CORSARO 1200 VELOCE

MOTO MORINI

Use and Service Manual

MOTORCYCLE COMPULSORY DOCUMENTATION

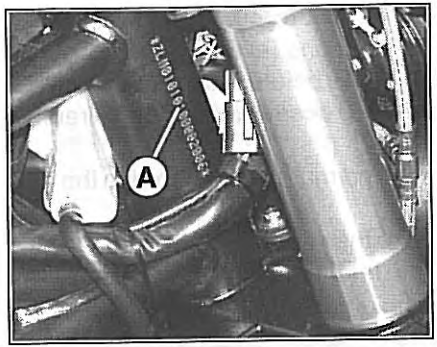
- Use and Service Manual.
- Warranty card and service check coupons.

MOTORCYCLE IDENTIFICATION DATA

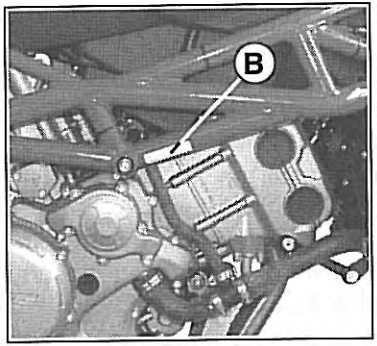
A = frame n°

B = Type-approval plate

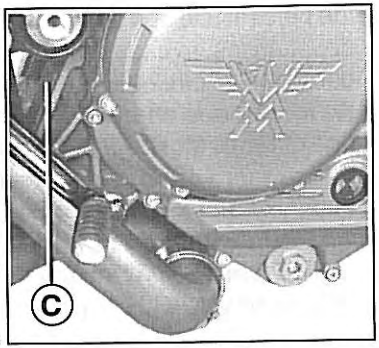
C = engine n°



F. 1



F. 1/a



F. 2

Any alteration to the vehicle identification data is pursued by the Law. Do not remove the plate (B) containing the type-approval data.

INDEX

SYMBOLS

- **In order that the manual may be read quickly and rationally,** symbols have been employed for highlighting practical advice, simple information or situations in which great care must be taken.
- **Said symbols** can be found by the side of a piece of text (and therefore refer only to that text), by the side of a figure (and refer to the subject illustrated in the figure and to the relative text) or at the top of the page (in which case they refer to all the subjects treated on that page).

CAUTION! *Pay maximum attention to the meaning of the symbols: their aim is not to have to repeat technical concepts or safety warnings.*

	**WARNING!**
	**IMPORTANT!** - This symbol draws the reader's attention to remarkably important fact.
	**NO!** - Operations to be absolutely avoided.
	Operations that must be carried out only by a **Moto Morini S.p.A.** Authorised Service Centre.
	Operations that must be carried out with the engine off.

ABBREVIATIONS

F. = Figure
P. = Page
S. = Section

NOTA - *Some of the illustrations may be different from the finished scooter.*

MAIN RULES

- **In order to drive the motorcycle** it is necessary to comply with all the law requirements: minimum age, psychological and physical good conditions, etc., along with all the documents specified by the national regulations: driving licence, vehicle registration number, road tax receipt, insurance policy, registration plate.
- **Psychological and physical good conditions** are fundamental for the safe use of the motorcycle. Driving a motorcycle under the influence of drugs, alcohol, psychic energisers, etc. or in a state of physical fatigue or sleepiness may represent a severe hazard.
- **We suggest to get to know** your motorcycle using it in areas with low traffic for the first period.
- **Most of motorcycle riders** involved in accidents had no good training.
- **Never lend** your motorcycle to beginners or unexperienced riders.
- **Always seat when driving**, with both of your hands firmly on the handlebar and your feet properly set on the footpegs. Do not stand up or stretch your legs when driving. Should your lower limbs get benumbed during long trips, immediately stop and make some simple physical exercise in order to restore blood circulation and alert your muscles. Never drive when you feel tired or sleepy.
- **Always respect** the road signs and the applicable national and local regulations.
- **Always allow enough following distance** when you drive in a line of cars.
- **Keep your headlight on** at all times, even with daylight.
- **Avoid any abrupt or dangerous manoeuvre** for your and other people's safety.

- **Adapt the type of driving** to the type of road condition.
- **It is strictly forbidden** to compete in a race with other vehicles.
- **Try to avoid,** as much as possible, riding the motorcycle off-road.
- **When the road is wet** or somehow sleepy, always concentrate on driving and reduce the use of brakes, rather use the momentum and gears to slow down.
- **Always make yourself visible** to other drivers on the road. Never stay in the blind sposts of the vehicles you are following.
- **Always be cautious when driving** through an intersections without traffic light, private property or public parking lanes, ring or highway access lanes.
- **Always switch the engine off** at filling stations and do not smoke, during the operation.
- **Remove the starter key** every time you stop (even for a short time) and leave your motorcycle unattended.
- **When parking your motorcycle** make sure pedestrians cannot bumped onto it as the engine, the exhaust pipes and pipe ends stay very hot for a long time.
- **Do not park** your motorcycle on uneven or soft ground or on the asphalt soften by the sunlight in the summer.
- **Always indicate in advance** when you intend changing direction, lane, entering a curve to a side roads or slowing down in order to park or stop by means of the direction indicators.
- **At intersections**, stops, traffic lights, level intersections, road pits and ditches, speed bumps and any kind of visible obstacle, slow down in advance and carefully.

- **Before starting your trip** always check: the degree of wear and pressure of tyres, the lighting system and braking system operation, the oil and coolant level.
- **Only use** the products recommended by MOTO MORINI S.p.A. Never mix different oils having incompatible characteristics.
- **Do not drive**, not even for small trips, with the helmet hanging from your arm or the handlebar. Always wear the helmet when driving the motorcycle (this rule must be respected also by the passenger).
- **Never divert** or let other people divert your attention from driving.
- The Manufacturer will not be considered liable for damages of any kind caused by (even small) **changes or alterations** made to the motorcycle. The warranty shall be invalid in case of any unauthorised change or alteration to the motorcycle.

Do not drive in the wake of the vehicles ahead.
Do not travel side by side with other motorcycles.
Do not tow other or let yourself be towed by other vehicles.
Do not seat on the motorcycle when it is parked on the stand.
Do not park the motorcycle on the stand with the front towards a descending slope.
Do not start the engine in closed spaces.
Do not drive on footways, under porches, on public green areas, etc.
Avoid keeping in your pocket any pointed or fragile object while driving.

CLOTHING

- **Choose** protective, tight, fair-coloured or refracting clothing to make yourself visible even in conditions of scarce visibility. Avoid lose ends, unbottoned coats, excessively tough, small or large gloves or unsuitable shoes.

CARRYING A PASSENGER

- **Driving with a passenger** on the seat highly affect the motorcycle manoeuvrability. The weight of the passenger directly acts on the tyres and rear shock absorber. Adjust the tyre pressure and calibrate the rear shock absorber. The length of braking considerably increases and the bends must be set with a larger radius, reduced inclinations and moderate gas flow. Remember to drive more carefully then when riding alone.
- **Both the driver and the passenger must** wear an (homologated and fastened) helmet. The helmet must be of the right size, new and with a perfectly clean visor.
- **Instruct the passenger** before any (even short) trip on the behaviour that must be assumed during the trip: never move abruptly, never put the feet on the ground in case of short stops, such as stop signals or traffic lights, do not lean to the side during the travel to look ahead, do not look back and, most important of all, **do not try to counterbalance the driver's weight in the curves.**
- **In case the passenger is clearly worried**, drive slowly and with much care than usual.

Do not carry the elders, disabled, children or animals.
Do not carry children on the motorcycle tank.

ACCESSORIES

- **Moto Morini S.p.A.** will not be held responsible for damages of any kind resulting from the use of accessories not approved by the motorcycle manufacturer or not type-approved, or anyway not compatible with the motorcycle's specifications or not installed in accordance with the technical specifications provided by the accessory manufacturer or by **Moto Morini S.p.A.** (for example: windscreen, luggage rack, rear top case, side bags or panniers, fairings, additional light units, etc...).
- **The motorcycle user** is responsible for the selection, installation or use of accessories. When installing any of the accessory, make sure it does not cover the direction and acoustic indicators, limit the suspension travel or the steering angle, the use of the controls or reduce the motorcycle height from the ground or inclination in the curves.
- **The installation of fairings** or windshield other than the ones provided by MOTO MORINI S.p.A., may have negative aerodynamical effects and affect the motorcycle stability.
- **Always check** that all the accessories are firmly secured to the motorcycle especially when starting off for a long trip.
- **The installation of unsuitable accessories** to the motorcycle may affect its stability.

Note - *Always use original Moto Morini S.p.A. accessories and have the installed by Authorised Service Centre personnel.*

LOAD (luggage)

- **The luggage** must be loaded so that its overall weight is evenly distributed on both sides of the vehicle, as near as possible to its centre of gravity. The luggage must adhere to the vehicle. Check the luggage for secure fastening every time you stop for a rest. When the luggage is not properly fastened to the motorcycle the latter can become instable and this may create dangerous situations.

Do not fit bulky luggage to the side of the motorcycle as they may run into obstacles or people and, as a consequence, the driver may lose control of the motorcycle.

Do not fit any kind of object to the handlebar.

Do not fit any kind of object to the front mudguard or fork. This would reduce the motorcycle manoeuvrability and the radiator air flow with the consequence of a dangerous overheating of the engine.

Do not carry luggage or objects protruding from the luggage compartment or covering the lighting or direction devices.

Do not exceed the luggage maximum allowed weight. The motorcycle overload may lead to hazardous driving conditions.

Do not put an excessive load on the fuel tank, especially high loads.

ENGINE

Twin cylinder ..... V-4T - 4 valves per cylinder
Total displacement ..... 1.187 cm³
Travel bore ..... 107 x 66 mm
Compression ratio 11,9:1
Power ..... 103 kW - 140 HP at 8.500 rpm.
Torque ..... 122 Nm at 6.750 rpm.

TIMING

Twin-overhead camshaft (silent chain)

FUEL SYSTEM

MAGNETI MARELLI electronic injection with Ø 54 mm throttle body

EXHAUST SYSTEM

Double exhaust pipe ends, 3-ways catalyser and LAMBDA sensor.

VALVE CLEARANCE

Intake ..... 0,20 - 0,25 mm
Exhaust ..... 0,25 - 0,30 mm

LUBRICATION

Oil: ..... Agip RACING 4T 10/W60

Capacity*: exhaust system ..... 3.200 cm³
with filter replacement ..... 3.400 cm³

COOLING SYSTEM

Coolant/fluid. Start opening thermostat: 73 - 77° C

TRANSMISSION

- 6-speed gearbox.
- Primary reduction 31/55
- Final reduction 17/40
- Speed: **1ª** - 13/36 - **2ª** - 17/32 - **3ª** - 20/30 **4ª** - 22/28 - **5ª** - 23/26 - **6ª** - 24/25.
- Primary transmission: spur gears.
- Secondary transmission: chain.
- Clutch: multi-disc in oil bath

TYPE-APPROVAL

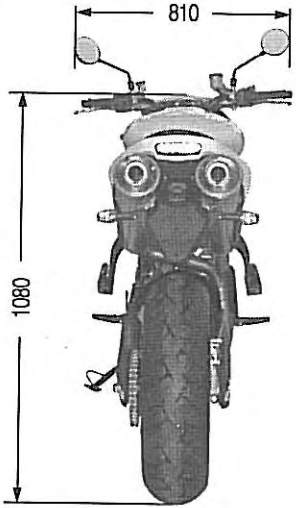
Euro 3

**Indicative values, see pag. 69.*

VEHICLE

- **Frame:** steel tubular trestle with variable diameter ALS 450
- Swingarm: aluminium-cast alloy - Wheelbase: 1,450 mm - Stem angle: 24.5° - Trail: 103 mm - Steering angle: 34°
- **Front suspension:** MARZOCCHI Upside-Down fork with multiple adjustment setting. Stem: Ø 50 mm. - Travel: 130 mm
- **Front wheel:** brembo - six-sproke light alloy rims - MT 3.50 x 17" - Tyre: PIRELLI Diablo - 120/70 ZR 17"
- **Rear suspension:** single-shock absorber SACHS with multiple adjustment setting - Travel: 130 mm
- **Rear wheel:** brembo - six-sproke light alloy rims - MT 5,50 x 17" - Tyre: PIRELLI DIABLO - 180/55 ZR 17"
- **Brakes:** brembo **front:** Ø 320 mm double disc. Brake caliper with 4 pistons and 2 pads. **rear:** Ø 220 mm single disc. Brake caliper with 2 pistons and 2 pads.
- **Fuel tank, capacity:** 18,70 lt.

OVERALL DIMENSIONS



Dry weight **kg. 198**

F. 3

ELECTRICAL SYSTEM

- **Battery:** 12V - 18 Ah
- **Instrumentation:** electronic/analogue rev. Counter and multi-function LCD display.
- **Spark plugs :** CHAMPION **RG4HC** - electrode distance: 0,7 - 0,8 mm
  NGK **CR9EB**

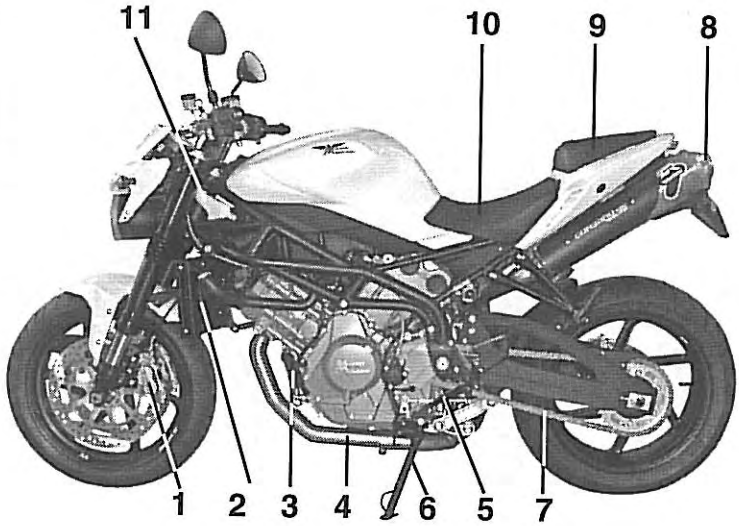
FLUIDS / COOLANTS

- Fuel: **Unleaded petrol NC 623-02 R.O.N. 95**
- Coolant: **ECO PERMANENT**
- Oil engine: **RACING 4T 10W60**
- Braking system and clutch oil: **BRAKE FLUID DOT 4**

Agip

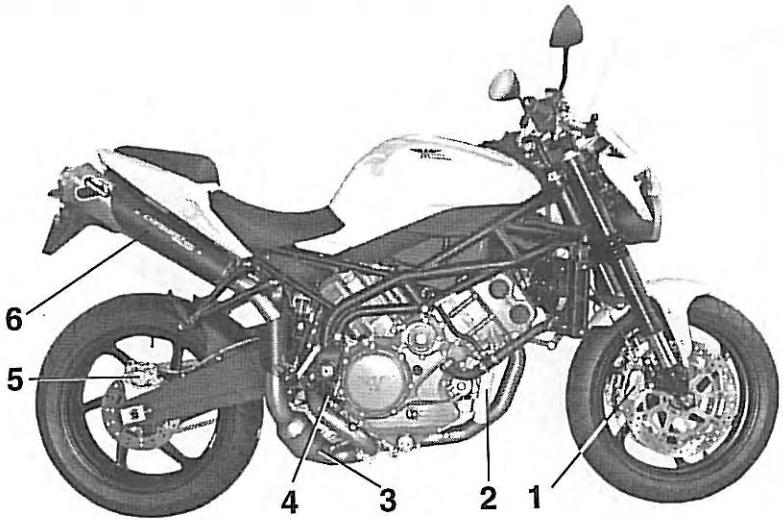
MAIN COMPONENT LOCATION (Left hand side)

N.	Description
1	BRAKE CALIPER
2	RADIATOR Coolant
3	RADIATOR OIL
4	EXHAUST SYSTEM
5	GEAR CHANGE LEVER
6	SIDE STAND
7	CHAIN
8	EXHAUST PIPE ENDS
9	PASSENGER SEAT
10	DRIVER SEAT
11	EXPANSION RESERVOIR



F.4

MAIN COMPONENT LOCATION (Right hand side)



N.	Description
1	BRAKE CALIPER
2	RADIATOR OIL
3	EXHAUST SYSTEM catalyser
4	BRAKE LEVER rear
5	BRAKE CALIPER rear
6	EXHAUST PIPE ends rear cylinder

F.5

SUPPLIED EQUIPMENT

- The motorcycle is delivered with the following supplied equipment:

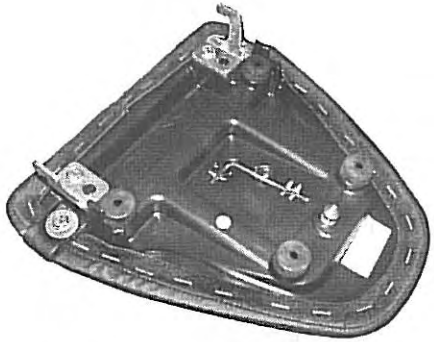
  - Allen wrenchs: n. 2,5 - n. 3 - n. 5
    Allen wrench n. 4 (compartment under the seat) (F. 6/a)
  - Cross and cut screwdriver
  - 30 TX wrench
  - spark plug wrench
  - pliers

F. 6

RECOMMENDED CUSTOMISED EQUIPMENT

- We suggest to buy some tools, accessories and spare parts that may be very useful in a number of situations.

  - HEADLIGHT BULBS
  - DIRECTION INDICATOR BULBS
  - NUMBER PLATE LIGHT BULB
  - SERIES OF FUSES



F. 6/a

SUPPLIED KEYS

- The motorcycle is delivered with 2 identical keys.

Do not keep the keys together and store one of them in a safe place.

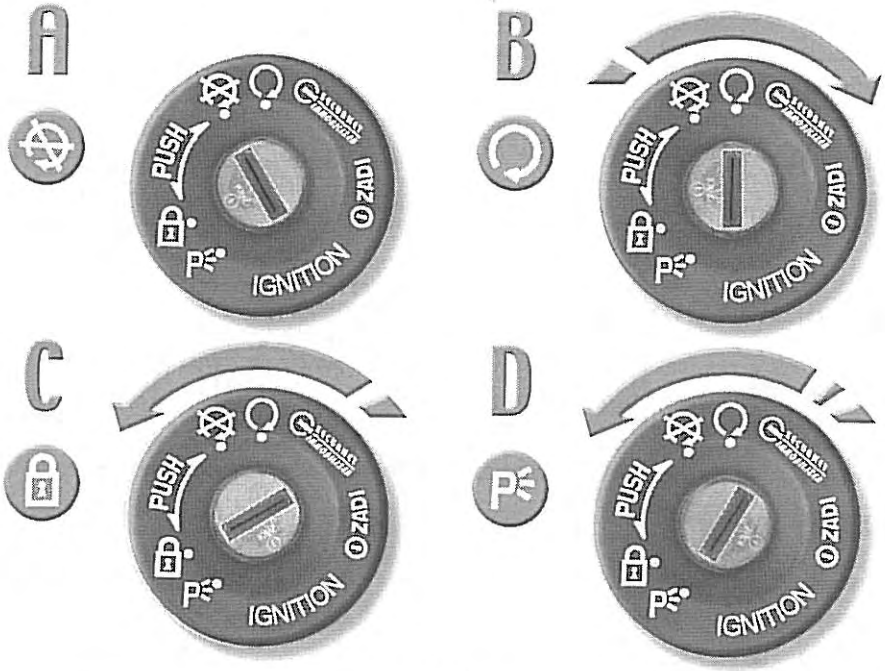
F.7

KEY SWITCH

- It is installed between the handlebar and the fuel tank.

Functions (F. 8):

A = OFF: supply power off
B = ON: starter supply power
C = STEERING LOCK
D = Steering lock and PARKING LIGHT


A
B
C
D
PUSH
ZADI
IGNITION
PUSH
ZADI
IGNITION
PUSH
ZADI
IGNITION
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IGNITION

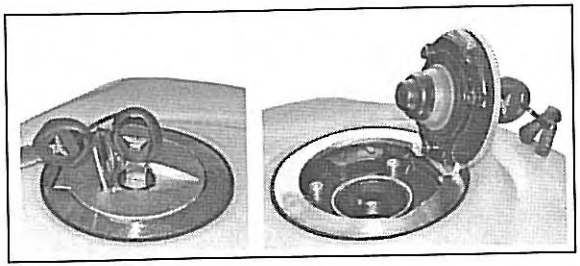
F.8

FUEL TANK PLUG

Opening

- Turn the key clockwise.

After refuelling, check that the fuel plug is properly closed.

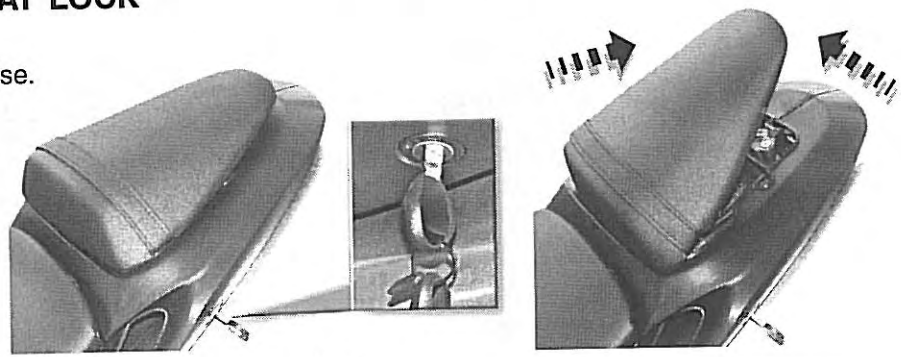


F. 9

PASSENGER SEAT LOCK

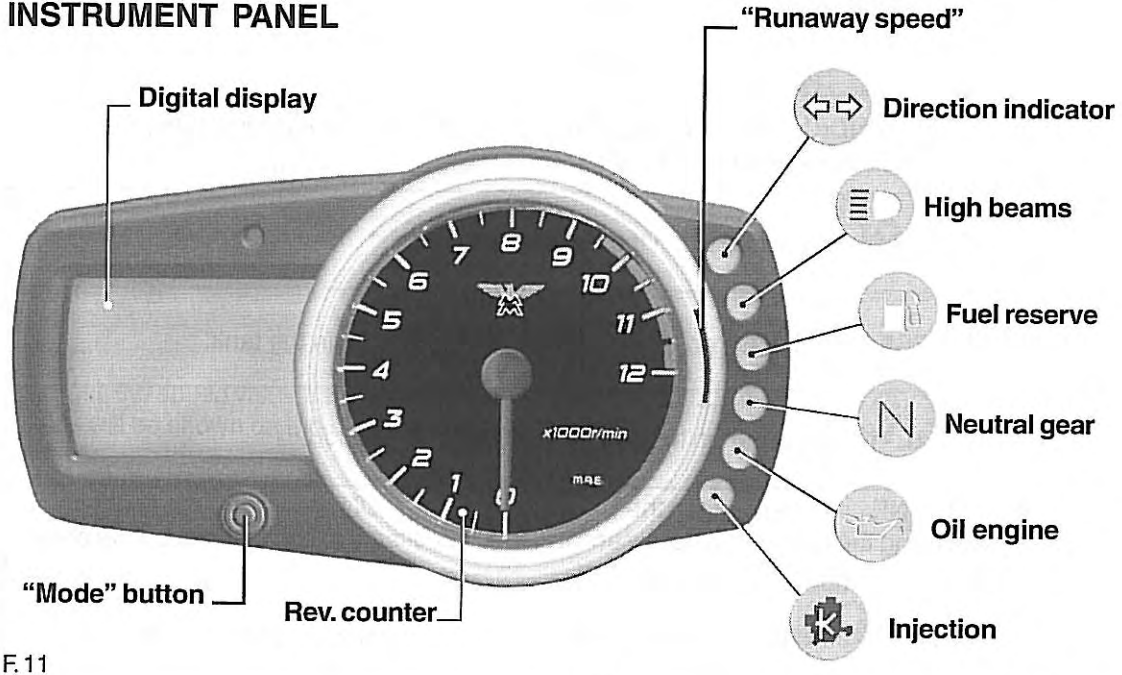
Opening

- Turn the key clockwise.
- Lift the seat in the drive direction.



F. 10

INSTRUMENT PANEL



F. 11

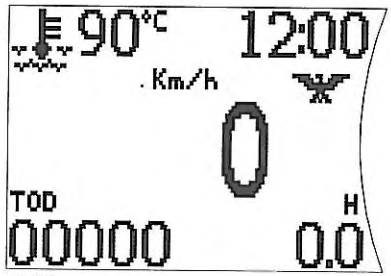
INSTRUMENT PANEL LIGHTS (SPECIFIC functions)

LIGHTS	DESCRIPTION
	**DIRECTION INDICATOR** - it flashes when the right or left direction indicator, the "hazard" or emergency indicator is on.
	**HIGH BEAMS** - it goes on when the headlight is high.
	**FUEL RESERVE** - it goes on when 2,5 litres of fuel are left in the tank.
	**NEUTRAL** - it goes on when the gear is in the neutral position.
	**OIL ENGINE** - it goes on when the key switch in on the "ON" position. If the light turn on while driving the oil pressure is low and it is then necessary to ask for an accurate check of your motorcycle before using it.
	**INJECTION** - the light goes on when the injection system operation is not normal.

DISPLAY FUNCTIONS

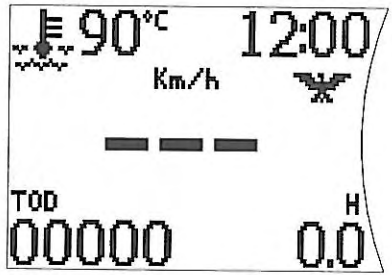
SPEED

- This information is displayed in the central part of the display (F. 12). The measurement can be shifted from km/h to mph by means of the Set-up menu.



F. 12

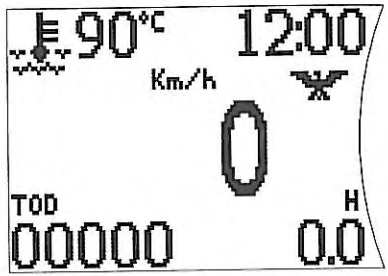
- In case the speed value transmission is incorrect three horizontal lines will be shown on the display (F. 12/a)



F. 12/a

TEMPERATURE AND CLOCK

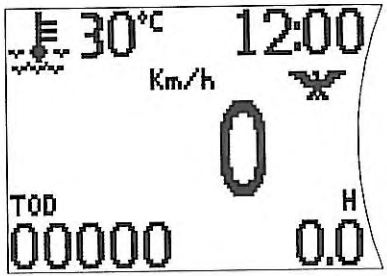
- The information is displayed in the upper part of the display (F. 13), The measurement can be shifted from °C to °F by means of the Set-up menu.



F. 13

- In case the temperature value transmission is incorrect the recovery temperature - max. 30° - will be shown on the display (F. 13/a)

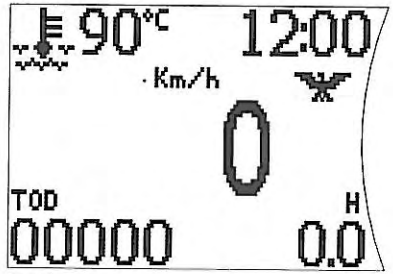
- As for the clock function the time is displayed in the upper part of the display (F. 13/a) in the hh:mm format. Time can only be adjusted when the vehicle is not in motion by means of the Set-up menu.



F. 13/a

TOTAL KM COUNT FUNCTION (TOD)

- The information is displayed, together with the (TOD) icon, in the lower part of the display (F. 14). The measurement can be shifted from km/h to mph by means of the Set-up menu. **The information is stored in a permanent memory and cannot be changed.**



F. 14

TRIP HOUR FUNCTION (H)

- The information is displayed together with the (H) letter in the right lower part of the display (F. 14). This function indicates the hours of trip travelled by the vehicle: the counter linked to the (H) function is enabled only at the vehicle start-off. **The information is stored in a permanent memory and cannot be changed.** When the motorcycle exceeds 9,999 hours of travel, the information is automatically reset to 0 (zero).

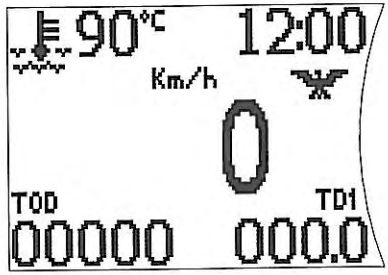
'MODE' FUNCTION BUTTON

- The digital instrument panel has a series of special functions, shown in the right lower side of the display that can be selected by means of the "mode" button (F. 15):

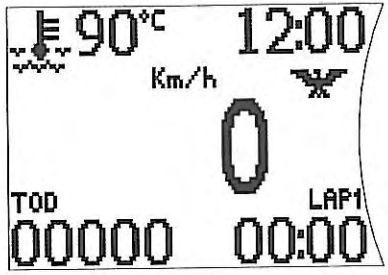
  - partial km count 1 - TD1 - (F. 15)
  - partial trip hours 1 - LAP1 - (F. 16)
  - average speed 1 - AVE1 - (F. 17)

- These functions are displayed one by one according to the above sequence by pressing on the "mode" button.

- The three functions are automatically enabled when the vehicle starts-off and automatically disabled when it stops. The functions of LAP1 (partial trip hours) and AVE1 (average speed partial calculation) can be deducted from the partial km count TD1. To reset to zero the partial counting above described simply display one of the three functions then press the "mode" button and hold it pressed for at least two seconds.



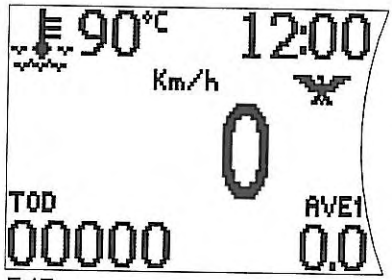
F. 15



F. 16

In case the key switch remains in the "OFF" position for more than two hours, the system automatically reset to zero all of the three functions.
When the motorcycle exceeds 9,999,9 hours of trip, the information is automatically reset to 0 (zero). In case the time of travel exceeds 23 hours and 59 minutes the system will reset the LAP1 system ant the linked functions restarting from 0 (zero).

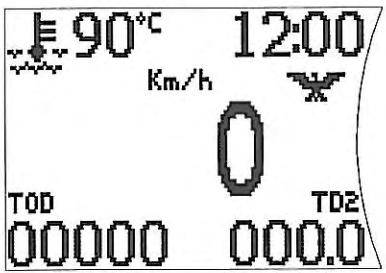
- As for the TD1 and AVE1 functions, the measurement can be expressed in km/h or mph by means of the Set-up menu.



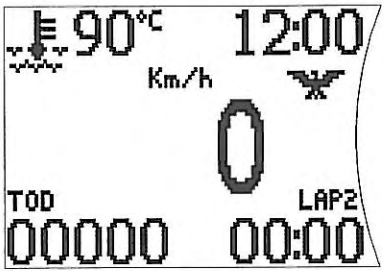
F.17

- **partial km count 2 -TD2- (F. 18)**
- **partial trip hours 2 -LAP2- (F. 19)**
- **average speed 2 -AVE2- (F. 20)**

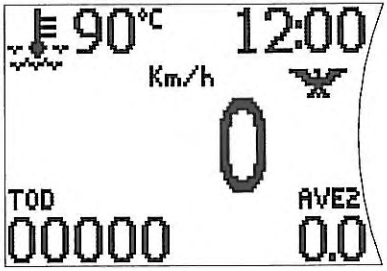
• Same functions of above (TD1-LAP1-AVE1), they allow using the same functions in alternative or in order to divide the trip sections further according to the user's preferences. The reset systems and the automatic functions are the same above described.



F. 18



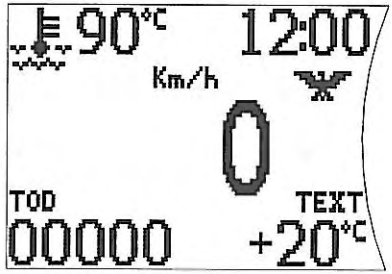
F. 19



F. 20

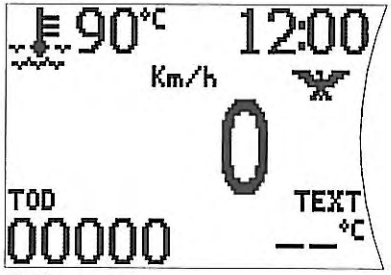
EXTERNAL TEMPERATURE - TEXT

- This function allows displaying the external temperature (F. 21) expressed in Celsius (°C) or Fahrenheit (°F) degrees according to the selection made through the Set-up menu. In order to avoid that the temperature measured by the sensor is affected by the heat coming from the engine, the value shown on the display is updated only when the motorcycle speed exceeds 20 Km/h.



F. 21

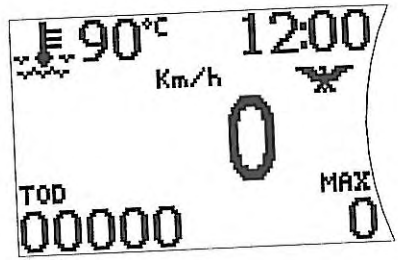
- Below this speed, the value shown on the display does not change. When the starter key is set on the "ON" position, instead of the temperature value two horizontal lines (F. 22) will be shown on the display. In case of anomalies, the two horizontal lines will start flashing.



F. 22

MAXIMUM SPEED - MAX - (F. 24)

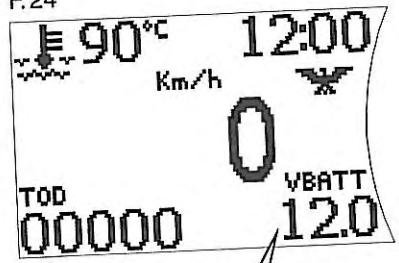
- The function can store the maximum speed reached by the vehicle in km/h or mph, according to the type of speedometer setting. This information can be reset only when the vehicle is not in motion by holding the "MODE" button pressed for around 2 seconds, until the number 0 (zero) is displayed.



F. 24

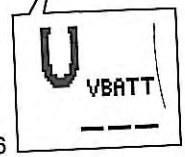
BATTERY CHARGE INDICATOR - VBATT

- This function indicates the battery level (F. 25). In case the battery level is below the pre-set value (11,5 V) the battery icon appears on the display with any function displayed to indicate that the battery voltage is below the service value. The battery icon will turn off when the battery voltage will rise again above 12.0 V.



F. 25

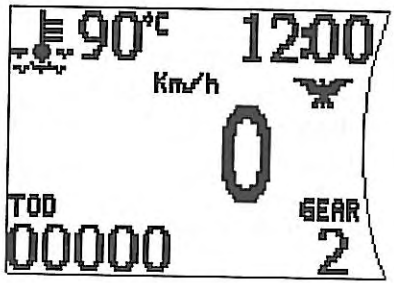
- In case of failure, an horizontal line will appear on the display (F. 26).



F. 26

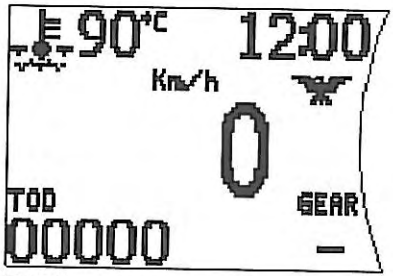
ENGAGED GEAR INDICATOR - GEAR

- Select this function to display the engaged gear. The number indicating the gear derives from the rpm and the speed. The gear indication will not be displayed while the clutch lever is pulled but only when this lever is released.



F. 26/a

- In case of failure, an horizontal line will appear on the display.

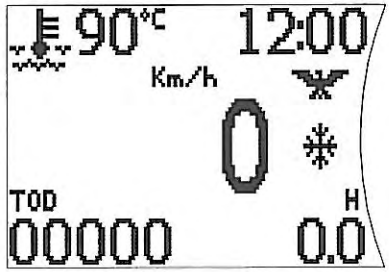


F. 26/b

ALARM FUNCTIONS

Ice alarm indicator - ICE - (F. 27)

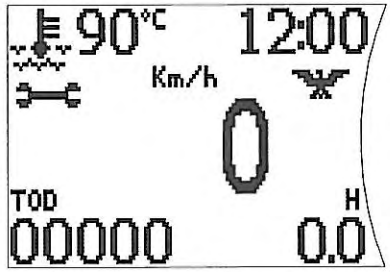
- This alarm turns on automatically when the external temperature is below 5 °C. With any function displayed, the system shows the alarm icon in the right hand side of the display to indicate that there may be ice on the road. The alarm situation ends when the temperature measured by the sensor rises above 6 °C or more.



F. 27

SERVICE alarm (F. 28)

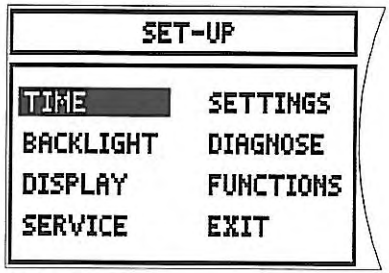
- When the vehicle reaches the number of km for the scheduled maintenance, the system shows the corresponding icon on the display to indicate that a service check performed by an authorised service centre is necessary. The icon will stays on until the authorised service engineer, after carrying out the service operations, will disable the alarm.



F. 28

SET-UP MENU

This menu allows accessing a series of functions to:



F. 29

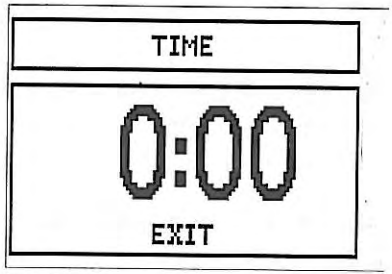
- adjust the current time (TIME)
- adjust the display backlight (BACKLIGHT)
- adjust the display contrast (DISPLAY)
- indicate to the system the maintenance system (SERVICE) was performed. This procedure must be performed only by authorised personnel.
- perform the vehicle diagnostics (DIAGNOSE) This procedure must be performed only by authorised personnel.
- select the functions that must be shown on the display (FUNCTIONS)
- select the unit of measurement to be used for speed and distance - km/h or mph - (SETTINGS)
- select the temperature setting - °C or °F - (SETTINGS)
- select the language to be used - Italian or English - (SETTINGS)
- select the threshold to be used for the runaway speed light to go on - (SETTINGS)

- To access the Set-Up menu the engine must be off and the starter key on the "ON" position. Press the "mode" button by the **H function** for around 2 seconds until the Set-Up screen (F. 29) appears on the display. At this point, press the "mode" button to scroll the different functions until the needed function is displayed and press the button for around 2 seconds until the adjustment mode appears. When the adjustment operations are over, press the button beside the **EXIT function** for at least 2 seconds to go back to the standard operation mode.

- **If the button is not pressed within 20 seconds from accessing the adjustment menu or the vehicle is started or the starter key switched to the "OFF" position, the system automatically goes back to the standard operation mode.**

Time adjustment (TIME)

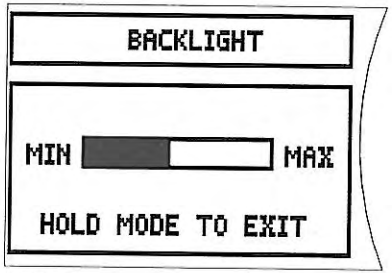
- Find the **TIME** function and press the "mode" button for 2 seconds so as to have only the current time on the display (F. 30) with the hour value flashing. A short pressure of the "mode" button allows adjusting the hour value. After adjusting the hour value, press again the "mode" button for 2 seconds, to shift to the minute adjustment mode, the minute value will start flashing. A short pressure of the "mode" button allows adjusting the minute value. To get back to the Set-up menu, press the button beside the **EXIT** function for 2 seconds.



F. 30

Backlight adjustment (BACKLIGHT)

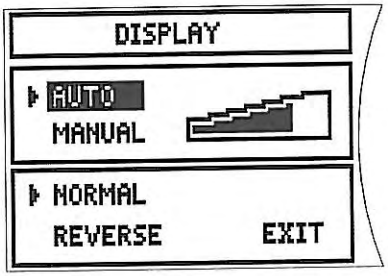
- Press the "mode" button for at least 2 seconds beside the word **BACKLIGHT** to adjust the backlight brightness (F. 31) and press the "mode" button until the desired value is set. Press the "mode" button for at least 2 seconds to get back to the Set-Up menu.



F. 31

Contrast adjustment and display mode (DISPLAY)

- Press the "mode" button for at least 2 seconds near the word **DISPLAY** to change the display contrast. This function also allows changing the display mode (**Normal** or **Reverse**).



F. 32

- Two contrast adjustment modes are possible (F. 32):

  Auto: the optimal contrast value, displayed by means of a graphic bar, is set automatically by the system.

  Manual: the desired contrast value, displayed by means of a graphic bar, is set by the user manually.

- The **Auto** mode represents the default value. To shift to the manual mode press the "mode" button for around 2 seconds beside the word **Manual** until a triangle appears by the word, indicating that the Manual mode has been selected. A short pressure of the "mode" button allows adjusting the desired value.

- Two **display modes** are possible:

Normal: only the necessary parts of the display are switched on while all the others (in the background) are switched off.

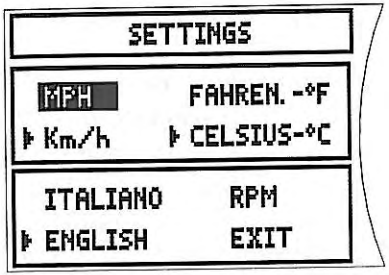
Reverse: it is the negative image of the previous mode where all the parts in the background are switched on while the parts selected to be displayed are switched off.

The **Normal** mode is set as default value. To select the negative image mode by simply pressing the "mode" button beside the word "**Reverse**" for at least 2 seconds until a triangle which indicates that the selection has been made is displayed beside the same word.

After the adjustment operations are over, press the button beside the *EXIT* function for at least 2 seconds to go back to the Set-up menu.

Unit of measurement and language selection (SETTINGS)

- Press the "mode" button for at least 2 seconds beside the **SETTINGS** word to select the unit of measurement for speed, distance covered and temperature and the language to be used for the menu and diagnostic messages.



F. 33

- Two options for the unit of measurement are possible (F. 33):

km/h: current speed, average speed and maximum speed are measured **in km/h**, while the total and the partial covered distance are measured **in km.**

mph: current speed, average speed and maximum speed are measured in **mph**, while the total and the partial covered distance are measured in **Miles.**

°C: External temperature and radiator fluid temperature are measured in **Celsius** degrees.

°F: External temperature and radiator fluid temperature are measured in **Fahrenheit** degrees.

- Two language options are possible (F. 33):

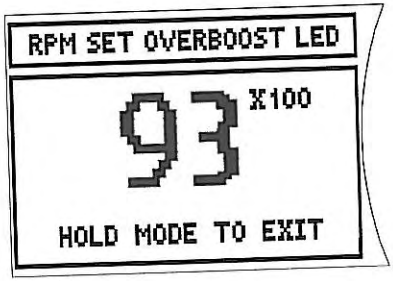
  Italian: all the Set-Up menu commands and diagnostic messages are displayed in Italian.

  English: all the Set-Up menu commands and diagnostic messages are displayed in English.

- The system default values are: km/h, °C, Italian. It is possible to change the default configuration by pressing the "mode" button beside the desired parameter for around 2 seconds, until a triangle appears by the indicated word to show that it has been selected.

- Once the adjustment operation is over, go back to the Set-Up menu simply pressing the button placed by the **EXIT** function for at least 2 seconds. The selected values will be stored in a permanent memory.

Adjustment of the runaway speed threshold (SETTINGS + RPM)

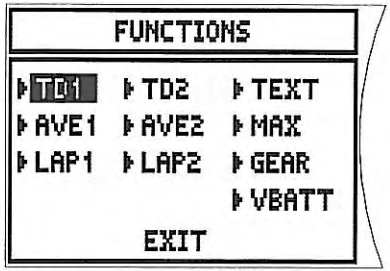


F. 34

- Press the "mode" button for at least 2 seconds beside the word **RPM** (displayed in the **SETTINGS** window), it is possible to change the runaway speed threshold (F. 34). The threshold represents the minimum limit value of the engine rpm above which the runaway speed light will turn on. To change the threshold value simply press the "mode" button until the desired value is set.
  The led can switch on at any rpm speed.
  Then go back to the previous menu pressing the "mode" button for at least 2 seconds. The set threshold value will be stored in a permanent memory. After adjusting the value, it is possible to go back to the previous Set-Up menu by pressing the button beside the *EXIT* function for at least 2 seconds.

Selecting the functions (FUNCTIONS)

- Press the "mode" button for at least 2 seconds beside the **FUNCTIONS** word in order to select the functions you wish to set and disable the functions you consider to be unnecessary. Simply press the "mode" button beside the desired function for around circa 2 seconds. A triangle will appear by the word to indicated that the function has been selected.



F. 35

- The H functions H (hours travelled by the vehicle), TOD (total covered distance), WTemp (radiator fluid temperature) and Time (clock) functions cannot be de-selected as they represent the basic minimum configuration displayed by the instrumentation, according to the procedure previously described.

- Once the adjustment procedure is over, go back to the Set-Up menu simply pressing the button beside the **EXIT** function for at least 2 seconds. The set configuration will be stored in a permanent memory.

START-UP (IGNITION KEY FROM OFF TO ON)

- When The ignition key is switched from OFF to ON the SYSTEM performs a complete check of all the functions and after three seconds it will display the standard drive mode.

ANALOGUE SYSTEM: RPM

- The system display the vehicle engine rpm in analogue format.

HEADLIGHT OPERATION

- The system controls the head light operation, that is to say high and low beams and timing. Every time the START button is pressed with the ignition key on the ON position in order to start the engine, the headlight turns off in order to reduce the battery charge consumption. After the engine start-up the headlight turns on automatically.
- In case the ignition key remains in the ON position with the engine off for more than 20 seconds, the headlight will automatically turns off in order to reduce the battery charge consumption. The automatic headlight switching off is disabled in case the engine is started or the ignition key is switched to the OFF position.
- The high beams cannot be used when the engine is not running.

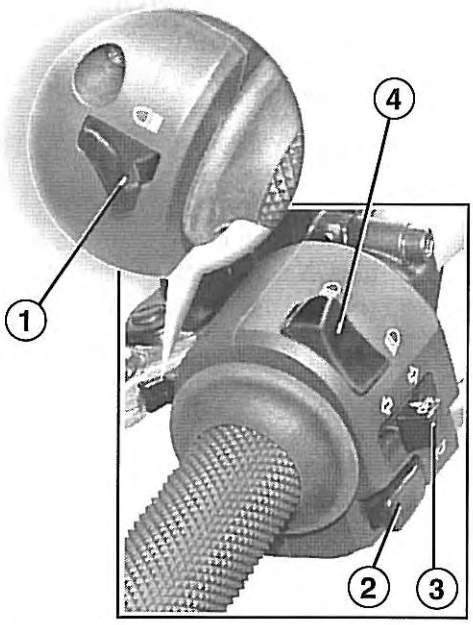
HANDLEBAR CONTROLS
(Left hand side)

1) "FLASHING UNIT"

2) HORN

3) DIRECTION INDICATOR

4) HIGH/LOW BEAM SWITCH



***NOTE** - When the engine is started the headlight goes on automatically.*

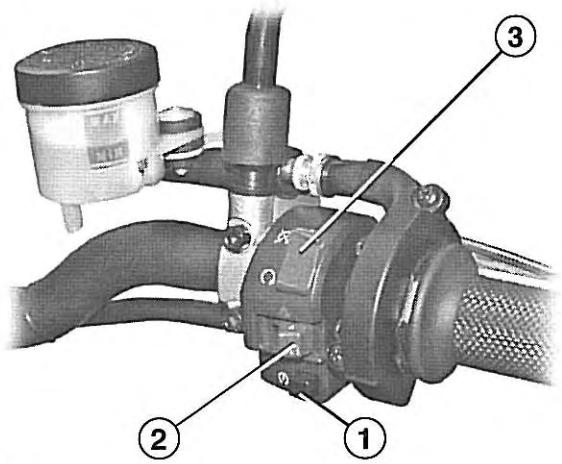
F. 36

HANDLEBAR CONTROLS
(Right hand side)

1) ENGINE START-UP

2) EMERGENCY INDICATORS (HAZARD)

3) **"ON/OFF"** SWICTH
(when the switch is **OFF** and the ignition key is on the ON position the engine turns off while the electrical system stays on).

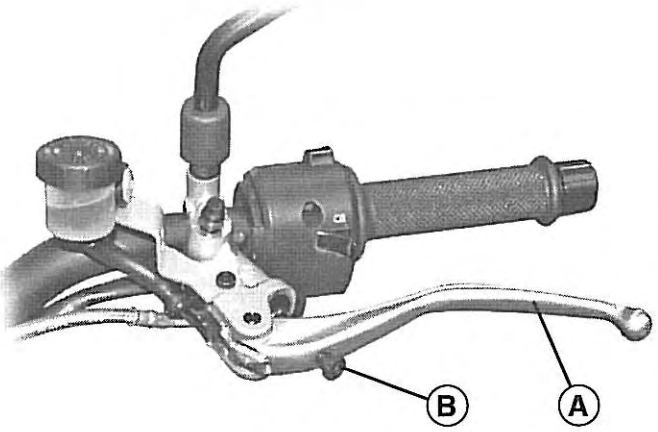


F.37

CLUTCH LEVER

- The lever (A) allows disengaging the clutch.
- When the lever is pulled towards the handlebar the transmission of the motion from the engine to the gearbox and then to the rear wheel is interrupted.

In order to prevent the clutch components from wearing fast, avoid squeezing the lever when the engine is speeding up.



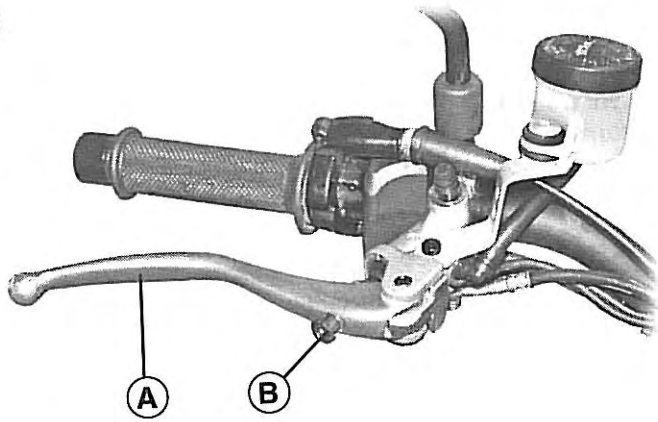
F. 38

ADJUSTING THE LEVER POSITION

- The distance of the clutch lever from the twistgrip can be adjusted according to the driver's hand size, the glove thickness or any special need or habit of the driver. To adjust the lever position simply move the screew (B).

FRONT BRAKE CONTROL LEVER

- Pulling the lever (A) towards the throttle twistgrip both the front brake caliper are actuated.



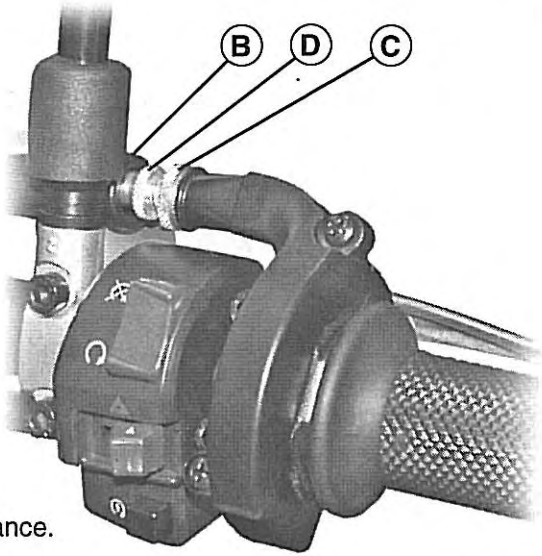
F.39

POSITION ADJUSTMENT

- As for the clutch lever, also the front brake lever can be adjusted according to the driver's hand or the glove thickness simply rotating the screew (B).

THROTTLE TWISTGRIP

- The throttle twistgrip is placed on the right hand side of the handlebar and controls the opening of the throttle body.



F. 40

ADJUSTING THE THROTTLE

- The transmission control to the throttles is made by means of a steel cable that it is not subject to excessive wear but it can become longer with time.

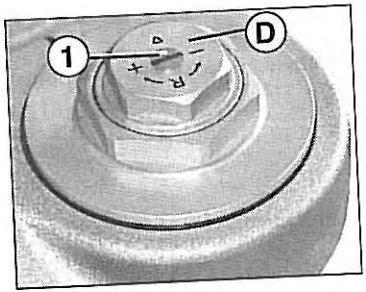
Adjusting the clearance:

- Partially retract the protective cover (B).
- Release the ring nut (C).
- Rotate the adjusting screw (D) to regulate the clearance.
- Tighten the ring nut (C).
- Move the protective cover (B) backwards.

NOTE - *The driver can select the rate of clearance he prefers.*

FORK

***NOTE** - The fork rods are calibrated for a standard driver weight of around **75 kg**. The weight can be modified according to any different weight or special need.*



F. 41

ADJUSTMENTS

Extension:

- Both rods can be adjusted for the **extension speed**, by acting on the adjustment screws (1) (marked R). By turning the adjustment screws **in a clockwise direction**, the extension speed of the fork slows. The original setting, corresponds to **n° 12 "clicks" in an anti-clockwise direction**, from the adjustment position (**R**) **screwed to the end of the travel position.**

In order to determine the adjustment starting point, rotate the adjusting screw to its limit stop while counting the number of "clicks" made.

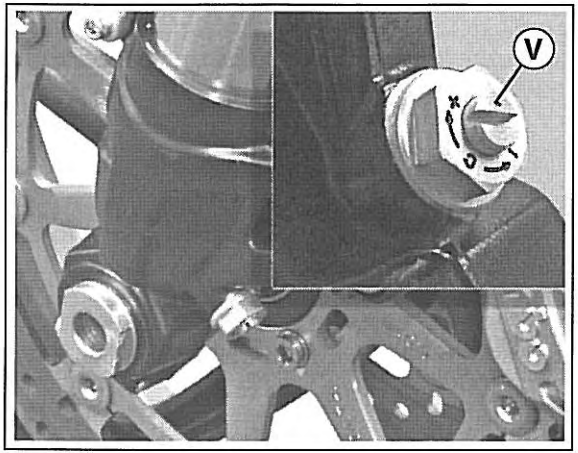
PRE-LOADING THE SPRING

- Spring pre-loading (for both rods) is determined by the screw (D). The original setting corresponds to **n° 6 turns** from the position of the unscrewed nut, compression.

COMPRESSION

- The **compression speed** is determined by means of the screws (V) (marked C). The original setting corresponds to **n° 8 "clicks"** from the position of the screws at the end of the travel position.

***NOTE** - All regulations described here must be carried out at a Moto Morini Authorized Assistance Centre.*

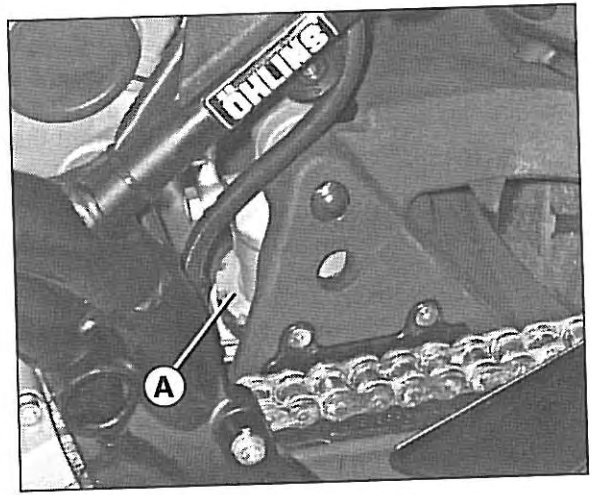


F. 42

REAR SHOCK ABSORBER

- The rear shock absorber is equipped with some external adjusting screws that allow adjusting the motorcycle track alignment to the different loading needs.

***NOTE** - The standard rear shock absorber adjustment is calibrated for a driver weight of 75 kg.*



F. 43

ADJUSTMENT

Adjusting the spring preload

- The ring nuts (A) located in the upper part of the shock absorber allows adjusting the external spring preload.

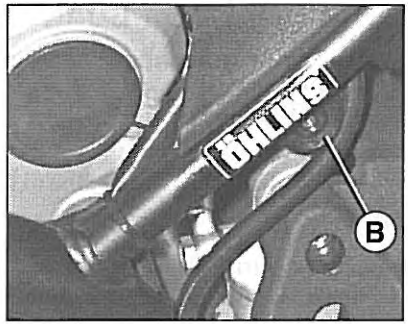
To change the spring preload, contact a **Moto Morini** Authorised Service Centre.

- **SCREW** in order to **INCREASE** the preload.
- **RELEASE** in order to **REDUCE** the preload.

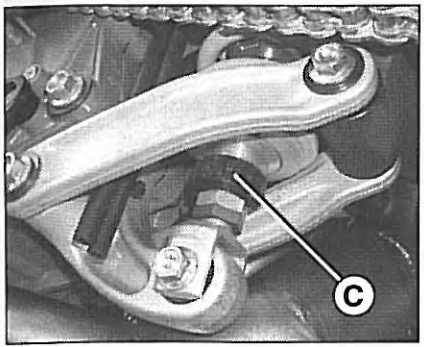
Adjusting the compression speed

We suggest to take note any adjustment made to the rear shock absorber.

- Rotate the knob (**B**) clockwise to **"reduce"** the shock absorber compression speed.
- Rotate the knob **anticlockwise** to-**"increase"** it.
- The setting at delivery is **13 anti-clockwise steps** starting from the knob limit stop.



F. 44



F. 45

Adjusting the rebound speed

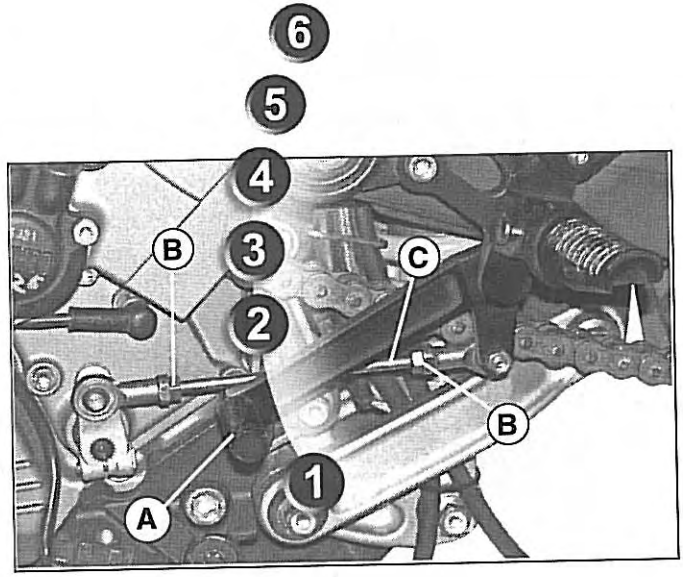
- The adjusting knob (**C**) allows adjusting the speed during the shock absorber rebound (return).
- Rotate the knob **clockwise**, to **increase** the braking power.
- Rotate the knob **anti-clockwise**, to **reduce** the braking power.
- The setting at delivery is **15 anti-clockwise steps** starting from the knob limit stop.

GEAR CHANGE PEDAL

- Every time the pedal (A) is moved upward or downward a different gear is engaged.

POSITION ADJUSTMENT

- According to the different need of the driver the position of the gear change pedal can be adjusted by means of the rod (C) adjusting screws (B).



F. 46

REAR BRAKE CONTROL PEDAL

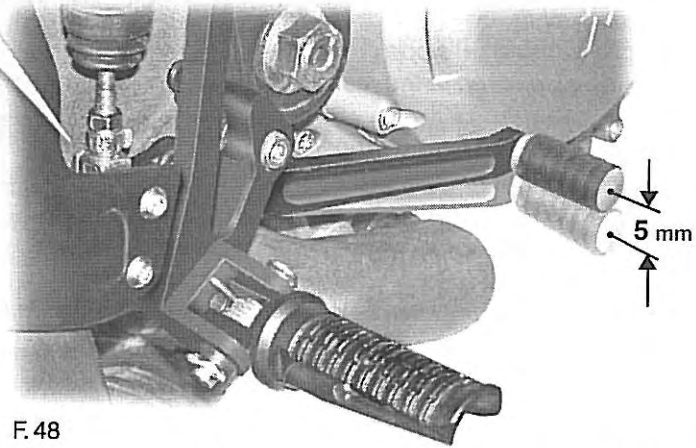
- The pedal controls the hydraulic control of the rear wheel brake.

Rear brake pedal position adjustment

- *Adjust the height of the rear brake pedal from the ground by acting on the adjuster (A)*

After adjusting the pedal height, check that the play of the brake pedal is approximately 5 mm. In case it is not, act on the adjuster (B).

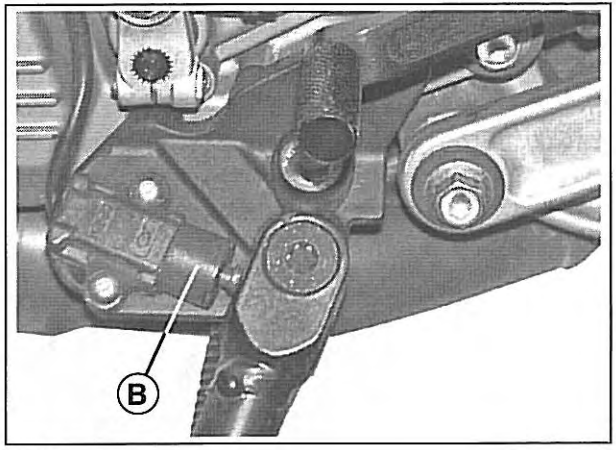
F. 47



F. 48

SIDE STAND

***Before using the side stand**, make sure the ground surface is sound and regular. Grassy, muddy or scarcely stable ground, asphalt soften by the sunlight, etc. may cause the motorcycle to fall.*
In case of a longitudinal slope, always park headed uphill.
In case of a transversal slope or a bump, open up the side stand in the more level point.
Periodically check the correct operation of the side stand return springs and of the safety sensor (B).



F. 49

***Never seat on the motorcycle** when it is parked on the side stand.*

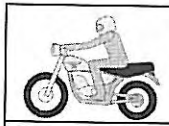
TYRES

Type: TUBELESS - PIRELLI DIABLO

Dimensions:

- front 120/70 ZR 17" (58 W)
- rear 180/55 ZR 17" (73 W)

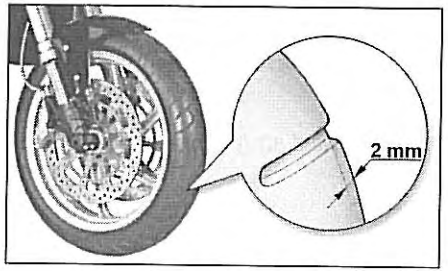
*Always check and restore the right tyre pressure only with **"cold tyres".***

	PRESSURE (bar)	
	Front	**Rear**
	2,3	2,6
	2,4	2,8

***NOTE** - The correct tyre pressure varies according to the load, that is to say the overall motorcycle weight. Tyre pressure is an extremely important aspect that can ensure safe driving conditions.*

Check the tyre pressure before riding. In case of signs such as cuts, cracks, bubbles of air, etc...immediately replace the tyres.

*According to the Law, the minimum tyre tread pressure of both tyres is **2 mm**.*



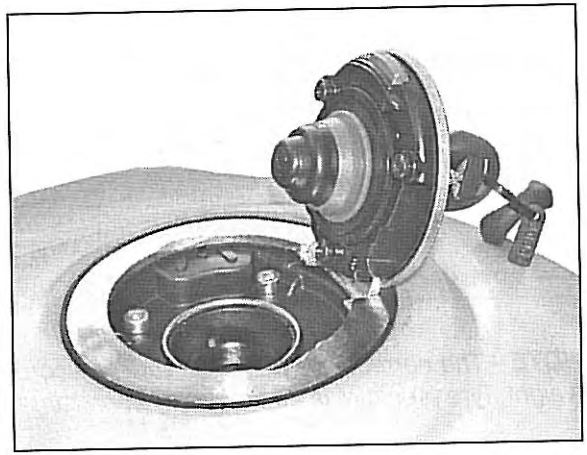
F. 50

FUEL TANK

Refuelling

- Never open the tank plug before turning the engine off and placing the motorcycle on the side stand.
- Do not smoke or use naked flames while refuelling the tank.

FUEL TANK	LITRES
Total capacity	18,70
Reserve	4,00



F. 51

Immediately dry any fuel leaks on the tank or motorcycle parts.

WARNING

- The motorcycle owner is responsible for the good conditions of the motorcycle.
- A careless maintenance, a long-term use, a long stay exposed to the weather, etc..., may lead to severe damages to the motorcycle and reduce its performances or lifetime.
- Leaks or reduced tyre pressure may have severe consequences. It is thus very important to check with care the motorcycle main components before any use.

RUNNING-IN PERIOD (1,500 km)

A good running-in period *is fundamental to ensure a long life to the moving parts and a good performance over time.*
During the running-in period ***we suggest*** *not to drive with the throttle twistgrip constantly open.*

After driving the first 1,500 km remember to have the first service check done.

CHECKS BEFORE USE

DESCRIPTION	CHECKS
FUEL	Suitable quantity
OIL ENGINE	Good level and leaks
COOLANT	Good level and leaks
TYRES	Pressure - Wear - Possible damages
STEERING	Free rotation in both directions
SUSPENSIONS	Adjustment and leaks
BRAKES	Operation - Wear - Leaks
CHAIN	Right tension and lubrication
THROTTLE	"Smooth" operation, no clearance. Lubricate or adjust, if necessary.
LIGHTS AND INDICATORS	Check for normal operation

USE AND DRIVING TIPS

- Leave the engine **to warm up** for a few minutes, letting it idle, before riding.
- **Turn off the engine** in case of long stops.
- **Do not start** the engine in closed or unsufficientely aired places. **The exhaust system fumes are extremely toxic.**
- **Do not speed up too fast** when starting and do not turn the throttle twistgrip abruptly.
- **Never ride on one wheel** and never "zig-zag".
- **On not tarmacked roads**, uneven grounds, wet roads, etc..., be extremely careful in using the brakes and prefer using the momentum
- **Always indicate** by means of the direction indicators when you mean to change your position on the road, take a bend, change lane, etc.
- **Do not speed up** while braking.
- **With normal road conditions** prefer using the front brakes.
- **After a long travel**, at high environment temperature, leave the engine idling for a few minutes before turning it off.

SUGGESTIONS CONCERNING THE MOTORCYCLE RUNNING-IN

Until 800 km - Do not exceed 5,500 rpm with any gear.

We suggest changing often the engine rpm without exceeding the indicated limit.
Check the chain tension and lubrication often.

Do not use the brakes abruptly or for too long in order to allow the friction material (brake pads and discs) optimised wear.

From 800 to 1,500 km - Do not exceed 7,500 rpm with any gear.

*After the **first 1,500 km** have your **1st service check** done by an authorized **MOTO MORINI** service centre.*

PRE-START INFORMATION

Before starting the engine for the first time get to a knowledge of all the controls of your motorcycle to make sure that all of your actions occur naturally and carefully while driving.

Never start the engine in closed environments. The exhaust system fumes are highly toxic and can lead to intoxication or death.

ENGINE START-UP

- The engine can be started with the side stand down only when the engine is idling.
- In order to start the engine with the gear engaged, squeeze the clutch lever and make sure the side stand is up.

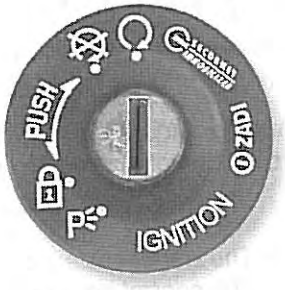
***NOTE** - The starter system does not need any manual starter device. The central power unit controls the engine start-up and automatically sets the perfect idling rpm according to the atmospheric temperature, humidity and pressure and the engine inside temperature.*

F. 52

Starting the engine:

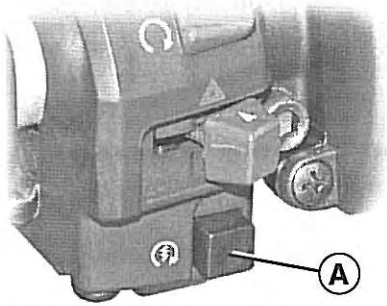
- Turn the key on the "ON" position.
- Press the starter button (A) and release it immediately **without using the throttle twistgrip.**

***NOTE** - When the starter button is pressed, the starter motor automatic mode turns on. The starter motor will start the engine within 5 seconds. In case the engine does not start up press the starter button again.*



*The oil pressure light , **must switch off** a few seconds after the engine start-up. In case it does not switch off, immediately, turn the engine off and check the oil level. In case the oil level is normal, contact the MOTO MORINI S.p.A post-sale service.*

Never reach an excessive engine rpm. The oil must warm up gradually in order to reach all the components that need lubrication.



F. 53

STARTING OFF

RIDING AND SPEEDING UP

- After starting the engine as described above, let it idle for a few minutes then pull the clutch lever to its limit stop and firmly press the gear change lever (downwards), with the lower tip of your left-hand side foot, in order to engage the first gear. When released the gear change lever will get back to its initial position.
- Gradually speed up while releasing the clutch lever.
- To shift to the second gear, close the throttle twistgrip, squeeze the clutch lever and lift the gear change lever with the foot back, then release the clutch while speeding up. Repeat the same sequence for all of the three gears.

  To shift down, release the throttle twistgrip, squeeze the clutch lever, slightly speed up to optimise the gear components timing and then engage the lower gear and release the clutch lever.

Always use the controls promptly. When driving on winding roads, on mountain roads when the engine rpm start reducing immediately engage the lower gear.

SHIFTING DOWN AND BRAKING

- Never use the brakes abruptly unless a sudden obstacle is encountered in order to avoid that the wheels lock up which can lead to sudden loss of control of the vehicle.
- Speed down by means of the momentum and gears gradually using both brake levers.
- The action of the brakes must be changed when driving on wet roads, with bumps, holes or roughly road, repairing, gravel, etc. In all this situations when the road become slippery it is important to reduce the use of the brakes and to use them with extreme care.
- On long and steep descending slopes, prefer the momentum and gears to the brakes. Use the brakes one by one and just for short distances: with continuous operation of the brakes the friction material may overheat and the braking force become less efficient.

STOPPING

- You can slow down by closing the throttle twistgrip gradually and shifting the gears down by using the clutch lever. Put in the neutral (between the first and second gear) then stop the motorcycle by braking.

Never leave the key in the **ON** position when the engine is off as this may damage the electrical components.

PARKING

- Place the motorcycle on the side stand.
- Lock the handlebar by engaging the steering lock.
- Never park the motorcycle near heat sources.
- In case of short stops, in conditions of scarce visibility, always leave the parking lights on. **Never leave the parking light on for too long in order too avoid discharging the battery.**
- Never leave the motorcycle unattended not even for a short time with the key on.
- Never park on dry leaves, plastic materials or wooden surfaces as the high temperature of the catalytic exhaust pipe could lead to hazardous situations.
- Never park the motorcycle under the trees. In some periods of the year, resinous substances, fruits or leaves containing chemical substances which can ruin the plastic component or the motorcycle paint fall from the trees.

GENERAL CLEANING

Never wash the motorcycle immediately after use. The evaporation of water, determined by the contact of water and hot surfaces, may create spots on the motorcycle.

- Never wash the motorcycle when it is too sunny, especially in the summer as the shampoo may dry before rinsing with possible damages to the paint.
- **Never use water, high pressure or steam** directly on the electrical components, air intakes, exhaust pipe ends, instrument panel or the control devices of the handlebar.

In case the engine components are extremely dirty, use a specific degreasing product avoiding to touch the painted components, chain, sprocket, brake discs, etc... To clean the rubber and plastic components never use solvents or diluents.

NOTE - *In order to preserve the brightness of metallic and painted components over time, clean and wash the motorcycle time by time especially in case you live and use the motorcycle in areas with high pollution, air salt and humidity percentage or where salt and anti-ice chemical products are used on the roads during the winter. Make sure to remove from the bodywork industrial powders, tar spots, dead insects, etc...*
To remove dirt 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 a specific shampoo. Always use high quality biodegradable products and try avoiding detergents and solvents too aggressive. Rinse thoroughly with warm water and dry carefully with chamois leather.

After washing*, the brakes may not operate as usual. The braking force may be reduced for a while because of the water on the friction material of the braking system. Remember to clean the brake discs only with solvents free from oily material such as acetone ortrichlorethylene.*

LONG PERIODO OF INACTIVITY

- Before storing the motorcycle for a long period of inactivity, e.g. for the winter, carry out the following operations:

- General cleaning
- Lift the motorcycle from the ground in order to lift and deflate the tyres.
- Remove the battery and keep it charged it over time (check and recharge the battery every month).
- Cover the motorcycle with a specific fabric cover in order to protect the painted parts and to avoid the damages caused by humidity. Never use plastic or waterproof materials.

SCHEDULED MAINTENANCE - For the planning, see the table contained in the warranty booklet and service check coupons.

ORDINARY MAINTENANCE - All the indicated operation are of remarkable importance for the performance and lifetime of the motorcycle over time and, consequently, they must be carried out according to the suggested timetable.

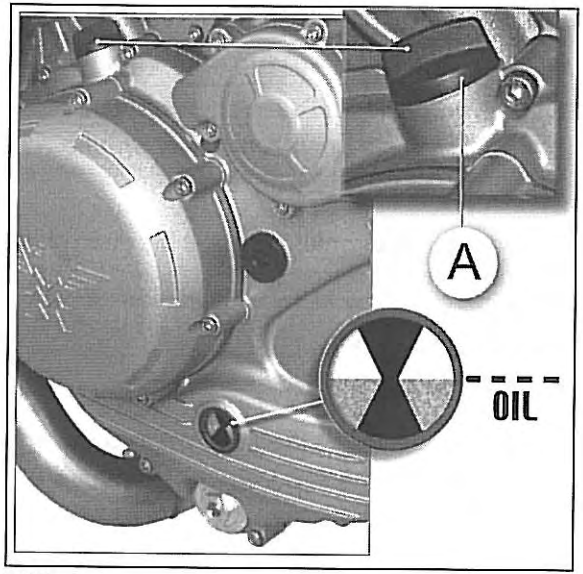
***NOTE** - As a general rule, ordinary maintenance operations can be carried out by the driver but often need the technical skill and tools of a qualified engineer. In case you are not sure about the service intervention we suggest to contact a Moto Morini S.p.A. authorised service centre that will provide you with an accurate, reliable and competent service. Before any maintenance operation or simple check, place the motorcycle on an even ground, in a closed but properly aired room and make sure that both the engine and the exhaust system have cooled done to prevent burns.*

This icon indicates that the maintenance interventions referred to must be carried out only by a skilled engineer in a Moto Morini S.p.A. authorised service centre or by a motor vehicle workshop. The Manufacturer will not be held responsible for any damage resulting from failure to respect the above rule and the warranty shall be invalid in such case.

OIL ENGINE

Check oil level every km: 1,000

- Always check the oil level at cold engine. In case you need performing the oil level check at hot engine, wait a few minutes to let the oil to get at a stable level inside the sump. Place the motorcycle vertical with respect to the ground and remove the oil plug (A).
- The oil level can be checked through the inspection hole on the oil sump. The oil should reach the mark placed in the middle of the inspection hole.
- In case the oil level is below the indicated mark, top it up from the upper oil filler (A).
- **Use the following oil:** Agip **RACING 4T 10W60.**



F. 54

During long travels, always check the oil level when stopping for a rest.

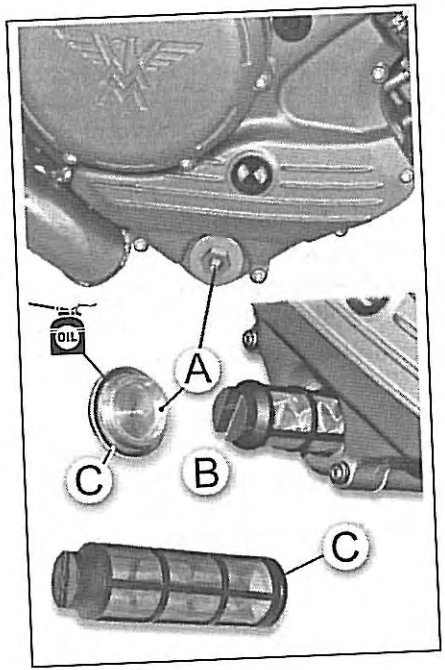
EXHAUST SYSTEM OIL ENGINE

At 1,500 **Every** 10,000 **km**

Perform this operation at ***hot engine*** *as oil flows more easily when warm and drains quicker and completely.*

- Place a specific container under the drain plug (A).
- Remove the oil filler plug.
- Undo moderately, then remove the drain plug and slightly tilt the motorcycle to the right to let used oil drain completely.

Do not release the used oil into the environment but dispose of it in compliance with the regulations in force.



F. 55

CLEAN OIL FILTER (mesh filter) at every motor oil replacement

- Remove the mesh filter (B) and clean it with petrol and a moderate compressed air jet paying attention not to damage the mesh.
- Fit the mesh filter back into the oil sump and, before screwing the plug (A) back check the O-Ring (C) for wear.

Do not use aggressive solvents or diluents for the mesh filter cleaning. In case of damage, do not attempt to repair it with any type of adhesive but ***replace it with a new, original*** *component.*

Always use original Moto Morini filter.

OIL FILTER (cartridge filter)

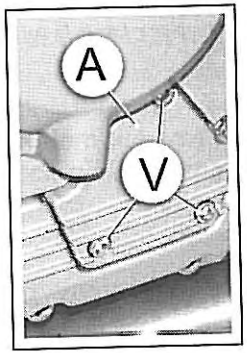
Replacement recurrence: at every oil change .

- Drain the engine used oil completely as described in the previous pages.
- Release the three screws (V) and remove the cover (A).
- Extract the spring (B).
- Remove the oil filter (C).

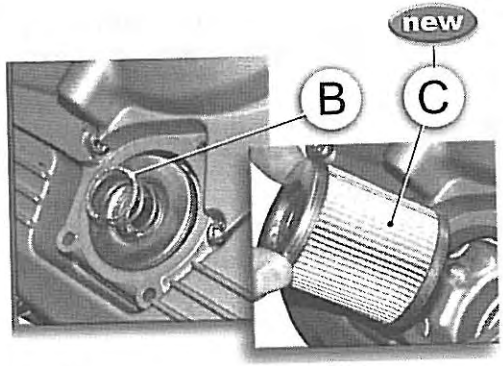
Do not release the filter into the environment but dispose of it in compliance with the regulations in force.

Never use again the removed used filter.

Always use original Moto Morini filter.

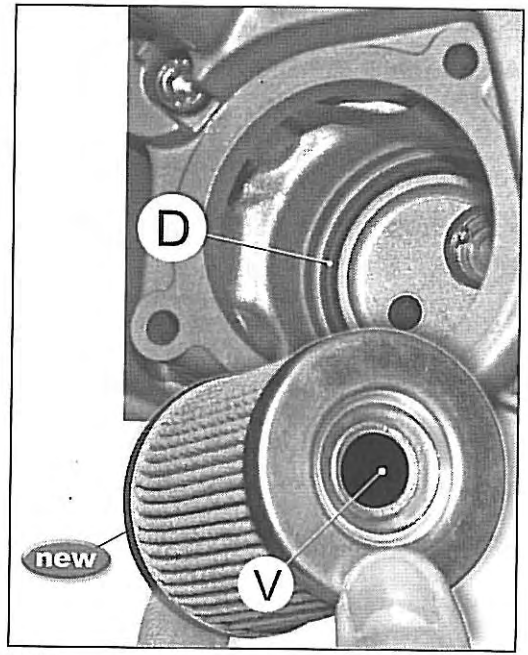


F. 56



F. 56/a

- Clean the filter housing.
- Check the O-Ring (D) inside the filter housing and the O-Ring in the inner part of the cover for wear. In case of cuts or cracks replace the sealing rings with new, identical ones.
- Lubricate the sealing rings with oil for engine.
- Fit a new filter of the same type of the original, with the overpressure valve (V) facing outwards.
- Fit the spring back.
- Reassemble the cover and tighten the three fixing screws (V - F. 56).

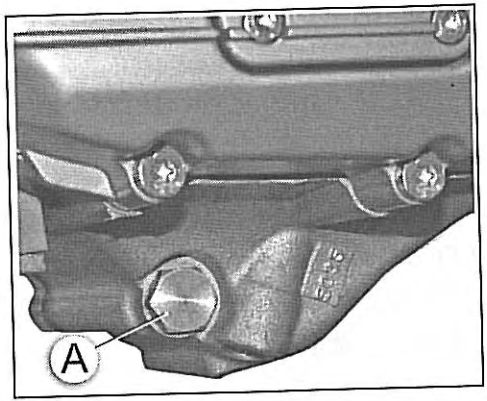


F.57

MAGNETIC PLUG CLEANING

At 1.500 | 10.000 **Every** 10.000 **Km**

- Undo moderately, then remove the magnetic plug (A).
- Check the oil filler plug for any metal residue on the plug magnetic face.
- Check the sealing ring for wear.
- Before refitting the plug, lubricate the thread with generic oil.



F. 58

OIL ENGINE - Refuelling

In case you use a funnel or any similar item to refuel the oil engine (for change or topping up) make sure they are perfectly clean in order to prevent any foreign matter or water to get into the engine with consequent severe damages.

Tips - After draining the used oil completely, changing the filter cartridge and cleaning the mesh filter, make sure that the drain plug is properly tighten up. Remove the refuelling plug and top up with oil:

Racing 4T 10W60 (or a compatible product: make sure that jaso ma is indicated together with the acronyms api sg or sj) until reaching the max level indicated on the inspection hole window (P. 69).

- Fit the refuelling plug back, start the engine and let it idle for a few minutes while checking for any oil leak. Make sure that the oil light on the instrument panel goes off after a few seconds from the engine start-up. If it does not, switch the engine off and carry out the necessary checks.
- Check again the oil level after around three minutes from the engine switching off.

Do not mix different or incompatible oil, this may damage the engine.
In case the indicated oil is not available, buy a compatible product: oil compatibility is usually indicated by a specific table displayed at filling stations or specific shops.
Moto Morini S.p.A. declines any responsibility for damages of any kind resulting from the use of oils with different characteristics from the ones indicated.

BRAKE FLUID - CLUTCH

BRAKE FLUID DOT 4

Check at 1,500

Change at 10,000 **km**

Brakes are the motorcycle components ensuring driving safety. For this reason it is important to keep them always properly efficient. The motorcycle is equipped with disc brakes actuated by a hydraulic system on both wheels.

The brake and clutch fluids are extremely corrosive and may cause injury to people or damage to the motorcycle. Make sure the fluid level never lower below the "MIN" mark indicated on the respective reservoirs. A low level of the brake fluid may result in a poor response of the braking system.

Use only the indicated fluid directly from the sealed container. Make sure to prevent any foreign matter or water, etc....., to get into the reservoir together with the fluid. In case you need or wish to change the fluid brand, we suggest draining the current fluid out completely from the system. This operation must be carried out only by a skilled engineer.

Do not mix fluids with different characteristics, they may be incompatible.

CHECKING LEVELS (brake and clutch fluids)

- Slightly incline the motorcycle so that the fluid contained in the different reservoirs is perfectly horizontal.

Level indicators (L):

- L1 - Clutch
- L2 - Front brake
- L3 - Rear brake

⚠ ***In case the brake fluid level is low,*** *do not use the motorcycle or top up fluid. Immediately refer to a Moto Morini Authorised Service Centre.*
The clutch fluid level will increase *with the normal wear of the clutch. Never exceed the minimum level while topping up.*

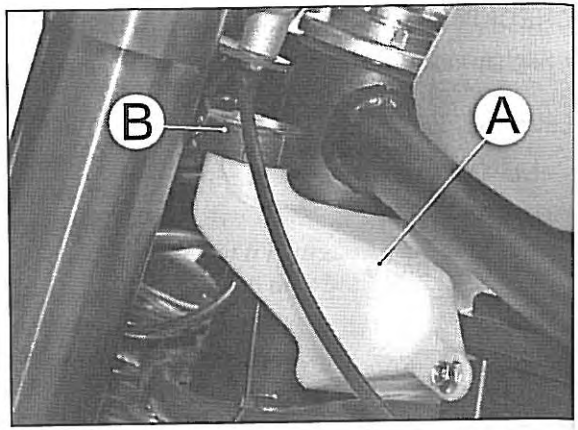
F. 59

F. 60

F. 61

COOLANT

- The coolant expansion reservoir (A) is located between the fork and the fuel tank.



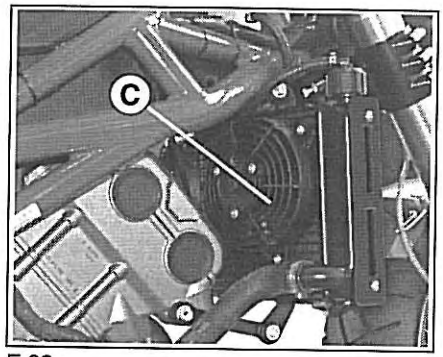
F. 62

Checking the level:

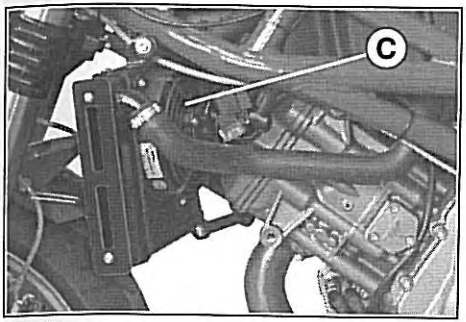
- Check the coolant level inside the reservoir at cold engine and with the motorcycle standing vertically with respect to the ground.
- The level of fluid must be included between the "MIN-MAX" marks indicated on the outside of the reservoir.
- To top up the fluid, remove the refuelling plug (B).
- **Use fluid:** Agip **ECO PERMANENT.**

Never top up with water unless it is an emergency situation.

NOTE - *The cooling system is made of two electric fans (C) that start automatically in order to cool the radiator down when the coolant temperature is too high.*
The electric fans are protected by a fuse located in the fusebox underneath the passenger seat.



F. 63



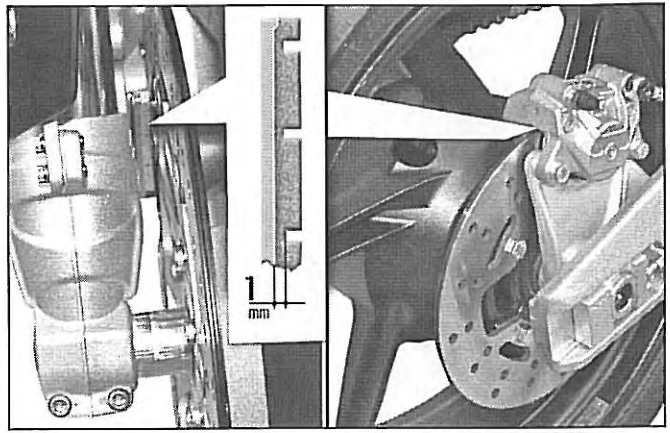
F. 63/a

⚠ *In case the motorcycle is using up excessive coolant or the cooling system is leaking do not use the motorcycle and contact a Moto Morini S.p.A. Authorised Service Centre.*

BRAKE PADS
Check pads for wear

Check every 1,500

In case you use the motorcycle mostly on dusty or wet roads, winding or mountain roads check the brake pads for wear more often that indicated.



F. 64

- It is not necessary to remove the brake pads for check.
- The grooves on the front friction material pad indicate their level of wear.
- Clearly visible grooves indicate that the pads are in good conditions.

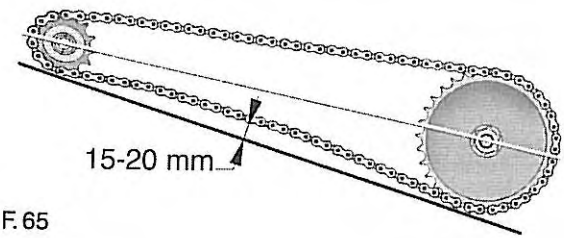
*The **minimum thickness** of the pad friction material is **1 mm**. Replace both pads even when only one of them is worn. **Always use original pads.***

TRANSMISSION CHAIN

NOTE - *The driver should only checking the transmission chain tension and lubrication.*

Checking the chain tension **every Km** **700**

- With the motorcycle ready to start, on a level ground without driver and with the side stand up.
- Press the chain from above around the middle of the swingarm.
- When the chain tension is correct a maximum travel of 15-20 mm is allowed. In case the chain travel exceeds the indicated one, have the tension adjusted by a Moto Morini Authorised Service Centre or a motor vehicle workshop.



F. 65

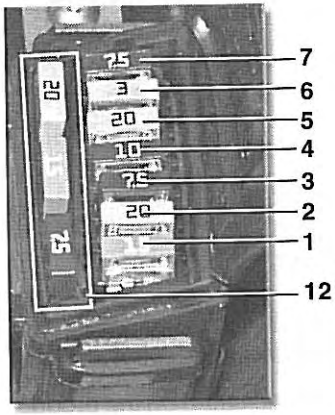
⚠ *An incorrect chain tension may lead to an early wear of the pinion, the sprocket and the chain itself.*

Lubrificate every Km **700** (or more often in case you use the motorcycle mostly on dusty roads)

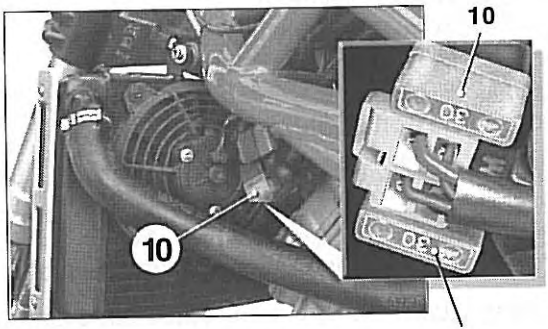
Always lubricate with special products, strictly following the instructions of use indicated on the product box.

FUSES

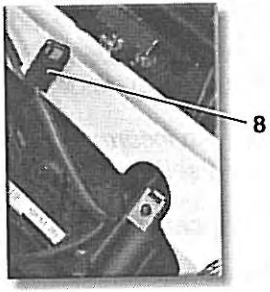
- Remove the passenger seat (P. 20).
- Press the side snap-on tangs (A) and open the fusebox cover.
- Before replacing the fuse, try to find out and prevent the cause of burnt.
- Find and remove the burnt fuse and replace with one having the same rated capacity.

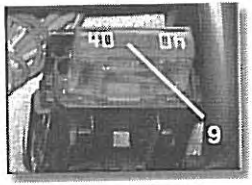


F. 66



F. 66/a





F. 66/b

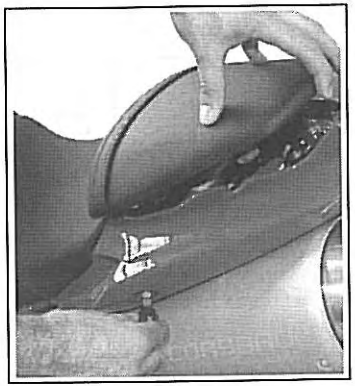
N°	A	GUARDS
1	**15**	Parking lights
2	**20**	Headlight (low and high beam)
3	**7,5**	Stop light - Flasher unit
4	**10**	LAMBDA sensor - Right hand switch - Speed sensor
5	**20**	Loads: coils/injectors/fuel pump
6	**3**	Injection
7	**7,5**	Instrument panel
8	**15**	Battery maintenance
9	**40**	Voltage regulator
10	**30**	Solenoid starter
11	**30**	Spare fuse
12	**-**	Spare fuses

⚠ *Do not use fuses with a higher rated capacity than indicated: this may cause severe damages to the electrical system and burn a fire as a consequence of short circuit.*

BATTERY - 12V - 18Ah

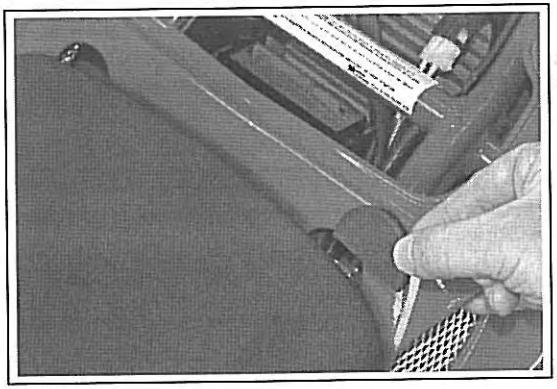
To reach the battery, proceed as follows:

- Open up the passenger seat and remove it.



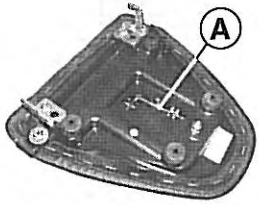
F. 67

- Remove the two plugs closing the holes that allows reaching the passenger seat fixing screws.



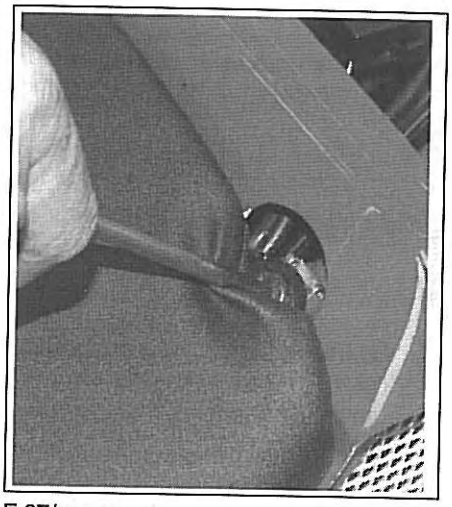
F. 67/a

- Remove the Allen wrench (A) located underneath the passenger seat.

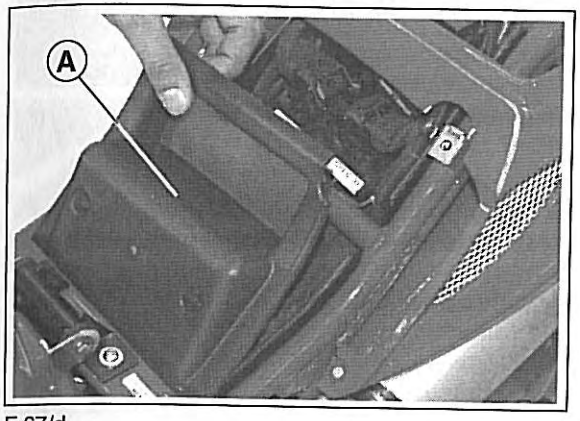


F. 67/b

- Undo the rear screws that secure the rider seat.
- Remove the rider seat.



F. 67/c



F. 67/d

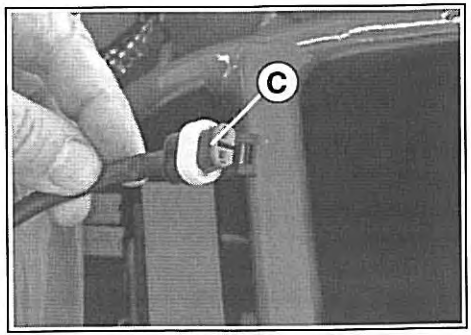
- Remove the sump (A) that is used as battery lid.

RECHARGING THE BATTERY

NOTE - *The battery can be charged following two different procedures:*

A - *Using a battery charger with a connector compatible with the connector (C) installed on the motor-bike. The indicated connector can also be used to recharge the battery without disconnecting or removing it from the battery compartment.*

B - By means of a traditional battery charger. In this is the case, it is necessary to disconnect the cables and to remove the battery from its compartment.



F. 67/e

*The battery should be recharged at **1/10 amperes (when the battery is low)**. Remember to keep the battery **constantly charged**. In case the motorcycle is not used often or during the winter when probably it is not used at all recharge the battery **at least once a month**.*

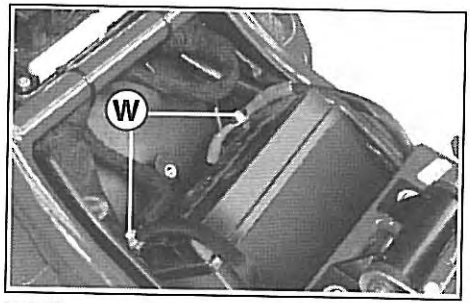
Do not charge or leave the battery near heating sources or naked flames.
Keep away from children.

REMOVING THE BATTERY

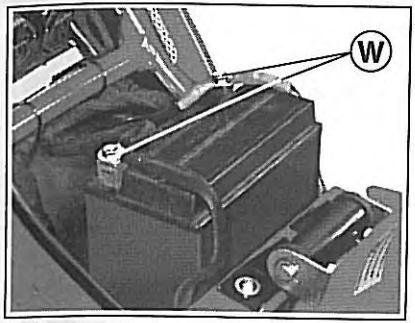
- Release the screws (W) securing the cables to the battery terminals.
- Extract the battery.

Due to the special inclination of the battery it is not possible to fit into the housing a battery other than sealed battery type.

Never open the battery, add distilled water or electrolite.



F. 67/f



F. 68

REASSEMBLING THE BATTERY

- Fit the battery into the battery compartment in a vertical position.
- Place the cable on the terminals and secure them by means of the screws (W) making sure that the cable are placed as far as downwards as possible with respect to the battery compartment as indicated in the picture.
- Lean the battery and fit it into its housing while positioning the cables as indicated in the picture (F. 67/f).

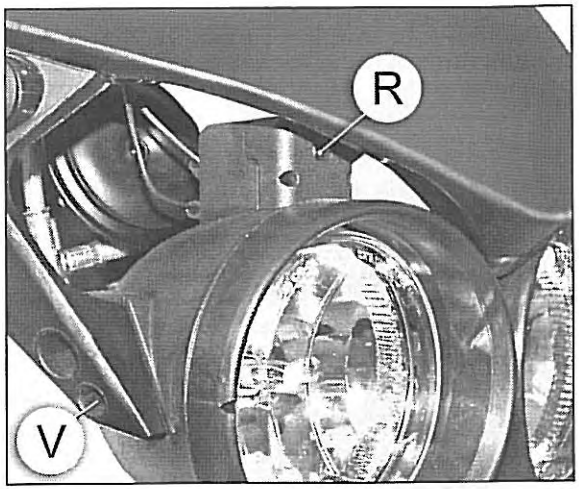
Make sure the battery terminals are properly oriented and the cable are connected to the right poles.

RED = positive (+)
BLACK = negative (-)

HEADLIGHT

Replacing the bulbs

NOTE *- To reach the headlight bulbs it is necessary to remove the entire headlight unit. This operation must be carried out only by a qualified engineer.*



F. 69

ADJUSTING THE HEADLIGHT BEAM

Have the headlight beam checked periodically or in special circumstances by a Moto Morini S.p.A. authorised service centre or by your motor vehicle electrician.

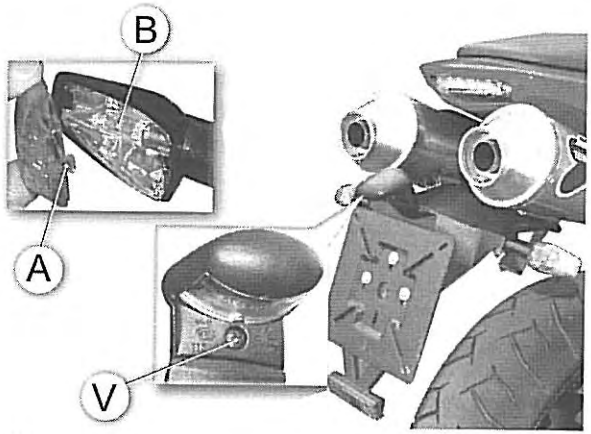
- Adjustment is made by acting on the adjusting screw (R) after releasing the screw (V) on both sides. Tighten the screws (V) back after the adjustment.

DIRECTION INDICATOR

Replacing the bulbs

NOTE - *The front and rear direction indicator are identical. In case of anomalies in the operation of one of the four direction indicators, the "direction indicator" light located on the instrument panel will start flashes at a higher frequency.*

- To replace the burnt bulb, remove the direction indicator cover paying attention not to damage the snap-on tong (A). Remove the burnt bulb (B) and replace it with a new, identical one. Do not touch the bulb with bare hands. Before fitting the cover back, check the new bulb for correct operation.



F. 70

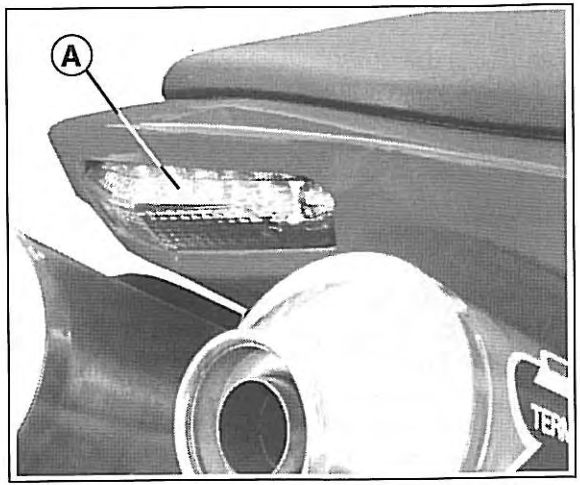
NUMBER PLATE LIGHT

Replacing the bulb

- Release the screw (V) and remove the number plate light front component.
- Replace the burnt bulb with a new, identical one and check its operation before reassembling the number plate light front component.

TAIL LIGHT

NOTE - *The tail light (A) operates with a series of LEDs that cannot be replaced when the tail light does not work. In fact, even if the tail light is not damaged it is necessary to replace the entire tail light unit at a Moto Morini authorised service centre.*



F.71

BULBS (12V)

FRONT LIGHTS

- Low beam: 5 W
- Low beams: 55 W H11
- High beams: 55 W H11

DIRECTION INDICATOR: 21 W

REAR LIGHTS

- Tail light: leds that cannot be replaced
- Number plate light: 5W

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