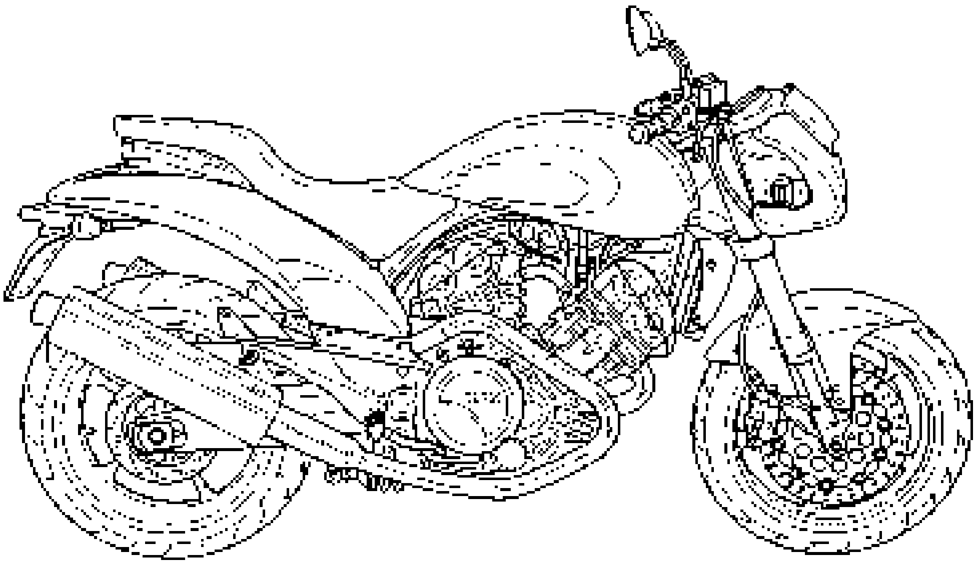
OWNER'S MANUAL

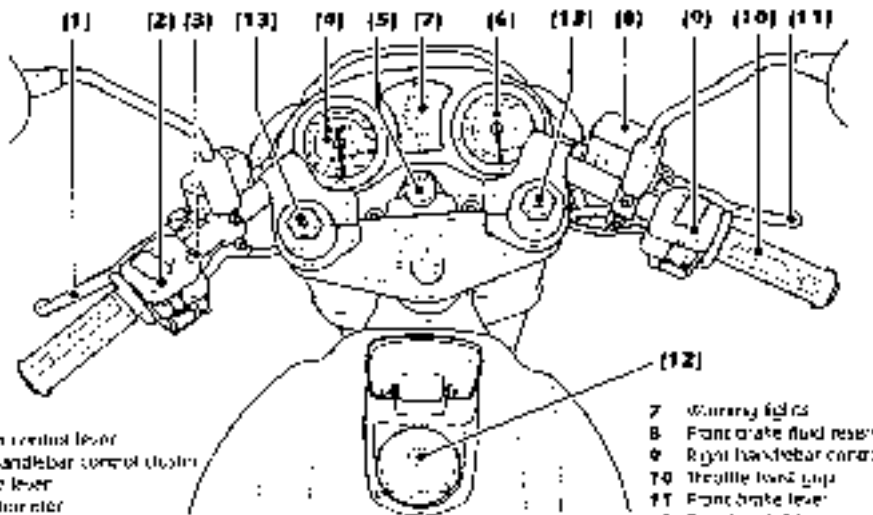


VOXAN

CONTENTS

VOXAN

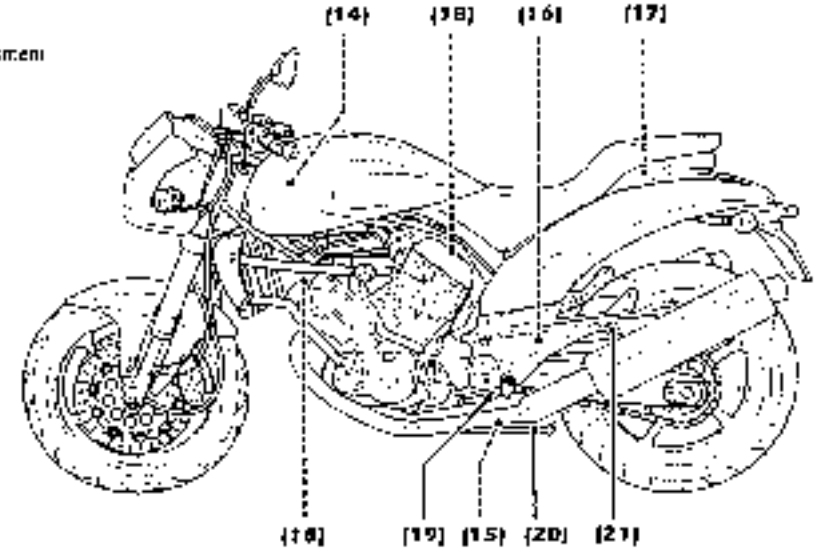
LOCATION OF PARTS



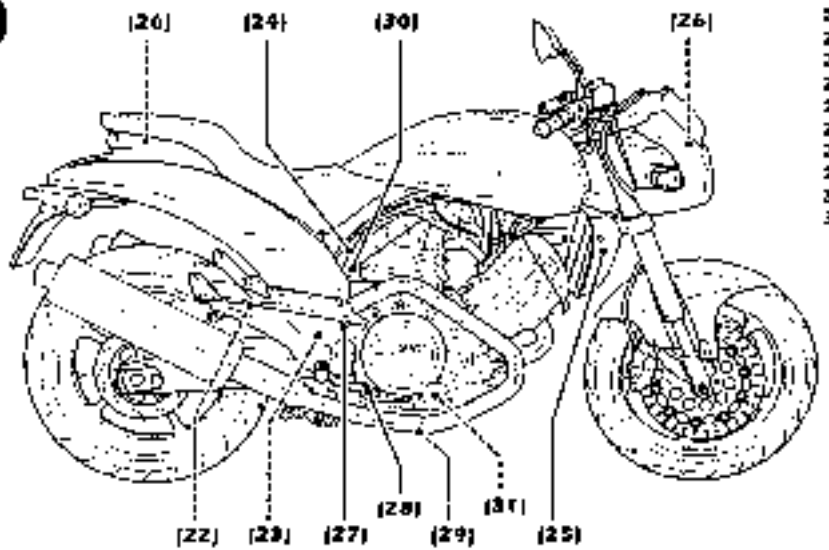
1 Clutch control lever
2 Left handlebar control cluster
3 Choke lever
4 Speedometer
5 Ignition switch
6 Rev counter
7 Warning lights
8 Front brake fluid reservoir
9 Right handlebar control cluster
10 Throttle twist grip
11 Front brake lever
12 Petrol tank filler cap
13 Front suspension adjustment

LOCATION OF PARTS

14 Air filter
15 Rear suspension adjustment
16 Battery
17 Tackle
18 Spark plugs
19 Selector
20 Side stand
21 Passenger footrest



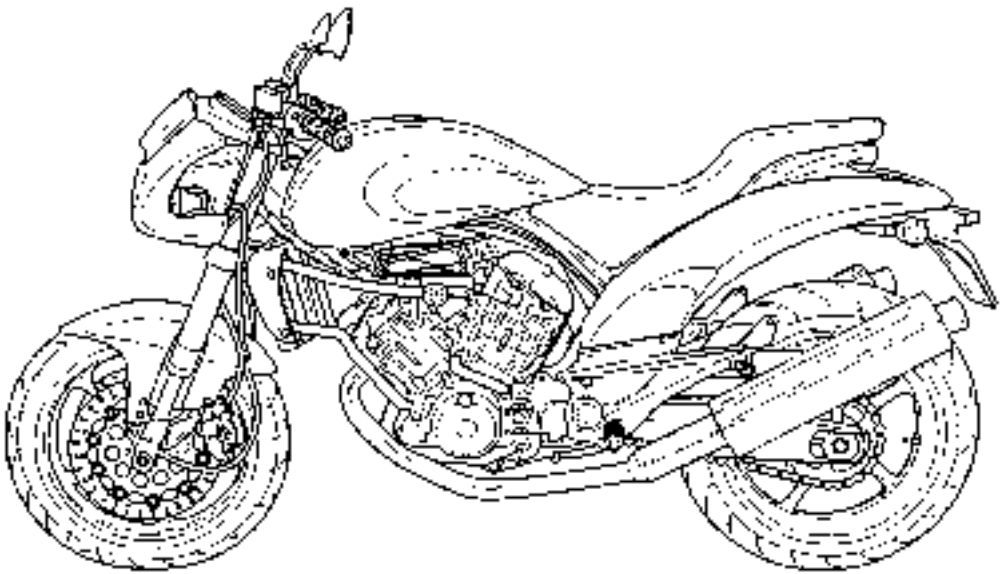
LOCATION OF PARTS



22 Front brake fluid reservoir
23 Rear brake light switch
24 Engine oil filler cap
25 Radiator
26 Fuse box
27 Seat lock
28 Rear brake pedal
29 Engine oil drain plug
30 Oil dipstick
31 Oil filter

OWNER'S MANUAL

This owner's manual should be considered as an integral part of the machine.
As a result, it should be passed on in case of resale or transfer to a new owner or user. The instructions in this manual should be read carefully before using this machine as they contain information which is important for the safety of the user and the passenger.



USER/MACHINE INFORMATION

SERIAL NUMBER

COLOUR CODE

DATE OF SALE

ENGINE NUMBER

STAMP/DEALER CODE

REGISTRATION NUMBER

NAME

FIRST NAME

ADDRESS

POST CODE

CITY

TOWN

PREAMBLE

Thank you for having chosen a VOXAN motorcycle. This motorcycle is the product of ground technical research, complete tests and sustained efforts into safety, reliability and performance.

In order to make the most of your machine, you should fully familiarise yourself with the information given in this manual before starting to ride it.
By following the recommendations in this manual, you are ensured that your motorcycle will provide you with longer service free of mechanical troubles. VOXAN approved dealers have experienced, trained technicians to provide your machine with the best service using the right tool.

All of the information, illustrations and specifications in this manual are based on the most recent data available at the time of publication. VOXAN reserves the right to make modifications at all times without notice.

THE MAIN PURPOSE

All of the service operations carried out on your machine throughout its use are recorded in this manual. A correctly maintained motorcycle and a properly filled out warranty book will enable you to make the most of your machine and provide you with maximum protection thanks to the VOXAN warranty.

It is essential to present your warranty book and customer card to your VOXAN approved dealer for all service and repair work and especially work under warranty.

IMPORTANT

IMPORTANT INFORMATION CONCERNING RUNNING IN OF YOUR MOTORCYCLE

The life and performance of your motorcycle depend directly on how it is run in. VOXAN components are manufactured from high quality materials and their machining tolerances are very strict. A proper running in at 1600 km enables the components to adjust in one to another.
The efficiency and reliability of the motorcycle will depend on the care and attention paid during the first 1600 kilometres. It is essential to avoid overheating the engine.
See the chapter on **RUNNING IN** for more details

SYMBOLS

WARNING : This symbol means there is a danger to the rider's safety.
DO NOT IGNORE IT.

This symbol tells the user that he must refer to the owner's manual in order to look at the procedures for handling certain parts of the machine.

In order to preserve the environment and optimise machine performance, this motorcycle uses unleaded 95 RON petrol.

This symbol reminds the user that it is forbidden to remove the (air) condenser.

The slack in the secondary drive chain should be between 25 and 35 mm.

This symbol means that only a VOXAN approved dealer must carry out the operation.

SAFETY RECOMMENDATIONS FOR THE MOTOCYCLIST

Driving a motorcycle requires taking certain precautions to ensure the safety of the driver and the passenger. These precautions are as follows :

WEAR A HELMET

Safety on a motorcycle begins by wearing a firmly attached, quality helmet, as most serious injuries are to the head.

ALWAYS wear a type-approved helmet and eye protect the eyes on all occasions.

BE TWICE AS CAREFUL IN BAD WEATHER

Driving in bad weather, particularly in rain, requires special care. Braking distances are increased on slippy surfaces. Avoid road markings, drain covers and oil spills as they can be particularly slippy.

Be very careful over level crossings, metal grids and bridges. Wherever the condition of the road is unsure, do not hesitate to slow down.

INFORMATION

CLOTHING
Excessively loose clothing may reduce driving control and safety. Choose clothes suitable for riding a motorcycle and of good quality.

CHECKS BEFORE USE
Carefully study the instructions in the paragraph "checks before use" of this manual. Never ignore a part of these checks which are designed to ensure the complete safety of the driver and his passenger.

FAMILIARISATION WITH THE MACHINE
Skill and mechanical knowledge are the basis for driving safety. Practice riding the machine out of traffic until you are familiar with it and its controls.

KNOW YOUR LIMITS
Always drive within your own capacities which will contribute to avoiding accidents.

WARNING :
- Tiredness or the influence of alcohol or medication reduce the driver's concentration who may then risk losing control of his machine and cause an accident.
- driving under influence of alcohol or medication is illegal!
- Do not carry any objects which may interfere with the steering and cause you to lose control of the machine.

MODIFICATION

Modification to this motorcycle or removal of originally fitted equipement may affect safety and break the law.

Never make modifications (drilling or welding) on the frame as this will significantly weaken it. VOXAN will in no way be responsible in case of accident, personal injury or damage to the motorcycle resulting from modifications to the frame. Accessory mountings which in no way alter the frame may be fitted on condition that the GLW is not exceeded.

For this, refer to the paragraph "advice and precautions for installing accessories" below.

WARNING :

This motorcycle is not designed to tow a trailer nor for fitting with a sidecar. Use of a sidecar and/or a trailer may cause swerving and cause an accident.

ADVICE AND PRECAUTIONS FOR INSTALLING ACCESSORIES

Fitting of unsuitable accessories may constitute a threat to safety. VOXAN cannot test all of the accessories existing on the market or their combinations.

WARNING :

Owners of all VOXAN motorcycles should not forget that only parts and accessories carrying an official VOXAN type approval are fitted to the motorcycle by a VOXAN approved dealer are approved.

- Never exceed the permitted gross (total) laden weight. The GLW is the cumulative weight of the machine, its accessories, load, driver and passenger.
- The additional weight of accessories may not only reduce safety but also affect stability of the motorcycle.

GLW : 434 kg

INFORMATION

- Accessories exerting an additional load or wind resistance must be fitted as low and as near to the centre of gravity of the machine as possible. The fitting brackets and other fixing equipment must be carefully checked to ensure that they give a rigid and stable assembly. Weak fixings may enable the items to move and cause instability which may be dangerous.

- Check that the ground clearance and tilt angles through bends are correct. A badly installed accessory may considerably affect these two safety factors. Also check that the load does not obstruct operation of the suspension and steering.

- Accessories fixed to the handlebar or the fork may seriously affect stability. The additional weight will downgrade handling and control of the machine by the driver. It may also cause vibration at the front and cause stability problems. Accessories installed on the handlebar or the front fork must be as light as possible and kept to a minimum.

- The motorcycle may tend to lift up or show instability in crosswinds or when overtaking a large vehicle. Badly installed or badly designed accessories may affect driving safety. Therefore, care must be taken when choosing and fitting accessories.

- Certain accessories alter the normal driving position. This limits the driver's freedom of movement and reduces his control.

- Additional electrical accessories may also overload the existing electrical circuit. Large overloads may damage the wiring harnesses creating a dangerous situation if the current is cut off while the machine is running.

SERIAL NUMBERS

LOCATION OF SERIAL NUMBERS

The frame **(Fig.01)** and/or engine **(Fig.02)** serial numbers are used to identify the motorcycle. They must also be given to the dealer when ordering parts or asking for information on a particular service operation.

The frame serial number **(1)** is on the right-hand side, engraved on the column. The engine serial number **(2)** is engraved on the right-hand engine casing.

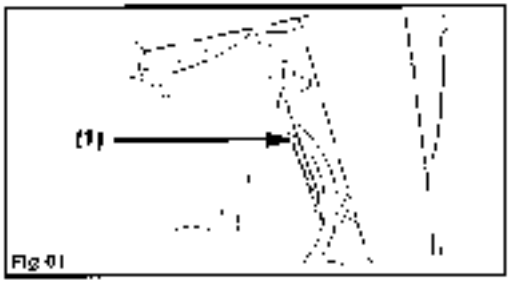


Fig.01

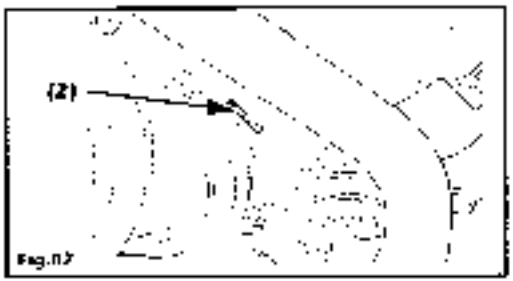


Fig.02

SERIAL NUMBERS

The manufacturer's plate **(3)** is on the left-hand side of the column. Enter these numbers in the spaces below for reference.

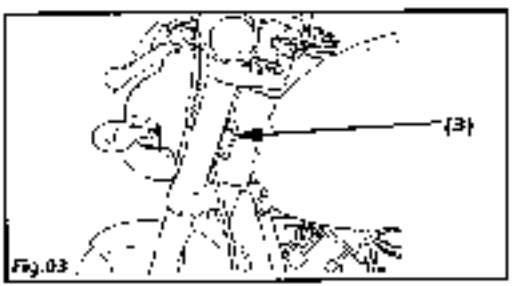


Fig.03

Frame number :.....

Engine number : .....

COLOUR CODE

To identify the colour of your motorcycle, a sticker on the rear loop gives you the colour code required when ordering spare parts from your VOXAN approved dealer.

ROADSTER 1000

COLOUR : ...

ORDERING KEYS

An identification number is located on a plastic tab (1) between the two keys. It is used to produce a replacement key in case of loss. Write the key number in the space provided in order to obtain a new key in the future.

Key N°: . . . . . .

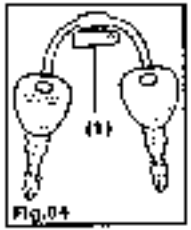


Fig.04

IGNITION SWITCH

The ignition switch has four positions **(Fig.05)**.

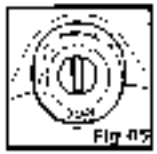


Fig.05

"OFF" POSITION

All electrical circuits are cut off. The engine cannot be started. The key may be removed.

"ON" POSITION

The ignition circuit is off and the engine can not be started. The ignition key cannot be removed from the ignition switch.

"LOCK" POSITION (Anti-theft)

To lock the steering, turn the handlebar fully to the left. Push in the key and turn it to the "LOCK" position. Remove the key. All electrical circuits are cut off.

"P" POSITION (Park)

To park the motorcycle, lock the steering, turn the key to the Park "P" position. The key may now be removed and the parking light and rear light stay on. This position is designed for parking at night at the roadside where the machine must be visible.

WARNING :

- Before turning the ignition key to the "P" Park or "LOCK" anti-theft position, stop the machine and put it on the side stand.
- Never try to move the machine when the steering is locked, as it may overbalance.

CONTROLS – WARNING LIGHTS

INSTRUMENT PANEL

SPEEDOMETER
The speedometer **(1)** gives the motorcycle speed in kilometres per hour (km/h). The speedometer dial contains an odometer **(2)** and a trip counter **(3)**, which measure the distance covered by the motorcycle. The odometer **(2)** shows the total distance covered by the motorcycle.
The trip counter **(3)** shows the distance covered since the last reset, which is done by turning the knurled reset knob **(4)**

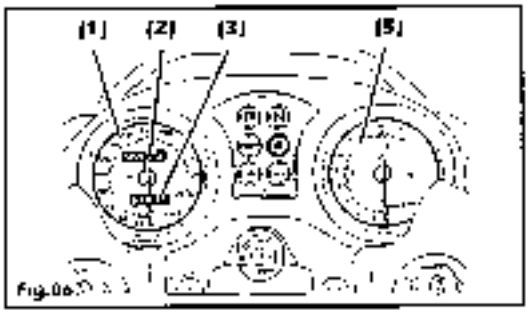


Fig.06

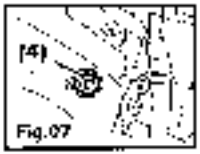


Fig.07

Rev counter
The rev counter **(5)** shows the engine revolutions per minute. There is a "red zone" on the right-hand side of the dial. When the needle is in the red zone, the engine speed is exceeding the maximum recommended, as well as the optimum performance range.

WARNING : The rev counter needle must not go into the red zone. Driving in the red zone requires excessive effort from the engine and may cause serious damage to it

WARNING / INDICATOR LIGHTS

NEUTRAL (1): After turning on the ignition the warning light comes on when the gearbox is in neutral.

HEADLIGHT (2): the indicator light comes on when the headlight is turned on.

DIRECTION INDICATORS (3): the indicator light flashes when the direction indicators are on.

OIL (4): the oil pressure warning light comes on when the oil pressure is dangerously low or when the ignition is turned on with the engine stopped and goes off as soon as the oil pressure is sufficient. If the warning light comes on while the engine is running, stop the engine immediately and locate the cause.

WATER (5): the water temperature warning light comes on when the temperature is abnormally high or to indicate an injection fault (flashing light). If the warning light comes on while the engine is running, stop the engine immediately and locate the cause.

WARNING :

- Do not remove the radiator cap while the engine is hot. The coolant is also hot and pressurised. Contact with the fluid will cause serious burns and injury.
- The radiator fan operates automatically. Always keep hands and clothing away from the fan.

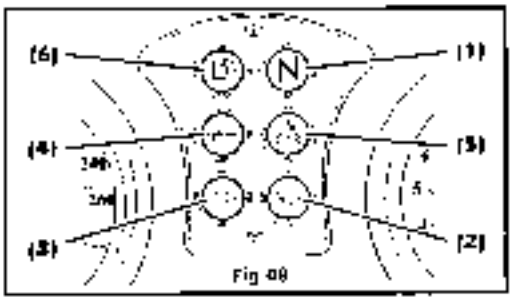


Fig 08

WARNING / INDICATOR LIGHTS

• MINOR FAULT
After you turn on the ignition, the warning light comes on intermittently 5 times in a row.
We recommend you consult your VOXAN approved dealer to have the faulty part(s) replaced.

• MAJOR FAULT
The warning light comes on intermittently when a fault is detected and until it is repaired.
We strongly recommend you consult your closest VOXAN approved dealer for the necessary repairs.

NOTE: If the motorcycle is still under warranty, it is imperative to have the machine checked by a VOXAN approved dealer before attempting any repair. Any work on the motorcycle during the warranty period may render the warranty void.

FUEL LEVEL (6): the fuel level warning light comes on to indicate switchover to reserve (4 litres of fuel).

WARNING:
These instructions emphasise certain measures which need to be taken, or special maintenance precautions, which must always be complied with to prevent damage to the machine.

HANDLEBAR CONTROL UNIT

ENGINE CUT-OUT SWITCH (1)
In addition to the ignition switch, the engine cut-out switch must be in the " O " position to be able to start the engine.
The engine cut-out switch is used for emergencies. To stop the engine, set the switch to the " ✕ " position.

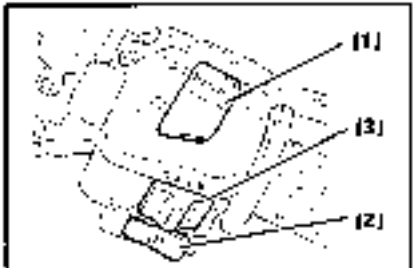


Fig.09

NOTE :
- Although this switch stops the engine, it does not cut off the electrical circuits. Under normal conditions, always use the ignition switch to turn off the engine.
- Do not leave the ignition on when the engine is stopped as this can flatten the battery.

PRECAUTION: Please refer to the section, "Starting the engine" in this manual for the start-up procedure.

STARTER BUTTON (2)
This button is used to operate the starter motor. Set the ignition switch to " O ", the engine cutout switch to " O ", the gearbox to neutral and press the electric starter button to operate the starter motor in order to start the engine.

LIGHTING SWITCH (3)
The front light is off when the switch is in the " ◆ " position. The sidelight, rear light, number plate light and instrument lighting operate when the ignition is turned on and the switch is set to the " ≡◇ " position. The dipped beam, sidelight, rear light, number plate light and instrument lighting function when the ignition is turned on and the switch is set forward to the " ☆ " position.

LEFT HANDLEBAR CONTROL CLUSTER

CHOKE LEVER (1)
This motorcycle is fitted with a choke mechanism, also called the fast idle, which helps to start the machine when the engine is cold. To start the engine from cold, turn the choke lever towards you as far as possible. You do not need to use the choke when the engine is hot.

DIPPED/FULL BEAM SWITCH (2)
" ≡D " **position**
The dipped beam, sidelight and rear light are on.
" ≡O " **position**
The full beam, dipped beam, sidelight and rear light are on. The corresponding indicator light on the instrument panel also comes on.

HEADLIGHT FLASHER (3)
Press the switch to flash the headlight. The light goes off when the button is released.

DIRECTION INDICATOR SWITCH (4)
When the switch is set to the " ⇦ " position, the left direction indicator flashes. When it is set to the " ⇨ " position, the right-hand direction indicator flashes. The warning light on the instrument panel also flashes. Press the switch to cancel the indicator.

WARNING : Always use the indicators before changing lanes or turning. ALWAYS press the direction indicator switch ("OFF" position) after completing any turn or changing lanes.

HORN BUTTON (5)
Press this button to operate the horn.

LEFT HANDLEBAR CONTROL CLUSTER

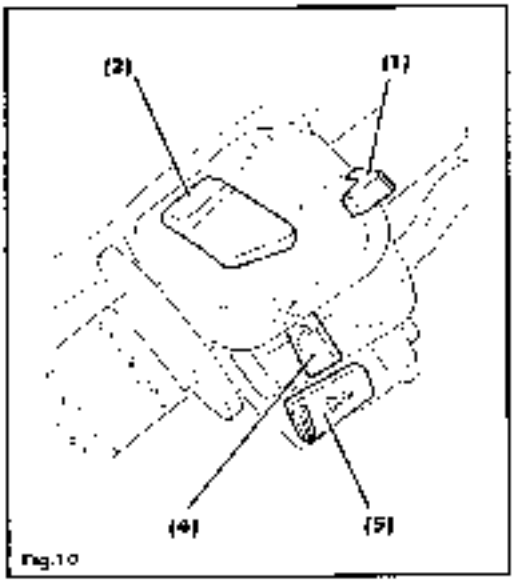


Fig.10

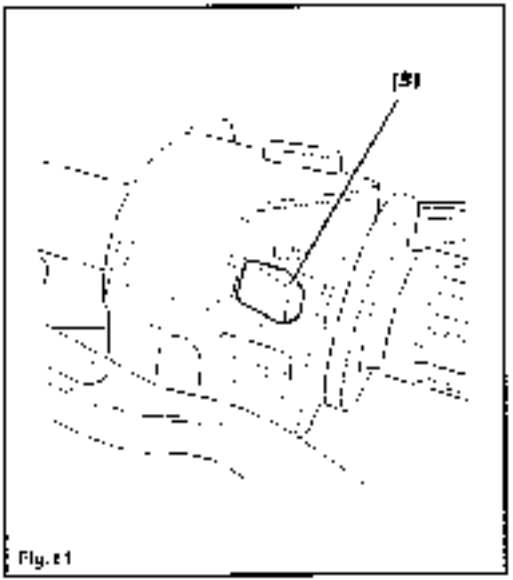


Fig. 11

LEVERS

CLUTCH CONTROL LEVER (1)
The clutch control lever is used to uncouple the engine from the rear wheel when starting or when changing gear. Pulling the lever disengages the clutch.

FRONT BRAKE LEVER (2)
To operate the front brake, pull the lever gently. This machine is fitted with a dual front disc brake. Therefore, it is not necessary to exert excessive pressure on the lever to slow the machine down. Operating the lever lights the brake light.

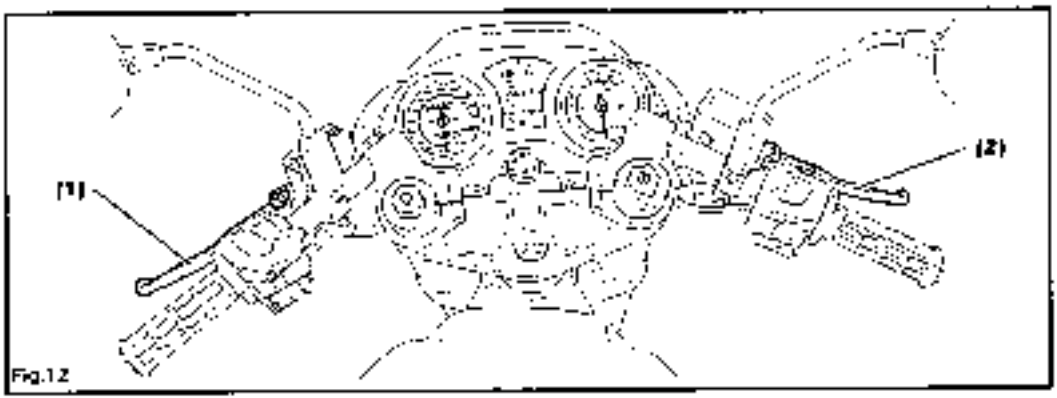


Fig.12

FUEL TANK

FUEL TANK FILLER CAP

To open the fuel tank filler cap, lift the filler flap **(1)** and insert the ignition key into the filler cap **(2)**. Turn the key anti-clockwise and remove the cap.

To close the cap, line it up with the filler pipe and turn the key clockwise. Remove the ignition key and close the flap.

WARNING:

Petrol is highly inflammable.

- Never overfill the fuel tank. When filling the tank, do not fill above the bottom of the filler pipe. The petrol may overflow due to the heat and expansion.
- To fill the tank, always stop the engine and set the ignition key to the "OFF" position. Never fill close to a naked flame.
- Take care not to spill petrol onto the engine, the exhaust, pipes or silencers when filling.
- If petrol is swallowed, inhaled or splashes the eyes, immediately call a doctor.
- Immediately wash all traces from the skin with soap and water and immediately remove any garments soaked in petrol.
- Contact with petrol can cause burns to the skin and can have other serious consequences.

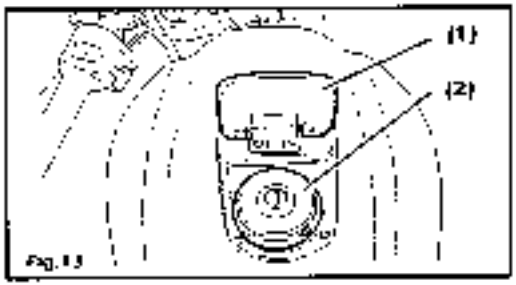


Fig. 13

SELECTOR

SELECTOR (1)
The motorcycle has a six-speed gearbox which operates as follows: to change gear properly, pull the clutch control lever and shut down the throttle the moment the selector is moved. Raise the selector to change up the gears and press it to change down the gears. Neutral is between first and second gear. To engage neutral, press or raise the selector half a notch between first and second gear.

NOTES :

- When the gearbox is in neutral, the green warning light on the instrument panel comes on. However for added safety, declutch carefully to ensure that the gearbox is actually in neutral.
- Before changing down, slow down the machine. When changing down, the engine speed must be increased before declutching. This is to avoid jerking the transmission and to protect the transmission components and rear wheel against excessive wear.

REAR BRAKE PEDAL

REAR BRAKE PEDAL (2)
The rear brake is operated when the rear brake pedal is pressed. The brake light also comes on.

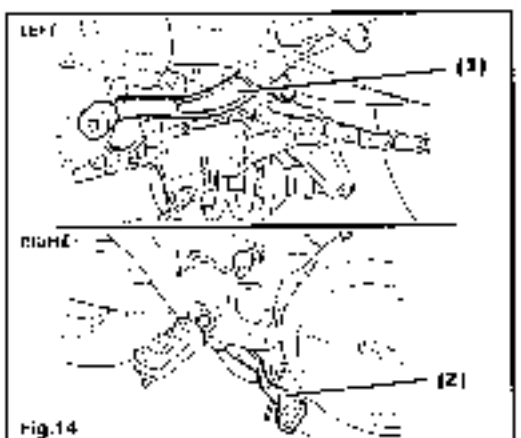


Fig.14

SADDLE LOCK

The saddle lock **(1)** is on the right-hand side plate. To remove the seat, insert the ignition key in the lock and turn it to the left. Raise the seat and slide it to the rear to remove it completely. To replace the seat, engage the front pin and push the rear of the seat downwards to insert it in the lock.

Fig.15

NOTE:

The seat is correctly engaged in the lock when you hear a click.

SIDE STAND (2)

The side stand/ignition safety switch **(3)** operates as follows:

- If the side stand is down and the gearbox is in gear the engine cannot start.
- If the engine is running and a gear is engaged while the side stand is down, the engine stops.

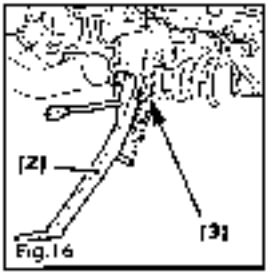


Fig.16

WARNING:

Check that the side stand/ignition safety switch operates correctly before driving the motorcycle. If the safety switch does not operate and the side stand is left down, the stand may touch the ground on a left-hand bend and cause a fall.

ANTI-THEFT

Under the seat there is a compartment for an anti-theft lock available from the range of VOXAN accessories. To access this compartment, see the "seat lock" section in this manual

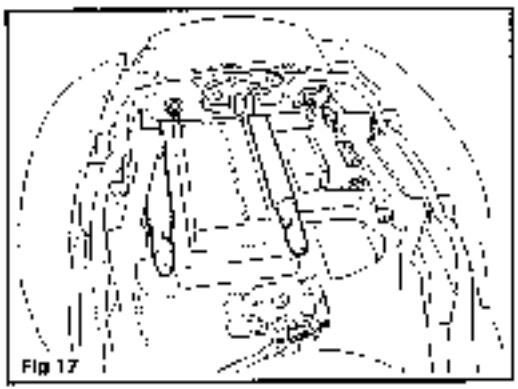


Fig 17

FRONT SUSPENSION ADJUSTMENT

SUSPENSION ADJUSTMENT

The front and rear suspension standard settings are a good compromise for most road conditions. However, the suspension settings can be adjusted to suit your preferences or requirements, for example, when carrying a load on the motorcycle.

FRONT SUSPENSION

You may adjust damping travel and compression as required by turning the appropriate setscrews. The damping travel setscrew **(1)** is located on the top of the front left fork. The damping compression setscrew **(2)** is located on the top of the front right fork.

TRAVEL ADJUSTMENT

First of all set the screws to the standard settings in order to adjust damping, then to the position required.

To set the damping travel to the standard position, turn the screw **(1)** clockwise as far as it will go, then slacken off **15** notches.

Turn the setscrew clockwise to harden damping.

FRONT SUSPENSION ADJUSTMENT

Turn it the other way to soften damping travel.
This should be done in small steps to adjust the suspension as precisely as possible.

COMPRESSION ADJUSTMENT

To set the damping compression to the standard position turn the screw **(2)** clockwise as far as it will go, then slacken off 20 notches.

Turn the setscrew clockwise to harden damping. Turn it the other way to soften damping compression. This should be done in small steps to adjust the suspension as precisely as possible.

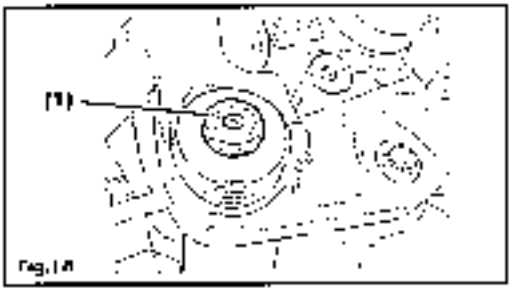


Fig.18

Fig.19

REAR SUSPENSION ADJUSTMENT

REAR SUSPENSION

Damping travel and spring pre-tensioning may be set as required.

SPRING PRE-TENSIONING ADJUSTMENT

The spring standard length is 167 mm taking care to have the rear wheel off the floor. If this value is reduced, the suspension becomes harder. If it is increased, you soften the suspension.

TRAVEL ADJUSTMENT

To adjust damping travel, the shock absorber has an 11-position knurled wheel **(1)**. However, to obtain correct handling of the machine on all types of surface, we very strongly recommend retaining the standard setting. To do so, set the knurled wheel to the 3rd notch.

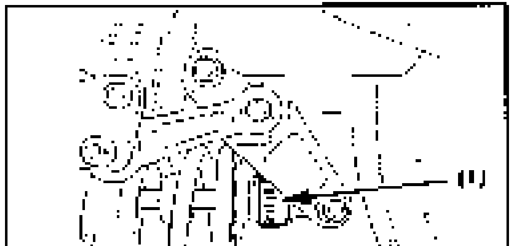


Fig. 20

The following table shows the basic settings recommended for the front and rear suspensions.

	FORK		REAR SUSPENSION	
	[illegible]	Right compression	Travel	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

VOXAN

RECOMMENDATIONS

Chapter 4

PETROL - ENGINE OIL

PETROL
Use unleaded petrol with an octane rating of 95

WARNING : Do not use 4-star. This will cause engine problems

ENGINE OIL
For longer engine life, use **VOXAN COMPÉTITION** ST high quality 4 stroke engine oil. Use only *SF* or *SG* rated oils in accordance with the API service specification. The recommended viscosity is **SAE 15 W 50.**

RUNNING IN

RUNNING IN
The information underlines the importance of running in the machine life and to obtain optimum performance from your motorcycle. The following paragraphs set out the procedure to be followed for correct running in.

MAXIMUM ENGINE SPEED
This table gives the maximum recommended engine speeds during running in.

The first 1000 Km	Under 5000 rpm
Up to 1600 km	Under 7500 rpm
Over 1600 km	Under 9400 rpm

ENGINE SPEED VARIATION
The engine speed should be changed when driving and not held at a constant speed. This is designed to exert a load on the components due to pressure and then relieve them of the load to enable them to cool. This makes it easier for the components to adjust to one another. It is essential that the engine compo-

events are subjected to certain stresses so that the adjustment procedure takes place correctly. However, the engine should not be over-revved. A warning sticker is applied to the dummy tank as a reminder.

AVOID DRIVING CONSTANTLY AT LOW SPEED
Running the engine constantly at low speed (low load) may result in slippage between components and prevent them from bedding in. Let the engine rev freely but remain exceeding the specified limits. Also avoid running at full throttle for the **first 1600 kilometres**.

GIVE THE ENGINE OIL TIME TO CIRCULATE BEFORE STARTING OFF
Whether hot or cold starting, let the engine idle before applying heavy throttle. This enables the lubricating oil to reach all of the main engine components.

THE FIRST SERVICE IS THE MOST IMPORTANT
The first 1000 km service is the most important one for your motorcycle. While running in, all of the engine components adjust to one another and bed in. The first service includes adjustment of all the components, tightening of fixings and changing the oil. If this service is carried out after the recommended number of kilometres (mileage), you will obtain the best performance and longest service from your machine.

WARNING :
The 1000 kilometer service should be carried out as specified in the chapter "inspection and servicing" in this manual. Pay particular attention to the "ATTENTION" and "WARNING" parts in this chapter.

CHECKS BEFORE USE

Before driving your motorcycle, always make the following checks. Never under-estimate their importance. Make them all each time you use your motorcycle.

POINTS TO CHECK :

THROTTLE
- Throttle cable play
- Throttle smoothness and automatic return

CLUTCH
- Smooth and gradual operation

STEERING
- Smoothness
- Ease of movement
- Slack or play

BRAKES
- Fluid level above "MIN" mark
- Lever and pedal travel.
- Not soft (spongy).
- No fluid leaks
- The brake pads should not be worn to the limit.

SECONDARY DRIVE CHAIN
- Tension
- Lubrication
- No excessive wear or damage.

ENGINE OIL
- Level correct.

COOLING SYSTEM
- Fluid level correct.
- No fluid leaks.

SUSPENSION SYSTEM
- Gradual movement

CHECKS BEFORE USE

LIGHTING
- Lights and warning lights operate correctly

HORN
- Operates correctly

ENGINE CUT-OUT SWITCH
- Operates correctly

SIDE STAND/IGNITION SAFETY SWITCH
- Operates correctly

TYRES
- Correct pressure
- Depth of tread
- No cracks or cuts.

PETROL
- Enough for the planned journey.

DRIVING HINTS

- If the driver is using a motorcycle of this type for the first time, it is recommended he practices on a traffic-free road in order to familiarise himself with the handling of the motorcycle and its controls.

- It is extremely dangerous to drive one-handed. Grip the handlebar firmly with both hands and place both feet on the footrests. Under no circumstances should the hands be taken off the handlebar.

- Do not change down in the middle of a bend. Changing down may cause the transmission to "snatch" which may upset handling and cause the rear tyre to slide which grip is on the limit. Slow down sufficiently to be able to negotiate the bend safely.

- When the road surface is wet or muddy, tyre grip is reduced. You must always slow down. Under these conditions all stopping and cornering capabilities are greatly reduced.

- In crosswinds, when overtaking or being overtaken by a large vehicle, exiting a tunnel or arriving on the other side of a hill, slow down and drive cautiously.

- Signal your intention to turn or change lanes to other road users. The size and handling of a motorcycle may surprise them.

- Pay special attention to car drivers. Take extra care at intersections, and when entering and leaving car parks and private roads.

- Observe the speed limits and Highway Code at all times.

DRIVING

STARTING THE ENGINE

- Turn the ignition key to the right.
- Check the coolant temperature light is on.

NOTE : This enables detection of any problems which may occur on the motorcycle. See the "warning lights" paragraph in this manual.
If it is not on, contact your VOXAN approved dealer.
Before pressing the starter check that:
- The gearbox is in neutral (green warning light on).
- The engine cut-out switch is in the " ◉ " position.

NOTE:
This machine is fitted with a safety switch for the ignition circuit and for the starter motor. The engine will not start if it is in gear and if the side stand is down.

When the engine is cold:
1. Pull the choke lever **(1)** fully towards you.
2. Leave the throttle closed and press the electric starter button **(2)**.
3. When the engine starts to run, push the choke lever back to mid way and let the engine warm up.
4. When the engine so permits, push the choke lever fully back to its initial position.


Fig.21


Fig.22

Fig.23

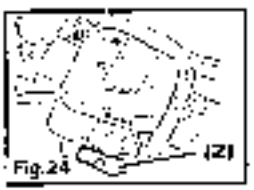


Fig.24

STARTING THE ENGINE

NOTE:
When starting, the engine may be flooded with petrol if the wrong procedure is used. As the injection system has a decloaking system, we recommend proceeding as follows.

- Turn on the ignition.
- Fully open the throttle.
- Operate the starter until the engine starts to fire.
- Close the throttle and operate the starter only. The injection cycle can then recommence.

When the engine is hot:

1. Open the throttle 1/8 to 1/4 of a turn.
2. Press the starter button.

NOTE:
There is no need to use the choke when the engine is hot.

WARNING:

- Do not operate the starter motor for more than five seconds in succession. This may overheat the wiring harness and the starter motor. If the engine does not start after several attempts, check the fuel supply system and the ignition circuit.

- Do not leave the engine running for too long when stationary as this may cause overheating. Overheating may damage internal engine components and discolour the exhaust pipes. Turn off the engine if you are not driving off immediately.

- Never start the engine or leave it running in a closed area. The exhaust gases are highly toxic and may rapidly cause loss of consciousness and death. If running the engine, always do so with doors or in a well ventilated space.

DRIVING THE MOTORCYCLE

DRIVING THE MOTORCYCLE
After raising the side stand fully, pull in the clutch lever. Engage the first gear by pressing on the selector. Turn the throttle twist grip towards you and at the same time release the clutch lever slowly and gently, and the motorcycle will begin to move off. The right coordination between operation of the throttle and the clutch lever will give a smooth, efficient start. To change up to the next gear accelerate gently and then throttle back, pull in the clutch lever and pull the selector upwards. Then release the clutch lever and gradually open the throttle. Select the gears in this way until you are in top gear.

NOTE:
If a gear is engaged while the side stand is down the engine will cut out, as this motorcycle is fitted with a side stand/ignition safety switch.

USING THE GEARBOX

USING THE GEARBOX
The gearbox enables the engine to run at the right speed. The gearbox ratios have been carefully chosen to suit the engine characteristics. The driver must always select the right ratio for the conditions prevailing. Never use the clutch to increase engine rpm. Change down to enable the engine to run at its normal speed.

WARNING:
Never let the engine rpm reach the red zone on the rev counter as this may cause damage to the engine.

CLIMBING HILLS

- When attacking a gradient, the motorcycle may start to lose speed. In this case, change down so that the engine can run at a higher speed, which will give it momentum. Change gear quickly to avoid losing speed.
- When descending a long, steep gradient, use the engine compression (engine brake) to assist braking, by changing down. Continuous use of the brakes may overheat them and reduce their efficiency. Always apply them intermittently. But make sure the engine does not overrev.

STOPPING AND PARKING

1. Turn the throttle forwards and release it completely.
2. Use the front and rear brakes evenly at the same time.
3. Change down until the machine slows down.
4. Engage neutral with the clutch fully closed (declutched position) just before the machine stops. To check you are in neutral, look at the green warning light on the instrument panel.

WARNING :

- Braking distance increases proportionally to speed. Make sure a safe distance is kept from other road-users to enable safe braking.
- It is dangerous to use only the front or only the rear brake as this may cause the motorcycle to skid resulting in loss of control.
- Brake gently and carefully on wet and slippy surfaces and on bends. Sharp braking on a slippy or uneven road may be particularly dangerous.

STOPPING AND PARKING

NOTE :
Slow down before changing down. The engine speed must be increased before engaging a lower gear. This prevents any unnecessary wear on the transmission components and the rear tyre.

5. Park the motorcycle on a firm, horizontal surface where it is not liable to fall over.

NOTE :
When parking on a slope, park the motorcycle towards the slope, to prevent it from moving forward under the flexion of the side stand. The motorcycle must be left parked in 1st gear to prevent it from slipping off the stand. Put it back into neutral before starting the engine.

WARNING :
- The silencers and exhaust pipes are very hot when the engine is running and remain so for some time after stopping the machine. Do not touch the silencers or pipes, they may burn you. Park the motorcycle so that other persons cannot touch them.
- Always stop the engine and remove the ignition key before leaving your machine. Removing the key greatly reduces the risk of unauthorised or uninformed persons using the machine.

6. Put the ignition key to the " OFF " position
7. Turn the handlebar fully to the left and lock the steering for extra safety.
8. Remove the ignition key

Always remember the following points before parking your motorcycle :
- The engine and exhaust pipes/silencers may be hot.
- Do not park your motorcycle where pedestrians, animals or children are liable to touch it.
- Do not park your motorcycle on soft ground. It may tip over.

INSPECTION AND SERVICING

Chapter 6

SERVICE SCHEDULE

SERVICE SCHEDULE

The following table sets out the servicing intervals in kilometres and years. At the end of each interval, carry out the inspections, lubrication and servicing specified. If the motorcycle is used under harsh conditions, such as full throttle or in dusty regions, certain items need to be serviced more frequently in order to ensure reliability. The dealer can supply the necessary information on this subject. The suspension components and wheels are important components which require very specialised and thorough servicing. For maximum safety, we recommend that their inspection and repair is entrusted to a VOXAN approved dealer.

AVERTISSEMENTS :

- Careful running in (1600 km) is **ESSENTIAL** to guarantee the optimum reliability and performance of this machine.
- Ensure that this periodic servicing schedule is scrupulously complied with, in accordance with the instructions in this manual.
- Periodic inspections may reveal that one or more components need to be changed. When changing components, we recommend using genuine VOXAN parts. Even if the owner is an experienced mechanic, we recommend he entrusts the servicing of his machine to VOXAN approved dealers. However, certain operations may be carried out easily by referring to the instructions in this chapter.

FREQUENCY / OPERATIONS	Every …	KILOMETRES COVERED (MILEAGE)						
		1 000	5 000	10 000	15 000	20 000	25 000	30 000
Air filter			C	C	C	R	C	C
Spark plugs				R		R		R
Engine oil	YEARS	R	R	R	R	R	R	R
Oil filter	YEARS	R	R	R	R	R	R	R
Injection system with diagnostic tool		C	C	C	C	C	C	C
Throttle and slow idle (choke) cable		C	C	C	C	C	C	C
Synchronisation of induction air pressure			C		C		C	
Valve clearances				C				C
Fuel hoses	4 YEARS			C		C		C
Idle speed		C	C	C	C	C	C	C
Coolant	2 YEARS	C	C	C	C	C	C	C
Cooling circuit		C	C	C	C	C	C	C
Lighting and indicators		C	C	C	C	C	C	C
Side stand switch		C	C	C	C	C	C	C
Brakes		C	C	C	C	C	C	C
Brake and clutch hoses	4 YEARS	C	C	C	C	C	C	C
Brake and clutch fluid	2 YEARS	C	C	C	C	R	C	C
Secondary drive chain		C	C	C	C	C	C	C
		Clean and grease every 500 km						
Secondary chain guide		C	C	C	C	C	C	C
Bolts, bolts, mountings		T	T	T	T	T	T	T
Tyres and rims		C	C	C	C	C	C	C
Suspension		C	C	C	C	C	C	C
Fork oil	2 YEARS				R			R
Steering bearings		C		C		C		C

C Check, clean, adjust, replace or grease as necessary
R Replace
T Tighten

TOOL KIT

The tool kit is under the seat (see paragraph "seat lock"). It enables the following operations :

- Secondary chain tensioning
- Changing bulbs such as:
  - Full beam
  - Dipped beam
  - Sidelight
  - Direction indicators
  - Brake light
  - N° plate light
- Suspension spring adjustment.
- Battery access.
- Air filter access

TOOLING NECESSARY FOR DISASSEMBLY

Secondary chain tension:

- 1 x 24 mm box type for wheel nut.
- 1 extension.
- 2 flat spanners for chain tensioner screw.

Changing bulbs:

- 1 convertible screwdriver (crosshead and flat heads).
- 2 x 3 mm and 4 mm hex. spanners

Suspension spring adjustment:

- 2 spring nut locking tools.

Accessories:

- 1 spark plug spanner
- 1 plier
- 2 x 5 mm and 6 mm hex spanners

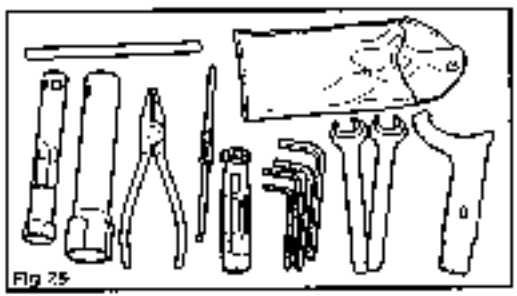


Fig 25

LUBRICATION POINTS

It is essential that all of the motorcycle's external moving parts are properly greased to ensure correct operation, long life and the safety of the driver. We recommend lubricating the external moving parts of the machine after a long journey, after a journey in the rain or after washing it. The main lubrication points are set out below:

- Secondary drive chain **(1)**.
- Brake and clutch levers **(2)**
- Brake pedal, selector and footrest pivots **(3)**
- Side stand pivot and spring **(4)**

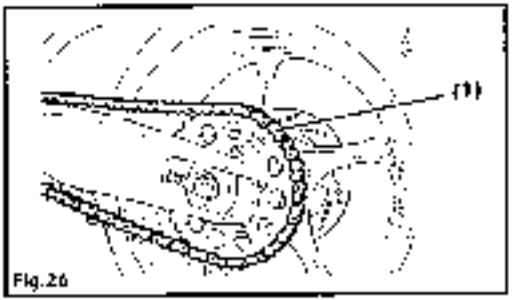


Fig.26

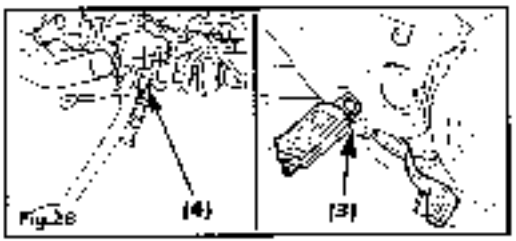


Fig.28

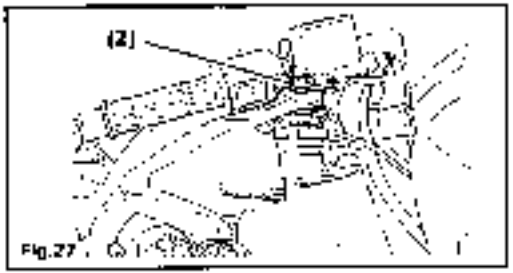


Fig.27

BATTERY

BATTERY
The battery **(1)** is located between the rear wheel and the oil tank.
The battery is of the sealed type and requires no fluid level or density maintenance. However from time to time, ask a dealer to check the battery charge level.

To remove the battery :
1. Remove the N° plate carrier **(2)** by removing the 3 M5 fixing screws **(3)**
2. Disconnect the 2 direction indicators **(4)** and N° plate lighting **(5)**
3. Remove the mudguard **(6)** by removing the 4 M5 fixing screws **(7)**
4. Disconnect the battery cables beginning with the **black negative cable (8)** then the **red positive cable (9)**.
5. Remove the anchoring bracket **(10)** by removing the 2 fixing screws **(11)**
6. Remove the battery **(1)**.

Refitting the battery:
Carry out the removal operations in reverse order complying with the tightening torques.
- Battery cables: **4 Nm**
- Anchoring bracket. **6 Nm.**
- Body screws **4 Nm**

WARNING :
- Never charge a battery which is still connected on the machine, as this may damage the battery or the regulator/rectifier.
- When disconnecting the battery terminals, always remove the negative cable **(–)** first, then the positive cable **(+)**.
- The standard charge rate is **0.5 to 1A x 10 -12h**. Never exceed this maximum charge rate.
- A constant current charger is necessary to charge a dry cell battery. Use of another type of charger will damage the battery.
- If the battery is not properly positioned, the terminals may be inverted and it could cause serious damage to the electrical system and its compo

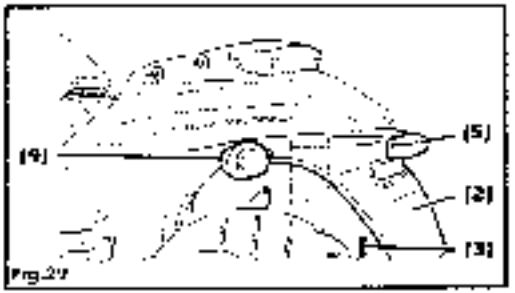


Fig.29

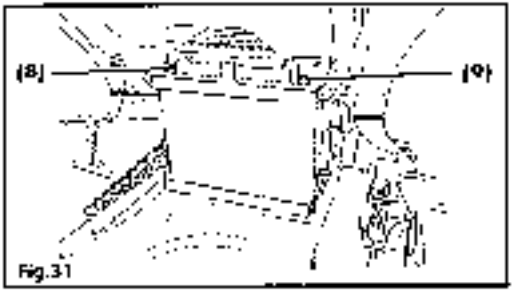


Fig.31

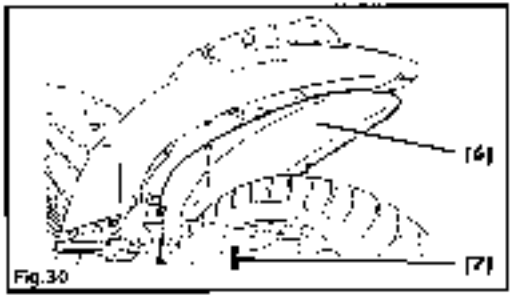


Fig.30

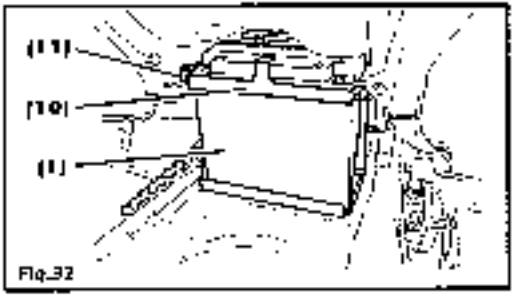


Fig.32

BATTERY

nents. Locate the battery with the terminals towards the rear wheel.

- When connecting the battery harness wires to the battery terminals, follow the polarity instructions. The red cable must be connected to the positive (+) first and the black cable (or black with a white stripe) to the negative terminal (-) afterwards.

AIR FILTER

AIR FILTER

The paper type filter cartridge is located in front of the tank.

If the cartridge is clogged, the air induction resistance is increased and the power of the machine is reduced and fuel consumption increases. Check and periodically clean the air filter cartridge by proceeding as follows:

To remove the air filter:

1. Remove the seat.
2. Remove the tank front cover **(1)** by removing the fixing screws **(2)**.
3. Remove the airbox cover **(4)** screws **(3)**.
4. Lift off the airbox cover **(4)**.
5. Remove the air filter cap **(5)**.
6. Remove the air filter cartridge **(6)**.
7. Carefully blow out the dust from the air filter cartridge with a compressed air blower.
8. Refit the cartridge **(6)** or fit a new one. Check that the cartridge is properly seated and is airtight.

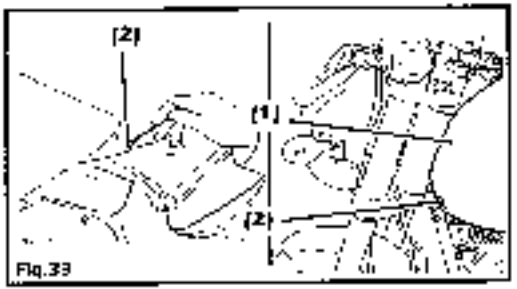


Fig.33

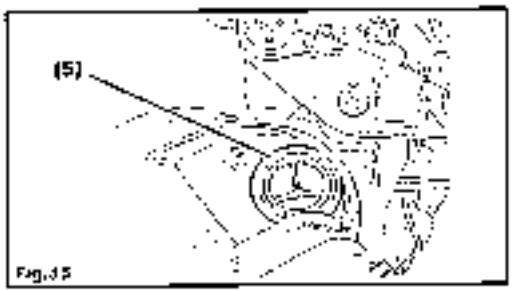


Fig.35

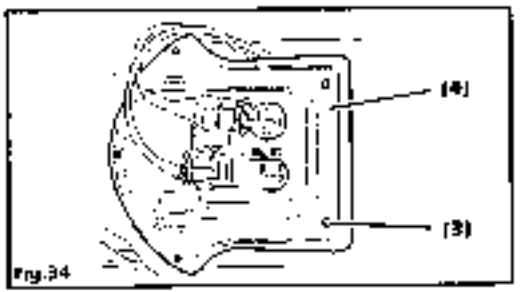


Fig.34

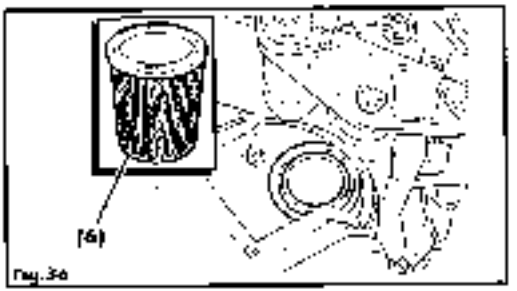


Fig.36

AIR FILTER

WARNING :

- When cleaning, only direct the compressed air jet towards the outside of the filter. If the jet is applied towards the interior the dust enters the cartridge pores and reduces the air flow through the cartridge.

- Never start the engine without the air filter in place. This will cause overheating of the engine and damage it. Always ensure that the air filter cartridge is in good condition. Engine life greatly depends on this component.

- Never use solvents to clean the filter.

To refit the air filter:
Carry out the removal operations in reverse order complying with the following torques:
- Air filter cap screws **8.3 Nm.**
- Airbox cover screws **4 Nm.**
- Tank front screws **6 Nm.**

NOTE:
If the machine is used under particularly dusty conditions, clean or replace the air filter cartridge more frequently.

TO REMOVE THE REAR SPARK PLUG

To remove the rear spark plug, the procedure is as below:

1. Remove the seat.
2. Remove the number plate carrier **(2)** by removing the 3 M5 fixing screws **(3)**.
3. Disconnect the 2 direction indicators **(4)** and the N° plate light **(5)**.
4. Remove the mudguard **(6)** by removing the 4 M5 fixing screws **(7)**.
5. Remove the passenger grab handles **(8)** by removing the 4 M8 fixing screws **(9)**.
6. Disconnect the rear light **(10)** and remove the seat cowl **(11)**.
7. Remove the tank cover **(12)** by removing the 4 M5 fixing screws **(13)**.
8. Unscrew the rear 2 M5 top screws **(14)**.
9. Slacken the rear loop 2 M8 lower fixing screws **(15)**.
10. Unscrew the rear loop M8 upper fixing screw **(16)**.
11. Pivot the rear loop **(17)**.
12. Clean round the pencil coil **(18)** and disconnect it.
13. Remove the pencil coil.

NOTE: When removing the coil, do not lever it as this may damage it. When refitting it, grease the coil seal to facilitate future removal.

14. Unscrew the spark plug with the spanner **(19)** in the toolkit.
15. Check or change the spark plug **(1)** (see paragraph "checking the spark plugs" p. 56).

REFITTING

Carry out the removal operations in reverse order complying with the following torques.

- Spark plug : **12 Nm** (pre-tighten if fitting a new spark plug).
- Rear loop M8 screw : **24 Nm.**
- Body M6 screws : **6 Nm.**
- Body M5 screw : **4 Nm.**
- Passenger M8 grab handle screws : **24 Nm.**

SPARK PLUG REMOVAL


Fig.37

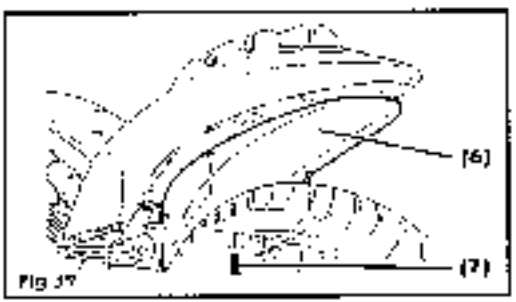


Fig 39

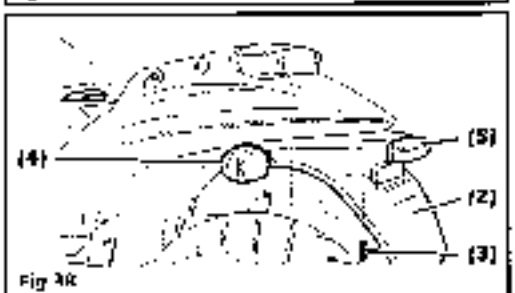


Fig 38

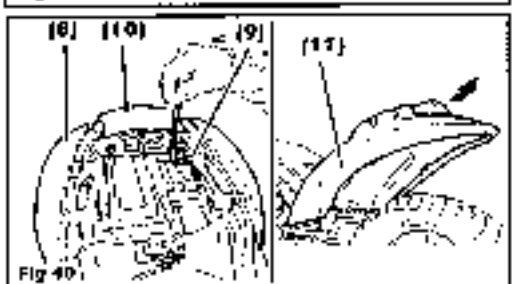


Fig 40

SPARK PLUG REMOVAL

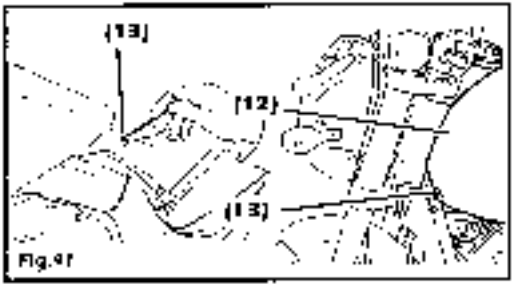


Fig.41

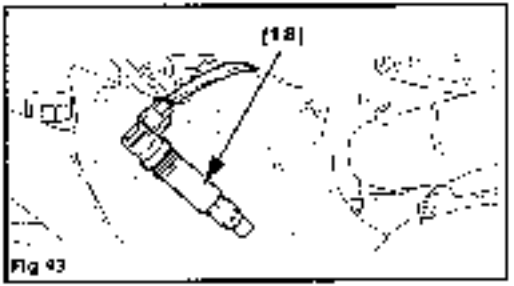


Fig 43

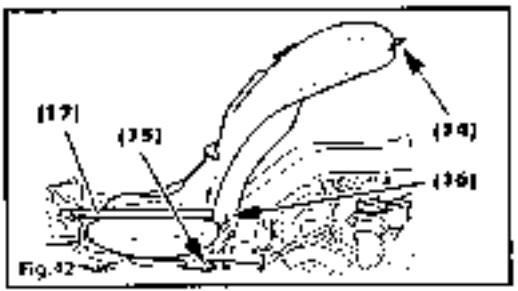


Fig.42

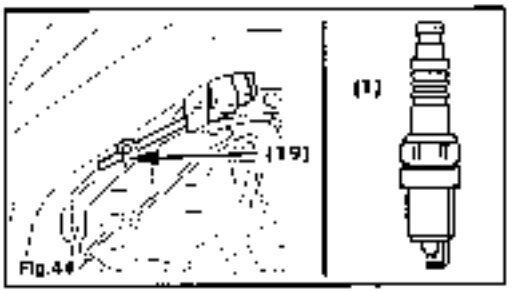


Fig.44

SPARK PLUG REMOVAL

TO REMOVE THE FRONT SPARK PLUG

To remove the front spark plug, the procedure is as follows:

1. Unscrew the radiator bracket **(5)** M8 upper fixing screws **(2)**
2. Unscrew the radiator bracket M8 lower fixing screws **(4)** .
3. Remove the radiator bracket **(5)** after disconnecting the fan **(6)**
4. Pivot the radiator **(3)** to the left to access the pencil coil **(7)**
5. Clear round the pencil coil and disconnect it
6. Remove the pencil coil
7. Unscrew the spark plug **(1)** using the spanner from the toolkit

REFITTING

Carry out the removal operations in reverse order complying with the following tightening torques:

- Spark plug: **12 Nm** (pre-tighten if fitting a new spark plug)
- Radiator bracket screw: **48 Nm.**

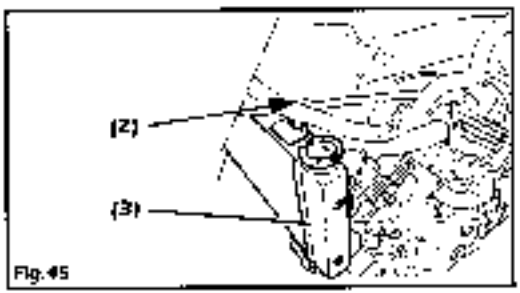


Fig.45

Fig.46

SPARK PLUG REMOVAL

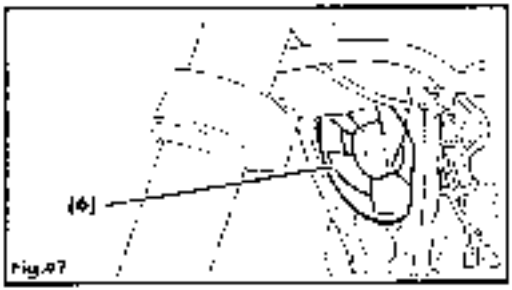


Fig.47

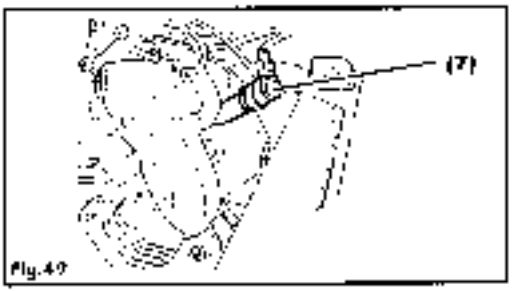


Fig.49

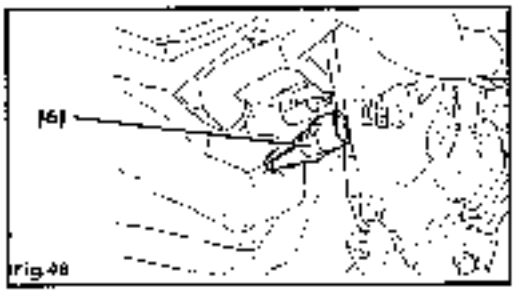


Fig.48

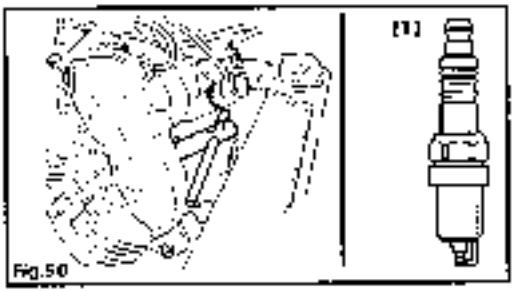


Fig.50

CHECKING THE SPARK PLUGS

NOTE : When removing the coil, do not lever it as this may damage it. When refitting, grease the coil seal in order to facilitate future removal.

WARNING :

- Do not touch the engine and radiator when they are hot as they can cause burns. Let the radiator and engine cool before touching them and before working on them.
- Take care not to damage the radiator fins.
- Make sure that no impurities enter the engine via the spark plug holes when the spark plugs are removed.
- The type of spark plug fitted to this model has been carefully chosen to satisfy a wide range of driving styles. An incorrect choice of spark plug may seriously damage the engine.

CHECKING THE SPARK PLUGS

- Check the electrode gaps using a round spark plug feeler gauge.
  Standard gap: **0.7 to 0.8 mm.**
- The spark plugs must be changed every **10 000 km.**

VOXAN recommends the following spark plugs:
NIPPONDENSO part number **K24PR2U**

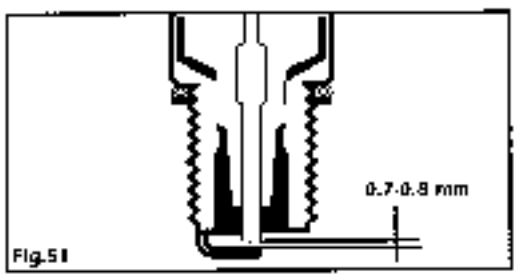


Fig.51

PETROL HOSES

Change the petrol hoses every **4 years**.

This operation must be carried out by a VOLCAN approved dealer.

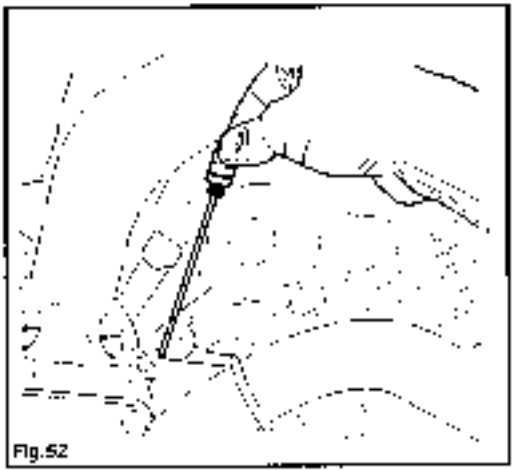


Fig.52

ENGINE OIL

The engine life depends greatly on the quality of oil chosen and oil change intervals. The daily oil level check and periodic oil changes are the two most important service points.

ENGINE OIL LEVEL CHECK

Follow the procedure below to check the engine oil:

1. Stand the machine on a horizontal surface.
2. Start the engine and run it at idle speed for 2 minutes.
3. Stop the engine.
4. Stand the machine upright and check the oil level, dipstick unscrewed (located on oil tank).

IMPORTANT :

After a prolonged stop, the oil tank may empty itself into the engine due to gravity. Run the engine at idle for 2 minutes in order to empty it and fill the tank before checking the oil level with the dipstick.

ENGINE OIL

The engine oil level should be at all times between the two level marks on the dipstick when the machine is standing upright. Never run the engine when the oil level is not between these two marks as this may seriously damage the engine.

ENGINE OIL AND FILTER CHANGE

Change the engine oil and oil filter after the first **1000** km then on each service. Drain with the engine hot, so that all the oil in the engine and oil tank run off carrying any impurities with them. Proceed as follows.

1. Stand the machine on a horizontal surface and warm up the engine until the fan cuts in.
2. Stop the engine and remove the oil tank filler cap **(1)**.
3. Put a container under the oil tank and the engine.
4. Unscrew the engine drain plug **(2)** and the oil tank strainer **(3)**.
5. Remove the clip **(3)** and disconnect the suction hose **(4)** from the oil reservoir **(5)** strainer.
6. Remove the engine strainer cover **(4)** and let the oil run out.
7. Unscrew the oil reservoir strainer.
8. Remove and clean the strainers **(5)**.
9. Remove the oil filter cover **(7)**.
10. Remove the oil filter **(8)**.

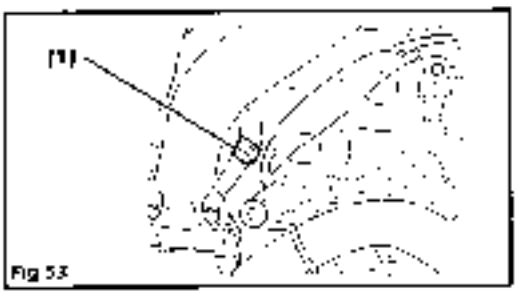
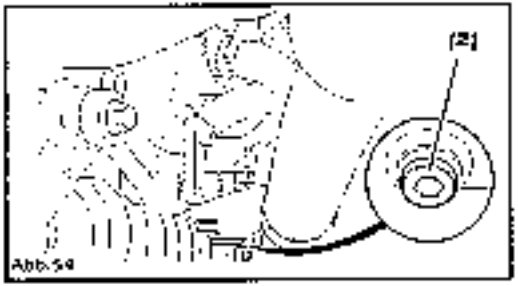


Fig 53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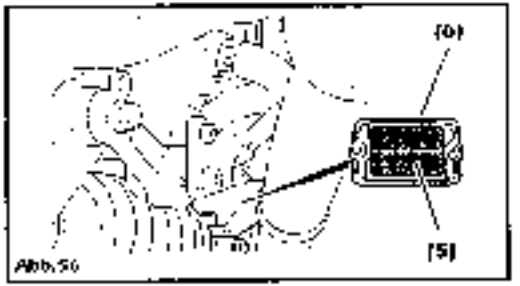
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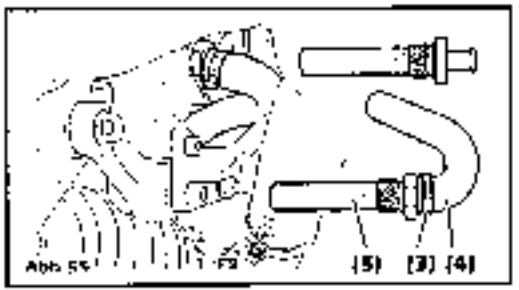
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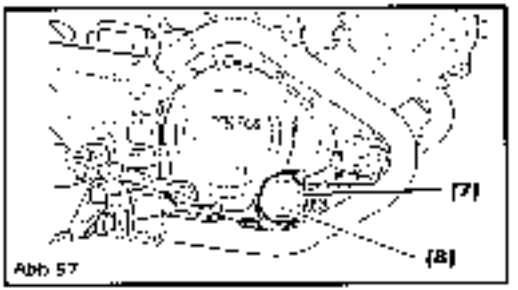
[7]
[8]
Abb.57

ENGINE OIL

11. Refit the components in reverse order to removal taking the following into account:
    - Tightening torques
    - engine strainer cover screw: **24Nm**
    - drain plug: **15 Nm.**
    - oil filter cover screw: **10 Nm**
    - oil tank strainer: **45 Nm**
    - Lightly smear the oil filter internal O-ring with oil

WARNING:
- Systematically replace all worn seals by new ones
- We strongly recommend using VOXAN genuine parts motorcycle oil filters. Other filters may be of a different design and be a source of engine problems

12. Fill the oil tank with **2000 ml** of VOXAN COMPETITION 5W 15W50 oil.
13. Turn the ignition on to " O " and turn off the engine cut-off switch. Operate the starter motor and check the oil pressure light goes out after a few seconds
14. Then set the cut-off switch to the " O " position and run the engine for a few minutes at idle
15. Add **1500 ml** of oil (**3500 ml** in total) and refit the oil tank filler cap
16. Start the engine and check there are no oil leaks at the oil filter cover, the drain plug and the oil tank strainer. Run the engine at idle for 2 minutes.
17. Turn off the engine and check the oil level with the dipstick unscrewed and the machine upright

IMPORTANT:
Any oil leaks at the oil filter cover, the drain plug or the oil tank strainer are a sign of incorrect fitting or a damaged seal. In case of oil leaks or doubt, contact a VOXAN approved dealer.

IDLE ADJUSTMENT

The idle speed is set in the factory. Therefore it is not necessary to modify the butterfly valve opening settings.

If required, entrust the operation to a VOXAN approved dealer.

THROTTLE CABLE ADJUSTMENT

To adjust the throttle cable free travel, follow the procedure below:

1. Remove the rubber cover **(1)**.
2. Slacken the locknut **(2)**.
3. Turn the adjuster nut **(3)** so that the throttle grip free travel is between **2** and **4 mm**.
4. Tighten the locknut.
5. Refit the rubber cover.

WARNING!

- After adjusting the throttle cable, check that the movement of the handlebar does not increase the engine idle speed.
- Also check that the throttle grip opens smoothly to the maximum point and closes automatically in all positions of the handlebar.

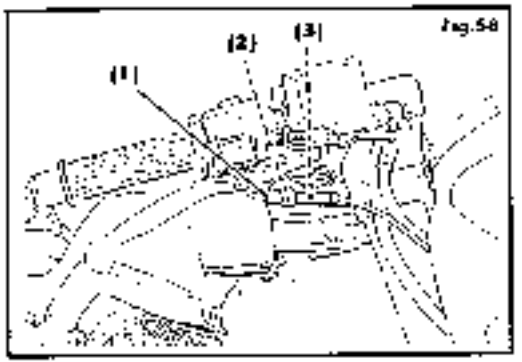

fig.58

CLUTCH

CLUTCH

This machine has a hydraulically operated clutch which does not require regular servicing.

If the clutch control becomes spongy, contact a VOXAN approved dealer. The clutch fluid must be changed every 2 years.

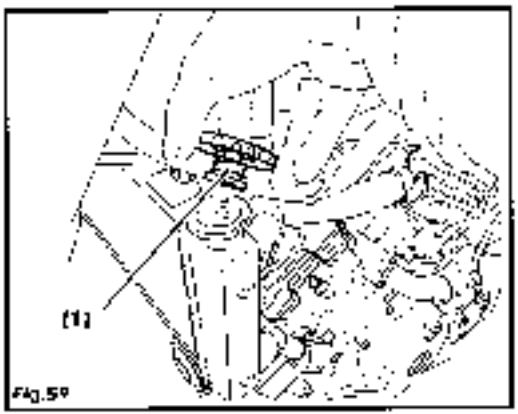

Fig.59

COOLANT

COOLANT LEVEL

The coolant must always be filled to maximum. Check the level before starting a journey with the machine upright. If the coolant level has dropped, top up with the appropriate coolant mixture after removing the radiator filler cap **[1]**.

WARNING:

- Do not remove the radiator cap while the engine is hot, this may cause burns.
- Do not add only water to the cooling system. This will dilute the fluid and reduce its performance.
- If coolant losses are frequent during use, contact a VOXAN approved dealer.

COOLANT FLUID RENEWAL

Change the coolant every **2 years.**

Use only high quality ethylene glycol anti-freeze containing corrosion inhibitors recommended for aluminium engines.

The coolant also acts as an anti-freeze. Therefore it must be used continually, even if the temperature at the place of use does not reach freezing point.

DRAIN PROCEDURE

1. Remove the radiator cap **(1)** (see fig. 59)
2. Place a drainage container under the water pump
3. Unscrew the pump cover drain screw **(2)**

FILLING

1. Fit a new copper seal to the drain screw
2. Tighten the drain screw **(2)** (tightening torque 6 Nm)
3. Fill the coolant circuit with the vehicle held upright

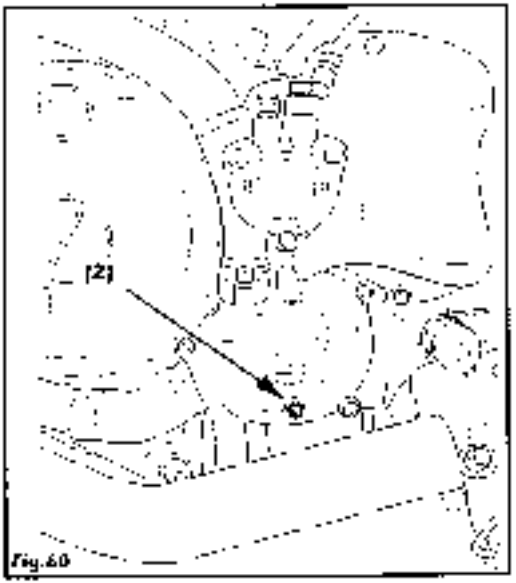

Fig.60

COOLANT

4. Refit the radiator cap (**1**) (see fig. 59).
5. Run the engine for a few minutes in order to bleed the system.
6. Top up with fluid if necessary.

SECONDARY DRIVE CHAIN

The lifespan of the secondary drive chain depends on its lubrication and adjustment. Any failure in carrying may accelerate wear or damage not only to the secondary chain, but also to the sprockets.
In case of harsh use or if the machine is used in unusually dusty or muddy conditions, more frequent servicing is necessary.

WARNING:
For maximum safety check the condition and adjustment of the secondary drive chain each time before the machine is used.
If chain wear is excessive or it is incorrectly adjusted (over- or under-tensioned), the chain may jump off the sprockets or break. This may cause major damage or a serious accident.

SECONDARY DRIVE CHAIN

INSPECTION OF THE SECONDARY DRIVE CHAIN

When inspecting the chain, check for the following:

- Seized pins.
- Damaged rollers.
- Dry or rusty links.
- Twisted or bent links.
- Excessive wear.
- Incorrect chain adjustment.

If a fault requiring replacement of the secondary drive chain is found, contact a VOXAN approved dealer.

Damage to the secondary drive chain almost certainly means that the drive sprocket and the rear sprocket are damaged. Check them for the following points:

- Excessive tooth wear.
- Broken or damaged teeth.
- Drive sprocket bolts loose.

If one of these problems is found, contact a VOXAN approved dealer.

WARNING:

A badly fitted link or quicklink may open and cause an accident or serious damage to the machine. Do not use a quicklink chain on this machine. Changing the chain must be done with a special rivet extractor using a non-quicklink chain of the same quality as the original chain. Entrust this operation to a VOXAN approved dealer.

CLEANING AND LUBRICATING THE SECONDARY DRIVE CHAIN

The secondary drive chain is fitted with special O-rings which permanently contain grease. However, the chain must be cleaned and oiled periodically, as follows:

1. Clean the chain with a suitable product.

If the chain tends to rust, clean it more frequently.

2. Leave the chain to dry, then grease the links with grease designed for O-ring chains.

SECONDARY DRIVE CHAIN

WARNING
Do not use petrol, trichloroethylene or other degreasing solvents.
The high dissolving power of these solvents could damage the chain O-rings, causing grease loss thus requiring replacement of the chain.
Certain chain greases also contain diluting fluids and additives which can damage the chain O-rings. Use a special O-ring chain grease.

SECONDARY DRIVE CHAIN ADJUSTMENT
Adjust the secondary drive chain to the specified value. The chain may require more frequent adjustment than specified in the scheduled servicing table depending on driving conditions.

WARNING!
Excessive slack in the chain may cause it to jump off the sprockets and cause an accident or major damage. The chain tension must therefore be checked before each use.

To adjust the chain tension, the instructions are as follows:
1. Put the machine on its side stand.
2. Slacken the wheel spindle nut **(2)** using the tools from the toolkit.
3. Slacken the locknuts **(3)** (right and left).
4. Adjust the chain tension by turning the right and left tensioner screws **(4)**. When adjusting the chain, the rear sprocket must be kept perfectly in line with the front sprocket. To do so, measure the distance between the contact surface of the tensioner bolt and tensioner locknuts. The distance must be the same on both sides.
5. Check the chain slack on its lower run, midway between the gearbox output sprocket and the rear sprocket. Chain slack must be set so that the vertical movement of the chain felt by hand is between **25 and 35 mm**.
6. Tighten the locknuts **(3)** (tightening torque: 24 Nm).
7. Tighten the wheel spindle nut **(2)** (tightening torque: 102 Nm).

8. Re-check the chain tension after tightening and adjust it again if necessary.

WARNING:
- Take care not to touch the silencers when they are hot, to avoid burns
- Out-of-alignment will cause premature wear on the secondary transmission.

A sticker **(5)** on the swinging arm shows the required chain tension

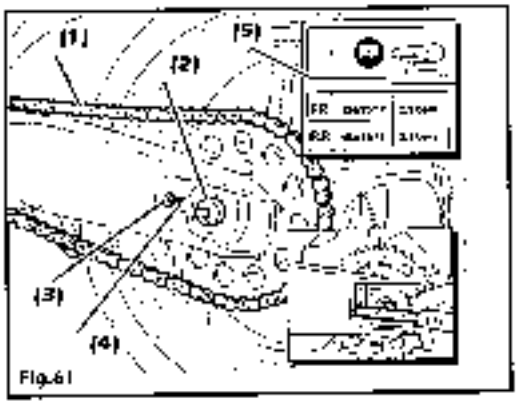

Fig.61

BRAKES

BRAKES

This motorcycle is fitted with disc brakes at the front and rear. Correct brake operation is vital. Comply with the service schedule intervals for checking more

BRAKE CIRCUITS

WARNING:

- We strongly recommend entrusting all service or repair operations on the brake circuits or pads to a VOXAN approved dealer. He has the knowledge and tooling necessary to carry out this work in complete safety
- The disc brakes operate under very high pressures and temperatures. **For safety reasons, change the brake hoses and brake fluid at the dates set out in the SERVICE SCHEDULE in this manual (see p. 43).**
- Check the following brake circuit points daily:

- Fluid level in the reservoirs.
  Any leaks in the brake circuits
- Brake lever and pedal travel and resistance.
  Brake lever and pedal free travel.
- Brake pad wear

BRAKE FLUID

WARNING:

- Brake fluid is a dangerous product if swallowed or if in contact with the eyes or skin. If this happens, immediately consult a doctor. If swallowed, induce vomiting. In case of contact with the skin or the eyes, wash abundantly with tap water.
- Do not spill brake fluid onto painework or plastic components, they may be quickly damaged
- Do not use or mix different types of brake fluids (example, silicon or petroleum based) as this causes serious damage to the brake circuits and reduces efficiency
- Never use brake fluid from an already opened or badly closed can. Never re-use used brake fluid or old fluid as it absorbs moisture in time and loses its efficiency.

- **Use only DOT 5 type brake fluid.**

- Check the brake fluid level in the front **(1)** and rear **(2)** reservoirs. If the level in one of the reservoirs is under the low mark, top up with brake fluid.

FRONT AND REAR BRAKE PADS:
Check the condition of the front and rear brake pads **(fig. 65)** at the intervals set out in the SERVICE SCHEDULE (see p. 43). If the thickness of one of the front or rear brake pads is under **2.5 mm**, have All of the pads on the wheel concerned replaced by a VOXAN approved dealer.

Fig.62


Fig.63

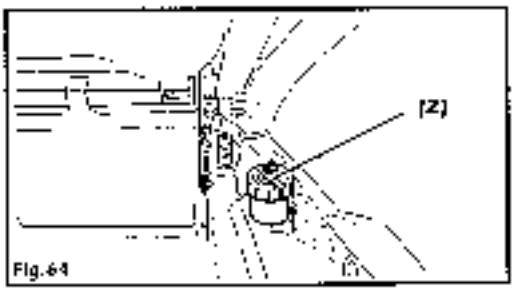

Fig.64

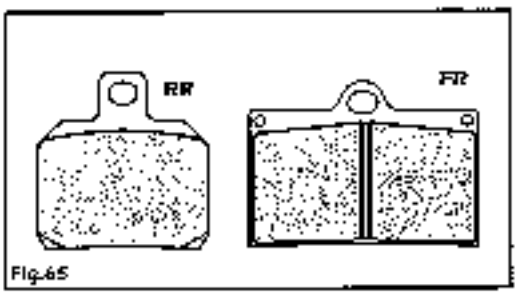

Fig.65

WARNING:

- After changing the front or rear brake pads, pump the brake lever or pedal several times to bed down the pads and return the lever or pedal to its normal travel before using the machine.
- Do not operate the brake lever or pedal if the pads are not fitted. The pistons will be difficult to bring back to their normal position and there will be a risk of brake fluid leakage.

REAR BRAKE PEDAL HEIGHT ADJUSTMENT

1. Slacken the locknut and set the adjuster screw **(1)** in the position required.
2. Lock the locknut (tightening torque: 8.8 Nm).

WARNING:

It is essential to set the pedal free travel after adjusting the height. Without this precaution the rear brake master cylinder may be permanently activated. This would cause overheating and destruction of the rear disc and caliper. Furthermore, there is also a risk of accident due to sudden locking of the rear wheel.

REAR BRAKE PEDAL TRAVEL ADJUSTMENT

1. Unclip the clevis pin **(2)**.
2. Slacken the pushrod **(5)** locknut **(3)**.
3. Disengage the clevis **(4)** from the brake pedal.
4. Adjust the pushrod position to obtain a free travel of **2 mm**.

5. Retighten the locknut **(3)** (tightening torque: 6 Nm).
6. Refit the clevis **(4)** and refit the clevis pin **(2)**.

Fig.66

REAR BRAKE LIGHT REAR SWITCH ADJUSTMENT
Adjust the brake light rear switch so that the brake light comes on as soon as the brake pedal is pressed.

SELECTOR ADJUSTMENT
1. Slacken the 2 locknuts **(6)** on the control rod **(7)** (anticlockwise: one of the locknuts has a left-hand thread).
2. Turn the control rod to put the selector into the required position.
3. Lock the locknuts **(6)** (tightening torque: 6 Nm).

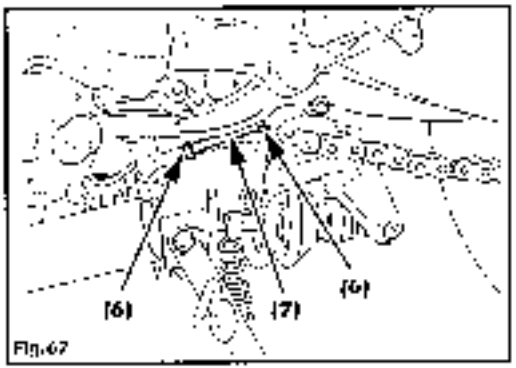

Fig.67

TYRES

WARNING:

- The tyres are the only contact between the machine and the road. The pressure, condition, load and type of tyres used are very important. Non-compliance with the following instructions may result in an accident due to tyre failure or loss of control of the machine.
- Check the tyre pressures each time before the machine is used.
- Do not overload the machine (see GVW p. 10).
- Change the tyres when they reach the minimum tread depth or when they are obviously damaged by cracks or cuts.
- Use replacement tyres of the type and size specified and have the wheel balanced after fitting a new tyre.

INFLATION PRESSURE AND LOAD

The right inflation pressure and correct loading of the machine are important factors. Overloading the tyres may damage them or result in loss of control of the machine.

Check the inflation pressure each time the machine is used and check that the pressure is suitable for the load carried, using the table below. Make this check before using the machine since the pressures when hot are much higher.

Underinflated tyres do not enable normal cornering and wear quickly. Overinflated tyres have less surface in contact with the road and may cause skidding and loss of control of the machine.

Tyre pressures cold

TYRE (DIM.)	SOLO	WITH PASSENGER
FRONT	250 kPa 2.50 kg/cm2	250 kPa 2.50 kg/cm2
REAR	280 kPa 2.80 kg/cm2	280 kPa 2.80 kg/cm2

NOTE:
In case of tyre pressure loss, check to see if the tyre is punctured or the rim damaged. Tubeless tyres sometimes deflate slowly when they are punctured.
A sticker on the swinging arm shows the tyre characteristics.

TYRE CONDITION AND TYPE
The condition and type of tyres affect machine performance. Cuts or cracks in the tyres may cause tyre bursts and loss of control of the machine. Worn tyres tend to puncture easily and are dangerous.
Check the condition of the tyres each time the machine is used. Change the tyres if they are in bad condition and are cut or cracked or if the tread depth is under 1.6 mm at the front and 2.0 mm at the rear (in the centre of the tyre).

WARNING:
- The wear limits shown opposite are reached before the wear strips built into the tyres come into contact with the road.
- Always use replacement tyres of the appropriate type and size. A different size or type of tyre may alter the machine roadholding and result in loss of control.

	FRONT	REAR
DIMENSIONS	120/70 ZR17 58 W	180/55 ZR17 73 W
TYPE	Michelin Macadam 90 XATL	Michelin Macadam 90 XTE

It is essential that after a puncture repair or changing a tyre that the wheel is balanced.

TYRES

WARNING:

- It is important to comply with the instructions when repairing or changing a tyre. These operations must only be carried out by persons with the necessary experience and tools. This is why we recommend entrusting them to a VOXAN approved dealer.
- The front and rear tyres must be fitted in compliance with the direction of rotation shown by the arrows on the tyre walls. If a tyre has been removed from the rim, it must be fitted so that the arrow is always pointing forwards. If the tyre is fitted with the arrow in the opposite direction, road-holding can be affected.
- Tubeless tyres require special precautions when fitting and on repair after a puncture:
  - The air seal of tubeless tyres is made by the join between the tyre bead and the rim edge. Damage to the tyre bead or the inner surface of the rim causes leaks. For this reason, special precautions must be taken when fitting a tyre to and removing a tyre from the rim. Special tyre levers and protective devices or a special machine are necessary to avoid damage.
  - Tubeless tyres must be repaired by removing the tyre and applying a patch on the inside of the repair.
  - Do not repair a puncture using an external plug as this can be ejected under centrifugal force due to rotation of the wheel.
  - Change the tyre if the puncture is in the wall or if the hole made is more than 5 mm wide. These punctures cannot be properly repaired.

SIDE STAND SAFETY SWITCH

SIDE STAND / IGNITION SAFETY SWITCH

Check correct operation of the side stand/ignition safety switch **(1)** as follows:

1. Sit on the machine normally with the side stand up.
2. Engage first gear, depress the clutch and start the engine.
3. Keeping the clutch depressed, lower the side stand.

If the engine stops when the side stand is lowered, the side stand/ignition safety switch **(1)** is operating correctly. If the engine continues to run when the side stand is lowered and a gear is engaged, the safety switch is faulty. In this case, have the machine checked by a VOXAN approved dealer.

WARNING:

Always check that the side stand/ignition safety switch is operating correctly before using the machine. If the switch is faulty, the side stand may cause a fall when negotiating left-hand bends if it is down.

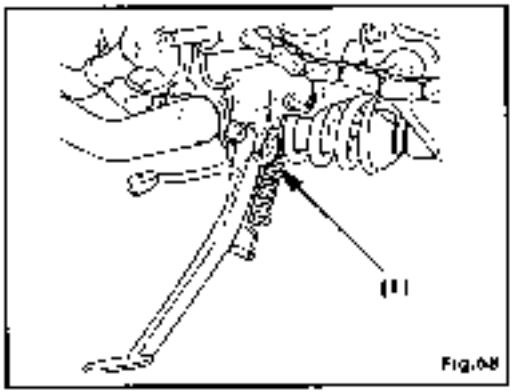

Fig.68

WHEELS

TO REMOVE THE FRONT WHEEL

1. Put the machine on its side stand.
2. Remove the two calipers, right and left-hand side from the front fork by unscrewing their fixing screws **(1)**.

WARNING:
Do not operate the front brake lever when the calipers are removed. This will make pistons pop out and can cause brake fluid leakage.

3. Slacken the wheel spindle locking bolt **(3)**.
4. Slacken the 4 spindle **(2)** lower locking bolts on the fork arms.
5. Put a workshop stand under the fork arms.
6. Withdraw the wheel spindle **(4)**.
7. Slide the wheel forwards.

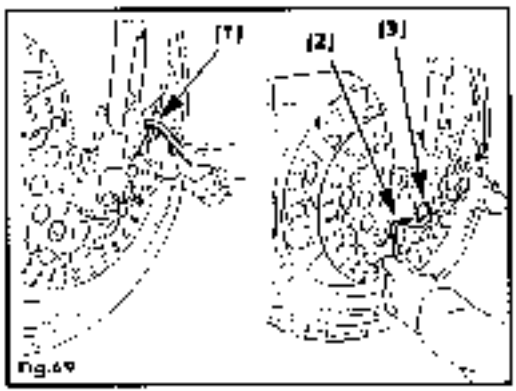

fig.69

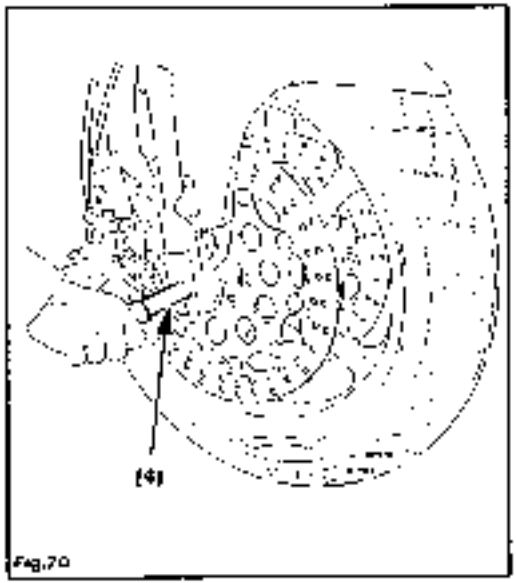

Fig.70

TO REFIT THE FRONT WHEEL

Proceed in reverse order to removal complying with the tightening torques

- Caliper bolt: **48 Nm.**
  Fork arm lower bolt **24 Nm**
- After refitting the wheel operate the front brake several times for the lever to return to a correct travel and hardness

WARNING:

- When refitting the wheel, it is very important to tighten to the torques specified. We recommend this operation is carried out by a VIXXAN approved dealer
- Do not twist or bend the brake hoses excessively when refitting the calipers
- The front tyre of this machine must be fitted in the direction of rotation. Fitting the front wheel the wrong way round may affect roadholding. Fit the wheel into the front fork in the direction specified, shown by the arrow on the tyre wall.

WHEELS

TO REMOVE THE REAR WHEEL

1. Fit a workshop stand or other similar support under the swinging arm to raise the rear wheel from the floor.
2. Unscrew the rear wheel spindle nut using the tools **[1]** from the toolkit.
3. Slacken off the tensioners **[2]** by adjusting the adjustment screws (see p. 66).
4. After pushing the wheel forwards, remove the chain **[3]** from the drive gear **[4]**.
5. Withdraw the rear wheel spindle.
6. Pull the wheel assembly towards the rear.

WARNING:

- Take care not to touch the silencers when they are hot, they may burn you.
- Do not press on the rear brake pedal when the wheel is removed. This will make refitting the wheel difficult and may cause a brake fluid leak from the caliper.

TO REFIT THE REAR WHEEL

Proceed in reverse order to removal. To set the chain tension, see the "secondary drive chain" paragraph in this manual.

WARNING:

- When refitting the wheel, tighten the bolts and nuts to the specified torques. We recommend having this operation carried out by a VOXAN approved dealer.
- After refitting the wheel, operate the brake pedal several times to centre the pads and to re-establish pedal travel before using the machine. Also check that the wheel rotates freely.

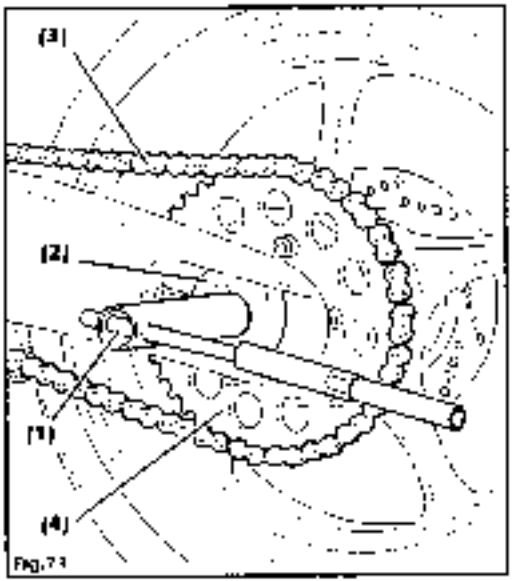

Fig.71

CHANGING BULBS

CHANGING THE LIGHTING BULBS

The rated power of each bulb is given in the table below. When changing a faulty bulb, always use the same capacity. Using a bulb of a different capacity may overload the electrical circuit or cause premature failure of the bulb.

Front right full beam	12V 55W (H5)
Front left dipped beam	12V 55W (H7)
Sidelight	12V 5W
Direction change indicator	12V 10W
Rear/brake light	12V 5/21W
N° plate light	12V 5W

FRONT LIGHT BULBS

To change the right and left-hand bulbs, proceed as follows:

1. Remove the windshield **(1)**.
2. Remove the fairing **(2)** by removing the 4 fixing screws **(3)**.
3. Remove the front light unit 4 fixing screws **(4)**.
4. Disconnect the full beam, dipped beam and side light connectors.
5. Remove the dust covers.
6. The bulb **(6)** may be removed after releasing the bulb holder spring **(5)**.

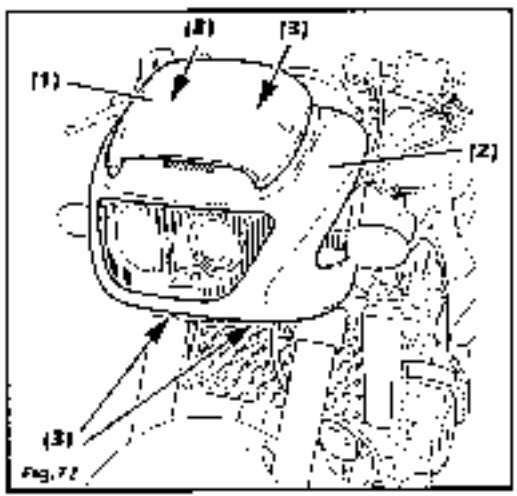

Fig. 72

CHANGING BULBS

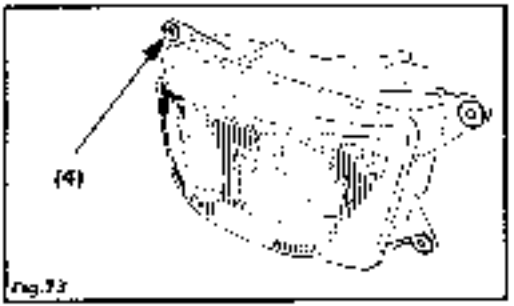

Fig.73

To change the sidelight bulb, proceed as follows.
1. Remove the sidelight bulb rubber holder from the headlight **(7)**
2. Pull the bulb out
3. Change the bulb and refit the bulb rubber holder into the headlight.

WARNING:
The main and dipped beams of this machine use halogen bulbs. When changing them, do not touch the glass. This will greatly reduce their lifespan.

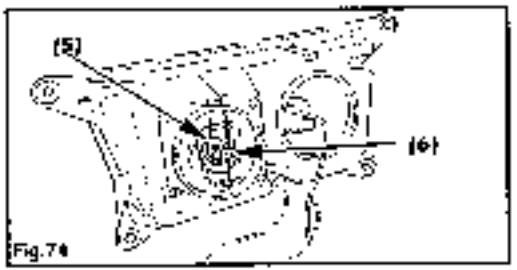

Fig.74

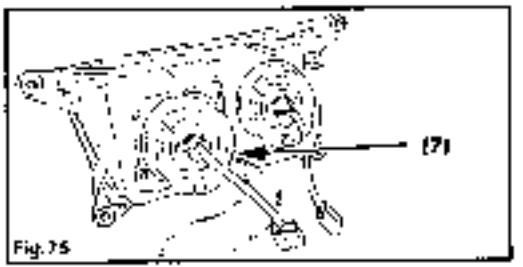

Fig.75

CHANGING BULBS

REFITTING

Proceed in reverse order to removal complying with the following tightening torques:

- Headlight screw **6 Nm.**
- Fairing screws **4 Nm**
- Windshield screws **4 Nm.**

FRONT LIGHT UNIT ADJUSTMENT

It is possible to adjust the front light unit vertically. Using a crosshead screwdriver, turn the adjuster device **(1)** clockwise to raise the light beam or in the opposite direction to lower it.

Fig.76

DIRECTION INDICATOR BULB

To change a direction indicator bulb, proceed as follows:

1. Remove the screw **(2)** and remove the lens **(3)**.
2. Turn the bulb anti-clockwise and pull on it to remove it.

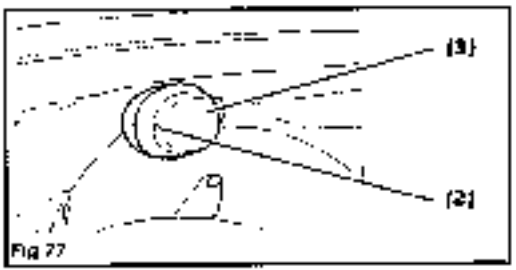

Fig.77

CHANGING BULBS

REAR/BRAKE LIGHT

To change the rear/brake light bulb, proceed as follows:

1. Remove the lens **(4)** after removing the 2 screws **(5)**.
2. Turn the bulb anti-clockwise, pushing on it, to remove it.

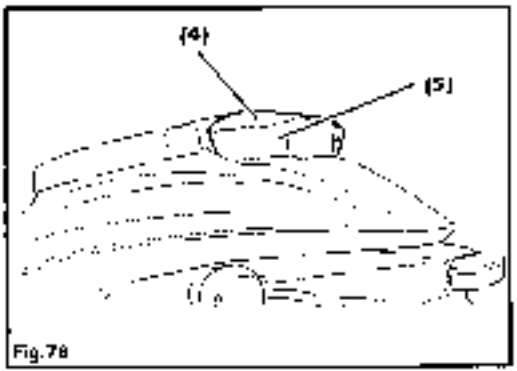

Fig.78

N° PLATE LIGHT

To change the N° plate light bulb, withdraw the bulb holder **(6)** and remove the bulb by pulling on it.

Fig.79

CHANGING FUSES

The main **30A** fuse, called the maxifuse, is located under the fairing.

REMOVAL

1. Remove the windshield (see p. 80).
2. Remove the fairing **(2)** by removing the 4 screws **(3)**.
3. Remove the maxifuse plastic cover **(4)**.
4. Change the maxifuse **(5)**.

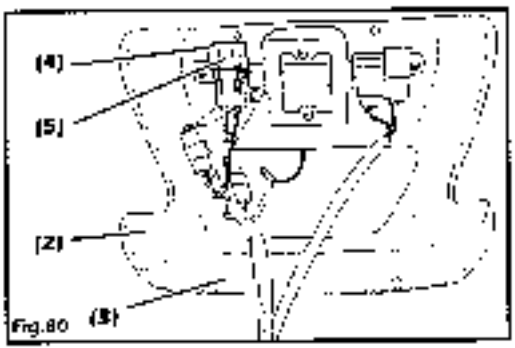

Fig.80

REFITTING

Proceed in reverse order to removal complying with the tightening torques as follows.

- Fairing screws: **4 Nm.**
- Windshield screws: **4 Nm**

The other fuses are under the seat. They are designed to protect the individual electric circuits. If an electric system is faulty, check the fuse.

LIST OF FUSES

- A **30A** fuse **(1)** covers the petrol pump, the petrol coils and the injectors.
- A **15A** fuse **(2)** covers the headlight, number plate light, rear light, rev counter lighting, power relay, ECU, fan relay and powerlatch relay.
- A **15A** fuse **(3)** covers the fan.
- A **15A** fuse **(4)** covers the brake light, dipped beam and low beam.

CHANGING FUSES

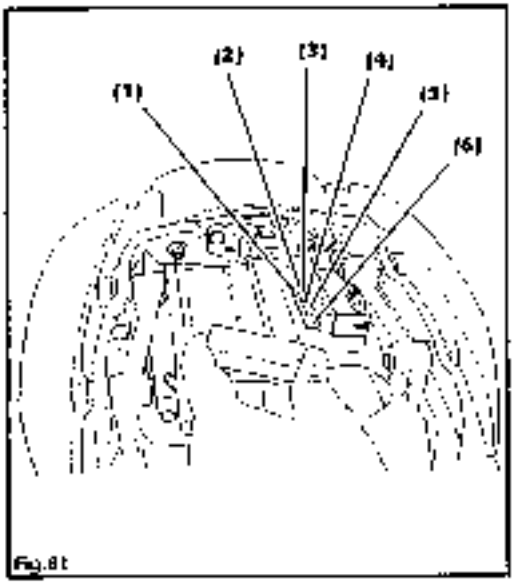

Fig.81

- A **15A** fuse **(5)** covers the direction indicators, headlight flasher and the horn.
  A **15 A** fuse **(6)** is supplied to replace a blown fuse or for accessory installation.

WARNING:

- Never use fuses other than those specified.
- Always replace a blown fuse by a fuse of the same capacity. Never use a substitute such as aluminium foil as a replacement.
- If the new fuse blows shortly after replacement, this means there is a major electrical problem. In this case, immediately consult a VOXAN approved dealer.

TECHNICAL DATA

ENGINE

TYPE :	Twin vee at 72° - Liquid cooled.
DISPLACEMENT	998 cm3 BORE - STROKE 88 - 82
MAXIMUM POWER	Fourth version 100 bhp.
MAXIMUM TORQUE	8.85 Mkg.
CRANK :	Monobloc crankshaft with 2 crank pins connecting rods on the same crank journal. Crank pins mounted on thin bearings.
TIMING :	2 OHC per cylinder Hydraulic chain driven - 4 valves per cylinder.
FUEL SYSTEM	Weber Marelli electronic injection
LUBRICATION	Dry sump oil - Oil tank in frame
STARTING	Electric starter.

TRANSMISSION

PRIMARY DRIVE : Gear - Ratio 37/67

GEARBOX	Manual sequential	Ratio	Reduction	Power type
	1	15/39	2.733	38
	2	19/39	2.053	50.5
	3	21/34	1.619	63.4
	4	24/32	1.333	76.4
	5	26/30	1.154	88.1
	6	28/29	1.036	100

SECONDARY : O-ring chain - Type : 525 Ratio : 16 x 40 (2.250)

CLUTCH : Oil bath multi-disc

TECHNICAL DATA

ELECTRICAL EQUIPMENT

GENERATOR :	Denso* 280 W alternator – Electronic ignition
COILS :	Inductive "pencil" type.
BATTERY :	12 Volts – 14 Ah – maintenance free
LIGHTING :	Twin head light 55/60 W (with lowering headlight)

CYCLE PARTS

BODY :	Two-seater
CHASSIS :	Double beam – Engine semi-chassis mounted
FRONT SUSPENSION :	Hydraulic Wave Power* – Diameter: 40 mm – Travel: 120 mm
REAR SUSPENSION :	White Power* shock absorber, acting under engine compression rating Travel : 120 mm
FRONT BRAKE :	Dual 320 mm disc – Brembo* 4-piston calipers
REAR BRAKE :	Single 245 mm disc – Brembo* 2-piston caliper
FRONT WHEEL :	3.5 " x 17 " - TYRE : Michelin* Macadam 80 : 120/70 ZR 17
REAR WHEEL :	6.0 " x 17 " - TYRE : Michelin* Macadam 80 : 180/55 ZR 17

CAPACITIES

PETROL :	15 litres, with 4-litres reserve and a cock warning light *
ENGINE OIL :	3.5 litres.

DIMENSIONS AND WEIGHTS

OVERALL LENGTH :	2110 mm	WEIGHT DISTRIBUTION :	FR : 47 % - RR : 53 %
OVERALL WIDTH :	740 mm.	RAKE :	26.0°
SEAT HEIGHT :	800 mm.	GROUND CLEARANCE :	150 mm
WHEELBASE :	1444 mm.	DRY WEIGHT :	182 kg.

INDEX

INDEX

INDEX