



Beta
the play bike



Urban 200

Service Manual



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URBAN 125/200 cc

Thanks for your preference, and have a good time! This handbook contains the information you need to properly operate and maintain your motorcycle.

The data and specifications provided in this manual does not constitute an engagement on the part of BETAMOTOR S.p.A. BETAMOTOR reserves the right to make any changes and improvements to its models at any moment and without notice.

IMPORTANT

We recommend checking all the tightenings after the first one or two hours' ride over rough ground. Special attention should be paid to the following parts:

- rear sprocket
- footrest supports
- front brake caliper
- rear disk brake caliper
- plate holder
- u-bolt for handlebar fastening
- mudguard bracket
- engine bolts
- shock absorber bolts
- wheel spokes
- rear frame
- Fairings

IMPORTANT

For any servicing requirements, please contact Betamotor's authorized service network.

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OPERATING NOTES

- The vehicle must be accompanied by: number-plate, registration document, tax disc and insurance.
- Do not carry any animals or objects which are not securely fastened to the vehicle, or exceed the vehicle's overall dimensions or the maximum load specified by the manufacturer.
- Riding without a helmet is forbidden.
- Any modifications of the engine or other parts resulting in a power and/or speed increase are punishable by severe sanctions including the confiscation of the vehicle.
- To protect your safety and that of others, always wear a helmet and adopt a safe riding conduct.

WARNING

Any modifications and tampering with the vehicle during the warranty period exempt the manufacturer from all responsibility and make the warranty null and void.

ECOLOGIC GUIDE

- Every vehicle powered by an internal combustion engine produces an amount of noise (noise pollution) and gases (air pollution) which varies with the riding style.
- The abatement of noise and air pollution levels is the duty of everybody. Avoid full-throttle starts, sudden acceleration and abrupt braking. This will reduce noise emission as well as the wear and tear of the tyres and mechanical parts, and will also allow a considerable reduction in fuel consumption.

RIDING SAFETY

- Observe the Highway Code.
- Always put on and fasten a homologated helmet.
- Always keep the helmet visor clean.
- Avoid wearing garments with hanging ends.
- Do not keep sharp or brittle objects in your pockets while riding.
- Be sure to correctly adjust the rearview mirrors.
- Always ride in a seated position, with both hands on the handlebars and both feet on the footrests.
- Always pay attention and do not allow anything to distract you while riding.
- Do not eat, drink, smoke, use a mobile phone, etc. while riding.
- Do not wear headphones to listen to music while riding.
- Never ride abreast with other vehicles.
- Do not tow and avoid being towed by other vehicles.
- Always keep a safe distance from other vehicles.
- Ride with the lights (low beam) on, even during the day.
- Do not sit on the vehicle when it is on its stand.
- Do not start off while the vehicle is on its stand.
- Do not pull out the stand when the vehicle is facing downhill.
- Avoid swaying and wheelies as they are extremely dangerous for your own and other people's safety as well as for your vehicle.
- Always apply both brakes on dry roads with no gravel and sand. Using one brake may result in dangerous and uncontrolled skidding.
- To reduce the braking distance, always apply both brakes.
- On wet roads, ride at moderate speed and be very careful, especially when applying the brakes.
- Do not start the engine in closed places.

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Speedometer setting and operating instructions

Specifications

Wiring diagram

Electrical devices

AIS Valve

VEHICLE IDENTIFICATION DATA

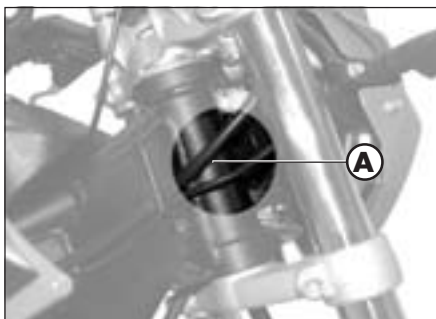
Frame identification data **A** are stamped on the right side of the steering head tube.

Engine identification data **B** are stamped in the area shown in the figure.

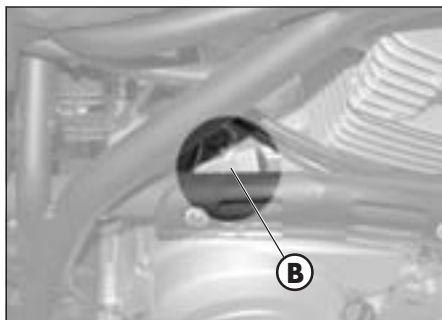


WARNING

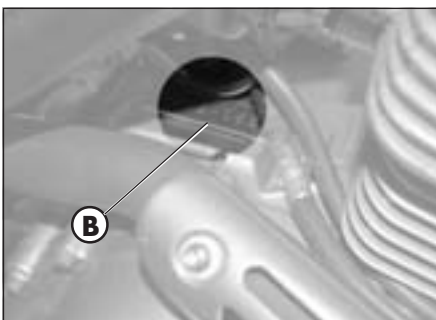
Tampering with the identification numbers is severely punished by law.



ENGINE IDENTIFICATION URBAN 125

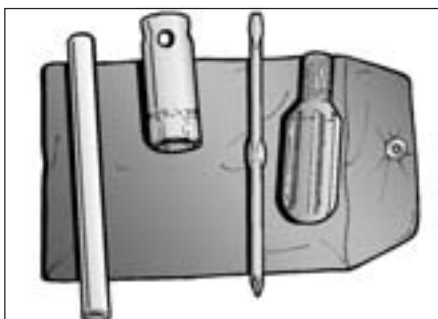


ENGINE IDENTIFICATION URBAN 200



DELIVERY

The following items are supplied as standard and are contained in a plastic envelope placed in a compartment under the saddle: operation and maintenance manual, tool kit (ignition spanner, double-function screwdriver).

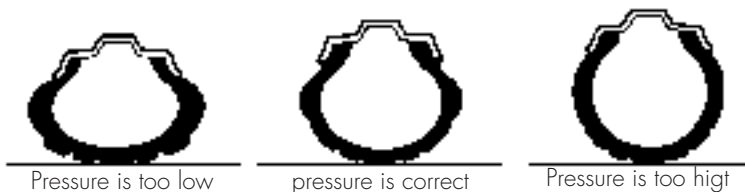


LOAD

- Maximum load (rider + passenger): 280 kg.
- To avoid making the vehicle unstable, do not carry bulky or heavy objects.
- Do not carry objects that stick from the vehicle or cover the lighting and signalling devices.
- The helmet must be put in its compartment with the top facing downwards.

TYRES

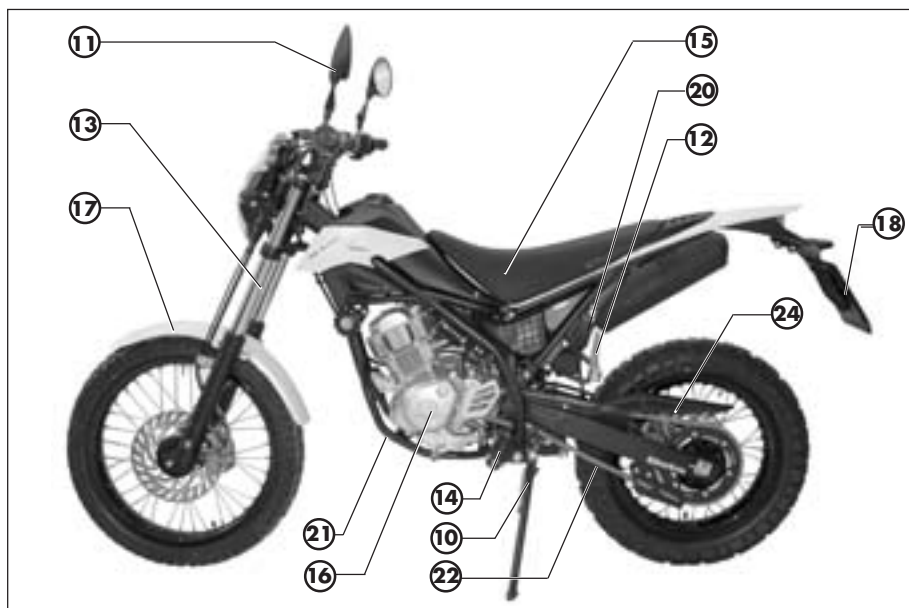
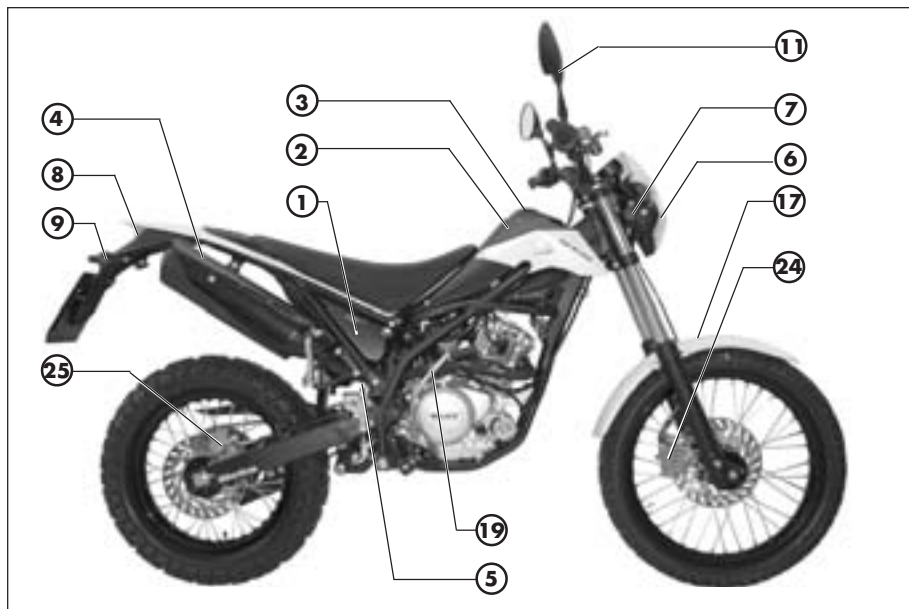
Tyre	Front	Rear
Size	80/100 - 19 49P	120/90-16 63P
Pressure	1,4 ÷ 1,5 bar	1,5 ÷ 1,6 bar



WARNING

- For your riding safety, frequently check the tyres.
 - Keep the tyre pressures within the prescribed range.
 - Check the tyre pressures **every other week**.
 - Always measure the inflating pressures when the tyres are cold.
 - Before riding, check the tyres for cuts, cracks, abrasions, bulges, etc. If any defects are found, have the tyres checked by an expert as riding with a damaged tyre can be extremely dangerous.
 - If a tyre gets punctured, stop the vehicle immediately. Riding with a flat tyre is dangerous and may seriously damage the tyre itself and the wheel rim.
 - Higher inflating pressures are recommended when riding in maximum load condition.
 - The tyre (TUBE TYPE) tread depth must never be less than 2 mm.
- Failure to comply with this rule is punished under the regulations in force.

FAMALIARIZING WITH THE VEHICLE



FAMILIARIZING WITH THE VEHICLE:

- 1 - Air filter
- 2 - Fuel tank
- 3 - Filler cap
- 4 - Silencer
- 5 - Rear damper
- 6 - Faro anteriore
- 7 - Front turn signal lamp.
- 8 - Tail lamp
- 9 - Rear turn signal lamp.
- 10 - Side stand
- 11 - Rearview mirror
- 12 - Passenger footrest
- 13 - Fork
- 14 - Footrest
- 15 - Saddle
- 16 - Engine
- 17 - Front mudguard
- 18 - Name-plate bracket
- 19 - Start. lever
- 20 - Helmet security lock
- 21 - Frame
- 22 - Chain
- 23 - Chain guard
- 24 - Front disk brake caliper
- 25 - Rear disk brake caliper

KEYS AND LOCKS

The vehicle is supplied with two keys for the ignition switch/steering lock and the helmet lock.



WARNING

Do not keep the spare keys in the vehicle. Keep the keys in a safe and easy-to-reach place. The code number stamped on the keys should be copied on this manual (or elsewhere) so it can be used to ask for duplicates should both keys be lost.



IGNITION SWITCH/STEERING LOCK

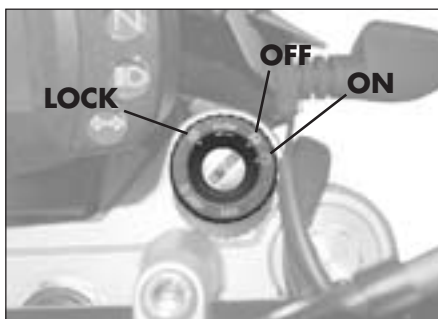
It controls the ignition circuit and the steering lock, and the opens the saddle.

OFF: Electrical equipment disabled.

ON: The vehicle can be started.

LOCK: Steering lock on.

To lock the handlebar, turn it to the left, press the key, rotate it anticlockwise all the way and then release it.

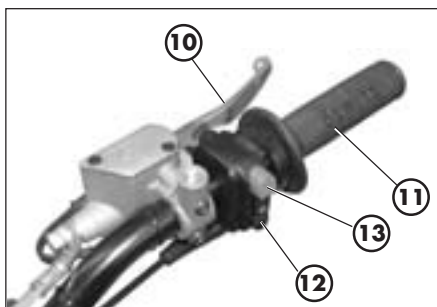
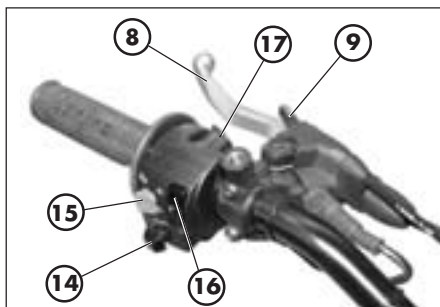
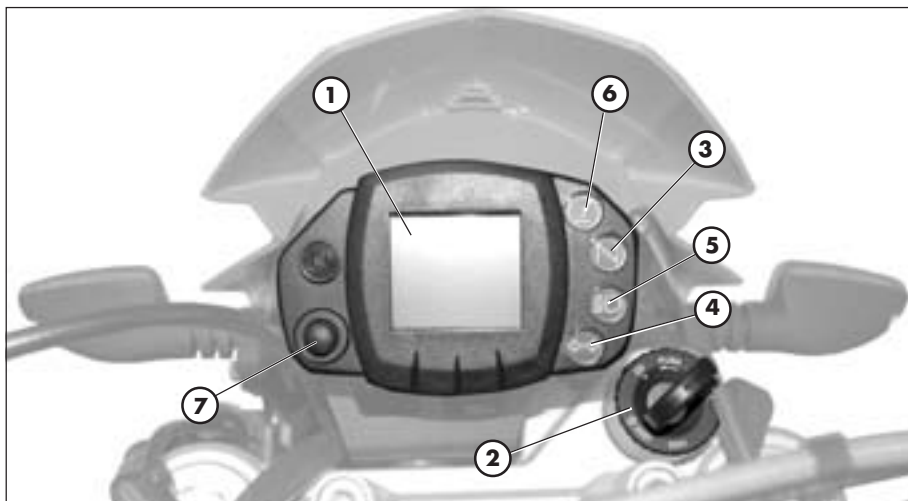


HELMET LOCK

Insert the key in to the lock located on the left side under the saddle, and then rotate it anticlockwise to open the helmet hook.



INSTRUMENT PANEL AND CONTROLS



- 1- LCD
- 2- Key operated switch
- 3- Neutral indicator light
- 4- Trafficator lights tell tale lamp
- 5- Headlight tell tale lamp
- 6- Tell tale lamp central stand
- 7- SCROLL Pushbutton
- 8- Clutch lever
- 9- Choke unit lever (Urban125)

- 10- Front brake lever
- 11- Throttle twist grip
- 12- Starting button
- 13- Engine stop button
- 14- Direction indicators pushbutton
- 15- Horn button
- 16- Headlight selector
- 17- Passing

Note: The lighting of the stand warning light indicates that the stand is down. For safety reasons, the engine stops as soon as the gears are engaged.

HOT TO SET AND USE THE ODOMETER

TABLE OF CONTENTS

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20.1	Trip odometer (TRP)
20.2	Clock (CLK)
20.3	Chronometer (LAP)
20.4	Max speed (MAX)
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10.0 INITIAL TEST AND MAIN SCREEN

When turning the key or starting the engine, the instruments will turn on and will show a general screen, with all indicators and warning lights On, for 3 seconds:

Check-up page:

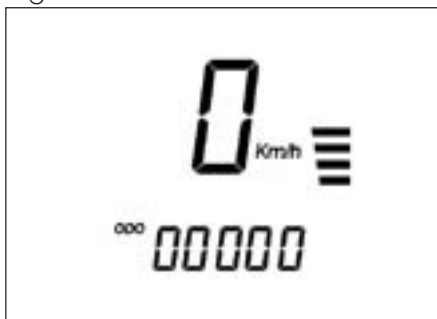
It checks all the segments and icons on the LCD and all the light indicators.

After the check-up page, the main screen (Figure 1) or the page that had last been selected before turning off (see section 20.0 and ff.) will appear.

(check)



Fig. 1



10.1 WARNING LIGHTS AND SCROLL BUTTON

The instrument is equipped with 4 lights, which are both indicators and warning light:

- 'Stand' red warning light **A**: when On, it means the side stand of the vehicle is down.
- 'Neutral' green warning light **B**: when On, it means the gear is in neutral.
- High-beam' blue warning light **C**: when On, it means the high-beam bulb is on.
- 'Indicators' green warning light **D**: when On, it means the indicators (right or left) are on.
- Scroll button **E**, used to move within the instrument to select the required features (see section 20.0 and ff.)



10.2 PAGE 1 WITH TOTAL DISTANCE COVERED (ODO)

This is the main screen, which contains information about Instant speed, total distance covered (**ODO**) and the battery voltage bar:

- Instant speed:
the Instant speed is displayed on 3 digits, from 0 to 199 km/h (or from 0 to 136 Mph).
- Total distance covered (ODO).
The total distance covered by the motorbike is displayed in 5 digits, up to 99999. Such number cannot be reset.

- Battery voltage bar
The battery voltage is displayed as one bar divided into 8 levels.

The battery icon blinks only when the battery is exceeding the limit, as follows:

- when the first horizontal bar and the battery icon blink (see Figure 1A), it means the voltage (*) is lower than the minimum admissible limit.
- When all bars and the battery icon blink, it means the voltage (*) is higher than the maximum admissible limit.

Fig. 1



Fig. 1A



WARNING: If the vehicle has no battery, the bar and the battery icon measure the voltage of the electric generator!

In these cases, if the light keeps blinking, check the cause!

20.0 SECONDARY FUNCTIONS

The main screen provides access to the following secondary features, containing information in the following sequence:

Trip odometer	(TRP)
Clock	(CLK)
Chronometer	(LAP)
Max speed	(MAX)

In addition to the specific information, the screen will still show the instant speed and the battery voltage bar/icon.

From the general screen (**ODO**), quickly press **SCROLL** to have access to the other screens. This means they will be displayed in the following sequence:

ODO -> TRP -> CLK -> LAP -> MAX

When pressing **SCROLL** when the max speed screen is on (**MAX**) the screen will go back to the main page (**ODO**) and the sequence can be resumed anywhere.



WARNING:

THE **SCROLL** BUTTON CANNOT BE PRESSED WHEN THE VEHICLE IS RUNNING, I.E. WHEN THE INSTANT SPEED IS OTHER THAN 0 km/h-mph.

THIS IS FOR THE DRIVER'S SAFETY.

20.1 TRIP ODOMETER **TRP**

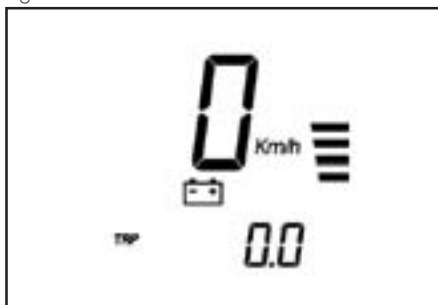
With the vehicle off, from Figure 1, quickly press **SCROLL** to go to figure 2, providing information on instant speed, subtotal distance covered (**TRP**) and the battery voltage bar:

- Km/h (Mph) in 3 digits (large).
- Trip odometer **TRP** in 4 digits (small)
- battery voltage bar

The trip odometer uses 4 digits in the 000.0 format to measure the subtotal distance covered from 0.0 Km/Miles to 999.9 Km/Miles. When reaching 999.9, the odometer will automatically go back to 0.0 as soon as covering another 0.1 km or mile.

The odometer can be manually reset (with Figure 2 On) with the vehicle off by pressing **SCROLL** for about 3 seconds until "—" appears in the 4 small digits.

Fig. 2



20.2 CLOCK **CLK**

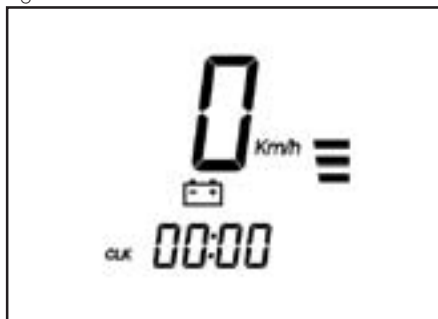
From figure 2, with the vehicle off, quickly press **SCROLL** to go to figure 3 containing information on Instant speed, 24h clock and battery voltage bar:

- Km/h in 3 digits (large)
- Clock in the hh:mm format in 4 digits (small)
- Battery voltage bar

The clock shows the time in the 24 hours format (from 0h:00' to 23h:59'); it can be set only when the vehicle is off, as follows:

- Press **SCROLL** until the hour digits blink.
- Release and press **SCROLL** again to move the hours forward by one unit at a time. Keep pressed to let them automatically move on. Release to go to point 4.
- Release **SCROLL** after setting the hours and wait: 2 seconds later, the minute digits will start to blink.
- Proceed as described at point 2 to set the minutes. Release **SCROLL** and wait 2 seconds to save the minutes, then quit the Clock mode.

Fig. 3



20.3 CHRONOMETER **LAP**

From figure 3, with the motorbike off, quickly press the button to go to figure 4, containing information on Instant speed, the chronometer in minutes:seconds and the battery voltage bar:

- Km/h in 3 digits (large)
- Chronometer in the mm:ss format in 4 digits (small)
- Battery voltage bar.

When the screen looks as in "Figure 4", it means the chronometer must be activated before it can be used. To do this, press **SCROLL** and keep it pressed for more than 1 second until "—:—" disappears and the chronometer appears in the MINUTES:SECONDS format, as described in figure 4A"

Fig. 4

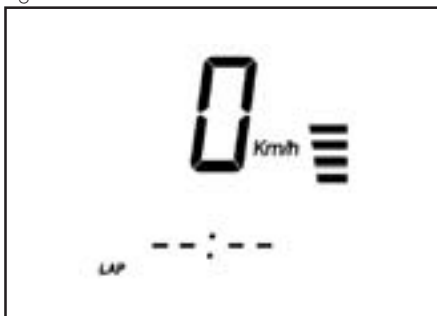
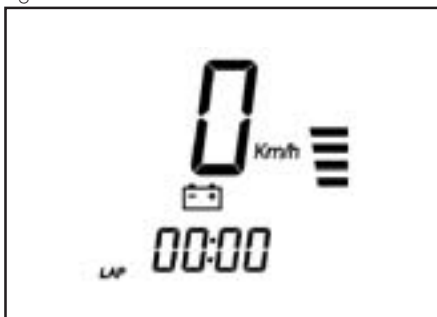


Fig. 4A



How to use: the chronometer can be started and stopped in manual and automatic mode when the instrument is set on "Figure 4A":

- The chronometer can be manually started and stopped by quickly pressing the start/stop button (only with the motorbike off).
- The chronometer is automatically started when the motorbike starts moving; it automatically stops about 1 second after stopping the motorbike (the displayed figure is automatically corrected).

The count will also stop when the motorbike stops after driving (even if manually started), provided the **LAP** feature is On.

This figure shows the chronometer and the count of the time: if the count is still and reset, all the digits are set to zero and displayed as in figure 4A.

A blinking "**LAP**" message means the chronometer is On and will be displayed even while viewing the other information pages.

To set other functions not related to the chronometer even when the chronometer is on, proceed as follows.

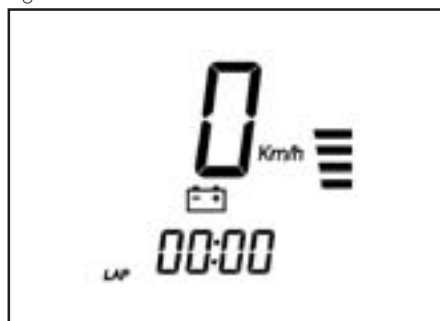
How to reset the chronometer:

Press **SCROLL** in figure 4A for more than 2 seconds; this will highlight figure 4, then again figure 4A, with the time counted the chronometer on it. Release **SCROLL** to reset and stop the chronometer.

How to quit (turn off) the LAP figure:

From page 4A, press for 1 to 2 seconds until page 4 appears again, then release the button. Press the button quickly again to go to the next page. The chronometer keeps working, if On, and LAP will blink.

Fig. 4A



20.4 MAX SPEED **MAX**

From figure 4, with the motorbike off, quickly press **SCROLL** to go to figure 5, containing information on Instant speed, max speed and the battery voltage bar:

- Km/h in 3 digits (large)
- Max speed in 3 digits (small)
- Battery voltage bar.

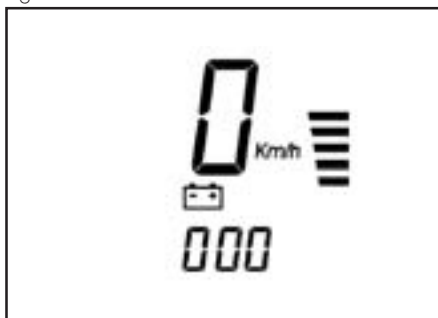
In this screen, "Km/h" or "Mph" will blink.

While driving the motorbike, the max speed is updated all the time and displayed in 3 small digits. In any case, this value is saved even if figure 5 is Off.

This counter can only be reset (with Figure 5 On) when the motorbike is off by keeping **SCROLL** pressed for about 3 seconds until "—" appears in 3 small digits.

To go back to figure 1, quickly press **SCROLL**.

Fig. 5



30.0 Storage

The digital instrument is fed by the motorbike battery; disconnect the battery if not using the motorbike for a long time. In this case, though, the time and max speed settings will be lost.

SPECIFICATIONS

MAXIMUM LOAD

rider + passenger 280 kg

VEHICLE'S KERB (DRY) WEIGHT URBAN 200 103 kg

VEHICLE'S KERB (DRY) WEIGHT URBAN 125 101 kg

DIMENSIONS

overall length 2,143 mm

overall width 820 mm

overall height 1,170 mm

wheelbase 1,372 mm

saddle height 836 mm

ground clearance 288 mm

FRAME steel, double closed cradle

CAPACITIES

fuel tank 6

including reserve 1.5

average consumption 25 km/l

FRONT SUSPENSION

Hydraulic fork with Ø 37 mm.

Amount of oil per stem:

left 310 ± 5 cc

right 310 ± 5 cc

Oil type SHELL EBH16

or LIQUI MOLY RECING SUSPENSION OIL SAE 10W

Oil level 142 mm from tube upper rim
with fork at end of travel and no spring

Trail 82,5 mm

REAR SUSPENSION

Single progressive hydraulic shock absorber with adjustable rebound and spring preload

shock absorber travel 63 mm

FRONT BRAKE

Ø 245 mm disc brake with hydraulic control

REAR BRAKE

Ø 220 mm disc brake with hydraulic control

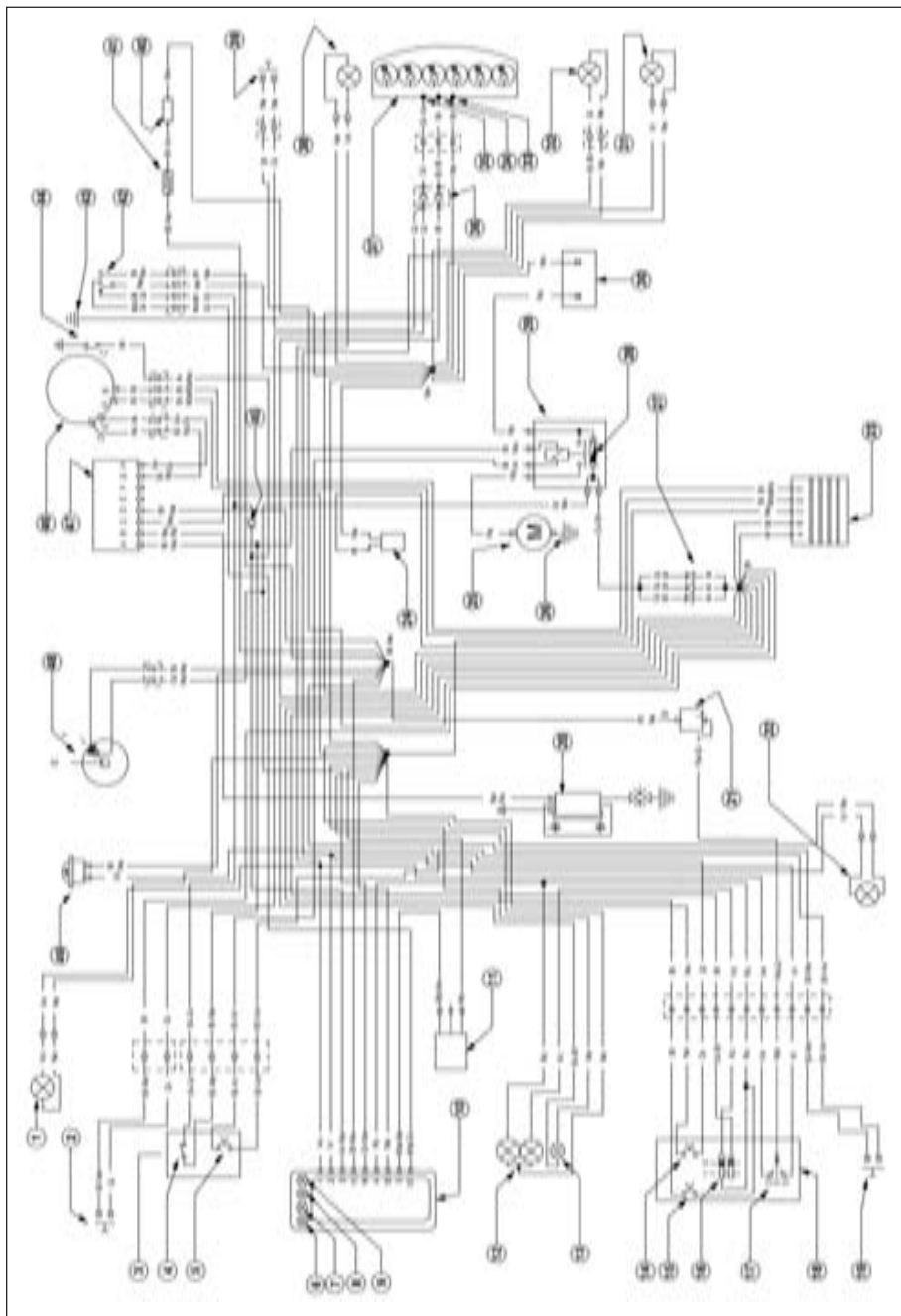
ENGINE URBAN 125

Type	Single-cylinder, forward-inclined, four-stroke, SOHC
Bore x stroke	54X54 mm
Displacement	124 cm ³
Compression ratio	10:1
Carburettor	MIKUNI UCAL 5Nh Ø 26-38
Lubrication	oil in sump
Fuel system	petrol (unleaded, with a minimum octane number of 95), by carburettor
Cooling system	by air circulation
Spark plug	NGK DR7 HSA
Clutch	multiple-disc in oil bath
transmission	5-speed, with constant-mesh gears
Primary gearbox ratio	68/20
Final gearbox ratio	60/14
Gear ratios	
1 st	37/14
2nd	32/18
3rd	25/19
4th	23/22
5th	21/24
Drive chain	REGINA 1/2, 5/16 P. 136
Play of valves	intake mm 0.08 - 0.12 , exhaust mm 0,10 - 0,14
Starting	electric and/or kick-start
Engine oil	BARDAHL XTM15W 50
Engine oil capacity	1,000 ml/1,050 ml

ENGINE URBAN 200

Type	single-cylinder, four-stroke SUZUKI H402
Bore x stroke	66 x 58.2
Displacement	199 cc
Compression ratio	9.4 : 1
Carburettor	MIKUNI BST31 42AD
Lubrication	oil in sump
Fuel system	petrol (unleaded, with a minimum octane number of 95), by carburettor
Cooling system	by air circulation
Spark plug	NGK DR8 EA
Clutch	multiple-disc in oil bath
Transmission	5-speed, with constant-mesh gears
Primary gearbox ratio	3.157 (60/19)
Final gearbox ratio	3.200 (48/15)
Gear ratios	
1st	3.000 (33/11)
2nd	1.933 (29/15)
3rd	1.437 (23/16)
4th	1.095 (23/21)
5th	0.913 (21/23)
Drive chain	REGINA 5/8, 1/4, P.104
Play of valves	intake and exhaust 0.08-0.13 mm
Starting	electric and/or kick-start
Engine oil	BARDAHL XTM15W 50
Engine oil capacity	oil change 850 ml with filter replacement 950 ml overhaul 1300 ml

SCHEMA ELETTRICO URBAN 125



WIRING DIAGRAM URBAN 125

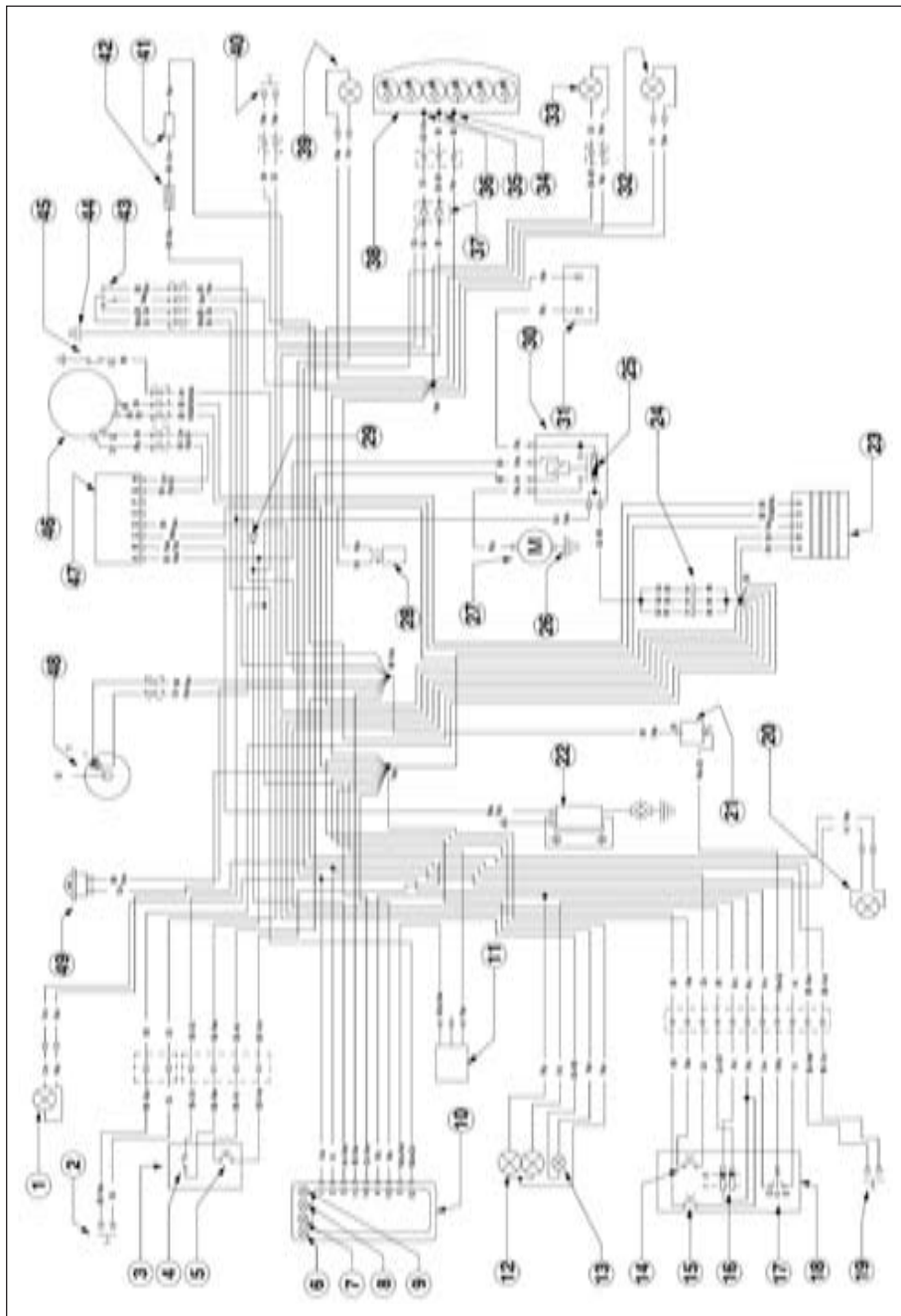
- 1) R.H. BLINKER (BULB 12V-10W)
- 2) FRONT STOP PUSH BUTTON
- 3) RIGHT CENTRAL UNIT
- 4) ENGINE STOP
- 5) STARTING BUTTON
- 6) TELL TALE LAMP CENTRAL STAND
- 7) NEUTRAL INDICATOR LIGHT
- 8) HEADLIGHT TELL TALE LAMP
- 9) TRAFFICATOR LIGHTS TELL TALE LAMP
- 10) DISPLAY
- 11) FRONT SENSOR WHEEL
- 12) HEADLAMP (TWIN-LIGHT BULB 12V-5560W)
- 13) SIDE LIGHT 12V-5W
- 14) HORN BUTTON
- 15) FLASH BUTTON
- 16) HEADLIGHT SELECTOR
- 17) TURN SIGNAL LAMPS SWITCH
- 18) LEFT CENTRAL UNIT
- 19) CLUTCH BUTTON
- 20) AT COIL
- 21) UNIT TURN SIGNAL LAMPS
- 22) L.H. BLINKER (BULB 12V-10W)
- 23) REGULATOR 12V
- 24) CONDENSER
- 25) STARTER MOTOR
- 26) ENGINE CENTR.WEIGHT
- 27) DIODE GR. 1A
- 28) FUSE 15A
- 29) REM. CONTROL SWITCH
- 30) HERMETIC BATTERY 12V-9Ah
- 31) L.H. BLINKER (BULB 12V-10W)
- 32) PLATE ILLUMINATION (BULB 12V-5W)
- 33) CENTR.WEIGHT
- 34) POSITION
- 35) STOP
- 36) DIODE 1A
- 37) TAIL LAMP (LED)
- 38) R.H. BLINKER (BULB 12V-10W)
- 39) REAR STOP PUSH BUTTON
- 40) FUEL SENSOR
- 41) SENSOR P.T.C.
- 42) SENSOR STAND
- 43) ENGINE CENTR.WEIGHT
- 44) CONTACT, NEUTRAL SWITCH
- 45) DIODE 1A
- 46) PICK-UP
- 47) ELECTRONIC CONTROL UNIT
- 48) KEY OPERATED SWITCH
- 49) HORN

Key to colours

Bi = White
 Ve = Green
 Ma = Brawn
 Vi = Purple

Bl = Blue
 Ne = Black
 Gi = Yellow
 Rs = Red

Ar = Orange
 Az = Sky-blue
 Ro = Pink
 Gr = Grey



WIRING DIAGRAM URBAN 125

- 1) R.H. BLINKER (BULB 12V-10W)
- 2) FRONT STOP PUSH BUTTON
- 3) RIGHT CENTRAL UNIT
- 4) ENGINE STOP
- 5) STARTING BUTTON
- 6) TELL TALE LAMP CENTRAL STAND
- 7) NEUTRAL INDICATOR LIGHT
- 8) HEADLIGHT TELL TALE LAMP
- 9) TRAFFICATOR LIGHTS TELL TALE LAMP
- 10) DISPLAY
- 11) FRONT SENSOR WHEEL
- 12) HEADLAMP (TWIN-LIGHT BULB 12V-55/60W)
- 13) SIDE LIGHT 12V-5W
- 14) HORN BUTTON
- 15) FLASH BUTTON
- 16) HEADLIGHT SELECTOR
- 17) TURN SIGNAL LAMPS SWITCH
- 18) LEFT CENTRAL UNIT
- 19) CLUTCH BUTTON
- 20) L.H. BLINKER (BULB 12V-10W)
- 21) UNIT TURN SIGNAL LAMPS
- 22) AT COIL
- 23) REGULATOR 12V
- 24) DIODE GR. 1A
- 25) FUSE 15A
- 26) ENGINE CENTR.WEIGHT
- 27) STARTER MOTOR
- 28) CONDENSER 4700 μ F-25V
- 29) DIODE 6A
- 30) REM. CONTROL SWITCH
- 31) HERMETIC BATTERY
- 32) L.H. BLINKER (BULB 12V-10W)
- 33) PLATE ILLUMINATION (BULB 12V-5W)
- 34) CENTR.WEIGHT
- 35) POSITION
- 36) STOP
- 37) N°2 DIODE 1A
- 38) TAIL LAMP (LED)
- 39) R.H. BLINKER (BULB 12V-10W)
- 40) REAR STOP PUSH BUTTON
- 41) FUEL SENSOR
- 42) SENSOR P.T.C.
- 43) SENSOR STAND
- 44) ENGINE CENTR.WEIGHT
- 45) CONTACT, NEUTRAL SWITCH
- 46) PICK-UP
- 47) ELECTRONIC CONTROL UNIT
- 48) KEY OPERATED SWITCH
- 49) HORN

Key to colours

Bi = White
 Ve = Green
 Ma = Brown
 Vi = Purple

Bl = Blue
 Ne = Black
 Gi = Yellow
 Rs = Red

Ar = Orange
 Az = Sky-blue
 Ro = Pink
 Gr = Grey

ELECTRICAL DEVICES

BATTERY

To have access to the battery **A**, remove the saddle, as described in "Removal of body parts" on page 52.

Remove the cover **B** by loosening the screw **C**, release the strap **D**, disconnect the cables and remove the battery.



WARNING

To prevent damage to the electrical system, never disconnect the cables while the engine is running.

Reinsert battery **(A)** in the specially designed recess under the saddle and fasten it using rubber band **(B)**.

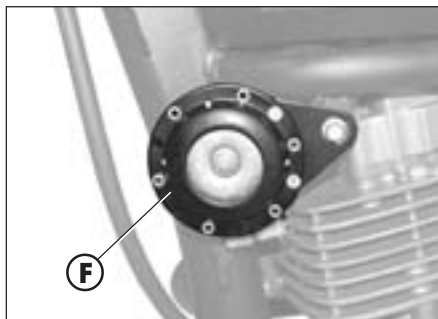
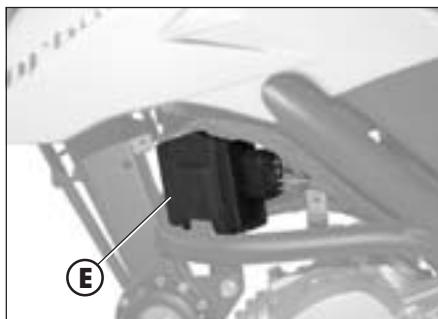
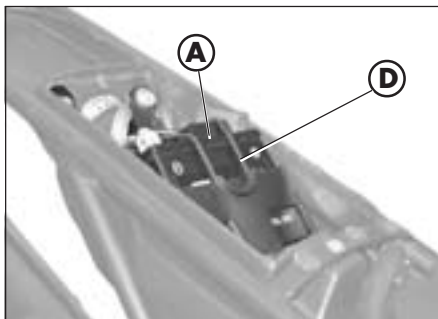
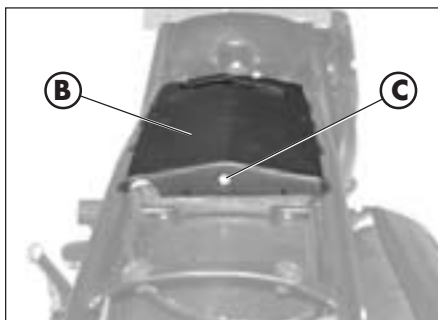
Connect the terminal on the black cables to the battery negative (-) terminal and the two red cables to the battery positive (+) terminal, fitting the protective cap as shown in the figure.

CONTROL UNIT

The control unit **E** is on the left side of the motorbike; to have access to the control unit, remove the left side underneath the tank, as described on page 53.

KLAXON

The Klaxon **F** is at the front, on the left side of the motorbike.



FLICKERING

The flickering system **G** is under the tank; to have access to it, remove the right side underneath the tank, as described on page 53.

HV REEL – STARTER RELAY – STAND RELAY - FUSE

The reel **H**, the starter relay **I**, the stand relay **L** and the fuse **M** are centrally located on the left side of the motorbike. The left side contains:

- The klaxon,
- The indicators,
- The instruments,
- Engine ignition.

Notes:

Any burnt fuse must be replaced with an equivalent one. If the new fuse burns out too, contact a BETAMOTOR licensed garage.

The fuse's capacity is 15 Ampere.

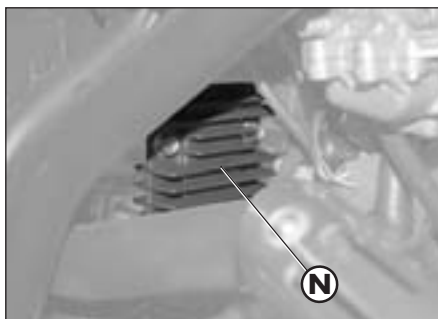
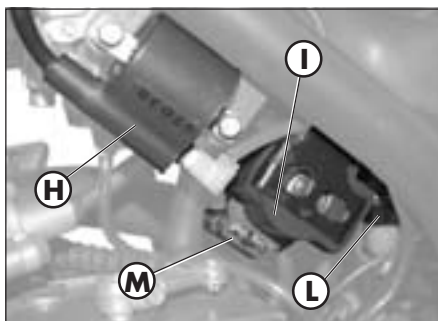
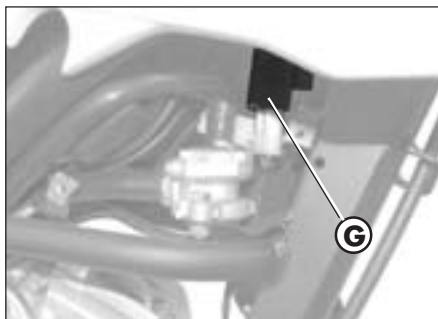


WARNING:

Never fit a fuse of a higher power or try to 'repair' it; an improper repair could damage the whole electric system.

VOLTAGE REGULATOR

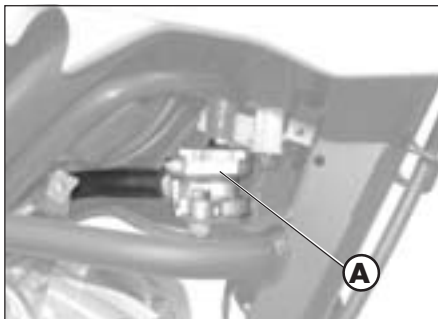
The voltage regulator **N** is centrally located.



AIS VALVE

It is called AIS valve and is an air inflow system that completes the combustion of that part of un-burnt hydrocarbons that are the by-product of the thermodynamic cycle.

To have access to the valve **A**, remove the right guard under the tank, as described on page 52



CONTENTS

CHAPTER 2 OPERATION

Checks and maintenance before and after off-road use

Recommended lubricants and fluids

Running-in

Starting the engine

Shutting off the engine

Refuelling

CHECKS AND MAINTENANCE OPERATIONS BEFORE AND AFTER OFF-ROAD USE

To avoid trouble during operation, it is advisable to perform a few checks and maintenance operations before and after riding. In addition to making your vehicle safer, a few minutes spent carrying out these operations will enable you to save time and money.

Follow these steps:

TYRES	Check the inflating pressures, the general condition, and the tread depth (see page 9).
SPOKES	Check the tensioning.
NUTS AND BOLTS	Check the tightening of all nuts and bolts.
DRIVE CHAIN	Check the tension (play = 20 mm) and if necessary grease.
AIR FILTER	Clean the filter and wet it with oil (see page 48).

Note

Check for the presence of the vehicle identification papers.

In cold weather, it is advisable to warm up the engine by letting it idle for a few moments before starting off.

The vehicle needs to be carefully washed every time it is used over rough ground.

RECOMMENDED LUBRICANTS AND FLUIDS

To maximize the vehicle's performance and ensure many years of trouble-free operation, we recommend using the following products:

PRODUCT TYPE	SPECIFICATIONS
ENGINE OIL	BARDAHL XTM 15W 50
BRAKE OIL	BARDAHL BRAKE FLUID DOT4
FORK OIL	SHELL EBH 16
TIE ROD GREASE	BARDAHL Outboard Grease NLGI2

Note

It is essential that all renewals should be performed with the products listed in the table above (see pag. 57).

RUNNING-IN

The running-in period lasts approximately 10 hours, during which it is advisable to:

- Warm up the engine well before starting off.
- Avoid riding at constant speed (changing the speed allows the different components to bed in uniformly and in a shorter time).
- Avoid turning the throttle twist grip more than 3/4 of its travel.



WARNING

- After the first 1000 km renew the engine oil.
- Always use high-octane unleaded petrol.
- After using the vehicle on rough ground for the first time, carefully check the tightening of all nuts and bolts.

SHOW TO START THE ENGINE

- Turn the fuel tank tap to **OPEN** (see drawing across).
- Turn the key switch clockwise and make sure the neutral warning light on the switchboard is On (see ref. 3 on page 13).
- Make sure the emergency switch **A**, on the gas control, is **ON**.

Important:

When the engine is cold, use choke **D**.

Electric starter

Pull the clutch lever while pushing the starter button **B** on the gas control, without turning the gas grip.

Kick-starter

Use the starter lever **C**; push the foot down hard, then fold back the lever.

Note:

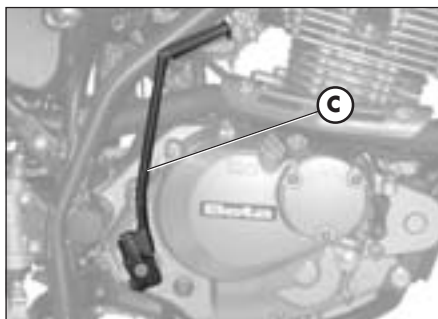
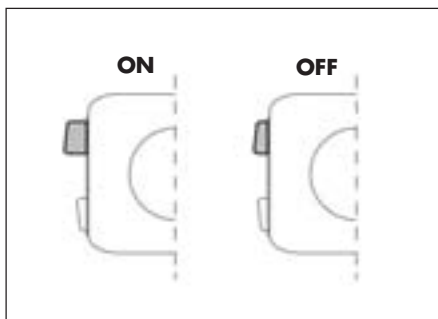
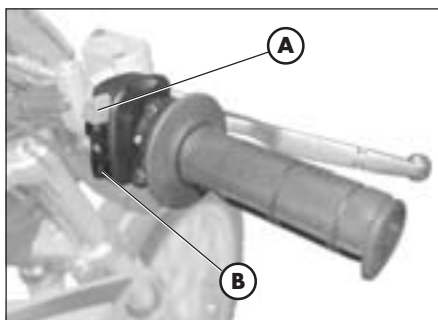
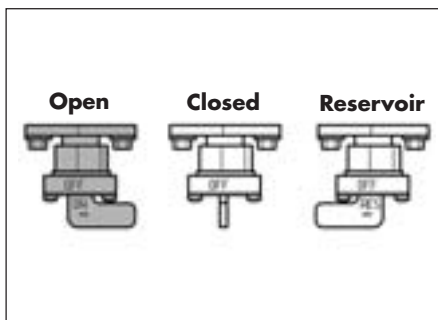
The engine can be started when the stand is down and the red warning light on the switchboard is On, provided the gear pedal is in neutral, as shown by the green warning light on the instrument panel.

For safety reasons, if the motorbike is put into gear even if the clutch is on, the engine will turn off.

Then, close the stand and put the motorbike into gear.

Note:

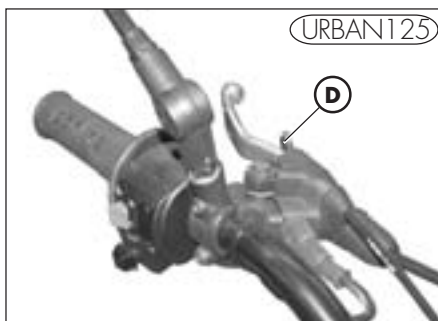
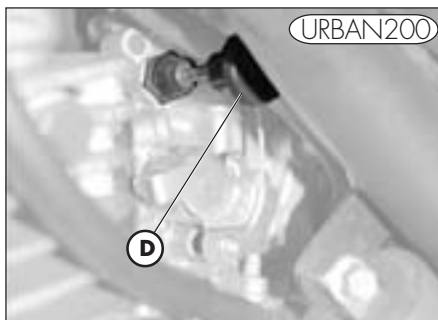
The engine can also be started when the stand is down provided that the neutral indicator is lit.



STARTER

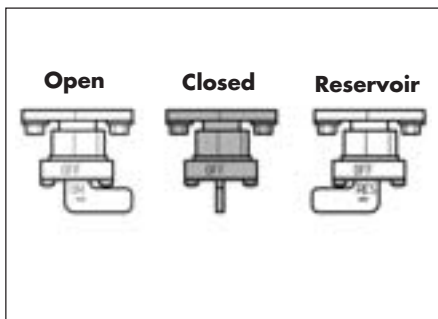
The starter is used to start the motorbike more easily even when the engine is cold; to use this device, proceed as follow:

- Pull out starting device knob **D**, located on the left side of the carburettor, until the second click is heard.
- On URBAN125 models, starter lever **D** can only be operated after pressing it inwards.
- Wait about 2 minutes to warm up the engine, without turning the gas grip, then bring the starter **D** to the initial position.



SHUTTING OFF THE ENGINE

- While the vehicle is stationary and in neutral gear, rotate the ignition key to the "OFF" position.
- Before stopping the engine after a long ride, it is advisable to let it idle for a few moments.
- With the engine off, turn the fuel tap to **CLOSED**.





REFUELLING

- Switch off the engine.
- Remove cap **A**.

Note

The fuel tank capacity is approximately 6 litres, including 1 litres reserve.



WARNING:

Gasoline is extremely flammable.

Immediately remove any leak of gasoline from the body or any other part.

Before refuelling, turn off the engine.

Do not let the gasoline leak out of the tank while refuelling.

Do not get close to the filler neck with naked flames or lighted cigarettes.

Do not inhale harmful fuels.

CONTENTS

CHAPTER 3 CHECKS AND MAINTENANCE

Engine oil and oil filter

Fume collecting tube

Brake pump oil - Bleeding the brakes

Fork oil

Air filter

Spark plug

Front and rear brakes

Battery

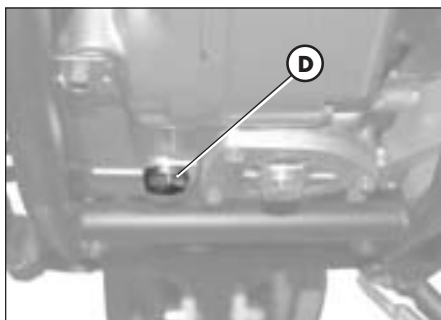
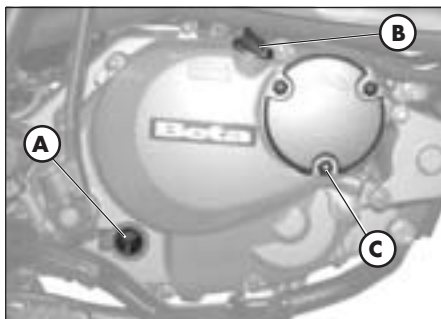
Removing the bodywork

Notes for trial use

Cleaning and checking the vehicle

Scheduled maintenance

Prolonged inactivity



ENGINE OIL AND OIL FILTER URBAN 200

Check

Keep the vehicle in an upright position. Check the oil level through oil level sight **A** when the engine is cold. The oil level must never fall below the sight. If necessary, top up after removing filler cap **B**.

Topping up

Only top up after checking the max level shown on sight **A**.

Renewal

Always renew the oil when the engine is hot. To avoid burns, take care not to touch the engine and the oil.

- Replace the oil when replacing the oil filter.
- Put the vehicle on its stand.
- Put a container under the engine, right under the drain plug **D**.
- Unscrew filler plug **B** and drain plug **D**.
- Drain all the oil from the crankcase.
- Close plug **D**.
- Remove the oil filter cover after unscrewing the three nuts **C**.
- Remove the oil filter and replace it with a new one.
- Apply a thin film of engine oil to the filter cover O-ring before insertion.
- Apply a film of engine oil over the filter cover O-ring before fitting it.

- Fit the oil filter cover after fitting the spring and the O-ring, and then tighten the three fastening nuts **C**.
- Fill in with the right amount of oil:

- Oil replacement	850 ml
- With filter replacement	950 ml
- Overhaul	1 300 ml
- Close the inlet plug **B** again. Idle for a few minutes.
- Turn off the engine and wait for about one minute, then check the level and top up if needed, without exceeding the max level shown on the window **A**.

Note

Renew the oil after the first 1,000 km. Subsequent renewals should be every 5,000 km 15 months, (refer to the table on page 57). Always use the lubricants shown on page 37.

The oil filter should be replaced for the first time when the oil is first renewed, and subsequently every 10,000 km (30 months).



IMPORTANT

Dispose of used oil in compliance with the regulations in force.

ENGINE OIL AND OIL FILTER URBAN125

Check

Keep the vehicle in an upright position. The engine is cold, check for the presence of oil.

Topping up

To restore the level, remove cap **A** and top up.

Renewal

Always renew the oil when the engine is hot. To avoid burns, take care not to touch the engine and the oil.

- Put the vehicle on its stand.
- Extract the two screws **D** and fastening **E**, and then remove protection **C**.
- Place a container under the engine.
- Unscrew filler plug **A** and drain plug **B**.
- Drain all the oil from the crankcase.
- Close plug **B**.
- Pour in 1000 cc of fresh oil.
- Screw on filler cap **A** again.



WARNING

Hot oil can cause severe burns.

Note:

the URBAN125 engine contains the rotary oil filter, which is mounted on the clutch side of the drive shaft. To replace it, contact a licensed Betamotor dealer.

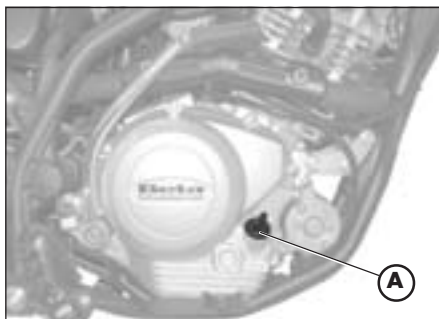
Note:

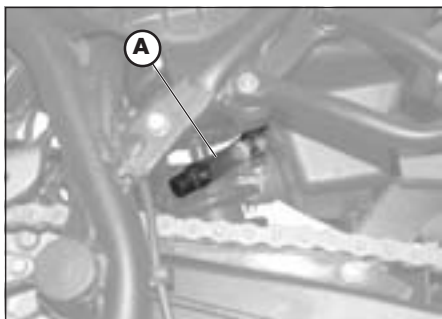
Renew the engine oil after the first 500 km. For the renewal intervals, refer to the table on page 57. Only use the lubricants recommended on page 37.



IMPORTANT

Dispose of used oil in compliance with the regulations in force.





FUME COLLECTING PIPE

Fume collecting tube **A** is located on the left side of the vehicle next to the shock absorber. It comes out of the lower part of the Intake sleeve and is designed to collect the fumes produced by the engine oil. It is designed to collect the fumes produced by the engine oil. Should any oil be found in the tube, remove the cap at the lower end of the tube and drain the oil, or the mixture of oil and petrol, into a suitable container. Disposal is to be made according to the regulations in force.

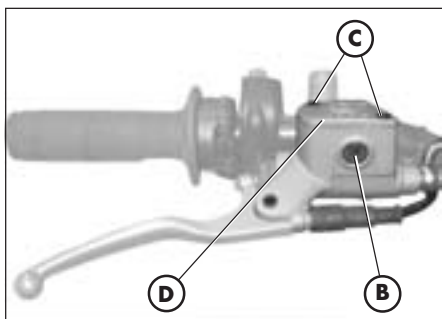
Note

Empty the fume collecting tube every 3,000 km.



IMPORTANT

Dispose of used oil in compliance with the regulations in force.



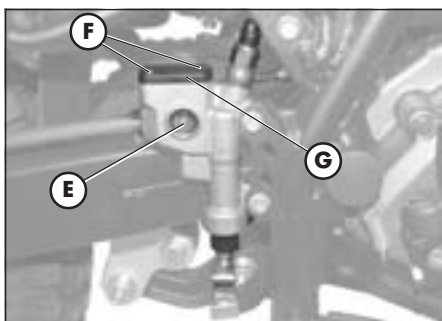
BRAKE PUMP OIL - BLEEDING THE BRAKES

Front brake

Check that oil is present by looking through oil level sight **B**. The minimum oil level should never be lower than the mark on sight **B**. To restore the oil level, loosen the two screws **C**, lift cover **D** and pour in fresh oil.

Rear brake

Check the oil level through the level light **E**. The min oil level must never drop below the mark shown by the warning light **E**. To fill up, loosen the two screws **F**, lift the plug **G** and pour in the oil.



WARNING

A spongy feel of the brake lever may be due to an air bubble in the braking system. Immediately contact an authorized workshop. In this case, bleed any air out of the braking circuit.

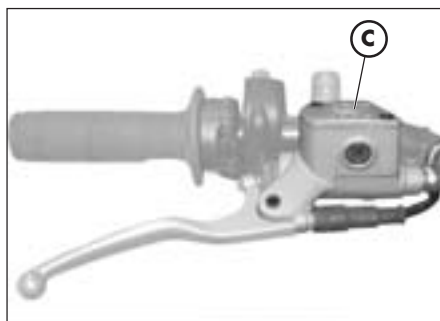
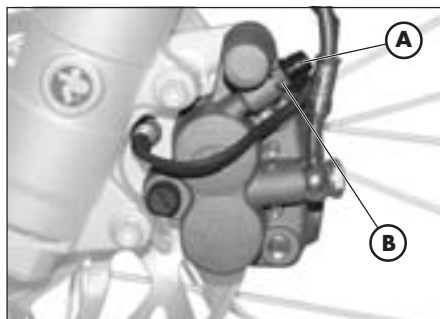
Note

For information on oil renewals, refer to the table on page 57. Use the recommended lubricants shown on page 37.

Bleeding the front brake

Follow these steps to bleed the front brake circuit:

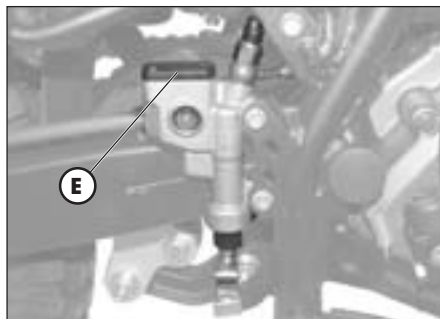
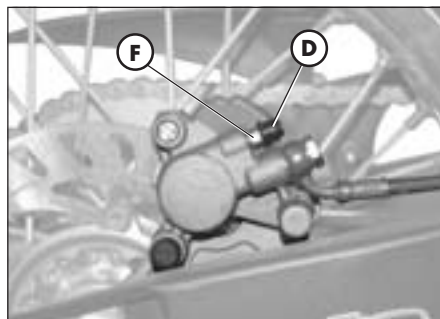
- Remove rubber cap **A** from valve **B**.
- Remove the oil reservoir cap **C**.
- Insert one end of a small tube into valve **B** and place the other end in a container.
- Unscrew valve **B** (while pulling the lever) and then pump by repeatedly actuating the brake lever until oil starts flowing out continuously with no air bubbles. During this operation, it is important that the lever should not be released completely and that the brake pump reservoir should be continuously refilled to make up for the oil that is flowing out.
- Tighten the valve and extract the tube.
- Replace the cap in gamma **A**.



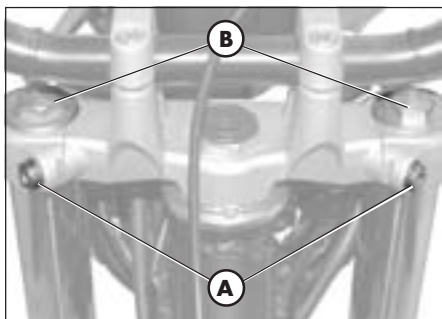
Bleeding the rear brake

Follow these steps to bleed the rear brake circuit:

- Remove rubber cap **D**.
- Remove the oil reservoir cap **E**.
- Insert one end of a small tube into valve **F** and place the other end in a container.
- Unscrew valve **F** (while pulling the lever) and then pump by repeatedly actuating the brake lever until oil starts flowing out continuously with no air bubbles. During this operation, it is important that the lever should not be released completely and that the brake pump reservoir should be continuously refilled to make up for the oil that is flowing out.



FORK OIL



Right-hand rods

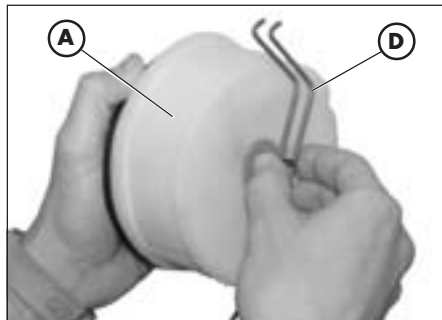
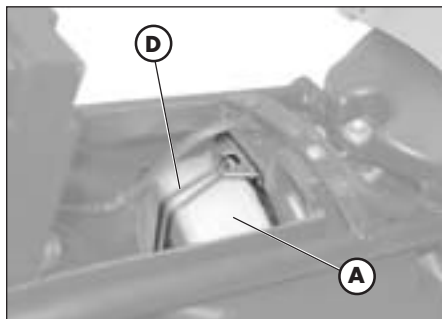
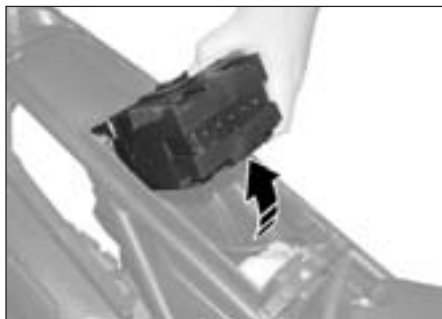
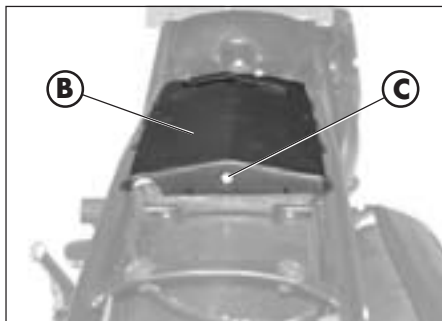
The procedure for changing the oil in the forks is provided only for information. We recommend having the operation performed by a BETAMOTOR authorized workshop.

Follow these steps to renew the oil:

- 1) Loosen rod clamping screw **A**.
- 2) Remove the lower plug (Allen screw in the legging) and upper plug **B**.
- 3) Let all the oil drain from the rod.
- 4) Fit and tighten the legging lower plug.
- 5) Pour in fresh oil of the type shown in the table on page 37.
- 6) Fit and tighten upper plug **B**.
- 7) Retighten rod clamping screw **A**.

Note:

The oil change procedure applies to both the left and the right fork legs.



AIR FILTER

To have access to the filter unit **A**, remove the saddle, as described in "Removal of body parts" on page 52.

- Remove the cover **B** by loosening the screw **C**.
- Lift the battery holder, as shown in the figure,
- Release the filter holder **D**.
- Remove the filter unit **A**.
- Pull out the holder **D** and take out the sponge filter.
- Wash it with soap and water.
- Dry the filter.
- Wet the filter with filter oil. Remove any excess lubricant to prevent it from dripping.
- If necessary, also clean the inside of the filter casing.
- Refit the parts, making sure of the seal of the rubber gasket.

Note:

If the filter is very dirty, first wash it with a special detergent and then with water and shampoo.

If the filter is damaged, immediately replace it.

Clean the filter every time the vehicle is used off road.



WARNING:

After working on the filter, ensure that nothing is left inside the filter casing.

SPARK PLUG



To avoid burns, put on protective gloves before performing the operation.

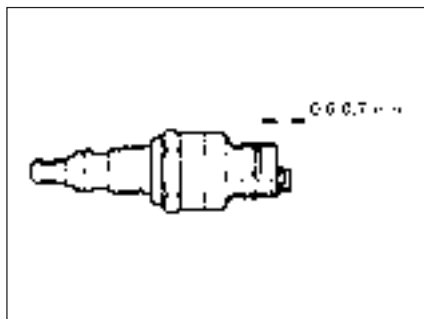
Keeping the spark plug in good condition makes for reduced consumption and optimum engine performance.

It is advisable to remove the spark plug when the engine is hot (and naturally off) because the carbon formation and the colour of the insulator provide important information on carburetion, lubrication, and the general condition of the engine. If the insulator appears white, the mixture is probably too lean; conversely, a green insulator denotes a rich mixture. The mixture is correct when the insulator is tan coloured.

To carry out the check, simply remove the current cap and then unscrew the spark plug using the spanner provided. Carefully clean the electrodes using a wire brush. Blow the spark plug with compressed air to prevent any residues from getting into the engine.

Measure the spark gap with a thickness gauge. The gap should be 0.6-0.7 mm. If the gap is not as specified, restore the proper gap by bending the earth electrode.

Check that the insulator is not cracked and that the electrodes are not corroded, in which case the spark plug should be immediately replaced.



Conduct the check by referring to the table on page 57.

Note:

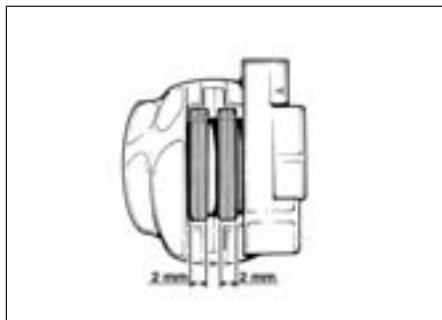
Lubricate the spark plug thread, and then (when the engine is cold) screw in the spark plug by hand to its abutting end. Finally tighten the spark plug with the spanner.

Note:

• Always use spark plugs:

URBAN 200 = **NGK DR8 EA**

URBAN 125 = **NGK CR7 HSA**



FRONT BRAKE

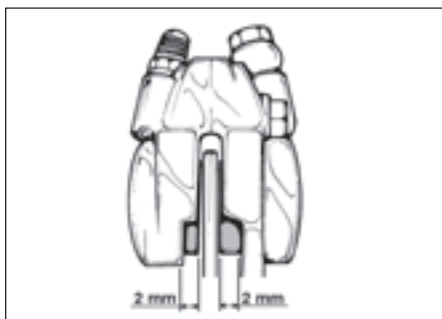
Check

To check the wear of the front brake, visually inspect the brake pad ends by looking at the brake caliper from the front. The brake linings should be at least 2 mm thick. If the linings are thinner, replace the pads immediately.

(see section 5, "Replacements", on page 66).

Note

Carry out the check at the intervals shown in the table on page 57.



REAR BRAKE

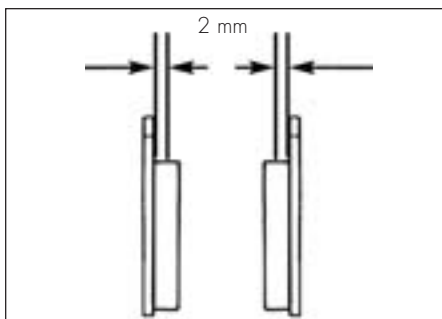
Check

To check the wear of the rear brake, visually inspect the brake pad ends by looking at the brake caliper from above. The brake linings should be at least 2 mm thick. If the linings are thinner, replace the pads immediately.

(see section 5, "Replacements", on page 66).

Note

Carry out the check at the intervals shown in the table on page 57.



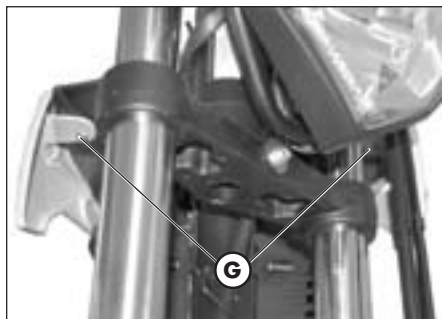
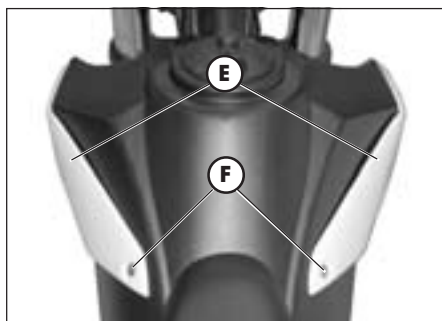
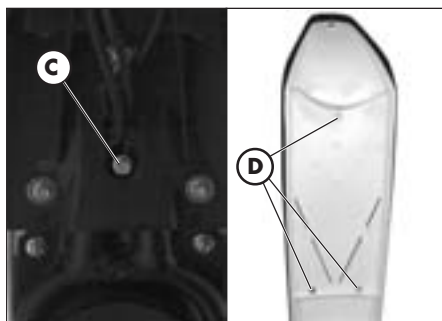
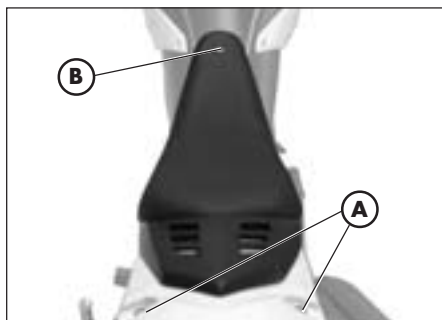
BATTERY

Check the charge of the battery by measuring the voltage with a voltmeter while the battery is at rest (engine off). The voltage must not be less than 12.8 V.

There is no need to check the level of the electrolyte or top up with water.

Keep the battery terminals clean. If necessary, protect them with a thin film of acid-free grease.





HOW TO REMOVE BODY PARTS

Some parts of the body may have to be removed for easier inspections or maintenance.



WARNING:

If these parts are improperly reassembled, they might suddenly come off while driving, and the driver might lose control of the motorbike.

How to remove the saddle

To remove the saddle, just remove the two screws **A**, the clamp **B** and the clamp **C** underneath the saddle.

Note:

When removing the saddle the fender will come off too.

To separate the two parts, remove the three screws **D**.

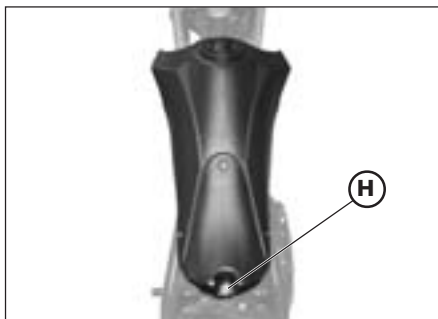
How to remove the tank covers

To remove the tank covers **E**, proceed as follows:

- Loosen the screws **F** on the tank.
- Loosen the two clamps **G**, in the front of the motorbike.
- Remove the tank cover **E**.

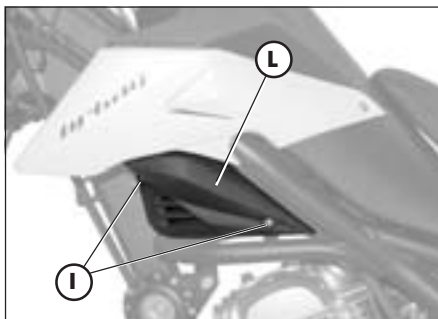
How to remove the fuel tank

Remove the saddle, then loosen the screw **H** which secures the tank to the frame, remove the pipe of the fuel tap and take off the tank by pulling it out of the back.



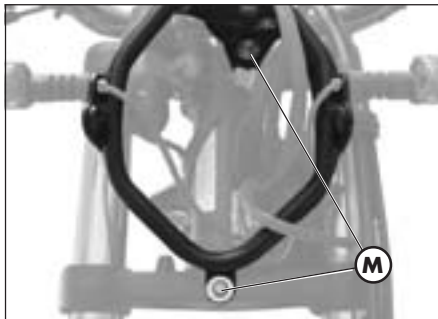
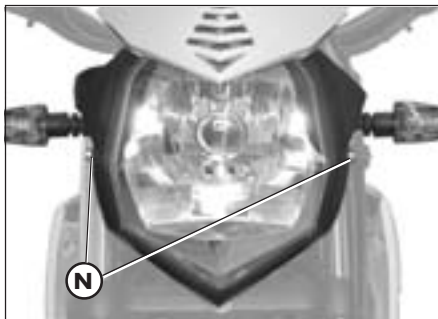
How to remove the side frames

To remove the two side frames **L** under the tank on both sides of the motorbike, just remove the two screws **I**.



How to remove the front light holder

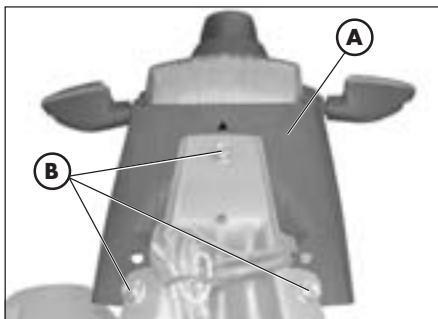
Remove the lamp screws **N**, disconnect the lamp wires, then remove the two screws **M** which secure the lamp-holding unit.



How to remove the plate holder

To remove the back plate holder **A** including the lights and indicators, first remove the saddle (see previous page), then:

- loosen the three screws and the fixing nuts **B** of the back plate holder.
- disconnect the electric connections of the back lights and remove the plate holder **A**.



WARNING:

The motorbike cannot be driven without a plate holder and/or lights. It can only be driven in private tracks and/or traffic-barred areas.

Removing the front mudguard

Remove the front mudguard by unscrewing the 4 fixing screw **C**.

Removing the stand

- Remove the fixing system **D** (screw and nut).
- Pull out the stand **E** while taking care not to lose the draw spring **F**.

Notes:

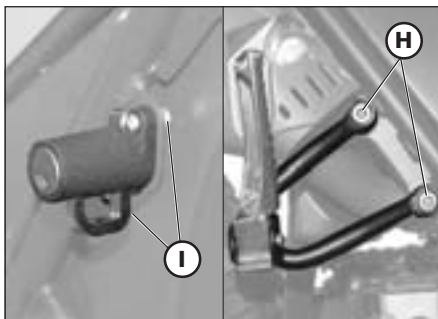
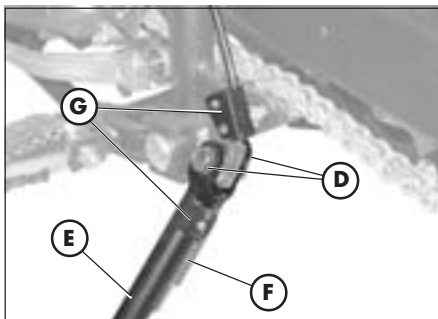
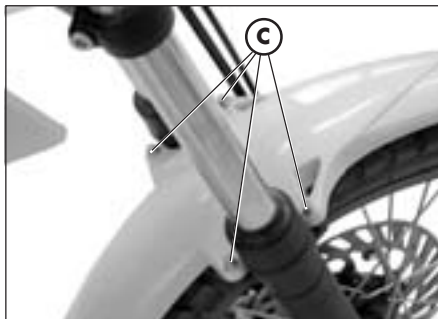
while disassembling the motorbike, take care not to damage the magnet and the stand sensor **G**.

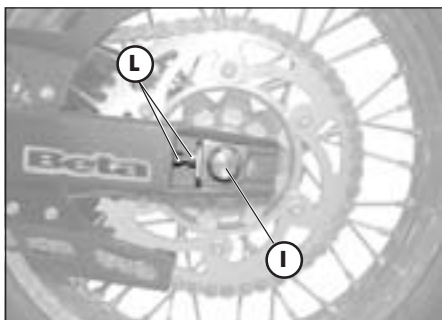
Removing the passenger's footrests

- Loosen the two screws **H** shown in the figure and remove the passenger's footrest complete with the frame fixing support.

How to remove the helmet lock

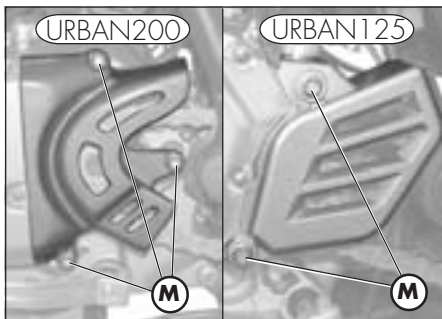
To remove the helmet lock, just remove the two screws **I**.



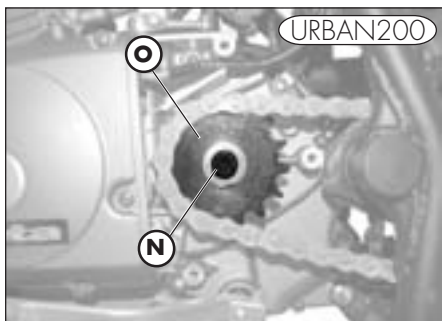


Replacing the front sprocket

A description of the procedure for replacing the front chain sprocket is provided for information purposes only. The operation should always be performed by an authorized BETAMOTOR dealer.

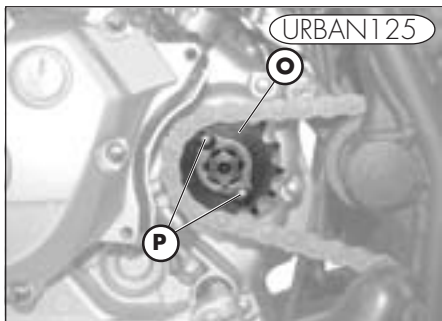


- Turn the wheel until it reaches the stop, while loosening the nuts **I** (on both sides) and the chain adjusters **L**, so as to be able to loosen the chain.
- Remove the three chain guard fixing screws **F** (2 screws for URBAN125 models).
- Remove the chain from the sprocket.
- Engage first gear and loosen the pinion-fixing nut **N** anticlockwise for the URBAN200, and the two clamps **P** for the URBAN125.
- Replace the sprocket **O**.
- To reassemble, follow the same procedure in reverse order.



Note:

We recommend replacing the front sprocket along with the whole drive unit.



CLEANING AND CHECKING THE VEHICLE

Use a low-pressure water jet to soften the dirt and mud accumulated on the paintwork, then remove them with a soft bodywork sponge soaked in water and shampoo (2-4 percent shampoo in water). Rinse generously with water and wipe dry with chamois leather. For the outside of the engine use a brush soaked in petroleum and clean rags. Petroleum damages the paintwork. Always wash the vehicle before waxing it with silicon waxes.



Detergents pollute the waters. Always wash the vehicle in areas equipped for the collection and purification of the washing liquids.



Never wash the vehicle in the sun, particularly during the summer when the bodywork is hot. The shampoo would dry before being rinsed off and cause damage to the paintwork. Do not clean the plastic surfaces with cloths soaked in petrol or naphtha as they would lose their shine and mechanical properties.



Water jets can damage the instruments; do not direct the jet towards the electric parts, especially the LCD display.

CHECKS AFTER CLEANING

After cleaning the motorcycle, it is advisable to:

- Clean the air filter (refer to the procedure described on page 48).
- Grease the chain.

SCHEDULED MAINTENANCE

3

CHECKS AND MAINTENANCE

4-Stroke Motorcycles Urban 200 - Urban 125		end of running-in 1.000 km	1 st service 5.000 km	2 nd service 10.000 km	3 rd service 15.000 km	4 th service 20.000 km	5 th service 25.000 km	6 th service 30.000 km	7 th service 35.000 km	8 th service 40.000 km	9 th service 45.000 km
---	--	----------------------------	----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------	-----------------------------------

engine	spark plug		ch	r	ch	r	ch	r	ch	r	ch
	engine oil filter	cl	cl	cl	cl	cl	cl	cl	cl	cl	cl
	clutch	ch	ch	ch	ch	r	ch	ch	ch	r	ch
	play of valves	ch	ch	ch	ch	ch	ch	ch	ch	ch	ch
	engine oil and oil filter	a	a	a	a	a	a	a	a	a	a
	idle speed adjustment	ch	ch	ch	ch	ch	ch	ch	ch	ch	ch
	engine oil lines	ch	ch	ch	ch	ch	ch	ch	ch	ch	ch

cycle parts	rear shock absorber	ch		ch		ch		ch		ch	
	battery		ch	ch	ch	r	ch	ch	ch	r	ch
	nuts and bolts *	t	t	t	t	t	t	t	t	t	t
	steering bearings and steering play	ch	ch	ch	ch	ch	ch	ch	ch	ch	ch
	air filter	clear every 10000km	a		a		a		a		
	front fork	ch		ch		ch		ch		ch	
	electrical system	ch	ch	ch	ch	ch	ch	ch	ch	ch	ch
	braking system	ch	ch	ch	ch	ch	ch	ch	ch	ch	ch
	brake fluid (renew every 2 years)	ch	ch	ch	ch	ch	ch	ch	ch	ch	ch
	drive chain		clear every 1000 km								
	tyre pressure and condition	ch	ch	ch	ch	ch	ch	ch	ch	ch	ch
	drive chain tension and lubrication (every 1000 km)	ch	ch	ch	ch	ch	ch	ch	ch	ch	ch
	brake lines (replace every 2 years)	ch	ch	ch	ch	ch	ch	ch	ch	ch	ch
	fuel lines (replace every 2 years)	ch	ch	ch	ch	ch	ch	ch	ch	ch	ch

* Tightening recommended after each off-road ride

Key:

ch - check (clean,adjust,lubricate or replace/renew as necessary)

r - replace/renew

a- adjust

cl - clean

t - tighten

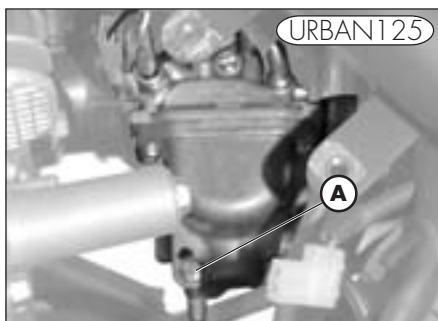
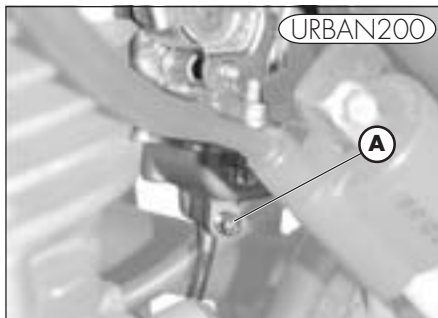
Note

For any service requirements, please contact Betamotor's Authorized Service Network.

PROLONGED INACTIVITY

A few simple operations should be performed to keep the vehicle in good condition whenever it is to remain inactive for a long period (e.g. during the winter):

- Thoroughly clean the vehicle.
- Reduce the tyre pressures by approximately 30 percent, and if possible raise the tyres off the ground.
- Remove the spark plug and pour a few drops of engine oil into the spark plug hole. Make the engine turn a few times by operating the kick-start (where available) and then replace the spark plug.
- Cover the unpainted parts, excepting the brakes and the rubber parts, with a film of oil or spray silicone.
- Remove the battery and keep it in a dry place. Recharge the battery once a month.
- Protect the vehicle with a dust cover.
- Drain the carburettor float chamber by loosening screw **A**. The fuel drained from the chamber through a suitable pipe must be collected in a container and poured into the fuel tank. Do not dispose of the fuel in the environment.
- Retighten the screw.



AFTER PROLONGED INACTIVITY

- Reinstall the battery.
- Restore the tyre inflating pressures.
- Check the tightening of all the screws having an important mechanical function.

Note

Periodically check the tightening of the screws.

- Start the vehicle for the first time by means of the kick-start.

CONTENTS

CHAPTER 4 ADJUSTMENTS

Adjusting the brakes

Adjusting the clutch

Adjusting the slow running

Adjusting the throttle play

Checking and adjusting the steering play

Tensioning the chain

Adjusting the headlight



ADJUSTING THE BRAKES

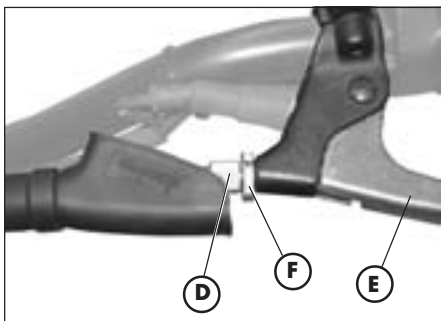
Front brake

The front brake is a hydraulically operated disc brake, and therefore requires no adjustment.



Back brake

The back brake is a hydraulically operated disc brake, so it needs no adjustment.



ADJUSTING THE CLUTCH

The only operation that may be required is the adjustment of the position of clutch lever **E**.

The adjustment is obtained by means of adjuster **D**.

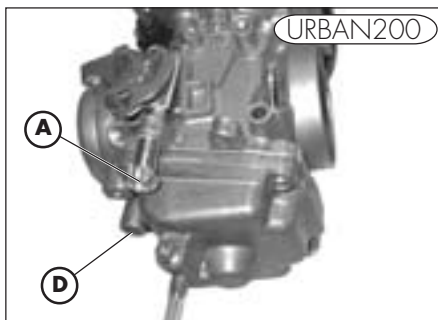
After adjusting the lever with the adjusting screw, be sure to tighten stop **F** so as to lock the screw in the desired position.

Note

The play of the clutch should range from 0.4 to 0.6 mm.

ADJUSTING THE SLOW RUNNING URBAN200

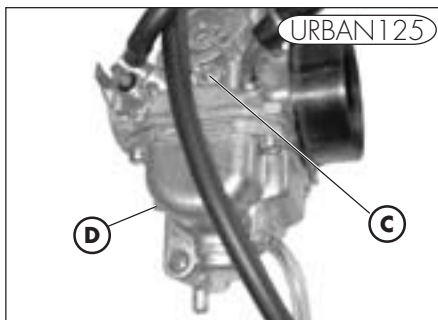
The slow running should be adjusted when the engine is hot. Connect an electronic revolution counter to the spark plug cable. Tune up using adjusting screw **A** (idle speed = $1,400 \pm 100$ rpm).



ADJUSTING THE SLOW RUNNING URBAN125

The slow running should be adjusted when the engine is hot. Connect an electronic revolution counter to the spark plug cable.

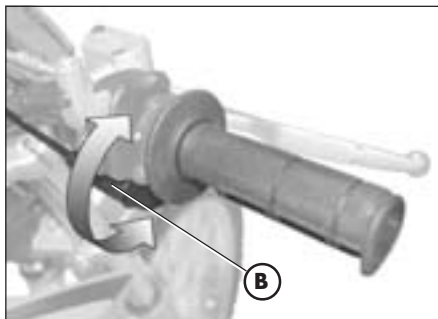
Then turn adjusting screw **C** with a screwdriver until the engine idles at 1900 rpm.



FUEL FLOW ADJUSTMENT URBAN125/200

To adjust the fuel flow, loosen screw **D** by one and a half turns from the fully closed position.

Standard setting of adjuster: turn the adjuster all the way in (clockwise), then slacken 1,5 turns.



ADJUSTING THE THROTTLE PLAY

If the throttle control idle travel exceeds 3 mm as measured on the rim of the twist grip, adjust the play by acting on adjuster **B**.

CHECKING AND ADJUSTING THE STEERING PLAY

Periodically check the play of the steering head tube by moving the forks backwards and forwards as shown in the figure. If any play is felt, carry out the adjustment by following these steps:

- Unscrew the four screws **A**.
- Pull out handlebar **B**, paying special attention to clevises **C**.
- Loosen nut **D**.
- Loosen the two screws **F**.
- Reduce the play by turning ring **E**.

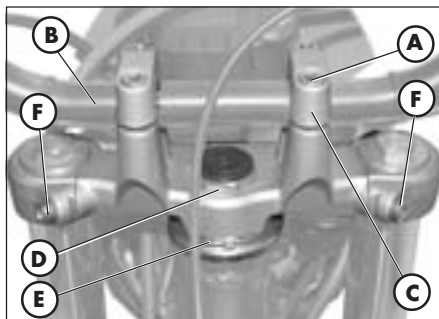
To refit the parts, follow the reverse procedure.

Note

Proper adjustment must leave no play and cause no stiffness, and allow the steering to rotate smoothly. Check the fitting direction of the clevises as it can alter the geometry of the handlebar.

Note:

The operation should always be performed by an authorized Betamotor dealer.

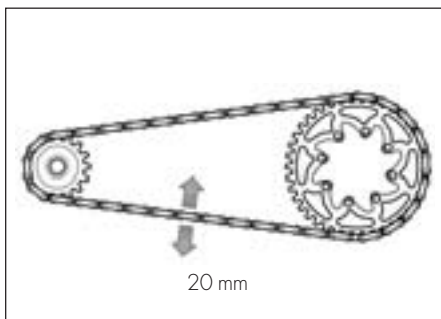
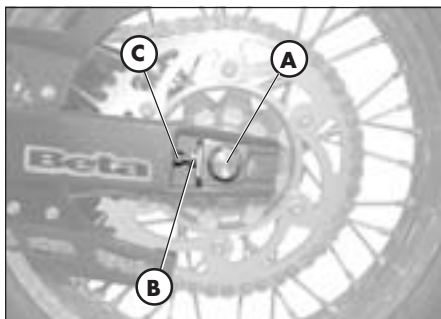


TENSIONING THE CHAIN

To ensure the drive chain a longer life, it is advisable to periodically check its tension.

Always maintain the chain clean and lubricated.

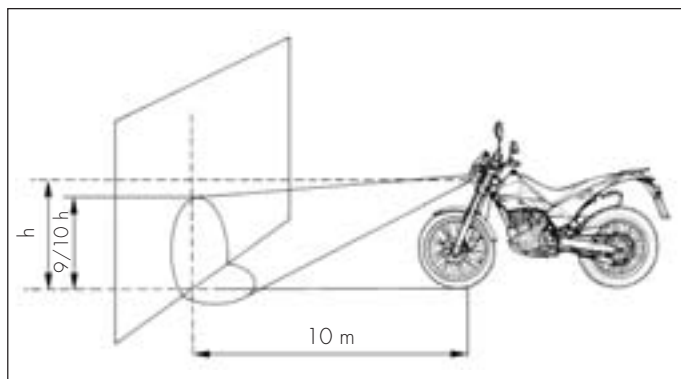
If the chain play exceeds 20 mm, tension the chain by following these steps:



- Loosen the nuts **A** on both branches of the big fork.
- Loosen the nut **C** on both branches of the big fork.
- Turn the nut **B** until the chain is properly stretched.
- Do the same with the nut **B**, which is on the other branch of the big fork, until the wheel is perfectly aligned.
- Tighten the nuts **B** and **A** on both branches of the fork.

ADJUSTING THE HEADLIGHT

- The headlight beam is adjusted manually after loosening the screws on either side of the headlight with an Allen key.
- Periodically check the direction of the beam. The beam can only be adjusted vertically.
- Place the vehicle on level ground (but not on the stand) 10 metres from a vertical wall.
- Measure the height of the headlight centre above the ground and then draw a cross on the wall at $9/10$ of the height of the headlight centre.
- Turn on the low beam, get on the motorbike and check that the headlight beam on the wall is slightly lower than the cross drawn previously.



CONTENTS

CHAPTER 5 REPLACEMENTS

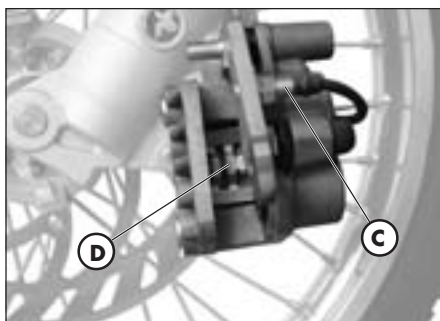
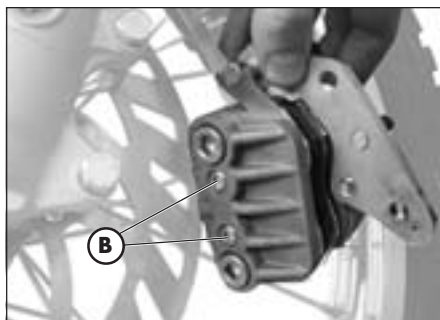
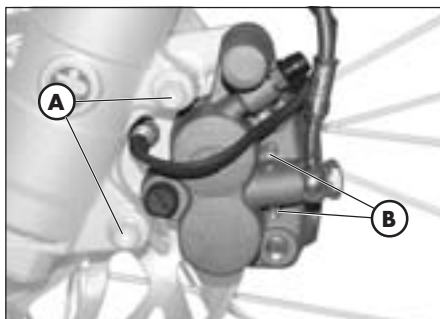
Replacing the brake pads

Replacing the headlight bulb

Replacing the rear light bulb

Replacing the turn indicator bulbs

Bulbs characteristics



REPLACING THE BRAKE PADS

The procedure for replacing the brake pads is provided only for information. We recommend having the operation performed by a BETAMOTOR authorized workshop.

Front brake

To replace the front pads, proceed as follows:

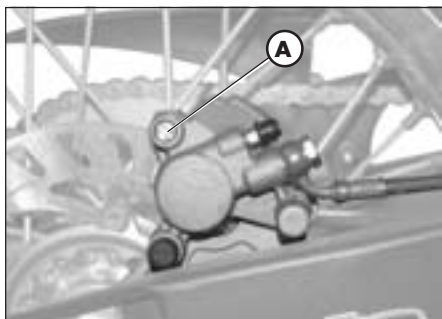
- Loosen the two screws **A** and remove the brake caliper.
- Unscrew the two screws **B**.
Note: Screws **B** are secured very tightly and should be loosened before removing the caliper from the fork.
- Extract the brake pads.
- To refit the parts, follow the reverse procedure.

Ensure that the spring **D** shown in the figure is properly seated by checking that it offers some resistance to the insertion of the brake pads.

To avoid braking problems, take special care in ensuring that the screws are refitted properly.

Whenever the brake disc is removed, apply Loctite to the screws when refitting

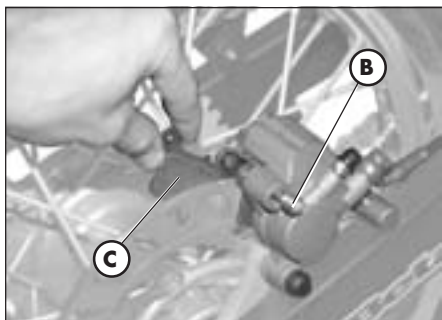
Note: When removing the brake caliper, take care not to damage reed **C**, as it is extremely fragile.



Back brake

To replace the back pads, proceed as follows:

- remove the safety dowel **A**
- loosen the pad holder pin **B**
- remove the pads **C**.
- to fit it all back in, proceed in reverse, taking care of properly placing the pads in their housings.



Note:

Brake pads should always be replaced by an authorized BETAMOTOR dealer.

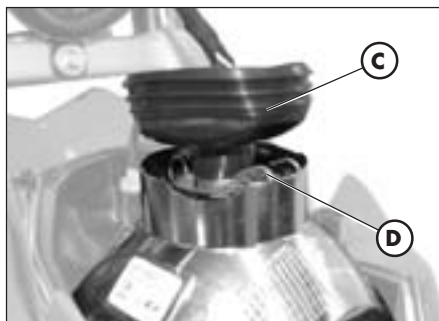
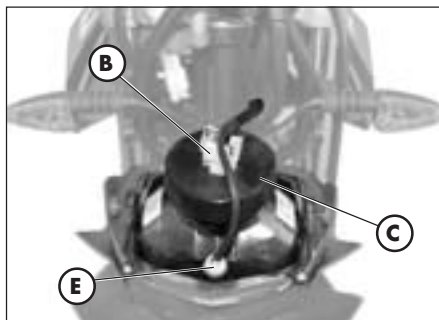
REPLACING THE HEADLIGHT BULB

To replace the front lights, proceed as follows:

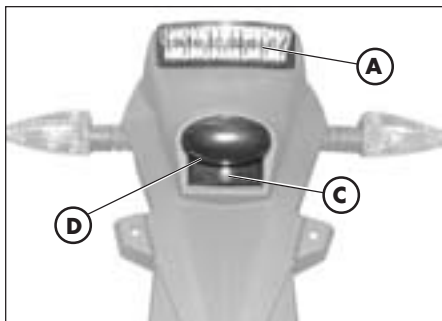
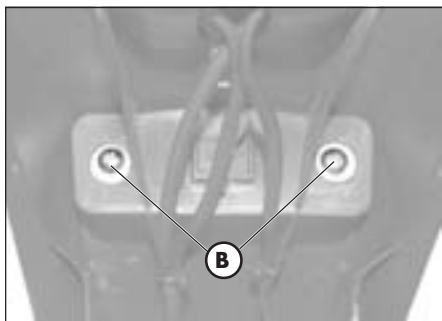
- remove the two screws **A** that secure the light unit to the light holder.
- disconnect the electric connector **B**.
- lift the rubber casing **C**.
- release the spring **D**.
- remove the faulty light and fit in a new one, taking care not to touch the bulb to avoid reducing its efficiency.
- to replace a parking light, just pull out the bulb **E** and take out the faulty light.
- to fit it all back in, proceed in reverse.

Note:

Any replacement lamp must meet the same specifications as the original ones (see section, "Light specifications", page 76).



REPLACING THE REAR LIGHT BULB



To replace the back light unit **A**, proceed as follows:

- Remove the plate holder as described in the section, "Removal of body parts" on page 60.
- Disconnect all electric connections.
- Loosen the two screws **B** under the fender.
- Pull out the faulty light unit **A** and replace it with a new one.
- To fit it all back in, proceed in reverse.

Note:

Any replacement lamp must meet the same specifications as the original ones (see section, "Light specifications", page 76).

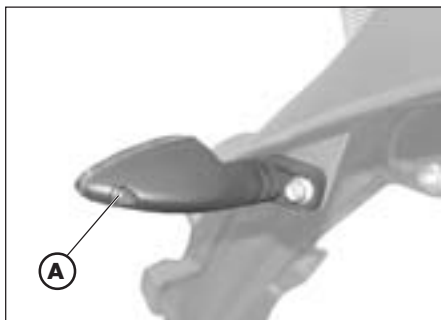
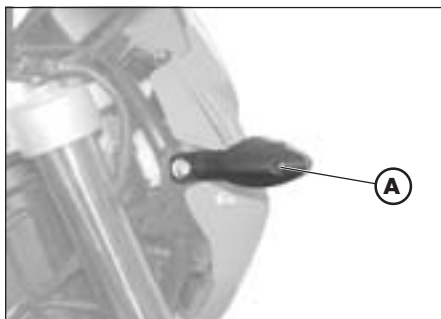
REPLACING THE TURN INDICATOR BULBS

To replace the plate number light, proceed as follows:

- Loosen the screw **C**.
- Remove the transparent screen **D**.
- Pull the faulty light out of the bulb and replace with a new one.
- To fit it all back in, proceed in reverse.

Note:

Any replacement lamp must meet the same specifications as the original ones (see section, "Light specifications", page 76).



REPLACING THE TURN INDICATOR BULBS

To replace the indicator lights, proceed as follows:

- Loosen screw **A** and remove the lens.
- Remove the faulty light and replace with a new one.

Note:

Any replacement lamp must meet the same specifications as the original ones (see Table below).

BULBS CHARACTERISTICS

Headlamp bulb	12V-55/60W
Position bulb	12V-5W
Trafficator lights bulb Front/Rear	12V-6W
Taillight/stop bulb	LED
Number plate light	12V-5W

CONTENTS

CHAPTER 6 TROUBLESHOOTING

INDEX

PROBLEM	CAUSE	REMEDY
Engine does not start	- Fuel system clogged (fuel lines, fuel tank, fuel cock).	Clean the system.
	- Air filter dirty.	Proceed as described on page 48.
	- No current supplied to spark plug.	Clean or replace the spark plug. If the problem persists, contact a BETAMOTOR dealer.
	- Engine flooded.	Open the throttle wide and try starting the engine for a few moments. If this does not solve the problem, remove the spark plug and dry it.
Engine misfires	- Spark gap wrongly adjusted.	Restore the spark gap.
	- Spark plug dirty.	Clean or replace the spark plug.
Engine knocks	- Spark advance excessive.	Check the ignition timing.
	- Carbon formation in cylinder or on spark plug.	Contact a BETAMOTOR dealer.
Engine overheats and loses power	- Silencer partly clogged.	Contact a BETAMOTOR dealer.
	- Exhaust port clogged.	Contact a BETAMOTOR dealer.
	- Ignition delayed.	Check the timing.
Front braking poor	- Brake pads worn.	Follow the procedure described on page 66.
	- Air or humidity in the hydraulic circuit.	Follow the procedure described on page 46.
Rear braking poor	- Brake pads worn.	Follow the procedure described on page 66.
	- Air or humidity in the hydraulic circuit.	Follow the procedure described on page 46.

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