

aprilia

Product: Aprilia RSV Mille 1116-2 Service Repair Workshop Manual
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1116-2
00/2002-11

RSV mille USA

www.serviceaprilia.com

workshop manual



USA

884689

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RSV mille USA 1116-2



workshop manual



aprilia part# 8140689

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0.1 UPDATE OF RELEASE 00/2002-11

Date of the first edition (Release 00) and of the following Releases:

First edition (Release 00) November 2001

0.1.1 INFORMATION ON THE UPDATING OF THE MANUAL

The manual must be updated every time a new "Release" is received.

Insert the pages of the last Release in the manual and eliminate the corresponding obsolete pages (even if belonging to a previous Release).

⚠ WARNING

The failure to update the manual and to eliminate the obsolete pages makes it more difficult to consult the manual and may lead to the performance of incorrect operations on the vehicle, with serious consequences for the safety of the vehicle and of persons and property.

The manual consists of # 10 sections, for a total amount of # 392 pages, as listed below.

NOTE For the nomenclature of the standard page of the manual (and specifically for the definition of the page number), see 0.2 (HOW TO CONSULT THE MANUAL).

0.1.2 UPDATED MANUAL GENERAL LIST

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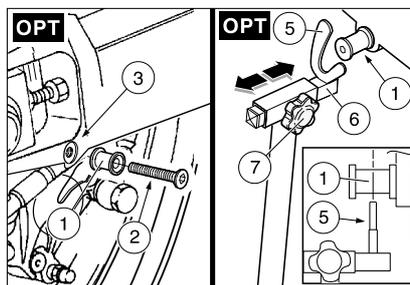
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0.2 HOW TO CONSULT THE MANUAL



- 8 — 1.15 PLACING THE VEHICLE ON THE SUPPORT STAND
- 9 — 1.15.1 ASSEMBLING THE PINS FOR THE REAR SUPPORT STAND **OPT**
- 10 — **NOTE** Have the special tool **OPT** available:
 - **aprilia** part# 8705021 (rear support stand with appropriate pins).
- 11 — **◆** Place the vehicle on the stand.
 - ◆ **★** Place the pin (1) on the appropriate seat on the swinging arm.
 - ◆ **★** Screw and tighten the screw (2) in the appropriate threaded hole (3) in the swinging arm.



1.15.2 PLACING THE VEHICLE ON THE REAR SUPPORT STAND **OPT**

NOTE Have the special tool **OPT** available:
 – **aprilia** part# 8705021 (rear support stand with appropriate pins).

- ◆ Assemble the pins for the rear support stand, see 1.15.1 (ASSEMBLING THE PINS FOR THE REAR SUPPORT STAND **OPT**).

NOTE Have someone help you keep the vehicle in vertical position with the two wheels on the ground.

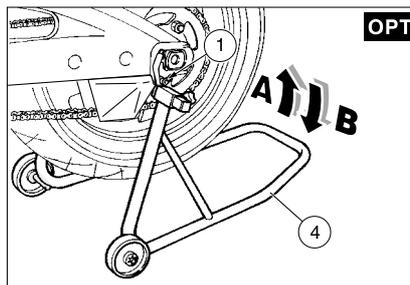
▲ WARNING

When using the rear support stand, allow the yoke to engage only the pins (1). Do not attempt to support the rear of the vehicle in any other manner.

- ◆ Lift (Pos. A) the rear part of the stand (4), insert it from the back of the vehicle and place it so that the two yokes (5) of the support pins (6) hook the two pins (1) provided on the vehicle.

If the yokes (5) do not align with the two pins (1):

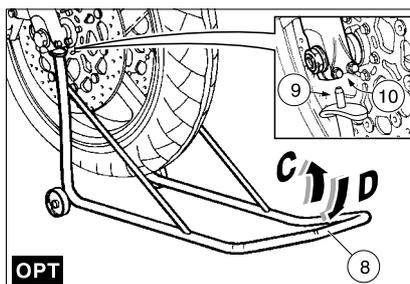
- ◆ Loosen the two knobs (7).
- ◆ Slide the two support pins (6) so that the two yokes (5) of the support pins (6) coincide with the two pins (1).
- ◆ Tighten the two knobs (7).
- ◆ Lift (Pos. A) the rear part of the stand (4), insert it from the back of the vehicle and place it so that the two yokes (5) of the support pins (6) hook the two pins (1) provided on the vehicle.
- ◆ Rest one foot on the rear part of the stand (4).
- ◆ Push (Pos. B) the stand (4) downwards until it reaches the end of its stroke (see figure).



1.15.3 PLACING THE VEHICLE ON THE FRONT SUPPORT STAND **OPT**

NOTE Have the special tool **OPT** available:
 – **aprilia** part# 8140176 (complete support stand kit).

- ◆ Place the vehicle on the appropriate rear support stand, see 1.15.2 (PLACING THE VEHICLE ON THE REAR SUPPORT STAND **OPT**).
- ◆ Lift (Pos. C) the front part of the stand (8) and insert each of its ends (9) into holes (10) in the bottom of the front fork.
- ◆ Rest one foot on the front part of the stand (8).
- ◆ Push (Pos. D) the stand (8) downwards until it reaches the end of its stroke (see figure).



- 1) Vehicle model.
- 2) Section.
- 3) Release consecutive number ("00" indicates the first edition).
- 4) Year and month of publication of the Release.
- 5) Section number.
- 6) Section page consecutive number.

- 7) Updated page consecutive number.
- 8) Chapter title (numbered consecutively).
- 9) Paragraph title (numbered consecutively).
- 10) Description of the operation (always preceded by a rhombus).
- 11) Description of the operation: the star means that the operation must be repeated on the other side of the vehicle.

0.3 FOREWORD

This manual contains information covering normal servicing procedures.

In the future, the information and illustrations contained in this manual will be updated by means of "Releases", see 0.1 (UPDATE OF RELEASE 00/2002-11).

Since **aprilia s.p.a.** strives to always improve the quality and usefulness of its vehicles, changes may be made to the vehicles at any time.

Thus, it is imperative that users of this manual understand that some information may be out of date for some vehicles.

Be sure that the information in this manual applies to the vehicle that you are servicing before you begin any service operations.

Before consulting the manual, check the vehicle model. This publication is intended for **aprilia** dealers and their trained and qualified mechanics.

The description of many service and repair operations is intentionally omitted, as it is assumed that the users of this manual have basic mechanical training, basic knowledge of the procedures regarding motor vehicle repair, and have available to them all current information published by **aprilia** concerning the vehicle.

Without these things, the repair or servicing of the vehicle could be affected and could lead to a dangerous condition or accident for the servicing mechanic or the operator.

This manual does not describe all of the procedures necessary to repair and service the vehicle in detail.

Therefore, it is important to be particularly careful in order to avoid any damage to the vehicle, its parts, or to cause injury to the mechanic or the rider.

Changes in the technical specifications and servicing procedures that become necessary as a result of changes to **aprilia** vehicles will be documented and distributed to all **aprilia** dealers.

Therefore, it is necessary that the latest **aprilia** information be kept available to the servicing mechanics.

If you have questions regarding repair and servicing procedures, contact the **aprilia s.p.a. Technical After-Sales Department - Technical Documentation Department**.

aprilia technical counselors will be able to assist you with any problems that you might face.

aprilia s.p.a. reserves the right to modify any of its models in any manner at any time.

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Produced and printed by:
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0.4 REFERENCE **aprilia** SERVICE LITERATURE

For further information, refer to the follows chapter.

0.4.1 ENGINE WORKSHOP MANUAL

aprilia part# (description)
8140587 (Workshop manual V990 engine  1056 -1)

0.4.2 SPARE PARTS CATALOGUE

aprilia part# (description)
390W (Spare parts catalogue) frame up to # ZD4MEE009YS000292
390Y (Spare parts catalogue) frame # ZD4MEE009YS000293 and later

0.4.3 SPECIAL TOOLS CATALOGUE

aprilia part# (description)
8202278 (Special tools catalogue)

0.4.4 USE AND MAINTENANCE BOOK

aprilia part# (description)
 8104099 (Use and maintenance book RSV mille) frame up to # ZD4MEE009YS000292
 8104171 (Use and maintenance book RSV mille) frame # ZD4MEE009YS000293 and later
 8104264 (Use and maintenance book RSV mille)

0.5 ABBREVIATIONS/SYMBOLS/INITIALS

#	= number	kg	= kilograms (1 kg = 2.2046224 lb)
<	= is less than	km	= kilometers (1 km = 0.62137119 mi)
>	= is greater than	km/h	= kilometers an hour
≤	= is equal to or less than	kΩ	= kilohms
≥	= is equal to or greater than	kPa	= kiloPascal (1 kPa = 0.145 psi – 0.01 bar)
~	= approximately	kW	= kilowatt
∞	= infinity	KS	= clutch side (Kupplungseite)
°C	= Celsius degree (centigrade)	ℓ	= liter (1 ℓ = 0.2641721 US gal)
°F	= Fahrenheit degree	LAP	= lap (for competition use)
±	= plus or minus	LED	= Light Emitting Diode
a.c.	= alternating current	m/s	= meters an second
A	= ampere	mbar	= millibar (1 mbar = 0.0145 psi – 0.1 kPa)
Ah	= ampere per hour	MAX	= maximum
API	= American Petroleum Institute	mi	= mile
HV	= high voltage	MIN	= minimum
AV/DC	= AntiVibration Double Countershaft	MPH	= miles per hour
bar	= unit of pressure (1 bar = 14.50 psi – 100 kPa)	MS	= flywheel side (Magnetoseite)
BDC	= Bottom Dead Center	MΩ	= megaohm
cm³	= cubic centimeters (1 cm ³ = 0.0338139 US fl oz)	Nm	= newton-meter (1 Nm = 0.723300129 ftlb)
CO	= carbon monoxide	oz	= ounce
CPU	= Central Processing Unit	Ω	= ohm
cu in	= cubic inch	PICK-UP	= pick-up
d.c.	= direct current	PPC	= Pneumatic Power Clutch
DIN	= German industrial normative (Deutsche Industrie Norm)	SAE	= Society of Automotive Engineers
DOHC	= Double Overhead Camshaft	sq in	= square inch
ECU	= Electronic Control Unit	TEST	= diagnostics test
ftlb	= foot pound	TDC	= Top Dead Center
ft	= foot	TSI	= Twin Spark Ignition
g	= gram	US gal	= Usa gallon
rpm	= revolutions per minute	US qt	= USA quart
HC	= unburned hydrocarbons	US fl oz	= USA fluid ounce
in	= inch	UPSIDE-	
ISC	= Idle Speed Control	DOWN	= upside-down fork
ISO	= International Standardization Organization	V	= volt
		W	= watt
		xxxxxxx N.A.	= not available
		∅	= diameter
		Cylinder “1”	= front cylinder
		Cylinder “2”	= rear cylinder

GENERAL INFORMATION

1

GENERAL INFORMATION

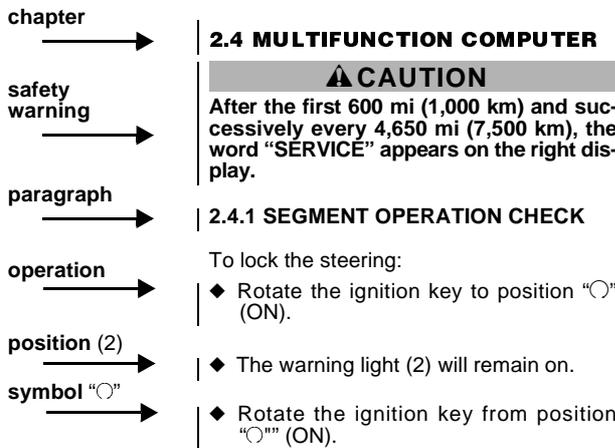
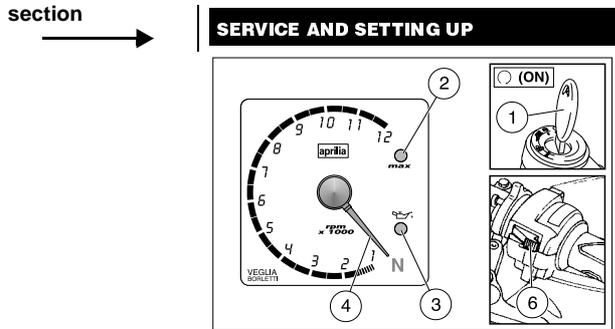
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1.1 INTRODUCTION

This manual is divided into sections, chapters and paragraphs, by subject.
 The procedures described are laid out in single operation, and each operation is indicated by a ◆.
 The numbered parts shown in the figures are identified in the text with the number in parentheses or with the symbol representing them.
 Example (the following text is generic and does not refer to this specific vehicle):



1.2 SAFETY WARNINGS

Throughout this manual, you will see the following symbols:

⚠ WARNING

When you find this symbol on the vehicle or in the manual, this indicates that a potential for serious personal injury or death exists.
 Failure to follow this warning may result in serious risk of personal injury or death, of the mechanic working on the vehicle, the operator of the vehicle, or the general public.
 It also indicates that serious and permanent damage to the vehicle is possible.

⚠ CAUTION

This statement indicates a potential hazard which may result in some personal injury, or damage to the vehicle.

NOTE The word "NOTE" in this manual precedes important information or instructions to which special attention must be given.

1.3 GENERAL SAFETY RULES

This chapter contains the general safety rules, further and specific safety rules are described in the chapter 1.4 (SPECIFIC SAFETY RULES). Carefully read both these chapters.

1.3.1 CARBON MONOXIDE

If it is necessary to run the engine in order to carry out a maintenance operation, ensure that the area in which you are operating is properly ventilated. Never run the engine in enclosed spaces. If it is necessary to work indoors, use an exhaust evacuation system.

 WARNING

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

1.3.2 GASOLINE

Work in a well ventilated area. Keep cigarettes, flames or sparks away from the work area and from the place where gasoline is stored.

 WARNING

Gasoline is extremely flammable and becomes explosive under certain conditions.

Use latex gloves for the maintenance operations that require contact with gasoline.

ALWAYS KEEP GASOLINE AWAY FROM CHILDREN AND PETS.

DISPOSE OF UNWANTED, DRAINED OR USED GASOLINE PROPERLY, DO NOT DUMP IT INTO STORM SEWERS OR INTO A SINK OR TOILET.

1.3.3 HOT COMPONENTS** WARNING**

The engine and the components of the exhaust system become very hot and remain hot for some time after the engine has been stopped.

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

1.3.4 ENGINE OIL AND FORK OIL** WARNING**

Use latex gloves for the maintenance operations that require contact with used oil.

Used oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods.

Although this is unlikely unless you handle used oil on a daily basis, it is advisable to thoroughly wash your hands with soap and water after handling used oil.

ALWAYS KEEP ENGINE OIL AND FORK OIL AWAY FROM CHILDREN AND PETS.

DISPOSE OF UNWANTED OR DRAINED OIL PROPERLY, DO NOT DUMP IT INTO STORM SEWERS OR INTO A SINK OR TOILET.

1.3.5 BRAKE FLUID** CAUTION**

The brake fluid can damage painted, plastic or rubber parts. When performing maintenance operations on the brake system, place a clean shop towel on these parts, and take care not to spill the brake fluid.

Always wear goggles when servicing the brake system with brake fluid.

Brake fluid is extremely destructive to your eyes.

If you should accidentally get brake fluid in your eyes, flush immediately with a large quantity of cool clear water and seek professional medical assistance immediately.

Use latex gloves for the maintenance operations that require contact with brake fluid.

ALWAYS KEEP BRAKE FLUID AWAY FROM CHILDREN AND PETS.

DISPOSE OF UNWANTED OR DRAINED BRAKE FLUID PROPERLY, DO NOT DUMP IT INTO STORM SEWERS OR INTO A SINK OR TOILET.

1.3.6 CLUTCH CONTROL FLUID** CAUTION**

The clutch control fluid can damage painted, plastic or rubber parts.

When performing maintenance operations on the clutch control system, place a clean shop towel on these parts, and take care not to spill the clutch control fluid.

Always wear goggles when servicing the clutch control system with clutch control fluid.

Clutch control fluid is extremely destructive to your eyes.

If you should accidentally get clutch control fluid in your eyes, flush immediately with a large quantity of cool clear water and seek professional medical assistance immediately.

Use latex gloves for the maintenance operations that require contact with control clutch fluid.

ALWAYS KEEP CLUTCH CONTROL FLUID AWAY FROM CHILDREN AND PETS.

DISPOSE OF UNWANTED OR DRAINED CLUTCH CONTROL FLUID PROPERLY, DO NOT DUMP IT INTO STORM SEWERS OR INTO A SINK OR TOILET.

1.3.7 COOLANT

In certain conditions, the ethylene glycol contained in the engine coolant is flammable: its flame is invisible, but you can be burned anyway.

 WARNING

Avoid spilling the engine coolant on the exhaust system or on the engine components.

They may be hot enough to cause the coolant to ignite and burn without a visible flame.

The coolant (ethylene glycol) can cause skin irritation and is poisonous if swallowed.

Use latex gloves for the maintenance operations that require contact with coolant.

ALWAYS BE SURE TO KEEP THE COOLANT AWAY FROM CHILDREN AND PETS. IT IS SWEET TASTING, AS WELL AS EXTREMELY POISONOUS, AND IS VERY ATTRACTIVE TO CHILDREN AND PETS.

DISPOSE OF UNWANTED OR DRAINED COOLANT PROPERLY, DO NOT DUMP IT INTO STORM SEWERS OR INTO A SINK OR TOILET.

Do not leave coolant in an open container where pets or other animals may be able to drink it.

Do not remove the radiator cap when the engine is hot. The coolant is under pressure and may cause burns.

1.3.8 BATTERY HYDROGEN GAS AND ELECTROLYTE

WARNING

The battery gives off explosive gases; keep cigarettes, flames and sparks away from the battery. Provide adequate ventilation when operating or recharging the battery.

The battery contains sulphuric acid (electrolyte). Contact with the skin or the eyes may cause serious burns.

Always wear tight fitting goggles and protective clothing when handling battery electrolyte.

It is particularly important for you to protect your eyes, since even a minuscule amount of battery acid can destroy your vision.

Should you accidentally get even the smallest amount of battery acid on your skin or eyes, immediately flush with large quantities of clear cool water and immediately seek professional medical attention.

The electrolyte is poisonous.

If the electrolyte is accidentally swallowed, drink large quantities of water or milk and then milk of magnesia or vegetable oil.

Seek professional medical attention immediately.

Use latex gloves for the maintenance operations that require contact with battery or electrolyte.

ALWAYS KEEP BATTERIES AND ELECTROLYTE AWAY FROM CHILDREN AND PETS.

DISPOSE OF UNWANTED OR USED BATTERIES AND ELECTROLYTE PROPERLY, DO NOT DUMP IT INTO STORM SEWERS OR INTO A SINK OR TOILET.

1.3.9 ENGINE GENERAL SAFETY RULES

CAUTION

Careful adherence to the maintenance operation intervals and the technical documents provided is essential for long life and efficient operation of the engine.

WARNING

Repair any small problems immediately upon their discovery.

Small problems in the engine will inevitably grow to major problems, which can cause serious irreparable engine damage, and even an accident, with subsequent upset, serious injury, and even death.

Engine seizure will certainly result in a serious accident, and improper maintenance can lead to engine seizure.

If you have any questions about any maintenance operation, do not permit the vehicle to be ridden, and contact the **aprilia** factory immediately.

CAUTION

Maintenance and repair operations carried out on the engine while it is installed in the vehicle must be performed only after turning the engine off and setting the ignition switch to the "OFF" (OFF) position.

Do not attempt to start the engine if all electrical wiring is not completely connected and all ignition and other electrical components are not installed and connected.

WARNING

Exhaust gases contain carbon monoxide, which is extremely poisonous if inhaled.

Do not start the engine in closed or badly-ventilated rooms.

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

CAUTION

Start the engine and let it run **ONLY** for the time necessary for the checking.

WARNING

During maintenance and repair work, observe all general safety rules, and the safety notes provided by **aprilia**.

Pay careful attention and obey all safety rules and suggestions contained in this manual.

Observe all environmental regulations, do not dispose of used engine fluids or defective parts improperly.

1.3.10 PRECAUTIONS AND GENERAL INFORMATION

Follow with care these recommendations when repairing, disassembling and reassembling the vehicle.

WARNING

The use of open flames is forbidden for any type of operation.

Before commencing any service or inspection operation on the vehicle, switch off the engine and remove the key, wait until the engine and the exhaust system have cooled down and, if possible, raise the vehicle with the suitable equipment onto firm flat ground.

In order to avoid burns, be careful not to touch any parts of the engine or exhaust systems which have not cooled down completely.

The brakes also get quite hot in operation.

Be sure that the brakes have cooled thoroughly before beginning any service operations.

Avoid the temptation to hold any hardware or other part of the vehicle in your mouth while working on the vehicle.

No part of the motorscooter is edible and some of the coatings, plastics, and platings, etc. are noxious if not outright toxic.

If not expressly described, the reassembly of the units is carried out by reversing the order of operations.

Handle fuel with the greatest caution.

Never use fuel as a solvent for cleaning the vehicle.

Disconnect the negative cable (-) from the battery when electric welding.

When two or more persons are working together, ensure that each is working in safe condition.

Be sure that all the mechanics working on any one vehicle are thoroughly briefed as what each will be doing, and insure that one mechanic is responsible for insuring that all safety related items, such as tightening torques, are properly considered.

BEFORE DISASSEMBLY

- Remove any dirt, mud, dust and foreign matter from the vehicle before disassembling the components.
- Use, when necessary, the special tools designed for this vehicle.

⚠ WARNING

Do not use makeshift tools for any operation which calls for a special tool.

Failure to heed this warning can lead to serious personal injury such as when an ill-fitting wrench slips, and you slam your hand into the workbench or a part of the vehicle.

DISASSEMBLING THE COMPONENTS

- Before disconnecting any line, cable, etc., mark each part with a number or distinguishing mark. Each disconnected part must be marked clearly in order that it may be reassembled in the same position as it was before disassembly.
- Clean and carefully wash all disassembled parts with fire-proof solvent such as Stoddard solvent or a non-flammable detergent.
- Keep mating parts together, since they have worn in during normal use. There are some sets of parts, such as front sprocket, chain, and rear wheel sprocket, which all must be replaced as a set.
- Be careful not to place plastic or painted parts close to heat sources, where they might be damaged.

REASSEMBLING THE COMPONENTS**⚠ CAUTION**

Never use a circlip twice. When a circlip is removed, it must be replaced with a new one.

When assembling a new circlip be careful not to stretch its ends more than strictly necessary to place it on the shaft.

After installing a circlip, ensure that it is completely and firmly inserted in its seat.

Do not use compressed air to clean the bearings.

NOTE The bearings must rotate freely, without halting or noise otherwise they must be replaced.

- Use only original **aprilia** SPARE PARTS.
- Use the recommended lubricants.
- Always lubricate parts before reassembly.
- When tightening screws, nuts, and bolts, start with the largest diameter fasteners. When several fasteners are arranged in a pattern, start with the innermost fasteners, and tighten diagonally across the pattern. Tighten each fastener successively before applying the final tightening torque.
- Always replace gaskets, grommets, circlips, O-rings and split pins (cotter pins) with new ones. Before assembling, clean all mating surfaces carefully, removing all traces of the old gasket and gasket sealing compound. Also carefully clean any oil seal you plan to reuse. It is recommended that all oil seals be replaced each time they are disassembled. Gaskets should never be reused. Apply a thin film of lithium based grease to all oil seals before assembling. Install oil seals and bearings with the identification mark or serial number facing outward (visible). Copiously lubricate bearings before installation and before assembly.
- Ensure that each component has been reassembled correctly.
- After any repair or periodic maintenance operation is carried out, the vehicle must be test ridden in an area away from traffic and other hazards.

1.3.11 ELECTRICAL CONNECTORS

The electrical connectors must be disconnected as follows. Failure to follow these procedures will irreparably damage the connector and wiring.

- ◆ Press in the click tab.

⚠ CAUTION

Do not pull the cables to disconnect the two connectors.

- ◆ Grasp the two connectors and disconnect them by pulling in opposite directions.
- ◆ If dirt, rust, dust, or moisture is seen on the connector, blow out the connector with air.
- ◆ Ensure that the cables are correctly crimped to the terminals placed inside the connectors.

NOTE The two halves of the connector fit together properly in only one orientation. Ensure that the connector is properly aligned before attempting to assemble it.

- ◆ Press the connectors firmly together, listening for the typical “click” sound for those connectors provided with a click tab. Ensure that both halves of the connectors are firmly pressed together.

1.3.12 FASTENERS TIGHTENING TORQUES**⚠ WARNING**

Remember that the tightening torque of all fasteners on the wheels, brakes, axles, and other components of the suspension system is very important to ensure the safety of the vehicle, and must be kept at the prescribed values.

Check the tightening torque of the fasteners regularly, and always use a torque wrench when reinstalling them.

Failure to comply with this warning could allow one of these components to be lost which could lock a wheel or cause other handling problems with consequent overturning and risk of serious injury or even death.

1.4 SPECIFIC SAFETY RULES

This chapter contains the specific safety rules, further and general safety rules are described in the chapter 1.3 (GENERAL SAFETY RULES). Carefully read both these chapters.

1.4.1 FUEL

WARNING

Gasoline is extremely flammable and in some conditions can become explosive.

Therefore, it is necessary to refuel and carry out maintenance operations involving the fuel system in a well-ventilated area with the engine off.

Do not refuel or do any maintenance on the fuel system with the engine running.

Do not smoke while refueling or near fuel vapors.

Never allow any portion of the fuel system to come in contact with open flames, sparks or other heat sources.

Be careful to avoid spilling fuel when you are refueling. Spilled fuel could ignite when it contacts hot engine or exhaust system surfaces.

If you accidentally spill some fuel, ensure that it is wiped up or completely evaporated before starting the vehicle.

Since gasoline expands in the fuel tank when the vehicle is sitting in the open sun, never fill the tank completely to the brim.

Leave at least one inch of expansion space.

Avoid any contact of the fuel with your skin, and avoid inhalation of fuel vapors.

Do not ever attempt to siphon fuel from one container to another using your mouth as suction for a siphon hose.

Gasoline is poisonous and carcinogenic and contains chemical substances that cause birth defects and other reproductive problems.

If gasoline should be accidentally spilled on the skin or clothes, immediately wash it off with soap and water and change clothes.

Should you accidentally spill gasoline in your eyes, flush with a large quantity of water and immediately contact a health professional.

Should you accidentally get gasoline into your mouth, do not induce vomiting.

Drink a large quantity of milk or clear water and immediately contact a health professional.

Never try to siphon gasoline by sucking it with your mouth.

Use a manual pump or a similar system.

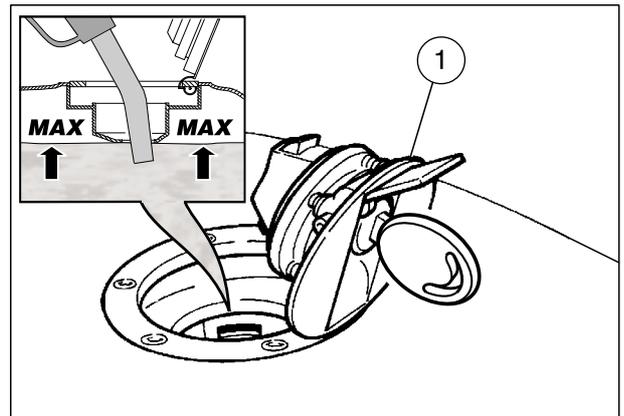
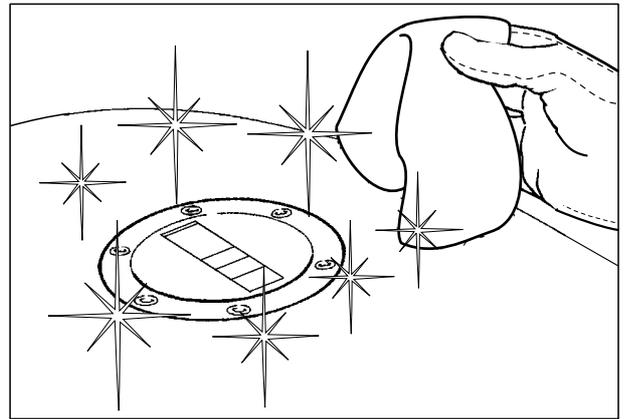
If your vehicle overturns, it will leak gasoline which is extremely flammable.

Flames or sparks may ignite this which will not only destroy the vehicle but also could do serious property damage to surrounding property and cause serious injuries or even death.

Use latex gloves for the maintenance operations that require contact with gasoline.

ALWAYS KEEP GASOLINE AWAY FROM CHILDREN AND PETS.

DISPOSE OF UNWANTED, DRAINED OR USED GASOLINE PROPERLY, DO NOT DUMP IT INTO STORM SEWERS OR INTO A SINK OR TOILET.



CAUTION

Before opening the fuel filler cap, if necessary, clean the it cap and the part around it with a clean cloth. Prevent any foreign material from getting into the fuel tank, this could lead to serious engine damage.

If you use any container or funnel for refueling, make sure that it is perfectly clean.

Any foreign matter getting into the fuel tank may lead to severe damage.

WARNING

Do not add any additives or other substances to the gasoline.

Do not refuel the tank completely; the fuel should never be touching the rim of filler cap seat hole.

After refueling, replace the fuel filler cap (1) in the correct position and ensure that it is properly closed.

Use only unleaded gasoline minimum octane rating (M+R)/2 method 90.

FUEL TANK CAPACITY
(reserve included): 5.28 US gal (20 ℓ).

TANK RESERVE: 1.19 ± 0.26 US gal (4.5 ± 1 ℓ).

1.4.2 LUBRICANTS

⚠ WARNING

Proper vehicle lubrication is critical to safe operation. Failure to maintain proper lubricant levels or to use the proper type of clean, new lubricant, can lead to an engine or transmission seizure with subsequent accident, serious injury or death.

Use latex gloves for the maintenance operations that require contact with lubricant.

Used oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods.

Although this is unlikely unless you handle used oil on a daily basis, it is advisable to thoroughly wash your hands with soap and water after handling used oil.

ALWAYS KEEP LUBRICANT AWAY FROM CHILDREN AND PETS.

DISPOSE OF UNWANTED OR DRAINED LUBRICANT PROPERLY, DO NOT DUMP IT INTO STORM SEWERS OR INTO A SINK OR TOILET.

⚠ CAUTION

Be very careful when putting oil in your vehicle not to spill oil.

Clean up any oil spilled immediately because oil can damage the finish of your vehicle.

Also, oil on the tires creates an extremely slippery and therefore dangerous situation.

In case of lubricant leakage do not ride the vehicle, but check to determine the cause of the leakage and repair it.

ENGINE OIL

⚠ WARNING

If the engine oil pressure warning light LED “” (1) remains on (when the engine is running), or if it comes on during the normal running of the engine, this means that the oil system is not developing sufficient pressure.

In this case, immediately stop the engine and check the engine oil level, see 2.15 (CHANGING THE ENGINE OIL AND THE ENGINE OIL FILTER) if the level is correct, check the engine oil pressure sensor, see 6.10.4 (CHECKING THE ENGINE OIL LOW PRESSURE SENSOR).

Failure to heed this warning can lead to engine seizure, upset, and serious injury or even death.

⚠ CAUTION

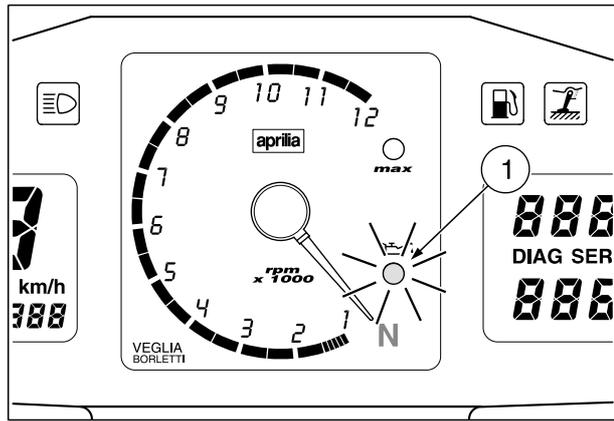
Perform these maintenance operations at one-half of the specified intervals, if the vehicle is often used in rainy or very dusty conditions, on unpaved roads or in any kind of competition.

Periodically check the engine oil level (*), see 2.14 (CHECKING THE ENGINE OIL LEVEL AND TOPPING UP).

Renew the engine oil (*), see 2.15 (CHANGING THE ENGINE OIL AND THE ENGINE OIL FILTER).

(*) For the regular service intervals, see 2.2 (REGULAR SERVICE INTERVAL CHART).

For the proper lubricants type, see 1.12 (LUBRICANT CHART).



FORK OIL

⚠ WARNING

By changing the damper settings and/or the viscosity of the oil contained in them, the suspension response may be altered partially.

Standard oil viscosity: SAE 20 W.

The viscosity ratings which can be chosen based on the type of fork stiffness desired (SAE 5W soft, 20W stiff).

The two products can be used in different percentages until the desired response is obtained.

One of the properties of  F.A. and  Agip FORK is that their viscosity changes little with changes in temperature and their damping response therefore remains constant.

1.4.3 BRAKES

NOTE This vehicle is equipped with front and rear disc brakes with separate hydraulic systems.

The following information may refer to just one brake system but should be observed with regard to both brakes.

⚠ WARNING

Do not ride the vehicle with worn or malfunctioning brakes! The brakes are the most important safety system of the vehicle, and using the vehicle with brakes that are anything less than perfect is very likely to lead to a collision or upset, with consequent risk of serious injury or death.

Wet condition seriously degrade the performance of your brakes.

When the road is wet from rain, you should plan to use double the normal stopping distances since both the brakes themselves and the traction of the tires on the road are reduced by the presence of water.

Water on the brakes from washing your vehicle, or splashed up from wet roads, or crossing puddles or ditches, can wet the brakes sufficiently to greatly reduce their effectiveness.

Failure to heed these warnings may lead to a serious accident with consequent risk of serious injury or even death.

Follow ►

Follow ►

The brakes are extremely important for your safety. Do not use the vehicle if the brakes do not work perfectly.

Always check the brake efficiency before riding. Sudden variations in clearance or an elastic resistance in the brake levers may be due to trouble in the hydraulic systems.

Pay special attention to the brake disc and friction material, making sure that they are neither dirty nor oily, especially after maintenance operations or inspections.

Check the brake line, ensure that it is not twisted or kinked, nor leaking.

Use latex gloves for the maintenance operations that require contact with brake fluid.

ALWAYS KEEP BRAKE FLUID AWAY FROM CHILDREN AND PETS.

DISPOSE OF UNWANTED OR DRAINED BRAKE FLUID PROPERLY, DO NOT DUMP IT INTO STORM SEWERS OR INTO A SINK OR TOILET.

1.4.4 DISC BRAKES

WARNING

The brakes are the most important safety system on your vehicle.

For your safety, they must be in perfect repair, so they should be checked every time you ride the vehicle.

Oil or other fluid on a disc will contaminate the brake pads.

Dirty pads must be discarded and replaced, a dirty or oily disc must be cleaned with a high quality degreaser.

WARNING

Perform these maintenance operations at one-half of the specified intervals, if the vehicle is often used in rainy or very dusty conditions, on unpaved roads or in any kind of competition.

Check the levels of the brake fluid in the reservoirs (*), see 2.18 (CHECKING AND TOPPING UP THE FRONT BRAKE FLUID) and 2.19 (CHECKING AND TOPPING UP THE REAR BRAKE FLUID).

Renew the brake fluid (*), see 2.23 (CHANGING THE FRONT BRAKE FLUID) and 2.24 (CHANGING THE REAR BRAKE FLUID).

(* For the regular service intervals, see 2.2 (REGULAR SERVICE INTERVAL CHART).

For the proper lubricants type, see 1.12 (LUBRICANT CHART).

Check the brake pad wear, as shown on 2.29 (CHECKING THE BRAKE PAD WEAR).

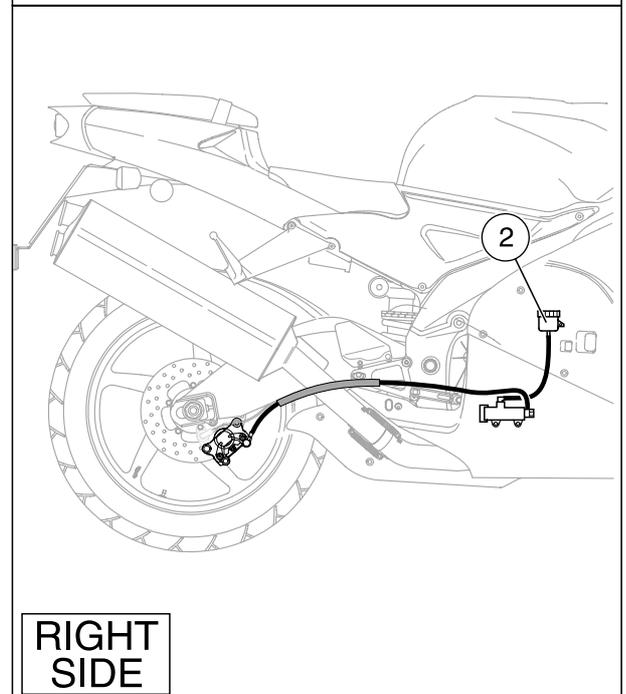
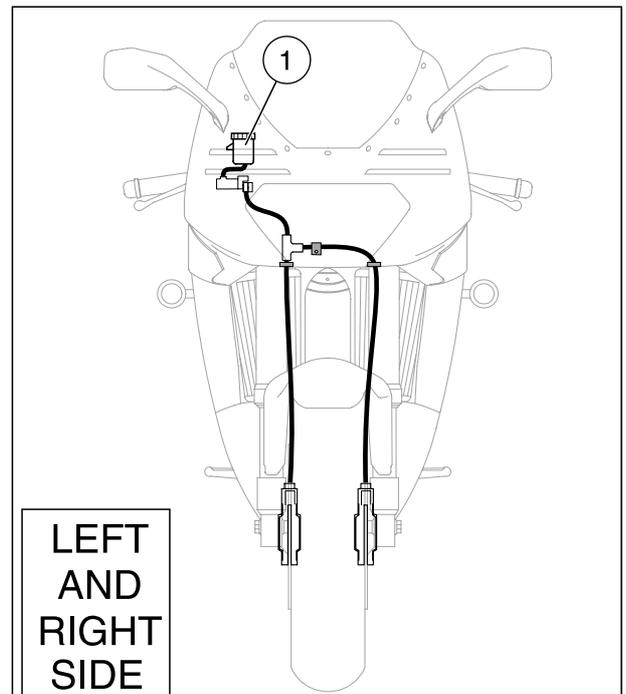
When the pads wear out the brake fluid level in the reservoir decreases to automatically compensate for their wear.

The front brake fluid reservoir (1) is located on the right end of the handlebar near the front brake lever.

The rear brake fluid reservoir (2) is under the fairing on the right side of the vehicle.

WARNING

Never use the vehicle if any portion of either brake system is leaking.



1.4.5 CLUTCH CONTROL FLUID

NOTE This vehicle is equipped with hydraulic clutch control.

⚠ WARNING

Do not ride the vehicle with worn or malfunctioning clutch! The clutch is an important safety system of the vehicle, and using the vehicle with clutch that is anything less than perfect is very likely to lead to a collision or upset, with consequent risk of serious injury or death.

The clutch is extremely important for your safety. Do not use the vehicle if the clutch does not work perfectly. Always check the clutch efficiency before riding.

Sudden variations in clearance or an elastic resistance in the clutch lever may be due to trouble in the hydraulic system.

Use latex gloves for the maintenance operations that require contact with control clutch fluid.

ALWAYS KEEP CLUTCH CONTROL FLUID AWAY FROM CHILDREN AND PETS.

DISPOSE OF UNWANTED OR DRAINED CLUTCH CONTROL FLUID PROPERLY, DO NOT DUMP IT INTO STORM SEWERS OR INTO A SINK OR TOILET.

When using the fluid, take care not to spill it on the plastic and painted parts, since it damages them.

Perform these maintenance operations at one-half of the specified intervals, if the vehicle is often used in rainy or very dusty conditions, on unpaved roads, or in any kind of competition.

Check the levels of the clutch fluid in the reservoir. (*) see 2.20 (CHECKING AND TOPPING UP THE CLUTCH CONTROL FLUID).

Renew the fluid (*), see 2.25 (CHANGING THE CLUTCH CONTROL FLUID).

(*) For the regular service intervals, see 2.2 (REGULAR SERVICE INTERVAL CHART).

For the proper lubricants type, see 1.12 (LUBRICANT CHART).

Never use the vehicle if the clutch hydraulic system is leaking.

⚠ CAUTION

To avoid serious damage to the system, do not use fluids other than the recommended ones nor mix different fluids for topping up.

Do not use clutch fluid taken from old or already opened containers.

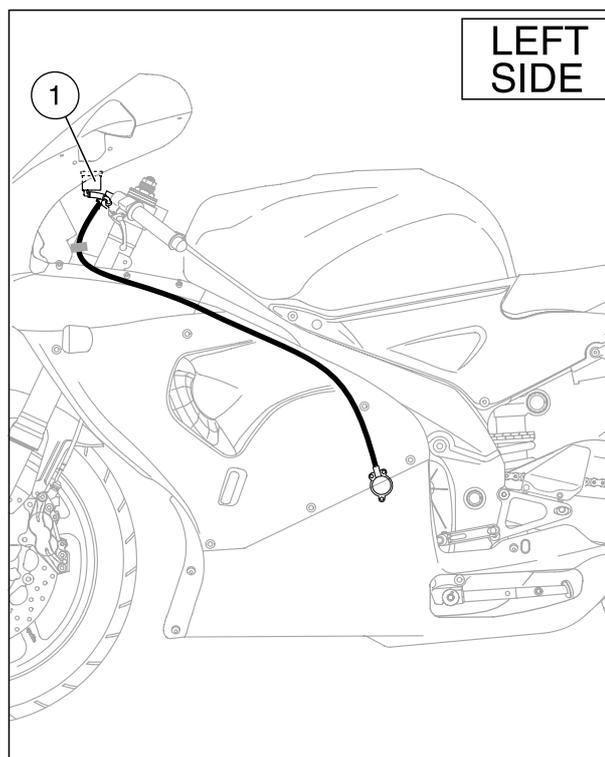
Check that the clutch control lines are not twisted or worn.

Ensure that neither water nor dust accidentally enter the system.

NOTE Use high-quality clutch control fluid, see 1.12 (LUBRICANT CHART).

The clutch control fluid reservoir (1) is located on the left end of the handlebar near the clutch lever.

NOTE The engine is provided with an hydraulic control clutch, aided by the PPC (Pneumatic Power Clutch) exclusive patented system, which avoids the bouncing of the rear wheel.



1.4.6 COOLANT

⚠ CAUTION

Do not use the vehicle if the coolant is below the minimum prescribed level.

Before setting off, and (*), check the level of the coolant, see 2.16 (CHECKING AND TOPPING UP COOLANT); renew the coolant (*), see 2.17 (CHANGING THE COOLANT).

(*) For the regular service intervals, see 2.2 (REGULAR SERVICE INTERVAL CHART).

For the proper lubricants type, see 1.12 (LUBRICANT CHART).

⚠ WARNING

Coolant is poisonous! Do not ingest coolant under any circumstance.

Should you get coolant in your mouth, rinse with cool water and immediately seek medical attention.

Coolant is also very dangerous to your skin and eyes.

Should you accidentally get coolant on your clothing or skin, change clothes immediately.

Wash coolant from your skin with hot water and soap.

Should you get coolant in your eyes, flush with plenty of cool water and seek professional medical help at once.

Should someone swallow coolant accidentally, induce vomiting, rinse mouth with water, and immediately seek professional medical attention.

Use latex gloves for the maintenance operations that require contact with coolant.

ALWAYS BE SURE TO KEEP THE COOLANT AWAY FROM CHILDREN AND PETS. IT IS SWEET TASTING, AS WELL AS EXTREMELY POISONOUS, AND IS VERY ATTRACTIVE TO CHILDREN AND PETS.

DISPOSE OF UNWANTED OR DRAINED COOLANT PROPERLY, DO NOT DUMP IT INTO STORM SEWERS OR INTO A SINK OR TOILET.

Use extra caution not to spill the coolant on any hot parts of the engine. It is flammable, and can emit invisible, noxious fumes.

The coolant is made up of 50% water and 50% antifreeze.

This mixture is ideal for most running temperatures and ensures good protection against corrosion.

It is advisable to keep the same mixture also in the hot season, since in this way losses due to evaporation are reduced and it is not necessary to top up very frequently. 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 (32 °F), check the cooling circuit frequently and if necessary increase the antifreeze concentration (up to maximum 60%).

⚠ CAUTION

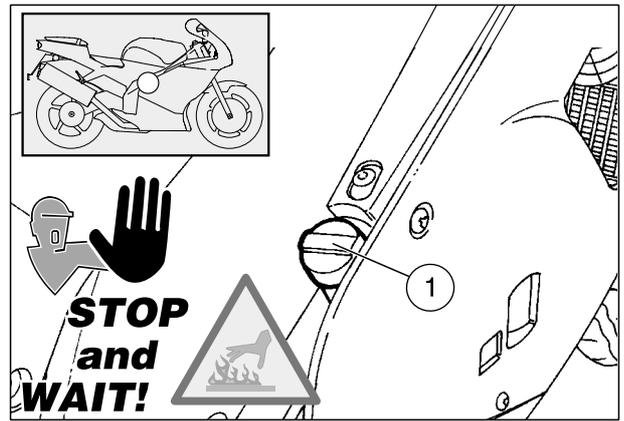
Use only distilled water when topping off the cooling system. This will reduce damage to the engine.

⚠ WARNING

The coolant is very hot.

Do not remove the filler cap (1) when the engine is hot since the coolant is under pressure and it will splash out violently.

If it gets in contact with the skin or with your clothing,



it may cause severe burns.

⚠ WARNING

Be aware of the risk of burns from the coolant. Check the coolant level and top up the expansion tank only after the engine has thoroughly cooled.

Do not use your fingers or any other object to check if there is enough coolant.

On the basis of the desired freezing temperature of the coolant mixture, add to the water the percentage of coolant indicated in the following table:

Freezing point °C (°F)	Coolant of the volume %
-20 (-68)	35
-30 (-86)	45
-40 (-104)	55

NOTE The characteristics of the various antifreeze liquids are different.

Be sure to read the label on the product to learn the degree of protection it guarantees.

⚠ CAUTION

Use only antifreeze and anticorrosive without nitrite in order to ensure protection at at least -35 °C (-95 °F).

1.4.7 ENGINE SPECIFIC SAFETY RULES

⚠ WARNING

This **aprilia** engine is designed solely for use this specific **aprilia** vehicle.

Any other use is inappropriate.

Manufacturer will not be liable for any damage which results to the engine or to any other party as a result of this misuse.

⚠ CAUTION

The information contained in this section is based on **aprilia's** experience with vehicle that have been properly maintained, and are unmodified. The information in this section is useful and necessary, but it cannot substitute for proper theoretical and practical training.

⚠ WARNING

Since the **aprilia** engine is built of the highest quality materials, manufactured to exacting tolerances, any spare parts used must meet all of the requirements defined by **aprilia**.

The only spare parts which you can be assured meet these requirements are Genuine **aprilia** Spare Parts and/or accessories, see 0.4.2 (SPARE PARTS CATALOGUE).

The use of spare parts or accessories which do not meet **aprilia**'s specifications invalidates the warranty coverage.

CAUTION

Modifications to the engine and associated system (intake silencer, carburetor, exhaust system, engine fasteners, transmission, etc.) not approved by **aprilia** are likely to degrade the performance and durability of the engine.

Therefore, any such modifications which are found to effect the operation of the engine void the warranty.

1.4.8 REQUIREMENTS FOR ENGINE OPERATIONS WORK

WARNING

Maintenance of engines and systems requires specific know-how and special tools.

All maintenance and repair work must be performed only by technicians with specific training for **aprilia** engines.

We remind you that parts and equipment that are not Genuine **aprilia** Spare Parts and are not supplied by **aprilia** are neither tested nor approved by **aprilia**. The installation and use of such products can adversely affect the engine's life and performance.

Any damage to the engine caused by the use of such products is not covered under warranty, and **aprilia** will not be responsible for any damage, direct or consequential, as a result of use of such products.

In addition to the advice given in this manual, also observe the general safety and accident prevention regulations and local laws.

During the assembly phase, bear in mind the engine's weight [approx. 143 lb (65 kg)] and center of gravity: support accordingly.

Take care around any potentially hazardous points where you might be squashed or cut.

NOTE Comply with the instructions furnished by the manufacturer of the vehicle.

WARNING

Do not use highly inflammable or caustic cleaning agents.

Disconnect the battery only with the ignition off! Disconnect the negative terminal first and then the positive terminal.

Be careful when handling caustic battery acid! Seek medical attention in case of accident, see 1.3.8 (BATTERY HYDROGEN GAS AND ELECTROLYTE), with regard to first aid for batteries.

When draining hot operating fluids, be careful to avoid burns.

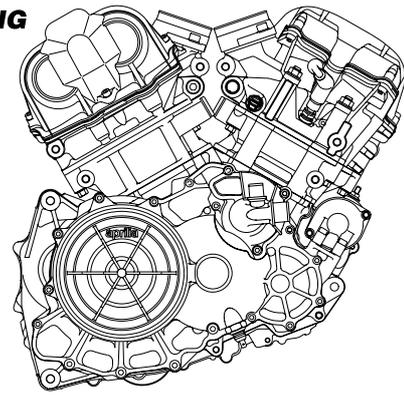
Let the engine cool down first.

Dispose of all operating fluids, cleaning agents, filter elements etc. as per local environmental requirements.

Always attach engines removed from vehicles securely appropriate engine stands.

WARNING

Engine weight
143 lb
(65 kg)



CAUTION

When servicing the cooling, lubrication and fuel system systems, make absolutely sure that no contaminating material, metal chips, foreign matter or dirt enter the system.

The use of the special tools, fixtures and lubricants specified is required for correct repair.

Never tighten screws and nuts with a pair of pliers: always use the correct wrench.

Use only screws and nuts in good condition. Inspect the contact face and thread for damage, and renew in case of doubt.

Never reuse a self-locking (nylock) nut. Self-locking nuts should always be replaced with new nuts once removed.

Scrupulously observe the tightening torques and upon reassembly of the gasket of the engine renew all sealing.

Never reuse these parts.

Overtightening or loose connections may cause serious engine damage.

Upon reassembly of the engine, renew all sealing rings, gaskets, snap rings, O-rings and oil seals removed.

Use only the securing agents, sealing and adhesive compounds, lubricants, cleaning agents and solvents specified in the corresponding chapter. Non-compliance can lead to damage.

Clean and check the parts removed before re-use and refit them according to the instructions.

Check for missing or defective parts prior to reassembly.

After reassembly, check all components for tight fit and flawless operation.

1.4.9 DRIVE CHAIN

Every 600 mi (1,000 km) check the condition, the wear, the play (tension) and the lubrication of the drive chain.

The vehicle is equipped with an endless chain.

There is no master link used.

WARNING

An excessively loose chain can come off the sprocket which can result in a serious accident and serious damage to the vehicle from the upset and subsequent serious injury or even death.

Do not ride the vehicle with an improperly adjusted chain.

To inspect the condition of the chain, grasp the chain where it goes around the sprocket and try to pull it away from the sprocket.

If you can move it more than one-eighth of an inch away from the sprocket, the chain is worn out and the chain and both front and rear sprockets must be replaced.

CAUTION

Lack of maintenance can cause premature wear of the chain and damage to the sprockets.

Maintain your chain more often if your vehicle is used on dusty or muddy roads.

1.4.10 TIRES

WARNING

If the tire is inflated to too high a pressure, an uncomfortably harsh ride will result, and riding comfort will be compromised.

Also, road holding, especially during turns and in wet condition, will likewise be compromised.

If the tire is underinflated (pressure is too low), the tire may slip on the rim with consequent loss of control.

Again, road holding and handling characteristics will be degraded, and brake performance will be reduced.

Insure that all tires are equipped with properly installed valve caps.

Changing, repairing, maintenance and balancing operations are very important and should be carried out by qualified technicians with appropriate tools.

If the tires are new, they may still be covered with a slippery film: ride carefully for the first few miles.

Never attempt to treat a tire with any kind of rubber dressing.

Particularly avoid contact to the tire with any gasoline fluid as this will cause rapid deterioration of the rubber.

If a tire becomes contaminated with oil or gasoline, you cannot clean it.

The tire must be replaced.

WARNING

Some of the original equipment tires for this vehicle are provided with wear indicators.

There are several kinds of wear indicators.

Contact your dealer to get the necessary information on the wear check procedures.

Visually check the tire wear and if they are worn, have them replaced.

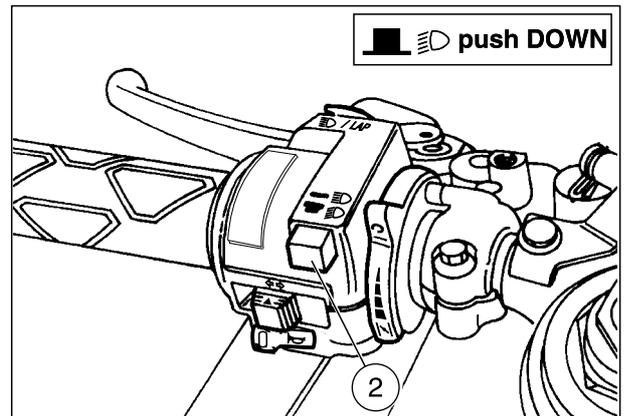
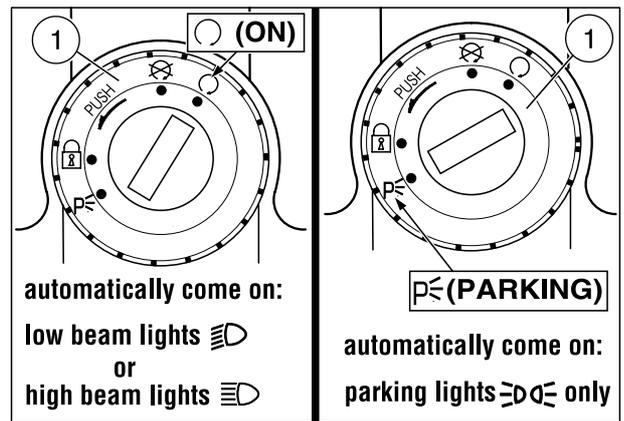
If a tire should go flat while you are riding the vehicle, do not attempt to continue riding.

Avoid abrupt braking and steering inputs, and avoid shutting the throttle quickly.

Slowly decrease the throttle setting, moving to the side of the road, using the engine compression to slow you to a stop.

Non-compliance with these instructions may cause accidents with consequent risk of injuries or even death.

Do not install tires with an inner tube on rims for tubeless tires, and viceversa.



1.4.11 AUTOMATIC LIGHTS ON

This vehicle is equipped with lights that come on automatically as soon as the ignition switch (1) is turned to position "O" (ON) (low beam lights  or high beam lights ) position "P (PARKING) (only parking lights ).

For this reason, there is no light switch on your vehicle.

The lights can be switched off only by turning the ignition switch (1) to position "OFF".

Before starting the vehicle, ensure that the dimmer switch (2) is in the low beam lights  position.

1.4.12 CATALYTIC CONVERTER

WARNING

The exhaust system of this vehicle is equipped with a catalytic converter.

It becomes extremely hot, and cause serious burns and forest fires.

Do not touch it! Keep flammable materials away.

If your vehicle is equipped with a catalytic converter, do not park it near dry brush, wood, or in places easily accessible to children, as the catalytic converter becomes extremely hot during use.

Be careful to avoid any kind of contact before it has completely cooled down.

The catalytic converter, if used, is a metal "platinum-rhodium bivalent" type.

This device provides for the oxidation of the CO (carbon monoxide) and of the HC (unburned hydrocarbons) contained in the exhaust gases, changing them into carbon dioxide and steam, respectively.

⚠ CAUTION

Do not use leaded gasoline, since it causes the destruction of the catalytic converter.

1.4.13 EXHAUST SILENCER

⚠ WARNING

Tampering with the exhaust system is prohibited.

It is against the law for you to alter the exhaust system in a manner that increases the noise, carefully read 2.1 (INTRODUCTION).

Periodically inspect the entire exhaust system, including the exhaust pipe and silencer, to ensure that no holes have rusted through.

Using a wire or small pick, ensure that the drain hole in the bottom of the muffler is open.

If the noise of your vehicle has increased significantly, replace the defective exhaust system components.

Tampering with the exhaust system not only makes your vehicle loud, it will reduce its performance and shorten its life.

1.4.14 ROAD REGULATIONS AND USE OF THE VEHICLE

Rules of the road vary from country to country. It is essential that you understand in advance the rules of the road of the country in which your vehicle will be used.

⚠ WARNING

This vehicle has been designed and produced for use only on paved roads. It is not designed to be used on even smooth graded dirt roads, or trails.

It is not designed for off road competition, or for cross country riding.

Do not use this vehicle on rough or unimproved surfaces, or in other off road areas.

Failure to heed this warning could lead to an upset with subsequent injury and even death.

1.4.15 SPARK ARRESTER

⚠ WARNING

If the bike is to be used off-road, on public land, it is the owner's responsibility to install a spark arrester approved by the US Forest Service for this engine displacement or larger.

1.5 RUNNING-IN RULES

The internal parts of the engine and transmission must be properly run-in to ensure their long life and dependable operation.

If possible, while breaking in your vehicle, ride on hilly roads and/or roads with many curves so that the engine and transmission undergo lots of speed changes.

It is also important that, during the run-in period, the suspension and brakes be treated gently to allow the mating parts to bed.

Therefore, avoid hard braking, high speeds or very bumpy roads during the break in period.

NOTE Only after the first 900 mi (1,500 km) of running-in you can expect the best performance from the vehicle.

During break in, obey the following rules:

- ◆ Do not open the throttle abruptly or fully at low engine speed. This rule applies even after break in has been completed.
- ◆ During the first 60 mi (100 km), apply the brakes with caution, avoid sudden and prolonged braking. This ensures correct bedding in of the pads on the discs.
- ◆ During the first 600 mi (1,000 km), never exceed 6,000 rpm.

⚠ WARNING

After the vehicle has been operated for 600 mi (1,000 km) perform the "checking operations" shown in column "After running-in" of the 2.2 (REGULAR SERVICE INTERVAL CHART).

Rectify any faults found. Failure to heed this warning could lead to damage to your vehicle or engine seizure or other malfunction which could cause an upset and lead to serious injury or even death.

- ◆ Between the first 600 mi (1,000 km) and 900 mi (1,500 km) ride more briskly, changing speed and using maximum acceleration for only a few seconds. Never exceed 7,500 rpm.
- ◆ After the first 900 mi (1,500 km) if you have followed the above break in schedule, the engine should be fully broken in, and will deliver maximum performance. However, never exceed the maximum allowed rpm (10,500 rpm).

Engine maximum rpm for the running-in	
Mileage mi (km)	Max. rpm
0 – 600 (0 – 1,000)	6,000
600 – 900 (1,000 – 1,500)	7,500
over 900 (1,500)	10,500

1.6 HOW TO USE YOUR SERVICE AND REPAIR MANUAL

1.6.1 ADVICE FOR CONSULTATION

This manual is divided into sections, chapters and paragraphs, each one of which corresponds to a category of main components.

If not expressly indicated otherwise, for the reassembly of the units repeat the disassembly operations in reverse order.

The terms "right" and "left" are referred to the rider seated on the vehicle in the normal riding position.

For normal maintenance operations and for the use of the vehicle, consult the specific use and maintenance book, see 0.4.4 (USE AND MAINTENANCE BOOK).

For further engine maintenance operations consult the specific engine workshop manual, see 0.4.1 (ENGINE WORKSHOP MANUAL).

- ★ The operations preceded by this symbol must be repeated on the opposite side of the vehicle.

1.6.2 ADVICE FOR SPARE PARTS REQUEST

NOTE When asking your Dealer for spare parts, specify:

- the spare parts code indicated on the SPARE PARTS IDENTIFICATION LABEL (see the figure);
- the frame number, see 1.7 (IDENTIFICATION DATA);
- all the other data request in the instructions contained in the specific spare parts catalogue, see 0.4.2 (SPARE PARTS CATALOGUE).

In this manual the various versions are indicated by the following symbols:

 frame # ZD4ME (vehicle model: 1998; 1999; 2000)

 frame # ZD4ME (vehicle model: 2001)

 catalytic version

 evaporative emission system

 optional

VERSION:

 Italy

 Poland

 United Kingdom

 Israel

 Austria

 South Korea

 Portugal

 Malaysia

 Finland

 Chile

 Belgium

 Bermuda

 Germany

 United States of America

 France

 Australia

 Spain

 Brazil

 Greece

 South Africa

 Holland

 New Zealand

 Switzerland

 Canada

 Denmark

 Croatia

 Japan

 Slovenia

 Singapore

		YEAR		Y	1	2	3	4	
SPARE PARTS IDENTIFICATION		I.M.		A	B	C	D	E	
I	UK	A	P	SF	B	D	F	E	GR
NL	CH	DK	J	SGP	SLO	IL	ROK	MAL	RCH
HR	AUS	USA	BR	RSA	NZ	CDN			

The label is placed under the rider saddle, see to be able to read it, remove the rider saddle see 7.1.1 (REMOVING THE RIDER SADDLE) on the right part of the frame.

1.7 IDENTIFICATION DATA

Please supply the frame number when you purchase spare parts.

NOTE Do not obliterate or alter the identification numbers under any circumstance.

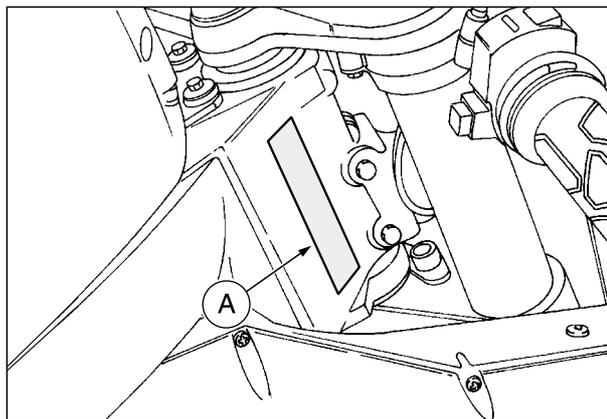
This is illegal in all countries.

In addition, alteration of the identification numbers invalidates the warranty.

1.7.1 VEHICLE IDENTIFICATION NUMBER (V.I.N.) (FRAME NUMBER)

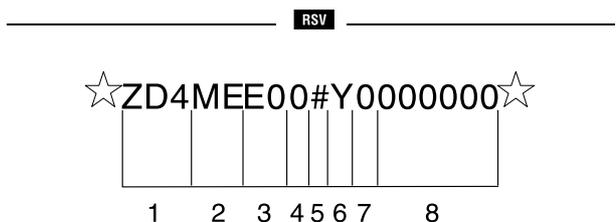
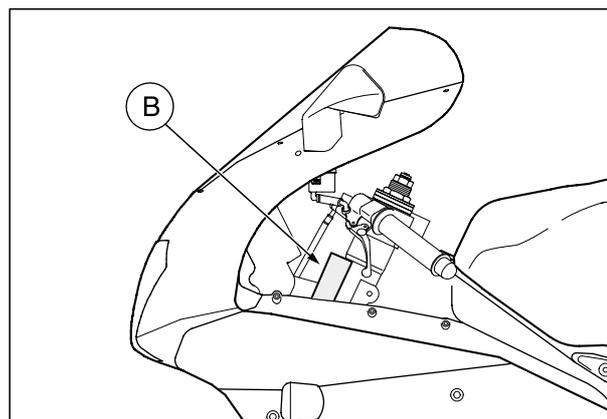
Every vehicle produced by **aprilia** receives a vehicle identification number (V.I.N.) stamped:

- on the steering head of the frame (A), as shown above;
- and also:
- on the identification plate (B) which is located on the front portion near the steering head of the frame.



1.7.2 INFORMATION CONTAINED IN THE VEHICLE IDENTIFICATION NUMBER

Description of the vehicle identification number (V.I.N.), stamped on the steering head of the frame (A) and on the identification plate (B).



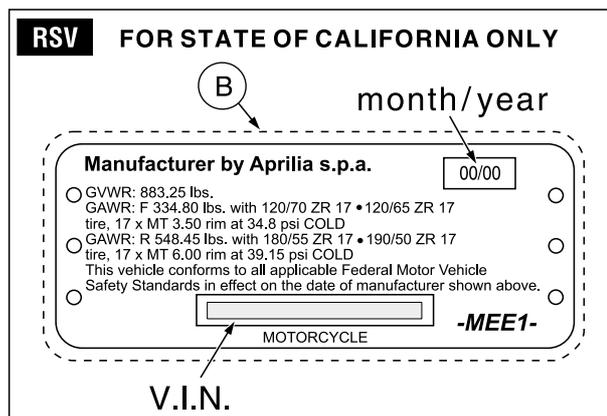
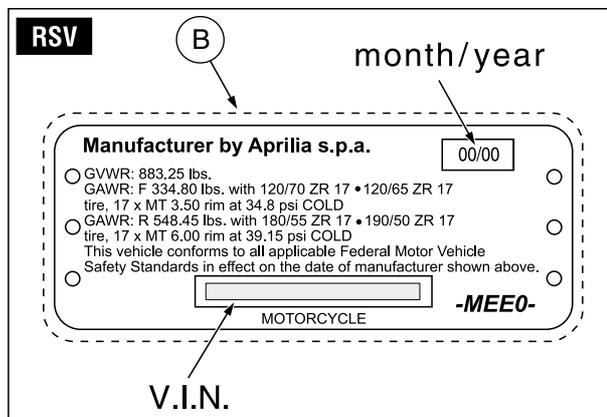
FOR STATE OF CALIFORNIA ONLY:



DIGIT MEANING

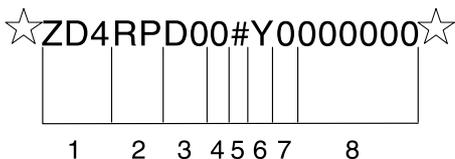
- 1) Manufacturer's identification alphanumeric code.
- 2) Vehicle type.
- 3) Model.
- 4) Country for which the vehicle is intended.
- 5) # = Check digit number.
- 6) Model year.
- 7) Assembling factory designation
(N = NOALE-VE- ,
S = SCORZÉ -VE- ,
0 = NOT SPECIFIED).
- 8) Sequential serial number.

Follow ▶

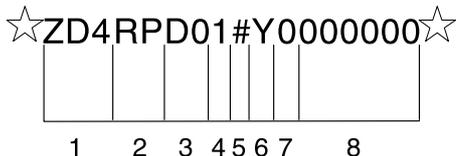


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_____ **RSV 01** _____



FOR STATE OF CALIFORNIA ONLY:



DIGIT MEANING

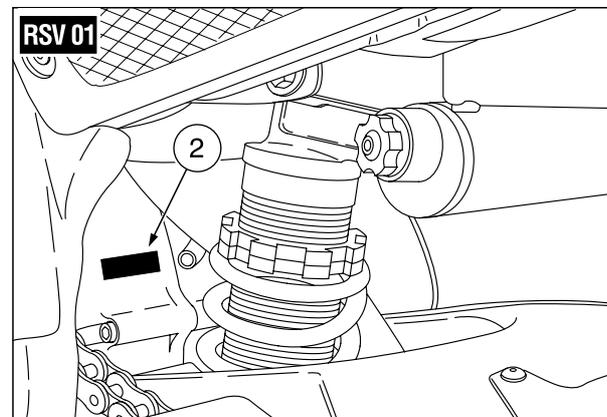
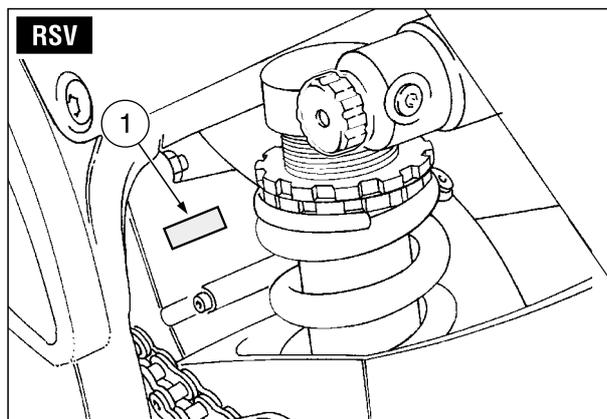
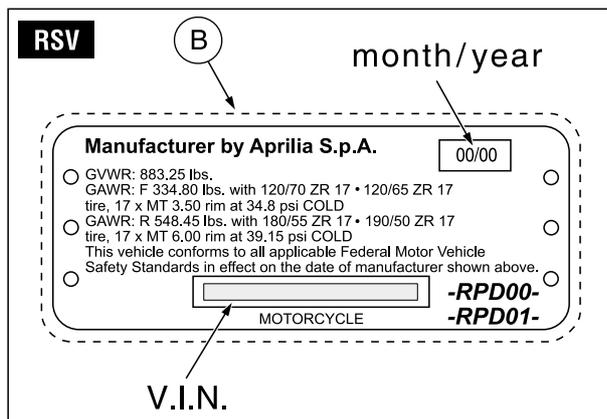
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(N = NOALE- VE- ,
S = SCORZÉ -VE- ,
0 = NOT SPECIFIED).
- 8) Sequential serial number.

1.7.3 FRAME NUMBER

The frame number (1) is stamped on the right side of the fork head.

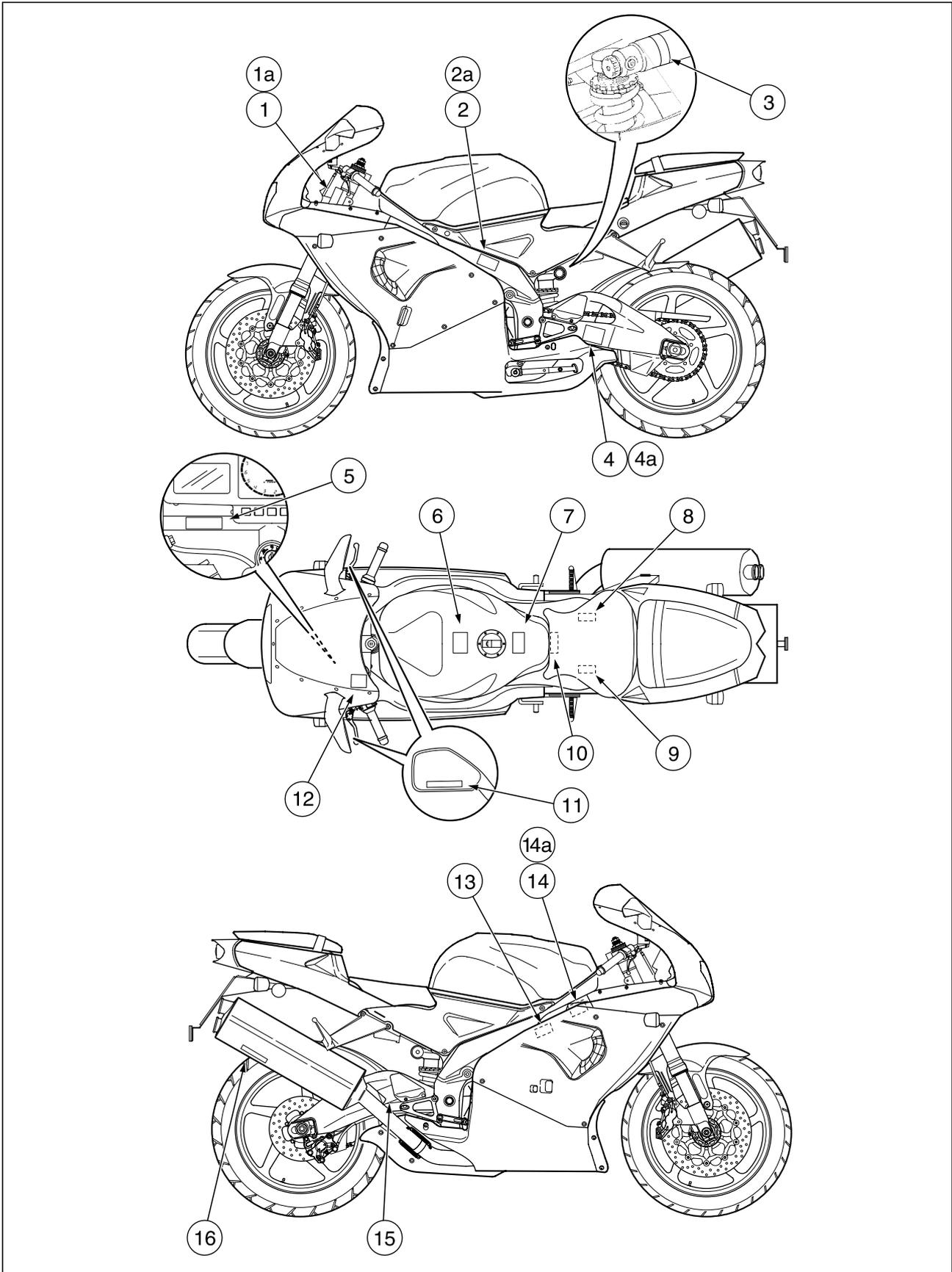
1.7.4 ENGINE NUMBER

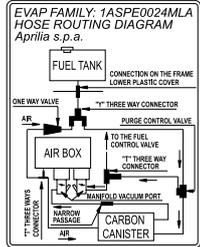
The engine number (2) is stamped on the rear part of the left engine crankcase.

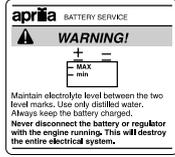


1.8 POSITION OF THE WARNING ADHESIVE LABELS

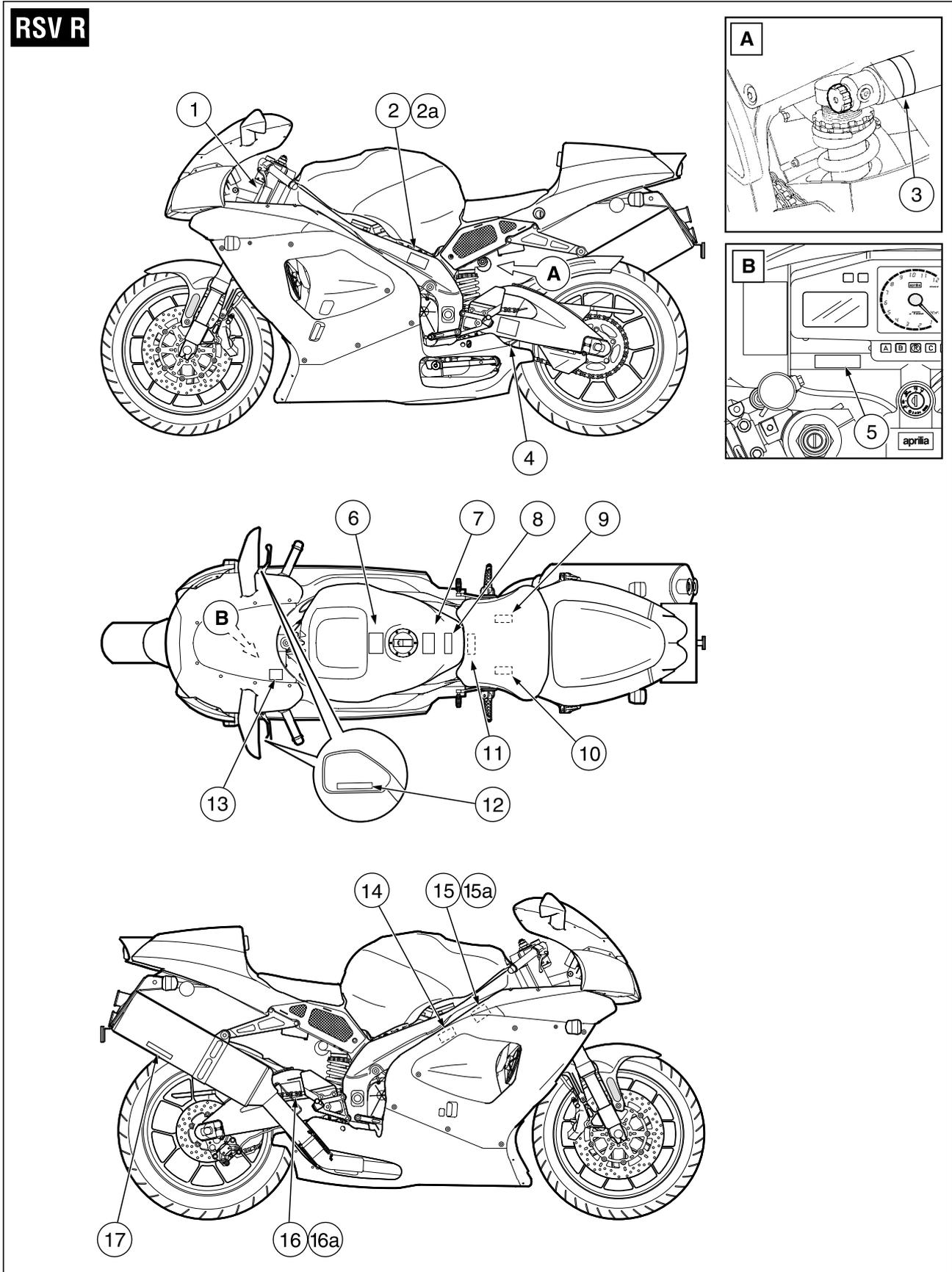
1.8.1 RSV POSITION OF THE WARNING ADHESIVE LABELS



Ref.	Description																			
1	<p>Manufacturer by Aprilia s.p.a.</p> <ul style="list-style-type: none"> GVWR: 883,25 lbs. GAWR: F 334,80 lbs. with 120/70 ZR 17 + 120/65 ZR 17 tire, 17 x MT 3,50 rim at 34,8 psi COLD GAWR: R 548,45 lbs. with 180/55 ZR 17 + 190/50 ZR 17 tire, 17 x MT 6,00 rim at 39,15 psi COLD <p>This vehicle conforms to all applicable Federal Motor Vehicle Safety Standards in effect on the date of manufacturer shown above.</p> <p>MOTORCYCLE -MEE0-</p>																			
1a	<p>FOR STATE OF CALIFORNIA ONLY.</p> <p>Manufacturer by Aprilia s.p.a.</p> <ul style="list-style-type: none"> GVWR: 883,25 lbs. GAWR: F 334,80 lbs. with 120/70 ZR 17 + 120/65 ZR 17 tire, 17 x MT 3,50 rim at 34,8 psi COLD GAWR: R 548,45 lbs. with 180/55 ZR 17 + 190/50 ZR 17 tire, 17 x MT 6,00 rim at 39,15 psi COLD <p>This vehicle conforms to all applicable Federal Motor Vehicle Safety Standards in effect on the date of manufacturer shown above.</p> <p>MOTORCYCLE -MEE1-</p>																			
2	<p>NOT PROVIDED FOR 49 STATES.</p>																			
2a	<p>FOR STATE OF CALIFORNIA ONLY EES.</p> <p>EVAP FAMILY: 1ASPE0024MLA HOSE ROUTING DIAGRAM Aprilia s.p.a.</p> 																			
3	<p>WARNING!</p> <ul style="list-style-type: none"> CONTAINS HIGH PRESSURE NITROGEN GAS. SEE WORKSHOP MANUAL FOR DISPOSAL AND ADJUSTING UNIT. DO NOT OPEN. DO NOT INCINERATE. INCINERATION, PUNCTURE OR DISASSEMBLY MAY CAUSE THIS UNIT TO EXPLODE. 																			
4	<p>WARNING!</p> <p>Do not use any tire other than those recommended and approved by Aprilia. Maintain proper tire inflation. Do not use any tire with less than 1/8" (3mm) tread remaining. Do not repair any tire, nor use a repaired tire. Do not ride your motorcycle overloaded or with an unbalanced load. Failure to follow these warnings can lead to an accident and serious injuries or death. Always ensure that the chain is correctly adjusted. See owner's manual.</p> <p>CHAIN TENSION WITH NO LOAD</p> <table border="1"> <thead> <tr> <th rowspan="2">Tires pressure bar (psi)</th> <th colspan="2">Front tire</th> <th colspan="2">Rear tire</th> </tr> <tr> <th>25 mm</th> <th>32 mm</th> <th>25 mm</th> <th>32 mm</th> </tr> </thead> <tbody> <tr> <td>2,4</td> <td>2,7</td> <td>3,0</td> <td>2,4</td> <td>2,7</td> </tr> <tr> <td>(31,9)</td> <td>(36,25)</td> <td>(39,15)</td> <td>(31,9)</td> <td>(36,25)</td> </tr> </tbody> </table> <p>Front tire: Pirelli - Metzeler 120/70 ZR 17", Michelin 120/65 ZR 17" Rear tire: Pirelli - Metzeler 180/55 ZR 17", Michelin 190/50 ZR 17"</p> <p>MOTORCYCLE -MEE0- </p>	Tires pressure bar (psi)	Front tire		Rear tire		25 mm	32 mm	25 mm	32 mm	2,4	2,7	3,0	2,4	2,7	(31,9)	(36,25)	(39,15)	(31,9)	(36,25)
Tires pressure bar (psi)	Front tire		Rear tire																	
	25 mm	32 mm	25 mm	32 mm																
2,4	2,7	3,0	2,4	2,7																
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1.8.2 RSV01 POSITION OF THE WARNING ADHESIVE LABELS



Ref.	Description														
1	<p>Manufacturer by Aprilia S.p.A.</p> <ul style="list-style-type: none"> CVWR: 674.00 lbs. GAWR: F 307.70 lbs. with 120/70 ZR 17 • 120/65 ZR 17 tire, 17 x MT 3.50 rim at 31.9 psi COLD GAWR: R 366.30 lbs. with 180/55 ZR 17 • 190/50 ZR 17 tire, 17 x MT 6.00 rim at 36.25 psi COLD <p>This vehicle conforms to all applicable Federal Motor Vehicle Safety Standards in effect on the date of manufacturer shown above.</p> <p style="text-align: right;">-RPU01- -RPC01-</p> <p style="text-align: center;">MOTORCYCLE</p>														
2	NOT PROVIDED FOR 49 STATES.														
2a	<p>FOR STATE OF CALIFORNIA ONLY.</p> <p>The diagram shows the fuel system components: FUEL TANK, AIR BOX, CARBON CANISTER, and various connectors. Labels include: CONNECTION ON THE FRAME LOWER PLASTIC COVER, ONE WAY VALVE, AIR, PURGE CONTROL VALVE, TO THE FUEL CONTROL VALVE, MANIFOLD VACUUM PORT, NARROW PASSAGE, and AIR.</p>														
3	<p>WARNING!</p> <ul style="list-style-type: none"> CONTAINS HIGH PRESSURE NITROGEN GAS. SEE WORKSHOP MANUAL FOR DISPOSAL AND ADJUSTING UNIT. DO NOT OPEN. DO NOT INCINERATE, INCINERATION, PUNCTURE OR DISASSEMBLY MAY CAUSE THIS UNIT TO EXPLODE. 														
4	<p>WARNING!</p> <p>Do not use any tire other than those recommended and approved by Aprilia. Maintain proper tire inflation. Do not use any tire with less than 1/8" (3mm) tread remaining. Do not repair any tire, nor use a repaired tire. Do not ride your motorcycle overloaded or with an unbalanced load. Failure to follow these warnings can lead to an accident and serious injuries or death. Always ensure that the chain is correctly adjusted. See owner's manual.</p> <p style="text-align: right;">-RPU01- -RPC01-</p> <p>CHAIN TENSION WITH NO LOAD</p> <table border="1"> <thead> <tr> <th rowspan="2">Tires pressure (psi)</th> <th colspan="2">Front tire</th> <th rowspan="2">Tires size</th> </tr> <tr> <th>Front tire</th> <th>Rear tire</th> </tr> </thead> <tbody> <tr> <td>25 mm</td> <td>2,2 (31,9)</td> <td>2,5 (36,25)</td> <td>Pirelli - Metzeler } 120/70 ZR 17" Dunlop } 120/65 ZR 17"</td> </tr> <tr> <td></td> <td>2,2 (31,9)</td> <td>2,5 (36,25)</td> <td>Pirelli - Metzeler } 180/55 ZR 17" Dunlop } 190/50 ZR 17"</td> </tr> </tbody> </table>	Tires pressure (psi)	Front tire		Tires size	Front tire	Rear tire	25 mm	2,2 (31,9)	2,5 (36,25)	Pirelli - Metzeler } 120/70 ZR 17" Dunlop } 120/65 ZR 17"		2,2 (31,9)	2,5 (36,25)	Pirelli - Metzeler } 180/55 ZR 17" Dunlop } 190/50 ZR 17"
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