Owner's manual

E

DUCATI *MH900evoluzione*

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Hearty welcome among Ducati fans! Please accept ou t best compliments for choosing a Ducati motorcycle. We think you will ride your Ducati motorcycle for long journeys as well as short daily trips. Ducati Motor Holding S.p.A. wishes you smooth and enjoyable riding.
We are steadily doing our best to improve our "Technical Assistance" service. For this reason, we recommend that you strictly follow the indications given in this manual, especially for motorcycle running-in. In this way, your Ducati motorcycle will surely give you unforgettable emotions. Please contact our authorised service centres to have your motorcycle repaired or if you simply need advice.

Enjoy your ride!

Ducati Motor Holding S.p.A. declines any liability whatsoever for any mistakes incurred in drawing up this manual. The information contained herein is valid at the time of going to print. Ducati Motor Holding S.p.A. reserves the right to make any changes required by the future development of the above-mentioned products.

For your safety, as well as to preserve the warranty, reliability and worth of your Ducati motorcycle, use original Ducati spare parts only.

Warning
This manual forms an integral part of the motorcycle and - if the motorcycle is resold - must always be handed over to the new owner.

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GENERAL

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Warranty

In your own interest, and in order to guarantee product reliability, you are strongly advised to refer to our Authorised Dealers and Workshops for any servicing requiring particular technical expertise. Our highly skilled staff have access to the implements required to perform any servicing job at best, and use Ducati original spare parts only as the best guarantee for full interchangeability, smooth running and long life.

All Ducati motorcycles come with a Warranty Booklet. However, warranty does not apply to the motorcycles used in competitions or competitive trials. No motorcycle part may be tampered with, altered, or replaced with parts other than original Ducati spare parts during the warranty period, or the warranty right will be automatically invalidated.

Symbols

Ducati Motor Holding S.p.A. advises you to read this booklet carefully so as to become familiar with your motorcycle. In case of any doubts, please contact a Ducati Dealer or Authorised Workshop. The information contained herein will prove useful on your trips - and Ducati Motor Holding S.p.A. wishes you smooth, enjoyable riding - and will help you keep the performance of your motorcycle unchanged for a long time. This manual contains some special remarks:

Warning
Failure to comply with these instructions may put you at risk and lead to severe injury or death.

Important
Possibility of damaging the motorcycle and/or its components.

Note
Additional information concerning the job being carried out.

*The terms **right** and **left** are referred to the motorcycle viewed from the riding position.*

Useful information for safe riding

Warning
Read this section before riding your motorcycle.

Accidents are frequently due to inexperience. Always make sure you have your licence with you when riding; you need a valid licence to be entitled to ride your motorcycle.
Do not lend your motorcycle to inexperienced riders or who do not hold a valid licence.
***Always** wear a safety helmet.*
Wear proper clothing, with no loose items or accessories that may become tangled in the controls or limit your zone of vision.
Never start or run the engine indoors. Exhaust gases are poisonous and may lead to loss of consciousness or even death within a short time.
Keep your feet on the footpegs when the motorcycle is in motion.
***Always** hold the handlebar firmly with both hands so you will be ready for sudden changes of direction or in the road surface.*
*Ride within the law and observe national and local rules. Always respect speed limits where these are posted. However, **always** adjust your speed to the visibility, road and traffic conditions you are riding in.*
***Always** signal your intention to turn or pull to the next lane in good time using the suitable turn indicators.*
Be sure you are clearly visible and do not ride within the blind spot of vehicles ahead.
Be very careful when tackling road junctions, or when riding in the areas near exits from private grounds, car parks or on slip roads to access motorways.
***Always** turn off the engine when refuelling.*
Be extremely careful not to spill fuel on the engine or on the exhaust pipe when refuelling.
Do not smoke when refuelling.
While refuelling, you may inhale noxious fuel vapours. Should any fuel drops be spilled on your skin or clothing, immediately wash with soap and water and change your clothing.
***Always** remove the key when you leave your motorcycle unattended.*
The engine, exhaust pipes, and mufflers stay hot for a long time.
Park your motorcycle where no one is likely to hit it and use the side stand.
Never park on uneven or soft ground or your motorcycle may fall over.

Carrying the maximum load allowed

Your motorcycle is designed for long-distance riding, carrying the maximum load allowed in full safety. Even weight distribution is critical to preserving these safety features and avoiding trouble when performing sudden manoeuvres or riding on bumpy roads.

Information about carrying capacity

The total weight of the motorcycle in running order including rider, luggage and additional accessories should not exceed 290 Kg.

Try to arrange your luggage or heavy accessories in the lowest possible position and close to motorcycle centre. Be sure to secure the luggage to the supports provided on the motorcycle as firmly as possible. Improperly secured luggage may affect stability.
Never fix bulky or heavy objects to the handlebars or to the front mud guard as this would affect stability and cause danger.
Do not insert any objects you may need to carry into the gaps of the frame as these may foul moving parts.
Make sure the tyres are inflated to the proper pressure (see page 46) and that they are in good condition.

Accessories

The motorcycle is supplied with paddock stand and authenticity certificate.

Identification data

All Ducati motorcycles have two identification numbers, for frame (fig. 1.1) and engine (fig. 1.2).

Frame number

Engine number

Note

These numbers identify the motorcycle model and should always be indicated when ordering spare parts.

Note

To expose engine serial number, remove the oil sump guard on the left side.

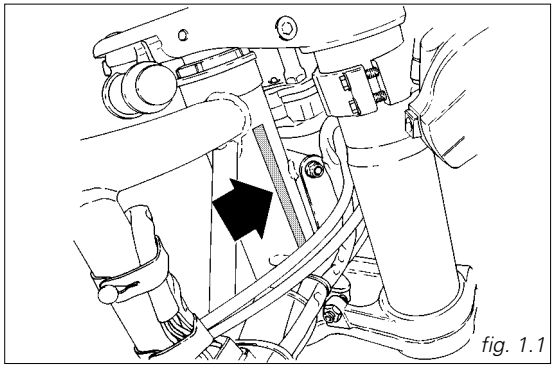

fig. 1.1

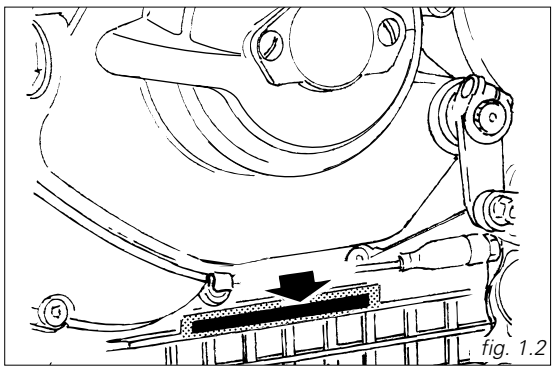

fig. 1.2

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Warning

This section details the position and function of all the controls you need to drive your motorcycle. Be sure to read this information carefully before you use the controls.

Position of motorcycle controls *(fig. 2)*

1) Instrument panel.
2) Key-operated ignition switch and steering lock.
3) Left switch.
4) Clutch lever.
5) Fast-idle lever.
6) Right switch.
7) Throttle twistgrip.
8) Front brake lever.
9) Gear change pedal.
10) Rear brake pedal.

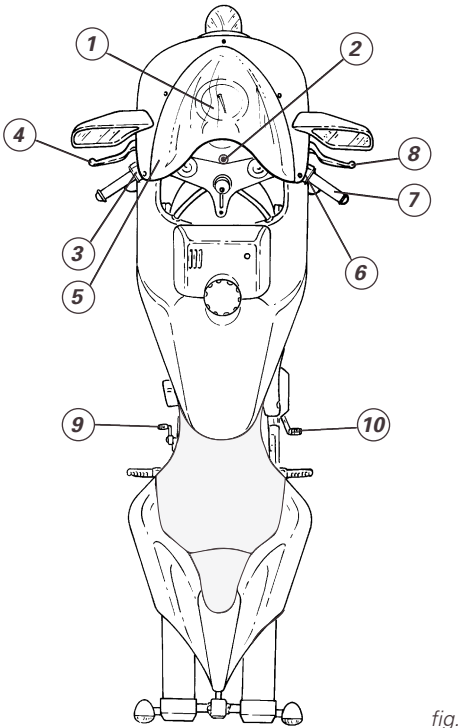

fig. 2

Instrument panel *(fig. 3)*
1) ***Multi-purpose digital LCD.***
It provides these functions:
a) ***Speedometer*** *(kph or mph).*
Gives road speed based on the input from a sensor located on sprocket cover.
b¹) ***Odometer*** *(km or miles).*
Gives total distance covered.
b²) ***Trip meter*** *(km or miles).*
Gives distance covered since last resetting.
c) ***Clock***
2 and 3) ***Control buttons.***
Push these buttons to select the different digital LCD functions.
4) ***Green light N****.*
Comes on when gearbox is in neutral.
5) ***Yellow light*** .
Comes on when there are about 4 litres of fuel left in the tank.
6) ***Green light*** .
Comes on and flashes when a turn indicator is on.
7) ***Red light*** .
Comes on when engine oil pressure is too low. It briefly comes on when the ignition is switched to ***ON*** *and normally goes out a few seconds after engine starts.*
It may shortly come on when the engine is hot, however, it should go out as the engine revs up.

Important
If this light stays on, do not ride your motorcycle or the engine may suffer severe damage.

8) ***Blue light*** .
Comes on when high beam is on.
When the parking light is on, the instrument panel lights up.
9) ***Revolution counter*** *(rpm).*
Shows engine revolutions per minute. This is an electronic counter operated by a stepper motor. When the parking light is on, the instrument panel lights up.

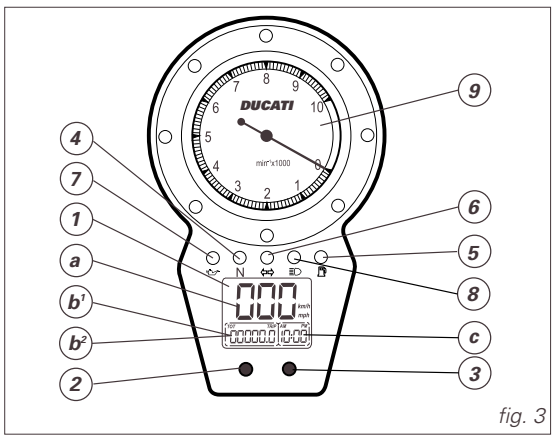

fig. 3

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Digital LCD functions

Check
*When the ignition key is switched **ON,** the rev counter is set to zero, all figures on the **LCD** come on for 2 seconds, all warning lights come on and total distance covered is displayed.*
Odometer/trip meter
*Press **button 1** with the key in the **ON** position to toggle odometer and trip meter indications.*
Resetting the trip meter
*Press **button 1** to display trip meter indication. Hold down **button 2** for at least 2 seconds to reset.*
Clock set-up
*Press **button 1** to display odometer indication. Hold down **button 2** for at least 2 seconds.*
*Set AM/PM pressing **button 1.***
*Press **button 2** to enter hour set-up mode; press **button 1** repeatedly to change hour indication.*
*Press **button 2** to enter minute set-up mode.*
*Hold down **button 1** to increment minutes. Hold button down for over 5 seconds and minutes will increase faster.*
*Press **button 2** to exit set-up mode.*

Speed indication in kph or mph:
Factory setting is kph. When you want to change from kph to mph or vice versa proceed as follows:
*Turn the ignition key to **OFF.***
*Hold down **buttons 1** and **2** at the same time and turn the key to **ON.** If current setting is kph, the wording **EU** will flash, whereas the wording **USA** will flash when current setting is mph.*
*Press **button 1** to toggle the **EU** and **USA** indications.*
*Hold down **button 2** for at least 5 seconds to store new setting.*
*If you have followed the procedure correctly, the word **OFF** will appear. Position the key to **OFF***
*Switch key back to **ON** and the selected unit of measurement will appear.*

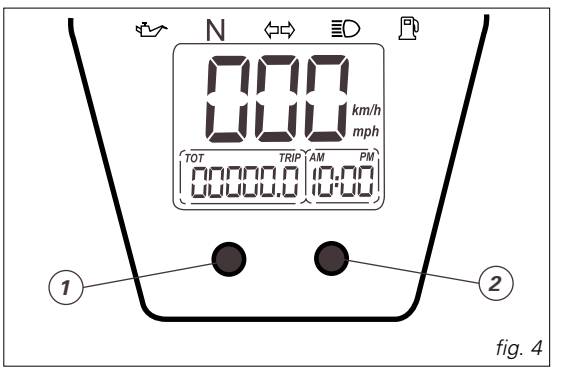

fig. 4

Keys *(fig. 5)*
Your Ducati was delivered with two universal keys for ignition and steering lock and a key identification plate (1).

Note
Separate the two keys and keep the identification plate in a safe place.

Ignition switch and steering lock *(fig. 6)*
It is located in front of the steering head and has four positions:
A) ***ON:*** *lights and engine on;*
B) ***OFF:*** *lights and engine off;*
C) ***LOCK:*** *steering lock;*
D) ***P:*** *parking light and steering lock.*

Note
To move the key to the last two positions, press it down before turning it. Switching to (B), (C) and (D), you will be able to take the key out.

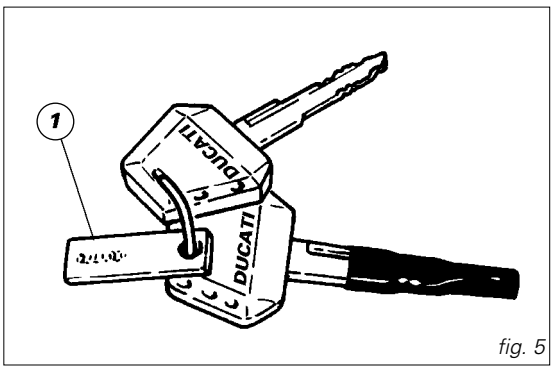

fig. 5

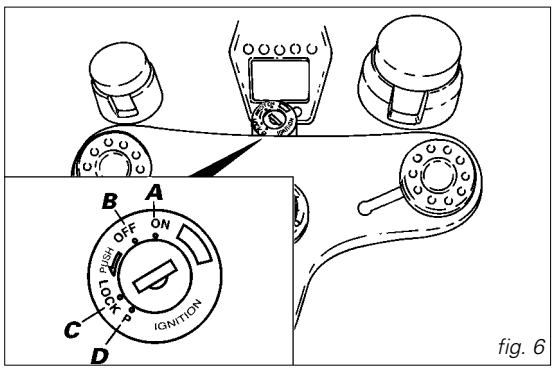

fig. 6

Left switch *(fig. 7)*
1) Switch, light switch, 3 positions:
Down **O** *= light off;*
Centre ≡D *= front and rear parking light, number plate light and panel lights on;*
Up ☼ *= headlamp, front and rear parking lights, number plate light and panel lights on.*

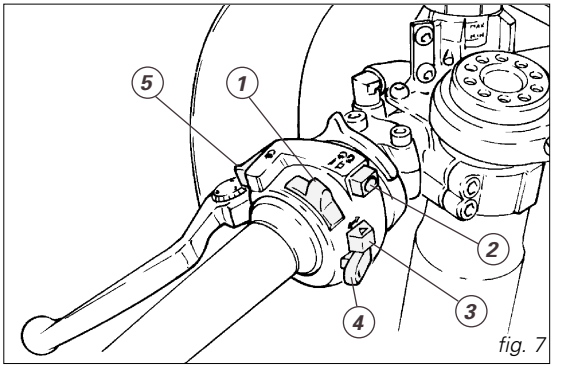

fig. 7

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2) Light dip switch, two positions:
position ≡D *= low beam on;*
position ≡D *= high beam on.*

3) Switch ⇦⇨ *= 3-position turn indicator:*
centre position = OFF;
position ⇦ *= left turn;*
position ⇨ *= right turn.*
To cancel turn indicators, return switch to central position and push in.

4) Button *= warning horn.*

5) Button ≡D *= high-beam flasher.*

Clutch lever *(fig. 8)*
Lever (1) disengages the clutch. It features a dial adjuster (2) for lever distance from the twistgrip on handlebar. To set lever distance from twistgrip, push lever (1) fully forward and turn the dial adjuster (2) to one of its four positions. Remember that position no. 1 gives maximum distance between lever and twistgrip, whereas lever and twistgrip are closest when adjuster is set to position no. 4.
When you pull in the lever (1), you will disengage the engine from the gearbox and therefore from the driving wheel. Using the clutch properly is essential to smooth riding, especially when moving off.

Warning
Set clutch and brake levers when motorcycle is stopped.

Important
Using the clutch properly will avoid damage to transmission parts and spare the engine.

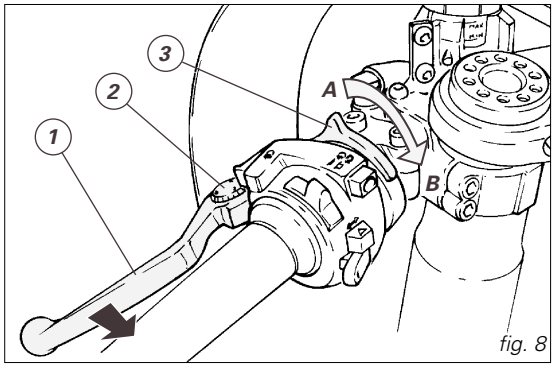

fig. 8

Fast-idle lever *(fig. 8)*
Use this device to start the engine from cold. It will increase the engine idling speed after starting.
Lever positions:
A) (vertical) = closed
B) = fully open.
The lever can be opened and closed gradually to adjust speed until engine is fully warm (see page 27).

Important
Never use the fast-idle lever when the engine is warm or leave it open when riding.

Right switch *(fig. 9)*
1) ***ENGINE STOP*** *switch, two positions:*
position ***(RUN)*** *= run.*
position ***(OFF)*** *= stop.*

Warning
This switch is mainly intended for use in emergency cases when you need to stop the engine quickly. After stopping the engine, return the switch to the position to enable starting.

Important
When you have been riding with the lights on, and you stop the engine using switch (1) and leave the ignition key in the ***ON*** *position, the lights will remain on and the battery may run flat.*

2) Button = engine start.

Throttle twistgrip *(fig. 9)*
The twistgrip (3) on the right handlebar controls the throttles. When released, it will spring back to the initial position (idling speed).

Front brake lever *(fig. 9)*
Pull in the lever (4) towards the twistgrip to operate the front brake. The system is hydraulically operated and you just need to pull the lever gently.
The control lever is provided with a dial adjuster (5) for lever distance adjustment from twistgrip on handlebar.

Warning
Please read the instructions on page 26 before using these controls.

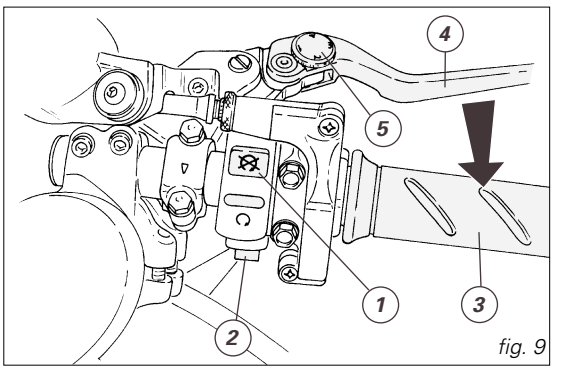

fig. 9

Rear brake pedal *(fig. 10)*
Push down on the pedal (1) to apply the rear brake. The system is hydraulically operated.

Gear change pedal *(fig. 11.1)*
The gear change pedal is at rest when in the central position ***N****, is moved up and down to change gears and returns to the central position automatically.*
down = push down on the pedal to engage 1st gear and to shift down. The ***N*** *light will go out.*
up = lift the pedal to engage the 2nd gear and then the 3rd, 4th, 5th and 6th gear.
Each time you move the pedal you will engage the next gear.

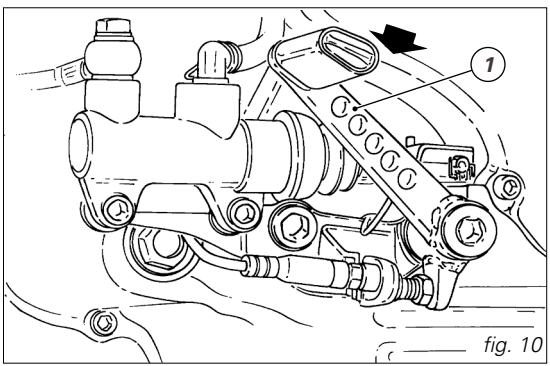

fig. 10

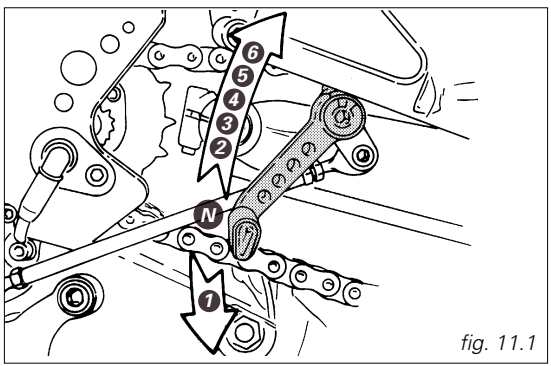

fig. 11.1

Setting the gear change pedal *(fig. 11.2)*
The gear change and rear brake pedals can be adjusted to suit the preferred riding position of each rider.

To set the gear change pedal,
lock linkage (1) and loosen the check nuts (2) and (3).

Note
Nut (2) has a left-hand thread.

Rotate linkage (1) until setting the gear change pedal in the desired position.
Tighten both check nuts onto linkage.

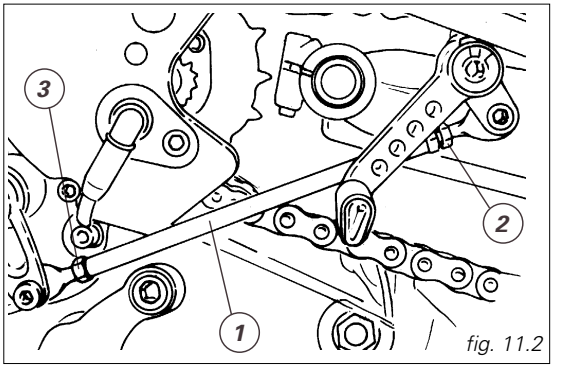

fig. 11.2

Setting the rear brake pedal *(fig. 11.3)*
To set the rear brake pedal,
loosen check nut (4).
Turn the pedal travel adjusting screw (5) until pedal is in the desired position.
Tighten check nut (4).
Work pedal by hand to make sure it has 1.5 - 2 mm free play before brake begins to bite.
If not so, set the length of master cylinder linkage as follows.
Loosen the check nut (6) on master cylinder linkage.
Tighten linkage into fork (7) to increase play, or unscrew linkage to reduce it.
Tighten check nut (6) and check pedal free play again.

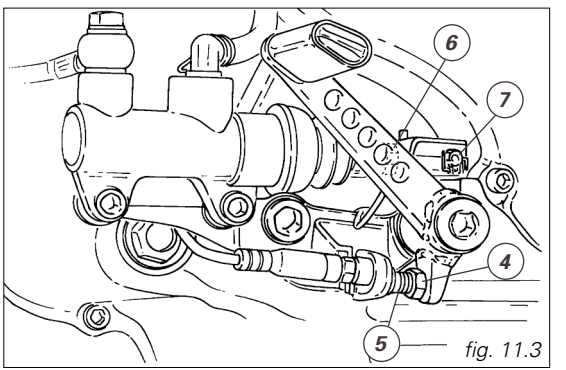

fig. 11.3

Location *(fig. 12)*
1) Tank filler plug.
2) Steering damper.
3) Side stand.
4) Rear view mirrors.
5) Rear shock absorber adjusters.
6) Exhaust silencer (see note on page 29).

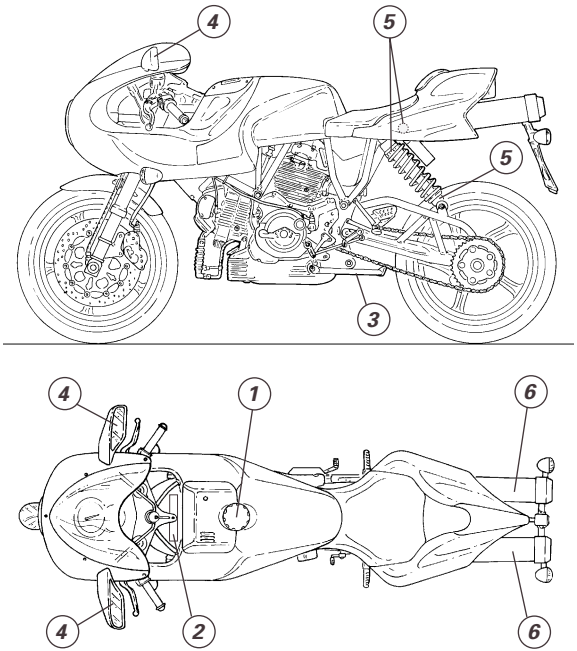

fig. 12

Tank filler plug *(fig. 13)*

Opening
Place the palm of your hand on the plug (1) and turn anticlockwise.

Closing
Turn the plug (1) clockwise with the palm of your hand and tighten it properly.

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Warning
Always make sure you have properly refitted (see page 28) and closed the plug after each refuelling.

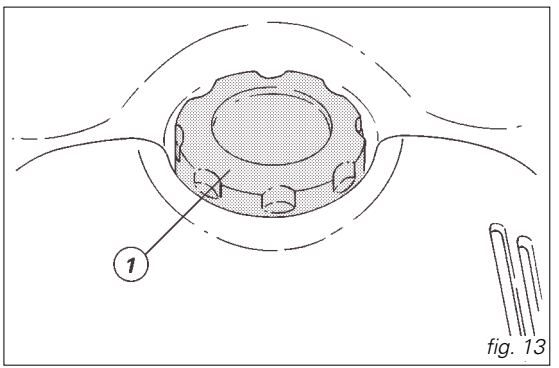

fig. 13

Side stand *(fig. 14)*

Important
Before lowering the side stand, make sure that the ground surface is hard and flat.

Do not park on soft or pebbled ground or on asphalt melted by the sun heat and similar or the motorcycle may fall over.
When parking in downhill road tracts, always park the motorcycle with its rear wheel facing downhill.
To pull down the side stand, hold the motorcycle handlebar with both hands and push down on the stand (1) with your feet until it is fully extended. Tilt the motorcycle until the side stand is resting on the ground.

When the motorcycle is put upright again, the side stand will spring back automatically to rest position.
Check spring for damage or loss of spring and make sure nothing obstructs side stand assembly motion.

Warning
Do not sit on the motorcycle when it is supported on the side stand.

Warning
Make sure the side stand is up before moving off. If still down, the side stand will foul foot controls operation and – worse yet – may dig into the ground in a bend and make you lose control of the motorcycle, resulting in a severe accident or damage to motorcycle.

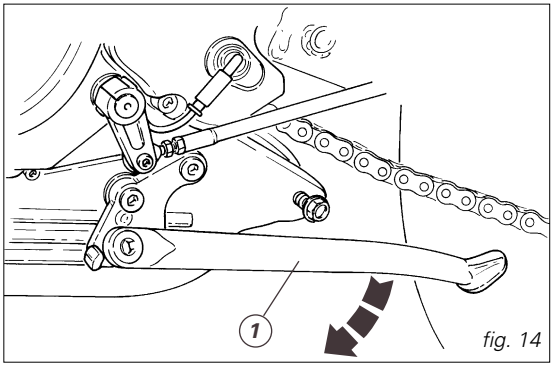

fig. 14

Shock absorber adjusters

The shock absorber is equipped with outer adjusters that enable you to adjust your motorcycle to the load.
The ring nut (1) located on the bottom connection holding the shock absorber to the swingarm, controls rebound damping.
The knob (2) located over the shock absorber expansion reservoir (3) controls compression damping. To adjust damping, rotate ring nut (1) and knob (2):
- towards "soft" for softer damping
- towards "hard" for harder damping.

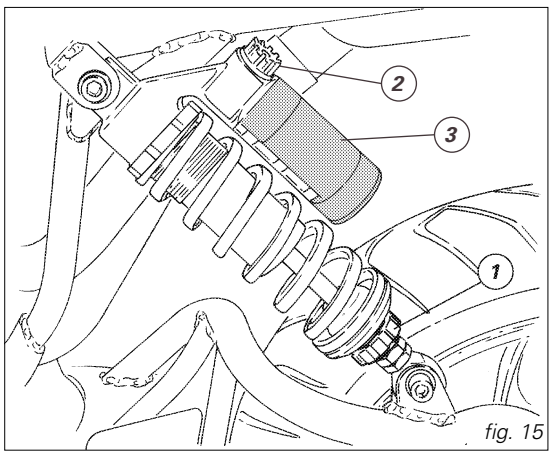

fig. 15

STANDARD setting:
- Ring nut (1) is turned all the way towards "hard". Rotate towards "soft" and count 10 clicks.
- Knob (2) is turned all the way towards "hard". Rotate towards "soft" and count 5 clicks.

Warning
Use a specific pin wrench only to turn the preload adjusting ring nut. Be careful when turning the ring nut with the wrench, as the pin may slip out of the ring nut recess and you may hurt your hand hitting motorcycle parts.
The shock absorber is filled with gas under pressure and may cause severe damage if taken apart by unskilled persons.

Adjust spring preload to suit your weight and that of any load you are carrying, so to obtain constant clearance from the ground. You may find that rebound damping needs readjusting.

Steering damper *(fig. 16)*
The steering damper is before the tank and is secured to the frame and the steering head.
It gives improved steering accuracy and stability, thus also improving motorcycle road behavior under any riding conditions.
Turn the knob (1) clockwise for a harder setting (2), counter clockwise for a softer setting (3).
A click identifies the different settings.

Warning
Never attempt to set knob (1) while riding, or you may lose control of the motorcycle.

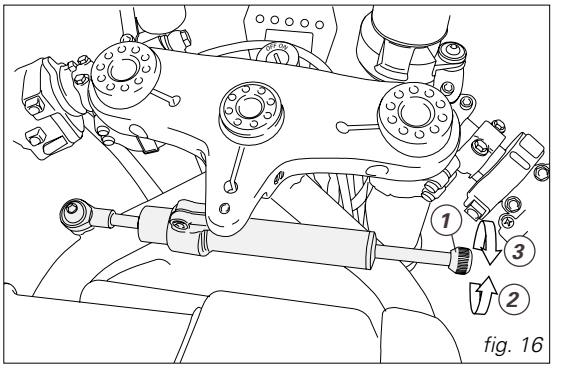

fig. 16

Running-in recommendations

Max. rotation speed
Rotation speed or engine rpm for running-in period and during standard use:
1) up to 1000 km;
2) from 1000 to 2500 km;
3) after 2500 km.

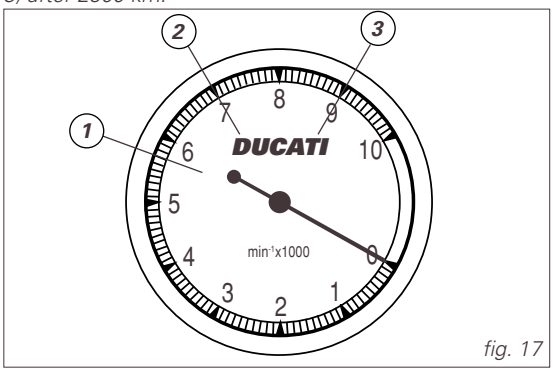

fig. 17

Up to 1000 km
During the first 1000 km, keep an eye on the rev counter. The indicator must not exceed 5500-6000 rpm.
During the first hours of riding, *it is advisable to run the engine at varying load and rpm, though still within recommended limit.*
To this end, roads with plenty of bends and even slightly hilly areas are ideal for a most efficient running-in of engine, brakes and suspensions.
For the first 100 km, *use the brakes gently. Do not brake violently or keep brake applied for too long. This will enable a correct break-in of friction material on brake pads against brake discs.*
For all mechanical parts of the motorcycle to adapt to one another and above all not to adversely affect the life of basic engine parts, it is advisable to avoid harsh accelerations and not to run the engine at high rpm for too long, especially uphill.
Furthermore, the drive chain should be inspected frequently. Lubricate it as required.

From 1000 to 2500 km
At this point, you can squeeze some more power out of your engine, being careful, however, to never exceed 7000 rpm.

Important
During the whole running-in period, the maintenance rules recommended in this manual and the service inspections indicated in the Warranty Booklet

should be complied with carefully.
Failure to comply with these rules will release Ducati Motor Holding S.p.A. from any liability whatsoever for resulting engine damage or shorter engine life.

After 2500 km
After running-in, never exceed 9000 rpm during normal use.

Strict observance of running-in recommendations will ensure longer engine life and reduce the likelihood of overhauls and tune-ups.

Pre-ride checks

Warning
Failure to carry out these checks before riding, may lead to motorcycle damage and severe injury to rider.

Before riding, perform a thorough check-up on your bike as follows:
Fuel level in the tank
Check fuel level in the tank. Fill tank if needed (page 28).
Engine oil level
Check oil level in the sump through the sight glass. Top up with recommended oil if needed (page 48).
Brake and clutch fluid
Check fluid level in the relevant reservoirs.
Tyre condition
Check tyre pressure and condition (page 46).
Controls
Work the brake, clutch, throttle and gear change controls (levers, pedals and twistgrips) and check for proper operation.
Lights and indicators
Make sure lights, indicators and horn work properly. Replace any burnt-out bulbs (page 45).
Side stand
Make sure side stand operates smoothly and is in the correct position (page 20).

Warning
In case of malfunctioning, do not ride the motorcycle and call a Ducati Dealer or Authorised Workshop.

Starting the engine

Note
Follow the "High ambient temperature" procedure to start the engine when it is warm.

Warning
Before starting the engine, become familiar with the controls you will need to use when riding.
Never start or run the engine indoors. Exhaust gases are poisonous and may lead to loss of consciousness or even death within a short time.

Regular ambient temperature
(10 to 35 °C):
*1) Move the ignition key to **ON** (fig. 18.1). Make sure both the green light **N** and the red light on the instrument panel come on.*

Important
The oil pressure light should go out a few seconds after the engine has started (page 11).

2) Move the fast-idle lever to position (B) (fig. 18.2).
*3) Check that the stop switch (1, fig. 18.3) is positioned to ❍ **(RUN)**, then press the starter button (2).*
Let the engine start without using the throttle control.

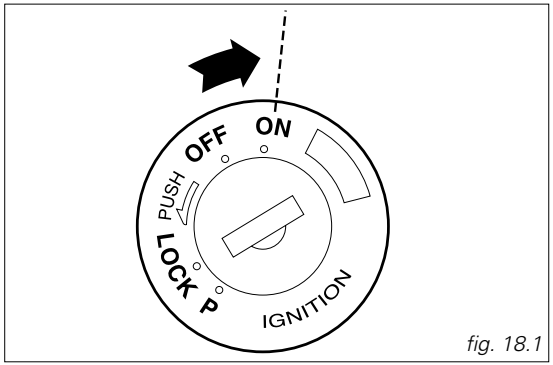

fig. 18.1

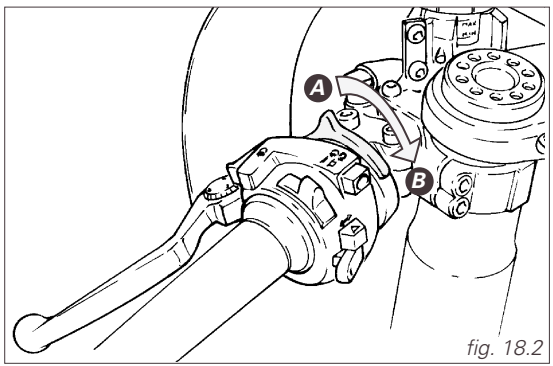

fig. 18.2

E

Important
Never operate the starter more than 5 seconds at a time. If needed, allow 10 seconds before attempting to restart the engine.

4) Move the fast-idle lever towards its vertical position (A, fig. 18.2) until the engine is running at approx. 1400-1500 rpm.

E

Important
Do not rev up the engine when it is cold. Allow some time for oil to warm up and reach all points that need lubricating.

5) Then, as the engine warms up, gradually move the fast-idle lever until bringing it in a vertical position (A). When fully warm, the engine should hold idling speed with the fast-idle device fully closed.

***High ambient temperature** (over 35 °C):*
Follow the same procedure, however, do not use the fast-idle device.

***Low ambient temperature** (below 10 °C):*
Follow the procedure for "Regular ambient temperature", however allow 5 minutes for the engine to warm up (step 5).

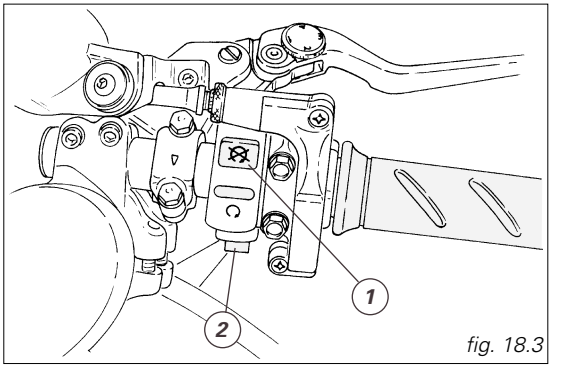

fig. 18.3

Moving off

1) Disengage the clutch squeezing the control lever.
2) Push down on gear change lever sharply with the tip of your foot to engage the first gear.
3) Speed up engine, by turning the throttle twistgrip and slightly releasing the clutch lever at the same time. The motorcycle will start moving off.
4) Let go of clutch lever and speed up.
5) To shift up, close the throttle to slow down engine, disengage the clutch, lift the gear change lever and let go of clutch lever.
To shift down, release the twistgrip, engage the clutch, shortly speed up to help gears synchronise, shift down and release the clutch.
The controls should be used correctly and timely: when riding uphill do not hesitate to shift down as soon as the motorcycle tends to slow down, so you will avoid lugging the engine and stressing the motorcycle abnormally.

Important

Avoid harsh accelerations, as this may lead to carburettor flooding and transmission snatching. The clutch lever should not be pulled longer than necessary after gear is engaged, or friction parts may overheat and wear out.

Braking

Slow down in time, shift down to engine-brake first and then brake applying both brakes. Pull the clutch lever before stopping the motorcycle, to avoid stalling the engine.

Warning

Use both brake lever and pedal for effective braking. Using only one of the brakes will give you less braking power.
Never use brake controls harshly or violently or you may lock the wheels and lose control of the motorcycle.
When riding in the rain or on slippery surfaces, braking will become less effective. Always use the brakes very gently and carefully when riding under these conditions.
Any sudden manoeuvres may lead to loss of control.
When tackling long, high-gradient downhill road tracts, shift down gears to use engine braking. Apply one brake at a time and use brakes sparingly. Keeping the brakes applied all the time would cause the friction material to overheat and reduce braking power dangerously.
Underinflated tyres reduce braking efficiency, handling accuracy and stability in a bend.

Stopping the motorcycle

Slow down gradually, then shift down and release the throttle twistgrip. Finally change from first to neutral. Apply brakes and you will bring the motorcycle to a complete stop.

To switch the engine off, simply turn the key to ***OFF*** *(fig. 19).*

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Important

Never leave the key in the ***ON*** *position when engine is stopped, or this will damage the electric components.*

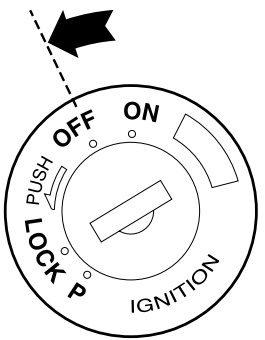

fig. 19

Refuelling

Never overfill the tank when refuelling. Fuel should never be touching the filler (fig. 20).

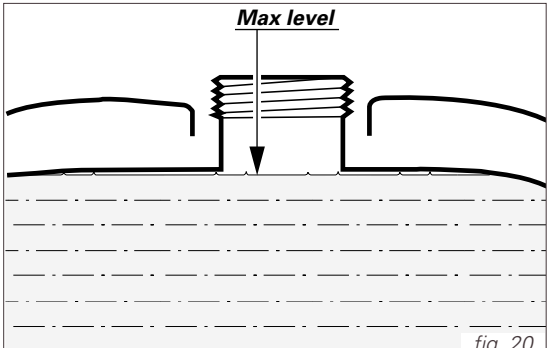

fig. 20

Parking

Stop the motorcycle, then put it on the side stand to park it (see page 20).

To avoid theft, turn the handlebar fully left and turn the key to ***LOCK*** *position.*

If you park in a garage or other facilities, make sure that there is proper ventilation and that the motorcycle is not near a source of heat or sparks.

If needed, you may leave the parking lights on by turning the key to position ***P*** *(fig. 21).*

Important

Do not leave the key turned to ***P*** *for long periods or the battery will run down. Never leave the ignition key in the switch when you are leaving your bike unattended.*

Warning

Using padlocks or other locks designed to prevent motorcycle motion, such as brake disc locks, rear sprocket locks, and so on, is dangerous and may impair motorcycle operation and affect rider safety.

Warning

The exhaust silencer (see page 19) stays hot for a long time (several dozens of minutes) after engine has been stopped. Be sure not to touch the exhaust silencer with any body parts when mounting or dismounting.

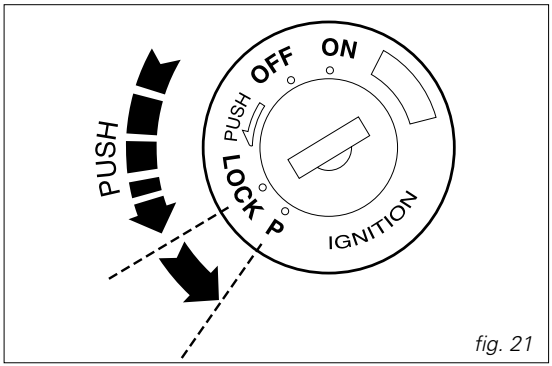

fig. 21

E

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Tool kit and accessories *(fig. 22)*
The tail section behind the seat accommodates a compartment (1, fig. 22) that contains several objects. To access this compartment, pull out the small backrest (2, fig. 22).
The compartment (1, fig. 22) holds:
an Owner's manual;
a tool bag (fig. 23) for normal maintenance and checks to be performed by the user.

The tool bag holds *(fig. 23)*
1) 14-mm wrench.
2) 8/6/5/4-mm Allen wrench.
3) Wrench for rear eccentric hub.
4) Wrench for front wheel spindle.
5) Extension for rear eccentric hub wrench.
6) Box wrench for spark plugs.
7) Tommy bar for spark plug wrench.
8) Double-bit screwdriver.

Warning
Never store any objects that may damage when exposed to heat (>50°C) in the tail compartment, as this area is exposed to high temperatures when riding.

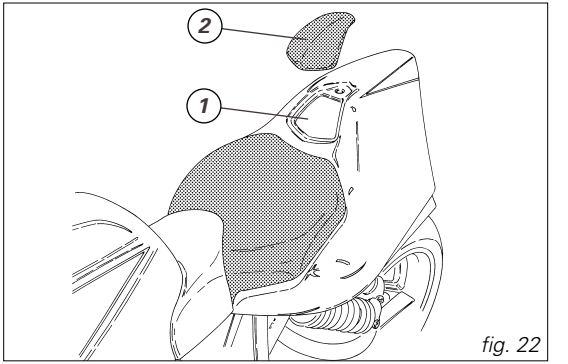

fig. 22

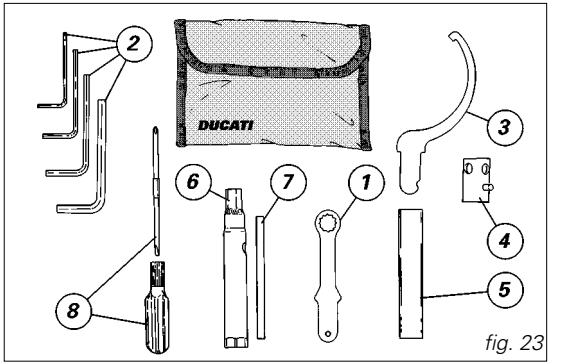

fig. 23

Removing the seat

The seat (1, fig. 24) is fixed to the tail fairing (2) (seat support) by two stud bolts (3, fig. 25).
The fixing nuts can be accessed from underneath the tail fairing.
To remove the seat support (2) (tail section), unscrew the four screws (4, fig. 26).

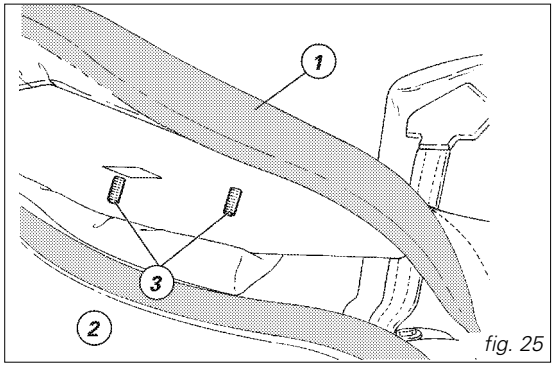

fig. 25

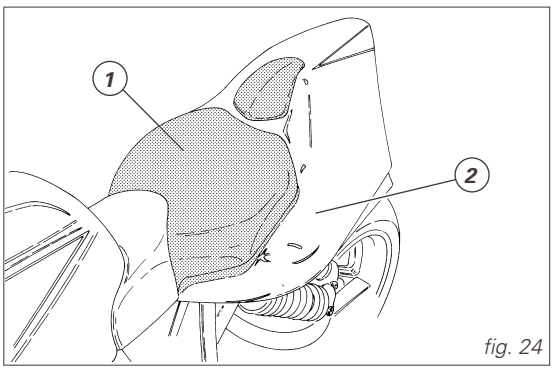

fig. 24

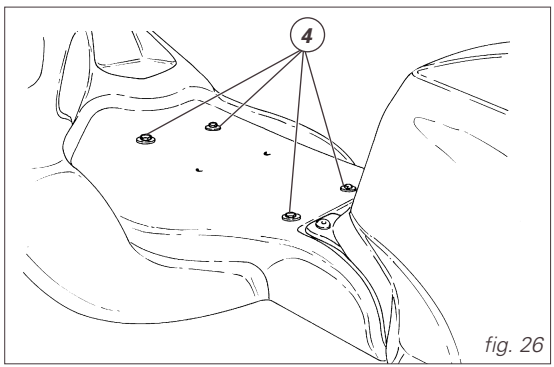

fig. 26

Removing the front fairing

The front fairing is divided into two sections that can be taken apart:

- body;

- headlight fairing.

Removing the body

Disconnect the electric connector (1, fig. 27) (on both sides, under the body) for the front turn indicators.

Unscrew the screws (2, fig. 28) (on both sides of the body) (3).

Unscrew the fastening screws (4, fig. 29) (on both sides) of the body rear end (3).

Lift and remove the body.

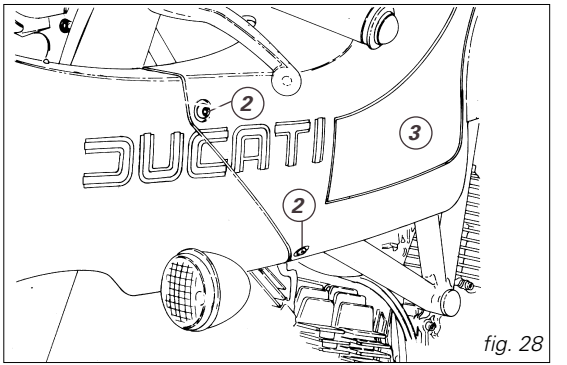

fig. 28

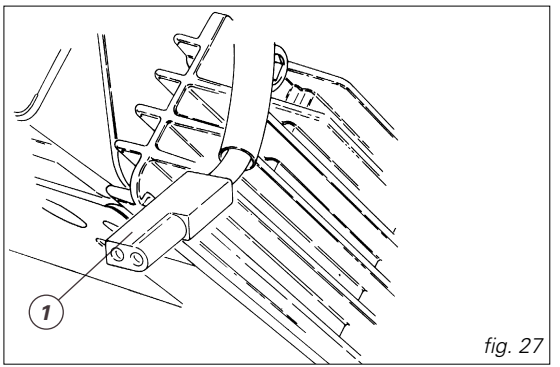

fig. 27

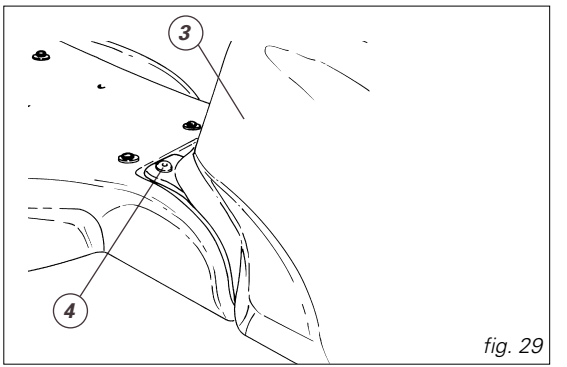

fig. 29

Lift the headlight fairing (9, fig. 30) gently from the front end.

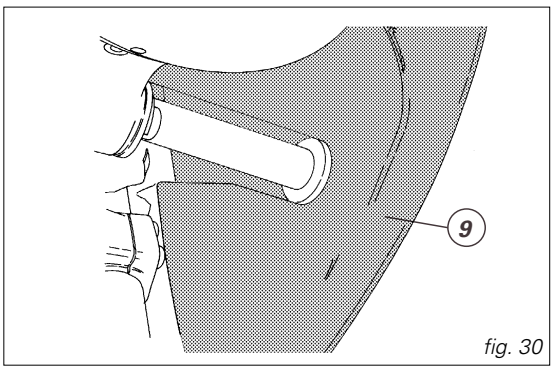

fig. 30

Removing the fuel tank

Note
Before you can remove the fuel tank, you will need to remove the body (see page 32).

Caution
Do not smoke when performing these operations.

Unscrew and remove the rubber spacers (1, fig. 31). Disconnect the quick couplings of delivery and return lines (2, fig. 32), while pressing down on the tabs (A, fig.33) with your fingers.
Remove any fuel spills. Disconnect the fuel sensor connector (3). Remove the tank with your hands (use no tools).

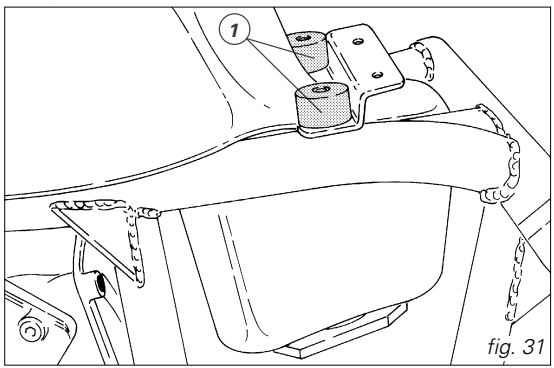

fig. 31

Refitting the fuel tank

Place the tank in position. Install the rubber spacers (1, fig. 31) and tighten them. Fit the quick couplings for the delivery and return lines (2, fig. 32). Be sure to match the colours properly (connect white to white and black to black) and smear some lubricant on the O-rings.

Warning

Perform this operation when the engine is cold. Some fuel may come out while disconnecting the quick couplings.

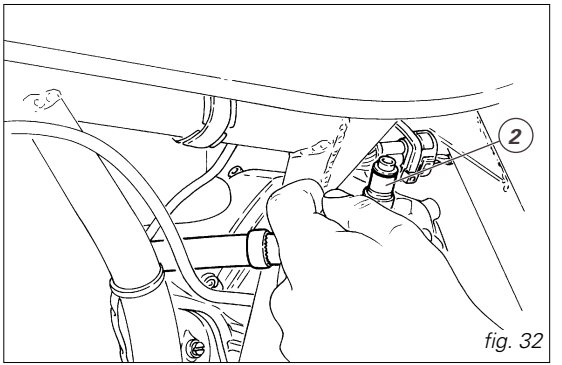

fig. 32

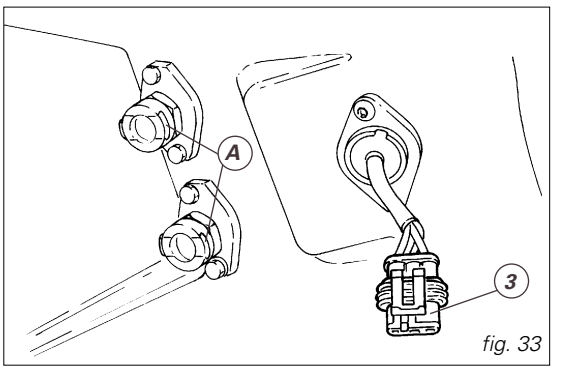

fig. 33

Warning

If pressed accidentally, the pins (F, fig. 34) will cause the laminations of the quick couplings to close. Make sure the laminations are open. If not so, press the tabs (A, fig. 33) to open them.

Connect the fuel sensor (3, fig. 33).
Check that the key switch is turned to "OFF".
Check that the switch (4, fig. 35) is in the (A) position.
Turn the key to "ON".
Press the switch (5) to pressurise the fuel system and wait for the fuel pump to stop running. Repeat cycle by moving switch (4) to (A); then press switch (5) again. During this procedure, check that fuel is not escaping past the quick couplings of the delivery and return lines.
Set the key switch back to "OFF" again.
To lock the tank, start the screws in their holes and torque them up to specified torque. Be sure to install the rubber spacers together with the tail fastening plate.

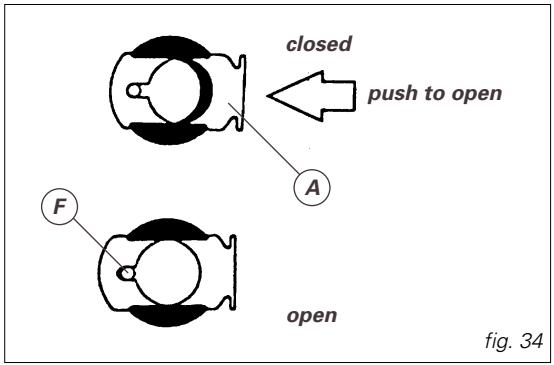

fig. 34

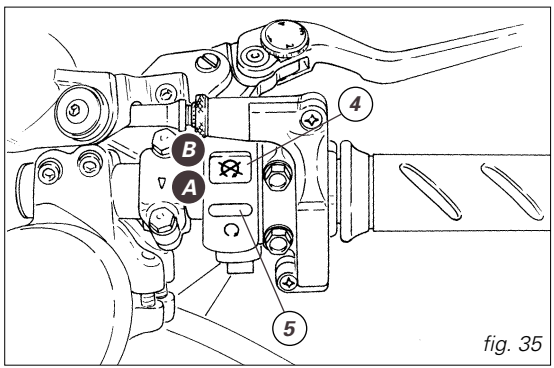

fig. 35

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Changing the air filter *(fig. 36)*
The air box is accessible after removing the front body (see page 32) and the fuel tank (see page 33). Take off the air box cover (1, fig. 36) as follows:
- unscrew the two front screws (2);
- unscrew the rear screw (3);
- take off cover (1);
- take out the air filter (4, fig. 37).

E

Important
A clogged filter will reduce air intake, increase fuel consumption, reduce engine power, and foul the spark plugs. Do not use the motorcycle without filter or suspended matters could get into the engine and cause damage.

Install the filter into the seat in the air box as shown in the figure and refit the cover (1, fig. 36).

Important
If you are using the motorcycle on dusty or very wet roads, replace filter more frequently than recommended intervals (see Warranty Booklet).

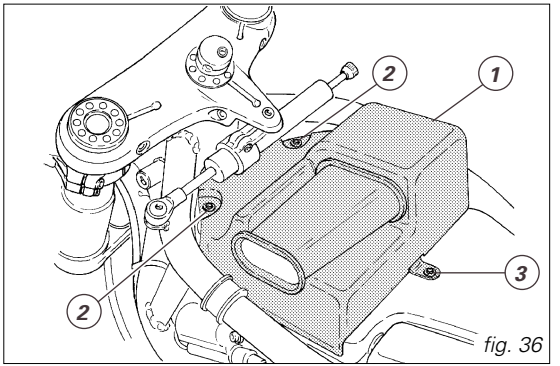

fig. 36

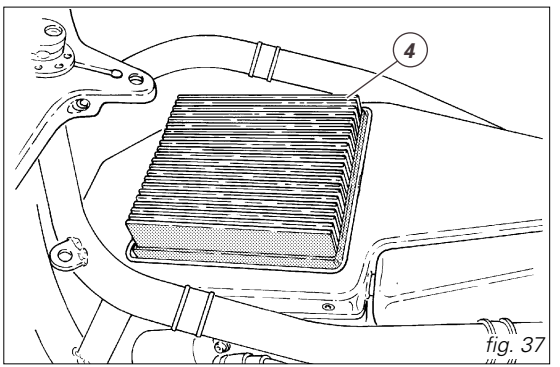

fig. 37

Checking brake and clutch fluid level *(fig. 38)*
Fluid level should never fall below the MIN mark on each reservoir.
If level drops below the limit, air might get into the circuit and affect the operation of the system involved.
Brake and clutch fluid must be topped up and changed at the intervals specified in the routine maintenance chart (see Warranty Booklet) by a Ducati Dealer or Authorised Workshop.

Important
It is recommended all brake and clutch lines be changed every four years.

Brake system
If you find exceeding play on brake lever or pedal and brake pads are still in good condition, contact your Ducati Dealer or an Authorised Workshop to have the braking system inspected and any air drained out of the circuit.

Warning
Brake and clutch fluid will damage paintwork and plastic parts if accidentally spilled.
Hydraulic oil is corrosive; it may cause damages and lead to severe injuries.
Never mix different quality oils.
Check seals and fittings for proper sealing.

Clutch system
If the control lever has exceeding play and the motorcycle jerks or the engine stalls when you engage a gear, it means that there is air in the circuit. Contact your Ducati Dealer or an Authorised Workshop to have the system inspected and air drained out.

Warning
Clutch fluid level will increase as clutch plate friction material wears down.
*Do not exceed specified level (**3 mm** above minimum level).*

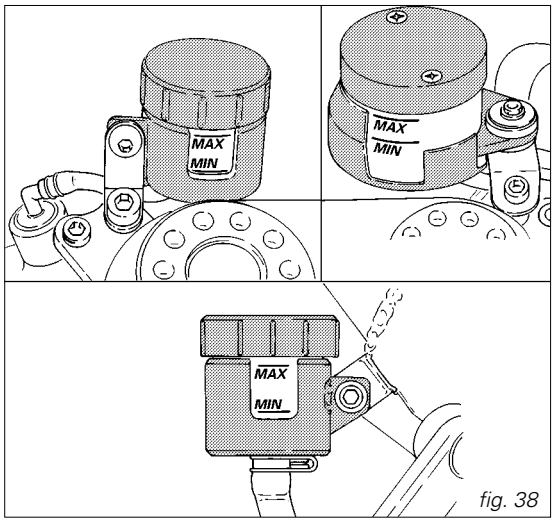

fig. 38

E

Checking brake pads for wear *(fig. 39)*

Front brake

To facilitate inspection without removing the pads from the callipers, brake pads have a wear mark. If the grooves in the friction material are still visible, the pad is still in good condition.

Rear brake

Friction material on each pad must be at least 1 mm thick.

Important

Have the brake pads replaced at your Ducati Dealer's shop or Authorised Workshop.

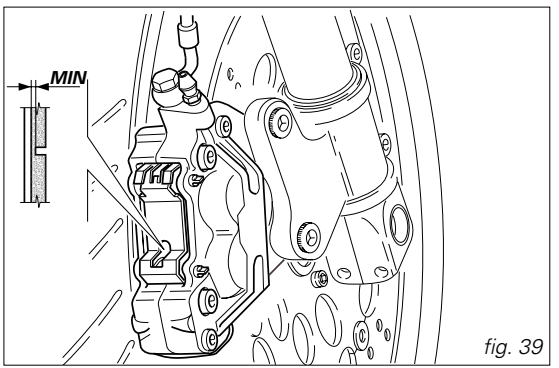

fig. 39

Lubricating cables and joints

The condition of the outer sheaths of the throttle and fast-idle cables should be checked at regular intervals. The sheaths should show no signs of squeezing or cracking. Work the controls to make sure the cable slides smoothly inside the sheath: if you feel any friction or hard spots, have the cable replaced by your Ducati Dealer or Authorised Workshop.
To prevent these failures, smear the ends of the Bowden cables with SHELL Advance Grease or Retinax LX2 at regular intervals.

For the throttle cable, it is best to open the device by unscrewing the two fastening screws (1, fig. 40) and then grease the cable end and the pulley.

Warning

When refitting the cover, be sure to slide the cable onto the suitable pulley.

Refit the cover and tighten the screws (1, fig. 40).

To ensure smooth operation of the side stand joint, clean off any dirt and grease all points exposed to friction with SHELL Alvania R3.

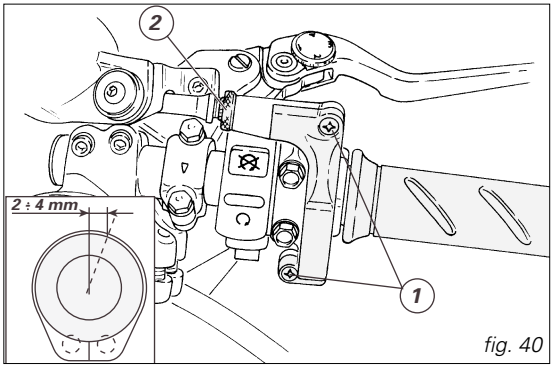

fig. 40

Throttle cable adjustment

The throttle twistgrip must have a free play of 1.5-2 mm, measured at the edge of the twistgrip and at all positions of the handlebars. If it needs adjusting, use the suitable adjuster (2, fig. 40) provided on the throttle control.

Charging the batteries *(fig. 41)*
Before charging the batteries, it is best to remove them from the motorcycle.
Always disconnect the ***black*** *negative terminal* ***(-)*** *first, and then the* ***red*** *positive terminal* ***(+)****. Unscrew the two screws (1) that hold the battery brackets (A) to the battery mounts (B). Lift the batteries off their mounts.*

Warning
Batteries develop explosive gases: keep batteries away from heat sources and flames.
Charge the batteries in a well ventilated room.

Connect the battery charger leads to the battery terminals (red to positive terminal +, black to negative terminal -).

Important
Make sure the charger is off when you connect the batteries to it, or you might get sparks at the battery terminals that could ignite the gases inside the cells. Always connect the red positive terminal first.

Refit the batteries into their mounts (B), secure them with the two screws (1) and connect the terminals.

Warning
Keep the batteries out of the reach of children and away from heat.

Charge the batteries at 1 A for 5-10 hours.

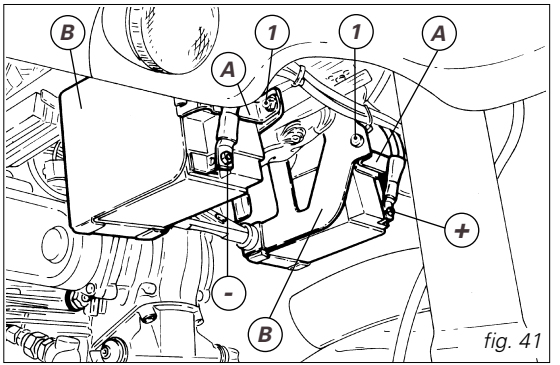

fig. 41

Checking drive chain tension *(fig. 42)*
Turn the rear wheel slowly until you find the position where chain tension is highest.
With the motorcycle on the side stand, push the chain up pressing with a finger at the point where it intersects with swingarm centreline. The lower portion of the chain should have a slack of 35-37 mm.
If not so, contact a Ducati Dealer or an Authorised Workshop to have the chain tensioned up.

Warning
Tightening the rear wheel hub screws properly is critical to rider safety.

Important
Improper chain tension will lead to early wear of transmission parts.

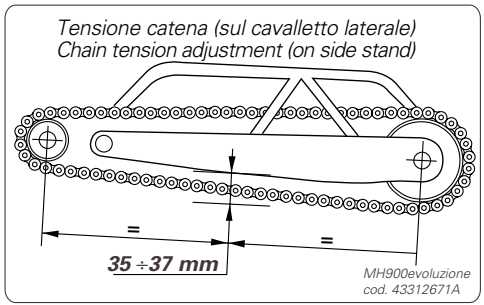

fig. 42

Chain lubrication
The chain fitted on your motorcycle has OR seals that keep dirt out of and lubricant inside the sliding parts. The seals might be irreparably damaged if the chain is cleaned using non-specific solvents or washed using steam or water jets. Dry the chain using compressed air or absorbent material and apply SHELL Advance Chain or Advance Teflon Chain on each link.

Important
Using non-specific lubricants may lead to severe damage to chain, front and rear sprocket.

Replacing bulbs

Before replacing a burnt-out bulb, make sure that the new one complies with voltage and wattage as specified on page 58 - "Electric System".

Note

You will need to remove the headlight fairing before you can access the headlamp.

E

Headlamp

To gain access to headlamp bulbs, slacken the retaining screws (1, fig. 43) of outer rim and rim.
Take out the inner rim (3, fig. 44).
Unscrew the three headlamp fastening screws (4).
Disconnect the connector (5, fig. 45) from the headlamp bulb.
Rotate the ring nut (6, fig. 45) anticlockwise.
Remove the burnt-out bulb (7, fig. 46) and fit a new bulb with equal rating.
Rotate ring nut (6) clockwise to lock bulb in place.

Note

Never touch the glass body of the new bulb with your fingers.

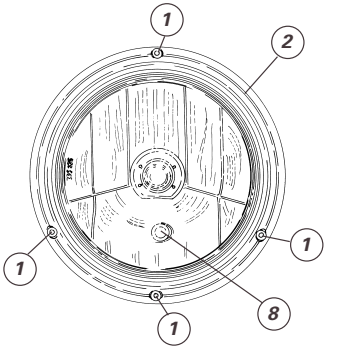

fig. 43

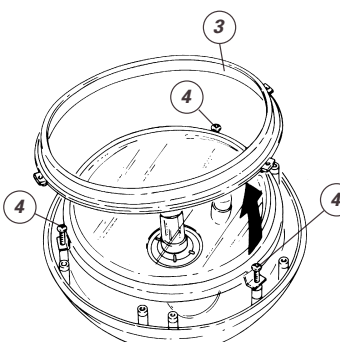

fig. 44

Refit the connector (5, fig. 45) matching it properly with the bulb pins.
To remove the bulb (8, fig. 43), simply take out the bulb rubber holder (9, fig. 46) and pull the bulb out of its socket, then fit a new bulb with equal rating.

Note
Test the new bulb before reassembling the headlight.

To reassemble, reverse the disassembly procedure.

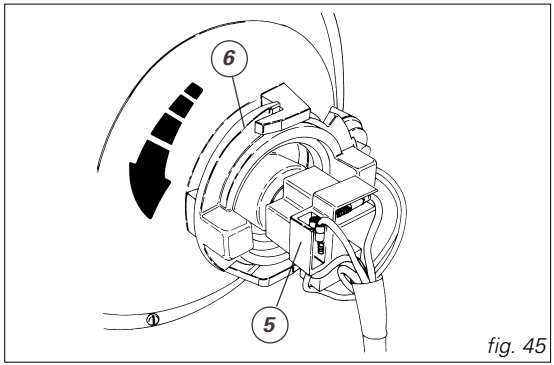

fig. 45

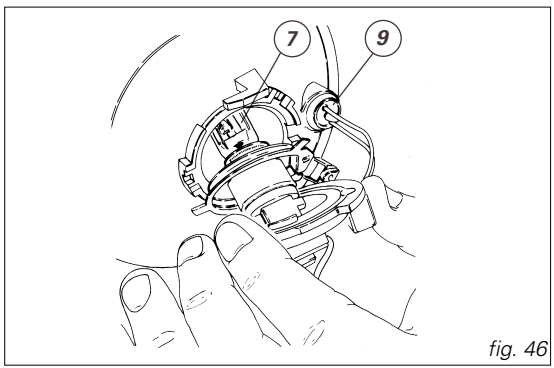

fig. 46

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Stop light *(fig. 47)*
To replace the stop and parking light bulb, unscrew the two screws (3) that secure the glass (4). Remove the glass. The bulb is of the bayonet-type: press and rotate anti-clockwise to remove. Fit the spare bulb by pressing and turning clockwise until it clicks. Refit the glass.

Number plate light *(fig. 47)*
To expose the number plate bulb, unscrew the screw (5) and the two screws (6) located on the light bottom. Withdraw the lamp holder, extract the bulb and replace it. To reassemble, reverse the disassembly procedure.

Rear turn indicators *(fig. 47)*
Remove the screw (1) and detach the glass (2) from the body. The bulb is of the bayonet-type: press and rotate anti-clockwise to remove. Fit the spare bulb by pressing and turning clockwise until it clicks. Refit the glass sliding the small tab (A) into the suitable slot in the indicator body.
Tighten the screw (1).

Front turn indicators *(fig. 48)*
Remove the screw (3) and detach the glass (4) from the body. The bulb is of the bayonet-type: press and rotate anti-clockwise to remove. Fit the spare bulb by pressing and turning clockwise until it clicks. Refit the glass and tighten the screw (3).

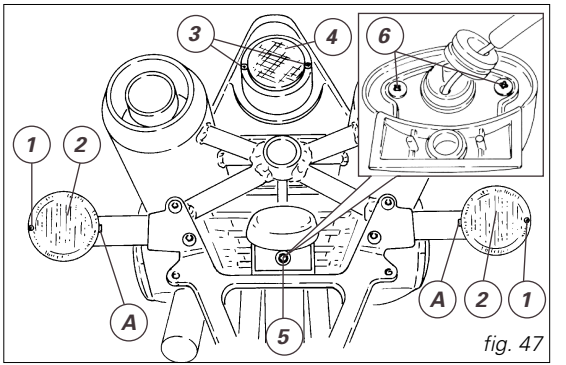


fig. 47

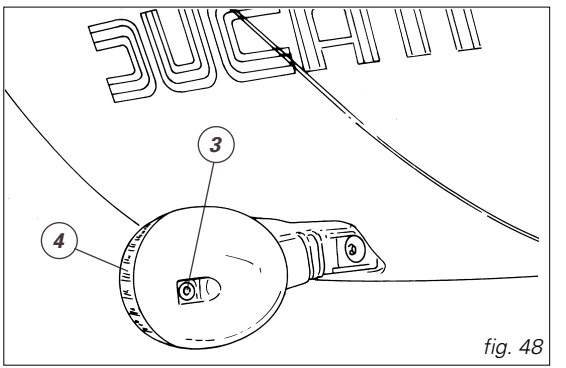


fig. 48

Beam setting *(fig. 49)*
When checking for proper beam setting, put the motorcycle upright. Tyres should be inflated at the correct pressure and one person should be sitting astride the motorcycle, keeping it at right angles to its longitudinal axis and opposite a wall or a screen, 10 metres apart from it. Then draw a horizontal line dictated by headlamp centre and a vertical one in line with the longitudinal axis of motorcycle.
If possible, perform this check in dim light.
Switch on the low beam:
the height of the light spot (measured at the upper limit between dark and lighted-up area) should not exceed 9/10th of the height above ground of headlamp centre.

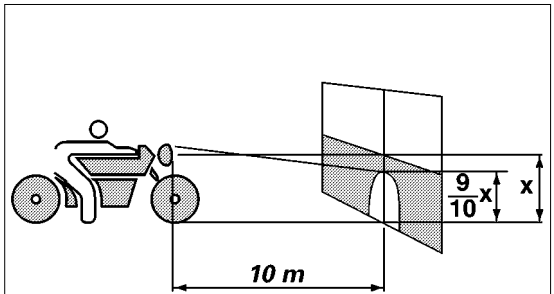


fig. 49

Note
The procedure described here is in compliance with the "Italian Standard" establishing the maximum height of the light beam.
Owners in other countries will adapt said procedure to the provisions in force in their countries.

The height of the light beam can be corrected using the headlamp top mounting screw (1, fig. 50). Remove the headlight fairing to expose the screw (see page 33). Slacken screw and set headlamp angle as required.

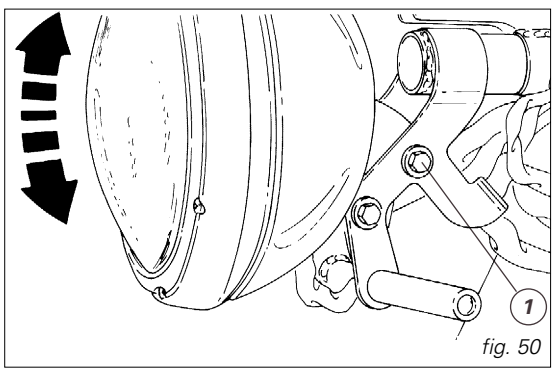


fig. 50

E

Tyres
Front tyre pressure
2.1-2.2 bar
Rear tyre pressure:
2.1-2.3 bar

Tyre pressure is affected by temperature and altitude variations. You are advised to check and adjust it whenever you are riding in areas where ample variations in temperature or altitude occur.

Important
Check and set tyre pressure when tyres are cold.

To avoid front wheel rim distortion, when riding on bumpy roads, increase front tyre pressure by 0.2 - 0.3 bar.

Tyre repair or replacement
In the event of a tiny puncture, tubeless tyres will take a long time to deflate, as they tend to keep air inside. If you find low pressure on one tyre, check the tyre for punctures.

Warning
A tyre must be replaced when punctured. Replace tyres using recommended standard tyres only.
Be sure to tighten the valve caps securely to avoid leaks when riding. Never use tube type tyres. Failure to heed this warning may lead to sudden tyre bursting and to serious danger to rider.

After replacing a tyre, the wheel should be balanced.

Important
Do not remove or shift the wheel balancing weights.

Note
If tyres need replacing, contact a Ducati Dealer or Authorised Workshop to make sure wheels are removed and refitted correctly.

Minimum tread depth

Measure tread depth (S, fig. 51) at the point where tread is most worn down. It should not be less than 2 mm and anyway not below the legal limit.

Important

Visually inspect the tyres at regular intervals to detect cracks or cuts, on the side walls especially, bulges or large spots that are indicative of internal damage. Replace them if badly damaged.
Remove any stones or other foreign bodies caught in the tread.

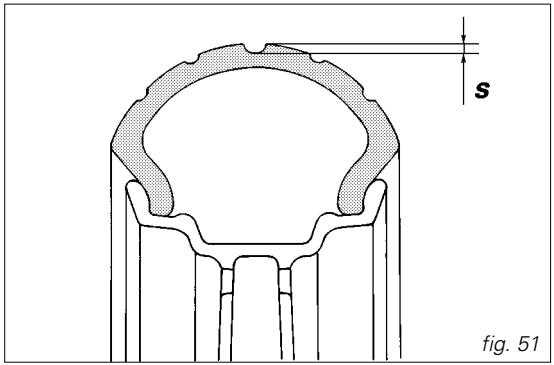


fig. 51

E

Checking engine oil level *(fig. 52)*
Engine oil level can be checked through the sight glass (1) provided on the clutch cover.
When checking oil level, the motorcycle should be upright and the engine warm. Allow a few minutes for oil to settle to a steady level after stopping the engine. Oil level should be between the marks near the sight glass. Top up oil level with SHELL Advance Ultra 4, if low. Undo the filler plug (2) and top up to correct level. Refit the plug.

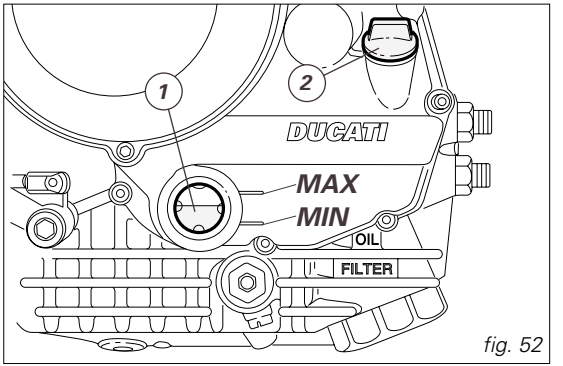
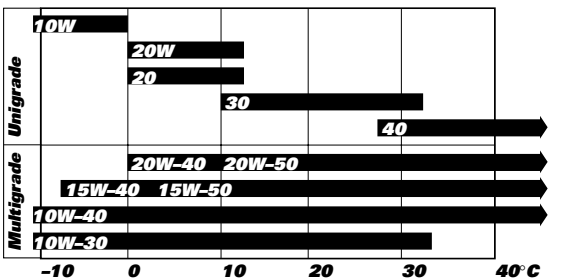


fig. 52

Important
Engine oil and oil filters must be changed by a Ducati Dealer or Authorised Workshop at regular intervals, as specified in the routine maintenance chart (see Warranty Booklet).

Viscosity
SAE 10W-40
The other viscosity degrees indicated in the table can be used if the local average temperature is within the limits specified for that oil viscosity.



Cleaning and replacing the spark plugs *(fig. 53)*
Spark plugs are essential to smooth engine running and should be checked at regular intervals.
This is done quite easily and quickly and provides a good measure of engine condition.
Remove the spark plug caps from the cylinder head using the wrench supplied with the bike.
Check the colour of the insulating ceramic material of the central electrode: a light brown, even colour is a sign of good engine condition. If colour has altered or you find any dark deposits, change the spark plug and report this to a Ducati Dealer or Authorised Workshop.
Check wear on the central electrode. If it looks worn out or has a vitreous appearance, change the spark plug.
Check electrode gap: it should be ***0.6-0.7 mm.***

Important
If the gap needs adjusting, be very careful when bending the side electrode. If gap is too wide or too close, engine performance will be affected. This could also cause difficult starting or irregular idling.

Clean the electrode and the insulating material accurately using a small metal brush and check seal condition.
Clean the seat in the cylinder head. Be careful not to let any foreign matters fall into the combustion chamber.
Refit spark plug into cylinder head. Snug it finger-tight until it is fully seated into the head. Tighten the spark plug at ***20 Nm****. If you do not have a torque wrench, you can use the wrench supplied with the tool kit to tighten the spark plug an additional 1/2 turn.*

Important
Never use spark plugs with a heat rating other than recommended or a thread length other than standard.
Spark plugs should be tightened firmly.

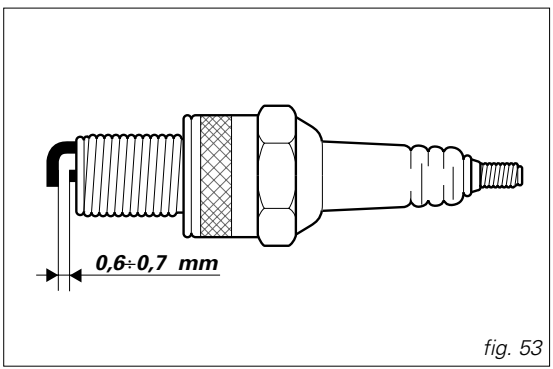


fig. 53

Cleaning the motorcycle

To preserve the finish of metal parts and paintwork, wash and clean your motorcycle at regular intervals, anyway according to the road conditions you ride in.
Use specific products only. Prefer biodegradable products. Avoid aggressive detergents or solvents.

Important

Do not wash your motorcycle right after use. When the motorcycle is still hot, water drops will evaporate faster and spot hot surfaces.
Never clean the motorcycle using high-pressure water jets. Never aim the water jet directly to wheel hub bearings, front fork seals, air inlets or into the exhaust silencers.

Clean off stubborn dirt or exceeding grease from engine parts using a degreasing agent. Be sure to avoid contact with drive parts (chain, sprockets, etc.)
Rinse with warm water and dry all surfaces with chamois leather.

Warning

Braking performance may be impaired immediately after washing the motorcycle.
Never grease or lubricate the brake discs. Loss of braking and further accidents may occur. Clean the discs with an oil-free solvent.

Storing the bike away

If the motorcycle is to be left unridden over long periods, it is advisable to carry out the following operations before storing it away:
clean the motorcycle;
remove filler plug with its seal and empty the fuel tank;
pour a few drops of engine oil into the cylinders through the spark plug seats, then crank the engine by hand a few times so a protective film of oil will spread on cylinder inner walls;
place the motorcycle on the supplied service stand;
disconnect and remove the battery. Battery should be checked and charged whenever the motorcycle has been left unridden for over a month;
protect the motorcycle with a suitable canvas cover available from Ducati Spare Parts Department. This will protect paintwork and let condensate breathe out.

Important notes

Some countries - such as France, Germany, Great Britain, Switzerland and so on - have compulsory emission and noise standards.
Carry out any required inspection at regular intervals and replace any parts using Ducati original spare parts complying with local law.

TECHNICAL DATA

Weights

Dry weight:
186 Kg.
Carrying full load:
290 Kg.

Warning

Failure to observe weight limits could result in poor handling and impair the performance of your motorcycle, and you may lose control of the motorcycle.

Overall dimensions *(mm) (fig. 54)*

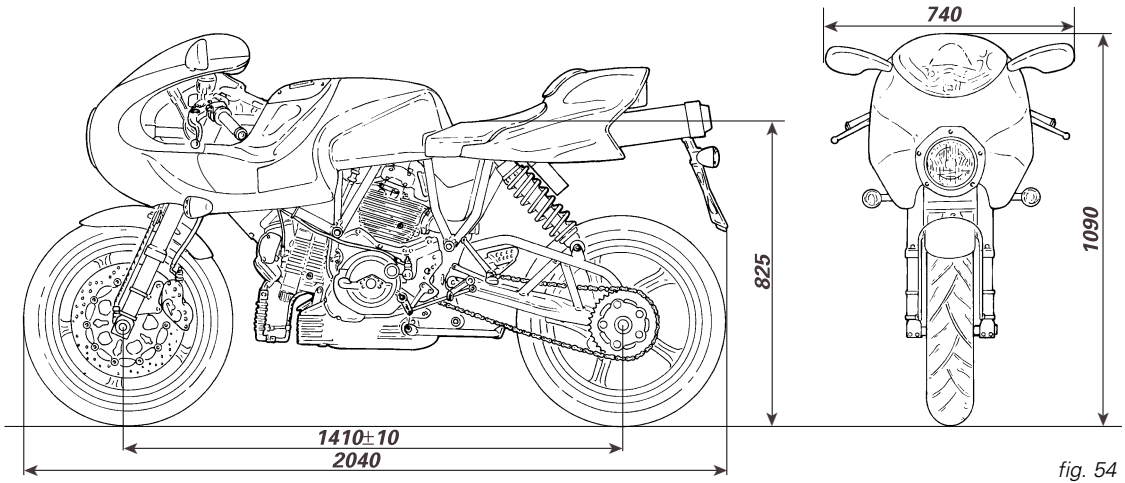


fig. 54

Top-ups	Type of fluid	cu. dm. (litres)
Fuel tank, including a reserve of 3.5 cu dm (litres)	95-98 RON fuel	8.5
Oil sump and oil filter	SHELL Advance Ultra 4	3.9
Front/Rear brake and clutch circuits	SHELL-Advance Brake DOT 4	–
Protectant for electric contacts	SHELL-Advance Contact Cleaner	–
Front fork	SHELL-Advance Fork 7.5 or Donax TA	0.400 (each leg)

Important
Additives to fuel or lubricants are not allowed.

Engine
Twin cylinder, four-stroke, 90° "L" type, longitudinal.
Bore mm:
92.
Stroke mm:
68.
Total displacement cu. cm.:
904.
Compression ratio ±0.5:1:
9.2.
Max. power at crankshaft (95/1/CE):
55 kW – 75 HP at 8000 rpm.
Max torque at crankshaft (95/1/CE):
76 Nm – 7.7 kgm at 6250 rpm.

Important
Do not exceed the specified speed limit (see page 54) under any running condition.

Timing system
Desmodromic *(type) with two valves per cylinder, operated by four rockers (two opening rockers and two closing rockers) and an overhead camshaft. It is operated by the crankshaft through spur gears, belt rollers and toothed belts.*

Desmodromic timing system *(fig. 55)*
1) Opening (or upper) rocker;
2) opening rocker shim;
3) split rings;
4) closing (or lower) rocker shim;
5) return spring for lower rocker;
6) closing (or lower) rocker;
7) camshaft;
8) valve.

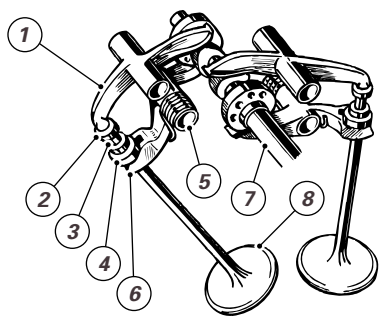


fig. 55

Performance data *(fig. 56)*
Maximum speed in any gear should be reached only after a correct running-in period with the motorcycle properly serviced at the recommended intervals.
Max. speed:
215 Kph.

Important
Failure to comply with these limits releases Ducati Motor Holding S.p.A. from any liability whatsoever for resulting engine damage or shorter engine life.

fig. 56

Spark plugs
Make:
CHAMPION
Type:
RA 6 HC.

Brakes

Front brake
Type: drilled steel twin-disc.
Disc diameter:
320 mm.
Hydraulically operated by a control lever on right handlebar.
Braking surface, sq cm:
88.
Brake callipers with separate pistons.
Make and type:
BREMBO 30/34-4 pistons.
Friction material:
FERIT I/D 450 FF.
Master cylinder type:
PSC 16.

Rear brake
Type: fixed drilled steel disc
Disc diameter:
220 mm.
Hydraulically operated by a pedal on R.H. side

Braking surface:
25 sq cm
Brake calliper:
cylinder Ø 32 mm
Make and type:
BREMBO P 2.I05N.
Friction material:
FERIT I/D 450 FF.
Master cylinder type:
PS 11.

Warning
Brake fluid can dissolve paintwork and cause severe eye and skin injuries in the event of accidental spilling. Wash the affected area with abundant running water.

Transmission
Multi-plate dry clutch;
operated by a control lever on left handlebar.
Drive is transmitted from engine to gearbox main shaft via spur gears.
Ratio:
32/59.
Gearbox:
6-speed;
with constant mesh gears, gear change pedal on left side of motorcycle.

Final drive ratio:
15/38.
Total gear ratios:
1st gear 15/37,
2nd gear 17/30,
3rd gear 20/28,
4th gear 22/26,
5th gear 23/24,
6th gear 24/23.

Drive chain from gearbox to rear wheel:
Make:
DID
Type:
520 VL4.
Size:
5/8"x1/4"
Links:
98.

Important
The above gear ratios are the homologated ones and under no circumstances must they be modified.

However, if you wish to tune up your motorcycle for competitive trials, you may refer to Ducati Motor Holding S.p.A. who will be glad to provide information about the special ratios available. Relevant instructions and original spare parts are available from your local Dealer or Authorised Workshop.

E

Warning
If the rear sprocket needs replacing, contact a Ducati Dealer or an Authorised Workshop. If improperly replaced, this component could seriously endanger your safety and cause irreparable damage to your motorcycle.

Frame
Tubular trellis frame with upper section made of high-strength steel.
Steering angle (on each side):
23°
Steering head angle:
23.5°
Trail mm:
98.5

Wheels
Five-spoke, light-alloy rims.

Front wheel
Dimensions:
3.50x17"

Rear wheel
Dimensions:
5.50x17".
Both wheel spindles can be removed.

Tyres

Front tyre
Tubeless, radial tyre.
Size:
120/65-VR17 or as an option 120/70 ZR17.

Rear tyre
Tubeless, radial tyre.
Size:
170/60-ZR17 or as an option 180/SS ZR17.

Suspensions

Front suspension
Hydraulic upside-down fork.
Slider diameter:
43 mm.
Travel along leg axis:
120 mm.

Rear suspension
Shock absorber featuring rebound, compression and spring preload adjustment. Asymmetric location on left side of motorcycle. At the bottom pivot point it is connected to the single-sided trellis-type swingarm, made from steel tubes.

The swingarm hinges on a pivot pin passing through the engine.

The whole system gives the bike excellent stability.
Travel:
90 mm.
Rear wheel travel:
130 mm.

Note
Never modify any settings which may alter those technical features which are essential in order to preserve compliance with motorcycle homologation specs.

Electric system

Basic electric items are:

***Round headlamp** with iodine double filament bulb, **12V-55/60W** bulb.*

***Parking light** with **12V-5W** bulb.*

***Instrument panel, 12V-1.2W** bulbs for warning lights and **12V-2W** bulbs for instrument lights.*

***Electric controls** on handlebar.*

***Turn indicators, 12V-10W** bulbs.*

Warning horn.

Stop light switches.

2 batteries, 12V-6,6 Ah.

Generator, 12V-520W.

***Electronic voltage regulator,** protected by a **40 A** fuse.*

Starter motor, 12V-0.7 kW.

***Tail light, 12V-5/21W** double-filament bulb for rear stop light and tail light, **12V-5W** bulb for number plate light.*

Note

See "Replacing bulbs" on page 42 for relevant instructions.

Fuses

The main fuse box is located under the fuel tank (on RH side).

To expose the fuses, take off the box protective cover (A, fig. 57). Fuse mounting positions and ampere capacities are marked on it.

Only 6 of the fuses are connected. There are two spare fuses.

The fuse (1, fig. 58) located near the battery protects the electronic regulator.

Remove the fuse cap (2) to expose it.

A blown fuse is identified by the interrupted inner filament (3, fig. 60).

Important

*Switch the ignition key to **OFF** before replacing a fuse to avoid possible short circuits.*

Warning

Never use a fuse with a rating other than specified. Failure to observe this rule may damage the electric system or even lead to fire.

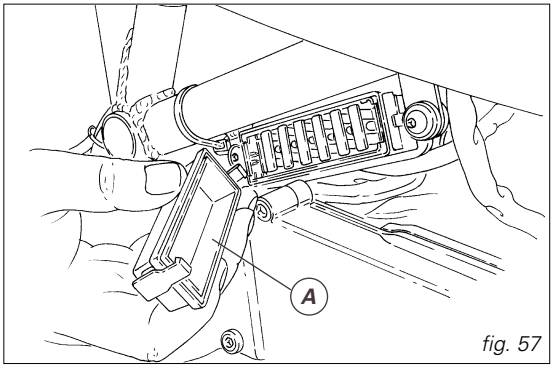


fig. 57

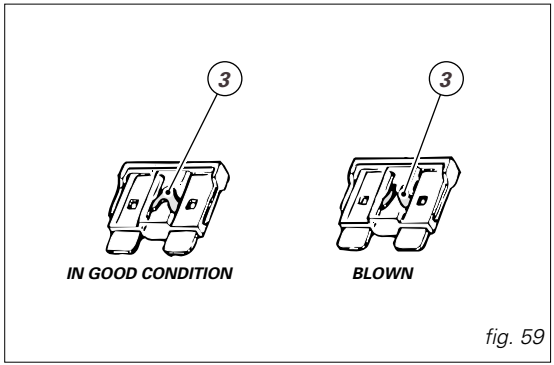


fig. 59

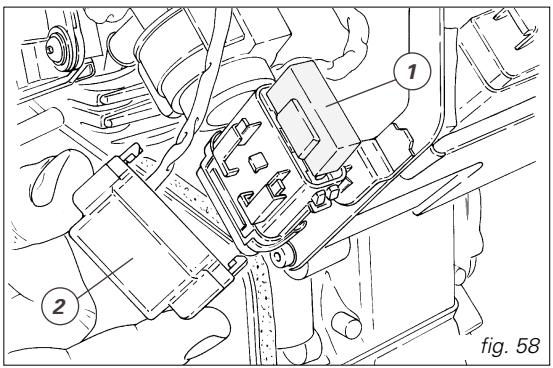


fig. 58

E

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Legend of the wiring diagram of electric system/injection

1) Right switch
2) Key-operated switch
3) Ignition relay
4) Fuse box
5) Flasher
6) Starter motor
7) Contactor
8) 2 batteries
9) Rear right-turn indicator
10) Tail light
11) Number plate light
12) Rear left-turn indicator
13) Fuel tank
14) Self-diagnosis connector
15) Horizontal cylinder coil
16) Vertical cylinder coil
17) Horizontal cylinder spark plug
18) Vertical cylinder spark plug
19) Horizontal cylinder injector
20) Vertical cylinder injector
21) Throttle position sensor
22) Engine rpm/timing pick-up
23) Oil temperature sensor
24) Speed sensor
25) Ignition/injection unit
26) Injection relay
27) Horn
28) Regulator fuse
29) Regulator
30) Generator
31) Neutral light switch
32) Oil pressure switch
33) Rear STOP light switch
34) Front STOP light switch
35) Left switch
36) Air temperature sensor
37) Instrumentation
38) Front left-turn indicator
39) Headlamp
40) Front right-turn indicator

Wire colour coding

W-Bk *White-Black*
Bn *Brown*
W-G *White-Green*
W-Bn *White-Brown*
R-Bk *Red-Black*
R-B *Red-Blue*
GR-R *Grey-Red*
R *Red*
W *White*
B-Bk *Blue-Black*
Y-Bk *Yellow-Black*
GR *Grey*
Bk-G *Black-Green*
O-B *Orange-Blue*
Bk *Black*

Y *Yellow*
P *Pink*
R-Y *Red-Yellow*
Y-G *Yellow-Green*
G *Green*
Bn-Bk *Brown-Black*
W-R *White-Red*
Bn-W *Brown-White*
V-Bk *Violet-Black*
B-W *Blue-White*
O *Orange*
B *Blue*
GR-B *Grey-Blue*
GR-Y *Grey-Yellow*
V-W *Violet-White*
P-Bk *Pink-Black*

Legend of fuse box *(4)*

Pos.	*Description*	*Rtg.*
1-9	*Main switch*	*30 A*
2-10	*High and low beams*	*15 A*
3-11	*Turn indicators, warning lights, parking lights and instrument panel lights*	*7.5 A*
4-12	*Stop, warning horn, fuel sensor*	*10 A*
5-13	*Right switch, instrument panel*	*7.5 A*
6-14	*Fuel pump, injectors, coils*	*20 A*
7-15	*CPU power supply*	*5 A*
8-16	*Spare fuse*	*30 A*

Note
The wiring diagram for the electric system is at the end of this manual.

FOR UNITED STATES OF AMERICA VERSION ONLY

E

USA

Reporting of safety defects

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Ducati North America. If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Ducati North America. To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (or 366-0123 in Washington, D.C. area) or write to: NHTSA, U.S. Department of Transportation, Washington, D.C. 20590. You can also obtain other information about motor vehicle safety from the Hotline.

Safety warnings

Traffic Rules vary from jurisdiction to jurisdiction. Know the regulations in your jurisdiction before riding this motorcycle.

Warning

This motorcycle is designed and intended for use on streets and other smooth, paved areas only. Do not use this motorcycle on unpaved surfaces. Such use could lead to upset or other accident.

Noise emission warranty

Ducati Motor S.p.A. warrants that this exhaust system, at the time of sale, meets all applicable U.S. EPA Federal noise standards. This warranty extends to the first person who buys this exhaust system for purposes other than resale, and to all subsequent buyers. Warranty claims should be directed to: Ducati North America, Inc., 237 West Parkway, Pompton Plains, New Jersey, 07444-1028 Tel: 001.973.839-2600 • Fax: 001.973.839-2331.

Noise and exhaust emission control system information

Source of Emissions

The combustion process produces carbon monoxide and hydrocarbons. Control of hydrocarbons is very important because under certain conditions, they react to form photochemical smog when subjected to sunlight. Carbon monoxide does not react in the same way, but is toxic. Ducati utilizes lean carburetor settings and other systems to reduce carbon monoxide and hydrocarbons.

Exhaust Emission Control System

The Exhaust Emission Control System is composed of lean carburetor settings, and no adjustments should be

made except idle speed adjustments with the throttle stop screw. The Exhaust Emission Control System is separate from the crankcase emission control system.

Crankcase Emission Control System
The engine is equipped with a closed crankcase system to prevent discharging crankcase emissions into the atmosphere. Blow-by gas is returned to the combustion chamber through the air cleaner and the throttle body.
Evaporative Emission Control System
California motorcycles are equipped with an evaporative emission control system which consists of a charcoal canister and associated piping. This system prevents the escape of fuel vapors from the throttle body and fuel tank.

Tampering warning
Tampering with Noise Control System Prohibited. Federal Law prohibits the following acts or causing thereof:
(1) the removal or rendering inoperative by any person, other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use; or
(2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

Among those acts presumed to constitute tampering are the acts listed below:
(1) Removal of, or puncturing the muffler, baffles, header pipes or any other component which conducts exhaust gases.
(2) Removal or puncturing of any part of the intake system.
(3) Lack of proper maintenance.
(4) Replacing any moving part of the vehicle, or parts of the exhaust or intake system, with parts other than those specified by the manufacturer.
This product should be checked for repair or replacement if the motorcycle noise has increased significantly through use. Otherwise, the owner may become subject to penalties under state and local ordinances.

Problems that may affect motorcycle emissions
If you are aware of any of the following symptoms, have the vehicle inspected and repaired by your local Ducati dealer.
Symptoms:
Hard starting or stalling after starting.
Rough idle.
Misfiring or backfiring during acceleration.
After-burning (backfiring).
Poor performance (driveability) and poor economy.

E

USA

Riding safety

The points given below are applicable for every day motorcycle use and shoud be carefully observed for safe and effective vehicle operation.

A motorcycle does not provide the impact protection of an automobile, so defensive riding in addition to wearing protective apparel is extremely important.

Do not let protective apparel give you a false sense of security.

Before changing lanes, look over your shoulder to make sure the way is clear. Do not rely solely on the rear view mirror; you may misjudge a vehicle's distance and speed, or you may not see it at all.

When going up steep slopes, shift to a lower gear so that there is plenty of power to spare rather than overloading the engine.

When applying the brakes, use both the front and rear brakes. Applying only one brake for sudden braking may cause the motorcycle to skid and lose control.

When going down long slopes, control vehicle speed by closing the throttle. Use the front and rear brakes for auxiliary braking.

Riding at the proper rate of speed and avoiding unnecessarily fast acceleration are important not only for safety and low fuel consumption but also for long vehicle life and quieter operation.

When riding in wet conditions or on loose roadway surfaces, the ability to maneuver will be reduced. All of your actions should be smooth under these conditions. Sudden acceleration, braking or turning may cause loss of control.

When the roadway is wet, rely more on the throttle to control vehicle speed and less on the front and rear brakes.

The throttle should also be used judiciously to avoid skidding the rear wheel from too rapid acceleration or deceleration.

On rough roads, exercise caution, slow down, and grip the fuel tank with your knees for better stability.

When quick acceleration is necessary as in passing, shift to a lower gear to obtain the necessary power.

Do not down shift at too high an r.p.m. to avoid damage to the engine from overreving.

Avoiding unnecessary weaving is important to the safety of both the rider and other motorists.

Do not exceed the legal speed limit or drive too fast for existing conditions. High speed increases the influence of any condition affecting stability and the loss of control.

Operate motorcycle only at moderate speed and out of traffic until you have become thoroughly familiar with its operation and handling characteristics under all conditions. This is a very high performance motorcycle, designed and intended for use by experienced careful riders only!

A new motorcycle must be operated according to a special break-in procedure (see Running in recommendations).

Warning

Before starting engine, check for proper operation of brake, clutch, shifter, throttle controls, correct fuel and oil supply.

Gasoline is extremely flammable and is explosive under certain conditions. Refuell in a well ventilated area with the engine stopped. Do not smoke or allow open flames or sparks when refuelling or servicing the fuel system. Always close the fuel petcock when the engine is not running to prevent flooding of the throttle body. Do not overfill fuel tank (see instructions page 22).
Motorcycle exhaust contains poisonous carbon monoxide gas. Do not inhale exhaust gases and never run the engine in a closed garage or confined area.
Use only Ducati approved parts and accessories.
This motorcycle was not intended to be equipped with a sidecar or to be used to tow any trailer or other vehicle. Ducati does not manufacture sidecars or trailers and cannot predict the effects of such accessories on handling or stability, but can only warn that the effects will be adverse and any damage to motorcycle components caused by the use of such accessories will not be remedied under warranty.

Warning
Do not ride the motorcycle with helmets attached to the hook; the helmets could cause an accident by distracting the operator or interfering with normal vehicle operation.

Protective apparel
Always wear a helmet. Most motorcycle accident fatalities are due to head injuries.
For safety eye protection, gloves, and high top, sturdy boots should also be worn.

The exhaust system becomes very hot during operation, never touch the exhaust system. Wear clothing that fully covers your legs. Do not wear loose clothing which could catch on the control levers, footrests, wheels, or chain. Any amount of alcohol will significantly interfere with your ability to safely operate your motorcycle. Don't drink and ride.

Vehicle identification number (VIN);
Every Ducati motorcycle is identified by two identification numbers (see page 9). Figure A specifically shows the frame identification numbers.

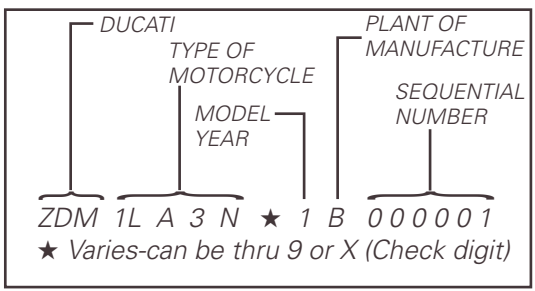


fig. A

Label location *(fig. B)*

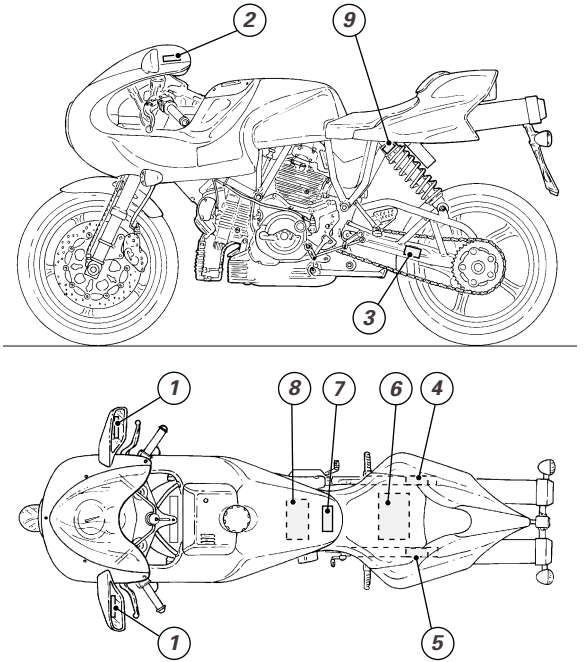


fig. B

OBJECT IN MIRROR ARE CLOSER THAN THEY APPEAR

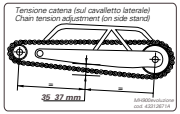
1

WARNING

DO NOT ATTEMPT TO LOOK THROUGH THIS FAIRING. THIS IS NOT A WINDSHIELD, BUT AN AERODYNAMIC FAIRING ONLY; FAILURE TO OBSERVE THIS WARNING COULD RESULT IN A COLLISION OR UPSET AND CONSEQUENT SERIOUS BODILY INJURY.

2

Tensione catena (sul cavalletto laterale)
Chain tension adjustment (on side stand)



3

MOTORCYCLE NOISE EMISSION CONTROL INFORMATION

THIS [redacted] MOTORCYCLE, Z[redacted]
MEETS EPA NOISE EMISSION REQUIREMENTS OF [redacted] dBA AT [redacted] RPM BY THE FEDERAL TEST PROCEDURE.
MODIFICATIONS WHICH CAUSE THIS MOTORCYCLE TO EXCEED FEDERAL NOISE STANDARDS ARE PROHIBITED BY FEDERAL LAW.
SEE OWNER'S MANUAL.

4

Manufactured by **DUCATI** MOTOR spa DATE: [redacted]7/97

GVWR: [redacted] Lbs ([redacted] kg)
GAWR front: [redacted] Lbs ([redacted] kg) with [redacted] tire, [redacted] RIM at [redacted] cold.
GAWR rear: [redacted] Lbs ([redacted] kg) with [redacted] tire, [redacted] RIM at [redacted] cold.
This vehicle conforms to all applicable Federal Motor Vehicle Safety standards in effect on the date of manufacture shown above. Type classification: Motorcycle

Vehicle I.D. No.: ZDM1TB9PXWB000001

5

VEHICLE EMISSION CONTROL INFORMATION

Engine displacement: 904 cc	THIS VEHICLE CONFORMS TO U.S. EPA
Engine family: [redacted]	REGULATIONS APPLICABLE TO [redacted]
Engine exhaust control system: [redacted]	MODEL YEAR NEW MOTORCYCLES

ENGINE TUNE-UP SPECIFICATIONS

ITEM	SPECIFICATIONS	INSTRUCTIONS
IGNITION TIMING:	[redacted] bTDC at idle speed	No adjustment
IDLE SPEED (RPM):	[redacted] ± 0.12 mm	No adjustment
IDLE MIXTURE:		No adjustment
VALVE CLEARANCE (in & ex):	Opening [redacted]2 mm Closing [redacted]2 mm	See Service Manual
SPARK PLUG: CHAMPION R[redacted]		
SPARK PLUG GAP (mm): 0.5 ÷ 0.6	OIL: SAE 20W/50 FUEL: Unleaded gasoline	

DUCATI MOTOR spa - BOLOGNA - ITALY

6

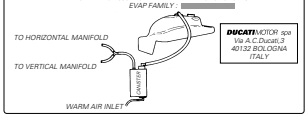
CAUTION

NEVER FILL TANK SO FUEL LEVEL RISES INTO FILLER NECK. IF TANK IS OVERFILLED, HEAT MAY CAUSE FUEL TO EXPAND AND FLOW INTO EVAPORATIVE EMISSION CONTROL SYSTEM RESULTING IN HARD STARTING AND ENGINE HESITATION.

7

VEHICLE EMISSION CONTROL LABEL

ENGINE DISPLACEMENT : 904 cc. ENGINE FAMILY : [redacted]
THIS VEHICLE CONFORMS TO U.S. EPA AND CALIFORNIA REGULATIONS APPLICABLE TO [redacted] MODEL YEAR NEW MOTORCYCLES.
EVAP FAMILY : [redacted]



8

WARNING

CONTAINS HIGHLY COM-PRESSED GAS. USE ONLY PERFECTLY DRY NITROGEN GAS. OTHER GASES MAY CAUSE EXPLOSION. DO NOT INCINERATE. REFER TO OWNER'S MANUAL FOR REGULATING GAS.

9

California evaporation emission system

This system consists of (fig. C):
1) Warn air inlet;
2) Canister;
3) Dell'Orto jet;
4) Intake manifolds;
5) Breather pipe;
6) Fuel tank.

Important

In the event of fuel system malfunction, contact Ducati's authorized Service Centres.

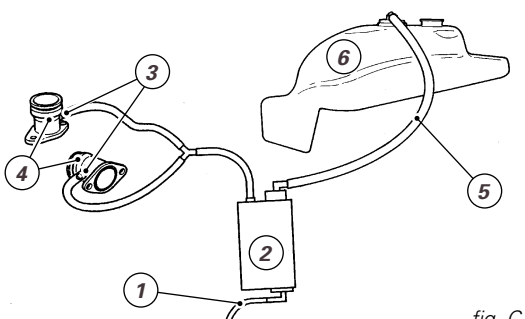


fig. C

Ducati limited warranty on emission control system

Ducati North America, Inc., 237 West Parkway, Pompton Plains, New Jersey 07444-1028 warrants that each new 1998 and later Ducati motorcycle, that includes as standard equipment a headlight, tail-light and stoplight, and is street legal:
A) is designed, built and equipped so as to conform at the time of initial retail purchase with all applicable regulations of the United States Environmental Protection Agency, and the California Air Resources Board; and
B) is free from defects in material and workmanship which cause such motorcycle to fail to conform with applicable regulations of the United States Environmental Protection Agency or the California Air Resources Board for a period of use, depending on the engine displacement,of 12,000 kilometers (7,456 miles), if the motorcycle's engine displacement is less than 170 cubic centimeters; of 18,000 kilometers (11,185 miles), if the motorcycle's engine displacement is equal to or greater than 170 cubic centimeters but less than 280 cubic centimeters; or of 30,000 kilometers (18,641 miles), if the motorcycle's engine displacement is 280 cubic centimeters or greater; or 5 (five) years from the date of initial retail delivery, whichever first occurs.

I. Coverage

Warranty defects shall be remedied during customary business hours at any authorized Ducati motorcycle dealer located within the United States of America in

compliance with the Clean Air Act and applicable regulations of the United States Environmental Protection Agency and the California Air Resources Board. Any part or parts replaced under this warranty shall become the property of Ducati.
In the state of California only, emissions related warranted parts are specifically defined by that state's Emissions Warranty Parts List. These warranted parts are: carburetor and internal parts; intake manifold; fuel tank, fuel injection system; spark advance mechanism; crankcase breather; air cutoff valves; fuel tank cap for evaporative emission controlled vehicles; oil filler cap; pressure control valve; fuel/vapor separator; canister; igniters; breaker governors; ignition coils; ignition wires; ignition points, condensers, and spark plugs if failure occors prior to the first scheduled replacement, and hoses, clamps, fittings and tubing used directly in these parts. Since emission related parts may vary from model to model, certain models may not contain all of these parts and certain models may contain functionally equivalent parts.
In the state of California only, Emission Control System emergency repairs, as provided for in the California Administrative Code, may be performed by other than an authorized Ducati dealer. An emergency situation occurs when an authorized Ducati dealer is not reasonably available, a part is not available within 30 days, or a repair is not complete within 30 days. Any replacement part can be used in an emergency repair. Ducati will reimburse the owner for the expenses, including diagnosis, not to exceed Ducati's suggested retail price for all warranted parts replaced and labor charges based on Ducati's recommended time allowance for the warranty repair and the geographically appropriate hourly labor rate. The owner may be required to keep receipts and failed parts in order to receive compensation.

II. Limitations
This Emission Control System Warranty shall not cover any of the following:
A. Repair or replacement required as a result of
(1) accident,
(2) misuse,
(3) repairs improperly performed or replacements improperly installed,
(4) use of replacement parts or accessories not conforming to Ducati specifications which adversely affect performance and/or
(5) use in competitive racing or related events.
B. Inspections, replacement of parts and other services and adjustments required for routine maintenance.
C. Any motorcycle on which odometer mileage has been changed so that actual mileage cannot be readily determined.

III. Limited liability
A. The liability of Ducati under this Emission Control Systems Warranty is limited solely to the remedying of defects in material or workmanship by an authorized Ducati motorcycle dealer at its place of business during customary business hours. This warranty does not cover inconvenience or loss of use of the motorcycle or

transportation of the motorcycle to or from the Ducati dealer. Ducati shall not be liable for any other expenses, loss or damage, whether direct, incidental, consequential or exemplary arising in connection with the sale or use of or inability to use the Ducati motorcycle for any purpose. Some states do not allow the exclusion or limitation of any incidental or consequential damages, so the above limitations may not apply to you.
B. No express emission control system warranty is given by Ducati except as specifically set forth herein. Any emission control system warranty implied by law, including any warranty of merchantability or fitness for a particular purpose, is limited to the express emission control systems warranty terms stated in this warranty. The foregoing statements of warranty are exclusive and in lieu of all other remedies. Some states do not allow limitations on how long an implied warranty lasts so the above limitation may not apply to you.
C. No dealer is authorized to modify this Ducati Limited Emission Control Systems Warranty.

IV. Legal rights
This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

V. *This warranty is in addition to the Ducati limited motorcycle warranty.*

VI. Additional information
Any replacement part that is equivalent in performance and durability may be used in the performance of any maintenance or repairs. However, Ducati is not liable for these parts. The owner is responsible for the performance of all required maintenance. Such maintenance may be performed at a service establishment or by any individual. The warranty period begins on the date the motorcycle is delivered to an ultimate purchaser.

Ducati North America, Inc..
237 West Parkway
Pompton Plains, New Jersey, 07444-1028
001.973.839-2600

ROUTINE MAINTENANCE RECORD

km	Ducati Service Name	Mileage	Date
1000			
10000			
20000			
30000			
40000			
50000			