

Owner's manual  
Anleitungs-und Instandhaltungsheft

***SUPERBIKE***

***848<sup>EVO</sup>***



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***848<sup>EVO</sup>***

This manual forms an integral part of the motorcycle and must be kept with it for its whole service life. If the motorcycle is resold, the manual must always be handed over to the new owner.

This manual must be preserved with care.

If it is lost or becomes damaged, contact a Ducati Dealer or authorised Service Centre without delay to obtain a new copy of the manual.

The quality standards and safety of Ducati motorcycles are steadily improved as new design solutions, equipment and accessories are developed. While the information contained in this manual is current at the time of going to print, Ducati Motor Holding S.p.A. reserves the right to make changes at any time without notice and without any obligations. For this reason, the illustrations in this manual might differ from your motorcycle.

Any and all reproduction or spreading of the contents herein in whole or in part is forbidden. All rights reserved to Ducati Motor Holding S.p.A. Any request for written authorisation to do so shall be addressed to this company, specifying the reasons for request.

For any servicing or suggestions you might need, please contact our authorised service centres. We also provide an information service for all Ducati owners and enthusiasts for any advice and suggestions you might need.

Enjoy your ride!

# Foreword

We would like to welcome you among Ducati enthusiasts, and congratulate you on your excellent choice of 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.

Your motorcycle is the result of Ducati Motor Holding S.p.A.'s on-going research and development efforts. It is important that you preserve its quality standard by strictly observing the maintenance plan and using genuine spare parts.

This manual provides instructions on minor maintenance operations.

Major maintenance operations are described in the Service Manual available to Ducati Authorised Service Centres.

In your own interest, for your safety and in order to guarantee product reliability, you are strongly advised to refer to our authorised Dealers and Service Centres for any operations listed in the scheduled maintenance chart, see page 112.

Our highly skilled staff have access to special implements and appropriate equipment 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 Card.

The warranty does not apply to motorcycles used in racing competitions.

Tampering with or altering any components, even partially, will make the warranty null and void effective immediately.

Improper or poor maintenance, using other than original spare parts or parts not expressly approved by Ducati may invalidate your warranty rights and lead to damage or loss of performance.

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## Safety guidelines

Your safety and that of other road users are very important. Ducati Motor Holding S.p.A. recommends that you ride responsibly.

Before using your motorcycle for the first time, read this entire manual carefully and closely follow the guidelines outlined in it. The manual provides full information on proper motorcycle operation and maintenance.

In case of any doubts, please call a Dealer or Authorised Service Centre.

## Safety alerts

To alert you to potential hazards that could potentially harm you or other persons, the following safety alerts have been used:

- Safety labels on motorcycle;
- Safety messages preceded by a warning symbol and the word Warning or Important.



### Warning

Failure to comply with these instructions may put you at risk and result in severe injury to rider or other persons or even 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.



## Permitted use

This motorcycle must be used only on asphalted roads or on level, regular pavement.

This motorcycle may not be used for riding on dirt trails or for off-road riding.



### Warning

Off-road riding may lead to loss of control, resulting in severe damage to vehicle, injury or death.



### Warning

This motorcycle may not be used to tow any trailers or with a side-car attached; this can lead to loss of control and result in an accident.

This motorcycle carries the rider and can carry a passenger after the supplied kit is installed. It can only be installed at a Ducati Dealer or authorised Service Centre.



### Warning

The total weight of the motorcycle in running order including rider, passenger, luggage and additional accessories should not exceed 390 kg/859 lb.

## Rider's obligations

All riders must hold a valid licence.



### Warning

Riding without a licence is illegal and is prosecuted by law. Always make sure you have your licence with you when riding. Do not let inexperienced riders or who do not hold a valid licence use your motorcycle.

Do not ride under the influence of alcohol and/or drugs.



### Warning

Riding under the influence of alcohol and/or drugs is illegal and is prosecuted by law.

Do not take prescription or other drugs before riding unless you have consulted your doctor about their side effects.



### Warning

Some medications and drugs may cause drowsiness or other effects that slow down reaction time and the rider's ability to control the motorcycle, possibly leading to an accident.

Some states require vehicle insurance.



### Warning

Check your state laws. Obtain insurance coverage and keep your insurance document secure with the other motorcycle documents.

To protect rider and passenger safety, some states mandate the use of a certified helmet.



### Warning

Check your state laws. Riding without a helmet may be punishable by law.



### Warning

Riders without helmets are more likely to suffer severe bodily injury or die if they are in an accident.



### Warning

Check that your helmet complies with safety specifications, permits good vision, is the right size for your head, and carries a certification label indicating that it conforms to the standards in force in your state.

Traffic laws differ from state to state. Learn about traffic laws in your state before riding and always obey them.

## Rider training

Accidents are frequently due to inexperience. Driving a motorcycle is different from driving other vehicles and requires specific riding and braking techniques.



### Warning

Poor training or improper operation of the vehicle can lead to loss of control, death or severe damage.

## Riding gear

Riding gear is very important for safety. Unlike cars, a motorcycle offers no impact protection in an accident.

Proper riding gear includes helmet, eye protection, gloves, boots, long sleeve jacket and long pants.

- The helmet must meet the requirements listed at page 9; if your helmet does not have a visor, use suitable eye wear;
- Use five-finger gloves made from leather or abrasion-resistant material;
- Riding boots or shoes must have non-slip soles and offer ankle protection;
- Jacket, pants or riding suit must be made from leather or abrasion-resistant material and have high-visibility colours and inserts.



### Important

Never wear loose clothing, items or accessories that may become tangled in motorcycle parts.



### Important

For your safety, always wear proper protective gear, regardless of season and weather.



### Important

Have your passenger wear proper protective clothing.

## Best practices for motorcycle safety

These few simple operations are critical to people safety and to preserving the full performance of your motorcycle. Never forget to perform them before, while and after riding.

### Important

Closely follow the indications provided at page 76 during the running-in period. Failure to follow these instructions releases Ducati Motor Holding S.p.A. from any liability whatsoever for any engine damage or shorter engine life.

### Warning

Before riding your motorcycle, become familiar with the controls you will need to use when riding.

Perform the checks recommended in this manual before each ride (see page 78).

### Warning

Failure to carry out these checks before riding, may lead to motorcycle damage and injury to rider and/or passenger.

### Warning

Start the engine outdoors or in a well ventilated area. The engine should never be started or run indoors.

Exhaust gases are poisonous and may lead to loss of consciousness or even death within a short time. Use proper body position while riding and ensure your passenger does the same.

### Important


Rider must hold the handlebars with both hands **AT ALL TIMES** while riding.


### Important


Both rider and pillion passenger should keep their feet on the footpegs when the motorcycle is in motion.


### Important


The pillion passenger should always hold on to the strap placed on the passenger seat with both hands.


 **Important**  
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.


 **Important**  
Be sure you are clearly visible and do not ride within the blind spot of vehicles ahead.

 **Important**  
ALWAYS signal your intention to turn or pull to the next lane in good time using the suitable turn indicators.

 **Important**  
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.

 **Important**  
Visually inspect the tyres at regular intervals for detecting cracks and cuts, especially on the side walls, 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.

 **Warning**  
The engine, exhaust pipes and silencers remain hot for a long time after engine is switched off; pay particular attention not to touch exhaust system with any body part and do not park the vehicle next to inflammable material (wood, leaves etc.).

 **Warning**  
Always remove the key when you leave your motorcycle unattended and make sure it is not accessible to persons not authorised to use the motorcycle.

## Refuelling

Refuel outdoors with the engine turned off.

Do not smoke or use open flames when refuelling.

Be extremely careful not to spill fuel on the engine or on the exhaust pipe.

Never fill the tank completely. Fuel should never be touching the rim of filler recess.

While refuelling, avoid inhaling fuel vapours and avoid contact with eyes, skin or clothing.

### Warning

The vehicle is only compatible with fuel having a maximum content of ethanol of 10% (E10). Using fuel with ethanol content over 10% is forbidden. Using it could result in severe damage of the engine and motorcycle components. Using fuel with ethanol content over 10% will make the warranty null and void.



### Warning

In the event of illness after prolonged breathing of fuel vapours, stay outdoors and seek medical advice. In the event of contact with eyes, flush with plenty of water. After contact with skin, wash immediately with water and soap.



### Warning

Fuel is highly inflammable. Clothing with spilled fuel on it should be removed as possible.

## 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.

### Warning

Do not exceed the total permitted weight for the motorcycle and pay attention to information provided below regarding load capacity.

## Information about carrying capacity

### Important

Arrange your luggage or heavy accessories in the lowest possible position and close to motorcycle centre.

### Important

Never fix bulky or heavy objects to the handlebar or to the front mudguard as this would affect stability and cause danger.

### Important

Be sure to secure the luggage to the supports provided on the motorcycle as firmly as possible. Improperly secured luggage may affect stability.

### Important

Do not insert any objects you may need to carry into the gaps of the frame as these may foul moving parts.

### Warning

Make sure the tyres are inflated to the proper pressure indicated at page 106 and that they are in good condition.

## Dangerous products - warnings

### Used engine oil



#### Warning

Prolonged or repeated contact with used engine oil may cause skin cancer. If exposed to used engine oil on a daily basis, make it a rule to wash your hands thoroughly with soap immediately after use. Keep away from children.

### Brake lining debris

Never attempt to clean the brake assembly using compressed air or a dry brush.

## Brake fluid



#### Warning

Avoid spilling brake fluid onto plastic, rubber or painted parts of the motorcycle to avoid the risk of damage. Protect these parts with a clean shop cloth before proceeding to service the motorcycle. Keep away from children.



#### Warning

The brake fluid used in the brake system is corrosive. In the event of accidental contact with eyes or skin, wash the affected area with abundant running water.

## Coolant

Engine coolant contains ethylene glycol, which may ignite under particular conditions, producing invisible flames. Although the flames from burning ethylene glycol are not visible, they are still capable of causing severe burns.



#### Warning

Take care not to spill engine coolant on the exhaust system or engine parts. These parts may be hot and ignite the coolant, which will subsequently burn with invisible flames.



Coolant (ethylene glycol) is an irritant and is poisonous when ingested. Keep away from children. Never remove the radiator cap when the engine is hot. The coolant will be scalding hot and is under high pressure.

The cooling fan operates automatically: keep hands well clear and make sure your clothing does not snag on the fan.

## Battery



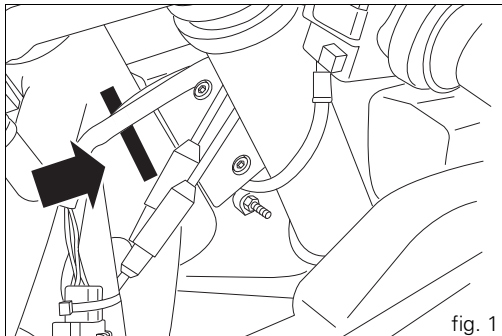
**Warning** The battery gives off explosive gases; keep it away from any source of ignition such as sparks, flames and cigarettes. Charge the battery in a well-ventilated area.

## Vehicle identification number



### Note

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



It is recommended to record the frame number of your motorcycle in the space below.

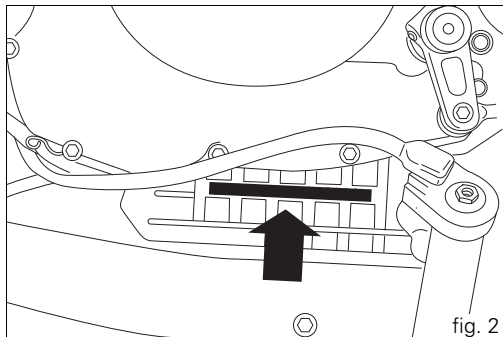
Frame number

## Engine identification number



### Note

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



It is recommended to record the number of your motorcycle's engine in the space below.

Engine number

# Instrument panel (Dashboard)

## Instrument panel

1) LCD, (see page 21)

2) REVOLUTION COUNTER (rpm).


Shows the engine rotation speed/minute (rpm).

3) NEUTRAL LIGHT N (GREEN).

Comes on when in neutral position.

4) LOW FUEL LIGHT  (YELLOW).

Comes on when fuel is low and there are about 3 litres of fuel left in the tank.

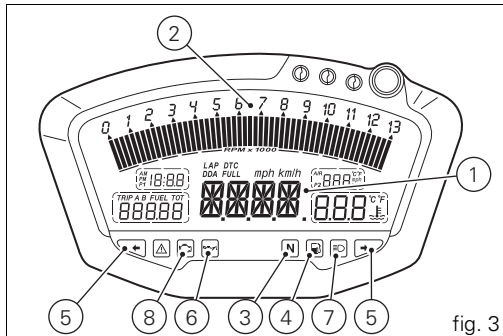
5) TURN INDICATOR LIGHTS  (GREEN).

Illuminates and flashes when the turn indicator is in operation.

6) ENGINE OIL PRESSURE LIGHT  (RED).

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 (6) stays on, stop the engine or it may suffer severe damage.

7) HIGH BEAM LIGHT  (BLUE).

Comes on when high beam is on.

8) "ENGINE DIAGNOSIS- EOBD" LIGHT  (AMBER YELLOW).

The engine ECU illuminates this light to indicate errors and consequent engine lock.

### 9) "VEHICLE DIAGNOSIS" LIGHT

Illuminates when the motorcycle diagnostics detects a problem.

### 10) LIMITER LIGHT - OVER REV

Light 10A: This light comes on steady at 800 rpm below the limiter threshold.

Lights 10A + 10B: These lights come on steady at 400 rpm below the limiter threshold.

Lights 10A + 10B + 10C: They start flashing when the rev limiter is reached.

### 11) CONTROL SWITCH

Button used to display and set instrument panel parameters. It has two positions: A "▲" and B "▼".

### 12) HIGH-BEAM FLASH BUTTON FLASH (fig. 5)

The high-beam flash button may also be used to control the LAP functions and the instrument panel DDA data logger.

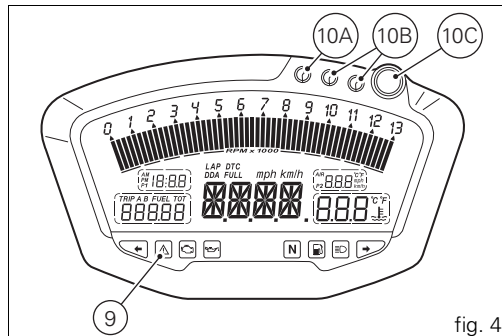


fig. 4

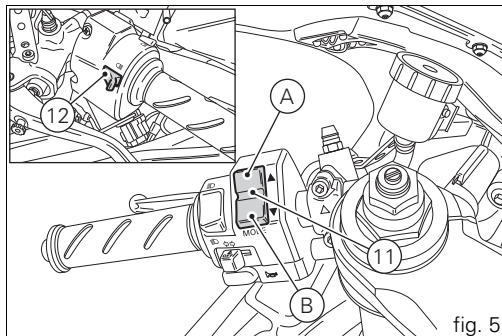


fig. 5

## LCD unit functions



### Warning

Stop the motorcycle before using the instrument panel controls. Never operate the instrument panel controls while riding.

1) SPEEDOMETER.

Gives road speed

2) ODOMETER.

Gives total distance covered.

3) TRIP METER.

Indicates distance covered since the meters (TRIP A and TRIP B) were last reset.

4) TRIP FUEL METER.

Gives total distance travelled on fuel reserve.

5) CLOCK.

6) LAP TIMER.

7) ENGINE RPM INDICATOR (RPM).

8) LAP TIME, MAXIMUM SPEED AND MAXIMUM RPM RECORDING (LAP).

9) BATTERY VOLTAGE INDICATOR (BATT).

10) AIR TEMPERATURE INDICATOR.

11) WATER TEMPERATURE INDICATOR.

This function indicates engine coolant temperature.

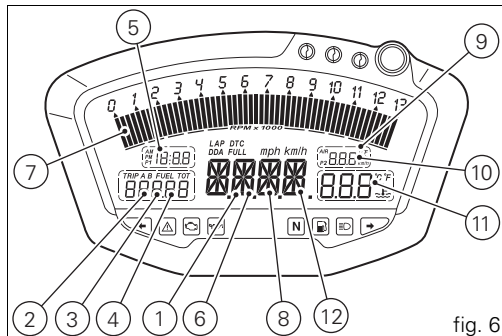


fig. 6



### Important

Never use the vehicle when the temperature reaches max. value or the engine might damage.

12) SERVICE WARNING (SERV).

The "SERV" message indicates that the vehicle has covered the distance corresponding to a Scheduled Maintenance interval. The message is displayed only at Key-On for 5 seconds. The service indicator will be reset at an authorised Ducati Service Centre during servicing.



## Important

The instrument panel allows the diagnosis of the electronic ignition/injection system. Never use the menus reserved for trained personnel for any reason. If this function is accidentally accessed, turn the key to OFF and contact a Ducati Dealer or Authorised Service Centre for the necessary checks.

## LCD – How to set/display parameters

At key-on (key turned from OFF to ON) the instrument panel activates all the digits of the LCD for 1 second and switches on the indicator lights in sequence.

It then switches to "normal" display mode showing the model indication in place of the road speed readout and the version (EU, UK, USA, CND, FRA, JAP) for 2 seconds.

Model is displayed as "scrolling" text until the engine is started.

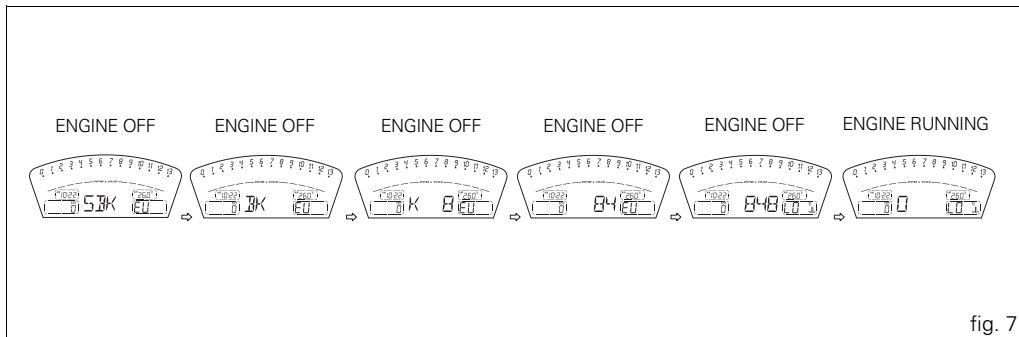


fig. 7



At Key-On, the instrument panel always shows the following information (de-activating any previously activated functions):

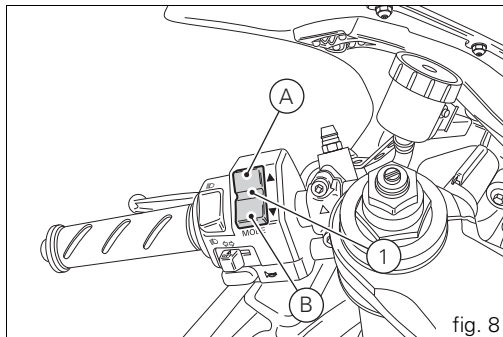
ODOMETER  
AIR TEMPERATURE  
CLOCK  
SPEED  
COOLANT TEMPERATURE  
ENGINE RPM

With the switch (1, fig. 8) in position B “▼” the Odometer readout (TOT) will cycle through the following functions:

TRIP A  
TRIP B  
TRIP FUEL (only if active)  
until cycling back to the ODOMETER (TOT) function.

Pressing switch (1, fig.8) in position A “▲” gives access to the MENU and the following functions are displayed one after another:

ERROR (only if at least one error is present)  
BATT  
RPM  
LAP (OFF or ON)  
LAP MEM  
USB (OFF or ON)



ERASE USB  
TIME SET  
CODE (only if active)



### Important

This menu is active only if the speed of the motorcycle is less than 20 km/h. If this MENU is open and the speed of the motorcycle exceeds 20 km/h, the instrument panel automatically exits the menu and returns to the initial display. It is possible to exit the menu at any time, however, by pressing switch (1, fig. 8) in position A “▲” for 3 seconds.

## Total distance covered indicator: "Odometer"

This function shows the total distance covered by the vehicle.

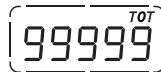
This function shows the total distance covered by the vehicle.

Upon Key-On, the system automatically enters this function.

The odometer reading is stored permanently and cannot be reset.

If the distance travelled exceeds 99999 km (or 99999 miles), the value "99999" will be displayed permanently.

EU, CND, FRA, JAP versions



UK, USA versions

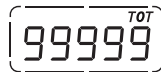
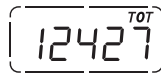


fig. 9

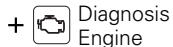
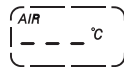
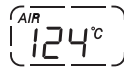
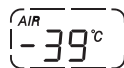
## Air temperature indicator

This function shows the external temperature.

Display limits:  $-39^{\circ}\text{C} \div +124^{\circ}\text{C}$

In the event of a sensor FAULT ( $-40^{\circ}\text{C}$ ,  $+125^{\circ}\text{C}$  or disconnected), a string of dashes " - - - " (not flashing) is displayed and the "Engine diagnosis - EOBD" light comes on (8, fig. 4).

EU, CND, FRA, JAP versions



UK, USA versions

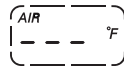
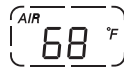


fig. 10

## Vehicle speed indication

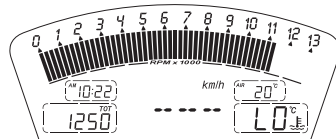
This function shows vehicle speed.

The instrument panel receives the actual speed value (expressed in km/h) from the ECU and displays the value increased by 8%.

Maximum speed displayed is 299 km/h (186 mph).

Over 299 km/h (186 mph) the display will show a series of dashes " - - - " (steadily lit - not flashing).

EU, CND, FRA, JAP versions



UK, USA versions

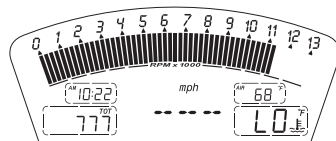
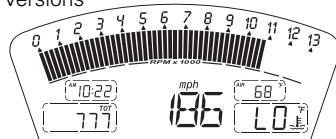


fig. 11

## Engine coolant temperature indicator

It shows engine coolant temperature:

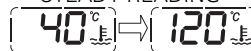
- If reading is  $-40\text{ }^{\circ}\text{C}$  ( $-40\text{ }^{\circ}\text{F}$ ) or less, the display shows a string of flashing dashes ("—") and the "Engine diagnosis - EOBD" light (8, fig. 4) comes on;
- if reading is between  $-39\text{ }^{\circ}\text{C}$  ( $-38\text{ }^{\circ}\text{F}$ ) and  $+39\text{ }^{\circ}\text{C}$  ( $+102\text{ }^{\circ}\text{F}$ ), the word "LO" comes on steady on the display;
- if reading is between  $+40\text{ }^{\circ}\text{C}$  ( $+104\text{ }^{\circ}\text{F}$ ) and  $+120\text{ }^{\circ}\text{C}$  ( $+248\text{ }^{\circ}\text{F}$ ), the display shows temperature reading (on steady);
- if reading is between  $+121\text{ }^{\circ}\text{C}$  ( $+250\text{ }^{\circ}\text{F}$ ) and  $+124\text{ }^{\circ}\text{C}$  ( $+255\text{ }^{\circ}\text{F}$ ), the word "HI" is shown flashing on the display;
- if reading is  $+125\text{ }^{\circ}\text{C}$  ( $+257\text{ }^{\circ}\text{F}$ ) or higher, the display shows a string of flashing dashes ("—") and the "Engine diagnosis - EOBD" light (9, fig. 4) comes on.
- In the event of a sensor FAULT, a string of flashing dashes ("—") is shown and the "Engine diagnosis - EOBD" light (8, fig. 4) comes on.

EU, CND, FRA, JAP versions

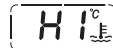
STEADY READING



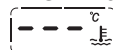
STEADY READING



FLASHING DATUM



FLASHING DATUM



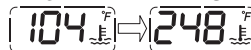
 Engine  
Diagnosis

UK, USA versions

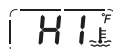
STEADY READING



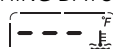
STEADY READING



FLASHING DATUM



FLASHING DATUM



 Engine  
Diagnosis

fig. 12

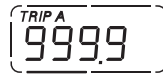
## Trip meter "TRIP A"

This function shows the distance travelled since the Trip meter was last reset.

Holding button (1, fig.8) pressed in position B "▼" for 3 seconds when this function is displayed resets the trip meter.

When the reading exceeds 999.9, distance travelled is reset and the meter automatically starts counting from 0 again.

EU, CND, FRA, JAP versions



UK, USA versions

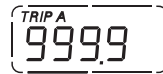
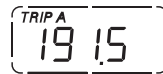


fig. 13

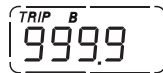
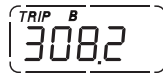
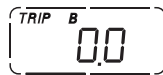
## Trip meter "TRIP B"

This function shows the distance travelled since the Trip meter was last reset.

Holding button (1, fig.8) pressed in position B "▼" for 3 seconds when this function is displayed resets the trip meter.

When the reading exceeds 999.9, distance travelled is reset and the meter automatically starts counting from 0 again.

EU, CND, FRA, JAP versions



UK, USA versions

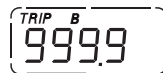
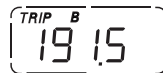
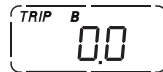


fig. 14

## Distance travelled on fuel reserve: "TRIP FUEL"

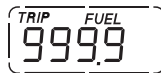
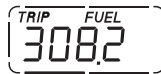
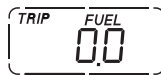
This function shows the distance travelled on fuel reserve.

When the fuel warning light comes on, the TRIP FUEL meter is activated automatically, regardless of the function displayed. Trip fuel reading remains stored even after Key-Off until the vehicle is refuelled.

Count is interrupted automatically as soon as fuel is topped up to above minimum level.

When the reading exceeds 999.9, distance travelled is reset and the meter automatically starts counting from 0 again.

EU, CND, FRA, JAP versions



UK, USA versions

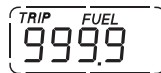
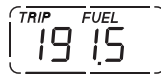


fig. 15



## Service indicator (SERV)

It shows service intervals (service).

The message "SERV" is displayed at the following intervals:

after the first 1000 km on the odometer;

every 12000 km on the odometer.

The information is displayed only at Key-On for 5 seconds.

When the service indicator appears, contact your Ducati dealer or Authorised Service Centre.

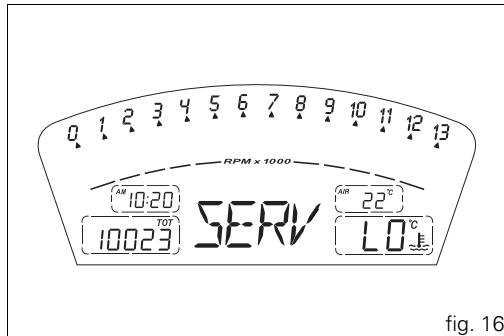


fig. 16

## Battery voltage indicator (BATT)

This function provides battery voltage indication.

To display this function, go into the menu and select the "BATT" page.

The battery voltage reading is displayed as follows:

- if voltage is between 12.1 and 14.9 Volt, the reading is on steady;
- if voltage is between 10.0 and 12.0 Volt or between 15.0 and 16.0 Volt, the reading will be flashing;
- if voltage is 9.9 Volt or less, the word " LO " is shown flashing and the "Vehicle diagnosis" light (9, fig.4) comes on;
- if voltage is 16.1 Volt or higher, the word " HI " is shown flashing and the "Vehicle diagnosis" light (9, fig. 4) comes on.

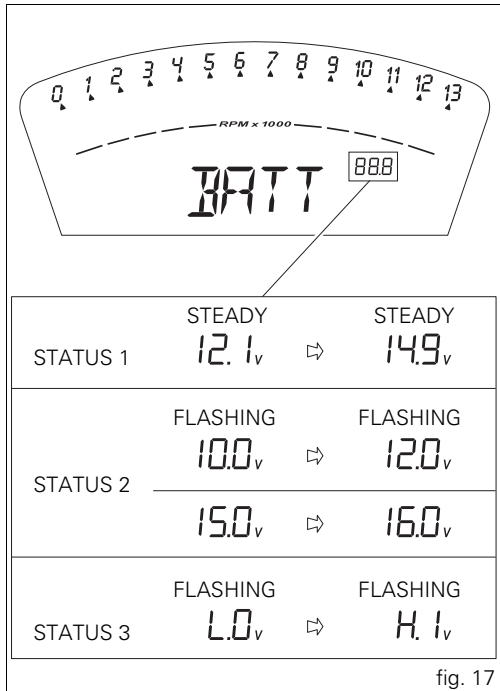


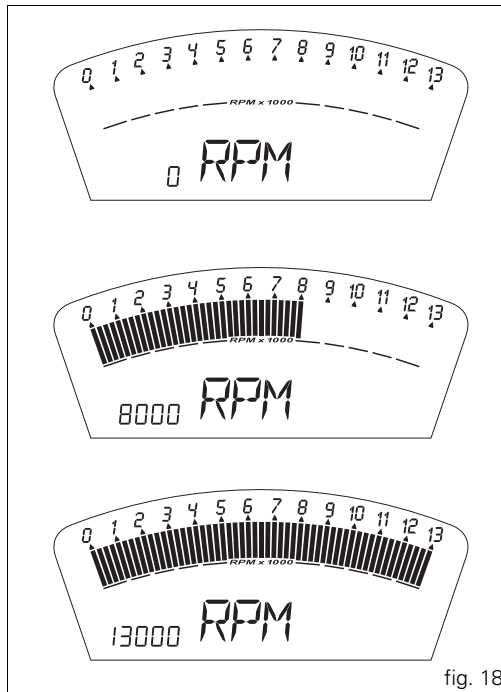
fig. 17

## Engine idle RPM setting (RPM)

This function describes engine idle setup.

To display the function, go into the menu and call up the "RPM" page.

In addition to the upper rev counter scale, the display also shows engine rpm numerically so that you can adjust the idle speed more precisely.



## LAP timer

This function lets you display lap times.

To enable this function, enter the menu and set the "LAP" function to "On" by holding switch (1, fig. 8) pressed in position B "▼" for 3 seconds.

The lap timer is started and stopped using the high-beam flasher button FLASH (12, fig. 5) on the LH switch.

When the LAP function is active, each time you press the FLASH button, the display will show the lap time for 10 seconds, before reverting to normal mode.

Up to 30 lap times can be stored.

If the memory is full, each time you press the FLASH button, no more lap times can be saved and the display will show the flashing message "FULL" for 3 seconds until the memory is reset.

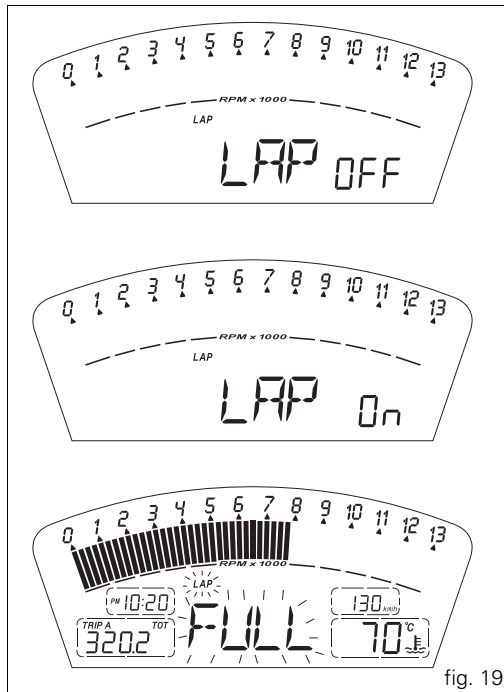


fig. 19

When the LAP function is set to Off in the menu, the current "lap" is not stored.

If the LAP function is active and the display is suddenly switched off (Key-Off), the LAP function is switched off automatically (even if the timer was ON, the lap in progress is not saved).

If the timer is not stopped, when it reaches 99 minutes, 59 seconds and 99 hundredths, it restarts from 0 (zero) and continues until the function is switched off.

If the LAP function is enabled without resetting the "memory" and there are less than 30 laps stored in the memory (for instance: 18 laps), the display will store any remaining laps until the memory is full (in this case, it will store an additional 12 laps).

This function only displays lap times; but other data are also saved (MAX speed, MAX rpm, rev limiter if reached) for viewing at a later date in the Lap Memory function.

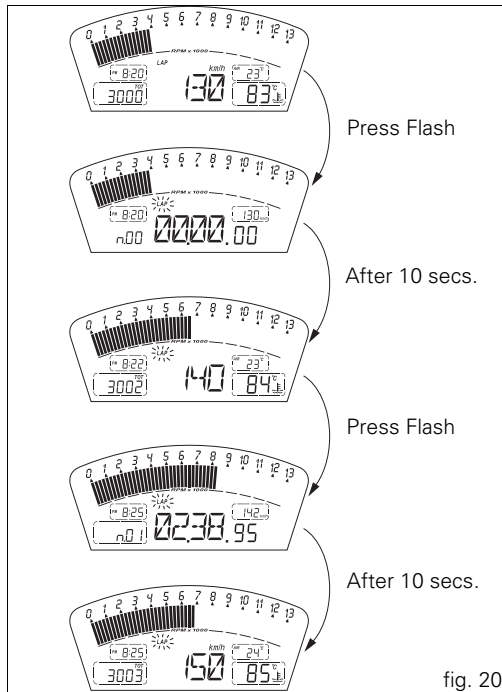


fig. 20

## Stored data display (LAP Memory)

It displays data stored using the LAP function: lap time, MAX speed and MAX rpm.

To view stored lap times, enter the menu and go to page "LAP MEM".

Holding switch (1, fig. 8) pressed in position B "▼" for 3 seconds in this menu page accesses the "1st lap" view mode. The display will show the lap number, lap time, MAX speed and the MAX rpm reached for the lap in question.

Press switch (1, fig. 8) in position B "▼" repeatedly to scroll through the 30 laps stored until returning to the 1st lap.

If you press switch (1, fig. 8) in position B "▼" for 3 seconds while the saved times are displayed, the display immediately resets all the saved times and the LAP function is disabled automatically, if active.

The MAX speed saved is the maximum speed indicated on the display in Lap function.

If MAX speed reading exceeds 299 Km/h (186 mph) while the information is stored, speed reading is displayed (example: 316 Km/h).

If there is no reading in the memory, the 30 times are shown, with the display showing "00.00.00", MAX rpm = 0 and MAX speed = 0.

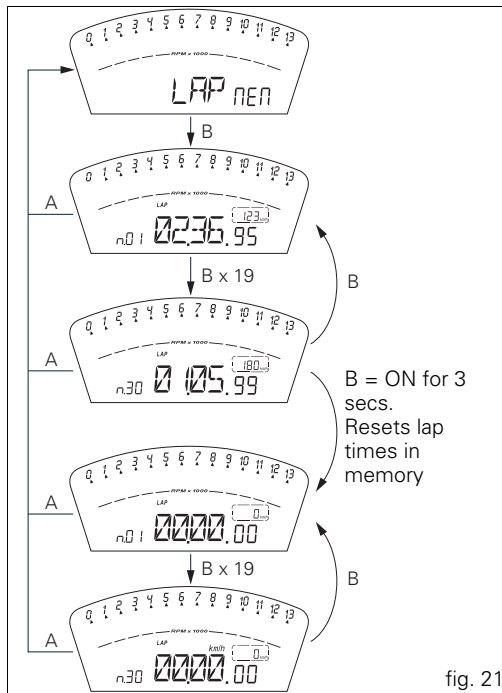


fig. 21

If the engine reached one of the two thresholds before the limiter or the limiter threshold during a lap, the corresponding lights (10, fig. 4) come on while viewing stored lap times.

## DDA data acquisition

This function activates the DDA analyser (not fitted for this model, but available at Ducati selling network): the data logger must be connected to vehicle wiring. To enable this function, enter the menu and set "DDA" data logger to "On" by holding switch (1, fig. 8) pressed in position B "▼" for 3 seconds. The START/STOP control for the data logger lap separator is the high-beam flasher button FLASH ( 12, fig. 5) on the LH switch. If the DDA function is active and the display is suddenly switched off (Key-Off), the function is switched off automatically.



**Note** Online assistance is available to Ducati Data Analyser (DDA) owners (<http://dda.prosa.com>). This service will provide anything necessary to correctly use the DDA with your PC: both for the device and the software for analysing the recorded data.



**Warning** After use, disconnect the DDA from the main wiring harness.

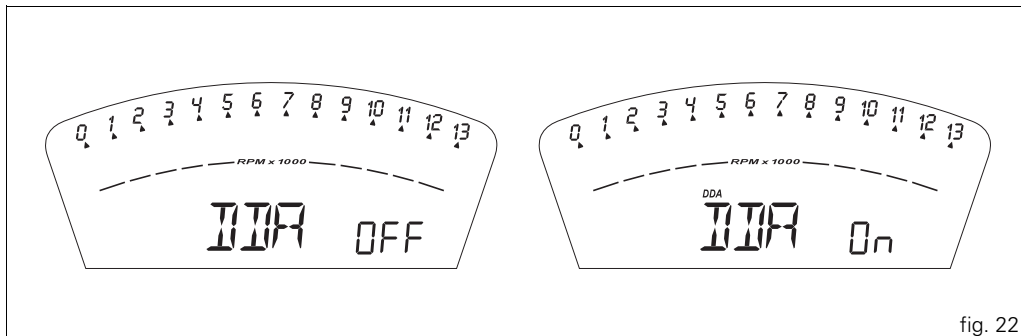


fig. 22



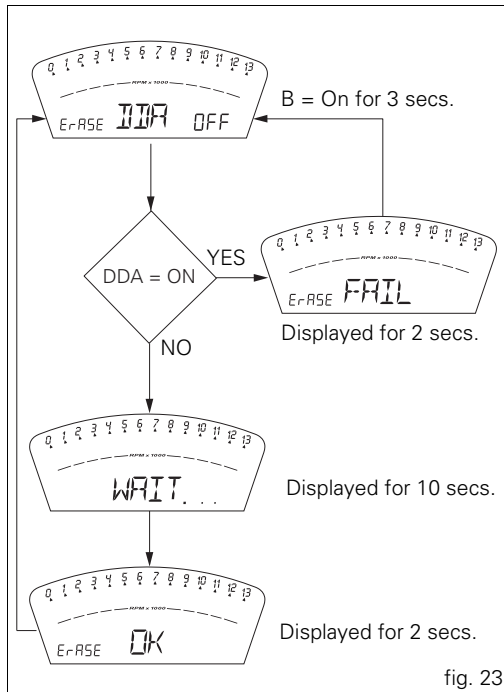
## Erase DDA

This function deletes data stored in the DDA (not fitted for this model, but available from the Ducati network): the data logger must be connected to vehicle wiring.

To erase data, enter the menu page "Erase DDA".

If you press switch (1, fig. 8) in position B "▼" for 3 seconds and the DDA is not acquiring data, the message "WAIT..." is shown on the display for 10 seconds; after these 10 seconds, message "ERASE OK" is displayed for 2 seconds to confirm that the data in the DDA data logger have been erased.

If switch (1, fig. 8) is pressed in the B "▼" position for 3 seconds while the DDA data logger is acquiring data, the data logger memory is not erased and the display shows message "FAIL" for 2 seconds.



## Clock setting function

This function is used to set the clock time.

To set the clock, select the "TIME Set" page from the menu.

Holding switch (1, fig. 8) pressed in position B "▼" for 3 seconds in this menu page gives access to the setup mode.

When you access this function, the text "AM" flashes; if you press switch (1, fig. 8) in position B "▼" the text "PM" flashes; if you press switch (1, fig. 8) in position B "▼" mode will go back to previous setting (if it is 00:00, when toggling from "AM" to "PM", 12:00 will be displayed).

Pressing switch (1, fig. 8) in position A "▲" gives access to the hour setting mode; hours start to flash. Each time you press the button in position B "▼", the digit will increase by one hour. If the switch is held pressed in position B "▼" the number increases cyclically in steps of one hour every second (when the switch is held depressed, the hours do not flash).

Pressing switch (1, fig. 8) in position A "▲" gives access to the minute setting mode; minutes start to flash. Each time you press the button in position B "▼", the digit will increase by 1 minute. If you hold the switch down in position B "▼", the count increases cyclically in steps of 1 minute every second. If the

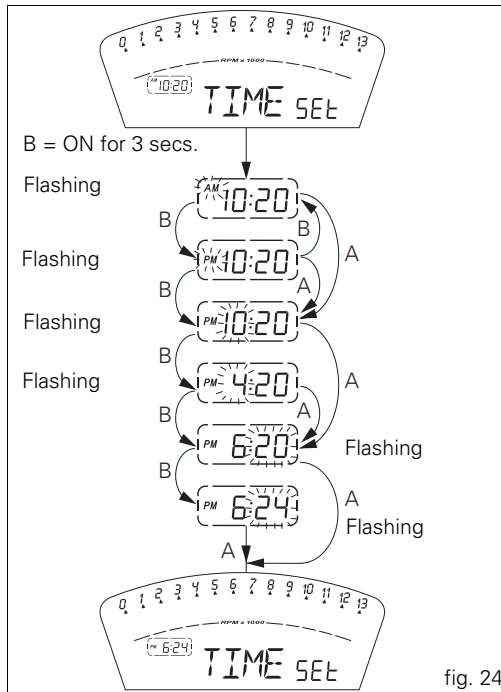


fig. 24

button is held depressed in position B "▼" for over 5 seconds, minutes will increase by 1 minute every 100 ms (while the button is held depressed in position B "▼", seconds will not flash). Pressing the button in position A "▲", exits setup mode and the new time is displayed.

## Instrument panel diagnosis






### Important











The instrument panel runs system diagnostics after 60 seconds from the last Key-Off.











Any abnormal vehicle behaviour is displayed. If more errors are present, they are displayed one by one every 3 seconds. Possible errors are listed in the table below.























**Warning**  
When an error is displayed, always contact a Ducati Dealer or authorised Service Centre.

WARNING LIGHT	ERROR MESSAGE	ERROR
	COIL	8.1 Horizontal cylinder coil error
	COIL	8.2 Horizontal cylinder coil error
	COIL	9.1 Vertical cylinder coil error
	COIL	9.2 Vertical cylinder coil error
	COIL	10.1 Horizontal cylinder coil error







WARNING LIGHT	ERROR MESSAGE	ERROR
	COIL	10.2 Horizontal cylinder coil error
	COIL	11.1 Vertical cylinder coil error
	COIL	11.2 Vertical cylinder coil error
	INJE	12.1 Horizontal cylinder injector error
	INJE	12.2 Horizontal cylinder injector error
	INJE	13.1 Vertical cylinder injector error
	INJE	13.2 Vertical cylinder injector error
	INJE	14.1 Horizontal cylinder injector error
	INJE	14.2 Horizontal cylinder injector error
	INJE	15.1 Vertical cylinder injector error

WARNING LIGHT	ERROR MESSAGE	ERROR
	INJE	15.2 Vertical cylinder injector error
	PUMP	16.0 Fuel pump relay error
	FAN	18.1 Fan relay error
	FAN	18.2 Fan relay error
	STRT	19.1 Solenoid starter error
	STRT	19.2 Solenoid starter error
	STEP.	21.1 Stepper motor error
	STEP.	21.2 Stepper motor error
	STEP.	21.3 Stepper motor error
	LAMB.	22.1 Lambda heaters error

WARNING LIGHT	ERROR MESSAGE	ERROR
	LAMB.	22.2 Lambda heaters error
	EXVL	23.1 Exhaust butterfly valve motor error
	EXVL	23.2 Exhaust butterfly valve motor error
	EXVL	23.3 Exhaust butterfly valve motor error
	EXVL	23.4 Exhaust butterfly valve motor error
	TPS	1.1 Throttle position sensor error
	TPS	1.2 Throttle position sensor error
	PRESS	2.1 Pressure sensor error
	PRESS	2.2 Pressure sensor error
	T.WAT	3.1 Engine water temperature sensor error

WARNING LIGHT	ERROR MESSAGE		ERROR
	T.WAT	3.2	Engine water temperature sensor error
	AIR	4.1	Air temperature sensor error
	AIR	4.2	Air temperature sensor error
	BATT	5.1	Battery voltage error
	BATT	5.2	Battery voltage error
	LAMB	6.1	Lambda sensor error
	TILT	6.2	Lambda sensor error 2
	DTC	8.0	Traction control ECU error
	ECU	30.0	Engine Control Unit error
	PK.UP	34.0	Pick-up sensor error



WARNING LIGHT	ERROR MESSAGE		ERROR
	SPEE.	36.0	Speed sensor error
	IMMO	37.0	Immobilizer error
	IMMO	37.1	Immobilizer error
	IMMO	37.3	Immobilizer error
	IMMO	37.5	Immobilizer error
	CAN	38.0	CAN communication line error

## Instrument panel backlighting

The instrument panel backlighting is always activated by Key-On.

The instrument panel is equipped with sensors that detect the ambient light level and at night reduce the maximum backlighting level by 20% to prevent glare.

## Headlight “smart” auto-off

This function helps reduce battery use by automatically switching off the headlight. The device is enabled in three instances:

- 1) When the key is turned from OFF to ON and the engine is not started within 60 seconds, the headlight is turned off and will be turned back on next time you start the engine.
- in case 2, after the vehicle has been running with the headlights on and the engine is stopped using the RUN-STOP button on the RH switch.  
In this case, 60 seconds after stopping the engine, the headlight is turned off and will be turned back on next time you start the engine.
- 3) While starting up the engine, the headlight is turned off and back on as soon as the engine is started.

## Headlight “smart” SWITCH-ON

This function allows programmed activation of the headlight even with the motorcycle off (Key-Off). The instrument panel stays active for 60 seconds soon after Key-Off, and the headlight can be switched on by pressing switch (1, fig. 8) in position B “▼”.

During these 60 seconds, each time switch (1, fig. 8) is pressed in position B “▼”, the instrument panel will activate the headlight for 30 seconds; each press will add to the headlight activation time, up to a maximum of 6 presses of switch (1, fig. 8) in position B “▼” (equivalent to a maximum activation time of 180 seconds).

After the first time you press switch (1, fig. 8) in position B “▼”, the period of 30 seconds starts, thus switching on the headlight. Further switch-on time can be added only if you press the switch again within these 30 seconds. If the 30 seconds have elapsed, no further multiples of 30 seconds can be added, and the instrument panel will switch off the headlight.

To reset this function, you must perform at least one Key-On/ Key-Off.

If the battery power is interrupted at any time while this function is active, when power is restored, the instrument panel will deactivate the function (the instrument panel does not remain active for 60 seconds).

## The Immobilizer system

For improved antitheft protection, the motorcycle is equipped with an IMMOBILIZER, an electronic system that inhibits engine operation whenever the ignition switch is turned off.

Accommodated in the handgrip of each ignition key is an electronic device that modulates an output signal. When the ignition is turned on this signal is generated by a special antenna incorporated in the switch and changes every time. The modulated signal represents the "password" (which is changed at each start-up) by which the ECU recognizes the ignition key. The ECU will only allow the engine to start if it recognises this password.

### Keys (fig. 25)

The Owner receives a set of keys comprising:

- 2 (BLACK) keys B

These keys contain the "immobilizer system code".



#### Note

Your Ducati dealer may ask you to produce your Code Card in order to carry out certain servicing operations.

The black keys (B) are regular ignition keys and are used to:

- start up the engine.
- open the fuel tank filler plug.
- open the seat lock.



#### Note

The two keys have a small plate (1) attached that reports their identification number.



#### Warning

Keep the keys separate, and store the tag (1) in a safe place.

It is also advisable to use only one of the black keys to start the motorcycle.

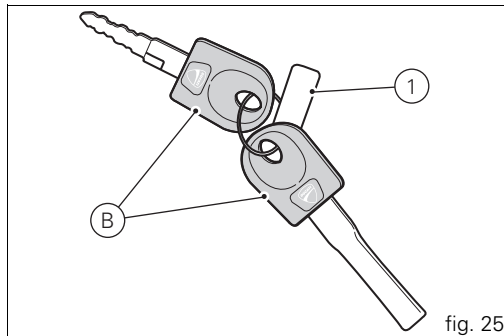


fig. 25

## Code Card

The CODE CARD (fig. 26) supplied with the keys reports an electronic code (A, fig. 27) to start the engine in the event it fails to start after KEY-ON because the immobilizer system inhibited the ignition.



### Warning

Keep the CODE CARD in a safe place. However, it is advisable to keep the electronic code printed on the CODE CARD handy when you ride your motorcycle, in case it is necessary to enable the engine through the procedure described below. This procedure lets you disable the “engine block” function - indicated by the amber Vehicle diagnosis light (9, fig. 3) coming on - in the event of problems with the immobilizer system.

This operation is only possible if the electronic code indicated on the code card is known.



### Warning

Your dealer will ask you to produce the Code Card in order to reprogram or replace a key.

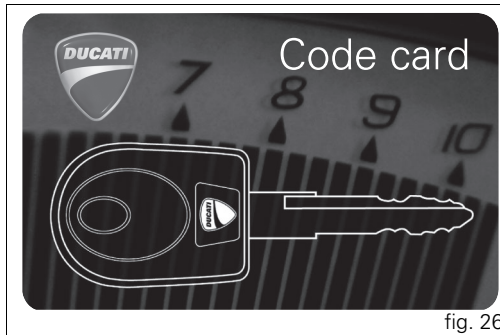


fig. 26

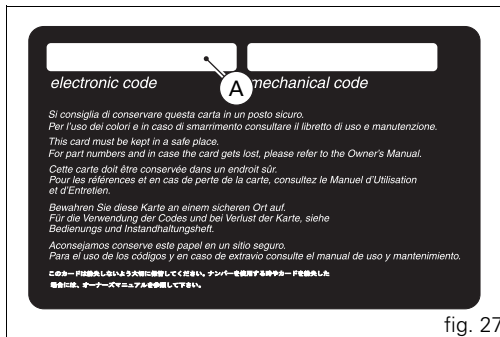


fig. 27

## Immobilizer override procedure

Should the immobilizer become locked, you can perform the "Immobilizer Override" procedure from the instrument panel by entering the respective function as described below.

Enter the menu and go to page "CODE".



### Note

This menu should only be active when at least one Immobilizer error is present.

This page menu shows a default "00000" code. If you hold switch (1, fig. 8) depressed in position B "▼" for 3 seconds, you will access the procedure for entering the electronic code given on the Code Card.

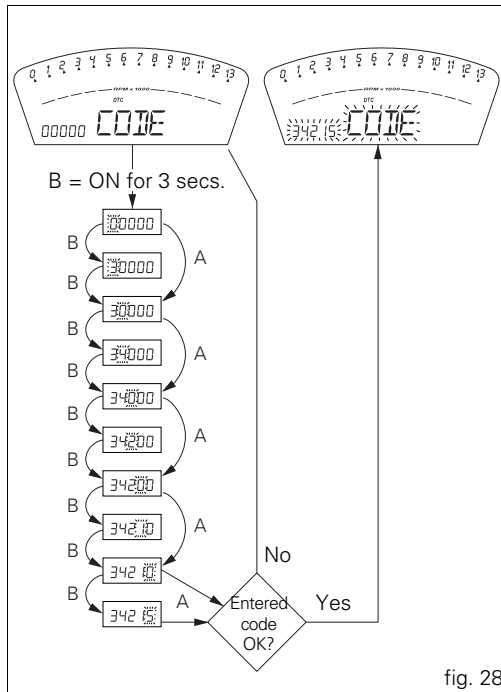


fig. 28

Entering the code:

when you access this function, the first digit on the left will flash.

Button (1, fig. 8):

each time you press the switch in position B "▼", the number increases cyclically in steps of one digit every second;

if you press the button in position A "▲", you will move to the second digit, which will start to flash.

Each time you press the switch in position B "▼", the number increases cyclically in steps of one digit every second;

if you press the switch in position A "▲", you can set the third digit, which will start flashing. Each time you press the switch in position B "▼", the number increases cyclically in steps of one digit every second;

if you press the button in position A "▲", you will move to the fourth digit, which will start to flash. Each time you press the switch in position B "▼", the number increases cyclically in steps of one digit every second;

if you press the switch in position A "▲", you can set the fifth digit, which will start flashing. Each time you press the switch in position B "▼", the number increases cyclically in steps of one digit every second;

press in position A "▲" to confirm the code.

If the code has been entered correctly, the word "CODE" and the code you just entered will flash for 4 seconds. The "Vehicle diagnosis" light (9, fig. 4) will turn off; the instrument panel automatically exits the menu and the engine start-up inhibition is temporarily overridden.

If the error is still present, at the next Key-On the instrument panel error and the inhibited status will persist.

If the code is not entered correctly, the instrument panel reverts to the "CODE" menu and display the default "00000" code.

## Operation

When the ignition key is turned to OFF, the immobilizer inhibits engine operation. When the ignition key is turned back to ON to start the engine, the following happens:

- 1) if the code is recognised, the immobilizer enables engine ignition. Press the START button (2, fig. 34), to start the engine;
- 2) if the "Vehicle diagnosis" light (9, fig. 4) comes on and the page with the message "Error IMMO" is displayed when you press switch (1, fig. 8) in position "▼", it means that the code was not recognised.

When this is the case, turn the ignition key back to OFF and then to ON again. If the engine still does not start, try with another black key. If the other key does not work out either, contact the Ducati Service network.



### Warning

Any important shock might damage the electronic components fitted into the key. Use only one key during the procedure. Failure to do so might prevent the system from recognising the code of the key in use.

## Duplicate keys

If you need additional keys, contact your DUCATI Service Centre with all the keys you have in your possession and your CODE CARD.

The Ducati Service Centre will program all the new keys as well as any keys you already have.

You may be asked to provide proof that you are the legitimate owner of the motorcycle.

The codes of any keys not submitted will be wiped off from the memory to make those keys unserviceable in case they have been lost.



### Note

If you sell your motorcycle, do not forget to give all keys and the CODE CARD to the new owner.



## Service menu - unit of measurement (UNIT SET)

This function allows you to select the units of measurement displayed on the instrument panel. To enter the menu service push button (1, fig. 8) in position A "▲" while turning the key from "Off" to "On".



### Note

Within this MENU all other functions are excluded and motorcycle starting is disabled.

The first function displayed is the "Immobilizer Reprogramming" procedure (REPR Code), pressing the button (1, fig. 8) in the position A "▲" or B "▼" select the "Setting Special" (Set UNIT) function. Now press the button (1, fig. 8) in the position B "▼" for 3 seconds.

Each time you press switch (1, fig. 8) in the position B "▼", the instrument panel scrolls through the following sequence of options, which flash on the display:

UNIT OF MEASUREMENT			
Country standard	Speed	Air temperature	Odometer/ trip meters
EU	Km/h	°C	Km
EN	mph	°C	miles
USA	mph	°F	miles
CND	Km/h	°C	Km
FRA	Km/h	°C	Km
JAP	Km/h	°C	Km
ECU Id.	The instrument panel sets units of measurement according to ECU information		

If you press the button (1, fig. 8) in position B "▼" for 3 seconds, the option currently displayed will be saved to memory and the word "MEM" will appear. Upon the following Key-On the instrument panel will be set to the new settings.

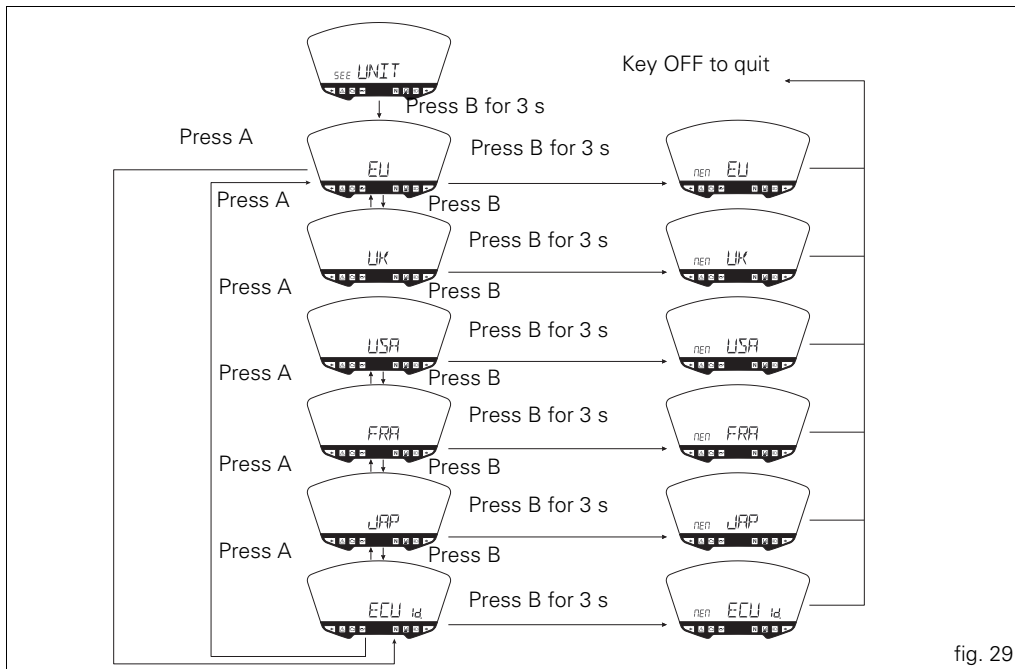


fig. 29

# Controls



**Warning** This section shows the position and function of the controls used to ride the motorcycle. Be sure to read this information carefully before you use the controls.

## Position of motorcycle controls (fig. 30)

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

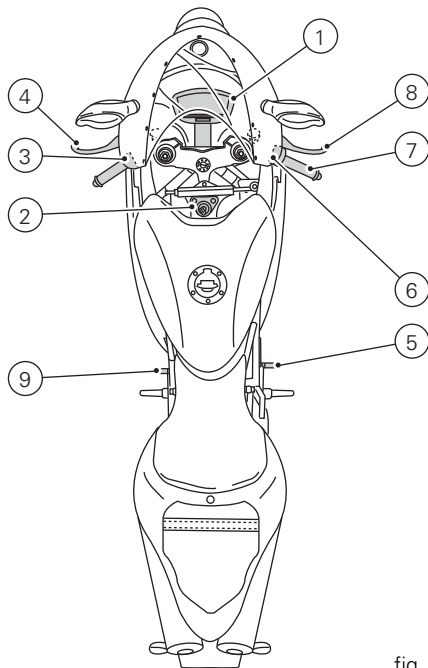


fig. 30

## Key-operated ignition switch and steering lock (fig. 31)

It is located in front of the fuel tank and has four positions:

- A) ON: enables lights and engine operation;
- B) OFF: disables lights and engine operation;
- C) LOCK: the steering is locked;
- D) P: parking light on and steering locked.



### Note

To move the key to the last two positions, press it down before turning it. The key can be removed in positions (B), (C) and (D).

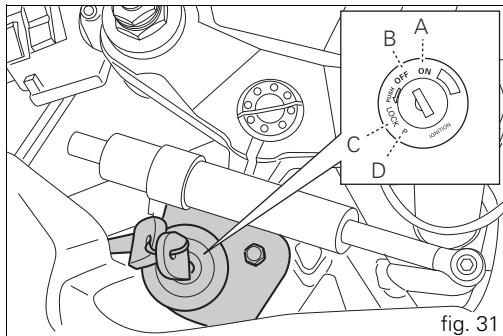




fig. 31

## LH switch (fig. 32)

1) Dip switch, two-position light selector switch:


position  = low beam on;

position  = high beam on.


2) Switch  = 3-position turn indicator:


centre position = off;

position  = left turn;

position  = right turn.

To cancel turn indicators, push in once switch returns to central position.

3) Button  = warning horn.

4) Button  = high-beam flasher (FLASH) and instrument panel control.

5) Two-position instrument panel control switch:

position "▲";

position "▼".

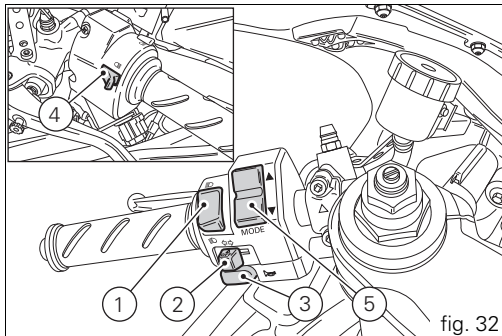


fig. 32

## Clutch lever

Lever (1) disengages the clutch. It features a dial adjuster (2) for lever distance from the twistgrip on handlebar.

The lever distance can be adjusted through 10 clicks of the dial (2). Turn clockwise to increase lever distance from the twistgrip. Turn the adjuster counter clockwise to decrease lever distance.

When the clutch lever (1) is operated, drive from the engine to the gearbox and the drive wheel is disengaged. Using the clutch properly is essential to smooth riding, especially when moving off.



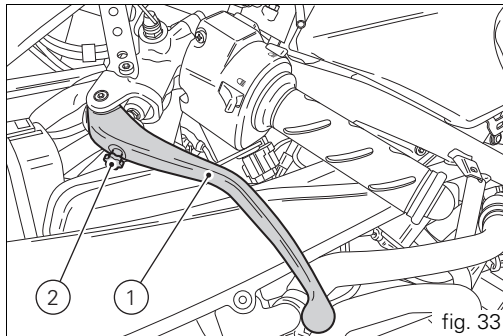
### Warning

Set clutch lever when motorcycle is stopped.



### Important

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





### Note

It is possible to start the engine with the side stand down and the gearbox in neutral. When starting the bike with a gear engaged, pull the clutch lever (in this case the side stand must be up).


## RH switch (fig. 34)

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

Stopping the engine using switch (1) after riding with the lights on and leaving the ignition key in the **ON** position, may run the battery flat as the lights will remain on.

2) Button  = engine start.

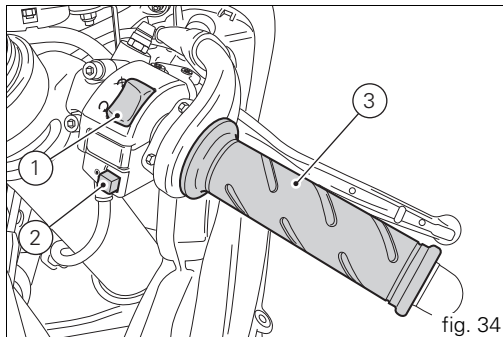


fig. 34

## Throttle twistgrip (fig. 34)

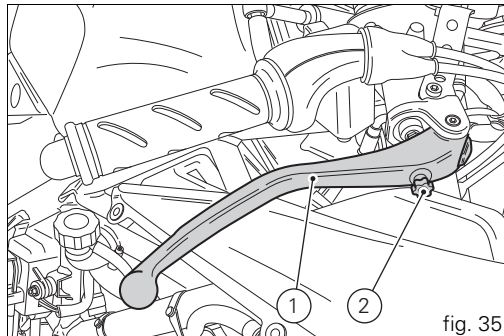
The twistgrip (3) on the right-hand handlebar opens the throttles. When released, it will spring back to the initial position (idling speed).

## Front brake lever (fig. 35)

Pull in the lever (1) towards the twistgrip to operate the front brake. The system is hydraulically operated and you just need to pull the lever gently.

The brake lever (1) has a dial (2) for adjusting the distance between lever and twistgrip on the handlebar.

The lever distance can be adjusted through 10 clicks of the dial (2). Turn clockwise to increase lever distance from the twistgrip. Turn the adjuster counter clockwise to decrease lever distance.





### Rear brake pedal (fig. 36)

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

### Gear change pedal (fig. 37)

When released, the gear change pedal automatically returns to rest position N in the centre. This is indicated by the instrument panel light N (3, fig. 3) coming on.

The pedal can be moved:

down = press down the pedal to engage the 1<sup>st</sup> gear and to shift down. The N light will go out;

upwards= lift the pedal to engage 2<sup>nd</sup> gear and then 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> gears.

Each time you move the pedal you will engage the next gear.

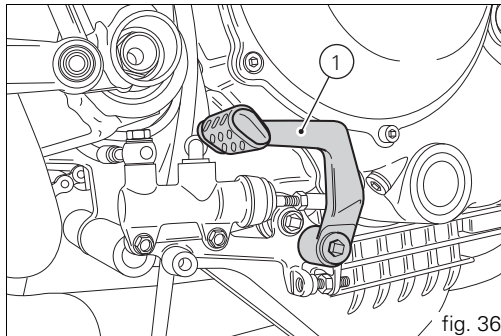


fig. 36

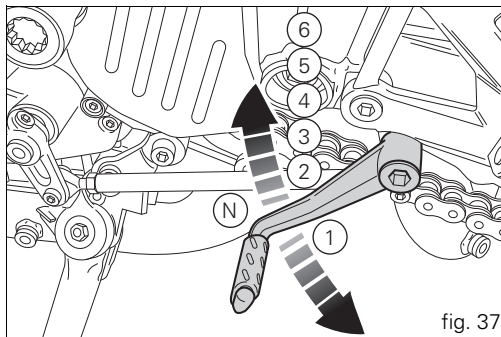


fig. 37

## Setting the gear change and rear brake pedals (fig. 38 and fig. 39)

The gear change and rear brake pedals can be adjusted to suit the preferred riding position of each rider.

To adjust the position, proceed as follows:  
hold the rod (1) and loosen lock nuts (2) and (3).



### Note

Nut (2) has a left-hand thread.

Fit an open-end wrench to hexagonal element of linkage (1) and rotate until setting pedal in the desired position.

Tighten both check nuts onto linkage.

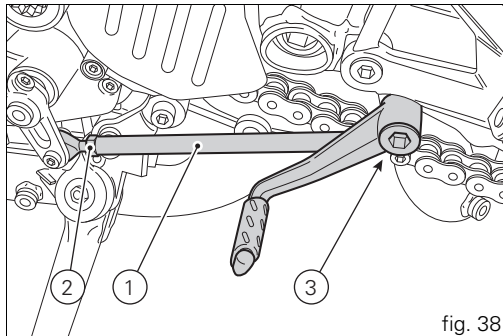
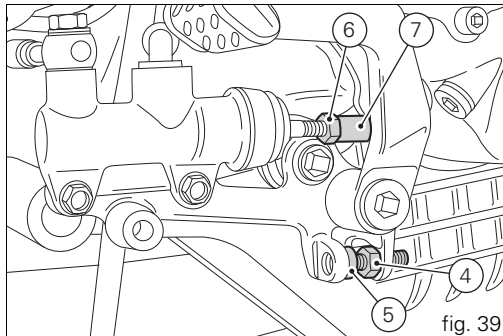


fig. 38

To set the rear brake pedal, proceed as follows.  
loosen counter nut (4).  
Turn pedal travel adjusting screw (5) until pedal is in the desired position.  
Tighten the check nut (4) to 2.3 Nm.  
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 cylinder linkage as follows.  
Loosen the check nut (6) on cylinder linkage.  
Tighten linkage into fork (7) to increase play, or unscrew linkage to reduce it.  
Tighten the check nut (6) to 7.5 Nm and check play again.



# Main components and devices

Position on the vehicle (fig. 40)

- 1) Tank filler plug.
- 2) Seat lock.
- 3) Side stand.
- 4) Steering damper.
- 5) Rear-view mirrors.
- 6) Front fork adjusters.
- 7) Rear shock absorber adjusters.
- 8) Exhaust silencer (see "Warning" on page 83).
- 9) Catalytic converter.

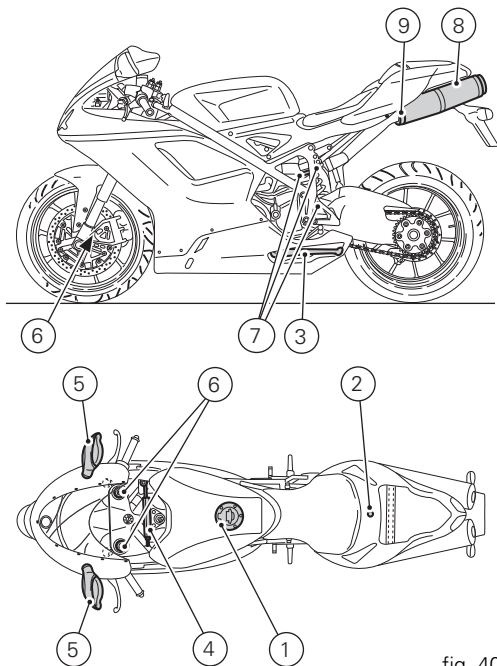


fig. 40


## Fuel tank plug (fig. 41)


### Opening

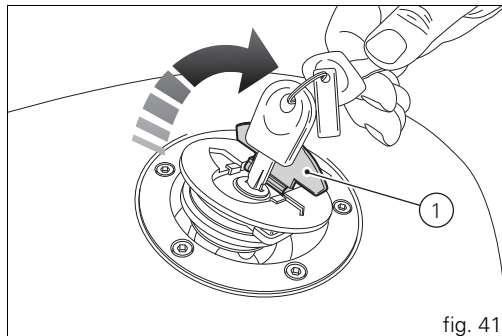
Lift the protection lid (1) and fit the ignition key into the lock. Turn the key clockwise 1/4 turn to unlock. Lift the plug.

### Closing

Refit the plug with the key in it and push it down into its seat. Turn the key counter-clockwise to the initial position and remove it. Close the lock protection lid (1).

 **Note**  
The plug can only be closed with the key in.

 **Warning**  
Always make sure you have properly refitted (see page 84) and closed the plug after refuelling.

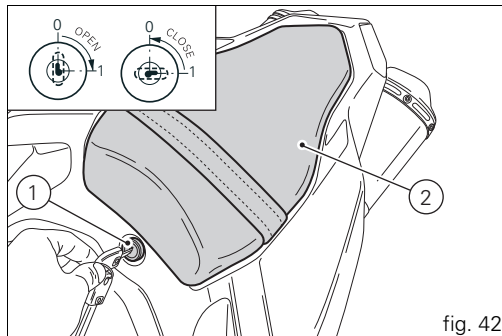


## Seat lock

### Opening (fig. 42)

Insert the key into the seat lock (1) and turn it clockwise until the seat catch disengages with an audible click.

Raise the rear of the seat (2) until it can be extracted.

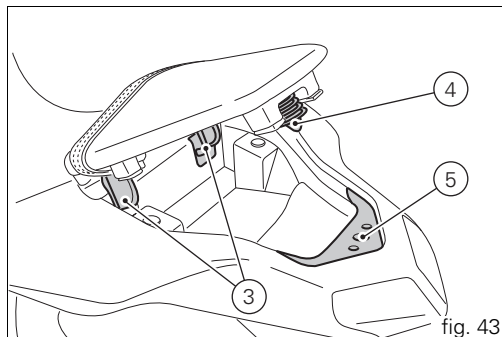


### Closing (fig. 43)

Insert the hooks (3) on the base of the seat under the rear subframe.

Push the passenger seat rear end until pin (4) clicks in place inside latch (5).

Pull the passenger seat moderately upwards to make sure it is correctly and firmly engaged.



## Side stand (fig. 44)

### **!** Important

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

Do not park on soft or pebbled ground or on asphalt melt 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 lower the side stand, hold the motorcycle handlebars with both hands and, with your foot, push down the stand (1) until fully extended. Tilt the motorcycle until the side stand is resting on the ground.

### **!** Warning

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

To raise the side stand to rest position (horizontal), tilt the motorcycle to the right and, at the same time, lift the stand (1) with your foot.

### **👁** Note

Check for proper operation of the stand mechanism (two springs, one into the other) and the safety sensor (2) at regular intervals.

### **👁** Note

The engine can be started with the side stand down and the gearbox in neutral. If starting with a gear engaged, pull in the clutch lever (in this case the side stand must be up).

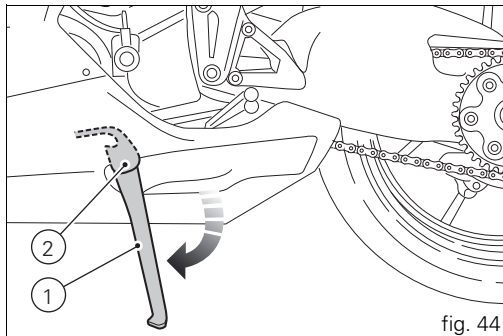
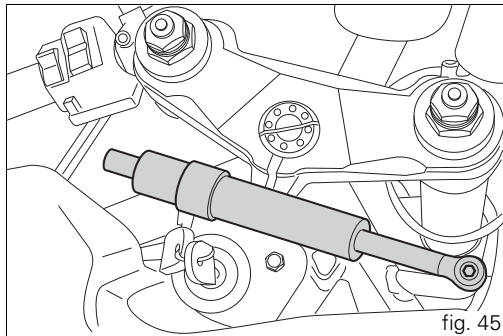


fig. 44

## Steering damper (fig. 45)

It is located up front before the tank and is secured to frame and steering head.

It provides stable and accurate steering, improving the motorcycle's handling response under any conditions.





## Front fork adjusters

The front fork used on this motorcycle has rebound, compression and spring preload adjustment.

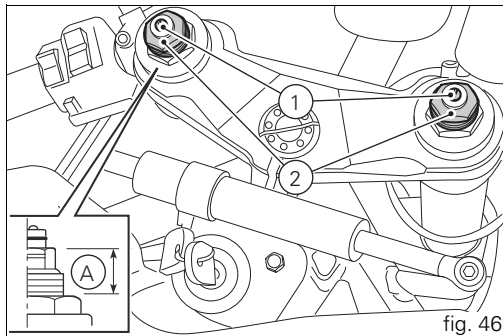
This adjustment is done using the outer adjusters:

- 1) for rebound adjustment (fig. 46);
- 2) for spring preload adjustment (fig. 46);
- 3) for compression adjustment (fig. 47).

Put the motorcycle on the side stand and make sure it is stable.

Turn the adjuster (1) on every fork leg top with a suitable wrench to adjust rebound damping.

As you turn the adjusting screws (1 and 3), you will hear them click. Each click identifies a setting. The stiffest damping setting is obtained with the adjuster turned fully clockwise to the "0" position. Start with this position and turn anticlockwise. Count the clicks, which correspond to position 1, 2 and so forth.



STANDARD factory setting is as follows:

Compression:

3/4 laps;

Rebound:

12 clicks.

Spring preload: (A, fig. 46): 18 mm.

To change the preload of the spring inside each fork leg, turn the hex. adjuster (2, fig. 46) with a 22-mm hexagon wrench.



**Important**

Adjust both fork legs to same settings.

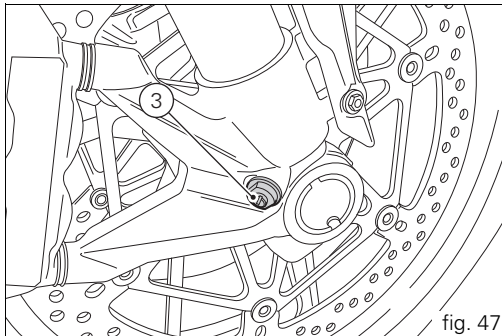


fig. 47

## Rear shock absorber adjusters (fig. 48)

The rear shock absorber has outer adjusters that enable you to adjust your motorcycle to the load. The adjuster (1) on the left side of the connection holding the shock absorber to the swinging arm controls rebound damping.

The adjuster (2) on the shock absorber expansion reservoir controls compression damping.

Turning the adjusters (1 and 2) clockwise gives harder damping, turning anticlockwise gives softer damping.

STANDARD setting:

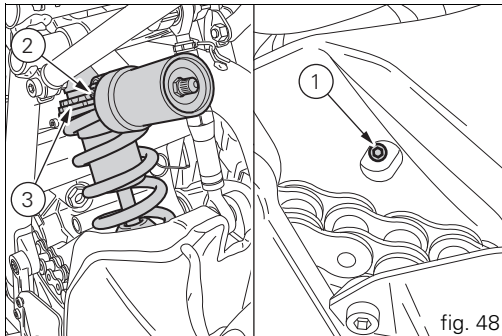
from fully closed (clockwise) loosen:

shim (1) by 2 laps

shim (2) by 2 laps

Spring preload: 20 mm.

Two ring nuts (3) located on the top section of the shock absorber are used to adjust the outer spring preload. To change spring preload, slacken off the upper ring nut. Then TIGHTEN or SLACKEN the lower ring nut to INCREASE or DECREASE spring preload.



Once preload has been set as required, tighten the upper ring nut.



### Warning

Use a specific pin wrench to turn the preload adjusting nut. Be careful when turning the nut with the wrench, as the pin may slip out of the ring nut recess and you may hurt your hand hitting motorcycle parts.



### Warning

The shock absorber is filled with gas under pressure and may cause severe damage if taken apart by unskilled persons.

When carrying a passenger and luggage, set the rear shock absorber spring to proper preload to improve motorcycle handling and keep safe clearance from the ground. You may find that rebound damping needs adjusting as well.

# Riding the motorcycle

## Running-in recommendations

### Maximum rpm (fig. 49)

Rotation speed for running-in period and during standard use (rpm):

- 1) up to 1000 km;
- 2) from 1000 to 2500 km.

### Up to 1000 km

During the first 1000 km, keep an eye on the rev counter. It should never exceed 5,500÷6,000 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. Avoid sudden or prolonged braking. This will allow the friction material on the brake pads to bed in against the 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 as required.

From 1000 to 2500 km

At this point, you can squeeze some more power out of your engine. However never exceed 7,000 rpm.

### Important

During the whole running-in period, the maintenance and service rules recommended in the Warranty Card should be observed carefully. Failure to follow these instructions releases Ducati Motor Holding S.p.A. from any liability whatsoever for any engine damage or shorter engine life.

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

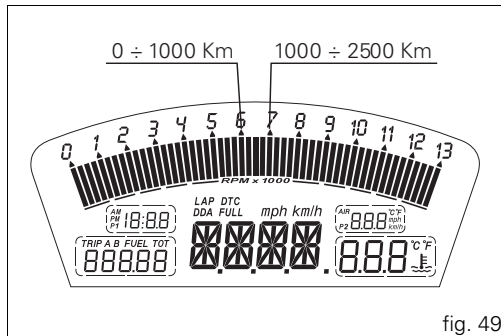


fig. 49

## Pre-ride checks



### Warning

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

Before riding, perform a thorough check-up on your bike as follows:

#### FUEL LEVEL IN THE TANK

Check the fuel level in the tank. Fill tank if needed (page 84).

#### ENGINE OIL LEVEL

Check oil level in the sump through the sight glass. Top up if needed (page 108).

#### BRAKE AND CLUTCH FLUID

Check fluid level in the relevant reservoirs (page 92).

#### COOLANT

Check coolant level in the expansion reservoir. Top up if needed (page 91).

#### TYRE CONDITION

Check tyre pressure and condition (page 106).

#### CONTROLS

Work the brake, clutch, throttle and gear change controls (levers, pedals and twistgrip) and check for proper operation.

#### LIGHTS AND INDICATORS

Make sure lights, indicators and horn work properly. Replace any burnt-out bulbs (page 100).

#### KEY LOCKS

Ensure that fuel filler plug (page 68) and seat (page 69).

#### SIDE STAND

Make sure side stand operates smoothly and is in the correct position (page 70).




### Warning

In case of malfunction, do not ride the motorcycle and contact a Ducati Dealer or authorised Service Centre.

## Starting the engine

**Warning** Before starting the engine, become familiar with the controls you will need to use when riding (page 10).

**Warning** 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.

1) Move the ignition key to ON (fig. 50). 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 19).

**Warning** The side stand must be fully up (in a horizontal position) as its safety sensor prevents engine start when down.

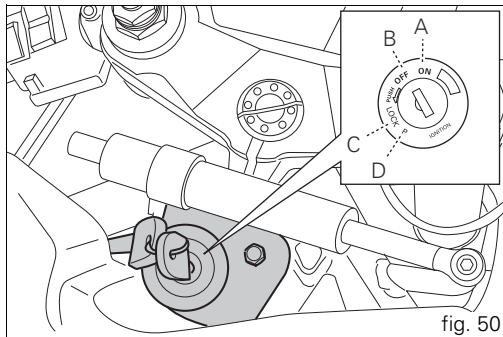



fig. 50

**Note** It is possible to start the engine with side stand down and the gearbox in neutral. When starting the bike with a gear engaged, pull the clutch lever (in this case the side stand must be up).



2) Check that the stop switch (2, fig. 51) is positioned to  (RUN), then press the starter button (3, fig. 51).



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

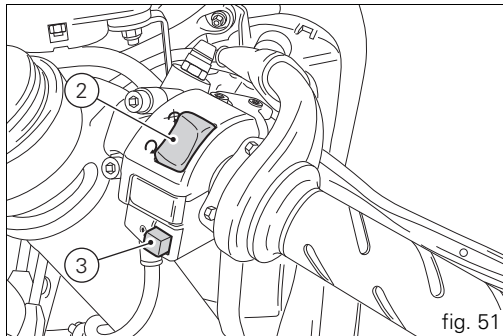


fig. 51

## Moving off

- 1) Disengage the clutch by squeezing the clutch lever.
- 2) Push down the gear change lever firmly with the tip of your foot to engage first gear.
- 3) Raise the engine revs by turning the throttle twistgrip while gradually releasing the clutch lever. The motorcycle will start moving off.
- 4) Release the clutch lever completely and accelerate.
- 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, proceed as follows: release the twistgrip, pull the clutch lever, shortly speed up to help gears synchronise, shift down (engage next lower gear) 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 stressing the engine and the motorcycle abnormally.



## Important

Avoid harsh accelerations, as this may lead to misfiring 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 sudden engine stop.



## Warning

Use both brake lever and pedal for effective braking.

Never use the brake controls harshly or suddenly as 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 or overinflated tyres reduce braking efficiency, handling accuracy and stability in a bend.

## Stopping the motorcycle

Reduce speed, shift down and release the throttle twistgrip. Shift down to engage first gear and then neutral. Apply the brakes and bring the motorcycle to a complete stop. To switch the engine off, simply turn the key to OFF (page 59).

## Parking

Stop the motorcycle, then put it on the side stand (see page 70).

To prevent theft, turn the handlebar fully left and turn the ignition key to the LOCK position.

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

You may leave the parking lights on by turning the key to position P.



### 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

The exhaust system might be hot, even after engine is switched off; pay particular attention not to touch exhaust system with any body part and do not park the vehicle next to inflammable material (wood, leaves etc.).



### 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 the safety of rider and passenger.

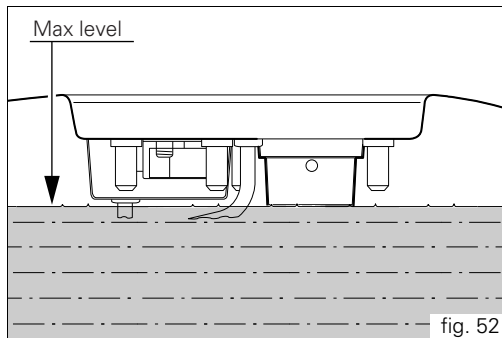
## Refuelling (fig. 52)

Never overfill the tank when refuelling. Fuel should never be touching the rim of filler recess.

**Warning** Use low-lead fuel with 95 octane rating at origin minimum (see “Top-ups” table, page 117).

Be sure there is no fuel trapped in the filler recess.

**Warning** The vehicle is only compatible with fuel having a maximum content of ethanol of 10% (E10). Using fuel with ethanol content over 10% is forbidden. Using them could result in severe damage of the engine and motorcycle components. Using fuel with ethanol content over 10% will make the warranty null and void.



## Tool kit and accessories (fig. 53)

The compartment under the passenger seat holds:  
owner's manual;

the tool kit, which includes:

- Box wrench for spark plugs;
- Tommy bar for plug wrench;
- Double-tip screwdriver;
- Allen wrench for fairings.

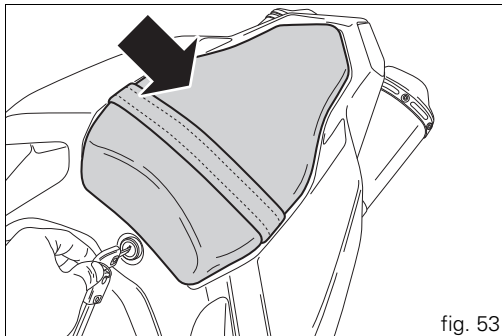


fig. 53

# Main maintenance operations

## Removing the fairing

Some parts of the motorcycle fairing have to be removed for certain maintenance or repair operations.

### Warning

If parts that have been removed are not refitted correctly they may become loose suddenly while riding and cause you to lose control of your motorcycle.

### Important

At reassembly always fit nylon washers when tightening fastening screws to avoid damage to painted parts and Plexiglas windscreen of headlight fairing.

## Side fairings

To remove the fairings, use the Allen wrench accommodated under the seat to loosen the following:  
the two screws (1) securing the fairing panels to the brackets;

the six screws (2) securing the fairing panels to the headlight fairing;  
the four screws (3) securing the fairing panels to the frame;  
the two screws (4) located under the fairing that join the right fairing panel to the left fairing panel;  
the two screws (5) securing the fairing panels to the oil cooler;  
the two screws (6, fig. 55) securing the front of the fairing to the headlight fairing.

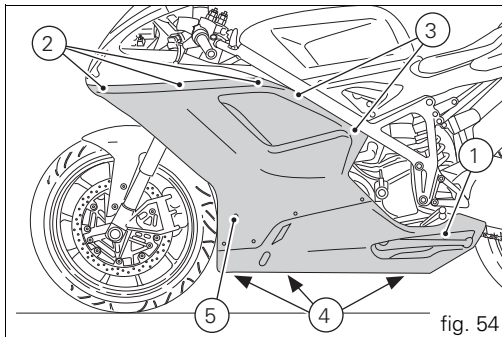


fig. 54



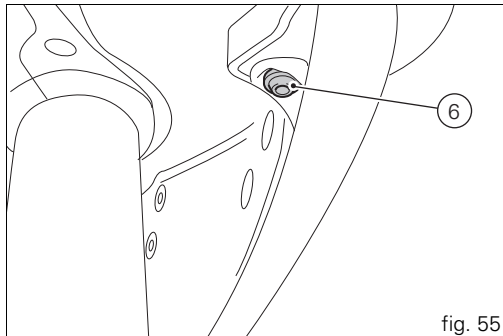
### Note

Be careful of the splashguard, which is released by the fairing panel fastening.



### Note

To refit the left fairing panel, lower the side stand and pass it through the hole in the panel.





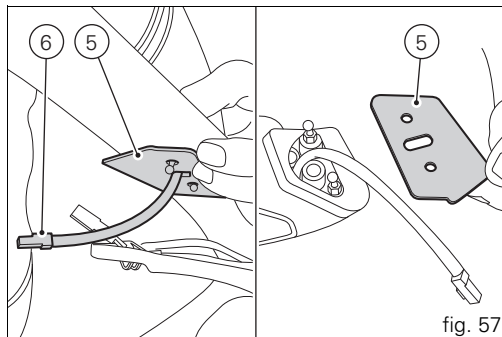
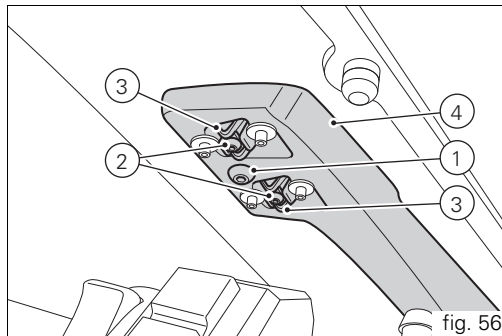
## Rear-view mirrors

Unscrew the fastening screws (1) of the rear-view mirror.

Release the pins (2) from the retaining clips (3) attached to the headlight fairing bracket (4). Slip off the rubber covers (5) and disconnect the turn indicator wiring connectors (6).

Repeat the procedure to remove the other rear-view mirror.

**⚠ Important**  
On refitting, apply medium-strength threadlocker to the threads of the screws (1).



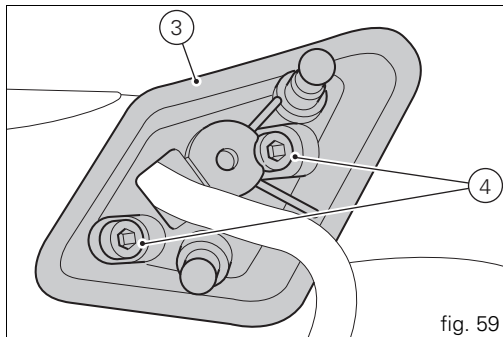
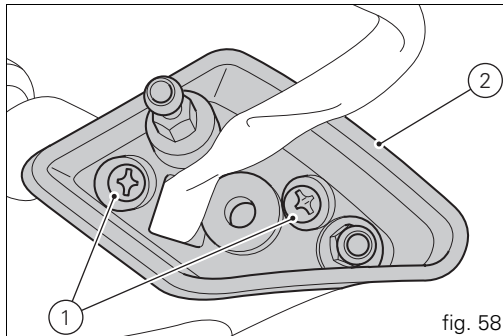
### Kit to widen rear-view mirrors mounting

Remove the mirrors as previously explained.

Unscrew the two screws (1) and remove the original spacer (2).

Fit the supplied spacer (3), start the two long screws (4) (supplied), then tighten them using a suitable Allen wrench.

Reinstall the rear-view mirrors on the headlight fairing.



## Headlight fairing



### Note

To remove the headlight fairing, first remove the rear-view mirrors and side fairing panels as described above.

Unscrew the two rear screws (1) securing the headlight fairing to the headlight support.



### Note

After refitting the headlight fairing, refit the side fairings and the rear-view mirrors.

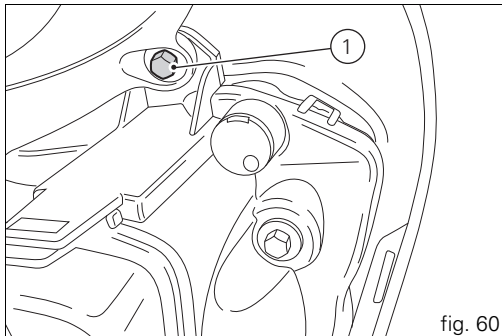


fig. 60

## Changing the air filter



### Important

Have air filter serviced at a Ducati Dealer or authorised Service Centre.

## Checking and topping up coolant level (fig. 61)

Check coolant level in the expansion tank on the right side of the vehicle. It should be between the two marks (1) and (2). Mark (2) indicates MAX level; mark (1) indicates MIN level.


Top up if the level is below the MIN mark.

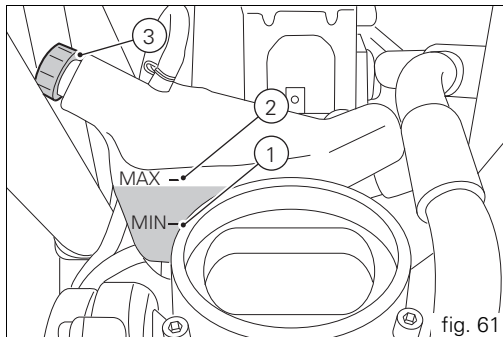
Remove the right-hand side fairing (see page 86). Unscrew the filler plug (3, fig. 61) and add a mixture consisting of water and antifreeze SHELL Advance Coolant or Glycoshell (35÷40% of the volume) up to MAX mark.

Refit the filler plug (3) and reassemble all removed parts.

This type of mixture gives the best operating conditions (the coolant starts to freeze at -20 °C/-4 °F).

Cooling circuit capacity: 2.3 cu. dm (litres).

 **Warning**  
Place the motorcycle upright on a flat surface and make sure the engine is cold before proceeding.



## Checking brake and clutch fluid level

Level should never drop below the MIN marks on the tanks (fig. 62) (shown in the figure are the front and rear brake fluid reservoirs).

If level drops below the limit, air might get into the circuit and affect the operation of the system involved.

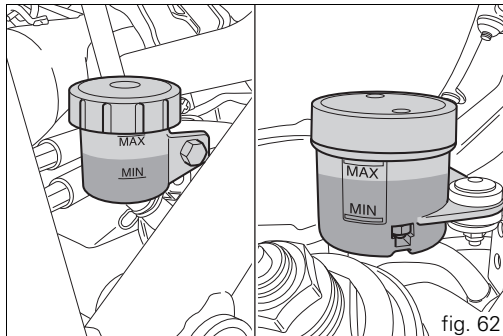
Fluids must be topped up and changed at the intervals specified in the scheduled maintenance table reported in the Warranty Booklet; please contact a Ducati Dealer or authorised Service Centre.

### Important

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

### Brake system

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




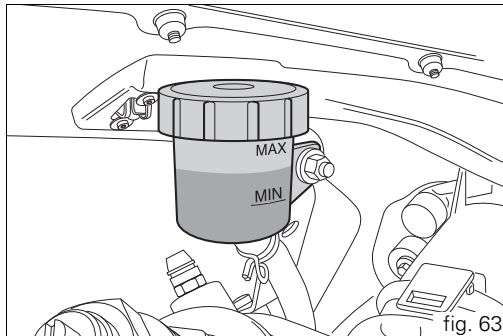
### Warning

Brake and clutch fluid can damage paintwork and plastic parts, so avoid contact. Hydraulic oil is corrosive; it may cause damage and lead to severe injuries. Never mix fluids of different qualities. Check seals for proper sealing.

## Clutch system

If the control lever has exceeding play and the transmission snatches or jams as you try to engage a gear, it means that there might be air in the circuit. Contact your Ducati Dealer or authorised Service Centre 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 the specified level (3 mm above the minimum level).



## Checking brake pads for wear

(fig. 64 and fig. 65)

Check brake pads wear through the inspection hole in the callipers.

Change both pads if friction material thickness of even just one pad is about 1 mm.



### Warning

Friction material wear beyond this limit would lead to metal support contact with the brake disc thus compromising braking efficiency, disc integrity and rider safety.



### Important

Have the brake pads replaced at a Ducati Dealer or authorised Service Centre.

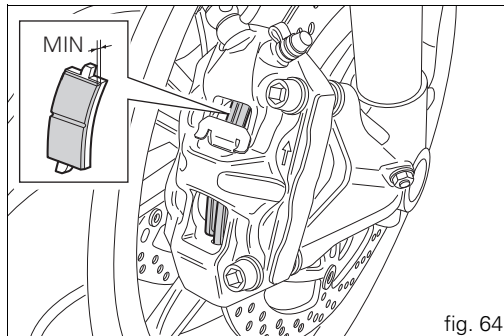


fig. 64

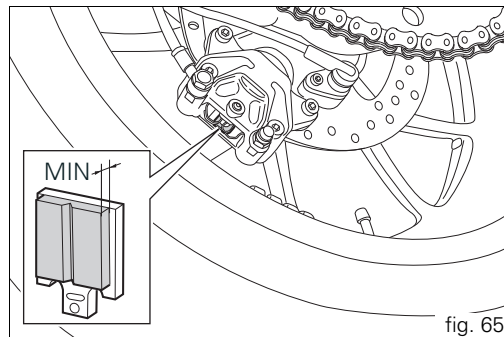


fig. 65

## Lubricating cables and joints

Check the outer sheath of the throttle control cables for damage at regular intervals. The outer plastic cover should not be flattened or cracked. Work the controls to make sure the cables slide smoothly inside the sheaths: if you feel any friction or catching, have the cable replaced by a Ducati Dealer or Authorised Service Centre.

To avoid this kind of problem with the throttle cable, unscrew the two retaining screws (1, fig. 66) to open the case and then grease cable ends and pulley with SHELL Advance Grease or Retinax LX2 grease.



### Warning

Close the case carefully after threading the cables onto the pulley.

Refit the cover and tighten the screws (1) to 10 Nm.

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

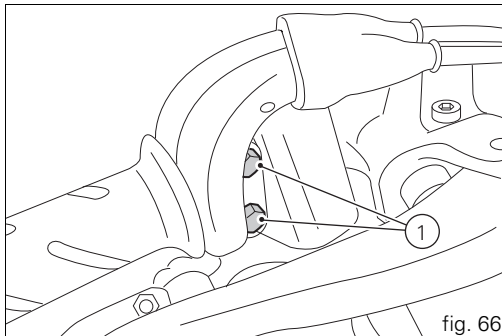


fig. 66



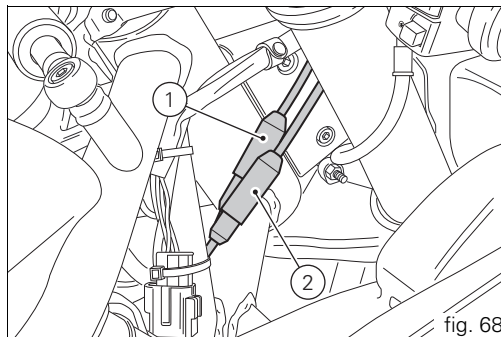
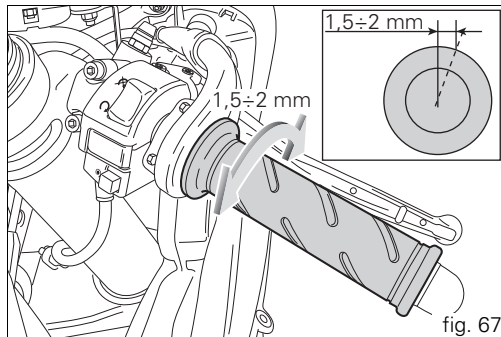
## Adjusting throttle control free play

In all steering positions, the throttle twistgrip must have

a freeplay of 1.5÷2.0 mm measured on the outer edge of the twistgrip. If necessary, adjust it using the adjusters (1 and 2, fig. 68) located on the steering tube on the right-hand side of the vehicle.

Adjuster (1) is for throttle opening, adjuster (2) for closing.

Slip the rubber gaiters off the adjusters and slacken the lock nuts. Adjust both adjusters by the same amount: turn clockwise to increase free play and anticlockwise to reduce free play. When finished, tighten the check nuts and refit the rubber gaiters to the adjusters.



## Charging the battery (fig. 69)

Before charging the battery, it is best to remove it from the motorcycle.

Remove the left-hand fairing (page 86), unscrew the screw (1) and remove the bracket (2). Always disconnect the black negative terminal (-) first, then the red positive terminal (+).

### Warning

The battery produces explosive gases: keep it away from heat sources.

Charge the battery in a ventilated room.

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

### Important

Make sure the charger is off when you connect the battery 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.

Reinstall the battery on its mount (3) and secure the bracket (2) with the screw (1). Apply some grease on the fastening screws to improve conductive capacity and connect the terminals.



## Warning

Keep the battery out of the reach of children.

Charge the battery at 0.9 A for 5÷10 hours.

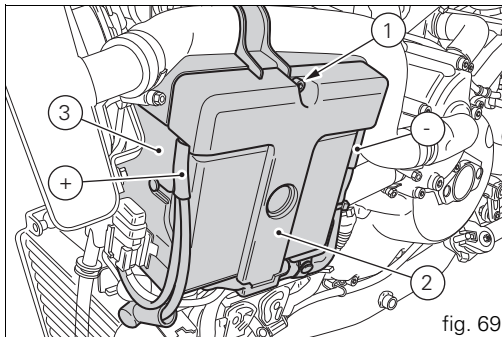


fig. 69

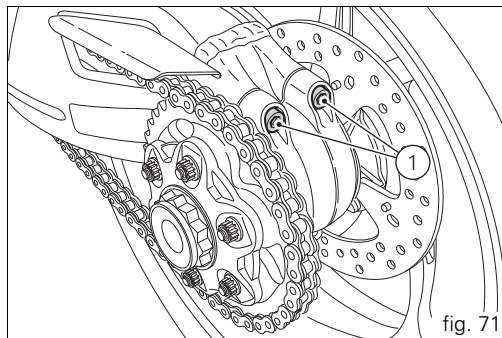
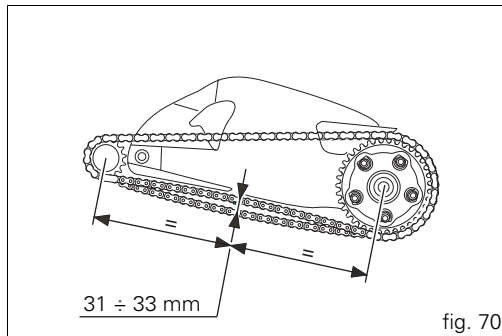
## Checking drive chain tension (fig. 70)

**⚠ Important**  
Have chain tension adjusted by a Ducati Dealer or authorised Service Centre.

Motorcycle (on side stand): place ruler at mid-way of chain lower section, push chain downwards and tension up until distance between the aluminium section of the swingarm and chain pin centre is 31 to 33 mm.

**⚠ Warning**  
Correct tightening of tensioners check nuts (1) is critical to rider and passenger safety.

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



## Chain lubrication

The chain fitted on your motorcycle has O-rings to protect its moving parts from dirt, and to hold the lubricant inside.

The seals might be irreparably damaged if the chain is cleaned using any solvent other than those specific for O-ring chains or washed using steam or water cleaners.

After cleaning, blow the chain dry or dry it using 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 the high and low beam bulbs

Before replacing a burnt out light bulb, ensure that the replacement bulb has the same voltage and power rating as specified on page 124 under "Electrical system". Always ensure that the new bulb you have installed operates properly before refitting any parts you have removed.

Shown in fig. 72 are the locations of the low beam bulb (LO), high beam bulb (HI) and parking light bulb (1).

### Headlight

To gain access to the left-hand bulb, remove the cover (2) by pressing the lever (A).

Rotate the locking ring nut (3) of the upper bulb body anti-clockwise and extract the burnt-out bulb.

Replace with a bulb of equal rating.

On refitting, rotate the locking ring nut (3) clockwise to secure the bulb in place.

The right-hand bulb is replaced in the same way.

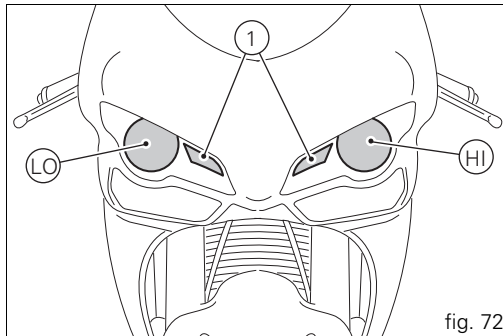


fig. 72

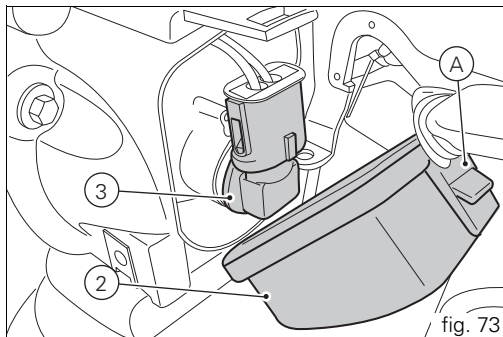


fig. 73



### Note

To replace the headlight bulbs, there is no need to disconnect the main wiring harness from the headlight bulb holder.



### Note

Be careful to hold the new bulb at the base only. Never touch the transparent body with your fingers or it will blacken resulting in reduced bulb brilliancy.

### Refitting

After changing the burnt-out bulb, replace the cover and close it by pressing it against the lever.

## Replacing the parking light bulb

To gain access to the parking light bulbs (1), insert your hand into the light support and extract the bulb holders from their seat; turn the bulb ring nut (1) counter clockwise and extract the burnt-out bulb.

Renew the burnt-out bulb.

On refitting, turn the bulb (1) clockwise to secure it.

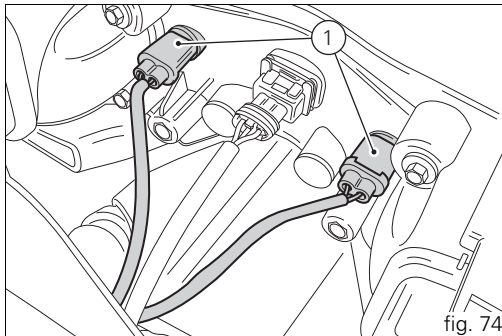
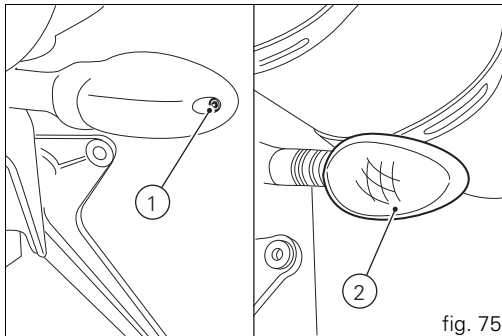


fig. 74

### Rear turn indicators (fig. 75)

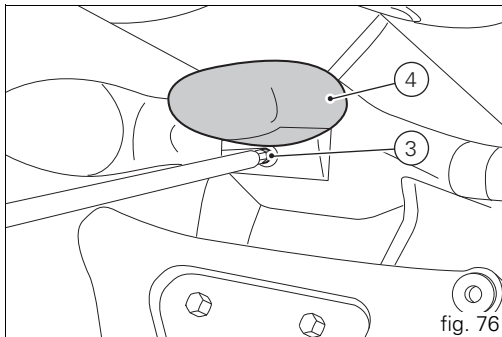
To change the rear turn indicator bulbs, rotate the indicator body (1) through one quarter of a turn so that the lens is up and extract indicator body from the indicator light unit.

The bulb is of the banjo-type: press and rotate anticlockwise to remove. Fit the spare bulb by pressing and turning clockwise until it clicks. Refit the indicator body (2) to its support and rotate it by a quarter of a turn.



### Number plate light (fig. 76)

To access the number plate light bulb, unscrew the screw (3) securing the cover (4). Remove the bulb and replace it.





## Beam setting (fig. 77)

To check the headlight aim, place the motorcycle upright with the tyres inflated to the correct pressure and one person sitting astride the motorcycle. The motorcycle should be perfectly vertical, with its longitudinal axis at right angles to a wall or screen at a distance of 10 metres. 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  $\frac{9}{10}$ th of the height from ground of headlamp centre.



### Note

This is the procedure specified by Italian regulations for checking the maximum height of the light beam.

Owners in other countries will adapt said procedure to the provisions in force in their countries.

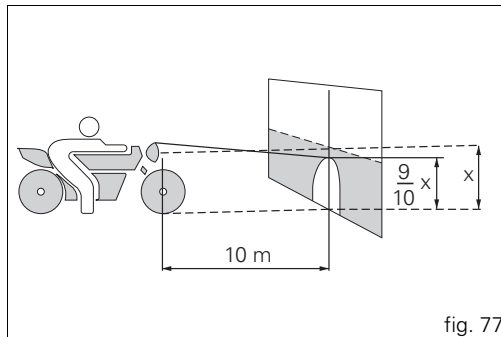


fig. 77

The side position of the left beam can be corrected using the screw (1, fig. 78) on the rear side of the headlamp. Turn the screw clockwise to move the beam to the right, counter clockwise to move it to the left.

The height of the left beam can be corrected using the screw (2, fig. 78) on the rear side of the headlamp. Turn the screw clockwise to lower the beam, anticlockwise to raise it.

Repeat the above procedure to adjust the right-hand headlamp.

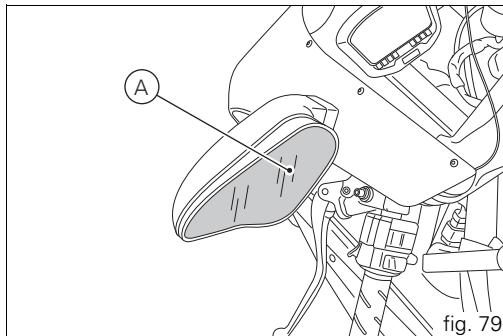
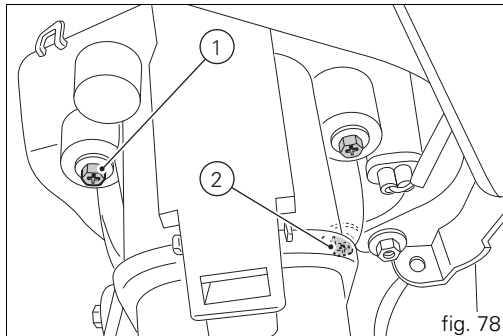
### Warning

The headlight might fog up if the vehicle is used under the rain or after washing.

Switch headlight on for a short time to dry up any condensate.

### Rear-view mirror adjustment (fig. 79)

The rear-view mirror can be adjusted manually by pressing on point (A).



## Tubeless tyres

Front tyre pressure:

2.1 bar - 2.3 Kg/sq. cm

Rear tyre pressure:

2.2 bar - 2.4 Kg/sq. cm

As 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 adjust the pressures with the tyres cold.

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

## Tyre repair or change (Tubeless tyres)

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

Punctured tyres must be replaced.

Replace tyres with 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 and passenger.

After replacing a tyre, the wheel must be balanced.



### Important

Do not remove or shift the wheel balancing weights.



### Note

Have the tyres replaced at a Ducati Dealer or authorised Service Centre. Correct removal and installation of the wheels is essential.

## Minimum tread depth

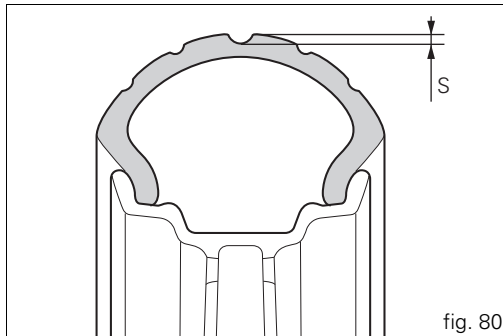
Measure tread depth (S, fig. 80) at the point where tread is most worn down.

It should not be less than 2 mm, and in any case not less than the legal limit.



### Important

Visually inspect the tyres at regular intervals for detecting cracks and cuts, especially on the side walls, 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.

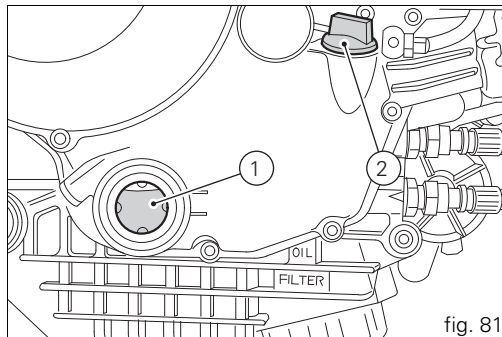


## Checking engine oil level (fig. 81)

Engine oil level can be checked through the sight glass (1) provided on the clutch cover. Oil level must be checked with the motorcycle perfectly upright and the engine cold. Oil level should be between the marks on the sight glass. If the level is low, top up with SHELL Advance 4T Ultra engine oil. Remove the oil filler cap (2) and top up until the oil reaches the required level. Refit the plug.

### Important

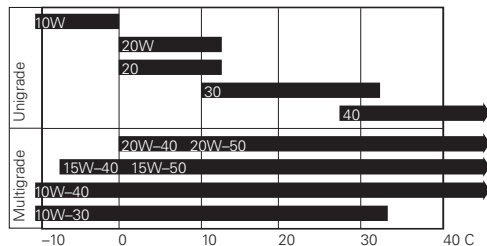
Engine oil and oil filters must be changed by a Ducati Dealer or authorised Service Centre at the intervals specified in the scheduled maintenance chart reported in the Warranty Card.



## Viscosity

### SAE 15W-50

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. 82)

Spark plugs are essential to smooth engine running and should be checked at regular intervals.

This operation provides an indication of engine condition.

Have the spark plugs inspected or renewed at a Ducati Dealer or Authorised Service Centre. Firstly, they will check the colour of the ceramic insulator of the central electrode: a uniform light brown colour indicates good engine condition.



### Note

Inspect the centre electrode for wear and check spark plug gap, which should be:  
 $0.8 \div 0.1$  mm.



### Important

A gap outside the specified limits will adversely affect engine performance and may lead to difficult starting or erratic idling.

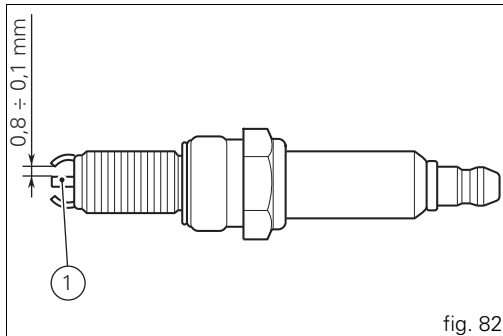


fig. 82

## 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. Only use water and neutral soap to clean the Plexiglas and the seat.

Periodically manually clean all aluminium components. Use special detergents, suitable for aluminium parts FREE of abrasives or caustic soda.



### Note

Do not use sponges with abrasive parts or steel wool: only use soft cloths.

However, the warranty does not apply to motorcycles whenever poor maintenance status is ascertained.



### 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 hot or high-pressure water jets. Cleaning the motorcycle with a high pressure water jet may lead to seizure or serious faults in the front fork, wheel hub assembly, electric system, headlight

(fogging), front fork seals, air inlets or exhaust silencers, with consequent loss of compliance with the safety requirements.

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.



### Warning

The headlight might fog up due to washing, rain or moisture. Switch headlight on for a short time to help dry up any condensate.

## Storing the motorcycle

If the motorcycle is to be left unriden over long periods, it is advisable to carry out the following operations before storing it away:

clean the motorcycle;

empty the fuel tank;

pour a few drops of engine oil into the cylinders through the spark plug bores, then turn the engine over by hand a few times to form a protective film of oil on the inner walls of the cylinder;

place the motorcycle on the service stand;

disconnect and remove the battery.

Battery should be checked and charged (or replaced, as required) whenever the motorcycle has been left unriden for over a month.

Protect the motorcycle with a suitable canvas. This will protect paintwork and let condensate breathe out.

The canvas is available from Ducati Performance.

## Important notes

The legislation in some countries (France, Germany, Great Britain, Switzerland, etc.) sets certain noise and pollution standards.

Periodically carry out the required checks and replace parts as necessary, using Ducati original spare parts, in compliance with the regulations in the country concerned.



# Maintenance

Scheduled maintenance chart: operations to be performed by the dealer

List of operations and type of intervention [set mileage (km/mi) or time interval *]	Km. x1000	1	12	24	36	48	60
	mi. x1000	0.6	7.5	15	22.5	30	37.5
	Months	6	12	24	36	48	60
Change engine oil		•	•	•	•	•	•
Change engine oil filter		•	•	•	•	•	•
Clean engine oil filter at intake					•		
Check engine oil pressure				•		•	
Check/adjust the valve clearances (1)			•	•	•	•	•
Check the tension of the timing belts (1)			•		•		•
Replace the timing belts				•		•	
Replace the spark plugs			•	•	•	•	•
Check and clean air filter (1)			•		•		•
Change the air filter				•		•	
Check throttle body synchronisation and idling (1)			•	•	•	•	•

List of operations and type of intervention [set mileage (km/mi) or time interval *]	Km. x1000	1	12	24	36	48	60
	mi. x1000	0.6	7.5	15	22.5	30	37.5
	Months	6	12	24	36	48	60
Check brake and clutch fluid level		•	•	•	•	•	•
Change brake and clutch fluid					•		
Check and adjust brake and clutch controls			•	•	•	•	•
Check / lubricate throttle / cold start controls			•	•	•	•	•
Check tyre pressure and wear		•	•	•	•	•	•
Check brake pads. Replace if necessary		•	•	•	•	•	•
Check steering bearings				•		•	
Check chain tension, alignment and lubrication		•	•	•	•	•	•
Check clutch plates pack. Change, if necessary (1)			•	•	•	•	•
Check the coolant level			•	•	•	•	•
Change the coolant					•		
Check electric fan operation and cooling circuit sealing			•	•	•	•	•
Check rear wheel flexible coupling				•		•	
Check wheel hub bearings				•		•	
Check the indicators and lighting			•	•	•	•	•
Check tightening of nuts securing engine-to-frame screws			•	•	•	•	•
Check the side stand			•	•	•	•	•
Check front wheel nut tightening			•	•	•	•	•
Check rear wheel nut tightening			•	•	•	•	•

List of operations and type of intervention [set mileage (km/mi) or time interval *]	Km. x1000	1	12	24	36	48	60
	mi. x1000	0.6	7.5	15	22.5	30	37.5
	Months	6	12	24	36	48	60
Check external fuel lines			●	●	●	●	●
Change the front fork fluid					●		
Check front fork and rear shock absorber for leakage			●	●	●	●	●
Check front sprocket fasteners			●	●	●	●	●
Lubricate and grease			●	●	●	●	●
Check battery and recharge			●	●	●	●	●
Road test of the motorcycle		●	●	●	●	●	●
Cleaning the motorcycle			●	●	●	●	●

\* Service on the set interval, whichever comes first (mileage or months)

(1) Operation to be performed only if set mileage (km/mi) is reached

## Scheduled maintenance chart: operations to be performed by the customer

List of operations and type of intervention [set mileage (km/mi) or time interval *]	Km. x1000	1
	mi. x1000	0.6
	Months	6
Check engine oil level		●
Check brake and clutch fluid level		●
Check tyre pressure and wear		●
Check the drive chain tension and lubrication		●
Check brake pads. If necessary, contact your dealer to replace pads		●

\* Service on the set interval, whichever comes first (mileage or months)

# Technical data

Overall dimensions (mm) (fig. 83)

## Weights

Weight in running order without fuel:  
184 kg.

Weight in running order without fluids and battery  
168 kg.

Carrying full load: 390 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.

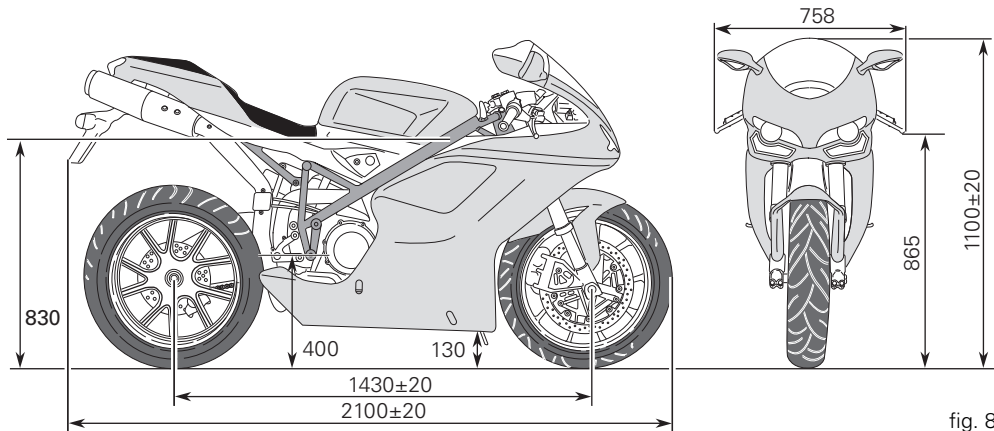


fig. 83

TOP-UPS	TYPE	
Fuel tank, including a reserve of 4 cu. dm (litres)	Unleaded fuel with a minimum octane rating of RON 95.	15.5 cu. dm (litres)
Lubrication circuit	SHELL - Advance 4T Ultra	3.7 cu. dm (litres).
Front/rear brake and clutch circuits	Special hydraulic fluid SHELL Advance Brake Dot 4	—
Protectant for electric contacts	SHELL - Advance Contact Cleaner spray for electric systems	—
Front fork	SHELL - Advance Fork 7.5 or Donax TA	439 cc (per leg)
Cooling circuit	ENI Agip Permanent Spezial antifreeze (do not dilute, use pure)	2.3 cu. dm (litres).



### Important

Do not use any additives in fuel or lubricants.



### Warning

The vehicle is only compatible with fuel having a maximum content of ethanol of 10% (E10). Using fuel with ethanol content over 10% is forbidden. Using it could result in severe damage of the engine and motorcycle components. Using fuel with ethanol content over 10% will make the warranty null and void.

## Engine

Longitudinal 90° "L" twin cylinder, four-stroke.

Bore, mm:

94

Stroke, mm:

61.2

Total displacement, cu. cm:

849.4

Compression ratio:

13.2 ±0.5:1.

Max crankshaft power (95/1/EC), kW/HP:

103 kW/140 HP at 10,500 rpm

Max torque at crankshaft (95/1/EC):

98 Nm at 9,750 rpm

Maximum rpm:

11.300

### Important

Do not exceed the specified rpm limits in any running conditions.

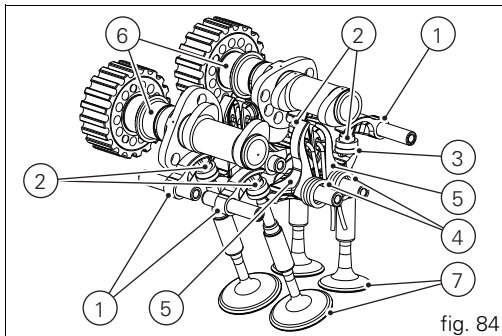
## Timing system

DESMODROMIC (type) with four valves per cylinder, operated by eight rocker arms (4 opening rockers and 4 closing rockers) and two overhead camshafts.

It is operated by the crankshaft through spur gears, belt rollers and toothed belts.

## Desmodromic timing system (fig. 84)

- 1) Opening (or upper) rocker.
- 2) Opening rocker shim.
- 3) Closing (or lower) rocker shim.
- 4) Return spring for lower rocker.
- 5) Closing (or lower) rocker.
- 6) Camshaft.
- 7) Valve.



## Performance data

Maximum speed in any gear should be reached only after a correct running-in period with the motorcycle properly serviced at the recommended intervals.

## Spark plugs

Make:  
NGK  
Type:  
MAR10A-J

## Fuel system

MARELLI indirect electronic fuel injection.  
Oval section throttle body diameter:  
56 mm  
Injectors per cylinder: 1  
Firing points per injector: 12  
Fuel specifications: 95-98 RON.



### Warning

The vehicle is only compatible with fuel having a maximum content of ethanol of 10% (E10). Using fuel with ethanol content over 10% is forbidden. Using it could result in severe damage of the engine and motorcycle components. Using fuel with ethanol content over 10% will make the warranty null and void.



## Brakes

### Front

Semi-floating drilled twin-disc.

Braking material:  
steel.

Carrier material:  
aluminium.

Disc diameter:  
320 mm.

Hydraulically operated by a control lever on handlebar  
right-hand side.

Brake calliper make:  
BREMBO.

Type:  
34-4 pistons.  
M4-34.

Friction material:  
TT 2172

Master cylinder type:  
PR18/19.

### Rear

With fixed drilled steel disc.

Disc diameter:  
245 mm.

Hydraulically operated by a pedal on RH side.

Make:  
BREMBO

Type:  
P34c pistons.

Friction material:  
FERIT I/D 450 FF.

Master cylinder type:  
PS 11 b.



### Warning

The brake fluid used in the brake system is corrosive. In the event of accidental contact with eyes or skin, wash the affected area with abundant running water.

## Transmission

Dry clutch operated by a control lever on left handlebar. Drive is transmitted from engine to gearbox main shaft via spur gears.

Front chain sprocket/clutch gearwheel ratio:  
33/61

6-speed gearbox with constant mesh gears, gear change pedal on left side of motorcycle.

Gearbox output sprocket/rear chain sprocket ratio:  
15/39

Total gear ratios:

1<sup>st</sup> gear 15/37

2<sup>nd</sup> gear 17/30

3<sup>rd</sup> gear 20/28

4<sup>th</sup> gear 22/26

5<sup>th</sup> gear 23/24

6<sup>th</sup> gear 24/23

Drive chain from gearbox to rear wheel:

Make:

RK

Type:

525 GXW IMPROVED

Dimensions:

5/8"x1/16"

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 competitions or special tracks, Ducati Motor Holding S.p.A. will be pleased to provide information about the special ratios available. Contact a Ducati Dealer or Authorised Service Centre.



## Warning

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

## Frame

ALS450 steel tube trellis frame.

ALS 450 steel tube trellis rear subframe.

Steering angle (on each side):

28° 30'.

Steering head angle:24°30'

Trail:

97 mm

## Wheels

Five Y-spokes, light-alloy rims.

### Front

Dimensions:

MT 3.50x17".

### Rear

Dimensions:

MT 5.50x17".

Both wheel shafts can be removed.

## Tyres

### Front

Radial tubeless tyre.

Size:

120/70-ZR17

### Rear

Radial tubeless tyre.

Size:

180/55-ZR17

## Suspensions

### Front

Hydraulic upside-down fork provided with outer adjusters for rebound, compression, and preload (for inner springs of fork legs).

Stanchion diameter:

43 mm.

Travel along leg axis:

127 mm.

### Rear

Of the progressive type, thanks to a rocker arm connecting frame and upper pivot point of the shock absorber.

The shock absorber allows rebound, compression damping and spring preload adjustment and is connected to a light alloy swingarm at the bottom pivot point. The swinging arm rotates around a pivot shaft that passes through frame and engine.

The whole system gives the bike excellent stability.

Shock absorber stroke:

59.5 mm.

Wheel travel:

120 mm.

## Exhaust system

Equipped with catalytic converter.

## Available colours

Ducati Anniversary red 473.101 (PPG);  
Polished Anthracite Undersump;  
Clear lacquer part no. 228.880 (PPG);  
red frame and black rims.

## Electrical system

The main components of the electric system are:

Headlight:

bulb type: 2 x H11 (12V-55W).

parking light:

bulb type: 2 x H16W (12V-6W).

Electrical controls on handlebars:

Turn indicators:

Front: LED

Rear: BULB TYPE: R10W (12V-10W) ORANGE

Horn.

Stop light switches.

Battery 12V-10 Ah.

GENERATOR 12V-480W.

ELECTRONIC RECTIFIER, protected with a 30A fuse on the side of the battery.

Starter motor, 12V-0.7 kW.

Tail light and brake signal:

LED.

Number plate light:

bulb type: W5W (12-5W).



### Note

See the paragraph "Replacing bulbs" on page 100 for relevant instructions.

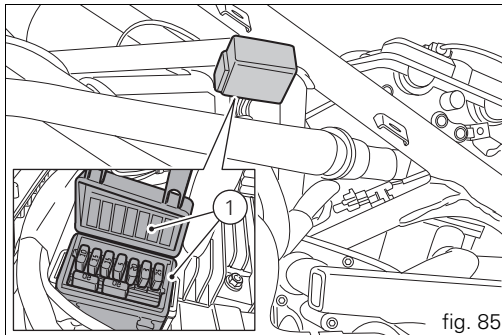
## Fuses

Electrical parts are protected by nine fuses housed inside special fuse boxes. Only 7 fuses are connected. There are two spare fuses.

Refer to the table below to identify the circuits protected by the various fuses and their ratings.

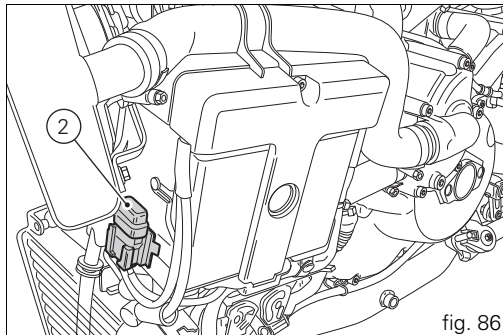
### LEGEND TO FUSE BOX (1, fig. 85)

Pos.	El. item	Rat.
1	Key-on	10 A
2	Lights	15 A
3	El. item	15 A
4	Instrument panel	5 A
5	Injection	20 A
6	ECU	5 A
7	Fans	7.5 A



The main fuse box (1, fig. 85) is located on the left side of the frame. To expose the fuses, take off the box protective cover. Mounting position and ampere capacity are marked on box cover.

The fuse (2) protects the electronic regulator.  
Remove the protective cap to access the fuses.



A blown fuse is identified by the interrupted centre link (3, fig. 87).



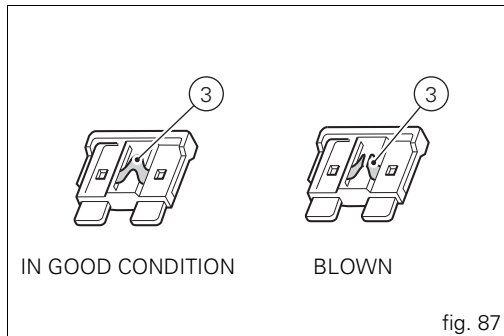
### Important

Switch the ignition key to OFF before replacing the 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 cause fire.





## Injection /electric system diagram key

- 1) Right-hand switch
- 2) Ignition switch
- 3) LH fan
- 4) RH fan
- 5) Starter motor
- 6) Solenoid starter
- 7) Battery
- 8) Regulator fuse
- 9) Regulator
- 10) Generator
- 11) RH rear turn indicator
- 12) Tail light
- 13) Number plate light
- 14) LH rear turn indicator
- 15) Fuel tank
- 16) Stepper motor
- 17) Injection relay
- 18) Self-diagnosis
- 19) Horizontal cylinder coil
- 20) Vertical cylinder coil
- 21) Horizontal cylinder spark plug
- 22) Vertical cylinder spark plug
- 23) Horizontal cylinder injector
- 24) Vertical cylinder injector
- 25) Throttle position sensor
- 26) Timing/rpm sensor
- 27) Water temperature sensor
- 28) Speed sensor
- 29) Side stand
- 30) Horn
- 31) Neutral switch
- 32) Oil pressure switch
- 33) Rear stop switch
- 34) ECU
- 35) Fuses
- 36) Clutch switch
- 37) Front stop switch
- 38) Left-hand switch
- 39) Transponder antenna
- 40) Air temperature sensor
- 41) Finish line
- 42) Dashboard
- 43) Light relay
- 44) LH front turn indicator
- 45) Headlight
- 46) Front RH parking light
- 47) RH front turn indicator
- 48) EX-UP drive
- 49) Fan relay
- 50) Front LH parking light
- 51) Lambda sensor

## Wire colour coding

B Blue

W White

V Violet

BK Black

Y Yellow

R Red

LB Light blue

GR Grey

G Green

BN Brown

O Orange

P Pink



### Note

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

# Routine maintenance record

KM	DUCATI SERVICE	MILEAGE	DATE
1000			
12000			
24000			
36000			
48000			
60000			



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