Rider right footrest
10. Rear brake control lever

RXV



Key:

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2. Left rear-view mirror
3. Fuel tank filler cap
4. Fuel tank
5. Battery
6. Seat
7. Tail light
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9. Drive chain
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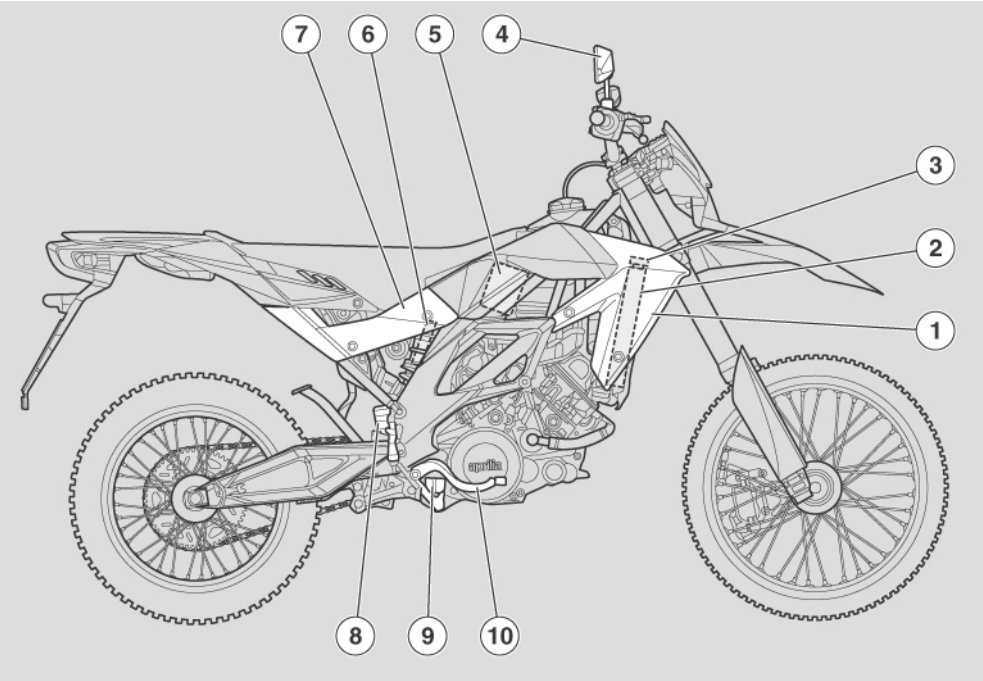


Key:

1. Front right side body panel
2. Right coolant radiator
3. Coolant expansion tank cap
4. Right rear-view mirror
5. Air box
6. Auxiliary fuse box
7. Rear right side body panel
8. Master cylinder w/ rear brake fluid tank
9. Rider right footrest
10. Rear brake control lever

2.3.2. ARRANGEMENT OF THE CONTROLS

CONTROLS

Key:

1. Left rear-view mirror
2. Clutch lever
3. Instruments and indicators
4. Ignition switch/steering lock (○-⊗-P)
5. Front brake lever
6. Right rear-view mirror
7. Throttle grip

2.4. INSTRUMENTS AND INDICATORS

2.4.1. KEY

INSTRUMENTS AND INDICATORS

Key:

1. MODE button
2. Green neutral light (N)
3. Red engine oil pressure warning light
4. Engine control system warning light
5. Multifunction digital display.
6. Orange low fuel warning light
7. Blue high beam warning light
8. Green turn indicator warning light
9. Red line light

2.4.2. INSTRUMENTS AND INDICATORS TABLE

Description	Function	
Turn indicator repeater (⇦⇨)	Blinks when the direction indicators are on.	
Engine control system warning light ()	Comes on when the ignition switch is set to (↻) with the engine stopped as a lamp test. If the light does not come on in this phase, contact an **aprilia** Authorised Dealer. **WARNING If the light () remains on after the engine start or comes on during the normal operation of the engine, this means that a fault of the ignition/fuel feeding system was detected. If this is the case, immediately contact an aprilia Authorised Dealer.**	
High beam light (≡D)	Comes on when the high beam bulbs are on or when the headlight flasher is operated.	
Fuel reserve light ()	It comes on when the quantity of fuel left in the tank is 2.2 ± 1 litres (4 ± 1.8 in). **WARNING Absolutely avoid to deplete the fuel reserve or the fuel pump might damage.**	
Neutral indicator light (N)	Comes on when the gear is in neutral.	
Engine oil pressure warning light ()	Comes on when the ignition switch is set to (↻) with the engine stopped as a lamp test. If the light does not come on in this phase, contact an **aprilia** Authorised Dealer. **WARNING If the engine oil pressure warning light () remains on after engine starting or comes on during the normal operation of the engine, this means that the engine oil pressure in the circuit is insufficient. In this case, stop the engine immediately and contact an aprilia Authorised Dealer.**	
Red line light	Blinks when activation threshold (max. rpm) set by the user is exceeded, see (GEAR SHIFT INDICATOR).	
Multifunction digital display	Speedometer (km/h - MPH)	Gives current driving speed, three digits, see (MULTIFUNCTION DISPLAY)
	Odometer Km/miles	Gives total distance covered or distance covered since the trip meter was last reset (in km or miles).
	Revolution counter rpm	Indicates the number of revolutions of the engine per minute. **WARNING Never exceed the engine max. speed rate, see (RUNNING-IN).**
	Clock	Displays time (hour and minutes) as preset, see (MULTIFUNCTION DISPLAY).
	Battery voltage	Gives battery charge in Volt, see (MULTIFUNCTION DISPLAY)

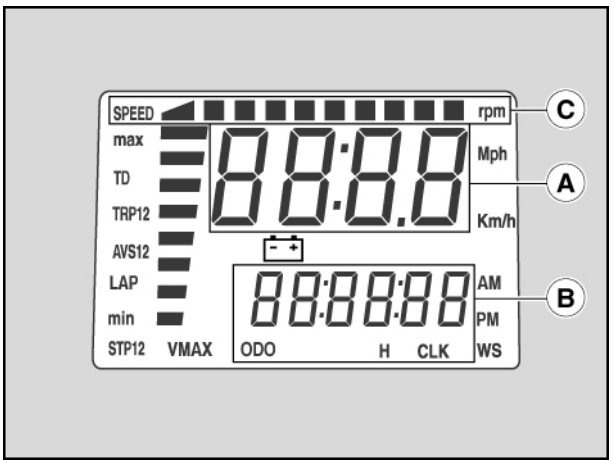
2.4.3. MULTIFUNCTION DIGITAL DISPLAY

CONTROLS

1 MODE pushbutton; to display and make adjustments (works only when vehicle is stopped).

2 SCROLL pushbutton; to display and set all functions except the time.

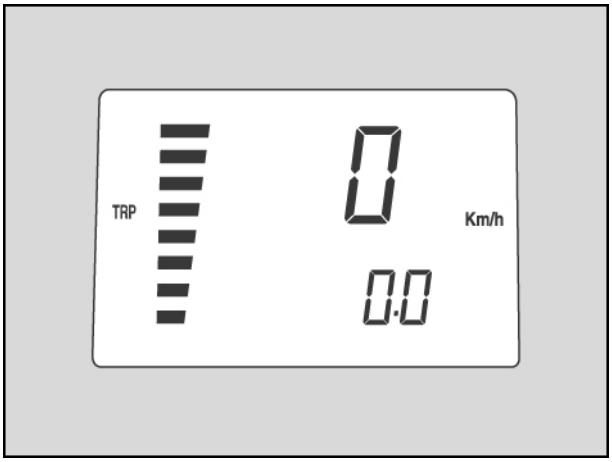
When you turn the ignition key to "⟳ ", the following instrument panel lights will turn on for 3 seconds:
- all warning lights;
- Backlighting
- All segments on the multifunction digital display.



After the first check routine, the multifunction display will immediately indicate current battery charge, and then display the measured values in the page that was active before switch-off.

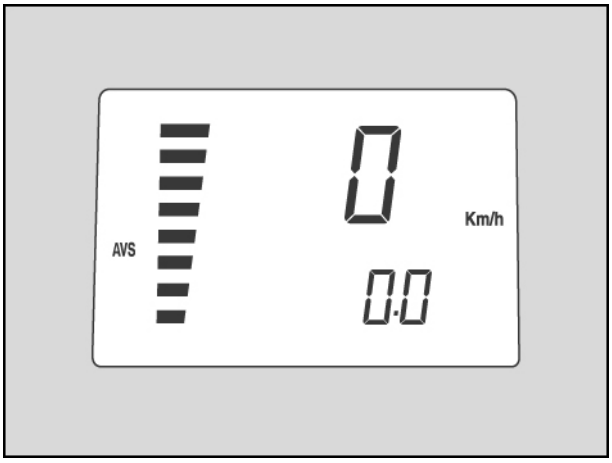
- ODO
- CURRENT SPEED (zone A)
- ODOMETER (zone B)
- GRAPHICAL REV COUNTER, with engine running (zone C)

TRIP

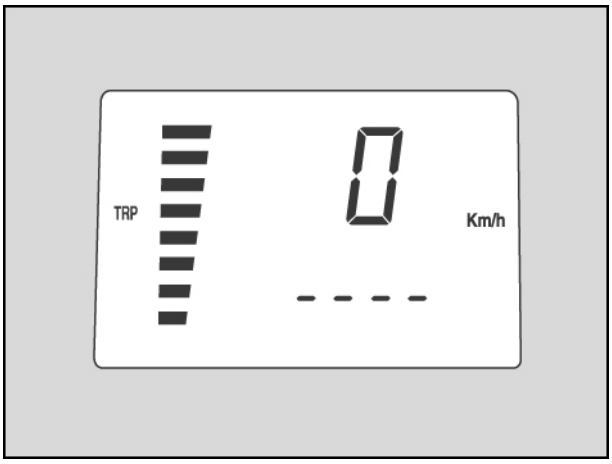


TRIP configuration shows trip (partial) data.
To select TRIP configuration, press MODE if vehicle is stopped, or press SCROLL if vehicle is running, and ODOMETER indication will switch to TRIP.

Press again MODE, if vehicle is stopped, or SCROLL, if vehicle is running, and TRIP indication will switch to AVERAGE SPEED (AVS) indication, as calculated within the trip.

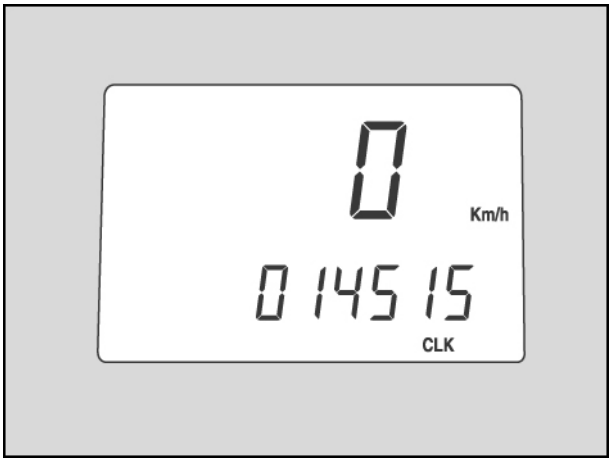


To reset TRIP and corresponding AVERAGE SPEED (AVS) counter press MODE or SCROLL for more than five seconds, with vehicle stopped, and value displayed in area B of the display will change into four dashes. Dashes will turn into four zeroes when button is released (000.0).



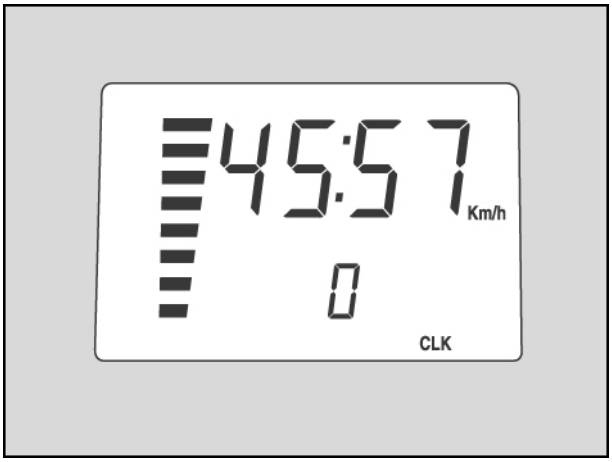
TIME

With AVERAGE SPEED (AVS) page displayed, press MODE, if vehicle is stopped, or SCROLL, if vehicle is running, to enter the TIME function.
If speed current unit of measurement is km/h, time is displayed in 24-hour format, while if speed unit is mph time format is 12-hour with AM/PM indication.



ADJUSTMENT

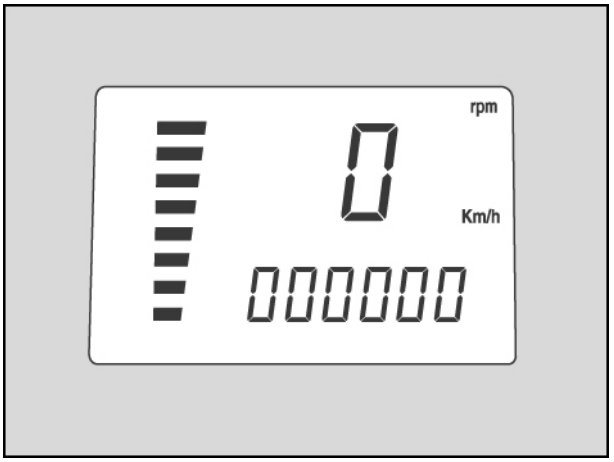
- Press MODE until hour figures blink;
- Every time MODE is pressed, hour increase by one unit, hold it down to quickly increase the value;
- Leave it untouched for two seconds to store the value and go on with minutes setting;



Proceed in the same way to set minutes and seconds, data will be stored after two seconds of inactivity (as previously explained).
If unit of measurement is miles, when time is set, AM and PM blink alternately, press MODE to set correct indication; AM/PM indication changes between 12:59:59 and 13 (1 PM).

REVOLUTION COUNTER

From TIME page, briefly press SCROLL to enter the REVOLUTION COUNTER configuration, value is shown in area B and is also shown as a graph in area C of the display.



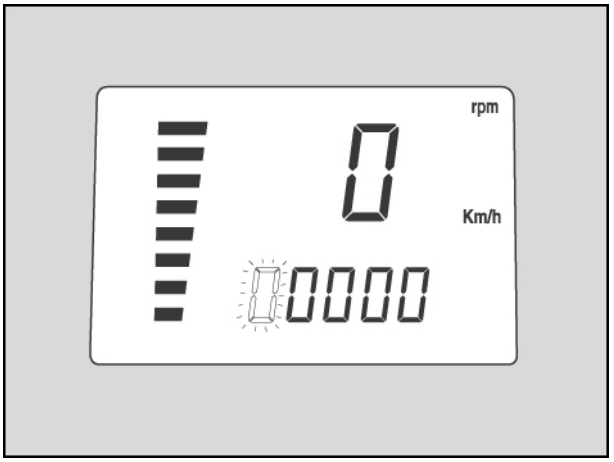
RED LINE SETTING

The multifunction display normally comes with standard preset red line values, if you want to advance this warning indication, stop the vehicle and the engine and proceed as follows:

- Press MODE and SCROLL pushbuttons at the same time for more than 5 seconds.

Area B will show five zeroes (00000), the first will be flashing.

- Every time MODE is pressed, the flashing value will increase by one unit.



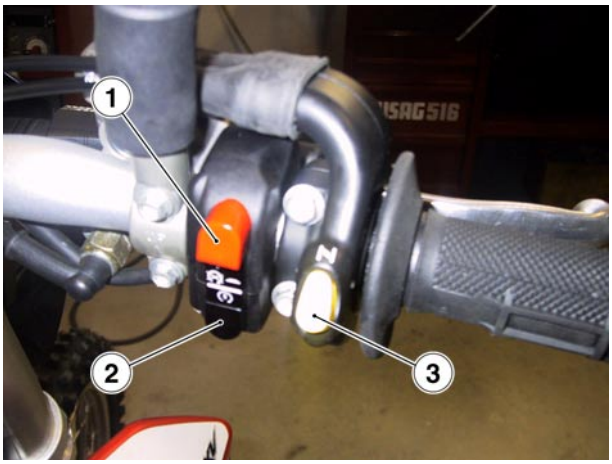
Leave it untouched for two seconds to store the value and go on with minutes setting.
Proceed in the same way to set second and third zeroes, data will be stored after two seconds of inactivity (as previously explained).
It is not possible to change the last two zeroes.
If set number is correct, i.e. less than standard rpm, press SCROLL for more than two seconds to store the value.
When the set threshold is exceeded, the alarm light (3) on the instrument panel flashes until the value goes below the threshold.

BATTERY ICON

The battery icon comes on when battery charge is low; if this condition occurs while vehicle is running, check battery charge and the recharging system. This icon normally comes on before and after starting, it goes off when engine has started.

2.5. MAIN INDEPENDENT CONTROLS

2.5.1. CONTROLS ON THE RIGHT PART OF THE HANDLEBAR



NOTE The electrical parts work only when the ignition switch is in position "○".

1 ENGINE STOP SWITCH (⊗)

WARNING
Do not operate the engine stop switch while riding.

This switch serves as a safety or emergency switch. With the switch pressed in position "○", it is possible to start the engine; the engine can be stopped by pressing the switch to position "⊗ ".

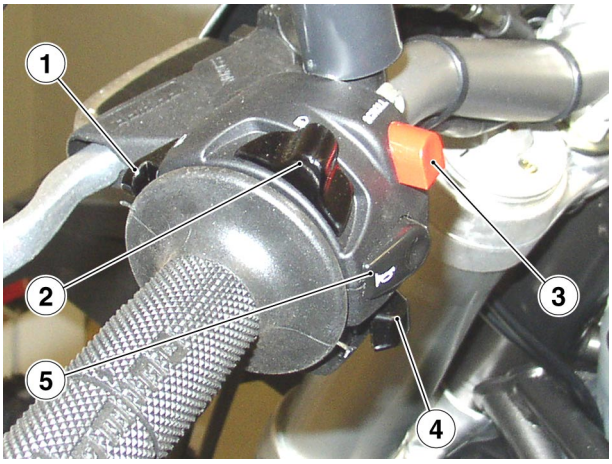
WARNING
With the engine stopped and the ignition switch in position "○", the battery may run flat.

WARNING
When the vehicle has come to a standstill and you have stopped the engine, set the ignition switch to position "⊗".

2 STARTER BUTTON **(⊙)**
When the starter button "⊙" is pressed, the starter motor will crank the engine. For the starting procedure, see (STARTING).

3 COLD START CONTROL
In case of starting from cold, the control unit is not able to keep the engine running on its own. In such cases, use the cold start control. For the starting procedure, see (STARTING).

2.5.2. CONTROLS ON THE LEFT PART OF THE HANDLEBAR



NOTE The electrical parts work only when the ignition switch is in position "".

1 HIGH BEAM SIGNALLING PUSH BUTTON ()
It makes it possible to use the high beam for signalling to forthcoming vehicles in case of danger and/or emergency.

NOTE *Release the button to turn off the high beam flasher.*

2 Dimmer switch (-)
When the light dimmer switch is in "" position, the high beam comes on; while in "" position, the low beam comes on.

3 SCROLL PUSHBUTTON

4 DIRECTION INDICATOR SWITCH ()
To indicate the turn to the left, move the switch to the left; to indicate the turn to the right, move the switch to the right. Press the switch to turn off the direction indicator.

5 HORN BUTTON ()
The horn is activated when the push button is pressed.

2.5.3. IGNITION SWITCH

The ignition switch (1) is positioned on the upper plate of the steering column.

NOTE *The key operates the ignition switch/steering lock.*

Two keys are supplied together with the vehicle (one spare key).

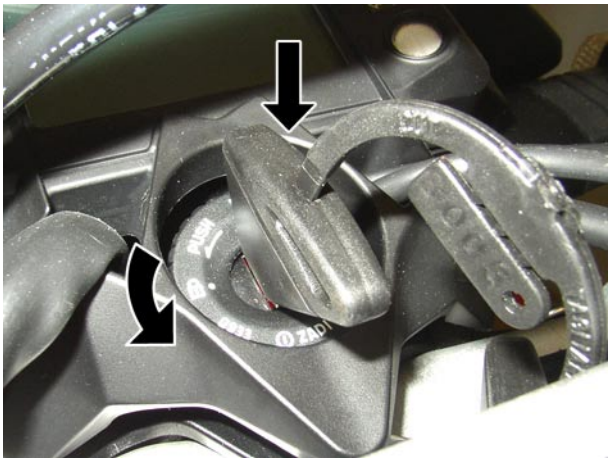
NOTE Set the ignition switch to "" to automatically turn on the lights.

The lights will turn off when the ignition switch is set to "".

Position	Function	Key removal
	The steering is locked. It is not possible to start the engine or switch on the lights.	It is possible to remove the key.
	Neither the engine, nor the lights will operate.	It is possible to remove the key.
	The engine and the lights can be operated.	It is not possible to remove the key.

2.5.4. STEERING LOCK

DANGER
Never turn the key to position "🔓" when riding, or you will lose control of the vehicle.



OPERATION
To lock the steering:

- Turn the handlebar fully to the left.
- Turn the key to "⛒".
- Press and turn the key left (anticlockwise), slowly turn the handlebar until key can be set to "🔓".
- Remove the key.

2.6. INSTRUCTIONS FOR USE

2.6.1. GENERAL WARNINGS

FUEL

DANGER
The fuel used to operate engines is highly flammable and becomes explosive under particular conditions. Refuelling and engine service should take place in a well-ventilated area with the engine stopped. Do not smoke while refuelling or near fuel vapours, in any case avoid contact with naked flames, sparks and any other heat source or source of ignition to prevent fires or explosion.

DANGER
Take care not to spill fuel out of the filler, or it may ignite when in contact with hot engine parts. In case some fuel has accidentally been spilt, make sure that the area has completely dried and before starting the vehicle verify that there is no fuel inside the fuel filler neck. Fuel expands from heat and when left under direct sunlight.
Never fill the fuel tank up to the brim. Screw the plug up carefully after refuelling. Avoid any contact of the fuel with the skin and the inhalation of vapours; do not swallow fuel or pour it from a receptacle into another by means of a tube.

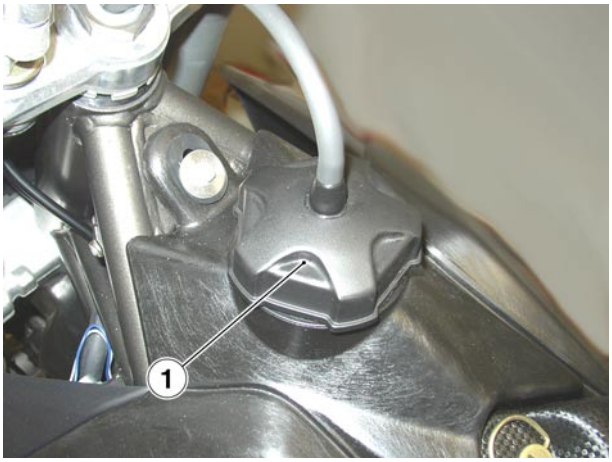
DO NOT DISPOSE OF FUEL IN THE ENVIRONMENT.

KEEP AWAY FROM CHILDREN.

Use only unleaded fuel, in conformity with the DIN 51 607 standard, min. O.N. 95 (RON) and 85 (MON)

- TANK CAPACITY (reserve included): 7.5 litres (13.6 pt).
- TANK RESERVE: 2.2 litres (4 pt) (mechanical reserve).

To refuel, proceed as follows:
- Unscrew and remove the fuel tank cap (1).
- Refuel.



TYRES

This vehicle is provided with tyres with tube.

DANGER
Periodically check the tyre inflation pressure at room temperature, see (TECHNICAL DATA).
If the tyres are hot, the measurement is not correct.
Carry out the measurement especially before and after long rides.
If the inflation pressure is too high, the ground unevenness can not be dampened and is therefore transmitted to the handlebar, thus compromising the driving comfort and reducing the road holding during turns.

If, on the contrary, the inflation pressure is too low, the tyre sides are under greater stress and the tyre itself may slip on the rim or it may become loose, with consequent loss of control of the vehicle.
In case of sudden braking the tyres could even come off the rims.
Further, the vehicle could skid while turning.
Check the surface and the wear of the tyres, since tyres in bad conditions can impair both the grip and the vehicle handling.
Change the tyre when it is worn out or in case of puncture on the tread side, if the puncture is larger than 5 mm (0.197 in).

After repairing a tyre, have the wheels balanced.
Only use tyres of the size indicated, see (TECHNICAL DATA).
Make sure that the inflation valves always have their sealing caps on, to prevent the tyres from suddenly going flat.
Tyre replacement and repair, and wheel servicing and balancing are delicate operations that should be carried out using adequate tools and are best left to experienced mechanics.
For this reason, it is advisable to have the above mentioned operations carried out by an aprilia Authorised Dealer or by a qualified tyre repairer.

If the tyres are new, they may still be covered with a slippery film: ride carefully for the first miles. Do not oil the tyres with unsuitable fluids.
Old tyres, even if not completely worn down, may become hard and provide poor grip.
In this case, replace them.

LUGGAGE

NOTE *SXV RXV vehicles are not suitable for transporting loads or luggage*

2.6.2. PRE-RIDE CHECKS CHART

DANGER
Before departure, always carry out a preliminary checking of the vehicle to make sure that it functions correctly and safely, see the PRE-RIDE CHECKS CHART.
Failure to comply with these checking operations can cause severe personal injuries or damages to the vehicle.
Do not hesitate to consult your aprilia Authorised Dealer in case there is something you do not understand about the operation of some controls or in case you suspect or discover some failures.
It does not take long to carry out a check-up and this operation ensures you much more safety.

Component	Check
Front and rear disc brakes	Check the operation, the idle stroke of the control levers, the fluid level and make sure there are no leaks. Check the pads for wear. If necessary, top up the fluid tank.
Throttle	Make sure that it works smoothly and that it is possible to open and close it completely, in all steering positions. Adjust and/or lubricate, if necessary.
Engine oil	Check and/or top up if necessary.
Wheel/Tyres	Check the tyre surface, the inflation pressure, wear and tear and any damage. Remove any foreign matter that may be stuck in the tread grooves.
Brake levers	Make sure that they work smoothly. Lubricate the articulations and adjust the stroke if necessary.
Clutch	Check for proper operation, check clutch lever free play, clutch fluid level and check for leaks. If necessary, top up the fluid; the clutch must work without snatching and/or slipping.
Steering	Make sure that the steering rotates smoothly, without any clearance or looseness.
Side stand	Make sure that it operates correctly. Make sure that when the stand is let up or down there is no friction and that the spring tension brings it back to its normal position. If necessary, lubricate joints and articulations.
Fastening elements	Make sure that the fastening elements are not loose. If necessary, adjust or tighten them.
Drive chain	Check the slack.
Fuel tank	Check the fuel level and top up, if necessary. Check the circuit for leaks. Make sure that the fuel cap is correctly closed.
Coolant	Radiator level should cover radiator plates.
Engine stop switch (-)	Make sure that it operates correctly.
Lights, warning lights, horn, rear brake light switches and electrical devices	Check horn and indicators for proper operation. Change bulbs or fix a failure, if necessary.

2.6.3. STARTING

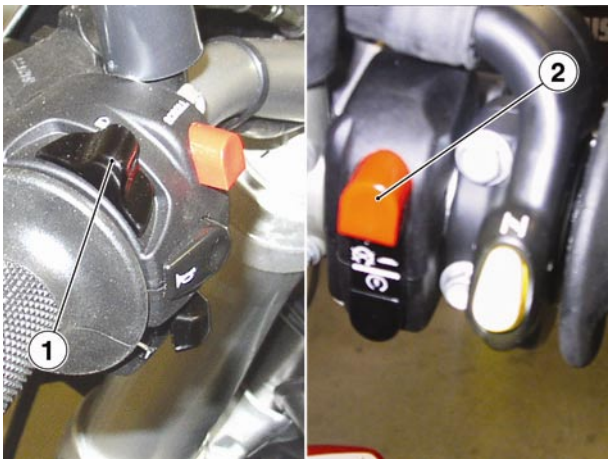
DANGER
Do not position any object inside the front fairing (between the handlebar and the instrument panel), in order not to hinder the rotation of the handlebar and visibility toward the instrument panel.

NOTE *Before starting the engine, carefully read chapter "safe drive", see (SAFE DRIVE).*

DANGER
Exhaust emissions contain carbon oxide, which is a poisonous gas and extremely harmful if inhaled.
Avoid starting the engine in closed or badly-ventilated rooms.

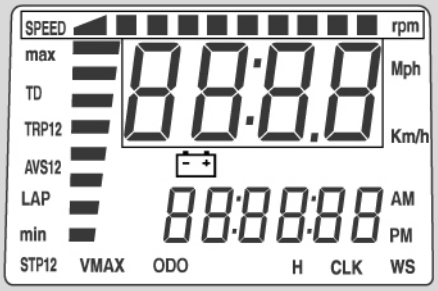
WARNING
Failure to heed this warning may cause loss of consciousness or even lead to death by asphyxia.

- Sit astride the vehicle, see (INSTRUCTIONS FOR USE).
- Make sure that the stand is completely up.
- Make sure that the light switch (1) is in position "".
- Set the engine stop switch (2) to position " ".



- Turn the key and set the ignition switch to position "".

The following occurs:
- Starting page is shown for three seconds on display.
- All the lights on instrument panel turn on for three seconds.

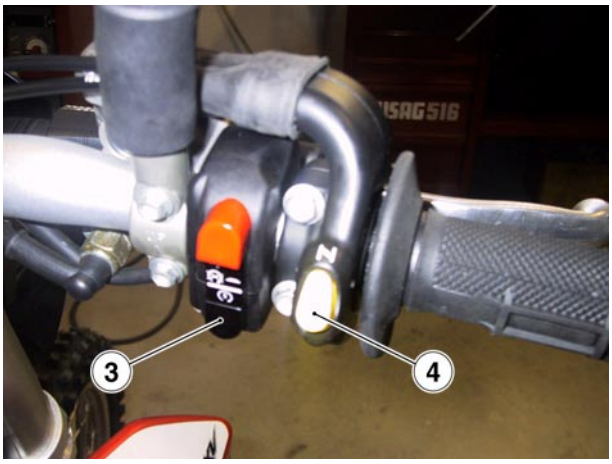


WARNING
If the low fuel warning light "" on the instrument panel comes on, provide for topping up as soon as possible, see (FUEL).

- Operate a brake to lock at least one wheel.
- Pull the clutch lever (completely and shift the gearbox lever into neutral [green warning light (N) on].

WARNING
Do not start the engine with gear engaged and clutch pulled.

WARNING
To avoid excessive current draw from the battery, do not hold down the starter button "⏻" (3) for more than three seconds, for five attempts in a row. If the engine does not start within this time, wait a few minutes to allow the starter motor to cool down.



STARTING THE WARM ENGINE

- Press the starter button "⏻" (3) do not open the throttle yet - and release the button as soon as the engine starts.

STARTING THE ENGINE FROM COLD

- Turn the throttle twistgrip.
- Press the cold start button (4).
- Release the throttle control. The throttle control will stay slightly accelerated to keep the engine running while warming up.
- Take the throttle control to rest position to disable the system.

WARNING
Avoid pressing the starter button "⏻" when the engine is running, or the starter motor may damage.
If the engine oil pressure light "🛢" on the instrument panel comes on, it means that engine oil pressure in the circuit is low. In this case, stop the engine immediately and contact an aprilia Authorised Dealer.

Keep at least one brake lever pulled and do not accelerate until you start.

WARNING
Due to the narrow engine manufacturing tolerances and to the size of oilways, suitable for sporty use, the engine could fail to start at a temperature below 0 °C (32 °F). Do not exceed with starting attempts or the starter motor could damage. It is recommended to keep the vehicle indoors, especially in winter.

WARNING
Never leave abruptly with cold engine.
To reduce the emission of polluting substances and the consumption of fuel, warm the engine up by proceeding at low speed for the first miles.

2.6.4. MOVING OFF AND RIDING

DANGER
Do not position any object inside the front fairing (between the handlebar and the instrument panel), in order not to hinder the rotation of the handlebar and visibility toward the instrument panel.

NOTE *Before moving off, carefully read the "safe drive" chapter, see page (SAFE DRIVE).*

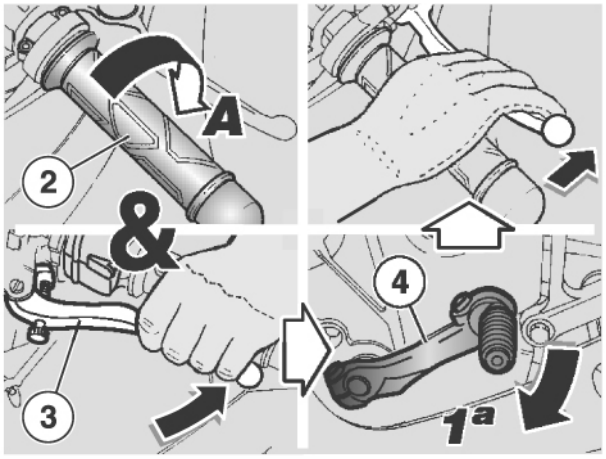
WARNING
If the low fuel light "⛽" on the instrument panel comes on while vehicle is running, it means that you still have 2.2 l (4 pt) of fuel in the tank (1).
Provide for topping up as soon as possible, see (FUEL).
Absolutely avoid to deplete the fuel reserve or the fuel pump might damage.

WARNING
While riding, keep your hands on the grips and your feet on the footrests.
NEVER RIDE IN ANY POSITION OTHER THAN THOSE INDICATED.

To leave:

- Adjust the inclination of the rear-view mirrors correctly.

WARNING
With the vehicle at rest, try to get acquainted with the use of the rear-view mirrors.



- Start the engine, see (STARTING).
- With released throttle grip (2) (Pos.A) and engine idling, pull the clutch lever (3) completely.
- Engage the first gear, by pushing the gear lever (4) downwards.
- Release the brake lever (pulled on the starting).

WARNING
On departure, the abrupt release of the clutch lever may cause the engine to stall or the vehicle to jerk forward.
Never accelerate abruptly or excessively when releasing the clutch lever, in order to prevent the clutch from "slipping" (slow release) or the front wheel from raising and "wheeling" (quick release).

- Slowly release the clutch lever (3) and at the same time accelerate by slightly turning the throttle grip (2) (Pos.B).
  The vehicle will start moving.
- Ride at reduced speed for the first miles, in order to warm the engine up.

WARNING
Never exceed the recommended rpm and speed, see (RUNNING-IN).

- Increase the speed by gradually rotating the throttle grip (2) (Pos.B), without exceeding the recommended speed (and rpm), see (RUNNING-IN).

To engage the second gear:

WARNING
Proceed quickly.
Never ride the vehicle at too low rpm.

- Release throttle grip (2) (Pos.A), pull the clutch lever (3) and pull up the gear change lever (4). Release the clutch lever (3) and accelerate.
- Repeat the last two operations and shift up.

WARNING
If the engine oil pressure light "" comes on, it means that engine oil pressure in the circuit is low. In this case, stop the engine immediately and contact an aprilia Authorised Dealer.

The downshifting should be carried out in the following situations:

- When riding downhill or when braking, in order to increase the braking action by using the compression of the engine.
- When riding uphill, if the gear engaged is not suitable to the speed (high gear, moderate speed) and the engine rpm decreases.

WARNING
Shift the gears one by one; the simultaneous downshifting of more than one gear may make you exceed the maximum rpm (redline).
Before and during the downshifting, release the throttle grip and decelerate, in order to avoid the "redline".

To shift down, proceed as follows:

- Release the throttle grip (2) (Pos.A).
- If necessary, pull the brake levers moderately and decrease the speed of the vehicle.
- Pull the clutch lever (3) and lower the gear shift lever (4) to shift down.
- If the brake levers are pulled, release them.
- Release the clutch lever and accelerate moderately.

WARNING

If the warning light "" on the instrument panel comes on during the normal operation of the engine, this means that the electronic control unit has detected a failure. Immediately contact an aprilia Authorised Dealer.

To avoid the overheating of the clutch, keep the engine running with vehicle at rest, engaged gears and pulled clutch lever for the shortest time possible.

DANGER
Avoid opening and closing the throttle repeatedly and continuously, so that you do not accidentally lose control of the vehicle. If you have to brake, close the throttle and put on both brakes in order to obtain uniform deceleration, properly exerting pressure on the braking levers.

Using one brake only reduces braking force significantly and may lock a wheel resulting in loss of grip.
If you stop uphill, decelerate completely and use the brakes only to keep the vehicle steady.
The use of the engine to keep the vehicle steady may cause the overheating of the clutch.
When approaching a bend, slow down or brake in good time. Take the bend at moderate, steady speed or accelerate slightly. Late braking may put the vehicle into a skid.

If the brakes are operated continuously on downhill stretches, the friction surfaces may overheat, thus reducing the braking efficiency. Exploit the engine compression and shift down by putting on both brakes intermittently. Never ride downhill with the engine off!
When visibility is insufficient, switch on the low beam even during the day, in order to make your vehicle more visible. In case of wet ground or scarce wheel grip (snow, ice, mud, etc.), ride slowly, avoiding sudden braking or manoeuvres that could make you lose grip and fall down.

DANGER
Pay the utmost attention to any obstacle or variation of the ground.
Uneven road surfaces, rails, inspection covers, painted signals, construction site metal covers become slippery in rainy weather and must be negotiated carefully, smoothly and keeping the vehicle upright.
Always signal your intention to change lanes or direction in good time using the direction indicators. Avoid sudden manoeuvres.
Switch off the direction indicators immediately after changing direction.

Be very careful when overtaking or being overtaken.
When it rains, large vehicles lift surface water, which affects visibility. In addition, the slip stream may make you lose control of the vehicle.

The vehicle does not fit a thermostatic valve: at low speed and low temperature, the engine does not reach the ideal operating temperature resulting in bad operation and early wear.

2.6.5. RUNNING-IN

The running-in of the engine is essential to ensure its life and correct operation.
If possible, drive on hilly roads and/or roads with many bends, so that the engine, the suspensions and the brakes undergo a more effective running-in. During running-in, change speed. In this way the components are first "loaded" and then "relieved" and the engine parts can thus cool down.
Even if it is important to stress the engine components during running-in, take care not to exceed.

Keep to the following indications:
- Do not open the throttle completely if the speed is low, both during and after running-in.

- for the first 3 hours of operation, never open throttles more than half their way and never go beyond 8000 rpm,
- for the following 12 hours never open throttles more than 75% of their travel.

NOTE *Even after running-in, avoid riding at such rpm as to have the rpm limiter trip, i.e.:*

- **SXV 450** 12000 rpm
- **SXV 550** 11500 rpm
- **RXV 450** 11500 rpm
- **RXV 550** 11000 rpm

WARNING
Limiter warning light (not the CPU limiter) is set in-house to 8000 rpm, see INSTRUMENT PANEL for its final setting.

2.6.6. STOPPING

DANGER
If possible, avoid stopping abruptly, slowing down suddenly and limit braking.

- Release the throttle grip, gradually put on the brakes and at the same time shift down in order to decrease the speed, see (MOVING OFF AND RIDING).

Once the speed has decreased, before stopping the vehicle:

- Pull the clutch lever in order to prevent the engine from stalling.

When the vehicle has come to rest:

- Select neutral (green warning light "N" on).
- Release of the clutch lever.
- In case of a brief stop, keep at least one brake on.

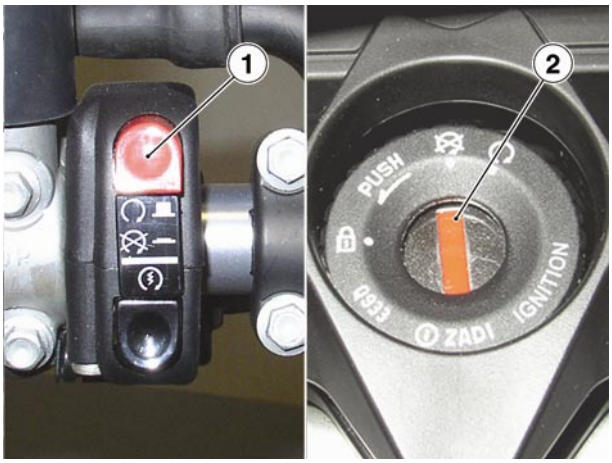
2.6.7. PARKING

It is very important to choose a suitable parking area, respecting the road signs and the indications given below.

DANGER
Park the vehicle on firm and flat ground, to prevent it from falling down. Neither lean the vehicle against walls, nor lay it on the ground. Make sure that the vehicle and especially its red-hot parts do not represent a danger for persons and children. Do not leave the vehicle unattended when the engine is on or the key is inserted into the ignition switch.

DANGER
The fall or excessive inclination of the vehicle may cause the fuel to flow out of the tank.

The fuel used for internal combustion engines is extremely inflammable and in particular conditions it can become explosive.



To park the vehicle:

- Choose a suitable parking area.
- Stop the vehicle, see (STOPPING).
- Set the engine stop switch (1) to position "".
- Turn the key and set the ignition switch (2) to position "".

DANGER
Carefully follow instructions given on how to get on and off the vehicle, see (GETTING ON AND OFF THE VEHICLE).

- Get off the vehicle.
- Lock the steering, see (STEERING LOCK) and remove the key.
- Place the vehicle on the stand, see (POSITIONING THE VEHICLE ON THE STAND).

DANGER
Make sure that the vehicle is stable.

2.6.8. POSITIONING THE VEHICLE ON THE STAND

DANGER
Make sure that the parking surface is free from obstacles, firm and flat.

Carefully read the previous paragraph (PARKING).

- Grasp the left grip (1) and place your right hand on the rear upper part of the vehicle (2).
- Press the side stand with your right foot and extend it completely (3).
- Keep it extended and incline the vehicle until the stand rests on the ground.
- Steer the handlebar completely leftwards.

DANGER
Make sure that the vehicle is stable.

2.6.9. SUGGESTIONS TO PREVENT THEFT

WARNING
Do not use any “brake lock” devices. Failure to heed this warning can seriously damage the braking system and lead to an accident thus provoking serious injuries or death.

NEVER leave the key in the ignition switch and always use the steering lock.
Park the vehicle in a safe place, possibly in a garage or a protected place.
When possible, use an additional antitheft device.
Make sure that all documents are in order and the road tax has been paid.

2.6.10. TRANSPORT

During transport, the vehicle must be kept in vertical position, it must be firmly anchored and the first gear must be engaged, in order to avoid any leak of fuel, oil, coolant.

WARNING
In case of failure, do not tow the vehicle, but ask for assistance.

2.6.11. CLEANING

Clean the vehicle frequently if it is used in particular areas or conditions, such as:

- Polluted areas (cities and industrial areas).
- Areas characterised by a high percentage of salinity and humidity (sea areas, hot and humid climates).
- Particular conditions (use of salt and anti-ice chemical products on the roads during the winter).
- Avoid leaving deposits of industrial and polluting powders, tar spots, dead insects, bird droppings, etc. on the body.
- Avoid parking the vehicle under trees, since in some seasons residues, resins, fruits or leaves fall down, which contain substances that may damage the paint.

WARNING
Before washing the vehicle, block off the engine air scoops and mufflers.

DANGER
After the vehicle has been washed, its braking functions could be temporarily impaired because of water on the braking surfaces.
Calculate long braking distances to avoid accidents.
Brake repeatedly to restore normal conditions.
Perform the pre-ride checks, see (PRE-RIDE CHECKS CHART).

To remove dirt and mud from the painted surfaces use a low-pressure water jet, carefully wet the dirty parts, remove mud and filth with a soft car sponge impregnated with a lot of water and shampoo (2 – 4% parts of shampoo in water).
Then rinse with plenty of water and dry with chamois leather.
To clean the outer parts of the engine use a degreaser, brushes and wipers.
Any parts in anodised aluminium or any painted parts such as forks, rims, frame, footpegs, etc. shall be washed only with water and mild soap. Too much aggressive detergents can damage the surface treatment of these components. Too much aggressive detergents can damage the surface treatment of these components.

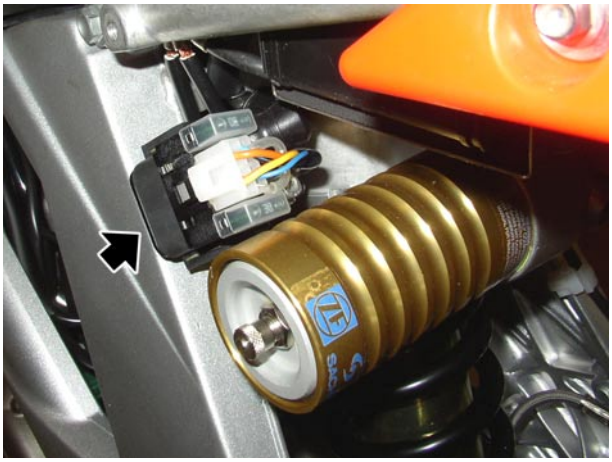
WARNING
To clean the lights, use a sponge soaked with water and a mild detergent, rubbing the surfaces delicately and rinsing frequently with plenty of water.
Polish with silicone wax only after having carefully washed the vehicle.
Never attempt to polish matte-finished surfaces with lapping compounds.
Do not wash the vehicle under the sun, especially during the summer, when the body is still warm, since if the shampoo dries before being rinsed away, it can damage the paint.

Do not use water (or fluids) at a temperature exceeding 40°C (104°F) to clean the plastic components of the vehicle.
Do not aim high-pressure water or air jets or steam jets onto the following components: wheel hubs, controls on the right and left side of the handlebar, bearings, brake master cylinders, instruments and indicators, exhaust pipes, ignition switch/steering lock. Do not clean any rubber or plastic parts or the seat with alcohol or solvents. Clean with water and mild detergent.

DANGER
Do not apply protection waxes onto the seat, in order not to make it too slippery.

2.6.12. LONG PERIODS OF INACTIVITY

WARNING
In case the vehicle is left unridden for more than twenty days, disconnect the 30 A fuse to avoid early wear of the battery.



After a long period of inactivity of the vehicle some precautions are necessary to avoid any problem.
Further, it is important to carry out the necessary repairs and a general check up before the period of inactivity, since you could forget to carry them out later.

Proceed as follows:

- Remove the battery, see (REMOVING THE BATTERY) and (LONG INACTIVITY OF THE BATTERY)
- Wash and dry the vehicle, see (CLEANING).
- Polish the painted surfaces with wax.
- Inflate the tyres, see (TYRES).
- Place the vehicle in an unheated, not-humid room, away from sunlight, with minimum temperature variations.
- Wrap and tie a plastic bag around the exhaust pipe opening to keep moisture out.

NOTE *Using a suitable support, place the vehicle so that both tyres are raised from the ground.*

- Cover the vehicle avoiding the use of plastic or waterproof materials.

2.6.13. AFTER A PERIOD OF INACTIVITY

Uncover and clean the vehicle, see (CLEANING).

NOTE *Withdraw the plastic bags from the exhaust tailpipes.*

- Uncover and clean the vehicle, see (CLEANING).
- Check the charge of the battery see (CHARGING THE BATTERY) and install it, see (INSTALLING THE BATTERY).
- Refill the fuel tank, see (FUEL).
- Perform the pre-ride checks, see (PRE-RIDE CHECKS CHART).

DANGER
Have a test ride at moderate speed in a low-traffic area.

2.6.14. RXV ACCESSORIES

RXV models are delivered together with a set of accessories not installed:

- Cooling fan
- Safety rubber band for side stand
- Racing headlight fairing (to eliminate the instrument panel)
- Connector for racing headlight
- Retainer for front brake line
- Racing tail light / number plate holder

WARNING
Do not use the vehicle off-road when the homologated number plate holder/tail light is installed.

MAINTENANCE 3

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3.1. GENERAL TECHNICAL INFORMATION

3.1.1. TECHNICAL DATA

Aprilia RXV 450 – 550

DIMENSIONS	
Max. length	2240 mm (88.19 in.)
Max. width	830 mm (32.68 in.)
Max. height (front fairing included)	1250 mm (49.21 in.)
Seat height	950 mm (37.40 in)
Wheelbase	1485 mm (58.46 in.)
Minimum ground clearance	320 mm (12.60 in.)
Dry weight	123 kg (271.12 lb)

ENGINE	
Model (RXV 450)	45RX
Model (RXV 550)	55RX
Type	twin-cylinder, 4-stroke with 4 valves per cylinder, single overhead camshaft
Number of cylinders	2
Total displacement (RXV 450)	449 cu. cm (27.40 cu in).
Total displacement (RXV 550)	553 cu. cm (33.75 cu in).
Bore/stroke (RXV 450)	76 mm x 49.5 mm (2.99 in x 1.95 in)
Bore/stroke (RXV 550)	80 mm x 55.0 mm (3.15 in x 2.16 in)
Compression ratio (RXV 450)	13 ± 0.5
Compression ratio (RXV 550)	12.5 ± 0.5
Starting	electric
Engine idling rpm	1800 ÷ 2000 rpm
Clutch	Multiplate in oil bath.
Lubricating system	Double separate lubrication with external reservoir
Air filter	with dry filter cartridge
Cooling system	liquid-cooled

TRANSMISSION	
Type	mechanical, 5 gears with foot control on the left side of the engine

CAPACITIES	
Fuel (including reserve)	7.5 l (1.98 gal)
Fuel reserve	2.2 l (0.58 gal)
Engine oil	1.3 l (0.34 gal)
Fork oil	100 mm (3.94 in.) of air (per leg, measured without spring and compressed rod)
Coolant	1.1 l (0.29 gal) (50% water + 50% coolant with ethylene glycol)
Seat	1

GEAR RATIOS				
Ratio	**Primary**	**Secondary**	**Final ratio**	**Total ratio**
1st	22/56 = 1: 2.545	12/31 = 1: 2.583	15/48 = 1: 3.200	1 : 21.042
2nd		13/25 = 1: 1.923		1 : 15.664
3rd		15/23 = 1: 1.533		1 : 12.489
4th		19/24 = 1: 1.263		1 : 10.288
5th		21/22 = 1: 1.047		1 : 8.533

DRIVE CHAIN	
Type	with master link

FUEL SYSTEM	
Type	electronic injection
Throttle (RXV 450)	ø 38 mm (1.49 in)
Throttle (RXV 550)	ø 40 mm (1.57 in)

FUEL SYSTEM	
Fuel	premium grade unleaded petrol, min. O.N. 95 (RON) and 85 (MON).

FRAME	
Type	Aluminium stanchion and steel tubes trellis

SUSPENSIONS	
Front	telescopic Ø 45 mm (ø 1.77 in) fork with hydraulic operation
Travel	298.5 mm (11.75 in)
Rear	swinging arm and hydraulic adjustable monoshock
Wheel stroke	300 mm (11.81 in) (usable)

BRAKES	
Front	disc brake – Ø 270 mm (ø 10.63 in), with hydraulic transmission
Rear	disc brake – Ø 240 mm (ø 9.45 in), with hydraulic transmission

WHEEL RIMS	
Type	spoke-type
Front	1.60 x 21"
Rear	2.15 x 18"

FRONT TYRE	
Type	90/90 21 54R
Inflating pressure	100 kPa (1.0 bar)

REAR TYRE	
Type	140/80 18 70R
Inflating pressure	110 kPa (1.1 bar)

IGNITION	
Type	Digital, electronic

SPARK PLUGS	
Standard	NGK CR8EB
Spark plug electrode gap	0.7 – 0.8 mm (0.028 – 0.031 in.)
Resistance	5 kΩ

ELECTRIC SYSTEM	
Battery	12 V – 6 Ah
Auxiliary fuses	5 A, 15 A, 20 A
Generator (with permanent magnet)	12 V – 350 W

BULBS	
Low beam	12 V – 55 W
High beam	12 V – 60 W
Front parking light	12 V – 3 W
Turn indicators bulb	With micro lamps
Number plate light	12 V – 5 W
Rear parking lights/Stoplight	LED
Instrument panel lights	LED

WARNING LIGHTS	
Gear in neutral	LED
Engine oil pressure	LED
Engine control system	LED
Fuel reserve	LED
High beam	LED
Turn indicators	LED
Red line	LED

Aprilia SXV 450 – 550

DIMENSIONS	
Max. length	2165 mm (85.23 in.)
Max. width	815 mm (32.08 in.)
Max. height (front fairing included)	1170 mm (46.06 in.)
Seat height	880 mm (34.64 in.)
Wheelbase	1470 mm (57.87 in.)
Minimum ground clearance	270 mm (10.63 in.)
Dry weight	125 kg (275.58 lb)

ENGINE	
Model (SXV 450)	45SX
Model (SXV 550)	55SX
Type	twin-cylinder, 4-stroke with 4 valves per cylinder, single overhead camshaft
Number of cylinders	2
Total displacement (SXV 450)	449 cu. cm (27.40 cu in).
Total displacement (SXV 550)	553 cu. cm (33.75 cu in).
Bore/stroke (SXV 450)	76 mm x 49.5 mm (2.99 in x 1.95 in)
Bore/stroke (SXV 550)	80 mm x 55.0 mm (3.15 in x 2.16 in)
Compression ratio (SXV 450)	13±0.5
Compression ratio (SXV 550)	12.5±0.5
Starting	electric
Engine idling rpm	1800 ÷ 2000 rpm
Clutch	Multiplate in oil bath.
Lubricating system	Double separate lubrication with external reservoir
Air filter	with dry filter cartridge
Cooling system	liquid-cooled

TRANSMISSION	
Type	mechanical, 5 gears with foot control on the left side of the engine

CAPACITIES	
Fuel (including reserve)	7.5 l (1.98 gal)
Fuel reserve	2.2 l (0.58 gal)
Engine oil	1.3 l (0.34 gal)
Fork oil	125 mm (4.92 in.) of air (per leg, measured without spring and compressed rod)
Coolant	1.1 l (0.29 gal) (50% water + 50% coolant with ethylene glycol)
Seat	1

SXV 450 GEAR RATIOS				
Ratio	**Primary**	**Secondary**	**Final ratio**	**Total ratio**
1st	22/56 = 1: 2.545	13/30 = 1: 2.307	15/46 = 1: 3.067	1 : 18.013
2nd		15/27 = 1: 1.800		1 : 14.050
3rd		16/23 = 1: 1.437		1 : 11.221
4th		20/23 = 1: 1.150		1 : 8.976
5th		21/21 = 1: 1.000		1 : 7.806

SXV 550 GEAR RATIOS				
Ratio	**Primary**	**Secondary**	**Final ratio**	**Total ratio**
1st	22/56 = 1: 2.545	13/30 = 1: 2.307	16/46 = 1: 2.875	1 : 16.888
2nd		15/27 = 1: 1.800		1 : 13.172
3rd		16/23 = 1: 1.437		1 : 10.519
4th		20/23 = 1: 1.150		1 : 8.415
5th		21/21 = 1: 1.000		1 : 7.318

DRIVE CHAIN	
Type	endless (with no connection link) with sealed links

FUEL SYSTEM	
Type	electronic injection
Throttle (SXV 450)	ø 38 mm (1.49 in)
Throttle (SXV 550)	ø 40 mm (1.57 in)

FUEL SYSTEM	
Fuel	premium grade unleaded petrol, min. O.N. 95 (RON) and 85 (MON).

FRAME	
Type	Aluminium stanchion and steel tubes trellis

SUSPENSIONS	
Front	telescopic Ø 48 mm (ø 1.89 in) fork with hydraulic operation
Travel	275 mm (10.83 in.)
Rear	swinging arm and hydraulic adjustable monoshock
Wheel stroke	252 mm (9.92 in) (usable)

BRAKES	
Front	disc brake – Ø 320 mm (ø 12.60 in), with hydraulic transmission
Rear	disc brake – Ø 240 mm (ø 9.45 in), with hydraulic transmission

WHEEL RIMS	
Type	spoke-type
Front	3.50 x 17"
Rear	5.50 x 17"

FRONT TYRE	
Type	120/70 ZR17 (58W)
Inflating pressure	180 kPa (1.8 bar)

REAR TYRE	
Type	180/55 ZR17 (73W)
Inflating pressure	200 kPa (2.0 bar)

IGNITION	
Type	Digital, electronic

SPARK PLUGS	
Standard	NGK CR8EB
Spark plug electrode gap	0.7 – 0.8 mm (0.028 – 0.031 in.)
Resistance	5 kΩ

ELECTRIC SYSTEM	
Battery	12 V – 6 Ah
Auxiliary fuses	5 A, 15 A, 20 A
Generator (with permanent magnet)	12 V – 350 W

BULBS	
Low beam	12 V – 55 W
High beam	12 V – 60 W
Front parking light	12 V – 3 W
Turn indicators bulb	With micro lamps
Number plate light	12 V – 5 W
Rear parking lights/Stoplight	LED
Instrument panel lights	LED

WARNING LIGHTS	
Gear in neutral	LED
Engine oil pressure	LED
Engine control system	LED
Fuel reserve	LED
High beam	LED
Turn indicators	LED
Red line	LED

3.1.2. LUBRICANT TABLE

SXV 450 - 550	
LUBRICANT	**PRODUCT**
Engine oil	Use top brand oils meeting or exceeding CCMC G-4, A.P.I. SG. SAE 10W-60 specifications
Gearbox fluid	RECOMMENDED: IP FC
Front fork fluid	RECOMMENDED: mix of IP F.A. oils in such percentage so as to obtain a SAE 10 W oil.
Bearings and other lubrication points	RECOMMENDED: IP BIMOL GREASE 481, IP AUTOGREASE MP. As an alternative to recommended grease, use top brand rolling bearing grease that will resist a temperature range of -30°C to +140°C (-22 °F to +284°F), with dripping point 150°C to 230 °C (302°F to 446°F), high corrosion protection, good resistance to water and oxidisation.
Battery terminals	Use neutral grease or Vaseline.
Brake fluid	RECOMMENDED: IP Autofluid FR. DOT 4. As an alternative to recommended fluid, top brand fluids meeting or exceeding SAE J1703, NHTSA 116 DOT 4, ISO 4925 Synthetic fluid specifications can be used. ***NOTE*** *Use new brake fluid only. Do not mix different makes or types of oil without having checked bases compatibility.*

RXV 450 - 550	
LUBRICANT	**PRODUCT**
Engine oil	Use top brand oils meeting or exceeding CCMC G-4, A.P.I. SG. SAE 10W-60 specifications
Gearbox fluid	RECOMMENDED: IP FC
Front fork fluid	RECOMMENDED: mix of IP F.A. oils in such percentage so as to obtain a SAE 7.5 W oil.
Bearings and other lubrication points	RECOMMENDED: IP BIMOL GREASE 481, IP AUTOGREASE MP. As an alternative to recommended grease, use top brand rolling bearing grease that will resist a temperature range of -30°C to +140°C (-22 °F to +284°F), with dripping point 150°C to 230 °C (302°F to 446°F), high corrosion protection, good resistance to water and oxidisation.
Battery terminals	Use neutral grease or Vaseline.
Brake fluid	RECOMMENDED: IP Autofluid FR. DOT 4. As an alternative to recommended fluid, top brand fluids meeting or exceeding SAE J1703, NHTSA 116 DOT 4, ISO 4925 Synthetic fluid specifications can be used. ***NOTE*** *Use new brake fluid only. Do not mix different makes or types of oil without having checked bases compatibility.*

3.1.3. REGULAR SERVICE INTERVALS CHART

REGULAR SERVICE INTERVALS CHART FOR VEHICLES IN ORIGINAL VERSION (DERATED) FOR ROAD USE

WARNING
Have the indicated operations performed by an Aprilia dealer or authorised service centre or the warranty will become null and void.

WARNING
Halve maintenance intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used in competitions.

Parts	After running-in 500 km (311 mi)	Every 3000 km (1864 mi)	Every 6000 km (3728 mi)	Every 9000 km (5592 mi)	Every 12000 km (7456 mi)
Changing engine oil and the engine oil filter	■	■	-	-	-
Check gearbox fluid level	■	■	-	-	-
Changing gearbox fluid	■	-	■	-	-
Check oil lines condition and position	■	■	-	-	-
Changing spark plugs	-	-	-	-	■
Checking and adjusting valve clearance	-	-	■	-	-
Check engine retaining bolts tightening	■	■	-	-	-
Change pistons and piston rings	-	-	■	-	-
Checking valve for wear	-	-	■	-	-
Check clutch plates for wear	-	■	-	-	-
Checking clutch spring length	-	-	■	■	-
Check cylinder barrel for wear	-	-	-	■	-
Check (visually) gudgeon pin circlip groove for wear	-	-	-	■	-
Check camshafts for wear (visually)	-	-	-	■	-
Change camshaft bearings	-	-	-	-	■
Checking valve spring length	-	-	-	■	-
Check spring washers for wear	-	-	-	■	-
Check valve head wobbling	-	-	-	■	-
Check valve guides for wear	-	-	-	■	-
Check rocker arm rollers radial play	-	-	-	■	-
Measure drive chain stretch	-	-	-	■	-
Check chain tensioner teeth for wear (visually)	-	-	■	-	-
Check connecting rod bearings	-	-	-	■	-
Check complete gearbox for wear	-	-	-	■	-
Check fuel lines condition and position	■	■	-	-	-
Balance cylinders	■	-	■	-	-
Check throttle unit screws tightening	■	-	■	-	-
Check fluid level and system sealing	■	■	-	-	-
Check exhaust system sealing and alignment	-	■	-	-	-
Check control cables condition, position, smoothness, lubrication	■	■	-	-	-
Check and adjust clutch control	■	■	-	-	-

Parts	After running-in 500 km (311 mi)	Every 3000 km (1864 mi)	Every 6000 km (3728 mi)	Every 9000 km (5592 mi)	Every 12000 km (7456 mi)
Clean air box and change filter	-	■	-	-	-
Check brake fluid, disc and pad wear	■	■	-	-	-
Check brake lines condition and sealing	■	■	-	-	-
Check brake system screws tightening	■	■	-	-	-
Check shock absorber and fork sealing and operation	■	■	-	-	-
Clean dust seals	-	■	-	-	-
Bleed fork legs	-	■	-	-	-
Check swinging arm support	-	■	-	-	-
Check steering bearings adjustment	■	■	-	-	-
Check tightening of screws on fork plates and fork bottom end, wheel shaft nuts and bolts, swinging arm support shaft, shock absorber shafts	■	■	-	-	-
Check spokes tension and rim flatness	■	■	-	-	-
Check tyres condition and pressure	■	■	-	-	-
Check chain joint (RXV), sealed link (SXV), chain rear sprocket and chain guide for wear	■	■	-	-	-
Lubricating the chain	■	■	-	-	-
Checking wheel bearings play	■	■	-	-	-

REGULAR SERVICE INTERVALS CHART FOR VEHICLES IN OPEN VERSION FOR SPORT USE (HOBBY PURPOSES)

Parts	End of running-in (6 hours)	Every 30 hours	Every 60 hours	Every 90 hours	Every 120 hours
Changing engine oil and the engine oil filter	■	■	-	-	-
Check gearbox fluid level	■	■	-	-	-
Changing gearbox fluid	■	-	■	-	-
Check oil lines condition and position	■	■	-	-	-
Changing spark plugs	-	-	-	-	■
Checking and adjusting valve clearance	-	-	■	-	-
Check engine retaining bolts tightening	■	■	-	-	-
Change pistons and piston rings	-	-	■	-	-
Checking valve for wear	-	-	■	-	-
Check clutch plates for wear	-	■	-	-	-
Checking clutch spring length	-	-	■	■	-
Check cylinder barrel for wear	-	-	-	■	-
Check (visually) gudgeon pin circlip groove for wear	-	-	-	■	-
Check camshafts for wear (visually)	-	-	-	■	-
Change camshaft bearings	-	-	-	-	■
Checking valve spring length	-	-	-	■	-
Check spring washers for wear	-	-	-	■	-
Check valve head wobbling	-	-	-	■	-
Check valve guides for wear	-	-	-	■	-
Check rocker arm rollers radial play	-	-	-	■	-
Measure drive chain stretch	-	-	-	■	-
Check chain tensioner teeth for wear (visually)	-	-	■	-	-
Check connecting rod bearings	-	-	-	■	-
Check complete gearbox for wear	-	-	-	■	-
Check fuel lines condition and position	■	■	-	-	-
Balance cylinders	■	-	■	-	-
Check throttle unit screws tightening	■	-	■	-	-
Check fluid level and system sealing	■	■	-	-	-
Check exhaust system sealing and alignment	-	■	-	-	-
Check control cables condition, position, smoothness, lubrication	■	■	-	-	-
Check and adjust clutch control	■	■	-	-	-
Clean air box and change filter	-	■	-	-	-
Check brake fluid, disc and pad wear	■	■	-	-	-
Check brake lines condition and sealing	■	■	-	-	-
Check brake system screws tightening	■	■	-	-	-

Parts	End of running-in (6 hours)	Every 30 hours	Every 60 hours	Every 90 hours	Every 120 hours
Check shock absorber and fork sealing and operation	■	■	-	-	-
Clean dust seals	-	■	-	-	-
Bleed fork legs	-	■	-	-	-
Check swinging arm support	-	■	-	-	-
Check steering bearings adjustment	■	■	-	-	-
Check tightening of screws on fork plates and fork bottom end, wheel shaft nuts and bolts, swinging arm support shaft, shock absorber shafts	■	■	-	-	-
Check spokes tension and rim flatness	■	■	-	-	-
Check tyres condition and pressure	■	■	-	-	-
Check chain joint (RXV), sealed link (SXV), chain rear sprocket and chain guide for wear	■	■	-	-	-
Lubricating the chain	■	■	-	-	-
Checking wheel bearings play	■	■	-	-	-

REGULAR SERVICE INTERVALS CHART FOR VEHICLES IN OPEN VERSION FOR SPORT USE (COMPETITIVE PURPOSES)

Parts	End of running-in (6 hours)	Every 30 hours	Every 60 hours	Every 90 hours	Every 120 hours
Changing engine oil and the engine oil filter	■	■	-	-	-
Check gearbox fluid level	■	■	-	-	-
Changing gearbox fluid	■	-	■	-	-
Check oil lines condition and position	■	■	-	-	-
Changing spark plugs	-	-	-	-	■
Checking and adjusting valve clearance	-	-	■	-	-
Check engine retaining bolts tightening	■	■	-	-	-
Change pistons and piston rings	-	-	■	-	-
Checking valve for wear	-	-	■	-	-
Check clutch plates for wear	-	■	-	-	-
Checking clutch spring length	-	-	■	■	-
Check cylinder barrel for wear	-	-	-	■	-
Check (visually) gudgeon pin circlip groove for wear	-	-	-	■	-
Check camshafts for wear (visually)	-	-	-	■	-
Change camshaft bearings	-	-	-	-	■
Checking valve spring length	-	-	-	■	-
Check spring washers for wear	-	-	-	■	-
Check valve head wobbling	-	-	-	■	-
Check valve guides for wear	-	-	-	■	-
Check rocker arm rollers radial play	-	-	-	■	-
Measure drive chain stretch	-	-	-	■	-
Check chain tensioner teeth for wear (visually)	-	-	■	-	-
Check connecting rod bearings	-	-	-	■	-
Check complete gearbox for wear	-	-	-	■	-
Check fuel lines condition and position	■	■	-	-	-
Balance cylinders	■	-	■	-	-
Check throttle unit screws tightening	■	-	■	-	-
Check fluid level and system sealing	■	■	-	-	-
Check exhaust system sealing and alignment	-	■	-	-	-
Check control cables condition, position, smoothness, lubrication	■	■	-	-	-
Check and adjust clutch control	■	■	-	-	-
Clean air box and change filter	-	■	-	-	-
Check brake fluid, disc and pad wear	■	■	-	-	-
Check brake lines condition and sealing	■	■	-	-	-
Check brake system screws tightening	■	■	-	-	-

Parts	End of running-in (6 hours)	Every 30 hours	Every 60 hours	Every 90 hours	Every 120 hours
Check shock absorber and fork sealing and operation	■	■	-	-	-
Clean dust seals	-	■	-	-	-
Bleed fork legs	-	■	-	-	-
Check swinging arm support	-	■	-	-	-
Check steering bearings adjustment	■	■	-	-	-
Check tightening of screws on fork plates and fork bottom end, wheel shaft nuts and bolts, swinging arm support shaft, shock absorber shafts	■	■	-	-	-
Check spokes tension and rim flatness	■	■	-	-	-
Check tyres condition and pressure	■	■	-	-	-
Check chain joint (RXV), sealed link (SXV), chain rear sprocket and chain guide for wear	■	■	-	-	-
Lubricating the chain	■	■	-	-	-
Checking wheel bearings play	■	■	-	-	-

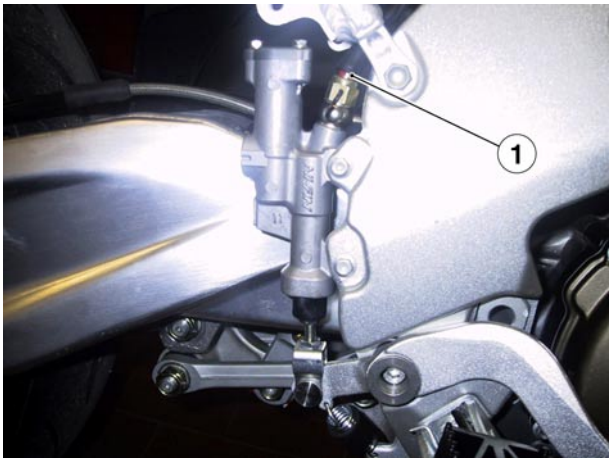
3.1.4. CHECKING THE SWITCHES

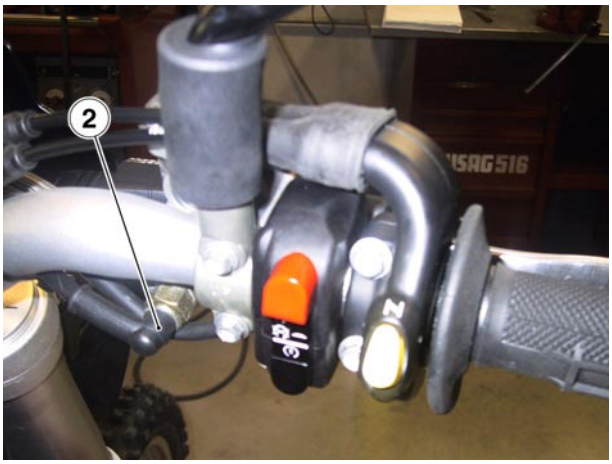
Carefully read (MAINTENANCE).

The vehicle is provided with two switches:
Stop light switch (1) on rear brake lever.
Stop light switch (2) on front brake lever.

For the check, proceed as follows:

- Make sure that there are no dirt or mud deposits on the switch; the pin must be able to move without interference, returning automatically to its initial position.
- Make sure that the cables are connected correctly.
- Check the spring: it must not be damaged, worn or weakened.





3.1.5. BULBS

Carefully read (MAINTENANCE).

DANGER
Risk of fire.
Keep fuel and other flammable substances away from the electrical components.

WARNING
Before proceeding to change a bulb, set the ignition switch to "⊗" and allow some time for the bulb to cool down.
Change the bulb wearing clean gloves or using a clean and dry cloth.

Do not leave fingerprints on the bulb, since these may cause its overheating and consequent breakage.
If you touch the bulb with bare hands, remove any fingerprint with alcohol, in order to avoid any damage.

DO NOT FORCE THE ELECTRIC CABLES.

NOTE *Before changing a bulb, check the fuses, see (CHANGING THE FUSES).*

CHANGING THE HEADLIGHT BULB

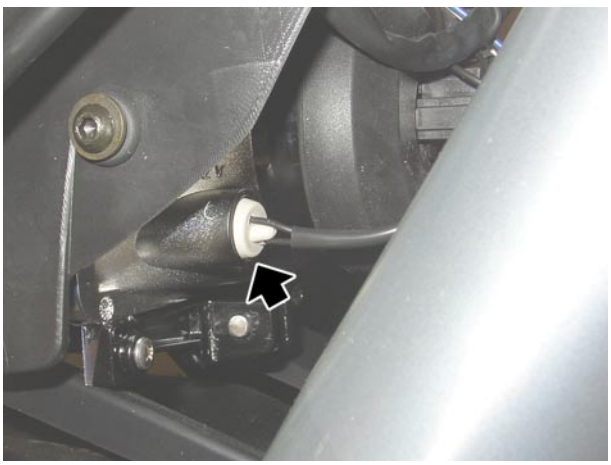
The headlight accommodates:
- One parking light bulb (1).
- One low beam bulb/high beam (2)

To change the bulbs:
- Place the vehicle on the stand, see (POSITIONING THE VEHICLE ON THE STAND).

DANGER
Handle the plastic components with care to avoid scraping or damaging them.

PARKING LIGHT BULB (1)

DANGER
To extract the bulb holder, do not pull the electric wires.

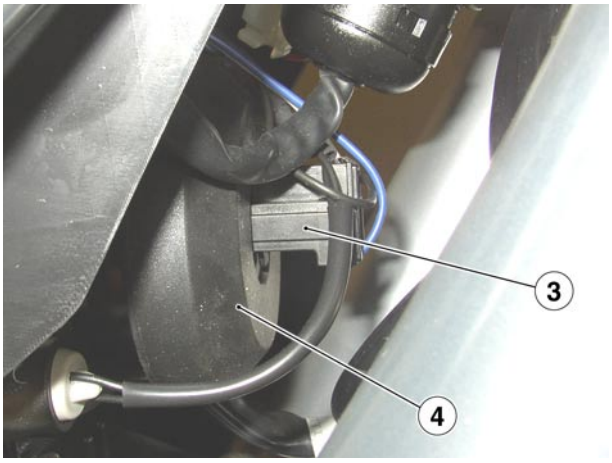


- Grab the bulb holder, pull it and release it of its seat.
- Remove the parking light bulb and fit a new bulb of equal rating.

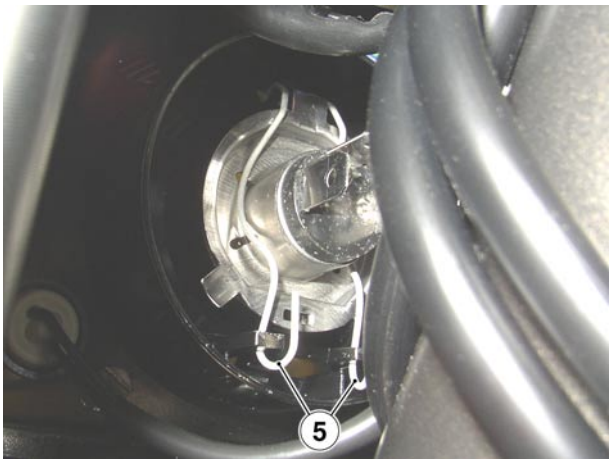
LOW BEAM/HIGH BEAM BULB (2)

DANGER
To extract the bulb electric connector, do not pull its electric wires.

- Grasp the bulb electric connector (3), pull it and disconnect it from the bulb holder.
- Withdraw the protection element (4) from reflector seat and from lamp terminals.



- Release the two ends of the clip (5) from the bulb holder.
- Extract the bulb from its seat.



When reassembling:

NOTE *Insert the bulb in the bulb holder, making the relevant positioning seats coincide.*

- Correctly install a new bulb of the same type.
- Correctly refit the protection element (4) into lamp terminals and reflector seat.
- Connect bulb connector (3).

3.1.6. SPARK PLUG

Carefully read (MAINTENANCE).

NOTE *Carry out the maintenance operations halving the intervals indicated, if the vehicle is used in rainy or dusty areas or on uneven surfaces, or in competitions.*

WARNING
Check, clean or replace both spark plugs, one by one.

Periodically remove the spark plugs and clean them carefully, removing any carbon deposits; change them if necessary.

WARNING
Always change both spark plugs together, even when only one needs replacing.

In order to gain access to the spark plugs:

DANGER
Before carrying out the following operations, let the engine and the silencer cool down until they reach room temperature, in order to avoid burns.

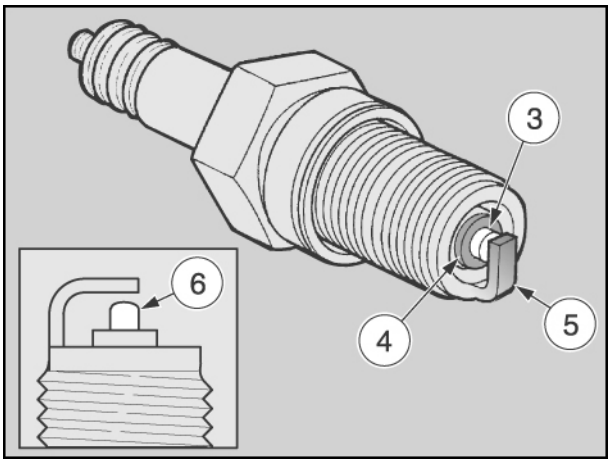
- Position the vehicle on the stand.

NOTE *The vehicle fits one spark plug (2) per cylinder. The information provided below applies to both spark plugs.*

- Remove the cap (1) of the spark plug (2).
- Remove any trace of dirt from the spark plug base (2).
- Fit the spanner supplied with the tool kit into spark plug (2) hexagonal flat
- Unscrew the spark plug (2) and extract it from its seat, taking care to prevent dust or other substances from getting inside the cylinder.

For the check and cleaning:

WARNING
This vehicle is fitted with spark plugs with platinum electrodes.
Do not clean the spark plugs with a wire brush and/or abrasive products, use compressed air only.



Key:

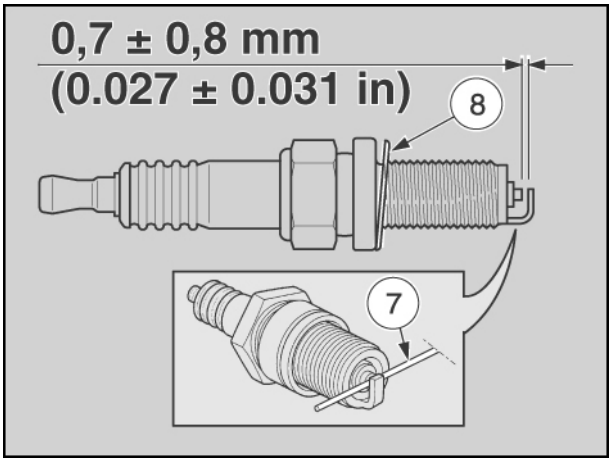
- centre electrode (3);
- insulating (4);
- side electrode (5).

- Make sure that there are neither carbon deposits, nor corrosion marks on the electrodes and on the insulating material of spark plug (2); if necessary, blow with compressed air to clean them.

If the spark plug (2) has cracking on the insulating material, corroded electrodes, excessive deposits or the tip (6) of the central electrode is rounded, it must be changed.

WARNING
When changing the spark plug (2), check the thread pitch and length.
If the threaded part is too short, the carbon deposits will accumulate on the thread seat, and therefore the engine may be damaged during the installation of the right spark plug.
Use the recommended type of spark plugs only, see (TECHNICAL DATA), in order not to compromise the life and performance of the engine.
Electrode gap should be checked using a wire gauge to avoid damaging the platinum coating.

- Check electrode gap with a wire gauge.



WARNING
Never attempt to adjust electrode gap.

Electrode gap should be 0.7 - 0.8 mm (0.027 - 0.031 in.); change spark plug (2) if reference value is not respected.

- Make sure that the washer is in good conditions.

For the installation:
- Position the washer and screw in the spark plug (2) by hand in order not to damage the thread.
- Tighten the spark plug (2) by means of the spanner you will find in the tool kit, giving it half a turn to compress the washer.

Spark plug (2) tightening torque: 12 Nm (1.2 kgm).

WARNING
The spark plug (2) must be well tightened, otherwise the engine may overheat and be seriously damaged.

- Position the spark plug (2) cap (1) properly to prevent it from coming off due to engine vibration.

NOTE *Repeat described operations on spark plug (2) of the other cylinder.*

3.1.7. FUSES

CHANGING THE FUSES

Carefully read (MAINTENANCE).

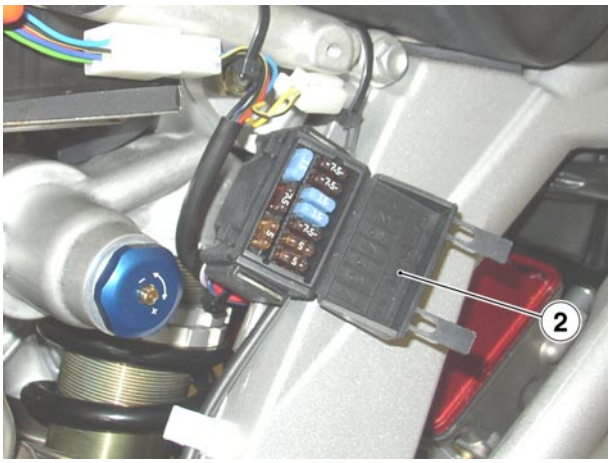
WARNING
Do not repair faulty fuses.
Never use fuses different from the recommended ones.
The use of unsuitable fuses may cause damages to the electric system or, in case of short circuit, even a fire.

NOTE *If a fuse blows frequently, there probably is a short circuit or an overload in the electric system. In this instance, contact an* ***aprilia*** *Authorised Dealer.*

If an electric component does not work or works irregularly, or if the vehicle fails to start, it is necessary to check the fuses.
Check the auxiliary fuses first and then the 30A main fuse.
Check as follows:

- Turn the ignition switch to position "⚷", to avoid any accidental short circuit.
- Remove the right side panel, loosen the two screws (1) and slide it off its seat.

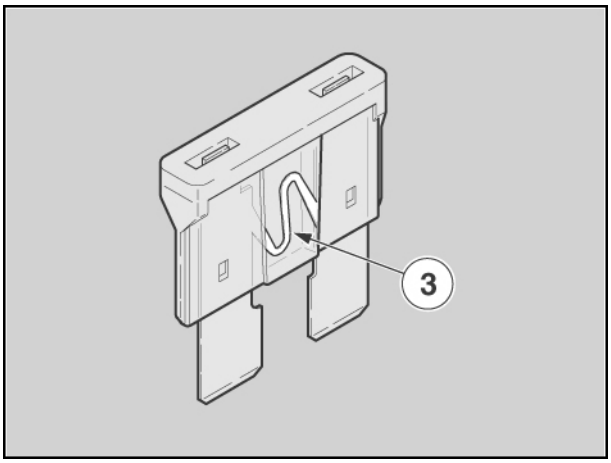
- Lift the cover (2) of the auxiliary fuse box.



- Extract the fuses one by one and check if the filament (3) is broken.
- Before replacing a fuse, try to find out the cause of the trouble, if possible.
- Replace the damaged fuse with a new one having the same amperage.

NOTE *If you use one of the spare fuses, put a new fuse in the proper seat.*

- Remove the left side panel, as described for the right side panel.
- Repeat the above operations for the main fuses.



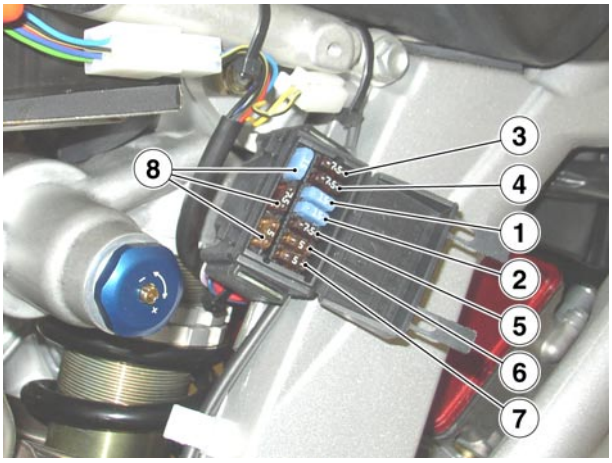
LAYOUT OF AUXILIARY FUSES

15A Fuse:
1 - Control unit relay energising
2 - Parking lights, turn indicators, horn, instrument panel, stop light

7.5A Fuse:
3 - Headlights
4 - Control unit relay power
5 - Injector coils
6 - Electric fan

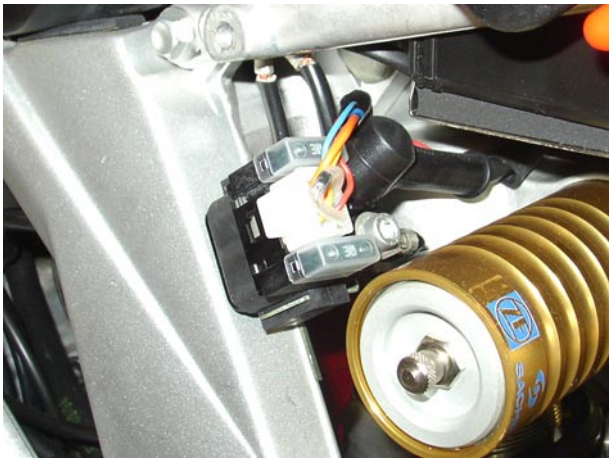
5A Fuse:
7 - Fuel pump

NOTE *There are three spare fuses (8).*



LAYOUT OF MAIN FUSES

30A Fuse:
Battery charge (one fuse only, the second one is spare).

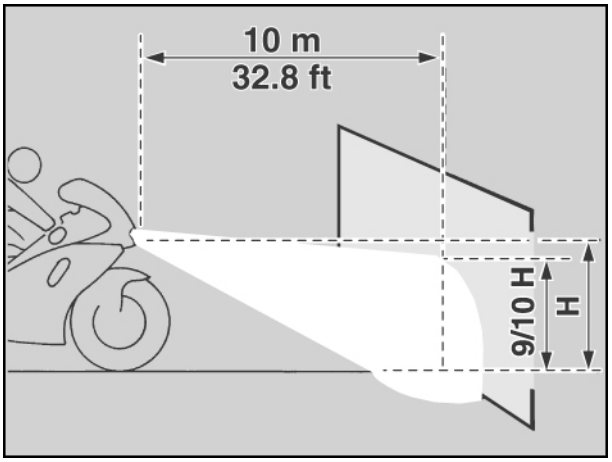


3.1.8. HEADLIGHT BEAM VERTICAL ADJUSTMENT

NOTE *To check the direction of the headlight beam, specific procedures must be adopted, in accordance with the regulations in force in the country where the vehicle is used.*

To rapidly check the correct direction of the beam,

- place the vehicle on flat ground, 10 m away from a wall.
- Turn on the low beam, sit on the vehicle and make sure that the beam projected on the wall is slightly under the horizontal line of the headlight (about 9/10th of the total height).



To adjust the headlight beam:

- Turn screw (1) using a screwdriver.

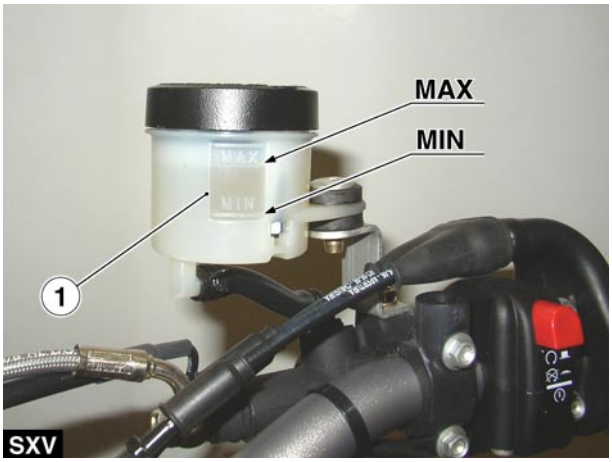
- TIGHTEN (clockwise) to raise the beam;
- SLACKEN (anticlockwise) to lower the beam.

After the adjustment:

DANGER
Make sure that the vertical adjustment of the headlight beam is correct.

3.1.9. DISC BRAKES

DANGER
The brakes are the parts that most ensure your safety and for this reason they must always be perfectly working; check them before every trip.
A dirty disc will soil the pads, leading to loss of braking efficiency.
Dirty pads must be replaced, while dirty discs must be cleaned with a high-quality degreaser.
The brake fluid must be changed every year by an aprilia Authorised dealer.
Use brake fluid of the type specified in the lubricant chart, see (LUBRICANT TABLE).



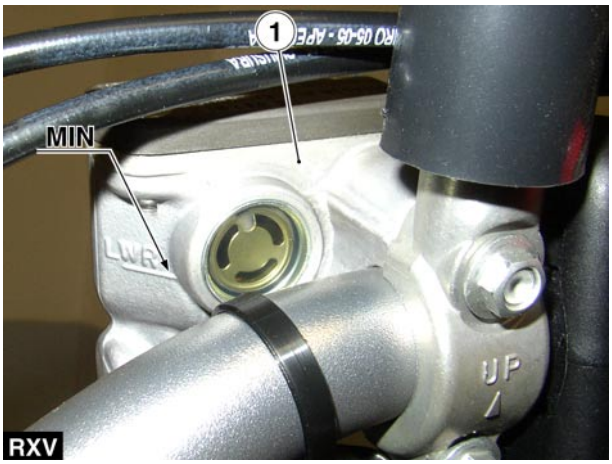
NOTE *This vehicle is provided with disc brakes with two - front and rear- braking systems having separate hydraulic circuits.*

The front braking system is with single disc (left side).

The rear brake uses a single disc (right side).

The following information refers to a single braking system, but is valid for both.

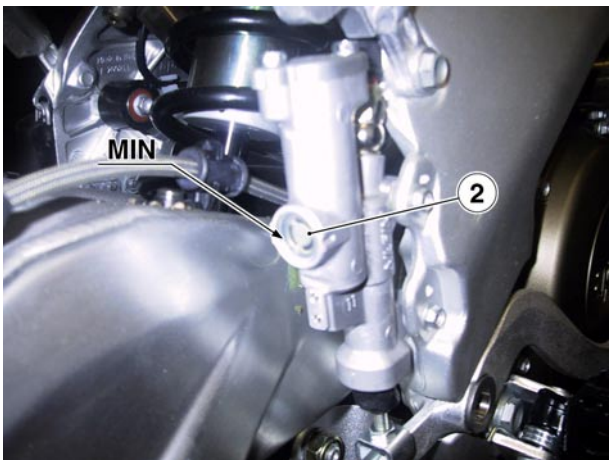
When the disc pads wear out, the level of the fluid inside tank (1 – 2) decreases to automatically compensate for their wear.
The front brake fluid reservoir (1) is mounted near the front brake lever mount.



The rear brake fluid reservoir (2) is built in the master cylinder fixed to the frame, on the right, next to the swinging arm.

NOTE *Halve maintenance intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used in competitions.*

Before departure, check the brake fluid level in the reservoirs (1 – 2), see (CHECKING BRAKE FLUID LEVEL) and the wear of the pads, see (CHECKING THE BRAKE PAD WEAR).



CHECKING THE BRAKE PAD WEAR

Carefully read paragraphs (BRAKE DISCS), (CHECKING BRAKE FLUID LEVEL) and (MAINTENANCE).

NOTE *The following information refer to a single braking system, but are valid for both. Halve maintenance intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used in competitions.*

The wear of the disc brake pads depends on the use, on the riding style and on the road.

WARNING
Wear increases if the vehicle is used in rainy or dusty areas, or off road.

DANGER
Check the wear of the brake pads, especially before every trip.

To carry out a rapid check of the wear of the pads, proceed as follows:

- Place the vehicle on the stand, see (POSITIONING THE VEHICLE ON THE STAND).

SXV

Checking the front brake calliper pads:

NOTE *The front brake calliper has four brake pads.*

- Carry out a visual check between the brake calliper and the pads, proceeding:

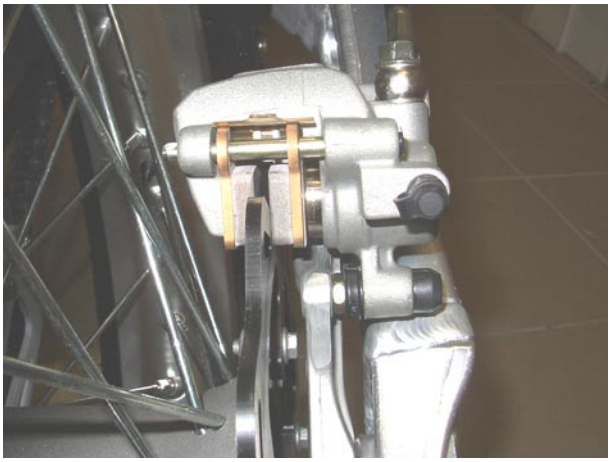
- from above, on the rear end;

Checking the rear brake calliper pads:

NOTE *The rear brake calliper has two brake pads.*

- Carry out a visual check between the brake calliper and the pads, proceeding:

- from above, on the rear end;



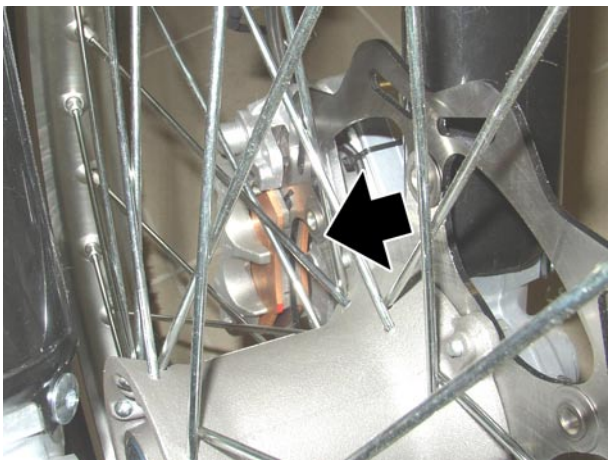
RXV

Checking the front brake calliper pads:

NOTE *The front brake calliper has two brake pads.*

- Carry out a visual check between the brake calliper and the pads, proceeding:

- from above, on the front end;



Checking the rear brake calliper pads:

NOTE *The rear brake calliper is the same as the one fitted to the SXV version; proceed as described in the paragraph about SXV version.*

DANGER
The excessive wear of the friction material would cause the contact of the pad metal support with the disc, with consequent metallic noise and production of sparks from the calliper; braking efficiency, safety and soundness of the disc would thus be negatively affected.

If the thickness of the friction material -even of one pad only- has reduced to about 1.5 mm (0.06 in.) (or even if only one of the wear indicators is not visible any longer) change both pads.

DANGER
Have it changed by an aprilia Authorised dealer.

3.1.10. DRIVE CHAIN

Carefully read (MAINTENANCE).

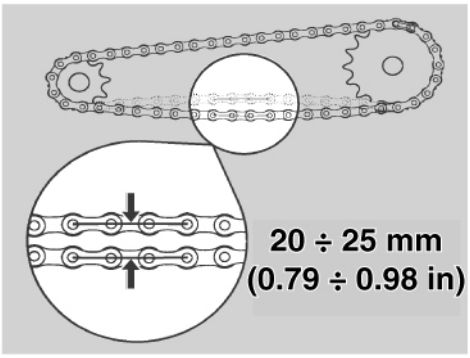
SXV fits an endless chain, while **RXV** fits a chain with master link.

DANGER
An excessive slackening of the chain may make the chain detach from the sprocket, resulting in an accident or vehicle serious damage.
Periodically check the slack and adjust it if necessary, see (CHAIN SLACK ADJUSTMENT).
To change the chain, contact an aprilia Authorised Dealer, who will ensure you prompt and accurate servicing.

DANGER
Incorrect maintenance may cause the untimely wear of the chain and/or damages to the front sprocket and/or the rear sprocket.
Carry out the maintenance operations more frequently if you use the vehicle in difficult conditions or on dusty and/or muddy roads.

CHECKING THE SLACK

- To check the slack, proceed as follows:
- Stop the engine.
- Position the vehicle on the stand.
- Position the gear shift lever in neutral.
- Check chain slack by measuring the vertical movement of the chain lower section, midway between the sprockets. Movement should be approximately 20 - 25 mm (0.79 -0.98 in.).
- Move the motorcycle forward, in such a way as to check the vertical oscillation of the chain even in other positions; the slack must be constant in all the wheel rotation phases.



DANGER
If in some positions the slack is higher than in others, this means that there are crushed or seized links; in this case, contact an aprilia Authorised Dealer. To prevent the risk of seizures, lubricate the chain frequently, see (CLEANING AND LUBRICATION).

If the slack is the same in all positions, but higher or lower than 20 - 25 mm (0.79 - 0.98 in), adjust it, see (CHAIN SLACK ADJUSTMENT).

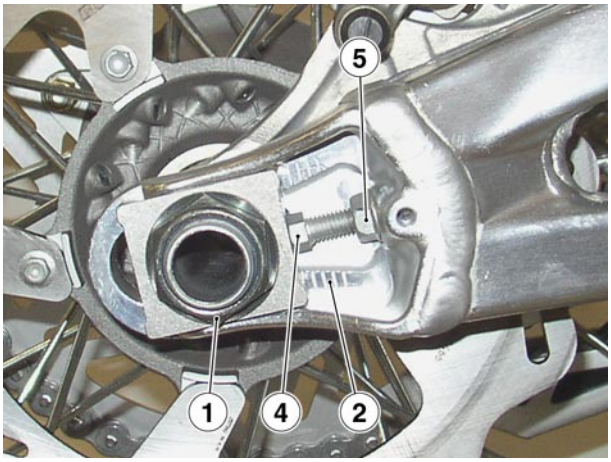
CHAIN SLACK ADJUSTMENT

If the chain needs adjusting after the inspection, proceed as follows:

- Position the vehicle on the stand.
- Loosen the nut (1) completely.

NOTE *Wheel centring is aided by fixed reference marks (2-3) located inside the seats of the chain sliders/tensioners fitted to the swinging arm before the wheel shaft.*

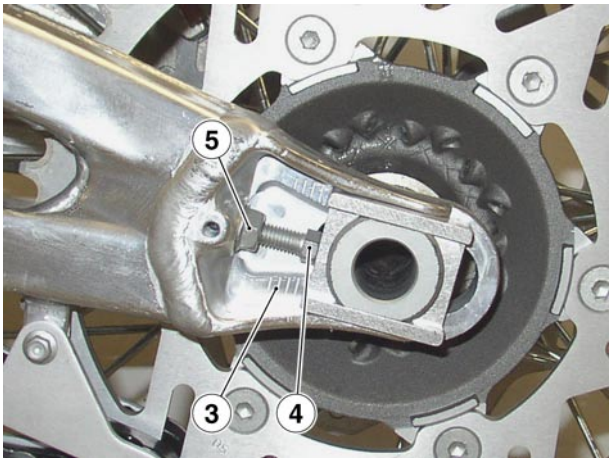
- Loosen the two lock nuts (4).
- Work the adjusters (5) and adjust chain slack, making sure to use the same reference mark settings (2-3) on both sides of the vehicle.
- Tighten the two lock nuts (4).

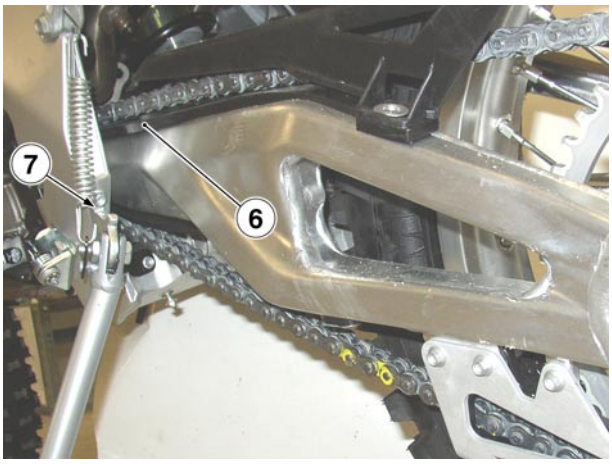


- Tighten the nut (1).

Wheel nut (1) tightening torque:
127 Nm (12.7 kgm)

- Check chain slack, see (CHECKING THE SLACK).





CHECKING CHAIN AND SPROCKETS FOR WEAR

Further, check the chain and sprockets and make sure that they do not present:

- damaged rollers;
- loose pins;
- dry, rusty, crushed or seized links;
- excessive wear;
- missing O-rings;
- sprocket or teeth excessively worn or damaged.

DANGER
If the chain rollers are damaged, the pins are loose and/or the O-rings are damaged or missing, it is necessary to change the whole chain unit (both sprockets and chain).

- Check the chain guide sliding shoe (6) and stretcher (7) for wear.

- Finally, check the wear of the swinging arm protection shoe.

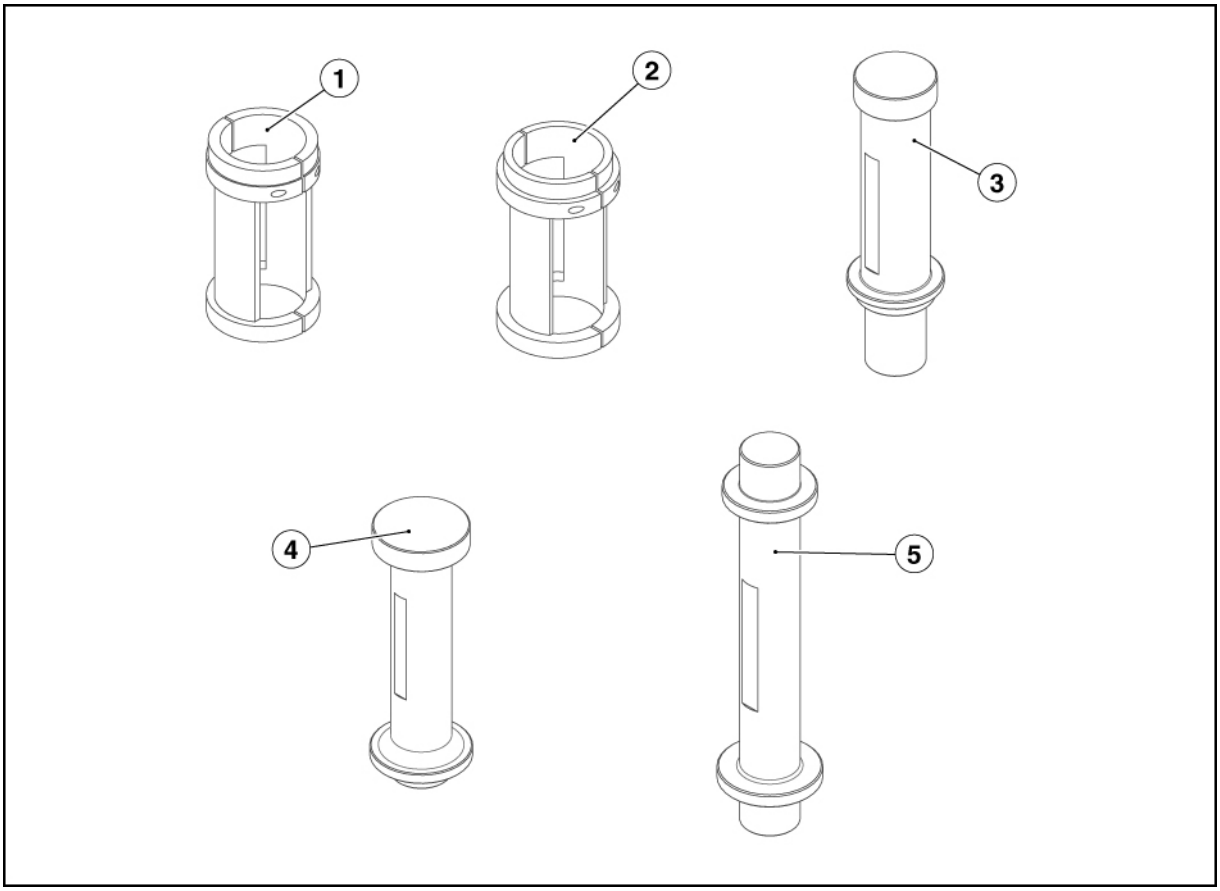
DANGER
Lubricate the chain frequently, especially if there are dry or rusty parts.
The crushed or seized links must be lubricated and made work again.
If this is not possible, contact an aprilia Authorised Dealer, who will provide for changing the chain.

CLEANING AND LUBRICATION

DANGER
Carry out the adjustment, lubrication, cleaning and change of the chain with great care.

Lubricate the chain whenever necessary.
Lubricate the chain with aerosol grease suitable for chains, see (LUBRICANT TABLE).
Never wash the chain with water jets, steam jets, high-pressure water jets and highly inflammable solvents.

3.1.11. SPECIAL TOOLS



Pos.	Description	Part number
1	Tool for fitting fork oil seal Ø 45 mm (Ø 1.77 in) **RXV**	9100903
2	Tool for fitting fork oil seal Ø 48 mm (Ø 1.89 in) **SXV**	9100904
3	Swinging arm cages punch	9100898
4	Punch for left casing desmo + wheel hub	9100892
5	Punch for swinging arm levers at cases	9100900

3.1.12. TIGHTENING TORQUE SETTINGS

DESCRIPTION	SCREW / NUT	TIGHTENING TORQUE SETTINGS Nm	NOTES
HANDLEBAR AND CONTROLS			
Screw securing clutch control to handlebar	M6	10	
Throttle control screw	M6	4	
Ignition switch screw	M8	24	
FOOTRESTS			
Footrest support bracket screw	M12	55	loctite 243
Footrest support bracket screw	M8	25	loctite 243
CHASSIS			
Screw securing linkage to mudguard at front end	M6	12	
Screw securing linkage to mudguard at rear end	M6	12	
Screw securing mudguard to bottom yoke	M6	12	
Conveyors screw	M6	12	
Side body panels screw	M6	12	
Front screw securing tail end to subframe	M6	12	
Central nut securing tail end – mudguard – subframe	M6	12	
Rear screw securing tail end to subframe	M6	12	
Screw securing tail end to mudguard	M6	12	
Top screw securing under-tail end to number plate holder	M5	7	
Bottom screw securing under-tail end to number plate holder	M5	7	
Screw securing under-tail end – mudguard – starter contactor ext.	M6	12	
Shock absorber guard screw	M5	6	
Screw securing headlight fairing to instrument support	M5	6	
Instrument support screw	M5	6	
Under-tail end lower screw	M6	12	
LIGHTS AND INSTRUMENT PANEL			
Tail light screw	3.9	2	
Turn indicators nut	M8	6	
Digital instrument nut	M5	6	
Headlight screw	M6	6	
TANKS			
Screw securing plate to fuel tank	M6	12	
Screw securing fuel tank to frame	M6	12	
Screw securing pump body to fuel tank	M6	10	
Oil tank nut	M6	5	
FRAME			
Subframe screw	M10	49	
Upper chain roller screw	M8	22	
Lower slider rear screw	M5	4.4	
Lower slider front screw	M5	4.4	
STAND			
Stand plate screw	M8	22	loctite 243
Side stand nut	M10	34	loctite 243

DESCRIPTION	SCREW / NUT	TIGHTENING TORQUE SETTINGS Nm	NOTES
EXHAUST SYSTEM			
Screw securing silencer to subframe	M8	22	
Exhaust pipes nut	M6	12	
Screw securing tubes to head	M6	12	
Screw securing brake to handlebar	M6	10	
COOLING SYSTEM			
Radiators upper screw	M6	5	
Radiators lower screw	M6	12	
FRONT BRAKE			
Front brake calliper screw - RXV 450/550	M8	25	
Front brake calliper screw - SXV 450/550	M10	50	
REAR BRAKE			
Rear brake master cylinder screw	M6	10	
Brake pedal screw	M8	25	loctite 243
FRONT WHEEL			
Wheel shaft cap	M22	60	
REAR WHEEL			
Wheel shaft nut	M25	127	
FRONT SUSPENSION			
Steering head screw	M8	24	
Bottom yoke screw	M8	22	
Wheel shaft pinch bolt - RXV 450/550	M6	10	
Wheel shaft pinch bolt - SXV 450/550	M8	22	
Handlebar upper clamps screw	M8	24	
Steering shaft nut	M26	108	
Steering shaft ring nut	M30	7	
Handlebar lower clamp nut	M10	32	
Leg guard screw	M6	12	
REAR SUSPENSION			
Nut securing frame to linkage	M12	80	
Nut securing linkage to rocker	M12	80	
Nut securing rocker to swinging arm	M12	80	
Shock absorber nut	M10	52	
SWINGING ARM			
Chain guide nut	M6	12	
Nut securing swinging arm shaft	M14	100	
Chain stretcher adjuster nut	M8	26	
Screw securing chain slider and tube guides to rear brake	4.8	4.4	
Rear chain guard screw	4.8	4.4	
Chain guide screw	M6	12	

DESCRIPTION	SCREW / NUT	TIGHTENING TORQUE SETTINGS Nm	NOTES
ENGINE			
Nut securing engine to frame	M10	54	
Screw securing throttle body to head	M6	12	loctite 243
Screw securing control unit to plate	M4	4.4	loctite 243
Screw securing voltage regulator and control unit to frame	M6	12	
Coil screw	M6	12	
Screw securing sprocket cover and chain guide plate	M6	12	
Engine oil drain cap	M12x1.5	18	
Gearbox fluid drain cap	M10X1.5	18	
Oil filter cover	M56x1.5	25	
Piston mounting hole plug	M30x2	30	
Spark plug	M10X1.25	12	
Gearbox fluid check screw	M6x1	9.8	
Water pump impeller	M7x1	12	
Head cover screw	M6x1	9.8	
Water pump cover screw	M6x1	9.8	
Clutch cover screw	M6x1	9.8	
Right casing cover screw	M6x1	9.8	
Casing jointing bolt	M6x1	13	
Ignition cover screw	M6x1	9.8	
Pick-up screw	M5x0.8	8	loctite 270
Stator fixing screw	M5x0.8	8	loctite 270
Chain stretcher sliding shoe screw	M6x1	9.8	loctite 270
Timing chain stretcher screw	M6x1	10	
Cable guide ring screw	M6x1	10	
Oil lines mounting plate screw	M6x1	9.8	loctite 270
Blow-by breather union	M12x1	18	Use sealant
Flywheel nut	M14x1	98	
Starter motor screw	M6x1	9.8	
Chain guide plate screw	M6x1	12	
Screw securing primary shaft bearing	M6x1	12	loctite 270
Screw securing lay shaft bearing	M6x1	12	loctite 270
Desmo bearing screw	M5x0.8	8	loctite 270
Gear indicator screw	M5x0.8	6	loctite 270
Gear change pedal screw	M6x1	12	
Head bolt (pre-torque)	M10X1.25	30	Smear screws and washers with oil
Head bolt	M10X1.25	50	
Head bolt	M6x1	12	
Timing gear nut	M12x1	50	
Timing compartment cover screw	M5x0.8	6	loctite 243
Primary sprocket nut	M18x1.25	160	
Gear selector stop plate screw	M6x1	12	loctite 270
Oil collector plate screw	M6x1	12	loctite 270
Gear selector shaft stop screw	M10X1.25	25	loctite 270
Gear ratchet rotation screw	M6x1	12	loctite 243
Selector shaft	M8x1.25	22	loctite 270
Clutch hub nut	M18x1.25	75	
Clutch spring screw	M6x1	12	
Pressure reducing valve	M14x1.5	20	
Feed pump retaining screw	M6x1	9.8	
Scavenge pump retaining screw	M6x1	9.8	
Head lubricating nozzle	M7x1	2.5	
Valve lift block screw	M5x0.8	9	loctite 270
Water union plate screw	M5x0.8	9	

DESCRIPTION	SCREW / NUT	TIGHTENING TORQUE SETTINGS	NOTES
		Nm	
Crankshaft stop screw	M8x1.25	22	loctite 270
Freewheel outer ring screws	M6x1	13	loctite 270
Throttle body screws	M6x1	13	
Camshaft gear retaining screw	M16x1	35	
ELECTRICAL COMPONENTS			
Screw securing solenoid starter and fuse holder	M5	7	loctite 243
Frame ground retaining screw	M6	12	
Solenoid starter cables screw	M6	12	
Horn screw	M8	22	

3.2. SCHEDULED MAINTENANCE

3.2.1. CHECKING BRAKE FLUID LEVEL AND TOPPING UP

NOTE *This vehicle is fitted with front and rear disc brakes. Each braking system is operated by an independent hydraulic circuit.*

The following information refers to a single braking system, but is valid for both.

DANGER
Sudden changes in brake lever play or a spongy feel of the lever may indicate problems with the hydraulic system.
If in doubt about the braking efficiency of your bike or if you are not able to perform routine checks, contact your aprilia Authorised dealer.

Make sure that the brake discs are neither oily nor greasy, especially after maintenance or checking operations.
Make sure the brake lines are not twisted or worn.
Prevent water or dust from accidentally getting into the circuit.
Wear latex gloves when servicing the hydraulic circuit.
Brake fluid is an irritant. Avoid contact with eyes or skin.

DANGER
In the event of accidental contact, wash affected body parts thoroughly. In the event of accidental contact with eyes, contact an eye specialist or seek medical advice.
DO NOT RELEASE BRAKE FLUID INTO THE ENVIRONMENT.
KEEP AWAY FROM CHILDREN.

WARNING
When handling brake fluid, take care not to spill it onto plastic or paint-finished parts or they will seriously damage.

DISC BRAKES

DANGER
The brakes are the parts that most ensure your safety and for this reason they must always be perfectly working; check them before every trip.
The brake fluid must be changed every year by an aprilia Authorised dealer.
Use brake fluid of the type specified in the lubricant chart, see (LUBRICANT TABLE).

When the disc pads wear out, the level of the fluid inside tank decreases to automatically compensate for their wear.

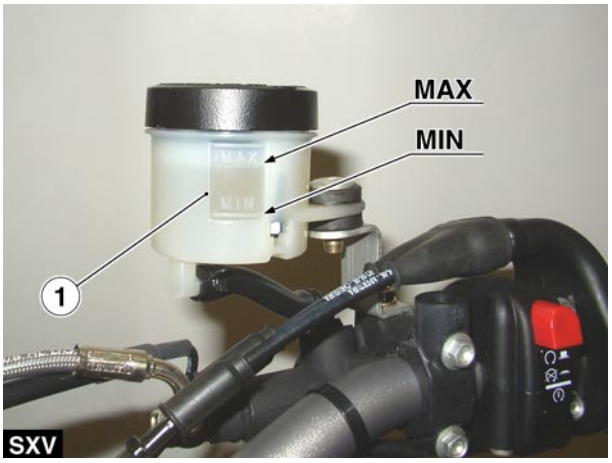
The front brake fluid reservoir (1) is mounted near the front brake lever mount.
The rear brake fluid reservoir (2) is built in the master cylinder fixed to the frame, on the right, next to the swinging arm.

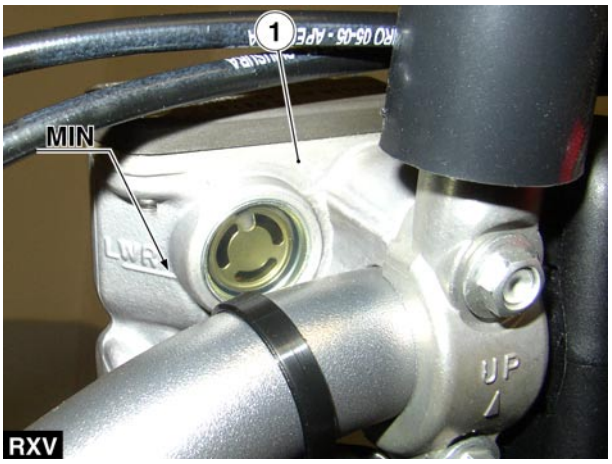
***NOTE** Halve maintenance intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used in competitions.*

Before leaving, check brake fluid level in the reservoirs.

Have the brake fluid changed every two years by an **aprilia** Authorised dealer.

DANGER
Do not use the vehicle if the braking system leaks fluid.





FRONT BRAKE

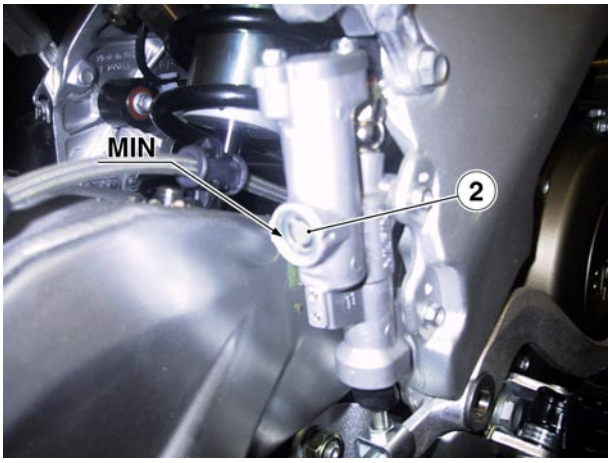
Check
- Place the vehicle in vertical position and keep handlebar in the direction of travel.
- Make sure that the fluid level in tank (1) exceeds the "**MIN**" mark.

MIN = minimum level
MAX = maximum level

If fluid does not reach at least "**MIN**".

WARNING
When the disc pads wear out, the level of the fluid decreases progressively to compensate for their wear.
- Check the brake pad wear and the disc wear.

If the pads and/or the disc do not need replacing, provide for topping up.



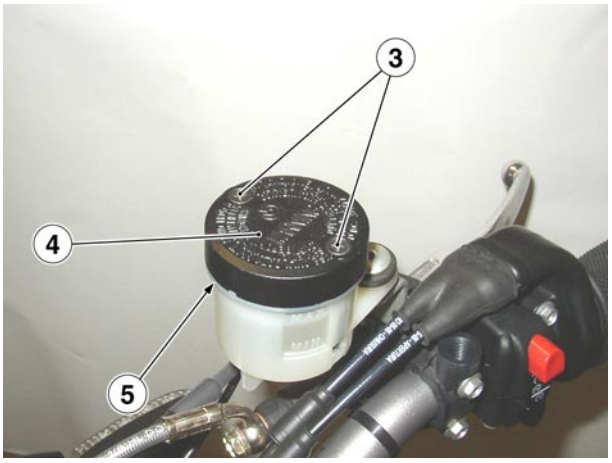
TOPPING UP - SXV

WARNING
The brake fluid may flow out of the tank. Do not operate the front brake lever if the screws (3) are loose or, most important, if the brake fluid tank cover (4) has been removed.

- Unscrew the screws (3) of the brake fluid reservoir by means of a short, cross-headed screwdriver.

WARNING
Avoid any prolonged exposure of the brake fluid to the air.
The brake fluid is hygroscopic and when in contact with the air it absorbs its humidity.
Leave the brake fluid tank (1) open ONLY for the time necessary for topping up.

- Raise and remove the cover (4) together with the screws (3) and the gasket (5).

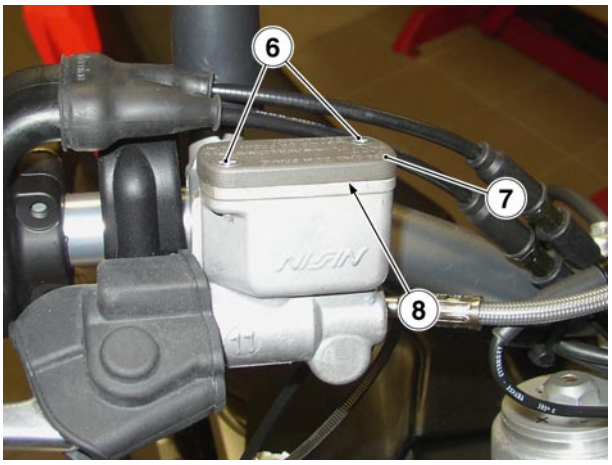


WARNING
In order not to spill the brake fluid while topping up, do not shake the vehicle.
Do not put additives or other substances into the fluid.
If you use a funnel or other similar items, make sure that they are perfectly clean.

- Top up the reservoir (1) by adding brake fluid, see (LUBRICANT TABLE), until exceeding "**MIN**" level mark.

WARNING
Top up to "MAX" level only after changing the brake pads. Do not reach the MAX level with worn out pads, since this will cause a fluid outflow when the pads are changed.
Check the braking efficiency.
In case of excessive stroke of the brake lever or reduced efficiency of the braking system, contact an aprilia Authorised dealer, since it may be necessary to bleed the system.

TOPPING UP - RXV



WARNING
The brake fluid may flow out of the tank. Do not operate the front brake lever if the screws (6) are loose or, most important, if the brake fluid tank cover (7) has been removed.

- Unscrew the screws (6) of the brake fluid reservoir by means of a short, cross-headed screwdriver.

WARNING
Avoid any prolonged exposure of the brake fluid to the air.
The brake fluid is hygroscopic and when in contact with the air it absorbs its humidity.
Leave the brake fluid tank (1) open ONLY for the time necessary for topping up.

- Raise and remove the cover (7) together with the screws (6) and the gasket (8).

WARNING
In order not to spill the brake fluid while topping up, do not shake the vehicle.
Do not put additives or other substances into the fluid.
If you use a funnel or other similar items, make sure that they are perfectly clean.

- Top up the reservoir (1) by adding brake fluid, see (LUBRICANT TABLE), until exceeding "**MIN**" level mark.

WARNING
Top up to "MAX" level only after changing the brake pads. Do not reach the MAX level with worn out pads, since this will cause a fluid outflow when the pads are changed.
Check the braking efficiency.
In case of excessive stroke of the brake lever or reduced efficiency of the braking system, contact an aprilia Authorised dealer, since it may be necessary to bleed the system.

REAR BRAKE

Check

- Set the vehicle in vertical position.
- Make sure that the fluid level exceeds the "**MIN**" mark.

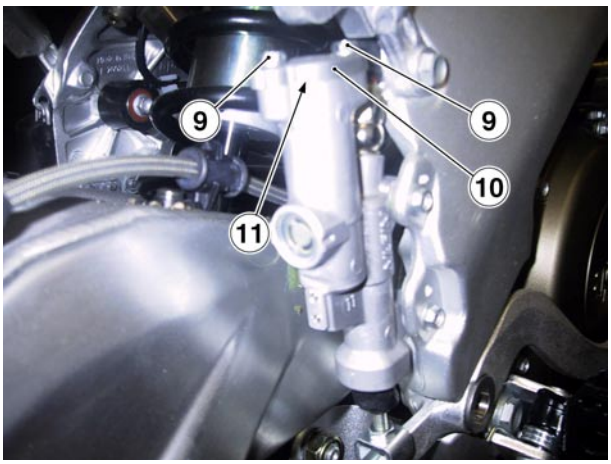
MIN = minimum level

If fluid does not reach at least "**MIN**".

WARNING
When the disc pads wear out, the level of the fluid decreases progressively to compensate for their wear.

- Check the brake pad wear and the disc wear.

If the pads and/or the disc do not need replacing, provide for topping up.



TOPPING UP

WARNING
The brake fluid may flow out of the tank. Do not operate the front brake lever if the screws (9) are loose or, most important, if the brake fluid tank cover (10) has been removed.

- Using a spanner, loosen the two screws (9) from brake fluid reservoir (2).

WARNING
Avoid any prolonged exposure of the brake fluid to the air.
The brake fluid is hygroscopic and when in contact with the air it absorbs its humidity.
Leave the brake fluid tank (2) open ONLY for the time necessary for topping up.

- Raise and remove the cover (10) together with the screws (9) and the gasket (11).

WARNING
In order not to spill the brake fluid while topping up, do not shake the vehicle.
Do not put additives or other substances into the fluid.
If you use a funnel or other similar items, make sure that they are perfectly clean.

- Top up the reservoir (2) by adding brake fluid, see (LUBRICANT TABLE), until exceeding “**MIN**” level mark.

WARNING
Top up to "MAX" level only after changing the brake pads. Do not reach the MAX level with worn out pads, since this will cause a fluid outflow when the pads are changed.
Check the braking efficiency.
In case of excessive stroke of the brake lever or reduced efficiency of the braking system, contact an aprilia Authorised dealer, since it may be necessary to bleed the system.

3.2.2. CHECKING THE ENGINE OIL LEVEL AND TOPPING UP

DANGER
Engine oil may cause serious damage to the skin if handled daily and for long periods.
Wash your hands carefully after use.

KEEP AWAY FROM CHILDREN.

DO NOT DISPOSE OF THE OIL IN THE ENVIRONMENT.

Dispose of engine oil - stored in a sealed container - through the nearest waste oil reclamation firm or through the supplier.
Wear latex gloves when servicing.

WARNING
If the oil pressure light "☞" comes on during regular engine operation, it means that the engine oil pressure in the circuit is low.
In this case, check the engine oil level, see (CHECKING ENGINE OIL LEVEL AND TOPPING UP), if the level is not correct, stop the engine immediately and contact an aprilia Authorised dealer.
Proceed with care.
Do not spill the oil!
Take care not to smear any component, the area in which you are working and the surrounding area. Remove any trace.
In case of leakage or malfunctions, contact an aprilia Authorised dealer.

NOTE *Halve maintenance intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used in competitions.*

For the check, proceed as follows:

WARNING
These vehicles are equipped with gearbox/clutch and engine separate lubrication circuits. Level check and oil change are to be performed on both circuits.

WARNING
Engine oil must be checked when the engine is warm. If you check engine oil level with cold engine, oil could temporarily get below MIN level. This is not a problem as far as the oil pressure light "☞" does not turn on, see (INSTRUMENTS AND INDICATORS).

NOTE *To warm the engine and have the engine oil reach the operating temperature ride the vehicle for a while (10 - 15 min), then let the engine idle with the vehicle at rest for at least 30 seconds, and stop the engine.*

- Keep the vehicle in vertical position, with the two wheels resting on the ground.
- Check oil level through clear hose (1).

MAX = maximum level
MIN = minimum level

- The level is correct when the oil almost reaches the **MAX** mark.

If necessary, top up the engine oil by proceeding as follows:

WARNING
If the vehicle is used in a sporty way with too high oil level, it is possible that some oil splashes reach the air box through engine breather hose.

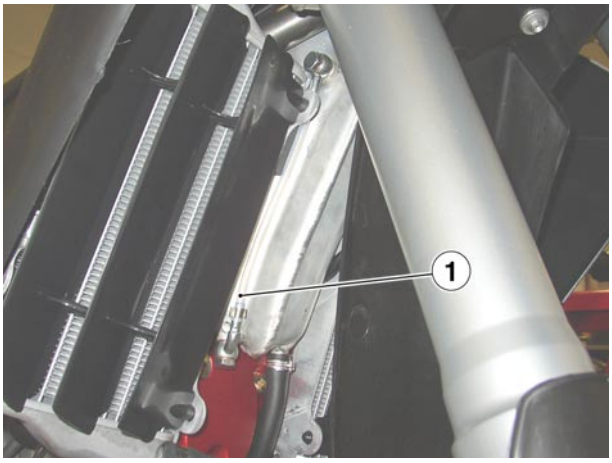
WARNING
Never exceed the MAX mark, nor let the oil get below the MIN mark, in order to avoid serious damage to the engine.

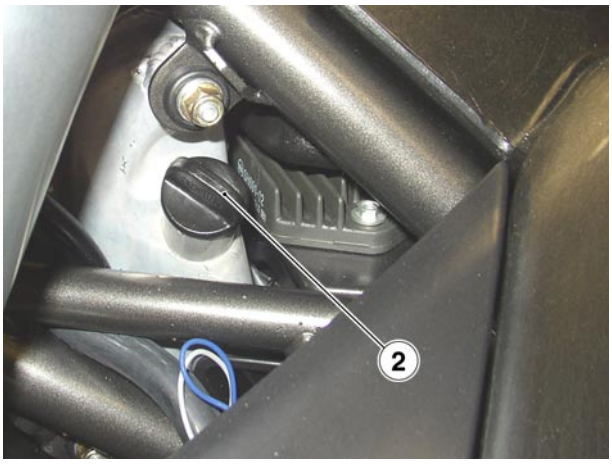
- Unscrew and remove the filler plug (2).

WARNING
Do not put additives or other substances into the oil.
If you use a funnel or other similar items, make sure that they are perfectly clean.

NOTE *Use good quality oils, see (LUBRICANT TABLE).*

- Top up the tank to correct level, see (LUBRICANT TABLE).





3.2.3. CHANGING ENGINE OIL AND OIL FILTER

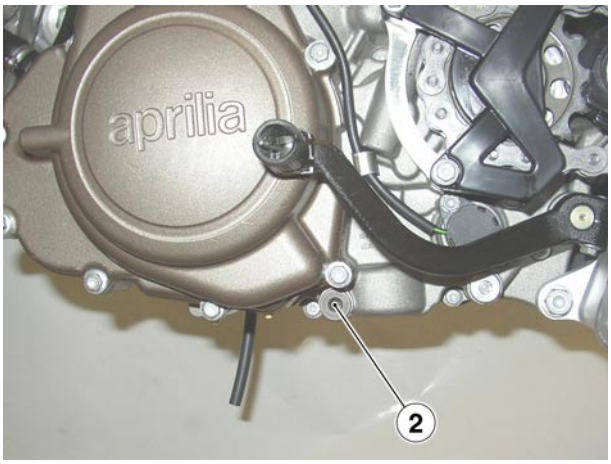
- Move down the sump guard.
- Position the vehicle on firm and flat ground.
- Position the vehicle on the stand.

WARNING
Allow several minutes for the engine and exhaust system to cool down.

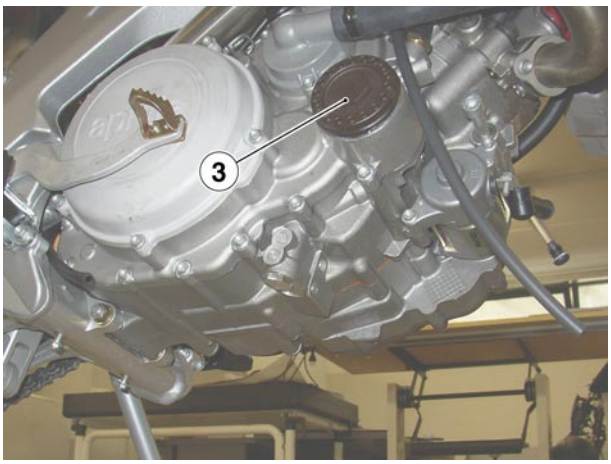
- Stop the engine and let it cool down, in order to allow the oil to flow into the crankcase and to cool down.
- Unscrew and remove the plug (1).

- Place a container under engine oil drain plug, on flywheel side.
- Loosen and remove the oil drain plug (2) and let oil drain off completely.

WARNING
Used oil contains substances that are very dangerous for the environment. Dispose of used oil in accordance with applicable regulations.



- Undo the engine oil filter cover (3). Remove it with its gasket, keep the O-ring.
- Remove the oil filter.
- Install a new oil filter.
- Redo the engine oil filter cover (3).
- Screw and tighten the oil drain plug (2).
- Fill up with about 1250 cu.cm of engine oil (76.3 cu.in.).
- Screw and tighten the plug (1).
- Start the engine and let it run for a few minutes. Stop the engine and let it cool down.
- Check engine oil level, see (CHECKING THE ENGINE OIL LEVEL).

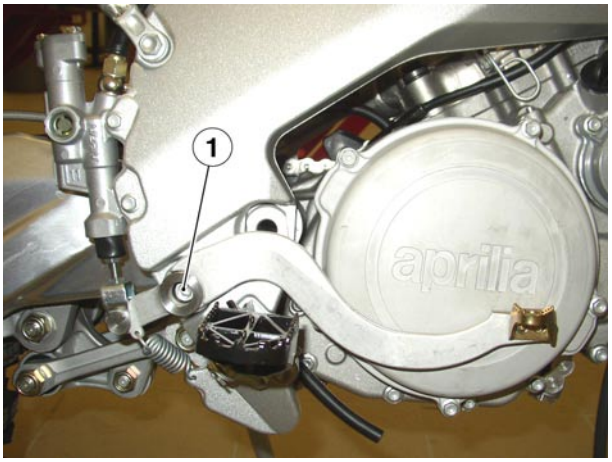


3.2.4. GEARBOX FLUID

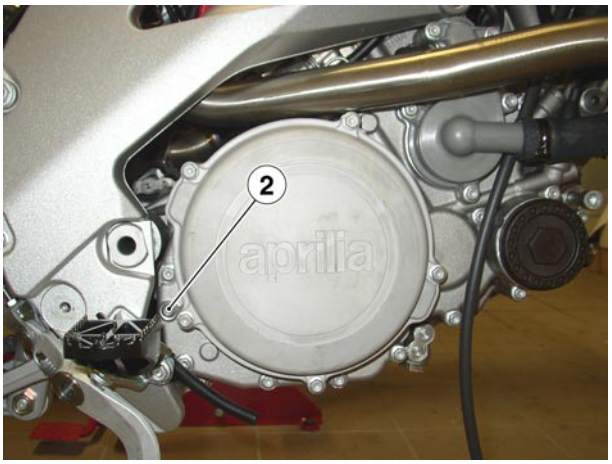
CHECKING AND TOPPING UP

WARNING
Gearbox oil level must be checked when the engine is warm.

- Stop the engine.
- Wait a few minutes to allow oil to get from the gearbox to the clutch.
- Keep the vehicle in vertical position, with the two wheels resting on the ground.
- Remove the rear brake lever loosening the screw (1) and collect the washer.

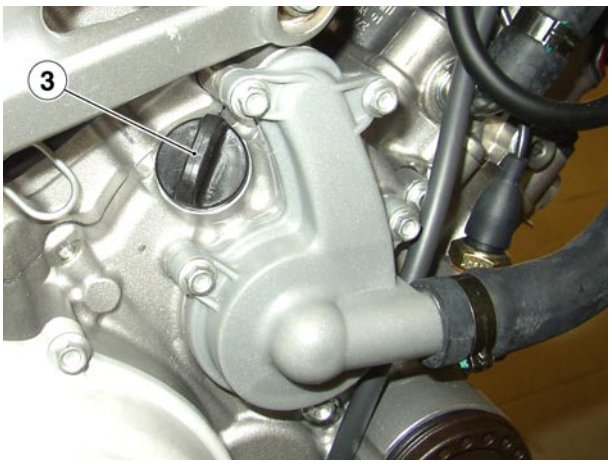


- Unscrew and remove the inspection plug (2).
- Level is correct is oil lightly touches the inspection plug hole (2).



If necessary, proceed as follows:
- Remove the filler plug (3).
- Top up with oil, see (LUBRICANT TABLE), until oil reaches inspection plug hole (2).

WARNING
Do not put additives or other substances into the fluid.
If you use a funnel or other similar items, make sure that they are perfectly clean.

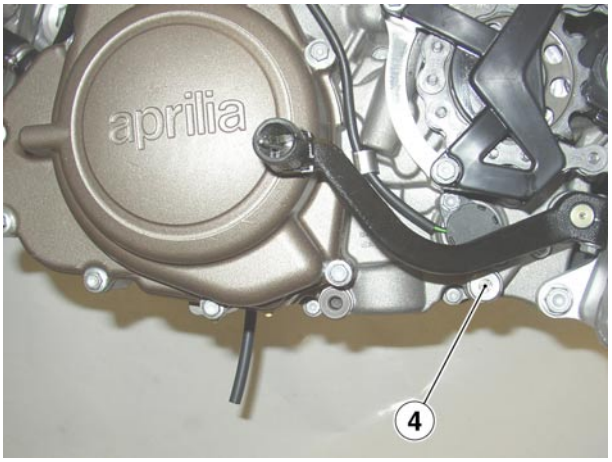


- Wait a few minutes to allow oil to get from the clutch to the gearbox, then check level again.

REPLACEMENT

NOTE *Warm oil is more fluid and will drain out more easily.*

- Move down the sump guard.
- Place a container of suitable capacity under the drain plug (4).
- Unscrew and remove the drain plug (4).
- Unscrew and remove the filler plug (3).
- Drain the oil and let it drip into the container for a few minutes.
- Check and replace, if needed, the drain plug (4) sealing washers.
- Screw and tighten the drain plug (4).
- Remove the rear brake lever loosening the screw (1) and collect the washer.



- Unscrew and remove the inspection plug (2).
- Fill with fresh oil, see (LUBRICANT TABLE), until oil reaches inspection plug hole (2).
- Wait a few minutes to allow oil to get from the clutch to the gearbox, then check level again.
- Tighten the filler plug (3).

WARNING
Oil flow from clutch to gearbox and vice versa can be particularly slow in case ambient temperature, oil or engine temperature is low.

WARNING
Do not put additives or other substances into the fluid.
If you use a funnel or other similar items, make sure that they are perfectly clean.

- Refit the rear brake lever, ensure you fit the washer in-between lever and casing, tighten screw (1).

3.2.5. COOLANT

Do not ride when coolant is below the minimum level.

NOTE *Halve maintenance intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used in competitions. Before leaving, check coolant level, see (CHECKING AND TOPPING UP), have it changed every two years by an* ***aprilia*** *Authorised dealer.*

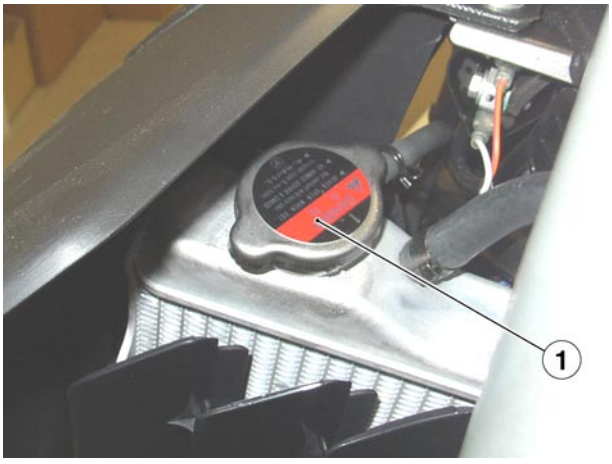
DANGER
Coolant is toxic when ingested, contact with eyes or skin may cause irritation.
In the event of contact with eyes or skin, rinse repeatedly with abundant water and seek medical advice. In the event of ingestion, induce vomiting, rinse mouth and throat with abundant water and seek medical advice immediately.
KEEP AWAY FROM CHILDREN.
DO NOT RELEASE BRAKE FLUID INTO THE ENVIRONMENT.
Be careful not to spill the coolant on the red-hot parts of the engine: it may catch fire and send out invisible flames.
In case any maintenance operation should be required, it is advisable to use latex gloves.

WARNING
Have it changed by an aprilia Authorised dealer.

Coolant mixture is a 50% solution of water and antifreeze.
This is the ideal solution for most operating temperatures and provides good corrosion protection.
This solution is also suited to the warm season, as it is less prone to evaporative loss and will reduce the need for top-ups.
The mineral salt deposits left in the radiator by evaporated water are thus reduced and the efficiency of the cooling system remains unchanged.

If the outdoor temperature is below 0 °C, check the cooling circuit frequently and if necessary increase the antifreeze concentration (up to maximum 60%).
Use distilled water in the coolant mixture. Tap water will damage the engine.

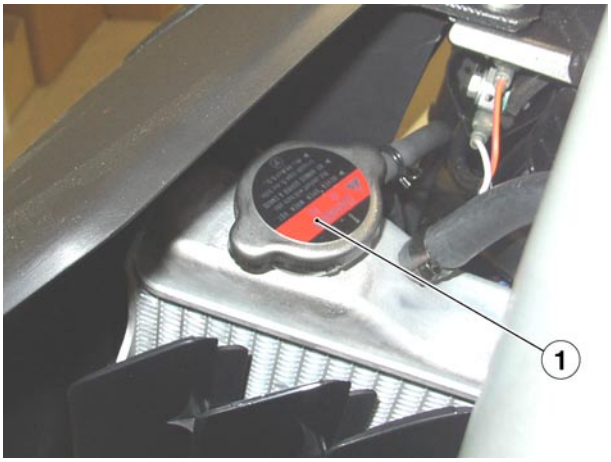
DANGER
Do not remove the radiator plug (1) with hot engine. Coolant is hot and under pressure.
If it gets in contact with the skin or with clothes it may cause burns and/or damage.



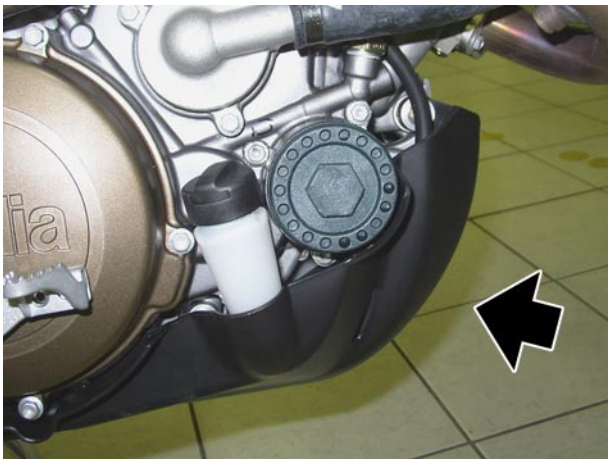
CHECKING AND TOPPING UP

DANGER
Check the coolant level and top up the expansion tank with cold engine.

- Stop the engine and wait until it has cooled down.
- Position the vehicle on firm and flat ground.
- Keep the vehicle in vertical position, with the two wheels resting on the ground.
- Turn radiator plug (1) anticlockwise by one click.
- Allow a few seconds so as possible pressure is bled.
- Turn radiator plug (1) anticlockwise again and remove it.



- Ensure that the fluid completely covers radiator plates.



- Also check fluid level in the expansion tank (under engine sump cover) using the suitable sight glass.
- Correct level is included between **MIN** and **MAX** references.

DANGER
Coolant is toxic when ingested. Contact with eyes or skin may cause irritation.
Do not use your fingers or any other object to check if there is enough coolant.
Do not put additives or other substances into the fluid.

WARNING
Do not put additives or other substances into the fluid.
If you use a funnel or other similar items, make sure that they are perfectly clean.

- If necessary, top up coolant, see (LUBRICANT TABLE), until fluid completely covers radiator plates. Do not exceed this level, otherwise the fluid will flow out while the engine is running. If you use a funnel or other tools, make sure that they are perfectly clean.
- Refit the radiator plug (1).

WARNING
In case of excessive consumption of coolant, make sure that there are no leaks in the circuit.
Have the vehicle serviced by an aprilia Authorised dealer.

3.3. ADJUSTMENTS

3.3.1. TENSIONING THE THROTTLE CABLES

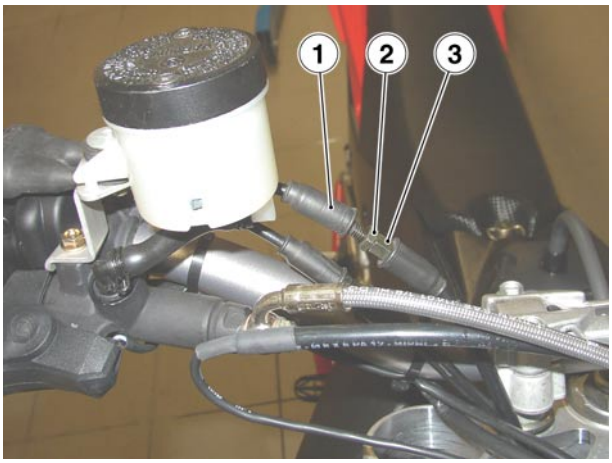
Carefully read (MAINTENANCE).

NOTE *Halve maintenance intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used in competitions.*

The idle stroke of the throttle grip must be **2 ± 3 mm (0.079 ± 0.118)**, measured on the edge of the grip itself.

If not, proceed as follows:

- Place the vehicle on the stand, see (POSITIONING THE VEHICLE ON THE STAND).



- Withdraw the protection element (1).
- Loosen (screwing it) the lock nut (2).
- Rotate the adjuster (3) in such a way as to restore the prescribed value.
- After the adjustment, tighten the lock nut (2) (loosening it) and check the idle stroke again.
- Put back the protection element (1).

WARNING
After the adjustment, make sure that the rotation of the handlebar does not modify the engine idling rpm and that the throttle grip returns smoothly and automatically to its original position after being released.

3.3.2. SUSPENSIONS

CHECKING THE FRONT SUSPENSION

DANGER
To change the fork fluid, contact an aprilia Authorised Dealer, who will ensure you prompt and accurate servicing.

Carefully read (MAINTENANCE).

Change fork fluid more frequently if the vehicle is used in rainy or dusty areas and in off-road conditions.

Check for the following:

- With pulled front brake lever, press the handlebar repeatedly, thrusting the fork downwards.
- The fork should compress in a smooth movement and must show no traces of oil on the legs.
- Ensure that all components are properly tightened and check the front and rear suspension articulated joints for correct operation.

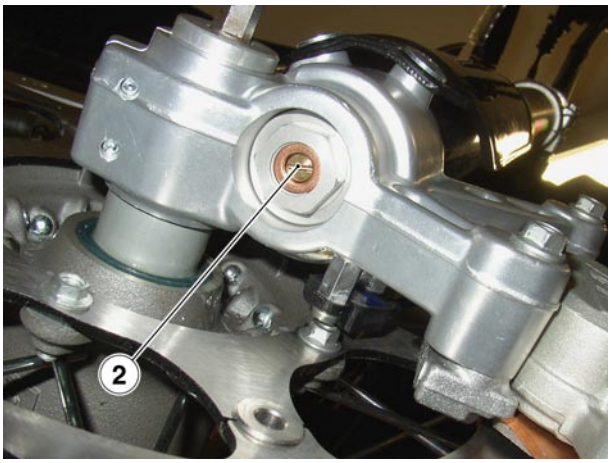
DANGER
In the event of faulty operation, or if qualified assistance is necessary, contact your aprilia Authorised dealer.

FRONT SUSPENSION

The front suspension is managed by a hydraulic fork, which is held to the steering tube by two yokes.
Each fork leg is fitted with suitable adjusters to modify suspension response. An upper adjuster screw (1) controls rebound damping, whereas a lower adjuster screw (2) controls compression damping.

SETTING THE FRONT FORK

WARNING
Do not force the adjusters (1-2) beyond their limit stops in either direction, or the threads may strip. Set both fork legs to the same spring preload, compression and rebound damping settings: a vehicle whose fork legs are set to different settings will be unstable. When spring preload is increased, rebound damping should be increased accordingly. Failure to do so may result in the front end jerking unexpectedly when riding.



Factory setting is designed for any riding condition, low speed, with reduced or full load.

However, suspension setting may be modified to suit specific needs in accordance with vehicle use.

WARNING
For a correct setting of adjusters (1-2), first set the damper to the stiffest position (adjuster fully clockwise) then set desired position (clicks and/or turns).

DANGER
Racing settings may only be used during official competitions or sports events authorised by the competent authorities and taking place in closed circuits or, anyway, away from public roads.
It is strictly prohibited to carry out adjustments for the use of the vehicle on racetracks and then ride it on roads or motorways.

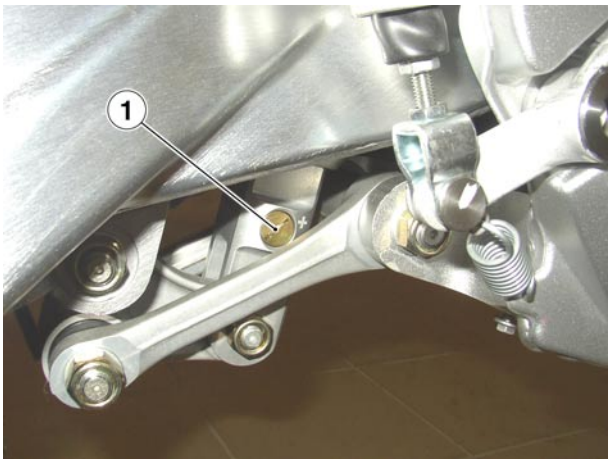
SXV Front suspension	Standard setting
Hydraulic rebound adjustment, screw (1)	tighten fully (*) and then slacken (**) by 10 clicks
Hydraulic compression damping, screw (2)	tighten fully (*) (H) and then slacken (**) by 10 clicks
Fork height (A) (***) over top yoke (not including top cap)	Flush with plug

RXV Front suspension	Standard setting
Hydraulic rebound adjustment, screw (1)	tighten fully (*) and then slacken (**) by 12 clicks
Hydraulic compression damping, screw (2)	tighten fully (*) (H) and then slacken (**) by 12 clicks
Fork height (A) (***) over top yoke (not including top cap)	1 notch

(*) = clockwise
(**) = anticlockwise
(***) = Please only contact an **aprilia** Authorised dealer for this kind of settings

REAR SUSPENSION

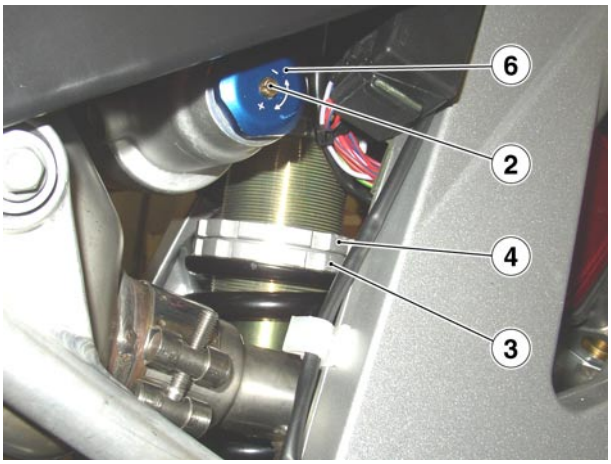
The rear suspension consists of a spring-shock absorber unit, fixed to the frame by means of a rubber cush drive and to the swinging arm by means of lever systems.
The rear shock absorber is fitted with suitable adjusters to modify suspension set-up. An adjuster screw controls rebound damping, whereas an adjuster (2) controls compression damping. An adjuster ring nut controls spring (3) preload and features a locking ring nut (4).



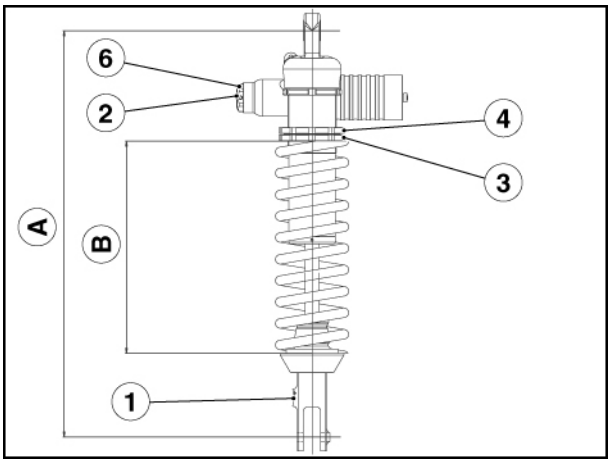
ADJUSTING THE REAR SHOCK ABSORBER

NOTE *Halve maintenance intervals if you are riding in rainy or dusty conditions, on rough road surfaces or when the vehicle is used in competitions.*

Factory setting is designed for any riding condition, low or high speed, with reduced or full load.
However, rear suspension setting may be modified to suit specific needs in accordance with vehicle usage.



WARNING
For a correct setting of adjusters (1-2), first set the damper to the stiffest position (adjuster fully clockwise) then set desired position (clicks and/or turns).
Do not force the adjusters (1-2) beyond their limit stops in either direction, or the threads may strip.



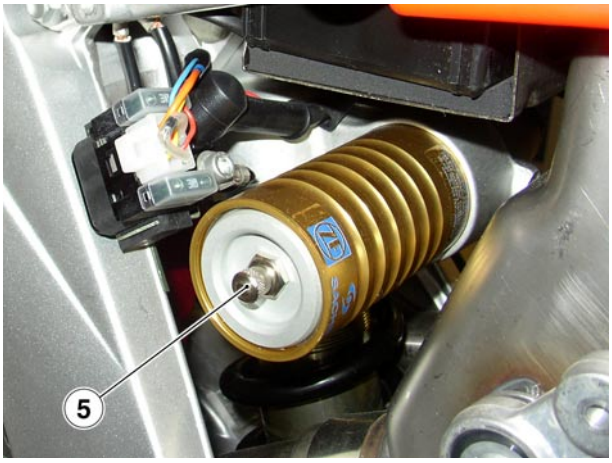
- Slightly unscrew the locking ring nut (4) by means of the appropriate spanner.
- Adjust spring preload (B) through the adjusting ring nut (3) (see table).
- Once optimum track alignment has been reached, completely tighten the locking ring nut (4).

- Work the screw (1) to set shock absorber rebound damping (see table).
- Work the knob (2) to set compression damping (see table).

WARNING
Adjust the spring preload and the hydraulic rebound damping according to the conditions of use of the vehicle.
When the spring preload is increased, it is necessary to increase also the hydraulic rebound damping, in order to avoid sudden jerks while riding.
If necessary, contact an aprilia Authorised dealer.

WARNING
Do not loosen screw (5) or disturb the membrane underneath or the resulting nitrogen loss will impair shock absorber operation making the motorcycle unsafe to ride.

DANGER
Racing settings may only be used during official competitions or sports events authorised by the competent authorities and taking place in closed circuits or, anyway, away from public roads. It is strictly prohibited to carry out adjustments for the use of the vehicle on racetracks and then ride it on roads or motorways.



SXV Rear suspension	Standard setting
Shock absorber centre distance (A)	457 ± 1.5 mm (18 ± 0.06 in)
Spring length (preloaded) (B)	245 mm (9.6 in.)
Rebound adjustment, screw (1)	13 clicks
Compression adjustment, screw (2)	16 clicks
By-pass adjuster knob (6)	Fully open (-)

RXV Rear suspension	Standard setting
Shock absorber centre distance (A)	473 ± 1.5 mm (18.6 ± 0.06 in)
Spring length (preloaded) (B)	247 mm (9.7 in.)
Rebound adjustment, screw (1)	23 clicks
Compression adjustment, screw (2)	Fully open
By-pass adjuster knob (6)	Fully open (-)

(*) = clockwise
(**) = anticlockwise

3.4. BLEEDING

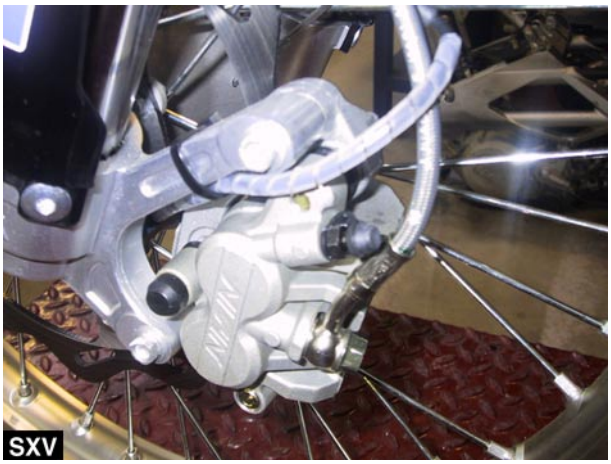
3.4.1. BLEEDING THE FRONT BRAKE SYSTEM

The air, if any, present inside the hydraulic circuit will serve as "pad" by absorbing most of the pressure coming from the brake master cylinder and thus reducing the calliper efficiency during braking.
If some air is present inside the circuit, the brake control is "spongy" and the braking efficiency is reduced.

DANGER
It is fundamental that air is bled off the hydraulic circuit after the brakes have been refitted and the braking system has been restored to its standard operating conditions, since it would be very dangerous for the vehicle and the rider not to do so.

NOTE Bleed air with vehicle on flat ground. *While bleeding the hydraulic circuit, top up reservoir with brake fluid as required. Make sure there is always some fluid in the reservoir throughout the process.*

- Remove the bleed valve rubber cap.
- Insert one end of a transparent plastic tubing inside the front brake calliper bleed valve and the other end in a container for collection.
- Pull and quickly release the front brake lever a few times, then keep it pulled.

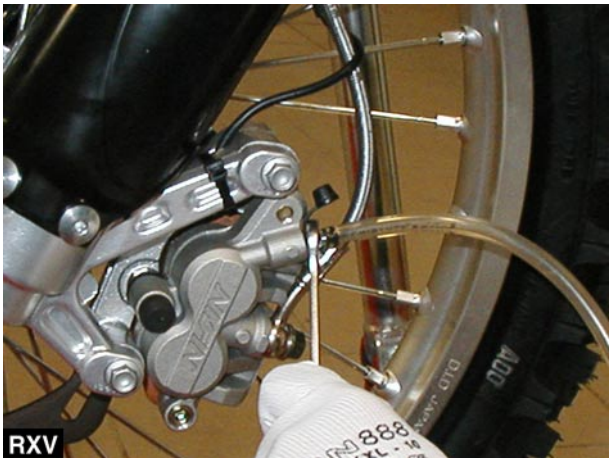

SXV


RXV

- Loosen the bleed valve by 1/4 of a turn so as the brake fluid flows in the container, this will remove any tension from the lever and help it travel fully home.
- Retighten the bleed valve before the lever is fully squeezed in.
- Repeat process until the fluid draining into the container is totally clear of air bubbles.

NOTE *While bleeding the hydraulic circuit, top up reservoir with brake fluid as required. Make sure there is always some fluid in the reservoir throughout the process.*

- Tighten the bleed valve and remove the tubing.
- Top up fluid inside tank.
- Refit the rubber cap.



3.4.2. BLEEDING THE REAR BRAKE SYSTEM

The air, if any, present inside the hydraulic circuit will serve as "pad" by absorbing most of the pressure coming from the brake master cylinder and thus reducing the calliper efficiency during braking.
If some air is present inside the circuit, the brake control is "spongy" and the braking efficiency is reduced.

DANGER
It is fundamental that air is bled off the hydraulic circuit after the brakes have been refitted and the braking system has been restored to its standard operating conditions, since it would be very dangerous for the vehicle and the rider not to do so.

NOTE Bleed air with vehicle on flat ground. *While bleeding the hydraulic circuit, top up reservoir with brake fluid as required. Make sure there is always some fluid in the reservoir throughout the process.*

- Remove the bleed valve rubber cap.
- Insert one end of a transparent plastic tubing inside the rear brake calliper bleed valve and the other end in a container for collection.
- Pull and quickly release the rear brake lever a few times, then keep it pulled.

- Loosen the bleed valve by 1/4 of a turn so as the brake fluid flows in the container, this will remove any tension from the lever and help it travel fully home.
- Retighten the bleed valve before the lever is fully squeezed in.
- Repeat process until the fluid draining into the container is totally clear of air bubbles.

NOTE *While bleeding the hydraulic circuit, top up reservoir with brake fluid as required. Make sure there is always some fluid in the reservoir throughout the process.*

- Tighten the bleed valve and remove the tubing.
- Top up fluid inside tank.
- Refit the rubber cap.

FRAME 4

SUMMARY

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4.1. CHASSIS

4.1.1. REMOVING THE SEAT

- Turn the Clip.

- Remove the seat.

4.1.2. REMOVING THE BATTERY

- Remove the seat, see (REMOVING THE SEAT).
- Loosen and remove the negative cable screw, keep the fastener.

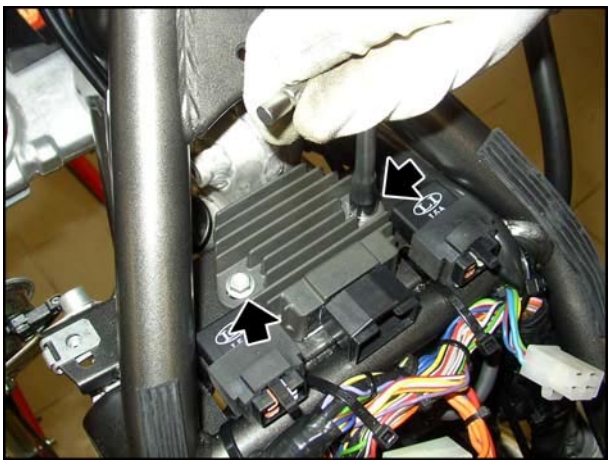
- Loosen and remove the positive cable screw, keep the fastener.

- Remove the battery.

4.1.3. REMOVING THE CONTROL UNIT

- Remove the seat, see (REMOVING THE SEAT).
- Remove the fuel tank, see (REMOVING THE FUEL TANK).
- Detach the connectors.

- Loosen and remove the two screws securing the voltage regulator.
- Remove the voltage regulator.



- Remove the control unit.

4.1.4. REMOVING THE REAR WHEEL

- Place the vehicle on the suitable supports (**OPT**).
- Undo and remove the nut and collect the washer.

- Working on either side, loosen adjuster.
- Remove the chain.

- Using a rubber mallet, slide out the wheel shaft on the left side of the vehicle, collect the shims and remove the wheel from the rear end.

- Remove the bush.

4.1.5. REMOVING THE SWINGING ARM

- Loosen and remove the nut securing the swinging arm/levers shaft and collect the washer.

- Slide out the swinging arm/levers shaft.

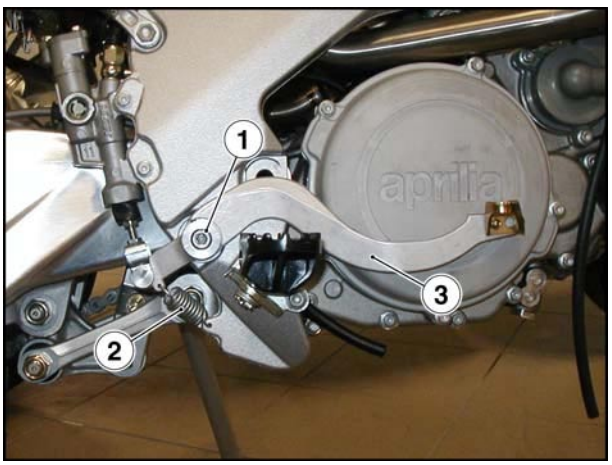
- Loosen and remove the screws from top protection cover and collect the spacer.
- Remove the top protection cover.

- Loosen and remove the three screws from chain guide and collect the two nuts.

- Move the chain to the side completed with chain guide.

- Unscrew and remove the swinging arm shaft nut.

- Unscrew and remove the threaded pin (1).
- Release the spring (2).
- Remove the rear brake pedal (3).



- Remove swinging arm shaft.

4.1.6. INSTALLING THE REAR WHEEL

- Refit the bush.

- Fit the rear wheel.
- Refit the chain.
- Working on either side, fit the shims.
- Working on the left side, fit the wheel shaft.

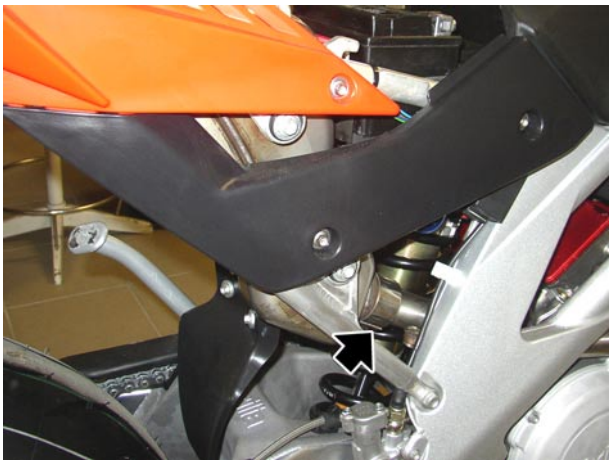
- Working on the right side, fit the washer and start the wheel shaft nut, do not tighten it yet.
- Adjust chain tension using the suitable adjusters.

- Tighten the wheel shaft nut.

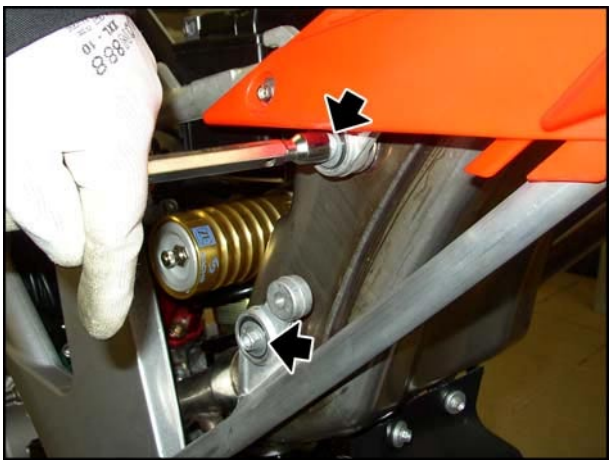
4.1.7. REMOVING THE EXHAUST SYSTEM

- Unscrew and remove the two retaining screws with washers and collect the nuts.
- Ensure that the T-shaped bushings stay in place.

- Working on either side, remove the mounting spring.



- Working on either side, loosen and remove the two screws, collect the washers.



- Remove the exhaust silencer.

- Loosen and remove the two screws from front cylinder exhaust manifold.

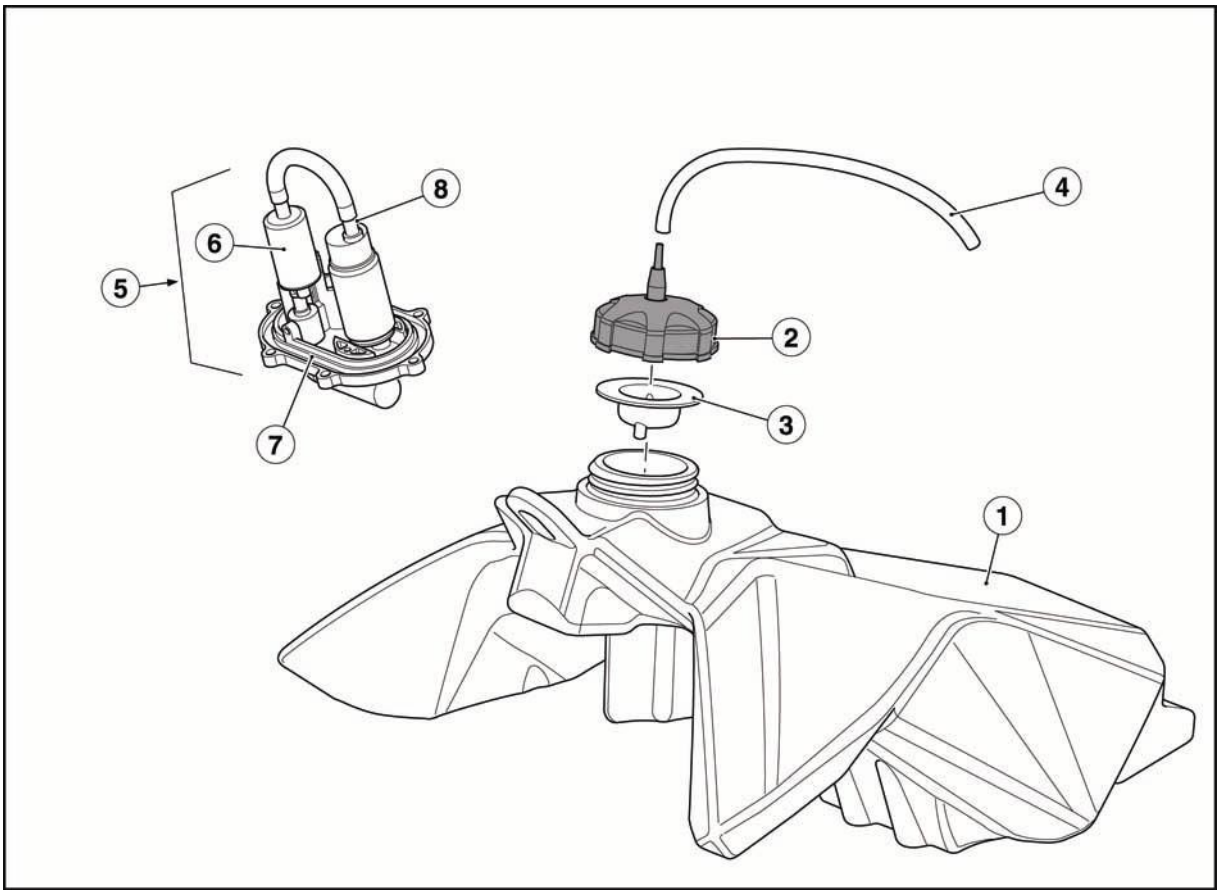
- Remove the front cylinder exhaust manifold and collect the clamp.

- Loosen and remove the two screws from rear cylinder exhaust manifold.

- Remove the rear cylinder exhaust manifold.

4.2. FUEL FEEDING SYSTEM

4.2.1. DIAGRAM



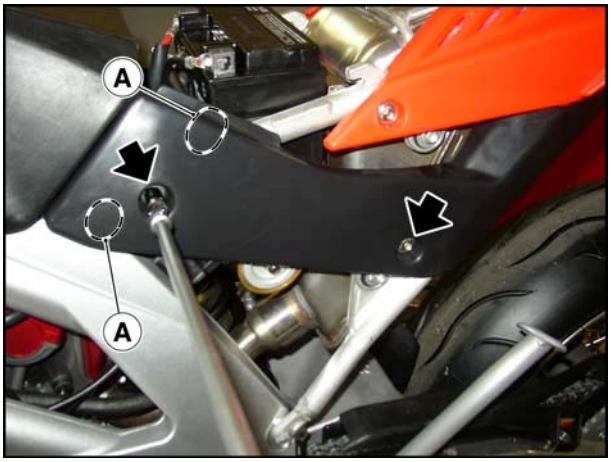
Key:

1. Fuel tank
2. Fuel tank filler cap
3. Plug gasket
4. 5x9 Tube
5. Fuel pump assy
6. Fuel filter
7. Gasket
8. Thermistor

4.2.2. REMOVING THE FUEL TANK

- Remove the seat, see (REMOVING THE SEAT).
- Working on one side, loosen and remove the two screws, collect the washer.
- Remove the lower side body panel.

NOTE *Cutting the side body panel along marks (A) allows you to remove the tank without removing the lower side panel first.*



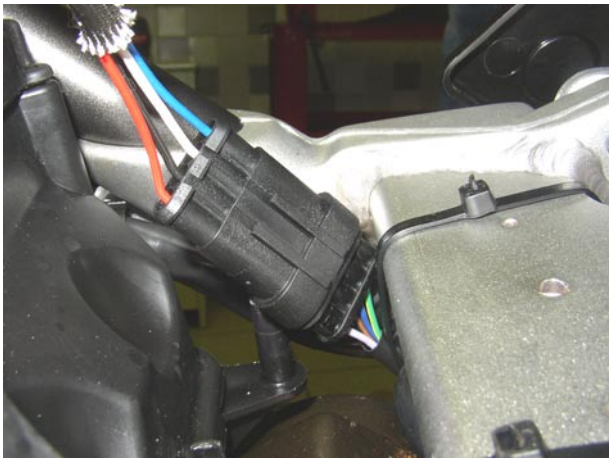
- Unscrew and remove the tank retaining screw and collect the pilot bush.

- Remove the fuel tank plug breather hose.
- Raise the fuel tank.
- Hold the fuel tank up using a retaining cord.

WARNING
Ensure the tank retaining cord never touches the battery positive pole.

- Release the quick-release fitting.

- Disconnect the connector.



- Remove the split pin from the side still fitted with the side body panel.

- Remove the tank retaining pin from the side without lower side body panel.

- Remove the fuel tank.

4.2.3. REMOVING THE AIR FILTER

- Remove the seat, see (REMOVING THE SEAT).
- Raise the fuel tank, see (REMOVING THE FUEL TANK).
- Grasp and release the handles on either sides to release the air box cover.
- Slide the cover from the rear end completed with air filter.

NOTE *Please ensure the air box is clean before refitting. Remove any dirt that might have entered during the removal procedure.*
When refitting, pay attention to correctly refit the air scoops.

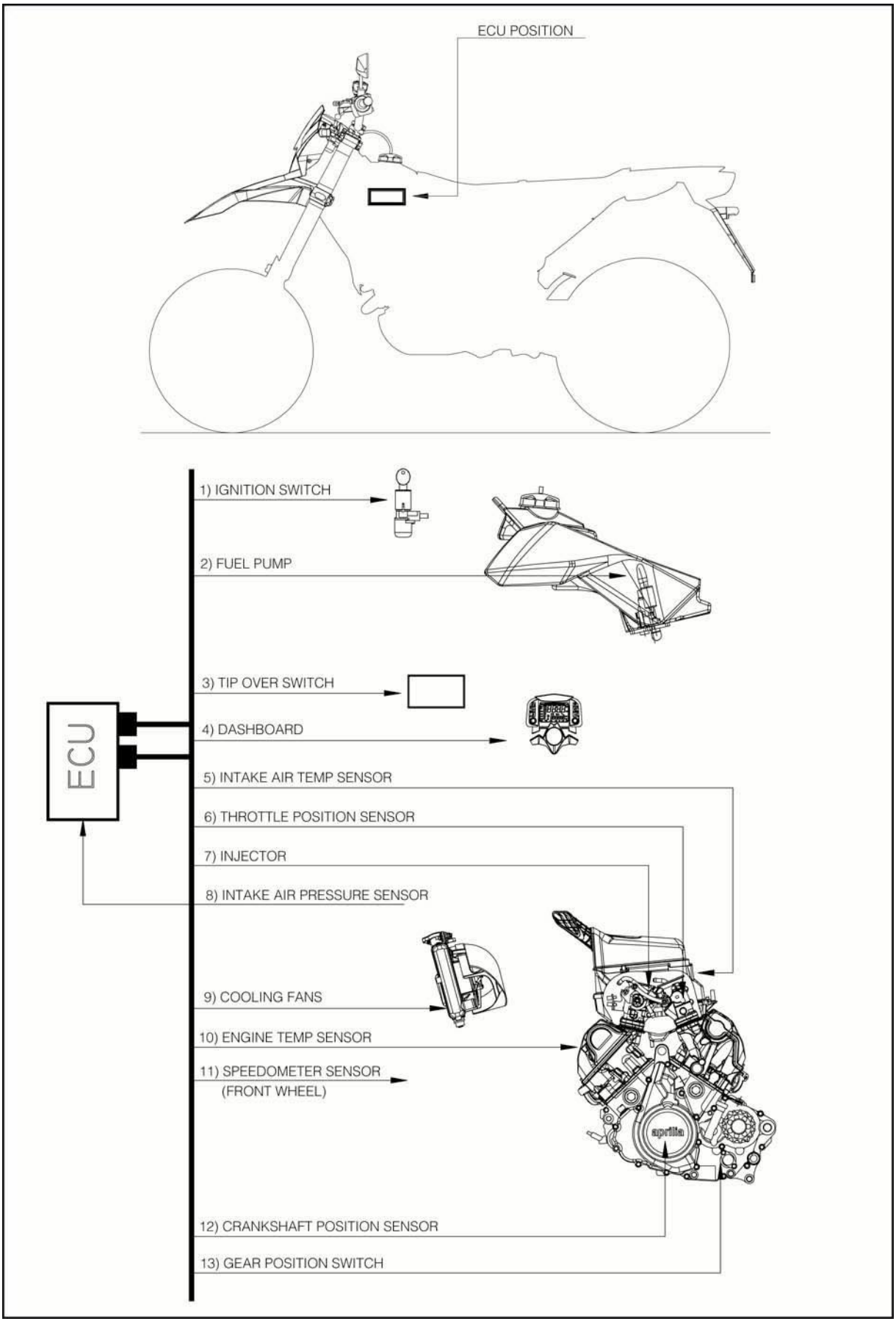
WARNING
Ensure the tank retaining cord never touches the battery positive pole.

WARNING
If it falls to the ground, carefully clean the air filter and the air box from oil possibly coming from the oil tank via the oil breather hose.

WARNING
To avoid foreign matter from entering the air box, remove the air box cover only when vehicle is clean.

4.3. INJECTION

4.3.1. DIAGRAM

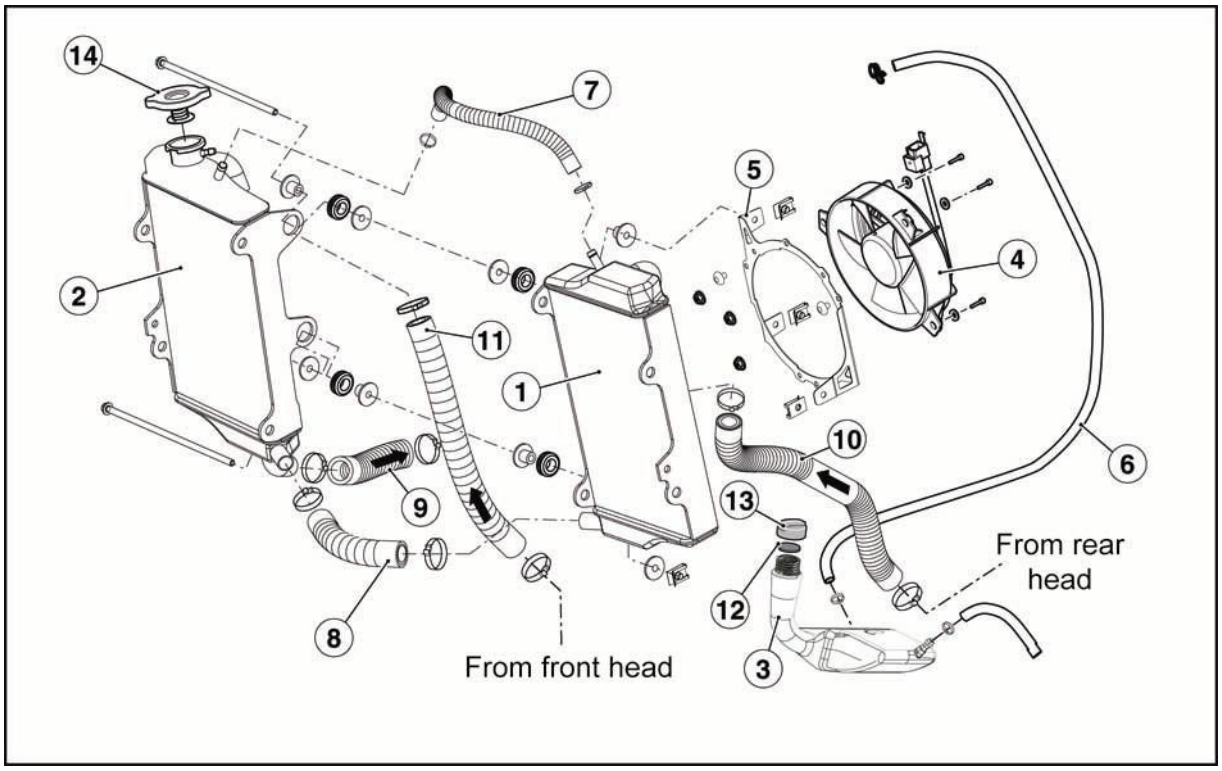


Key:

1. Ignition keys
2. Fuel pump
3. Ignition switch
4. Instrument panel
5. Intake air temperature sensor
6. Throttle position sensor
7. Injector
8. Intake air pressure sensor
9. Cooling fans
10. Engine temperature sensor
11. Speed sensor (front wheel)
12. Crankshaft position sensor
13. Gearbox position switch

4.4. COOLING SYSTEM

4.4.1. DIAGRAM



Key:

1. Left radiator
2. Right radiator
3. Expansion tank
4. Complete fan
5. Fan support
6. Tube D10 – d5.5
7. Tube connecting left to right radiator - upper
8. Tube connecting left to right radiator - lower
9. Tube connecting radiator to water pump
10. Tube connecting radiator to rear cylinder head
11. Tube connecting radiator to front cylinder head
12. Expansion tank gasket
13. Expansion tank plug
14. Radiator plug

4.4.2. REMOVING THE RADIATOR

- Working on either side, loosen and remove the three side body panel screws.
- Remove the side body panels.

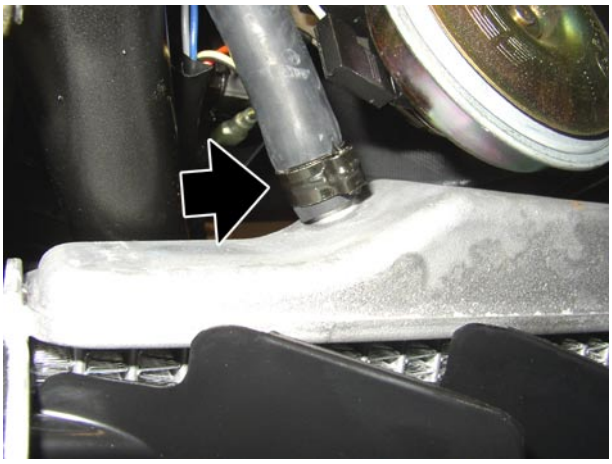
- Prepare a container of suitable capacity under the hose.
- Release the clamp.

- Remove the hose.
- Drain the fluid in the container.
- Open radiator plug to drain all fluid.

- Working on either side, release the clamps.

- Remove the right and left delivery hoses.

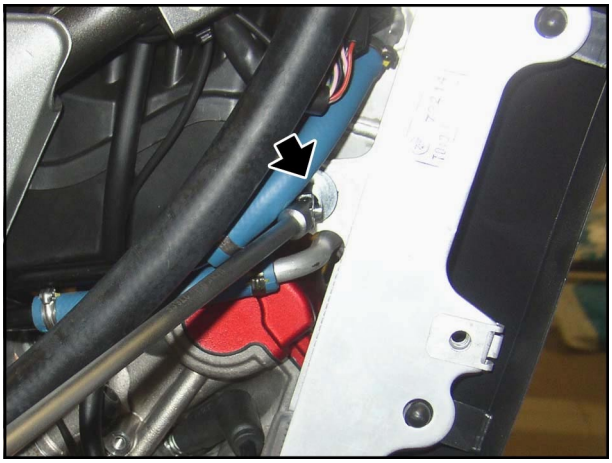
- Working on the left side, release the clamp and disconnect the hose.



- Working on the right side, slide out the hose.

- Remove the radiator breather hose.

- Working on the right side, loosen the lower screw and collect the nut and washer on the left side.



- Working on the right side, loosen the upper screw and collect the nut and washer on the left side.

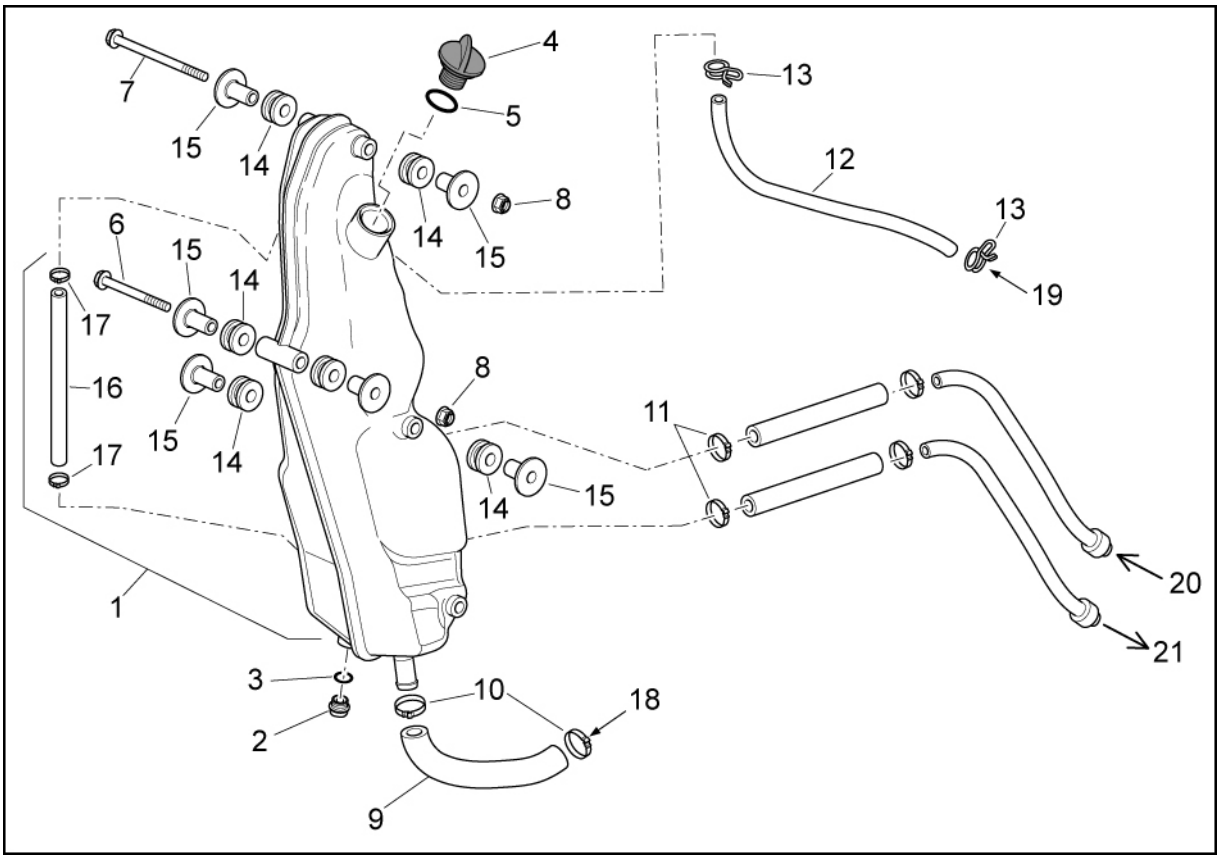
WARNING
Before removing the screw, support the cooling fan or it will fall down.

- Slide out the radiators in a downward motion.

WARNING
The radiators are connected one to the other by means of the lower hose.

4.5. LUBRICATION SYSTEM

4.5.1. DIAGRAM

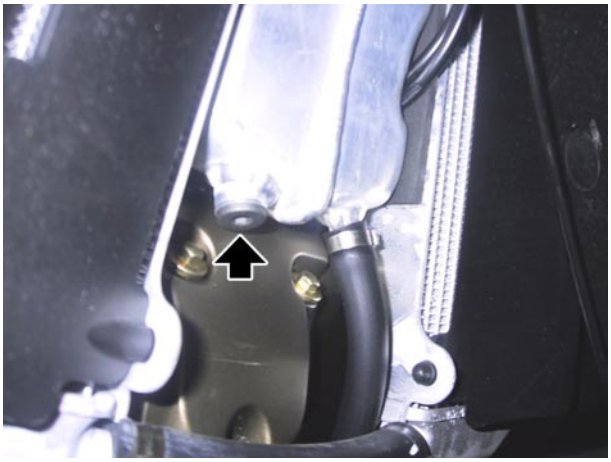


Key:

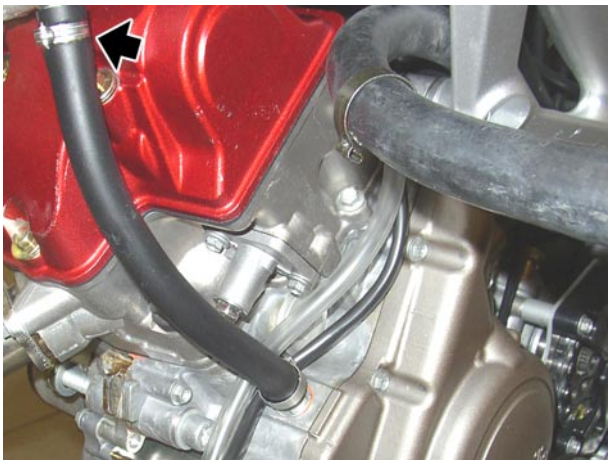
1. Oil tank assembly
2. Oil drain plug
3. Washer 12x18x1.5
4. Oil filler plug M20x1.5
5. O-ring 3075
6. Flanged hex.head screw M6x70
7. Flanged hex.head screw M6x95
8. Narrow self-locking nut M6x1
9. Blow-by hose L=215
10. Click clamp 16.5x6.6
11. Click clamp 15.5x6.6
12. Oil breather hose 9x14
13. Cock clamp
14. Rubber block
15. Tank bushing
16. Oil sight glass
17. Click clamp
18. From engine
19. To air box
20. Inlet
21. Outlet

4.5.2. REMOVING THE OIL TANK

- Remove the seat, see (REMOVING THE SEAT).
- Raise the fuel tank, see (REMOVING THE FUEL TANK).
- Remove the radiators from the cooling system, see (REMOVING THE RADIATORS).
- Prepare a container of suitable capacity under the oil tank plug.
- Loosen and remove oil drain cap.



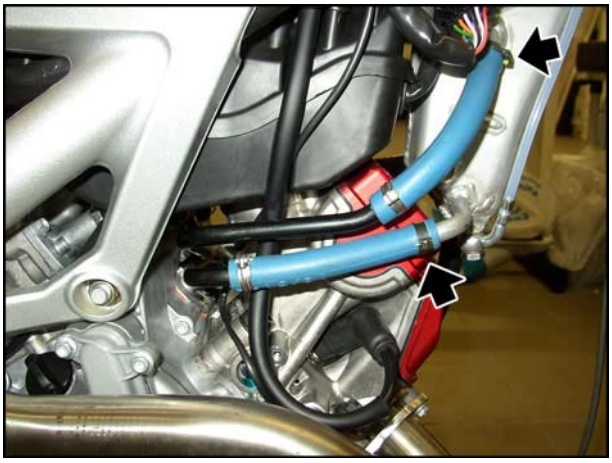
- Remove the top clamp.
- Slide out the blow-by hose.



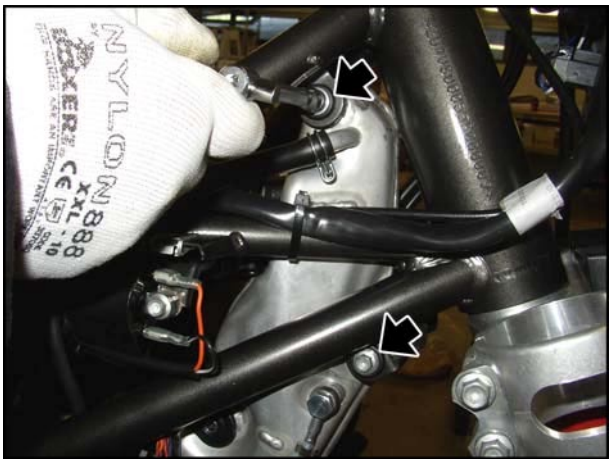
- Release the clamp.

- Remove the hose.

- Release the two clips.
- Remove the two hoses.

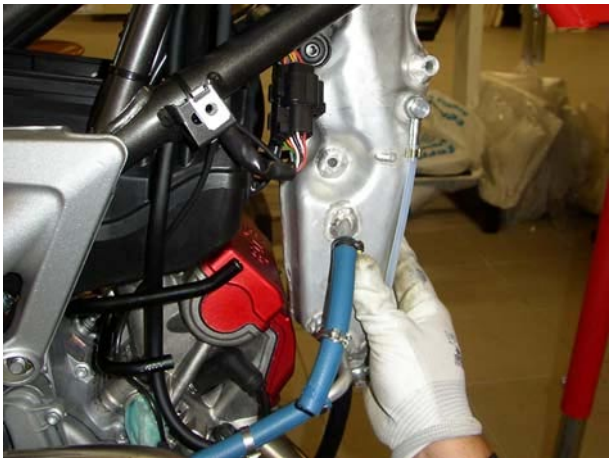


- Working on the right side, loosen and remove the two screws.
- Working on the left side, remove the two nuts.



- Remove oil filler plug.

- Remove the oil tank from below.



FORKS 5

SUMMARY

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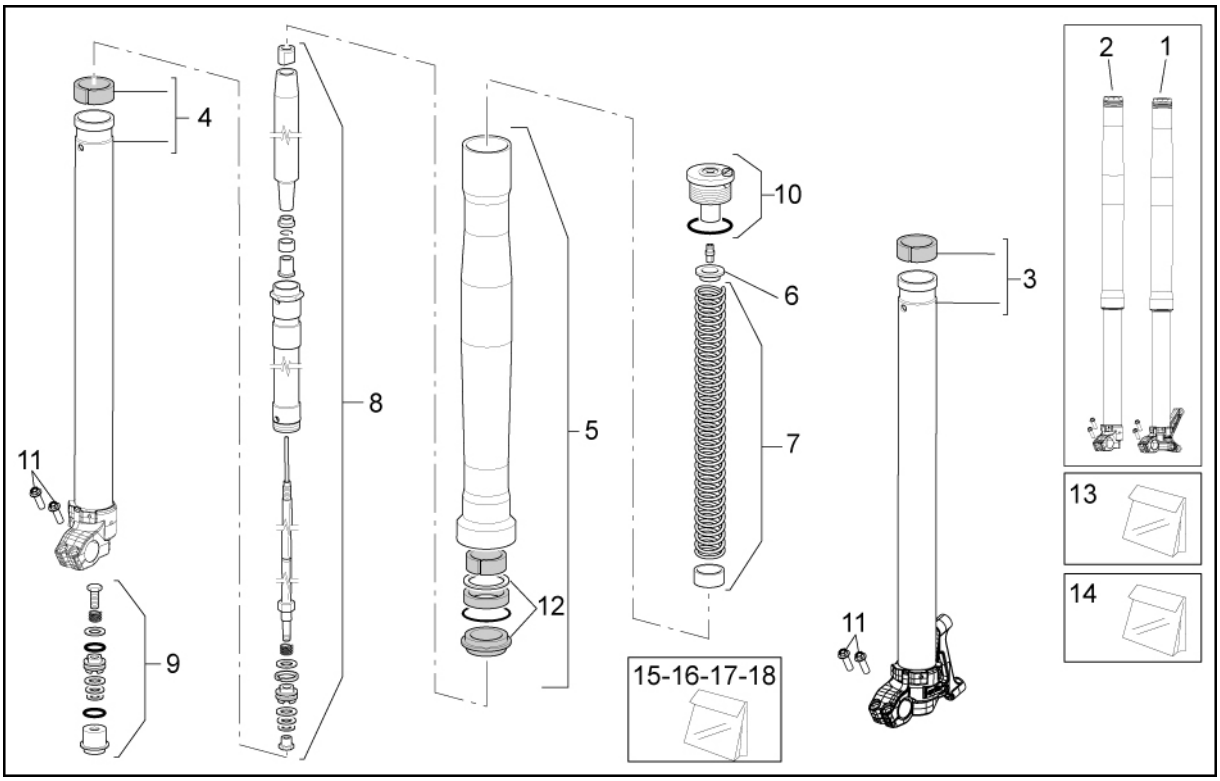
5.1. FRONT FORK (SXV)

5.1.1. DIAGRAM (SXV)



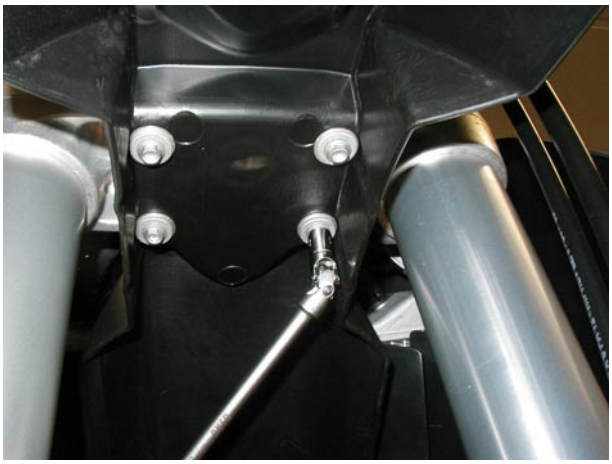
Key:

1. Left fork assembly
2. Right fork assembly
3. Left stanchion
4. Right stanchion
5. Complete sleeve
6. Ring for spring
7. Spring Kit
8. Complete damper rod
9. Complete valve
10. Complete plug
11. Flanged TE screw
12. Dust seal + oil seal kit
13. Seal Kit Ø 48 mm (Ø 1.89 in)
14. Bushing Kit
15. Adjust.Kit thck. 0.1 mm (0.0039 in)
16. Adjust.Kit thck. 0.15 mm (0.0059 in)
17. Adjust.Kit thck. 0.2 mm (0.0079 in)
18. Adjust.Kit thck. 0.3 mm (0.0118 in)

5.1.2. REMOVING THE FORK LEGS (SXV)

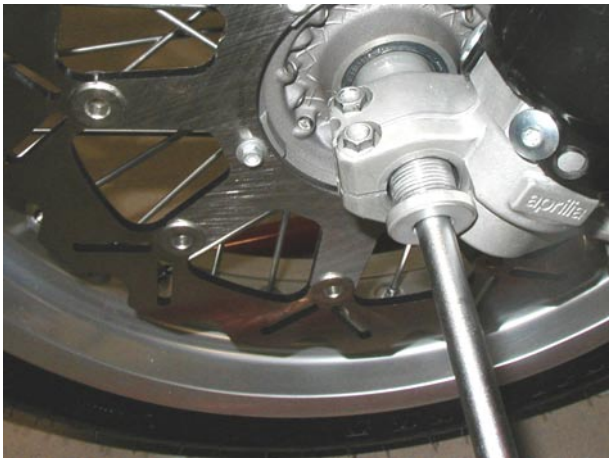
- Loosen and remove the two front screws securing the mudguard.

- Loosen and remove the four screws securing the mudguard.
- Remove the front mudguard



- Place the front stand (**OPT**) in the fork bottom plate.
- Loosen and remove the two screws securing the brake calliper.
- Remove the brake calliper.

- Working on the left side, loosen and remove the front wheel shaft nut.



- Working on either side, loosen the wheel shaft pinch bolts.

- Working on the right side, slide out the wheel shaft.

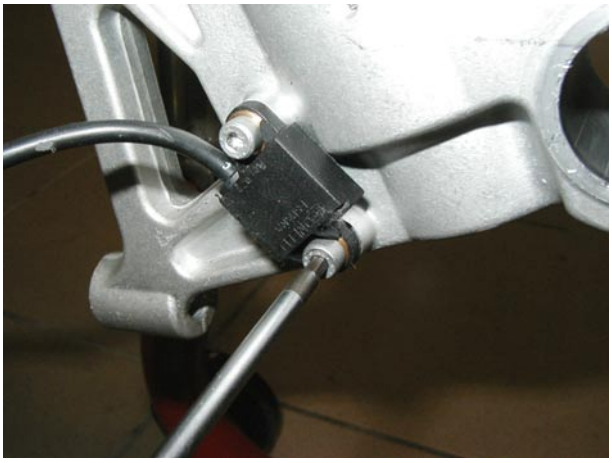
- Remove the wheel.

- Collect the bush.

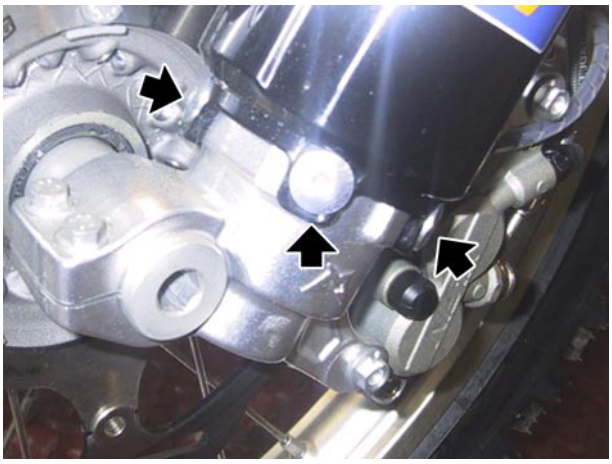
NOTE *The next three operations only apply to the left fork leg.*

- Remove cable ties from the fork leg.

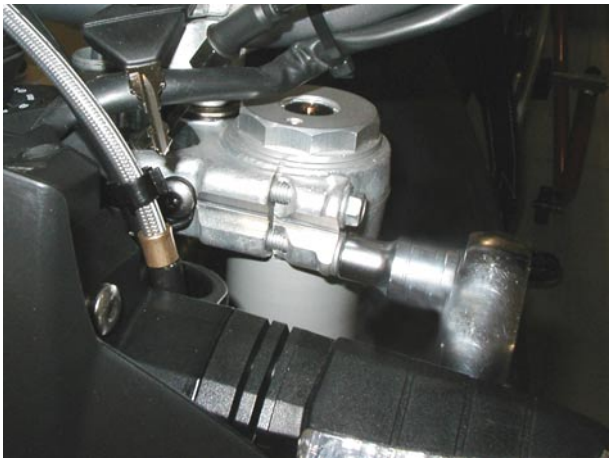
- Loosen and remove the two speed sensor screws.
- Remove the speed sensor.

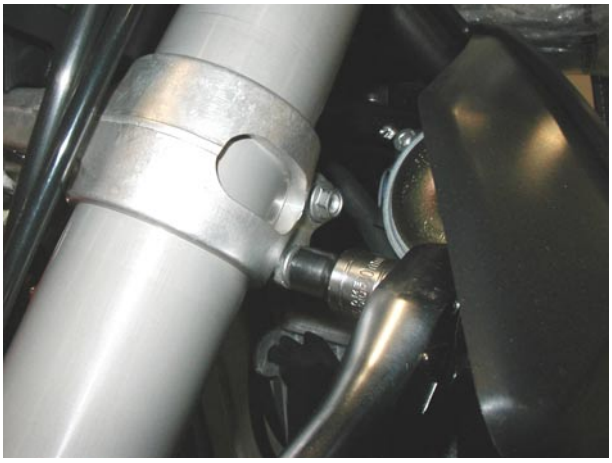


- Loosen and remove the three leg guard screws.
- Remove the fork leg guard.



- Support the fork leg and loosen the screws from top and bottom plate.





- Remove the fork leg.

5.1.3. CHANGING THE FORK FLUID (SXV)

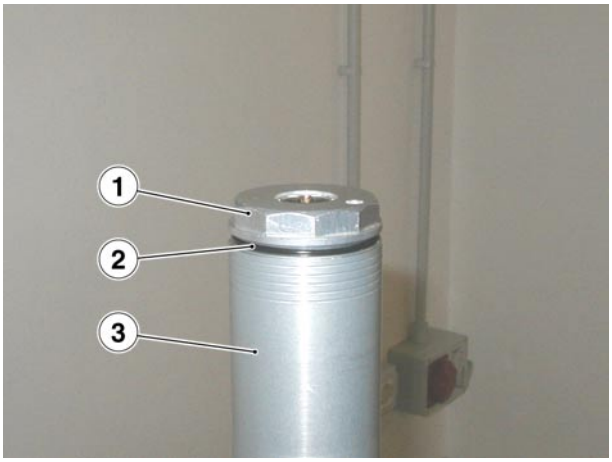
NOTE *The following procedure applies to both fork legs.*

Periodically change the fork fluid, see (REGULAR SERVICE INTERVALS CHART).

NOTE *While draining and filling fork fluid, the stanchion and its parts should be clamped in a vice; be careful not to tighten them too much and damage them; always use aluminium protections.*

DRAINING
Drain oil as follows:

- Remove the fork leg, see (REMOVING THE FORK LEGS - SXV).

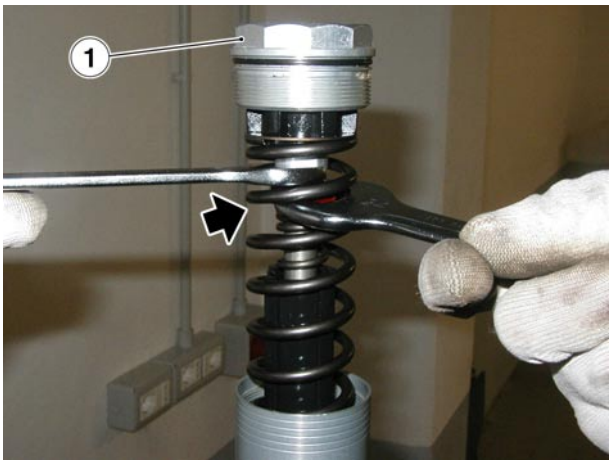


- Set sleeve (3) in a vice with safety jaws. Use a hexagonal spanner to loosen the top cap 1.

NOTE *Make sure the O-ring (2) is not damaged during removal.*

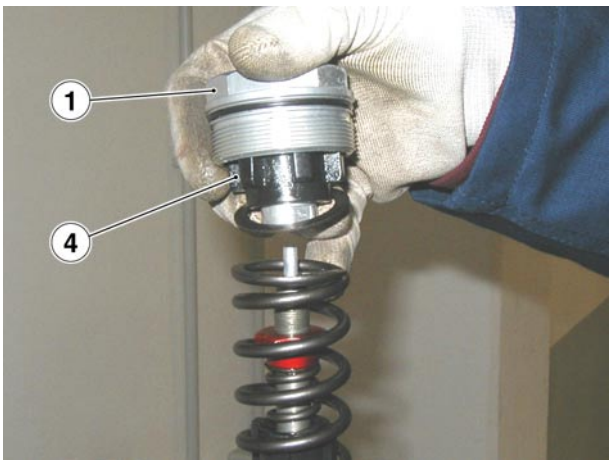
- Push the fork leg into the sleeve.

WARNING
The fork leg/sleeve unit is filled with oil; do not tilt it too much or turn it upside-down during removal.

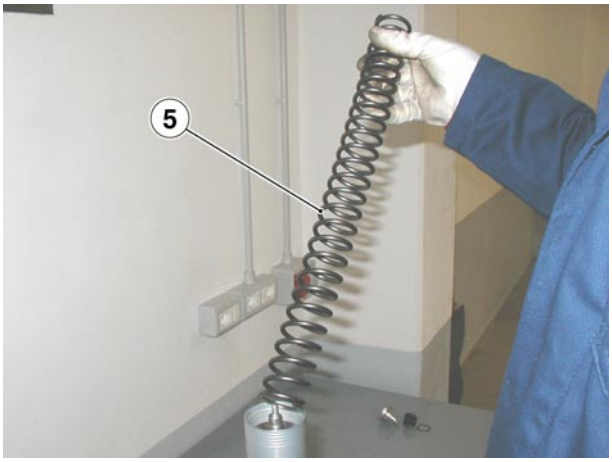


- Loosen the lock nut indicated by the arrow, holding the plug (1) with a suitable hexagon wrench.

- Remove plug (1) together with plastic bushing (4) and aluminium shim.



- Remove the spring (5). Let oil drip from the spring into the sleeve to avoid topping up or fluid change.



- Drain all oil inside the container as shown.

NOTE *Pump the leg inside the sleeve to help oil drain out completely from the damper rod.*

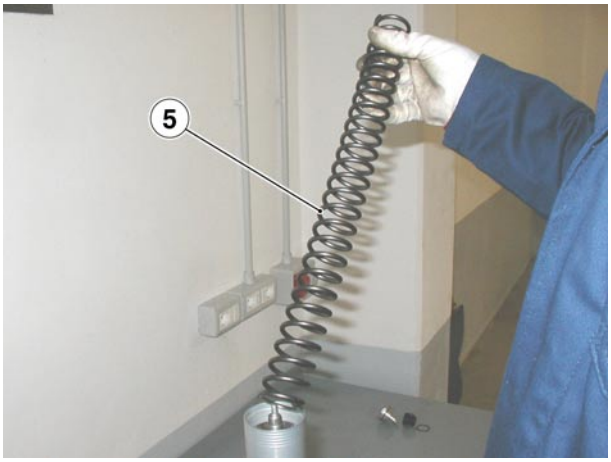
FILLING UP:

- Pour fork fluid inside the sleeve (3) up to the correct level that can be measured by inserting a graduated rod inside sleeve (3).

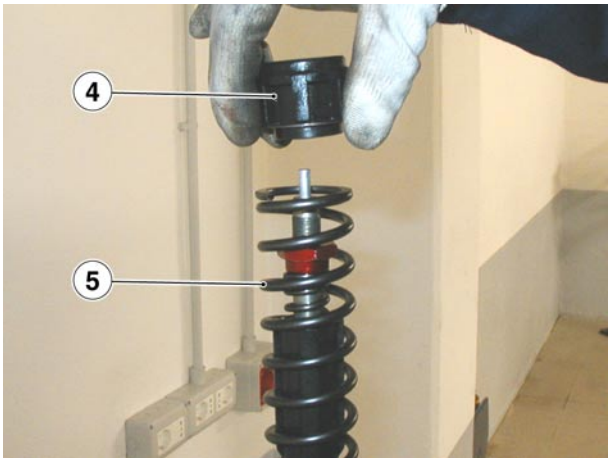
Oil level: 125 ± 2 mm (4.92 ± 0.079 in) (from leg edge)

NOTE *To correctly measure the fluid level, ensure that sleeve (3) is perfectly vertical and fully home in the leg. Fluid level shall be the same in both fork legs.*

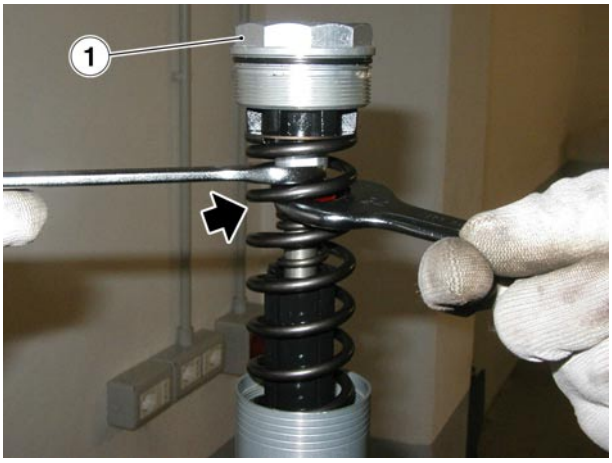
- Fit spring (5) in the sleeve.



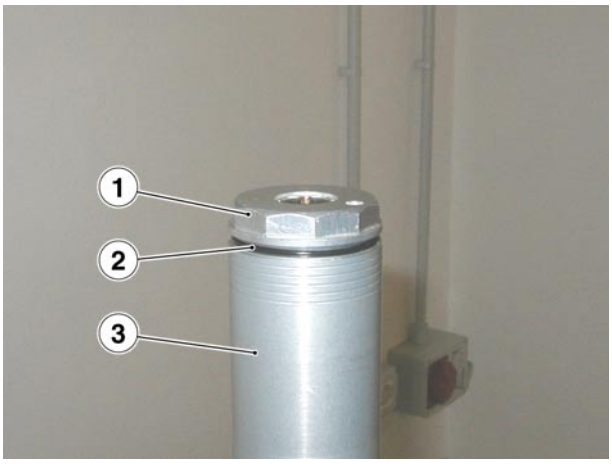
- Fit aluminium shim and plastic bushing (4) onto spring (5).



- Ensure that O-ring (2) is fitted to top cap (1).
- Hold the lock nut and tighten the top cap (1) finger tight onto damper rod.

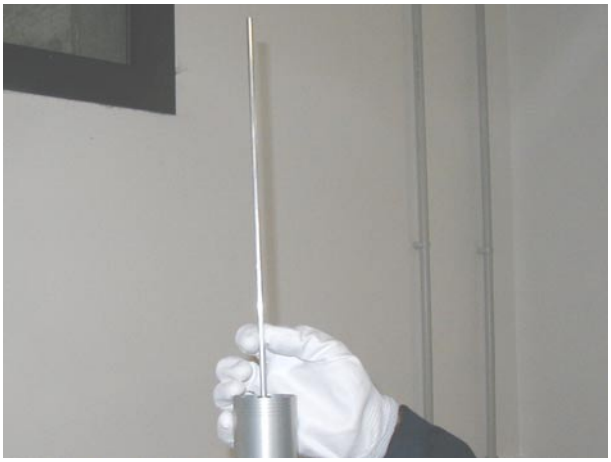


- Tighten the cap (1) onto sleeve (3).



5.1.4. DISASSEMBLING THE FRONT FORK (SXV)

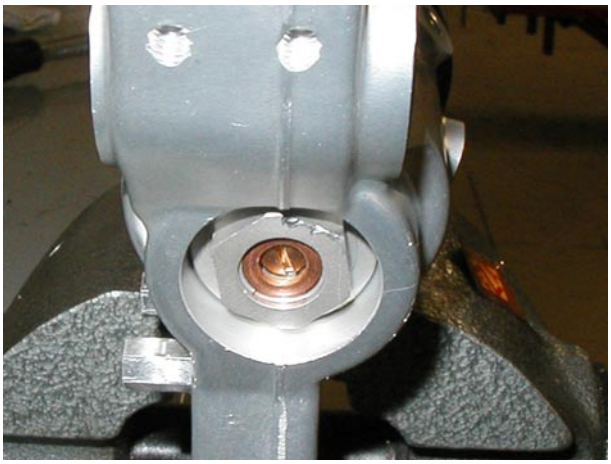
- Drain all fluid from inside the fork leg, see (CHANGING THE FORK FLUID - SXV).
- Slide out the damper rod.



- Clamp the sleeve in a vice, in horizontal position.

WARNING
Place a container under the bottom plug.

- Loosen and remove the bottom plug using an air gun.

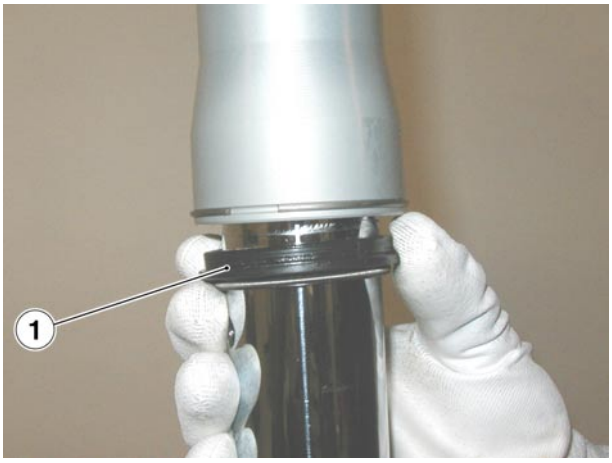


NOTE *Make sure the O-rings are not damaged during removal.*

- Slide out the complete damper rod.

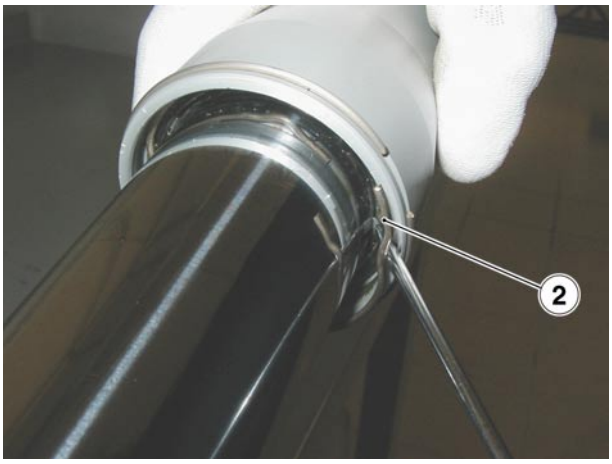
- Slide out the dust seal (1) from the sleeve prising it out with a screwdriver.

WARNING
Be careful not to damage the tube edge and the dust seal (1).

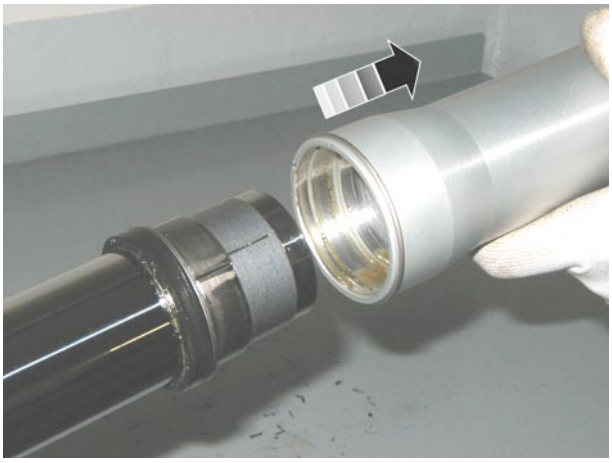


- Remove the snap ring (2) from inside the sleeve, using a screwdriver.

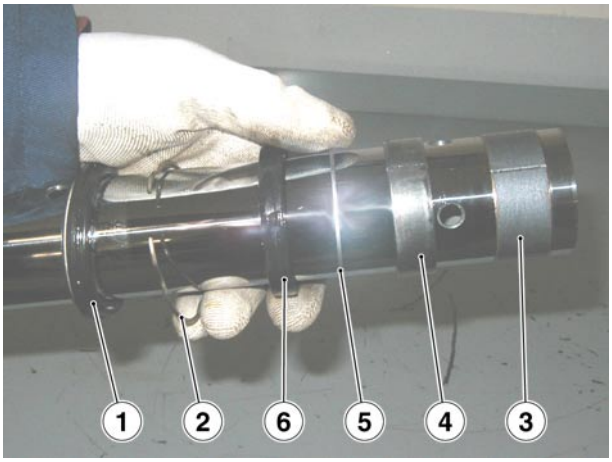
WARNING
Be careful not to damage the sleeve edge.



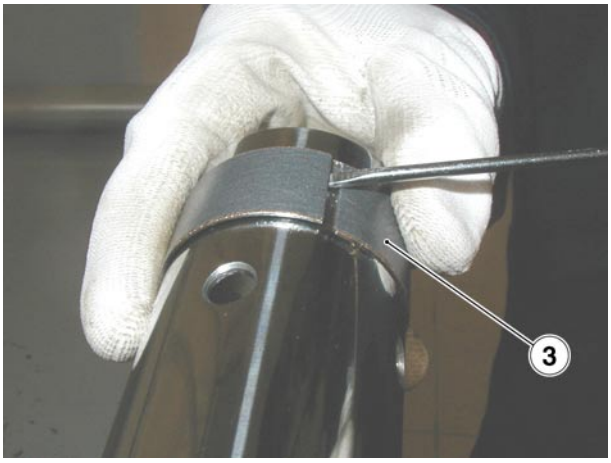
- Firmly remove the sleeve.

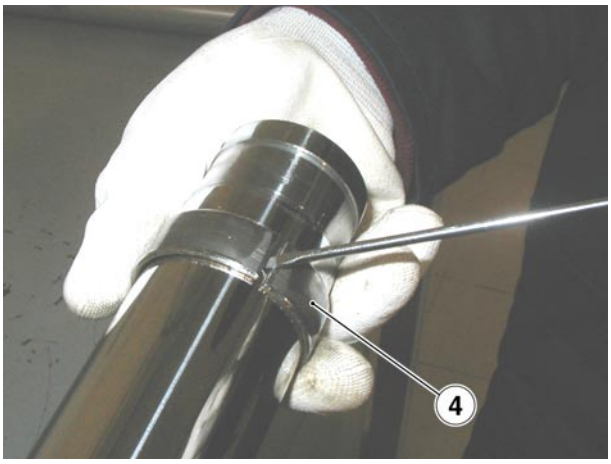


- The fork leg still holds:
- bushing (3);
- guide ring (4);
- shim (5);
- oil seal (6);
- stop ring (2);
- dust scraper seal (1).

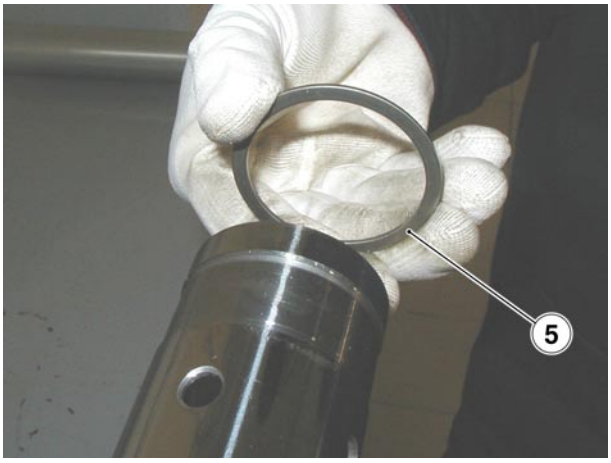


- Bushing (3) and guide ring (4) can be removed using a small screwdriver; then the following parts can also be removed:





shim (5),

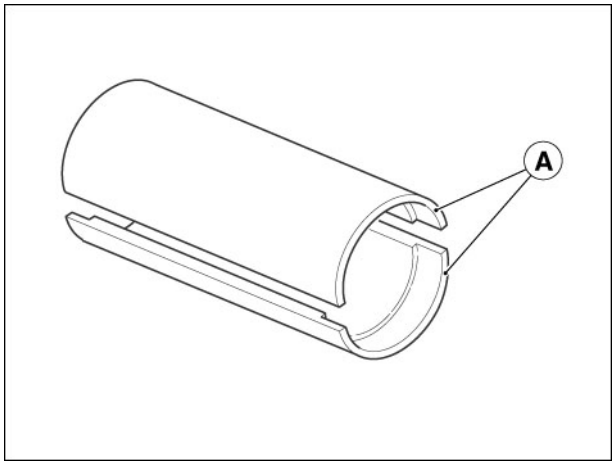


oil seal (6),

snap ring (2) and dust scraper seal (1).

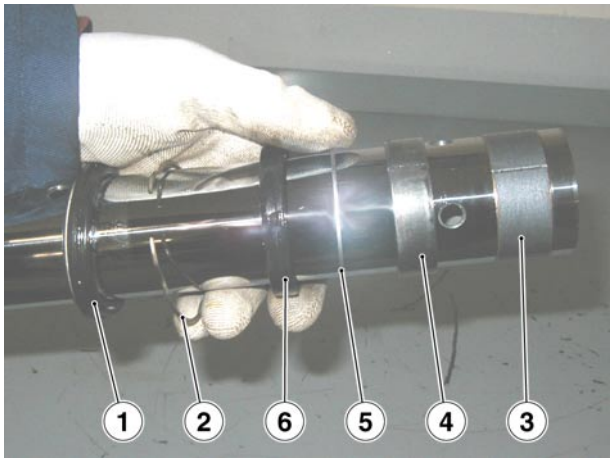
5.1.5. REASSEMBLING THE FRONT FORK (SXV)

NOTE *Take the suitable special tool* ***OPT*** *(A) (part no. 9100904) before proceeding and smear the gaskets and bushings with fork fluid before refitting them.*



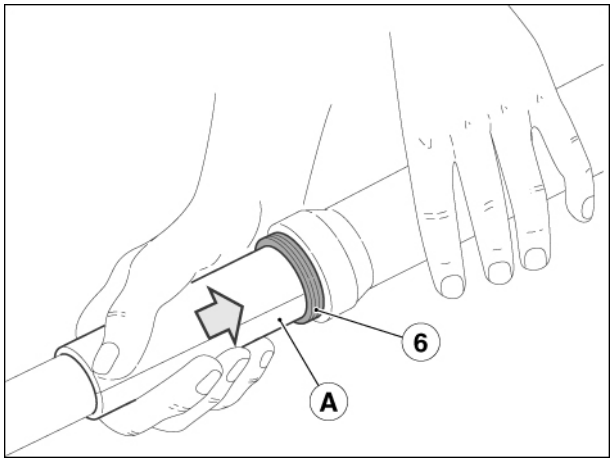
- Fit the components onto the fork leg in the following order:

- dust scraper seal (1).
- stop ring (2);
- oil seal (6);
- shim (5);
- guide ring (4);
- bushing (3);



WARNING
Tape the bushing (3) groove before fitting the oil seal so to avoid damaging the seal lip.

- Vice the fork leg using pads in soft material to avoid damages (such as aluminium).
- Fit bushing (3) in its seat on the fork leg.
- Fit the sleeve to the fork leg.
- Take the guide ring (4) and shim (5) fully home against the sleeve.
- Using the suitable insertion tool (A), push oil seal (6) fully home in the sleeve.



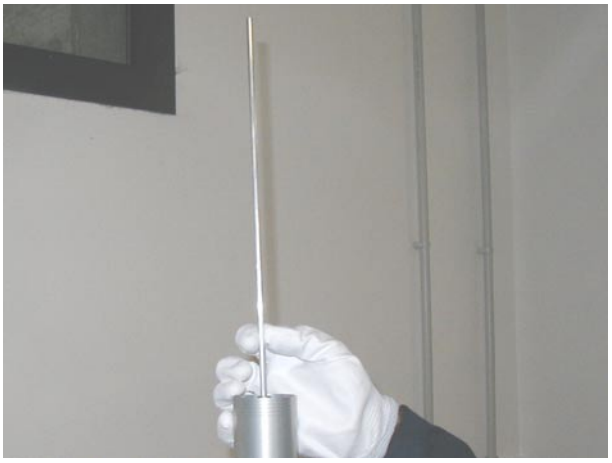
- Fit the snap ring (2).

- Fit the dust scraper ring (1).

- Fit the complete damper rod fully home in the fork leg.

- Fit and tighten the bottom plug.

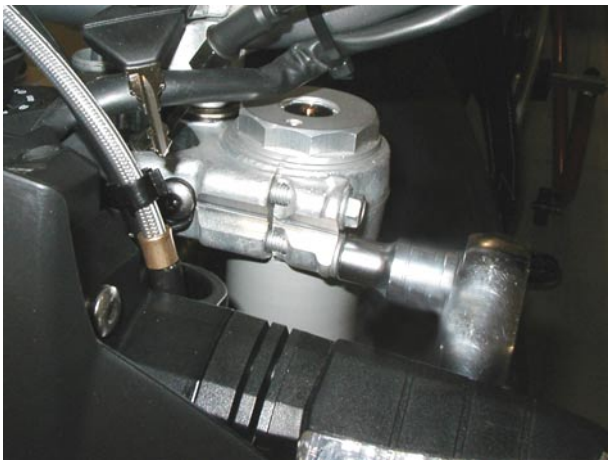
- Fit the damper rod.
- Proceed by filling with fluid, see (CHANGING THE FORK FLUID - SXV).

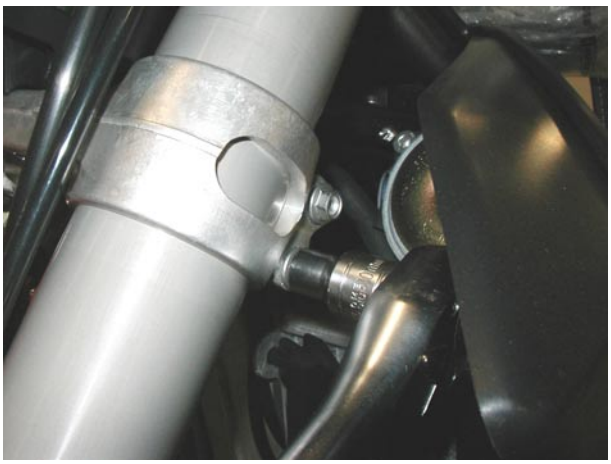


5.1.6. INSTALLING THE FORK LEGS (SXV)

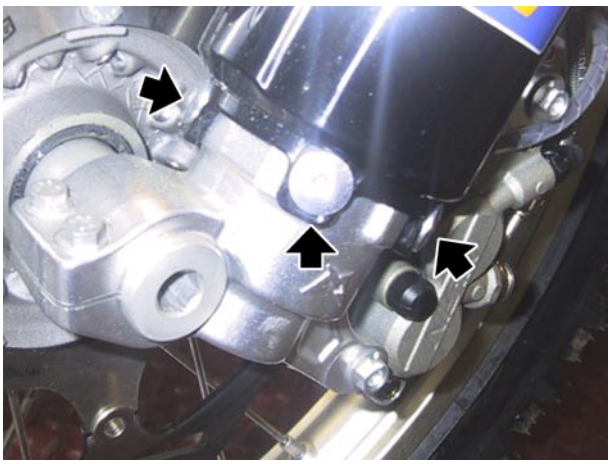
- Fit the fork leg.

- Support the fork leg and tighten the two screws on top and bottom plate.

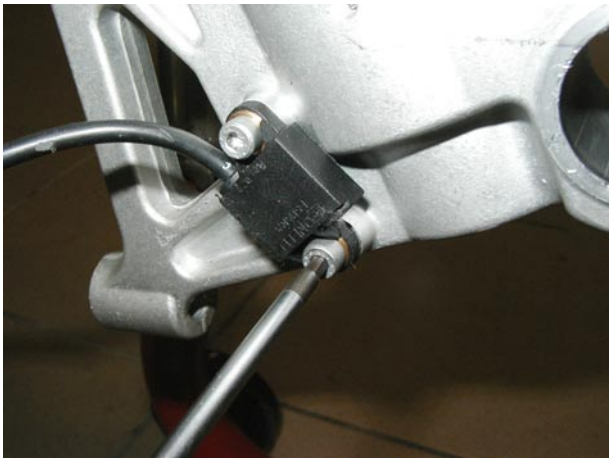




- Install the leg guard, position and tighten the three screws.



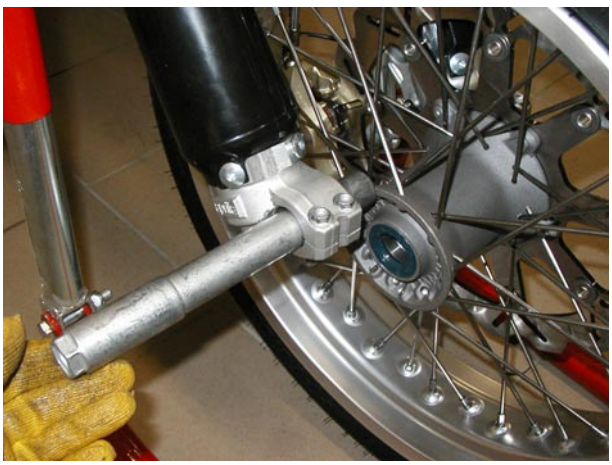
- Fit the speed sensor and tighten the two screws.



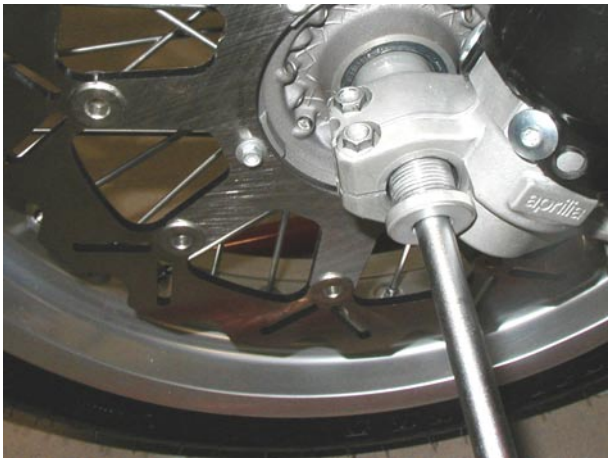
- Refit the bush.

- Refit the wheel.

- Working on the right side, fit the wheel shaft.

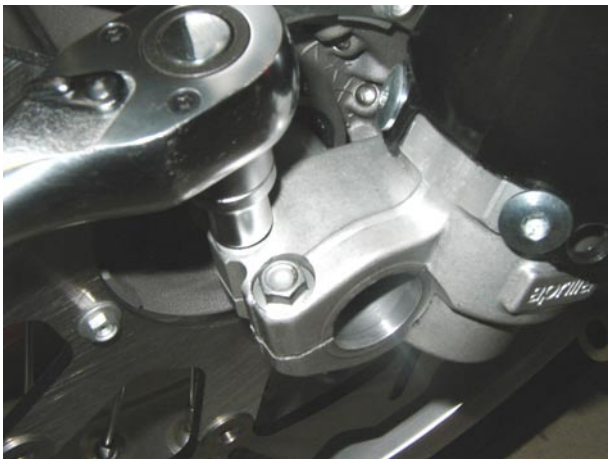


- Working on the left side, partially tighten the front wheel shaft nut.



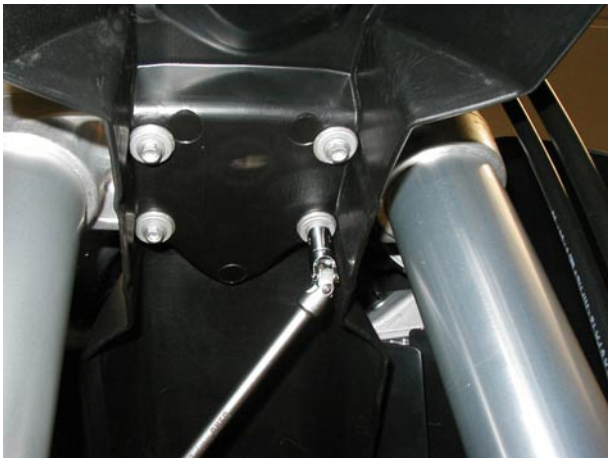
NOTE *To lock wheel shaft rotation tighten the two screws on fork clamp, right side.*

- Working on the left side, tighten the front wheel shaft nut.
- Tighten the two screws on wheel shaft left fork clamp.



- Position the brake calliper in its seat.
- Tighten the two brake calliper screws.
- Remove the front support (**OPT**), and place the vehicle on the side stand, see (POSITIONING THE VEHICLE ON THE STAND).
- Secure the sensor cable using a tie.

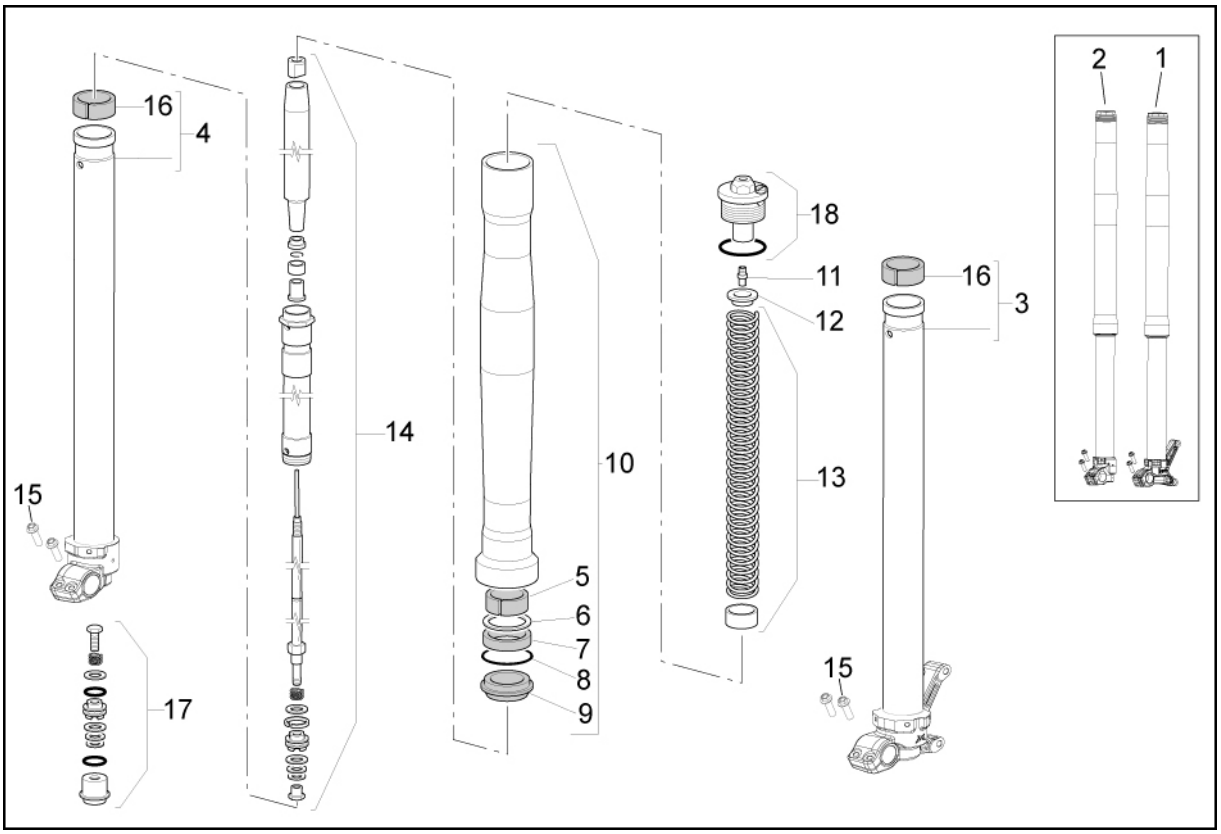
- Fit the mudguard and tighten the four screws.



- Tighten the two mudguard front screws.

5.2. FRONT FORK (RXV)

5.2.1. DIAGRAM (RXV)



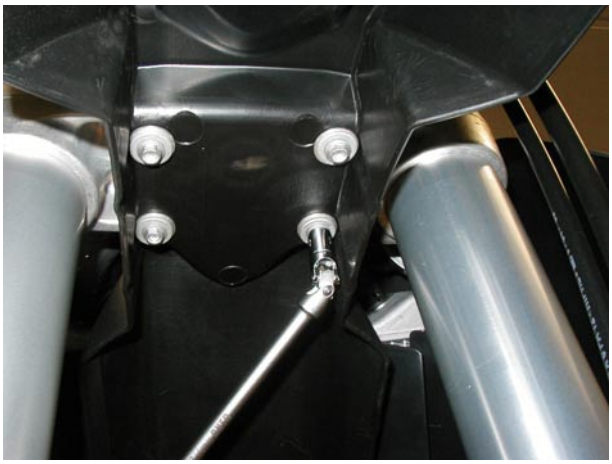
Key:

1. Left fork assembly
2. Right fork assembly
3. Left stanchion
4. Right stanchion
5. Upper bushing
6. Seal
7. Retainer
8. Snap ring
9. Dust scraper ring
10. Complete sleeve
11. Dowel + O-ring
12. Ring for spring
13. Spring Kit
14. Complete damper rod
15. Flanged TE screw
16. Tube lower bushing
17. Complete valve
18. Complete plug

5.2.2. REMOVING THE FORK LEGS (RXV)

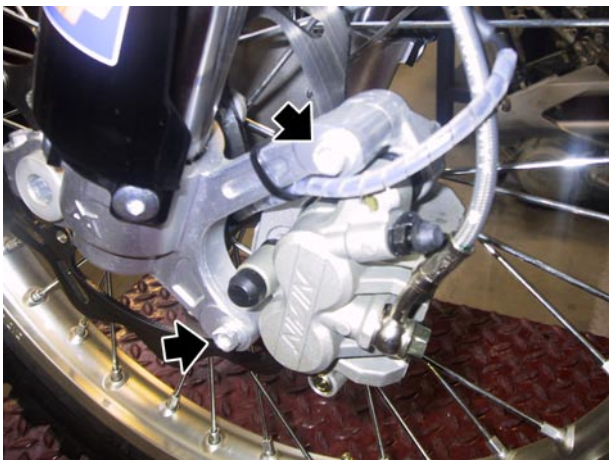
- Loosen and remove the two front screws securing the mudguard.

- Loosen and remove the four screws securing the mudguard.
- Remove the front mudguard.

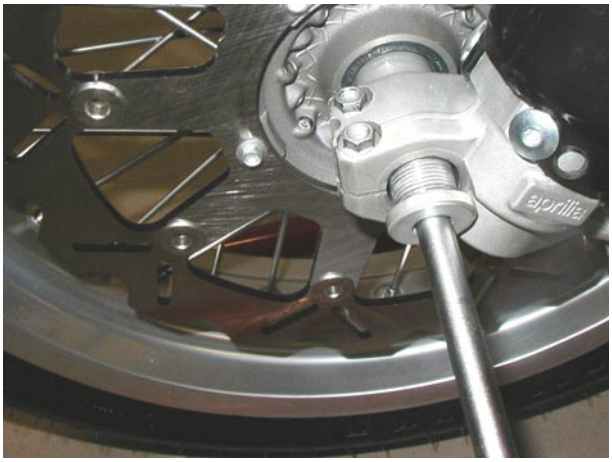


- Place the front stand (**OPT**) in the fork bottom plate.
- Loosen and remove the two screws securing the brake calliper.
- Remove the brake calliper.

NOTE *The speed sensor cable is routed outside the brake calliper and is fitted with a protection.*

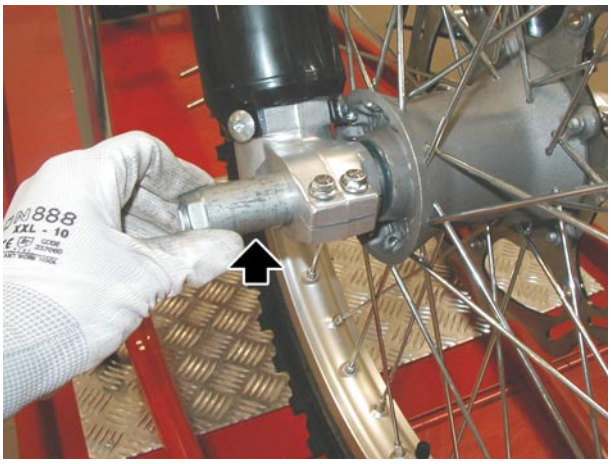


- Working on the left side, loosen and remove the front wheel shaft nut.



- Working on either side, loosen the wheel shaft pinch bolts.

- Working on the right side, slide out the wheel shaft.



- Remove the wheel.

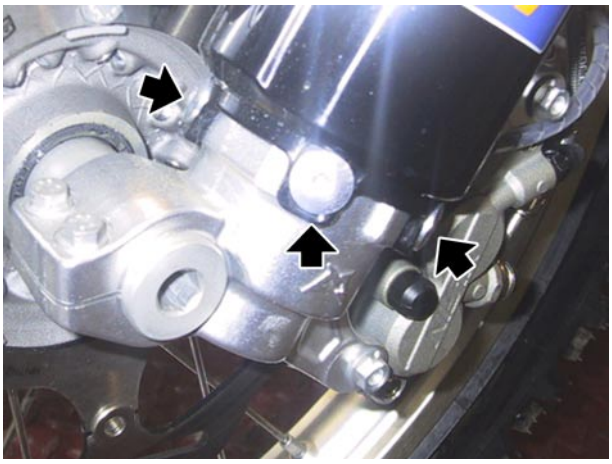
- Collect the bush.

NOTE *The next three operations only apply to the left fork leg.*

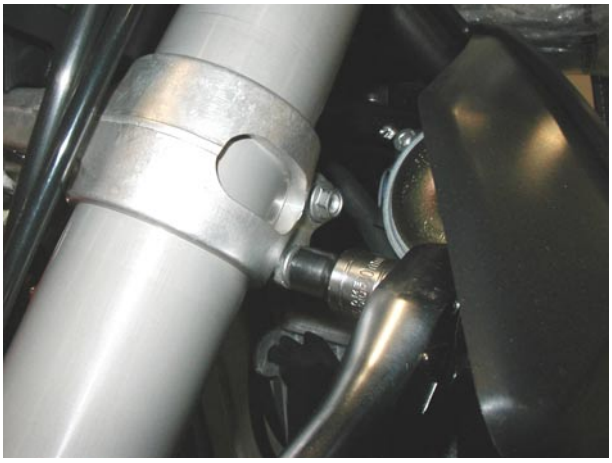
- Remove cable ties from the fork leg.

- Loosen and remove the two speed sensor screws.
- Remove the speed sensor.

- Loosen and remove the three leg guard screws.
- Remove the fork leg guard.



- Support the fork leg and loosen the screws from top and bottom plate.



- Remove the fork leg.

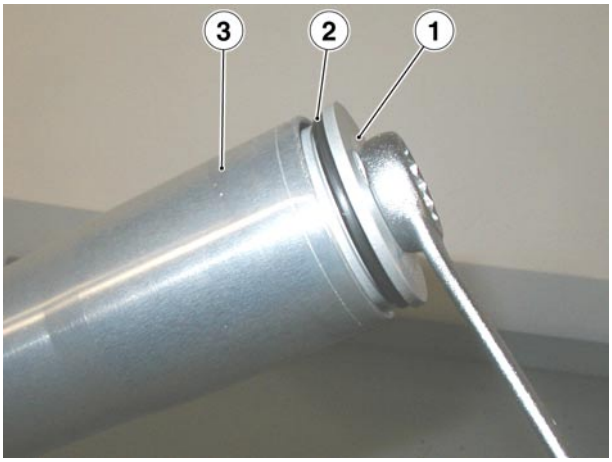
5.2.3. CHANGING THE FORK FLUID (RXV)

NOTE *The following procedure applies to both fork legs.*

Periodically change the fork fluid, see (REGULAR SERVICE INTERVALS CHART).

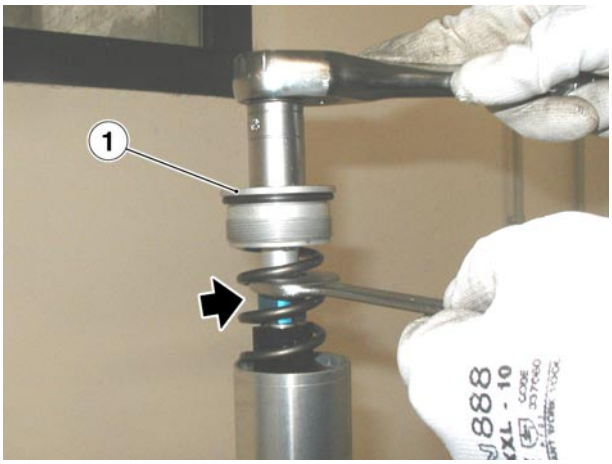
NOTE *While draining and filling fork fluid, the stanchion and its parts should be clamped in a vice; be careful not to tighten them too much and damage them; always use aluminium protections.*

DRAINING
Drain oil as follows:



- Remove the fork leg, see (REMOVING THE FORK LEGS - RXV).

- Set fork leg (3) in a vice with safety jaws. Use a hexagonal spanner to loosen the top cap 1.



NOTE *Make sure the O-ring (2) is not damaged during removal.*

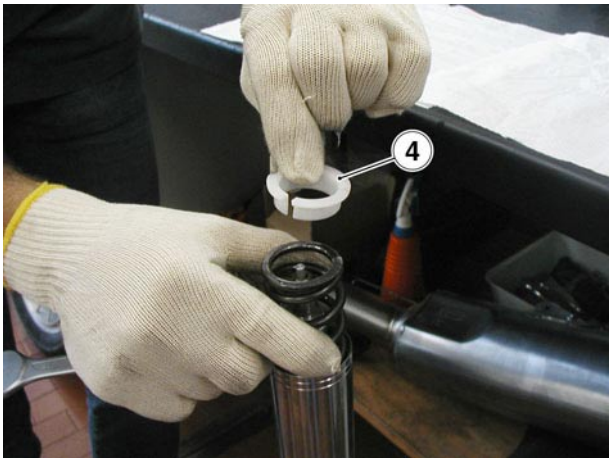
- Push the fork leg into the sleeve.

WARNING
The fork leg/sleeve unit is filled with oil; do not tilt it too much or turn it upside-down during removal.

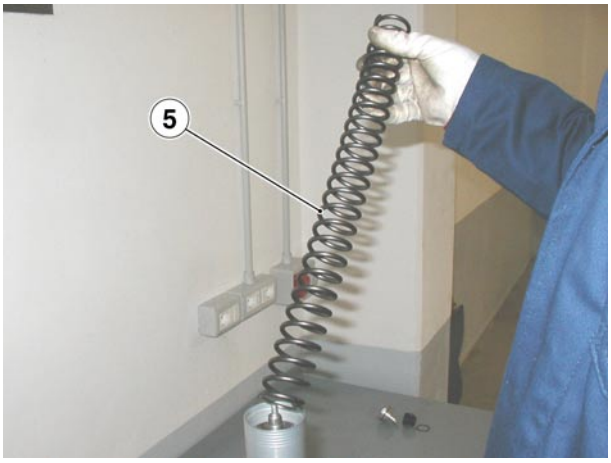
- Loosen the lock nut indicated by the arrow, holding the plug (1) with a suitable hexagon wrench.

- Remove the cap (1).

- Remove the plastic bushing (4)



- Remove the spring (5). Let oil drip from the spring into the sleeve to avoid topping up or fluid change.



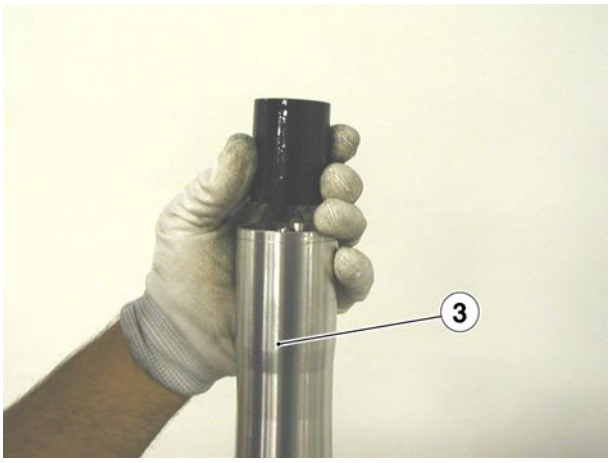
- Drain all oil inside the container as shown.

NOTE *Pump the tube inside the stanchion to help oil drain out completely from the damper rod.*

- Remove the preload tube.

FILLING UP:

- Install the preload tube in the sleeve (3).

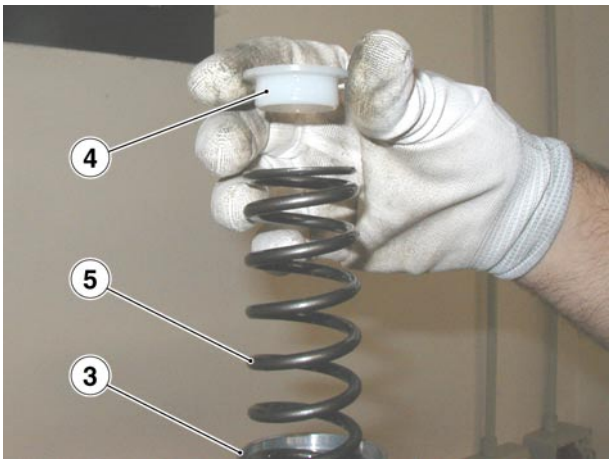


- Pour fork fluid inside the sleeve (3) up to the correct level that can be measured by inserting a graduated rod inside sleeve (3).

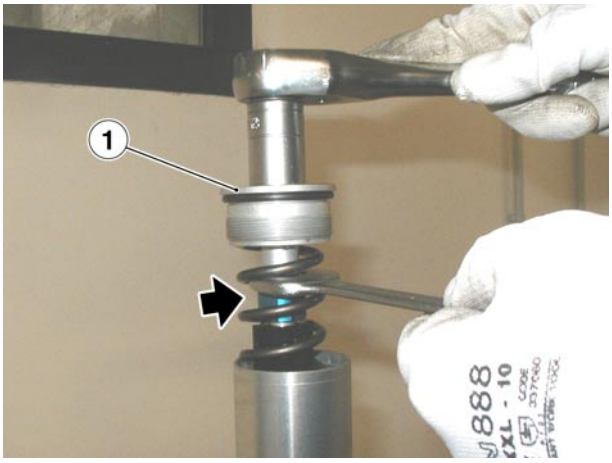
Oil level: 100 ± 2 mm (3.94 ± 0.079 in) (from leg edge)

NOTE *To correctly measure the fluid level, ensure that fork leg (3) is perfectly vertical and fully home in the sleeve. Fluid level shall be the same in both fork legs.*

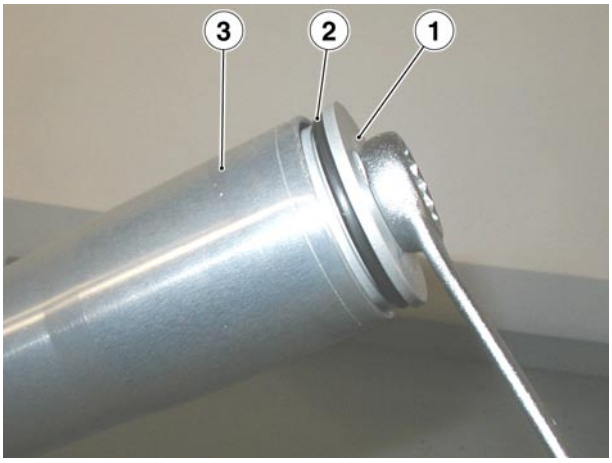
- Install in sleeve (3) the spring (5) completed with plastic bushing (4).



- Ensure that O-ring (2) is fitted to top cap (1).
- Hold the lock nut and tighten the top cap (1) finger tight onto damper rod.

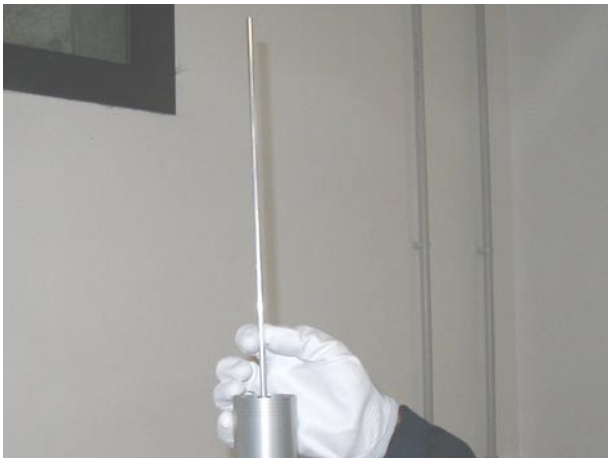


- Tighten the cap (1) onto sleeve (3).



5.2.4. DISASSEMBLING THE FRONT FORK (RXV)

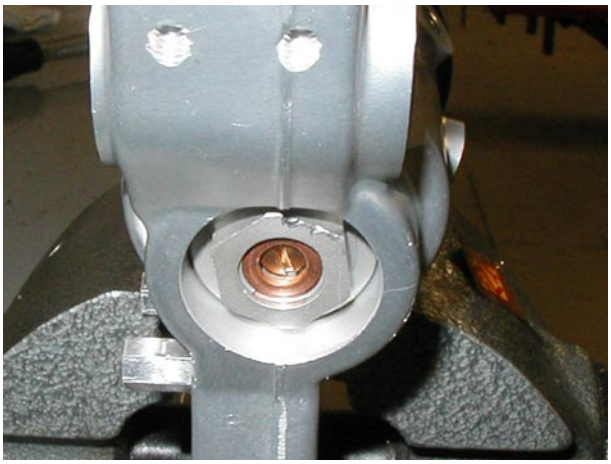
- Drain all fluid from inside the fork leg, see (CHANGING THE FORK FLUID - RXV).
- Slide out the damper rod.



- Clamp the sleeve in a vice, in horizontal position.

WARNING
Place a container under the bottom plug.

- Loosen and remove the bottom plug using an air gun.

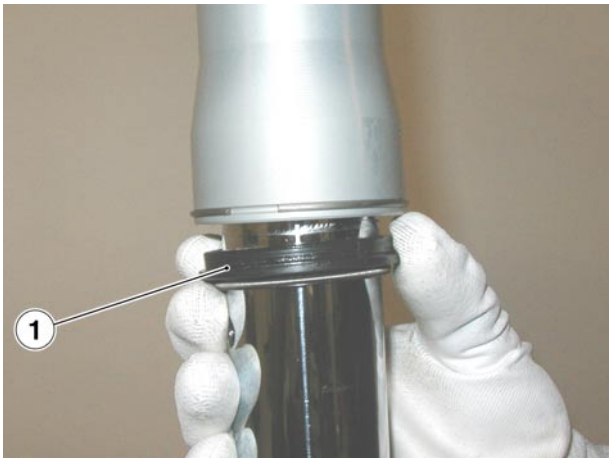


NOTE *Make sure the O-rings are not damaged during removal.*

- Slide out the complete damper rod.

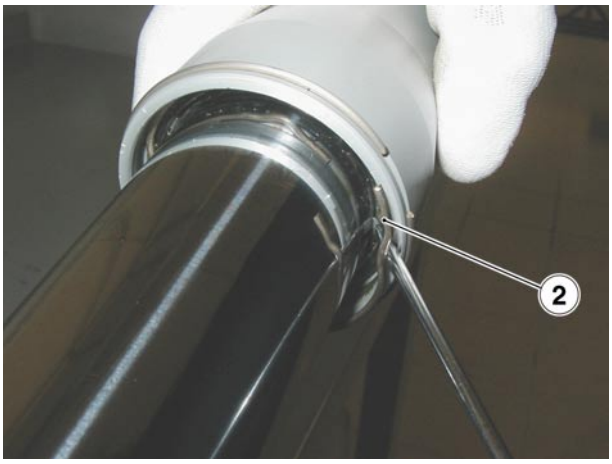
- Slide out the dust seal (1) from the sleeve prising it out with a screwdriver.

WARNING
Be careful not to damage the tube edge and the dust seal (1).

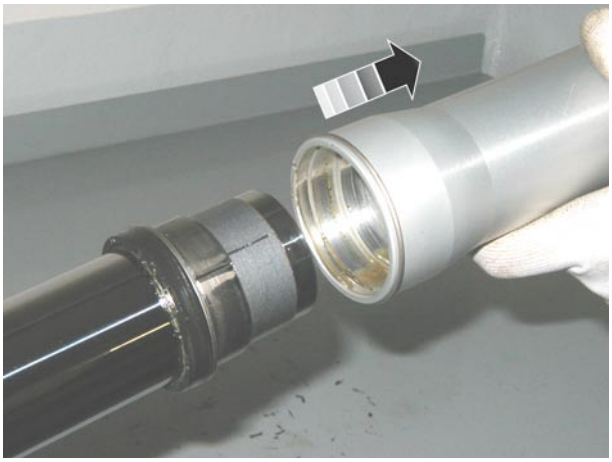


- Remove the snap ring (2) from inside the sleeve, using a screwdriver.

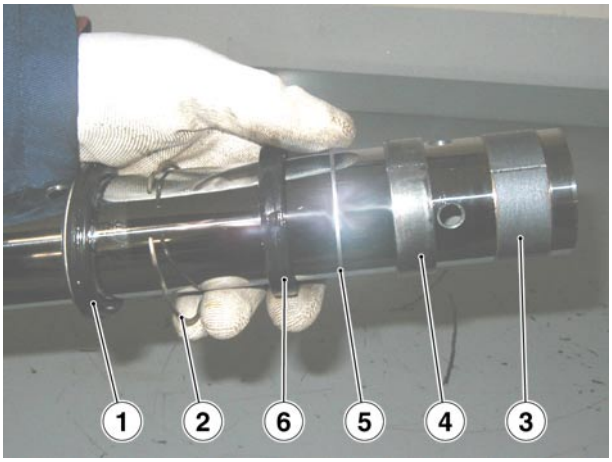
WARNING
Be careful not to damage the sleeve edge.



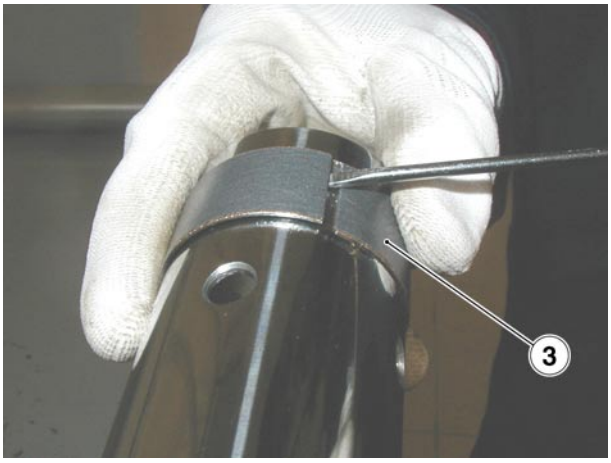
- Firmly remove the sleeve.

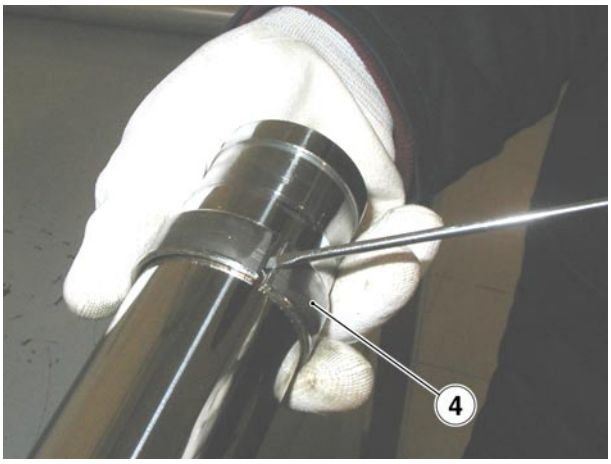


- The fork leg still holds:
- bushing (3);
- guide ring (4);
- shim (5);
- oil seal (6);
- snap ring (2);
- dust scraper seal (1).

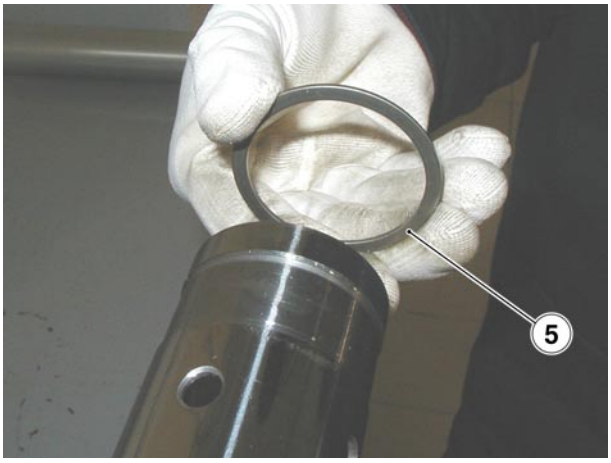


- Bushing (3) and guide ring (4) can be removed using a small screwdriver; then the following parts can also be removed:





shim (5),



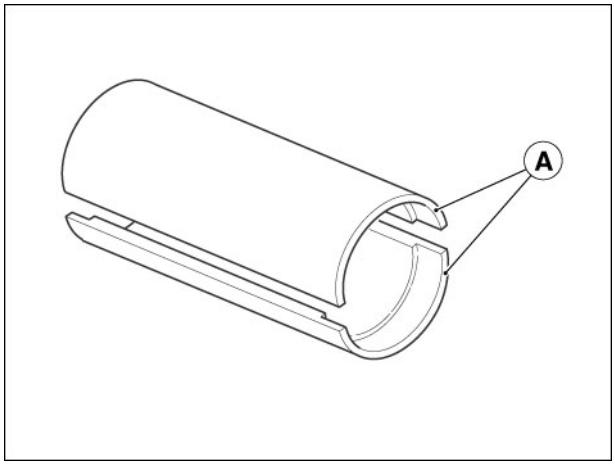
oil seal (6),

snap ring (2);

dust scraper seal (1).

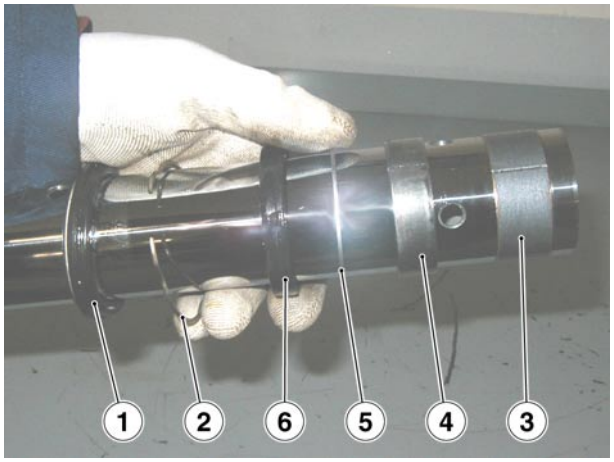
5.2.5. REASSEMBLING THE FRONT FORK (RXV)

NOTE *Take the suitable special tool* ***OPT*** *(A) (part no. 9100903) before proceeding and smear the gaskets and bushings with fork fluid before refitting them.*



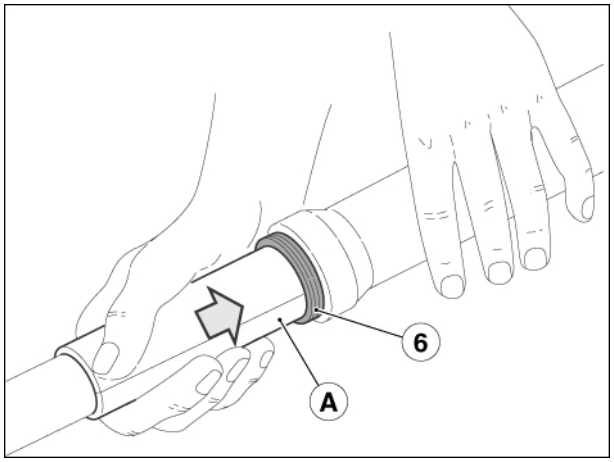
- Fit the components onto the fork leg in the following order:

- dust scraper seal (1).
- snap ring (2);
- oil seal (6);
- shim (5);
- guide ring (4);
- bushing (3);



WARNING
Tape the bushing (3) groove before fitting the oil seal so to avoid damaging the seal lip.

- Vice the fork leg using pads in soft material to avoid damages (such as aluminium).
- Fit bushing (3) in its seat on the fork leg.
- Fit the sleeve to the fork leg.
- Take the guide ring (4) and shim (5) fully home against the sleeve.
- Using the suitable insertion tool (A), push oil seal (6) fully home in the sleeve.

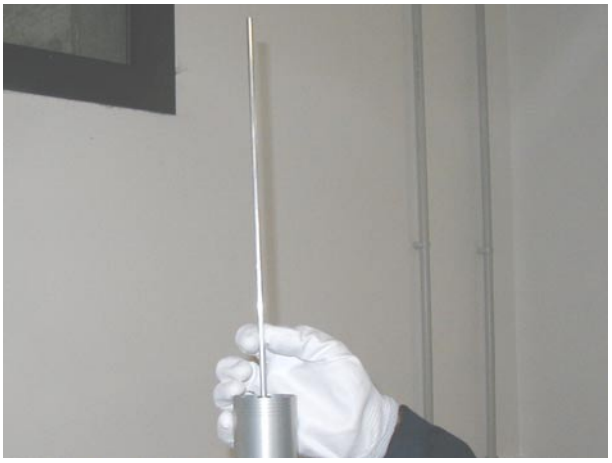


- Then fit the snap ring (2) and the dust scraper seal (1).

- Fit the complete damper rod fully home in the fork leg.

- Fit and tighten the bottom plug.

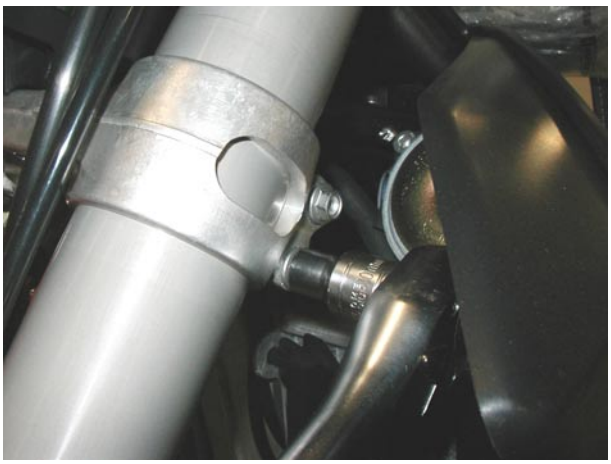
- Fit the damper rod.
- Proceed by filling with fluid, see (CHANGING THE FORK FLUID - RXV).



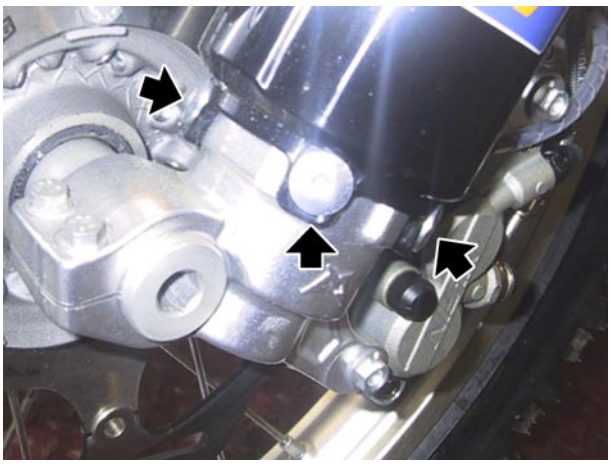
5.2.6. INSTALLING THE FORK LEGS (RXV)

- Fit the fork leg.

- Support the fork leg and tighten the two screws on top and bottom plate.



- Install the leg guard, position and tighten the three screws.

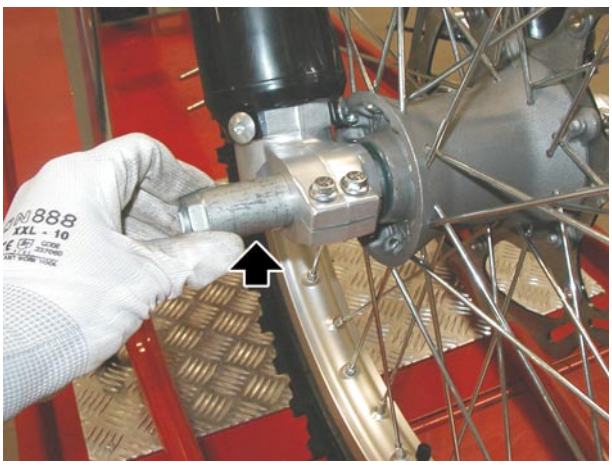


- Fit the speed sensor and tighten the two screws.

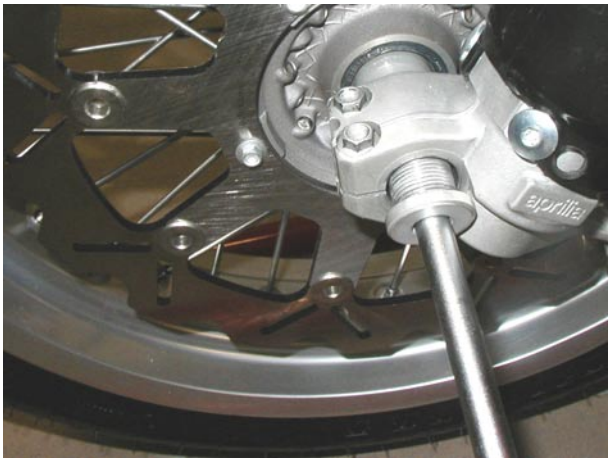
- Refit the bush.

- Refit the wheel.

- Working on the right side, fit the wheel shaft.

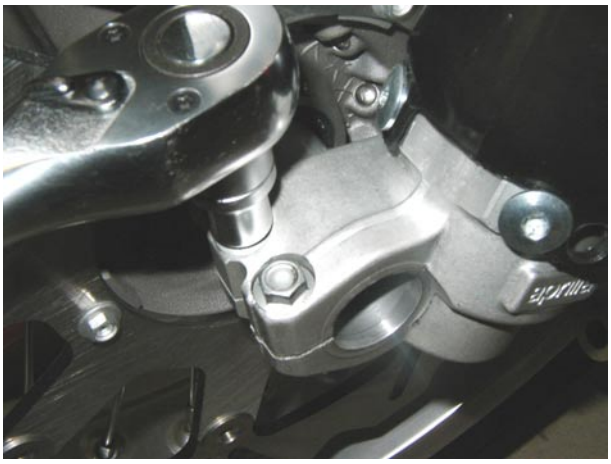


- Working on the left side, partially tighten the front wheel shaft nut.



NOTE *To lock wheel shaft rotation tighten the two screws on fork clamp, right side.*

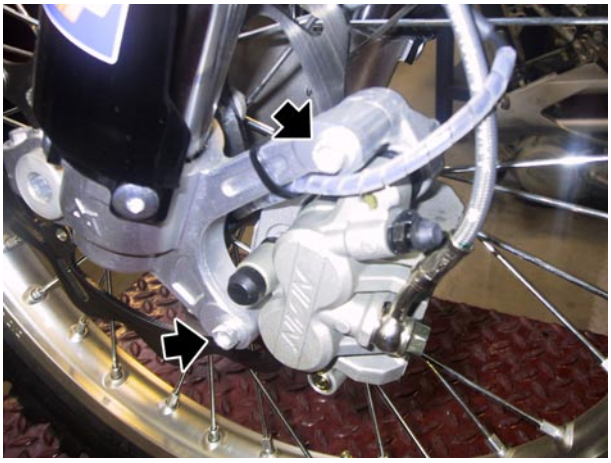
- Working on the left side, tighten the front wheel shaft nut.
- Tighten the two screws on wheel shaft left fork clamp.



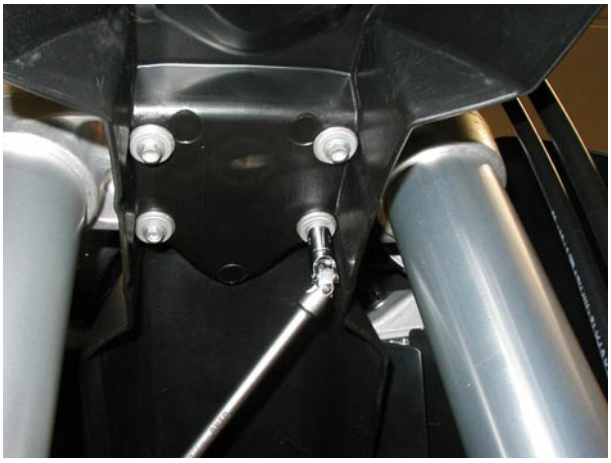
- Position the brake calliper in its seat.
- Tighten the two brake calliper screws.
- Remove the front support (**OPT**), and place the vehicle on the side stand, see (POSITIONING THE VEHICLE ON THE STAND).

NOTE *The speed sensor cable is routed outside the brake calliper and is fitted with a protection.*

- Secure the sensor cable using a tie.



- Fit the mudguard and tighten the four screws.



- Tighten the two mudguard front screws.

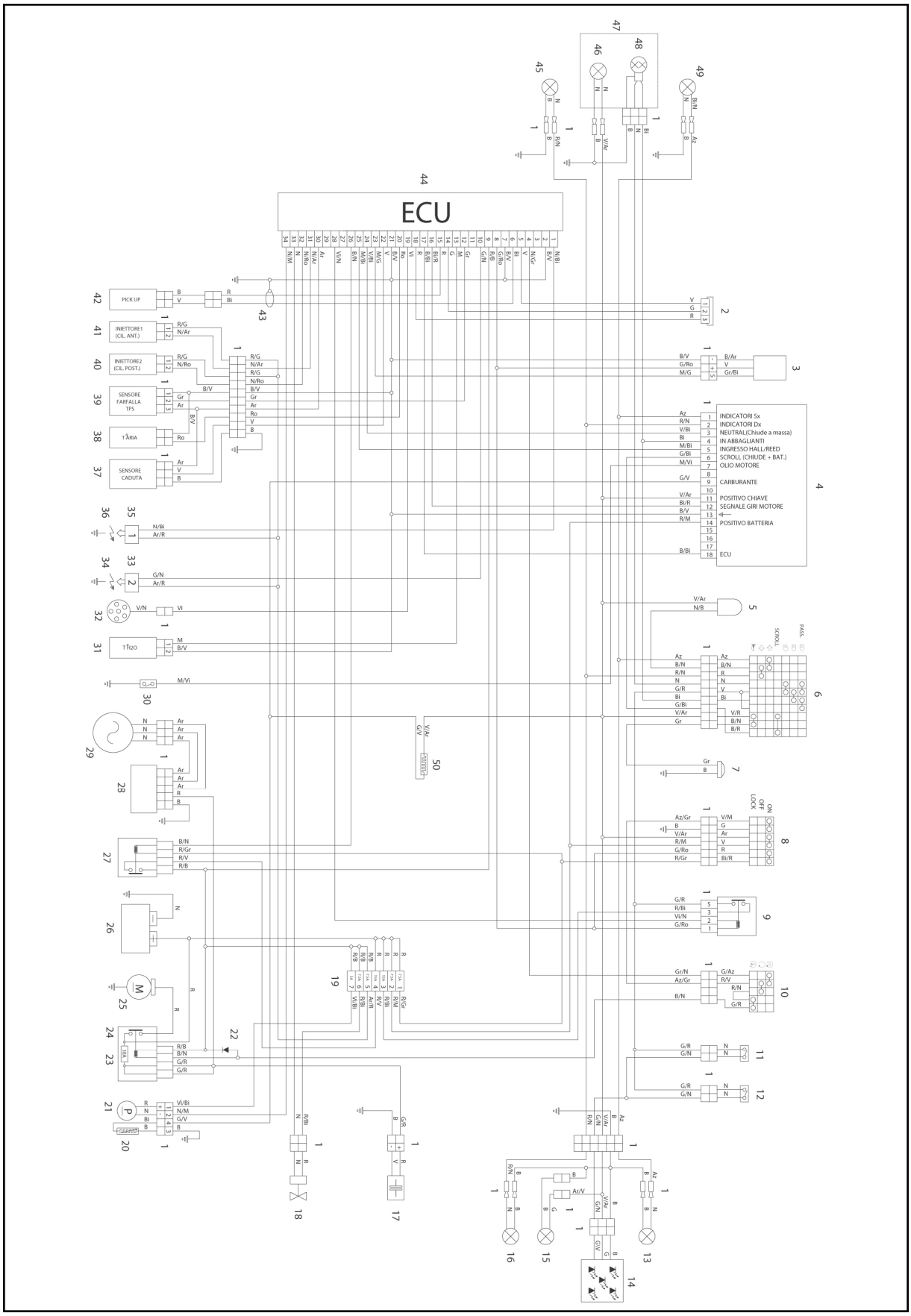
ELECTRIC SYSTEM 6

SUMMARY

6.1. ELECTRIC SYSTEM 3
6.1.1. SXV - RXV DIAGRAM 3

6.1. ELECTRIC SYSTEM

6.1.1. SXV - RXV DIAGRAM



Key:

1. Multiple connectors
2. Diagnosis connector
3. Speed sensor
4. Instrument panel
5. Repeater
6. LH dimmer switch
7. Horn
8. Ignition switch
9. Light relay
10. RH dimmer switch
11. Rear stop switch
12. Front stop switch
13. Rear LH turn indicator
14. Tail light
15. Number plate light
16. Rear RH turn indicator
17. (Buffer) capacitor
18. Fan
19. Auxiliary fuses
20. Fuel level sensor
21. Fuel pump
22. Safety diode
23. Main fuse
24. Starter relay
25. Starter motor
26. Battery
27. “ECR” relay
28. Voltage regulator
29. Generator
30. Oil pressure sensor
31. Water temperature sensor
32. Gear sensor
33. Coil 2 (rear cyl.) (mounted to the left)
34. Spark plug 2
35. Coil 1 (front cyl.) (mounted to the right)
36. Spark plug 1
37. Bank angle sensor
38. Intake air temperature sensor
39. Throttle position sensor (TPS)
40. Injector 2 (rear cylinder)
41. Injector 1 (front cylinder)
42. Pick-up
43. Pick-up cable shielding
44. ECU
45. Front RH turn indicator
46. Parking light
47. Headlight
48. Low/high beam light
49. Front LH turn indicator
50. Resistance

CABLE COLOUR

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