

Owner's manual

HYPERMOTARD

HYPERMOTARD 1100 EVO



HYPERMOTARD

HYPERMOTARD 1100^{EVO}

E

Welcome to the world of Ducati enthusiasts! We congratulate you on your excellent choice of motorcycle! We are sure that you will use your Ducati for longer trips as well as everyday travel, but however you use your motorcycle, Ducati Motor Holding S.p.A. wishes you an enjoyable ride. Ducati Motor Holding S.p.A. recommends that you adhere strictly to the instructions in this manual, especially those regarding the running-in period. This will ensure that your Ducati motorcycle will continue to be a pleasure to ride. For repairs or advice, please contact one of our authorized service centres.

We also provide an information service for all Ducati owners and enthusiasts for any advice and suggestions you might need.

Enjoy the ride!



Notes

Ducati Motor Holding S.p.A. cannot accept any liability for errors that may have occurred in the preparation of this manual. All information in this manual is valid at the time of going to print. Ducati Motor Holding S.p.A. reserves the right to make any modifications required due to the ongoing development of their products.

E

For safety and reliability, to avoid invalidating the warranty and to maintain the value of your motorcycle, use only original Ducati spare parts.



Warning

This manual is an integral part of the product and, if ownership is transferred to a third party, must always be passed to the new owner.

Table of contents

General indications 6

Warranty 6

Symbols 6

Useful road safety information 7

Riding with a full load 8

Identification data 9

Controls 10

Position of the motorcycle controls 10

Instrument panel 11

LCD – Main functions 13

LCD – How to set/display parameters 15

The immobilizer system 37

Code card 38

Immobilizer override procedure 39

Duplicate keys 41

Ignition switch and steering lock 42

Left-hand handlebar switch 43

Clutch lever 44

Right-hand handlebar switch 45

Throttle twistgrip 45

Front brake lever 46

Rear brake pedal 47

Gearchange pedal 47

Adjusting the position of the gearchange and rear brake
pedals 48

Main components and devices 50

Position on motorcycle 50

Fuel tank filler cap 51

Seat fastening 52

Tool kit compartment 53

Sidestand 54

Front fork adjusters 55

Rear shock absorber adjusters 57

Rear view mirror adjustment 58

Riding the motorcycle 59

Running-in precautions 59

Pre-ride checks 61

Starting the engine 62

Moving off and changing gear 64

Braking 64

Stopping the motorcycle 65

Parking 65

Refuelling 66

Toolkit and accessories 67

Main Maintenance Operations 68

Removal of the fairings 68

Checking the brake and clutch fluid level 70

Checking the brake pads for wear	72
Lubricating cables and linkages	73
Adjusting the throttle control cable	74
Charging the battery	75
Checking the chain tension	76
Lubricating the drive chain	77
Changing the headlight bulbs	78
Changing the rear turn signal bulbs	80
Changing the number plate light bulb	81
Headlight aim	82
Headlight vertical adjustment	83
Tubeless tyres	84
Checking the engine oil level	86
Cleaning or renewing the spark plugs	87
General cleaning	88
Storing the motorcycle	89
Important notes	89

Maintenance 90

Programmed maintenance plan: operations to be carried out by the dealer	90
Programmed maintenance plan: operations to be carried out by the customer	93

Technical data 94

Overall dimensions (mm)	94
Weights	94
Engine	96
Timing system	96
Performance data	97
Spark plug	97

Fuel system	97
Exhaust system	97
Transmission	98
Brakes	99
Frame	100
Wheels	100
Tyres	100
Suspension	101
Colour schemes	101
Electrical system	101

Routine maintenance record 106

For United States of America version Only 107

Reporting of safety defects	107
Safety warnings	107
Noise emission warranty	107
Noise and exhaust emission control system information	107
Tampering warning	108
Riding safety	109
Protective apparel	110
Vehicle identification number (VIN)	110
Label location (fig. B)	111
California evaporation emission system	114
Ducati limited warranty on emission control system	114

Routine maintenance record 117

General indications

Warranty

In your own interest, and in order to ensure the reliability of the motorcycle, you are strongly advised to contact a Ducati Dealer or Authorized Service Centre for any servicing that requires particular technical expertise.

Our highly qualified staff have access to the specialised tools required to perform any servicing job to the highest professional standards, using only Ducati original spare parts as the best guarantee for perfect interchangeability, smooth running and long life.

All Ducati motorcycles come with a Warranty Booklet. However, the warranty does not apply to motorcycles used in competitions. If any motorcycle part is tampered with, modified, or replaced with parts other than original Ducati spare parts during the warranty period, the warranty is automatically invalidated.

Symbols

Ducati Motor Holding S.p.A. advises you to read this manual carefully in order to familiarise yourself with your motorcycle. If in doubt, please contact a Ducati Dealer or Authorized Service Centre. In this manual you will find useful information to help make your riding experience trouble-free and enjoyable and to help you ensure your motorcycle continues to perform at its best over a long period of time.

This manual contains symbols with special meanings:

Warning

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

Important

Risk of damage to the motorcycle and/or its components.

Notes

Additional information about the current operation.

References to the RIGHT or LEFT side of the motorcycle assume you are sitting on the seat, facing forward.

Useful road safety information

Warning

Read this section before riding your motorcycle.

Many accidents are the result of the inexperience of the rider. Always make sure you have your licence with you; you need a valid licence that entitles you to ride a motorcycle. Do not lend your motorcycle to persons who are inexperienced or do not hold a valid licence.

Riders and passengers must ALWAYS wear appropriate clothing and a safety helmet.

Do not wear loose clothes or accessories that could become tangled in the controls or limit your field of vision.

Never start or run the engine in enclosed space. Exhaust gases are toxic and may lead to loss of consciousness or even death within a short time.

The rider should keep his/her feet on the footrests when the motorcycle is in motion.

ALWAYS hold the handlebars firmly with both hands so you will be ready for sudden changes in direction or in the road surface. The pillion passenger should ALWAYS hold on to the grab rails on the rear seat with both hands.

Obey the legal requirements and observe national and local regulations.

ALWAYS respect speed limits where these apply, and NEVER exceed the speed allowed by the particular visibility, road and traffic conditions.

ALWAYS signal your intention to turn or change lane in good time, using the appropriate turn signals.

Be sure you are clearly visible and avoid riding within the blind spot of a vehicle in front of you.

Be very careful at road junctions, or when riding in areas near exits from private land or car parks, or on the slip roads to motorways.

ALWAYS turn off the engine when refuelling. Be extremely careful not to spill fuel on the engine or on the exhaust pipe when refuelling.

Do not smoke when refuelling.

While refuelling, it is possible to inhale noxious fuel vapours. Should any fuel drops be spilled on your skin or clothing, immediately wash with soap and water and change your clothing.

ALWAYS remove the key if leaving your motorcycle unattended.

The engine, exhaust pipes and silencers remain hot for a long time.

Warning

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

Park your motorcycle where no one is likely to knock against it, and use the sidestand.

Never park on uneven or soft ground, or your motorcycle may fall over.

Riding with a full load

Your motorcycle is designed for travelling over long distances with a full load in complete safety.

Even weight distribution is critical for maintaining safety standards, and to avoid getting into difficulties when making sudden manoeuvres or riding on bumpy roads.

Information on load capacity

The total weight of the motorcycle in running order with rider, luggage and additional accessories should not exceed 390 kg.

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

Secure the luggage firmly to the motorcycle structure.

Luggage incorrectly secured may cause the motorcycle to become unstable.

Never attach bulky or heavy objects to the top yoke or front mudguard, as this would cause dangerous instability.

Do not insert objects into gaps in the frame, where they could interfere with moving parts.

Make sure the tyres are inflated to the proper pressure indicated at page pag. 84 and that they are in good condition.

Identification data

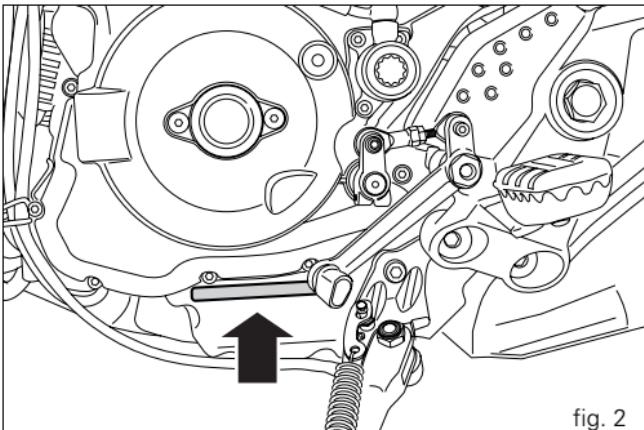
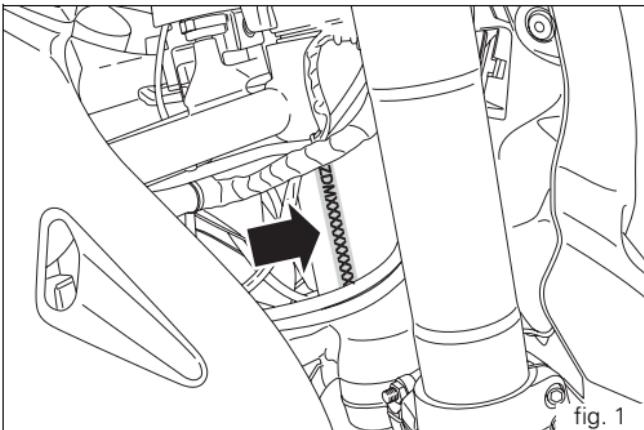
All Ducati motorcycles have two identification numbers, one for the frame (fig. 1) and one for the engine (fig. 2).

Frame number

Engine number

Notes

 These numbers indicate the motorcycle model and should be quoted when ordering spare parts.



Controls

Warning

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

Position of the motorcycle controls (fig. 3)

- 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) Gearchange pedal.

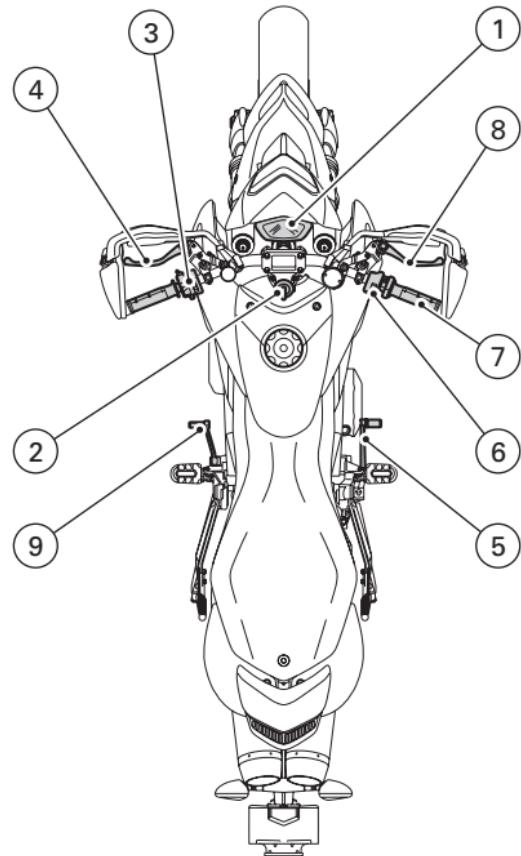


fig. 3

Instrument panel (fig. 4)

1) LCD (see page 13).

2) TACHOMETER (rpm).

Indicates engine revs per minute.

3) NEUTRAL LIGHT (GREEN).

Illuminates when the gearbox is in neutral.

4) FUEL LEVEL WARNING LIGHT  (AMBER).

Illuminates when there are approximately 3.5 litres of fuel left in the tank.

5) TURN SIGNAL INDICATOR LIGHTS  (GREEN).

Start flashing when the turn signals are in operation.

6) ENGINE OIL PRESSURE WARNING LIGHT  (RED).

Illuminates when engine oil pressure is too low. This light should illuminate when the ignition is switched to ON and should go out a few seconds after the engine starts.

It may come on briefly if the engine is very hot, but should go out again as engine speed increases.



Important

If this light (6) stays on, stop the engine to avoid serious damage.

7) HIGH BEAM WARNING LIGHT  (BLUE).

Illuminates when the high beam headlight is on.

8) EOBD - ENGINE/VEHICLE DIAGNOSTICS LIGHT  (AMBER).

The engine ECU illuminates this light steadily to indicate "Engine" and/or "Vehicle" errors and, in certain cases, the consequent engine lockup.

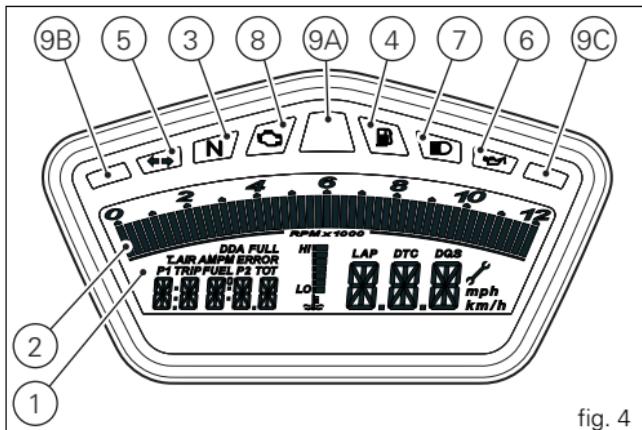


fig. 4

9) REV LIMITER LIGHT – OVER REV (RED).

Indicator lights 9B + 9C: illuminate steadily 400 rpm before intervention of the rev limiter.

Indicator lights 9A + 9B + 9C: illuminate steadily at 800 rpm before intervention of the rev limiter.

Indicator lights 9A + 9B + 9C: start flashing when the rev limiter is reached.

10) CONTROL SWITCH (fig. 5).

Switch used to view and set instrument panel parameters "▲".

11) CONTROL SWITCH (fig. 5).

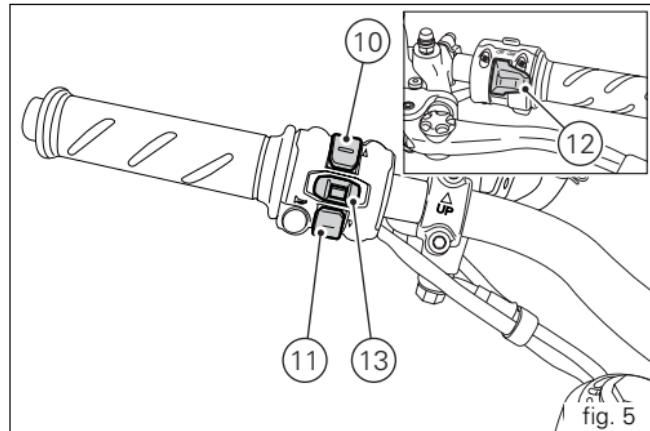
Switch used to view and set instrument panel parameters "▼".

12) HIGH BEAM HEADLIGHT FLASHER SWITCH (fig. 5).

The high beam headlight flasher switch is also used for the LAP and DDA data acquisition functions.

13) TURN SIGNAL SWITCH (fig. 5).

The turn signal on/off switch is also used for the instrument panel RESET/CONFIRM function.



LCD – Main functions

Warning

Any adjustments to the instrument panel must only be carried out when the motorcycle is stationary. Never operate the instrument panel controls while riding the motorcycle.

1) SPEEDOMETER.

Indicates road speed

2) ODOMETER.

Shows total distance travelled.

3) TRIP METER.

Indicates the distance travelled since last reset.

4) FUEL RESERVE TRIP COUNTER.

Shows distance travelled on reserve fuel.

5) CLOCK.

6) LAP TIME.

7) REV COUNTER (RPM).

8) LAP TIME RECORDING, MAX RPM (LAP) AND REV LIMITER STATUS (IF TRIPPED).

9) BATTERY VOLTAGE INDICATOR (BATT).

10) ENGINE OIL TEMPERATURE INDICATOR.

Indicates the engine oil temperature.

Important

Stop riding if the temperature reaches the maximum value, otherwise the engine might be damaged.

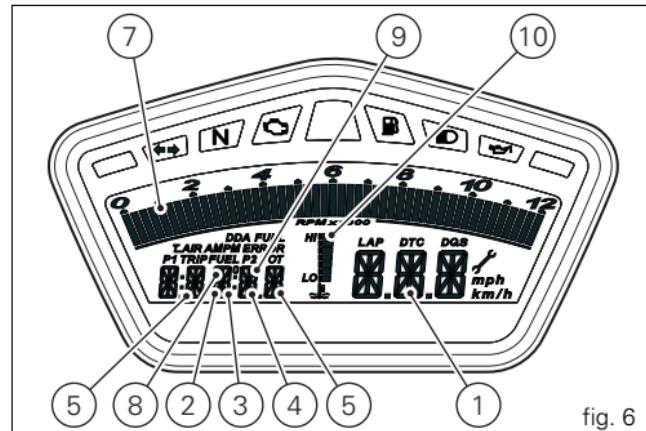


fig. 6

11) SERVICE INDICATOR.

The indicator illuminates to signal when a service is due. The service indicator will remain on the display until the system RESET is performed by the Ducati Dealer or authorized Service Centre who carry out the service.

12) LAP FUNCTION.

Indicates activation of the LAP function.

13) DDA FUNCTION.

Indicates activation of the DDA function.

Important

The instrument panel incorporates diagnostic functions for the electronic injection/ignition system. If you accidentally access a restricted menu, do not under any circumstances attempt to use it, but turn the ignition key to OFF. In the case of any problems, contact your Ducati dealer or authorized service centre to carry out the necessary checks.

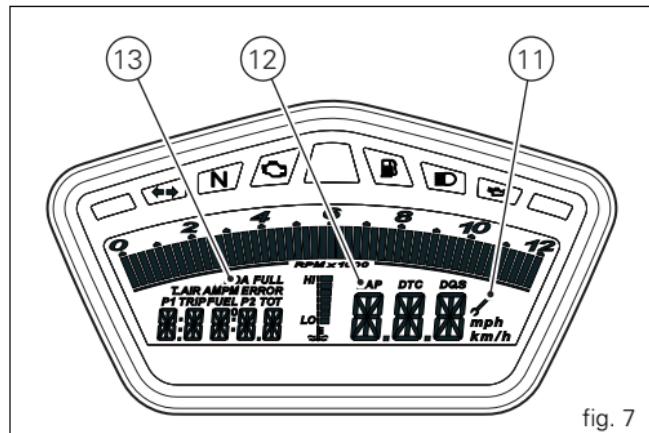


fig. 7

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.

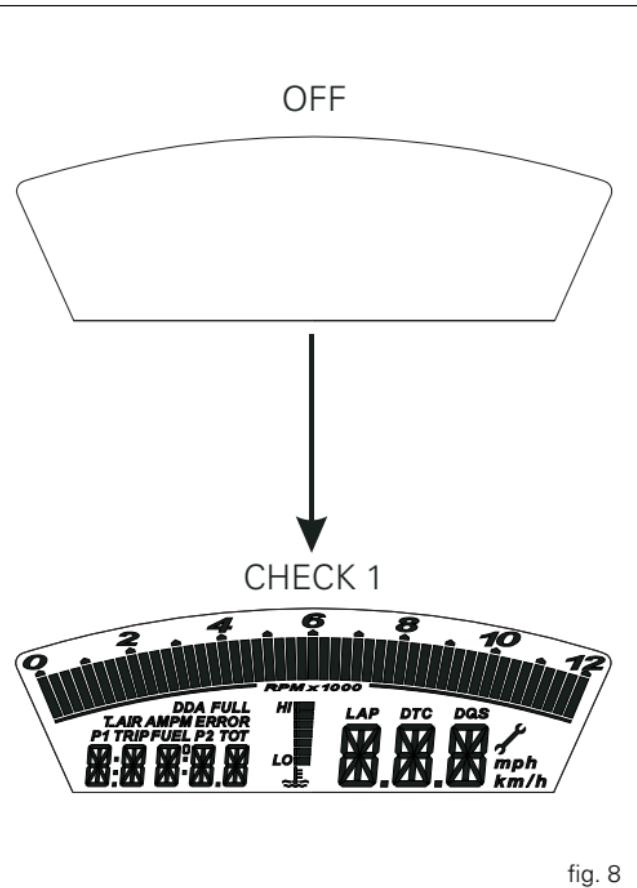
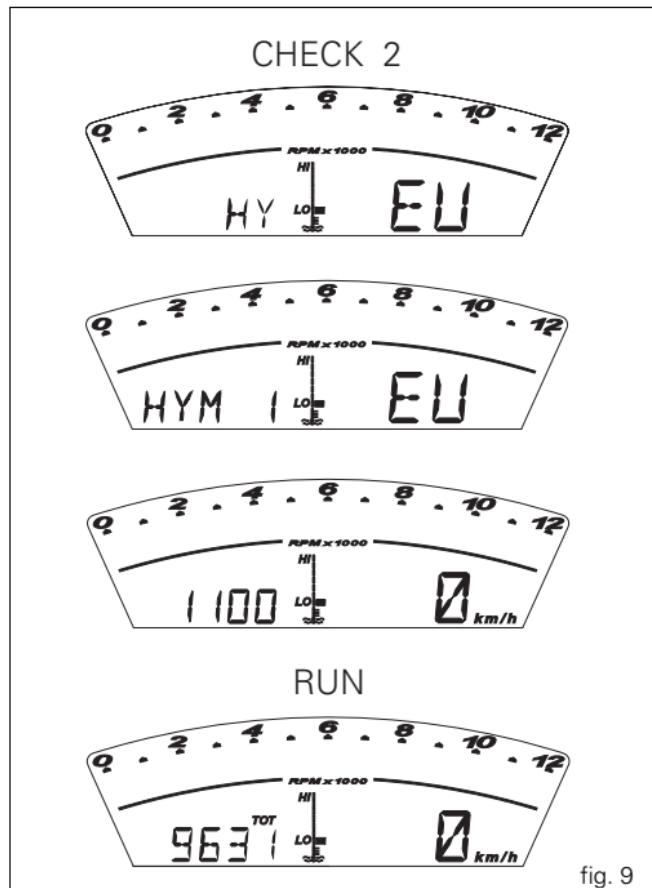


fig. 8

E

It then reverts to "normal" display mode and, in place of motorcycle speed, shows the model and also, for 2 seconds, in place of the motorcycle speed, the version (EU, UK, USA, CND, FRA, JAP).

The model is scrolled on the display once only.



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

ODOMETER

SPEED

ENGINE RPM BARGRAPH

ENGINE OIL TEMPERATURE BARGRAPH

At this point, by pressing switch (1, fig. 10) "▲", it is possible to switch from the ODOMETER (TOT) display function to the following functions:

TRIP

TRIP FUEL (only if active)

CLOCK

before returning to the ODOMETER (TOT) function.

If, however, you press switch (2, fig. 10) "▼" the system enters MENU mode and displays the following functions in sequence:

ERROR (only if at least one error is present)

BATT

RPM

LIGHT SET

LAP (OFF or ON)

LAP MEM

DDA (OFF or ON)

ERASE DDA

TIME SET

CODE (only active if at least one IMMOBILIZER error is present)

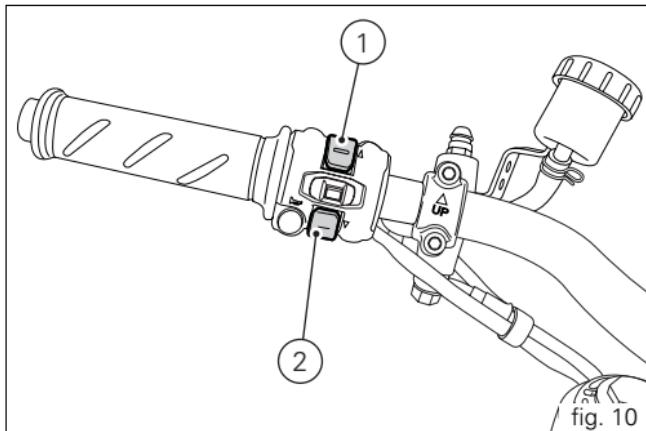


fig. 10

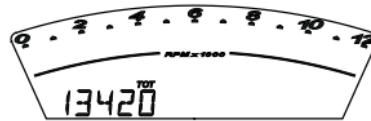
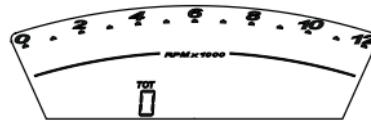
Important

This menu is active only if the speed of the motorcycle is less than 20 km/h. If this menu is displayed 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, however, to exit the menu at any time by pressing switch (2, fig. 10) "▼" for 3 seconds.

Total distance travelled indicator (odometer)

This function displays the total distance travelled.
At Key-On the system automatically enters this function.
The reading is saved permanently and cannot be reset under
any circumstances.
If it exceeds 99999 km (or 99999 miles), the reading
"99999" remains displayed permanently.

version EU, CND, FRA, JAP



version UK, USA

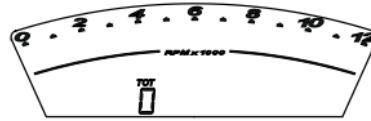


fig. 11

Motorcycle speed

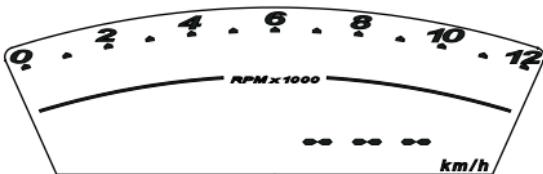
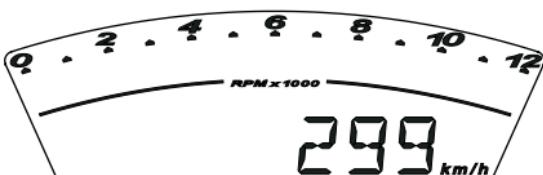
This function displays the motorcycle speed.

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

The maximum speed that can be 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).

version EU, CND, FRA, JAP



version UK, USA

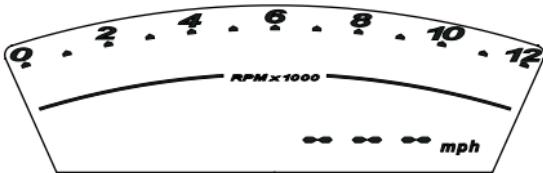
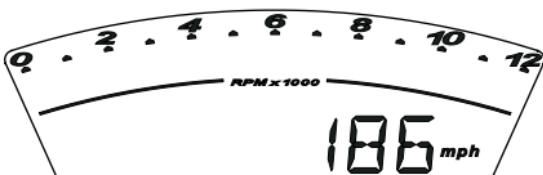


fig. 12

Engine oil temperature indicator

This function displays the engine oil temperature.

Display indications:

- if the temperature is between -40 °C and +70 °C, the display shows "STATUS 2".
- if the temperature is between +71 °C and +90 °C, the display shows "STATUS 3".
- if the temperature is between +91 °C and +175 °C, the display shows "STATUS 4".
- if the temperature is between +176 °C and +187 °C, the display shows "STATUS 5".
- if the temperature is between +188 °C and +192 °C, the display shows "STATUS 6".
- if the temperature is between +193 °C and +196 °C, the display shows "STATUS 7".
- if the temperature is between +197 °C and +199 °C, the display shows "STATUS 8".
- if the temperature is 200 °C the display shows "STATUS 9" with the series of dashes flashing.

In the event of a FAULT with the sensor, the display will flash "STATUS 1".

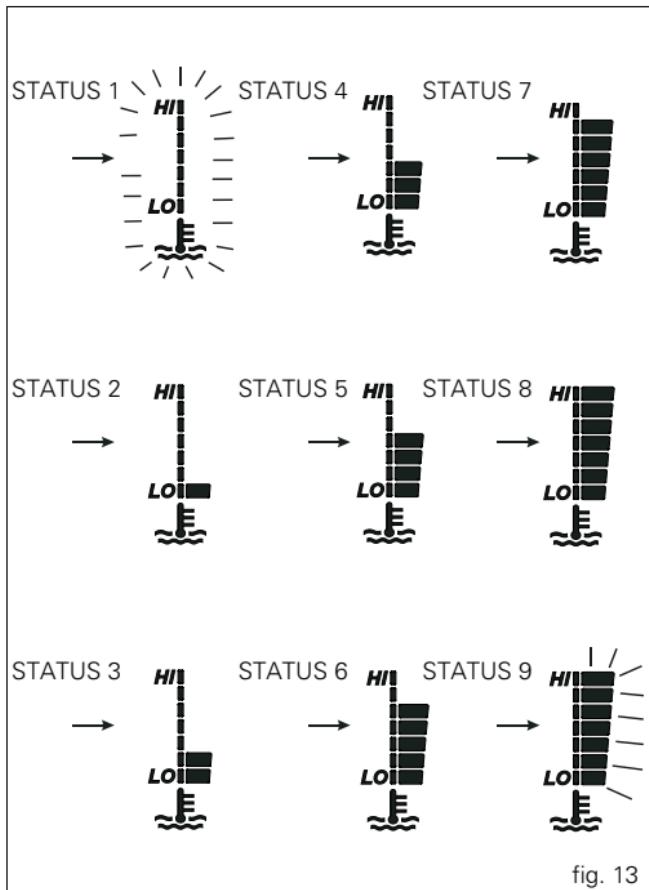


fig. 13

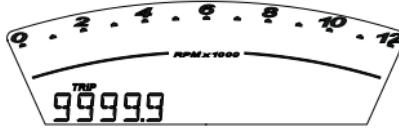
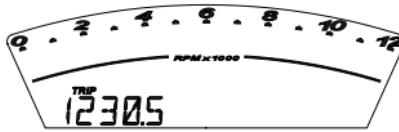
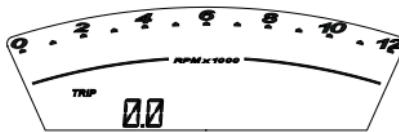
"TRIP" meter

This function displays the distance travelled since the last reset.

While in this function, if you press switch (13, fig. 5) for 3 seconds, the reading is reset to zero.

If the reading exceeds 999.9, it is reset to zero and the count restarts automatically.

version EU, CND, FRA, JAP



version UK, USA

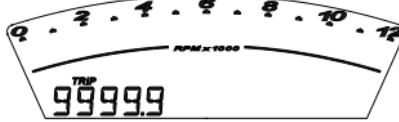
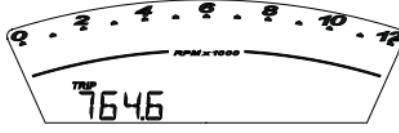
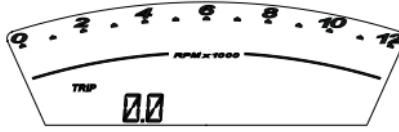


fig. 14

E

"TRIP FUEL" indicator (distance travelled on reserve fuel)

This function displays the distance travelled on reserve fuel. When the fuel warning light comes on, the TRIP FUEL meter is activated automatically, regardless of the function displayed.

If the fuel level remains in reserve, the reading is saved even after Key-Off.

The count stops automatically when the fuel level rises above reserve.

If the reading exceeds 999.9, it is reset and the count restarts automatically.

version EU, CND, FRA, JAP



version UK, USA



fig. 15

Clock display function

This function displays the time.

The time is always displayed as follows:

AM from 0:00 to 11:59;

PM from 12:00 to 11:59.

In the event of an interruption in the battery power supply (Batt-OFF), on restoration of the power supply at the next (Key-On), the clock will be reset and start automatically from "0:00".

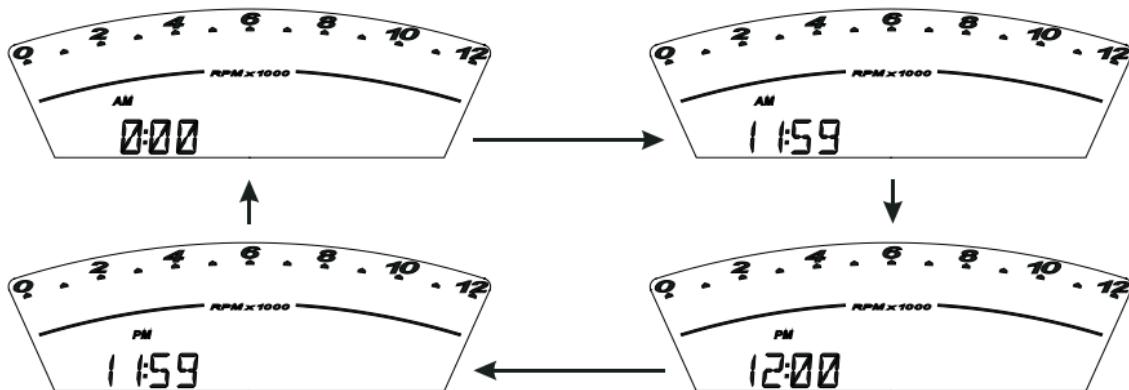


fig. 16

Service indicator

Indicates that the next service is due.

The indicator (✓) signals when the next service is due.
The service indicator is displayed at the following intervals:

- after the first 1000 km on the odometer;
- every 12000 km on the odometer.

The service indicator will remain on the display until reset.
If this message is displayed, contact your Ducati dealer or authorised service centre.

version EU, CND, FRA, JAP



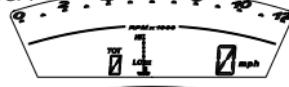
RESET

key-on
(SERV)



key-on
(SERV)

version UK, USA



RESET

key-on
(SERV)



key-on
(SERV)

fig. 17

Battery voltage indicator (BAT)

This function displays the battery charge level.

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

The battery voltage reading is displayed as follows:

- if the reading is between 12.1 and 14.9 Volts, it is steadily illuminated on the display;
- if the reading is between 10.0 and 12.0 Volts or between 15.0 and 16.0 Volts, it flashes on the display;
- if the reading is less than or equal to 9.9 Volts, the message "LO" flashes on the display and the "EOBD – Vehicle/Engine diagnostics" warning light (8, fig. 4) comes on;
- if the reading is greater than or equal to 16.1 Volts, the message "HI" flashes on the display and the "EOBD – engine diagnostics" warning light (8, fig. 4) comes on;

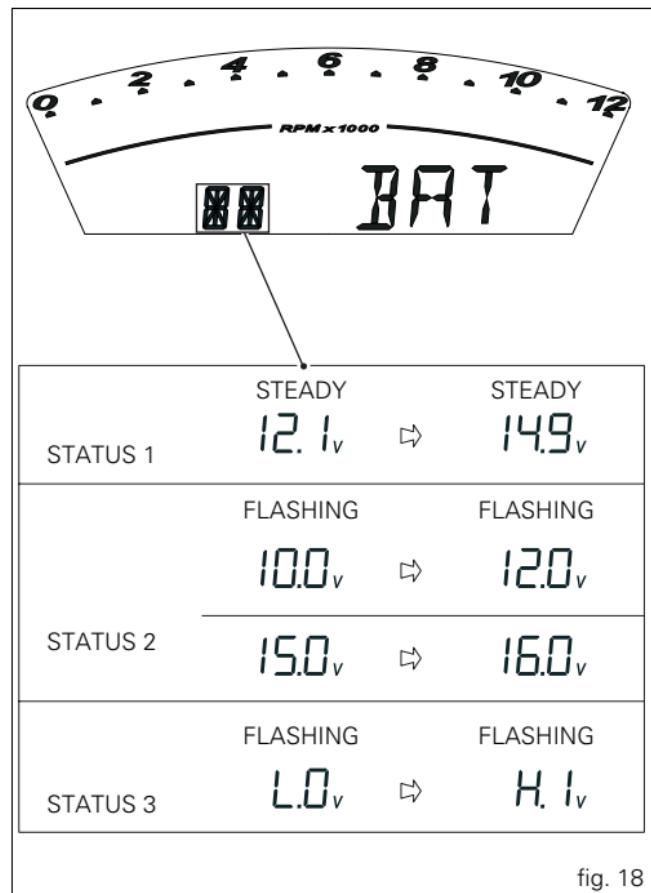


fig. 18

Engine idle speed adjustment (RPM)

This function displays the engine idle speed adjustment.
To display this function, enter the menu and select the
“RPM” page.

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

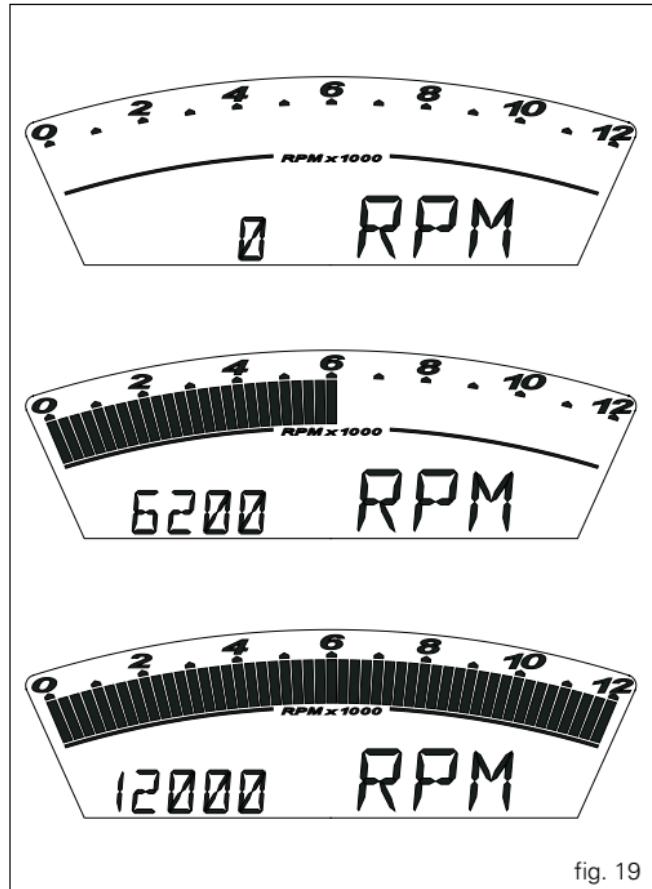


fig. 19

LIGHT SET backlighting adjustment

This function allows adjustment of the brightness of the display backlighting.

To enable the function, enter the menu and select the "LIGHT SET" page.

While in this page, press the RESET button (13, fig. 5) for 3 seconds to enable adjustment and display the following pages in sequence:

page 1 - "LIGHT MAX" setting:

This page sets backlighting to maximum brightness; press switch (1, fig. 10) "▲" to move to page 2.

page 2 - "LIGHT MID" setting:

This page reduces the backlighting by approximately 30% relative to maximum brightness; press switch (1, fig. 10) "▲" to return to page 3.

page 3 - "LIGHT MIN" setting:

This page reduces the backlighting by approximately 70% relative to maximum brightness; press switch (1, fig. 10) "▲" to return to page 1.

In each of the three pages, pressing the RESET button (13, fig. 5) for 13 seconds will select the corresponding backlighting brightness, save it to memory, and return you to the "LIGHT SET" page.

In the event of an interruption of the power supply from the battery (Batt-OFF), once power is restored, at the next Key-On, the backlighting will be set by default to maximum brightness.

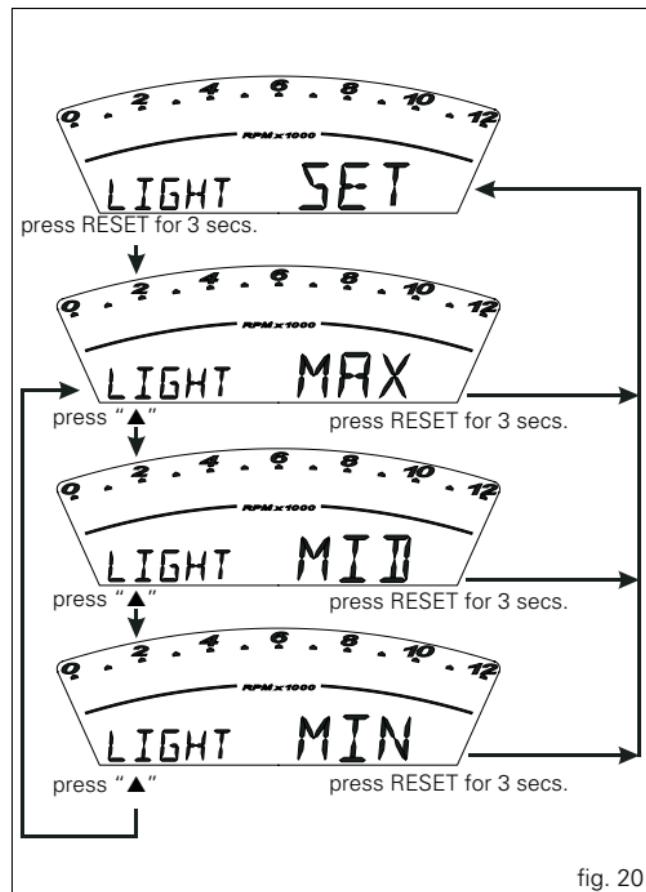


fig. 20

E

Lap time display function (LAP)

This function displays the recorded lap time.

To activate this function, enter the menu and set the LAP function to "On" by pressing the RESET button (13, fig. 5) for 3 seconds.

START and STOP the timer by pressing the high beam FLASH button (12, fig. 5) on the left-hand handlebar switch.

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

You can save a maximum of 30 laps in the memory.

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

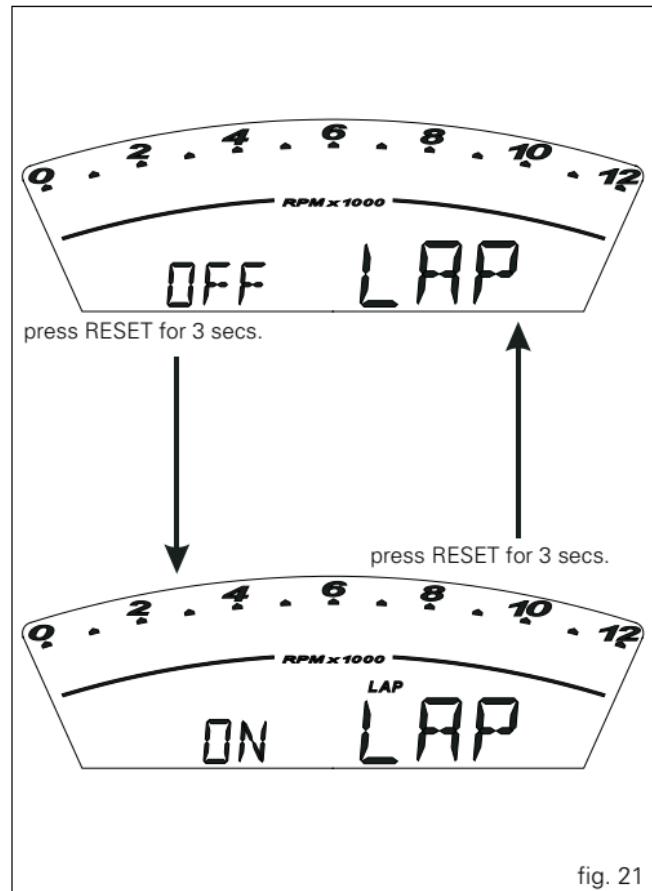


fig. 21

When you switch the LAP function off from the menu, the lap in progress will not be saved.

If the LAP function is active and the instrument panel 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 9 minutes, 59 seconds and 99 hundredths, it restarts from 0 (zero) and continues until the function is switched off.

If however the LAP function is switched on and the memory has not been cleared, but fewer than 30 laps have been saved (e.g. 18 laps), the instrument panel will save any remaining laps until the memory is full (in this case, it will save a further 12 laps).

In this function, lap time only is displayed, but other data are also saved (MAX rpm, rev limiter if reached) for viewing at a later date in the Lap Memory function.

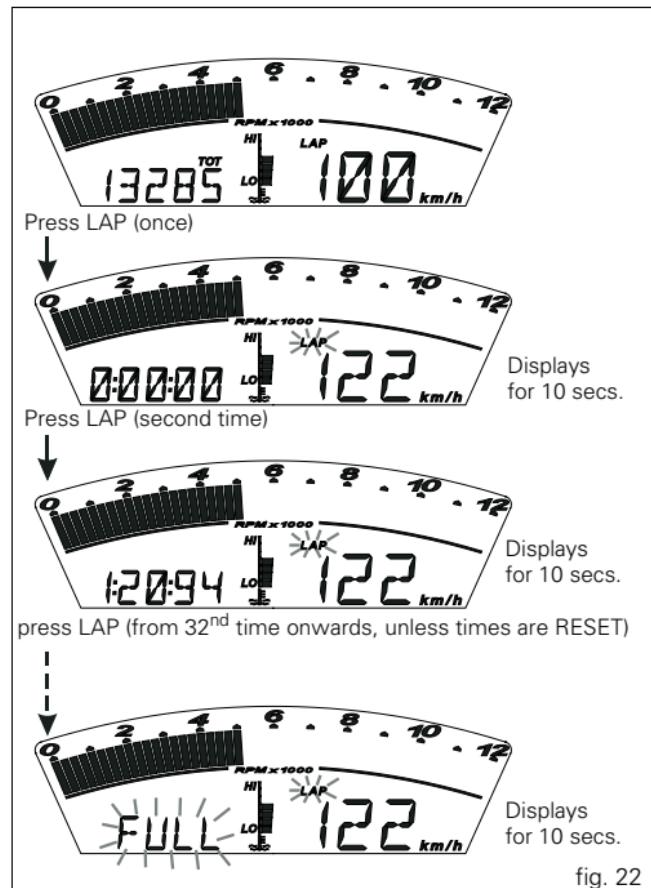


fig. 22

Lap times display (LAP Memory)

Displays the data saved using the LAP function: lap time, MAX RPM and rev limiter (if reached).

To display the saved lap times, enter the menu and select the "LAP MEM" page.

From this menu page, if you hold pressed the RESET button (13, fig. 5) for 3 seconds, the data for "Lap 1" will appear.

The display will show the lap number, lap time and the MAX rpm reached for the lap in question.

If you press switch (1, fig. 10) "▲", the display scrolls through the 30 saved times, before returning to the Lap 1.

If you hold the RESET button (13, fig. 5) for 3 seconds while displaying the saved times, the instrument panel immediately resets all the saved times. In this case, if the LAP function was active, it will be switched off automatically.

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.

During the lap, if the engine reaches one of the two thresholds before the rev limiter or the rev limiter itself, the respective warning lights (9, fig. 4) come on during the display of the saved times.

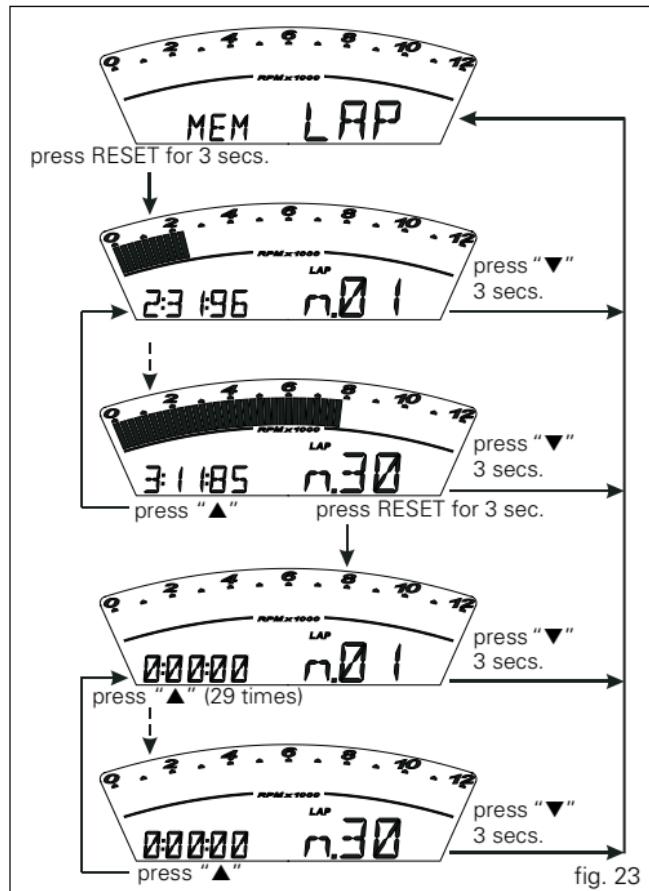


fig. 23

Ducati Data Analyzer

This function is used to activate the DDA (Ducati Data Analyzer) (not supplied as standard with this model, but can be purchased from the Ducati sales network): the DDA must be connected to the motorcycle wiring.

To activate the DDA, go into the menu and set the "DDA" to "On" by pressing the RESET button (13, fig. 5) for 3 seconds.

The text DDA (small) will illuminate and will remain on the display even when you quit the menu.

START and STOP the lap separator by pressing the high beam FLASH button (12, fig. 5) on the left-hand handlebar switch.

If the DDA function is active and the instrument panel is suddenly switched off (Key-Off), the function is automatically disabled.

E

Notes

There is an online help service available for owners of the Ducati Data Analyzer (DDA) (<http://dda.prosa.com>). This service will provide all the help and advice you need to use the DDA with your PC, both as regards the device itself and the data analysis software.

Warning

Disconnect the DDA from the main wiring loom after each use.

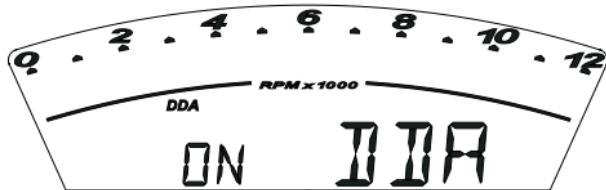
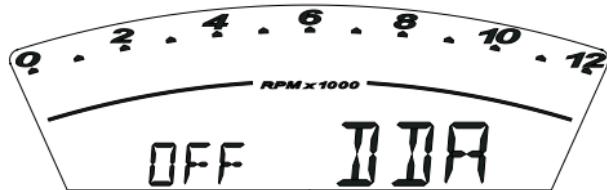


fig. 24

Erase DDA

This function enables you to delete the data saved on the DDA: the DDA must be connected to the motorcycle wiring. To delete the data, enter the menu and select the "Erase DDA" page.

If you press the RESET button (13, fig. 5) for 3 seconds and the DDA is not acquiring data, the message "WAIT..." appears on the display for 10 seconds. After 10 seconds has elapsed, the message "ERASE OK" appears for 2 seconds, to confirm that the DDA data has been deleted.

If instead you press the RESET button (13, fig. 5) for 3 seconds and the DDA is acquiring data, the DDA memory is not cleared and the display shows the message "FAIL" for 2 seconds.

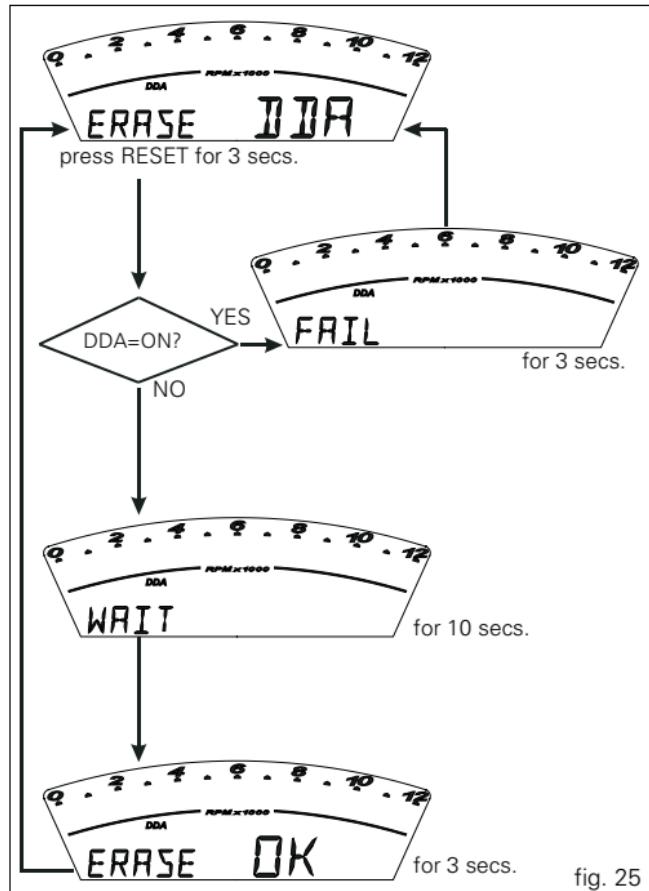


fig. 25

Clock setting function

This function is used to set the clock time.

To set the clock, enter the menu and select the “TIME Set” page.

From this page, if you press the RESET button (13, fig. 5) for 3 seconds, you enter clock setting mode.

On entering this function, the letters "AM" flash on the display; on pressing switch (1, fig. 10) "▲" the flashing letters switch to "PM"; pressing switch (1, fig. 10) "▲" a second time returns you to the previous step (if the time is 00:00, when you switch from AM to PM the time 12:00 will appear):

if you press switch (2, fig. 10) "▼" to proceed to set the hours value, which now starts flashing. Each time you press switch (1, fig. 10) "▲", the count advances cyclically in steps of 1 hour; if you hold pressed switch (1, fig. 10) "▲", the count advances cyclically in steps of 1 hour every second (when the switch is held down continuously, the hours do not flash).

if you press switch (2, fig. 10) "▼" you can proceed to set the minutes, which now start flashing. Each time you press switch (1, fig. 10) "▲", the count advances cyclically in steps of 1 minute; if you hold pressed switch (1, fig. 10) "▲", the count advances cyclically in steps of 1 minute every second. If switch (1 fig. 10) "▲" is held pressed for more than

5 seconds, the minutes advance by 1 every 100 ms (when the switch (1, fig. 10) "▲" is held pressed continuously, the seconds do not flash);

if you press switch (2, fig. 10) "▼", the system exits the clock setting mode and displays the newly set time.

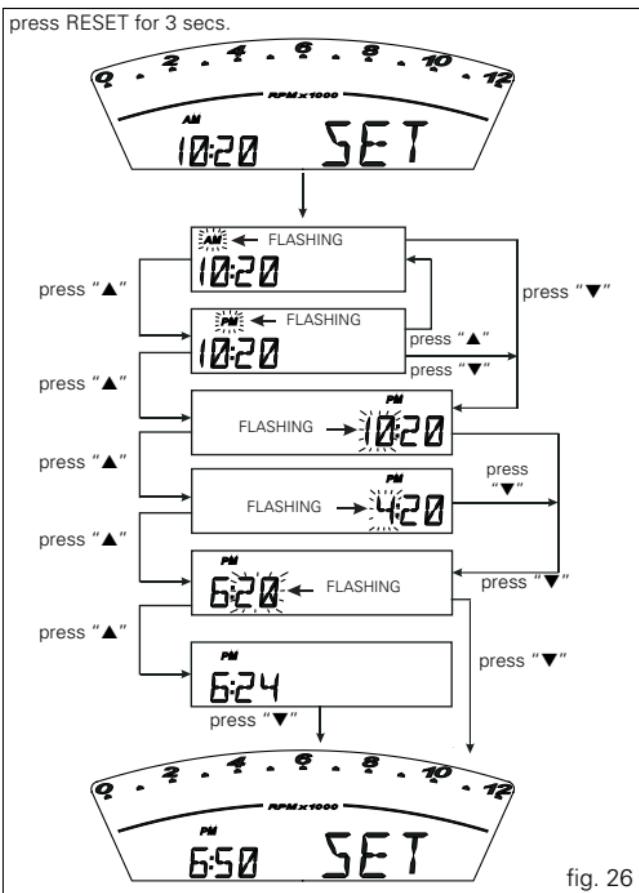


fig. 26

Instrument panel diagnostics

Important

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

Any errors detected in the behaviour of the motorcycle are displayed.

If there are several errors, they are displayed in rolling mode every 3 seconds.

The table below shows the errors that can be displayed.

Warning

If an error is displayed, contact your Ducati dealer or an authorised Service Centre.

WARNING LIGHT	ERROR MESSAGE	ERROR
	TPS	01 Generic error of the throttle position sensor (TPS)
	PRESS	02 Generic pressure sensor error
	T OIL	03 Generic error of the engine coolant temperature sensor
	T-AIR	04 Generic error of the internal air temperature sensor (ECU)
	BATT	05 Generic battery voltage error
	LAMB	06 Generic error of the lambda sensor heater
	FUEL	07 Generic fuel reserve error

WARNING LIGHT	ERROR MESSAGE	ERROR
	COIL	09 Generic coil error
	INJE	10 Generic fuel injector error
	STRT	12 Generic starter contactor error
	R INJ	13 Generic injection relay error
	STEPP	14 Generic stepper motor error
	EXVL	15 Generic error of the exhaust valve motor
	ECU	16 Generic engine ECU error
	PK UP	17 Generic pick-up sensor error
	SPEED	18 Generic speed sensor error
	IMMO	19 Generic immobilizer error
	CAN	20 Generic CAN line error
	LIGHT	21 Generic error of main/low beam headlights

Automatic turn signal "CANCEL" function

When one of the turn signals has been switched on it can be switched off by pressing the RESET button (13, fig. 5). If the rider does not press "RESET" button, the turn signal will be cancelled automatically when the motorcycle has travelled a further 1 km (0.6 mile) from the point at which it was originally switched on.

Gradual headlight SWITCH ON/OFF function

On Key-On, the low beam headlight (LO) is switched on gradually (time required to switch on approximately 2 seconds).

Headlight switch off (Key-Off) is also "gradual" (approximate time taken 2 seconds).

Intelligent headlight switch-off

This function automatically switches off the headlight while the motorcycle is being started or if the key is accidentally left in the ON position (Key-On) while the engine is stopped.

In order to reduce power consumption, the instrument panel automatically switches off the headlight while the engine is being started, switching it back on again once the engine has started (immediate switch off and on, not gradual).

If the key is left in the motorcycle (Key-On) with the engine off, after 60 seconds the headlight is automatically switched off in order to conserve battery power. The headlight is switched on when the engine is next started.

The immobilizer system

For additional anti-theft protection, the motorcycle is equipped with an **IMMOBILIZER**, an electronic system that locks the engine automatically whenever the ignition switch is turned off.

The grip of each ignition key contains an electronic device that modulates the output signal from a special antenna in the switch when the ignition is switched On. 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. 27)

The owner receives a set of keys, comprising:

- 2 black keys (B).

These contain the "code" of the immobilizer system.

Notes

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

The black keys (B) are the keys for normal use, and are used to:

- start the engine;
- open the lock on the fuel tank filler cap;
- open the seat lock.

Notes

The two keys have a small tag (1) attached, which shows their identification number.

Warning

Keep the keys separately and use only one of the black keys to start the motorcycle.

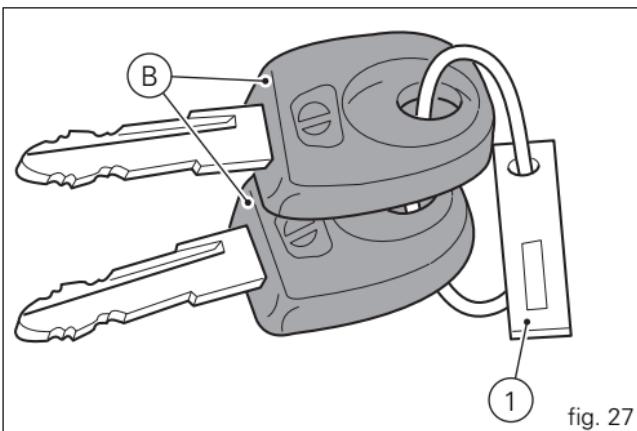


fig. 27

Code card

A CODE CARD (fig. 28) is supplied with the keys. This shows the electronic code (A, fig. 29) that must be used if the engine is locked by the immobilizer and consequently does not start when the key is turned to ON.

Warning

! Keep the CODE CARD in a safe place. We advise the user to keep the code printed on the CODE CARD on his/her person at all times in order to be able to override the engine lock using the procedure described below, in the event of a malfunction of the immobilizer system, signalled by illumination of the amber "EOBD – Engine diagnosis" light (8, fig. 4).

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 re-program or replace a key.

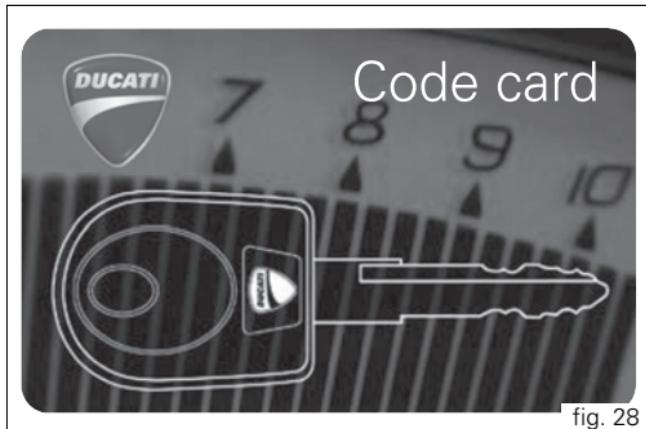


fig. 28

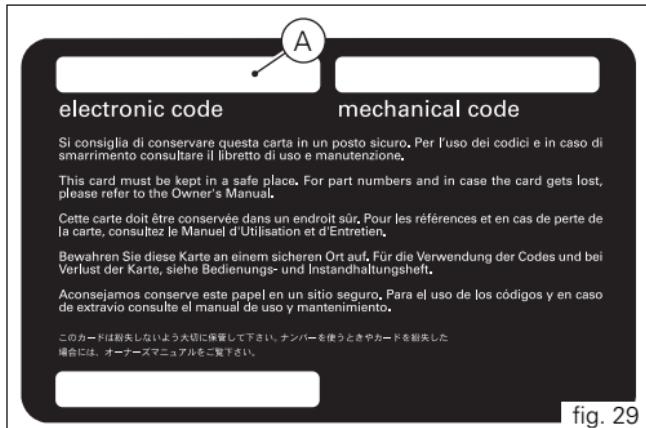


fig. 29

Immobilizer override procedure

In the event of an "Immobilizer LOCK", this function enables the user to enter the 5 digit code reported on the CODE CARD supplied with the set of keys in order to temporarily override the immobilizer.

Notes

 This menu is only active if there is at least one immobilizer error.

With this menu page selected, the initial code is always displayed as "00000". If you now hold the RESET button (13, fig. 5) for 3 seconds, you will access the procedure for entering the electronic code given on the Code Card.

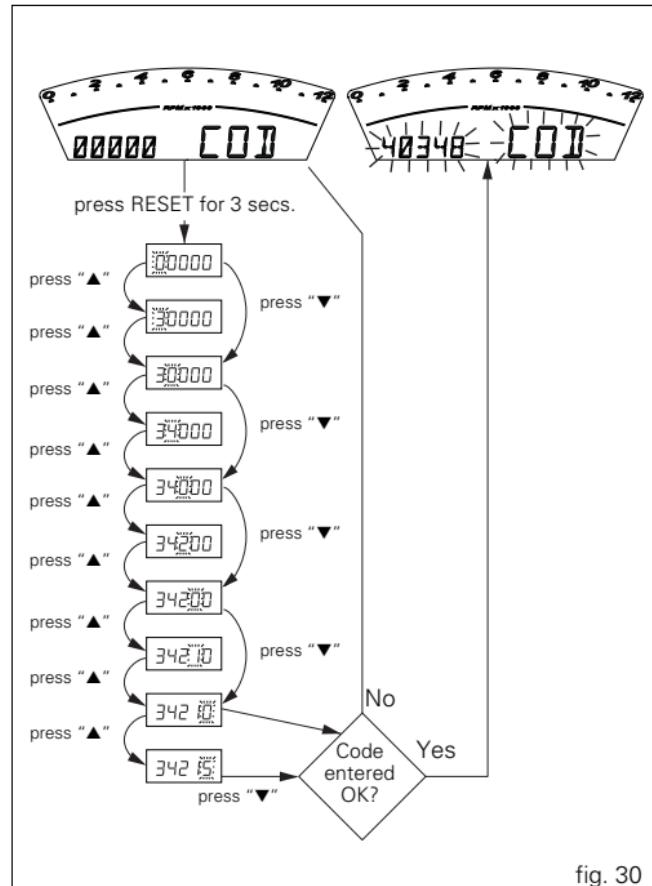


fig. 30

Entering the code:

- on entering this function, the first digit on the left starts flashing.
- Switch (1 and 2, fig. 10):
- each time you press switch (1, fig. 10) "▲", the number increases cyclically in steps of one digit every second;
 - press switch (2, fig. 10) "▼" to proceed to set the second digit, which now starts flashing. Each time you press switch (1, fig. 10) "▲", the number increases cyclically in steps of one digit every second.
 - press switch (2, fig. 10) "▼" to proceed to set the third digit, which will start flashing. Each time you press switch (1, fig. 10) "▲", the number increases cyclically in steps of one digit every second.
 - press switch (2, fig. 10) "▼" to proceed to set the fourth digit, which will start flashing. Each time you press switch (1, fig. 10) "▲", the number increases cyclically in steps of one digit every second.
 - press switch (2, fig. 10) "▼" to proceed to set the fifth digit, which will start flashing. Each time you press switch (1, fig. 10) "▲", the number increases cyclically in steps of one digit every second.
 - press switch (2, fig. 10) "▼" to confirm the code.

If the code has been entered correctly, the message "CODE" and the code itself will flash simultaneously for 4 seconds. The "EOBD – engine diagnosis" warning light (8, fig. 4) will go out. The instrument panel will then automatically exit the menu, thus allowing "temporary" starting of the motorcycle. If the error persists, at the next Key-on, the instrument panel will return to an error state and immobilize the engine. If instead the code has been entered incorrectly, the instrument panel will automatically return to the "CODE" menu and display the code "00000".



Notes

It is possible to enter an incorrect code an infinite number of times without causing the function to lockup.

Operation

When the ignition key is turned from ON to OFF, the immobilizer system activates the engine lock. When the ignition key is turned from OFF to ON to start the engine:

- 1) if the code is recognised, the protection system releases the engine lock. When you press the START (2, fig. 35) switch, the engine will start up;
- 2) if the "EOBD – engine diagnosis" warning light (8, fig. 4) comes on and if, when you press switch (2, fig. 10) "▼" the message "IMMO" appears on the display, indicating that the code has not been recognised. In this case, turn the ignition key back to OFF and then to ON again. If the engine still does not start, try again with the other black key. If the engine still does not start, contact an authorized Ducati Service Centre.

Warning

Sharp knocks can damage the electronic components inside the key.

Always use the same key throughout the procedure.

Using different keys could prevent the system from recognising the code in the key.

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 for any keys not present during the memory programming procedure are cancelled, to ensure that any keys that may have been lost can no longer be used to start the engine.

Notes

If you sell your motorcycle, it is essential to transfer all keys and the CODE CARD to the new owner.

E

Ignition switch and steering lock (fig. 31)

This 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.

Notes

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

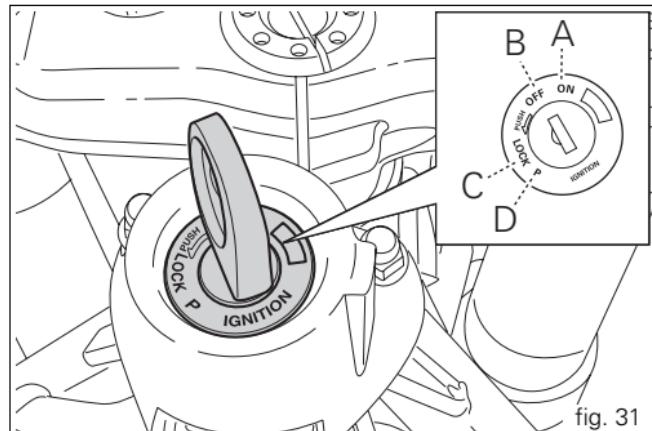


fig. 31

Left-hand handlebar switch (fig. 32 and fig. 33)

- 1) Two-position light selector switch:
position = low beam headlight on (A);
position = low beam headlight on (B).
Switch = high beam flasher (FLASH) and instrument panel control (C).
- 2) Switch = 3-position turn signal:
centre position = off;
position = left turn;
position = right turn.
To cancel the turn signal, press the control switch once it has returned to the central position.
- 3) Button = horn.
- 4) Instrument panel control switch "▲".
- 5) Instrument panel control switch "▼".

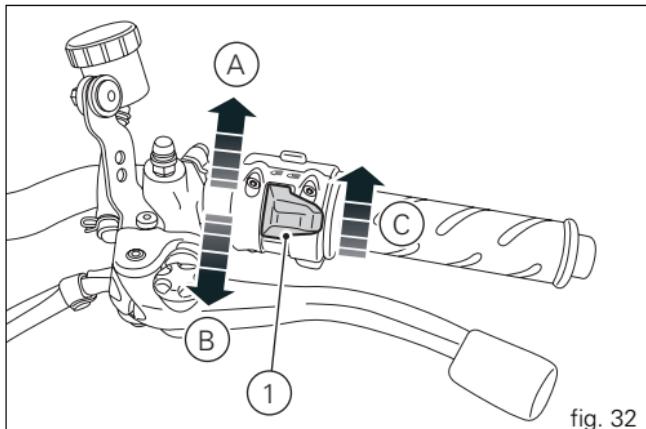


fig. 32

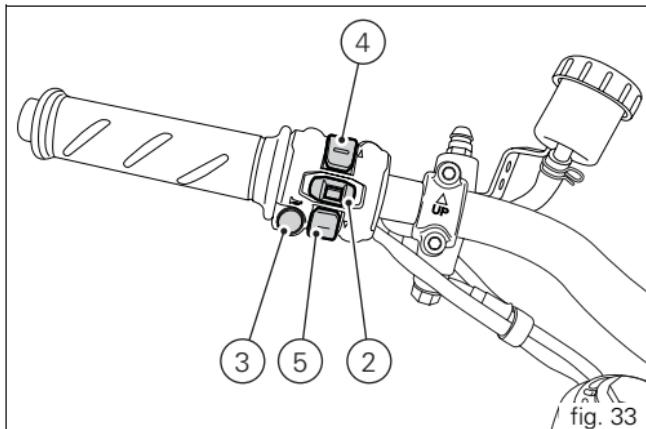


fig. 33

Clutch lever (fig. 34)

The clutch lever (1) is fitted with a span adjuster (2) which serves to alter the distance of the lever from the handlebar. To adjust the position, with the lever (1) fully released, turn the adjuster (2) clockwise to move the lever out or anticlockwise to move it closer to the handlebar.

When the clutch lever (1) is operated, drive from the engine to the gearbox and the rear wheel is disengaged. Correct use of the clutch lever is very important in all riding situations, especially when moving off.

Warning

Any adjustment of clutch lever must be carried out when motorcycle is stationary.

Important

Using the clutch properly will prolong the life of the engine and prevent any damage to components in the transmission.

Notes

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

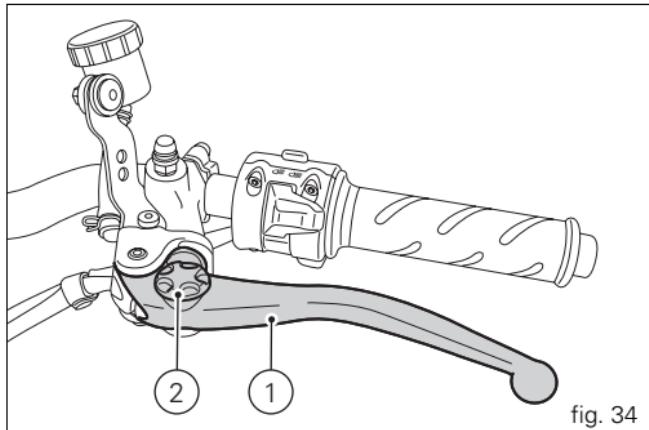


fig. 34

Right-hand handlebar switch (fig. 35 and fig. 36)

1) ENGINE STOP switch, with two positions:

- position \textcircled{O} (RUN) = engine run (A, fig. 36);
- position $\textcircled{\times}$ (OFF) = engine stop (B, fig. 36).

Warning

This switch is mainly intended for use in emergencies when you need to stop the engine quickly. After stopping the engine, return the switch to the position " \textcircled{O} " to start the engine.

2) Button \textcircled{O} = engine start.

Throttle twistgrip (fig. 35)

The twistgrip (3) on the right handlebar opens the butterfly valves in the throttle body. When released, the twistgrip returns automatically to the initial position (idling speed).

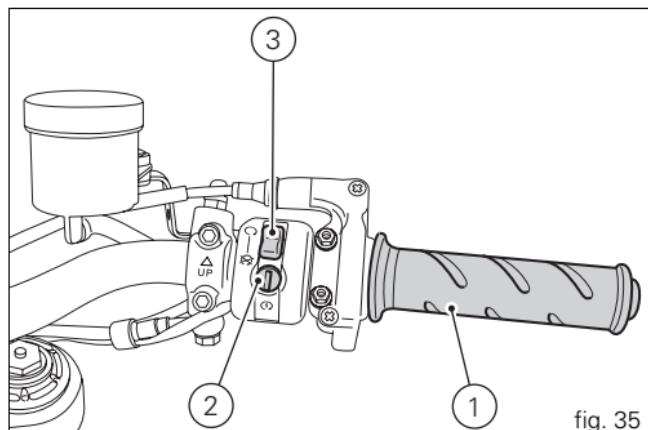


fig. 35

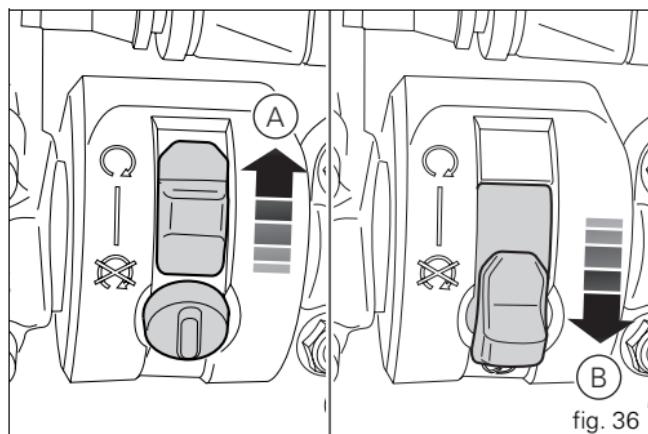


fig. 36

Front brake lever (fig. 37)

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

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

To adjust the position, with the lever (1) fully released, turn the adjuster (2) clockwise to move the lever out or anticlockwise to move it closer to the handlebar.

Warning

Any adjustment of brake lever must be carried out when motorcycle is stationary.

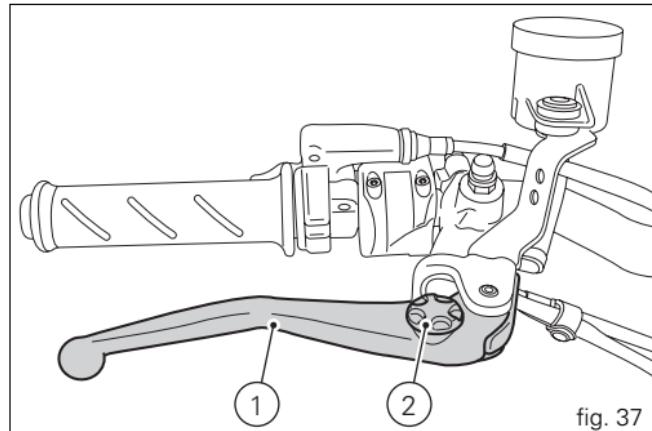


fig. 37

Rear brake pedal (fig. 38)

Push down on the pedal (1) with your foot to operate the rear brake.

The brake system is hydraulic and very little force is required to operate it.

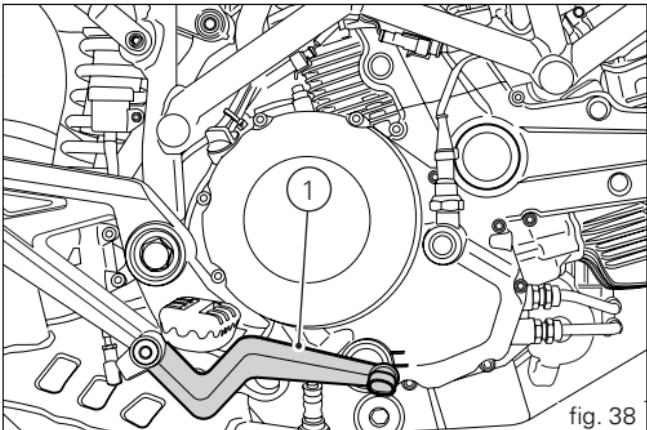


fig. 38

Gearchange pedal (fig. 39)

The gear change pedal is at rest when in centre position N, and automatically returns to the centre position. When in this position, light N (8, fig. 4) on instrument panel comes on.

The pedal can be moved:

- downwards = push down on the pedal to engage 1st gear and to shift down. At this point the N light on the instrument panel will go off;
- upwards= lift the pedal to engage 2nd gear and then 3rd, 4th, 5th and 6th gears.

Each time you move the pedal you engage the next gear, one gear at a time.

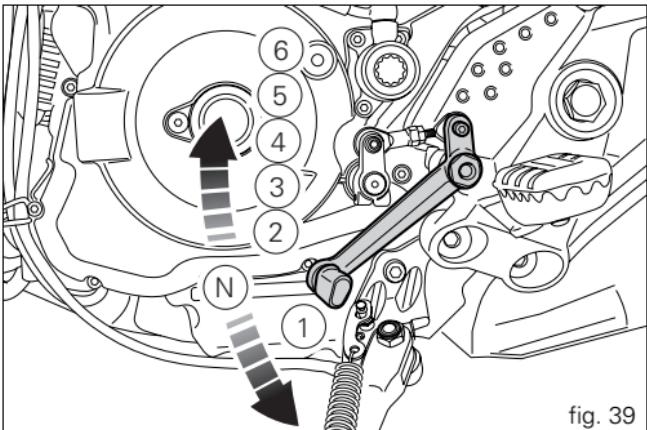


fig. 39

Adjusting the position of the gearchange and rear brake pedals

The position of the gearchange and rear brake pedals in relation to the footrests can be adjusted to suit the requirements of the rider.

Proceed as follows to change the pedal position.

Gearchange pedal (fig. 40)

Use an open ended spanner to hold the rod (1) on the flat (2) and slacken off lock nut (3).

Turn the screw (4) to detach the rod (5) from the gearchange lever.

Turn the rod (5) and move the pedal to the required position. Tighten the bolt (4) to secure the gearchange lever to the rod (5).

Tighten the locknut (3) against the rod (5).

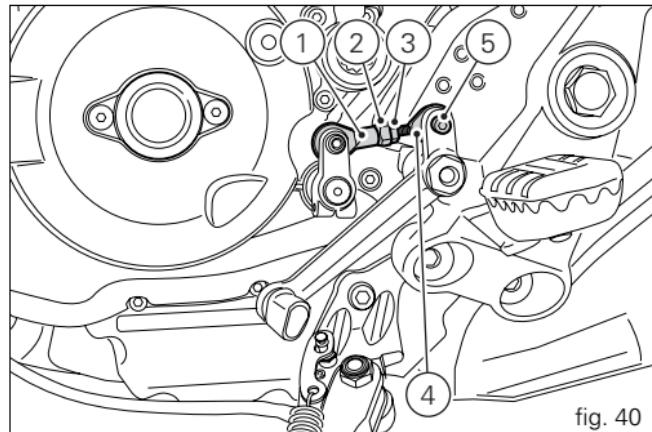


fig. 40

Rear brake pedal (fig. 41)

Loosen the locknut (7).

Turn the pedal travel adjustment bolt (6) until the pedal is in the desired position.

Tighten the locknut (7).

Operate the pedal by hand to check that there is 1.5 to 2 mm of freeplay before the brake bites.

If not, adjust the length of the master cylinder pushrod as follows.

Slacken off the locknut (10) on the pushrod.

Screw the pushrod (8) into the clevis (9) to increase the freeplay, or screw it out to reduce it.

Tighten the locknut (10) and recheck the pedal freeplay.

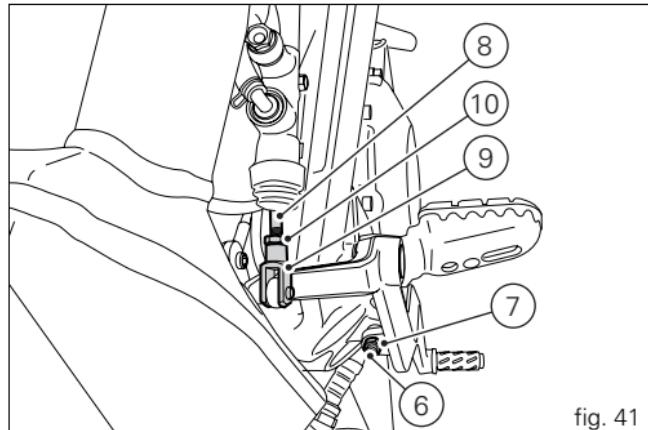


fig. 41

Main components and devices

Position on motorcycle (fig. 42)

- 1) Fuel tank filler cap.
- 2) Seat fastening.
- 3) Document compartment.
- 4) Sidestand.
- 5) Front fork adjusters.
- 6) Rear shock absorber adjusters.
- 7) Rearview mirrors.
- 8) Silencer and exhaust pipes.
- 9) Catalytic converter.



Warning

The exhaust system might be hot, even after engine is switched off; take care not to touch the exhaust system with any part of the body and do not park the motorcycle next to inflammable material (wood, dry leaves, etc.).

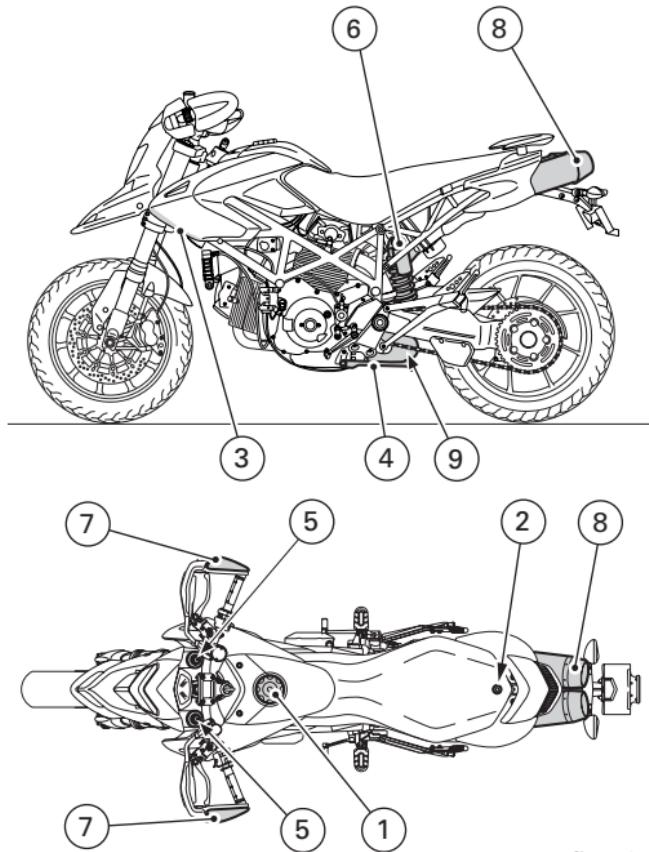


fig. 42

Fuel tank filler cap (fig. 43)

Opening

Insert the key in the lock. Give the key a 1/4 turn clockwise to unlock.

Unscrew the fuel filler cap (1, fig. 43).

Closing

Press down on the fuel filler cap (1) with the key inserted and screw it on. Turn the key anticlockwise to the initial position and remove it.

Notes

The cap can only be closed with the key inserted.

Warning

Always make sure you have properly closed the fuel filler cap after refuelling (see page 66).

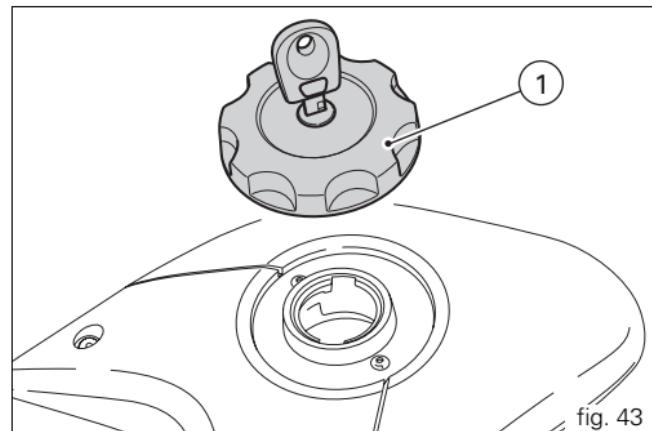


fig. 43

E

Seat fastening

Opening

Using the hex socket wrench provided, unscrew and remove the bolt (1).

Lift the rear of the seat and slide it backwards to disengage it from the front mountings.

Closing

Insert the front end of the seat under the frame member, fit and tighten the bolt (1).

Check that the seat is securely fixed to the frame.

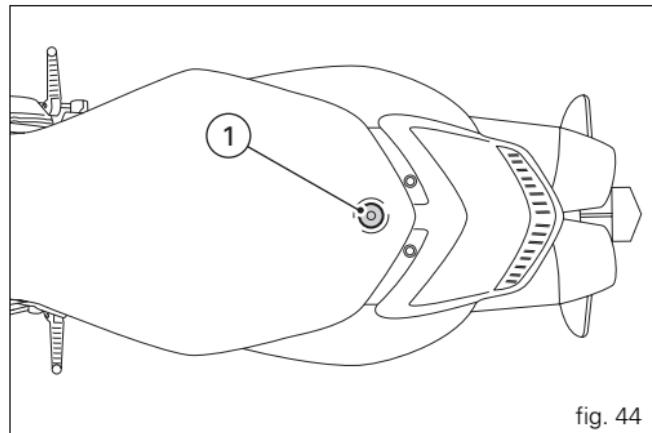


fig. 44

Tool kit compartment

To access the tool kit compartment, turn the plastic screws (1) anti-clockwise by a 1/4 turn.

Remove the inner cover to access the compartment containing the tool kit (see page 67).

Important

Do not use this compartment to hold heavy or metal objects that might move about while the motorcycle is in motion, causing loss of stability.

To close the compartment, reposition the inner cover on the left-hand fairing and turn the plastic screws (1) clockwise by a 1/4 turn.

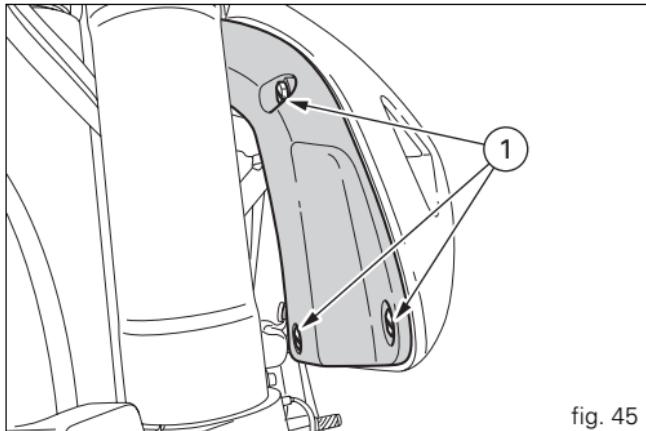


fig. 45

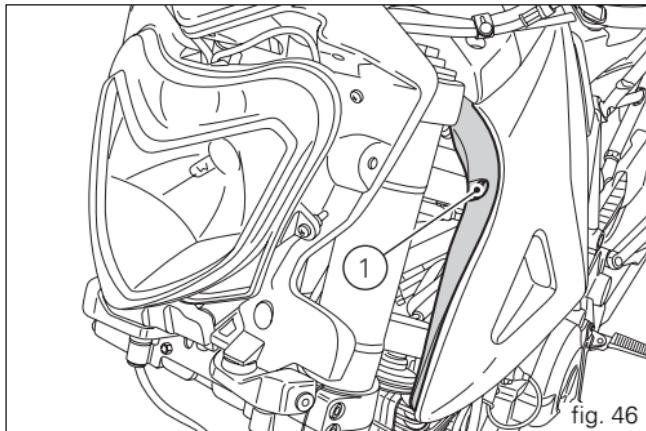


fig. 46

Sidestand (fig. 47)

Important

Before lowering the sidestand, check that the ground is sufficiently even and firm. Do not park on soft ground, gravel or on asphalt softened by the sun etc. or the motorcycle may fall over.

When parking on a slope, always park with the rear wheel on the downhill side.

To lower the sidestand, hold the motorcycle handlebars with both hands and push down on the stand (1) with your foot until it is fully extended. Lean the motorcycle over on its left side until the sidestand comes into firm contact with the ground.

Warning

Do not sit on the motorcycle when it is supported on the sidestand.

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

Notes

It is advisable to check periodically the operation of the stand mechanism (consisting of two springs, one inside the other) and the safety sensor (2), which informs the engine ECU of the position of the sidestand. The sidestand safety circuit is protected by a 3 Amp fuse located alongside the battery (see page 102).

Notes

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

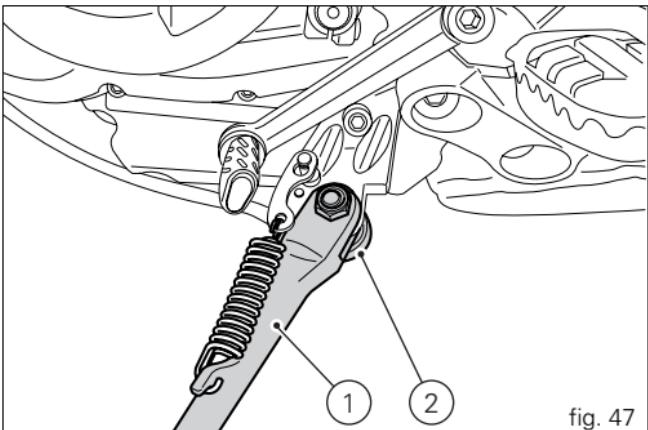


fig. 47

Front fork adjusters

The front fork can be adjusted for rebound, compression and spring preload.

The settings are adjusted by way of external adjuster screws:

- 1) to adjust rebound damping (fig. 48);
- 2) to adjust inner spring preload (fig. 48);
- 3) to adjust compression damping (fig. 49).

Park the motorcycle in a stable position on its sidestand.

To adjust the rebound damping setting, turn the adjuster (1) on the top of each fork leg with a flat blade screwdriver.

To adjust compression damping, turn the adjuster (3, fig. 49) at the rear of the fork bottoms with a flat blade screwdriver. As you turn the adjuster (1 or 3), you will hear it click.

Each click corresponds to a setting.

The maximum damping is obtained with the adjuster screwed in fully to the "0" position.

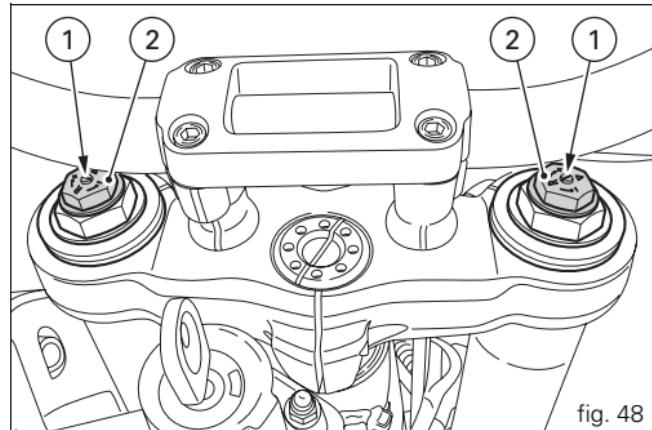


fig. 48

Start with this position and turn the adjuster counterclockwise. Count the clicks, which correspond to position 1, 2 and so forth.

The standard factory settings are as follows:

compression: 1.5 turns $\pm 1/4$ turn;

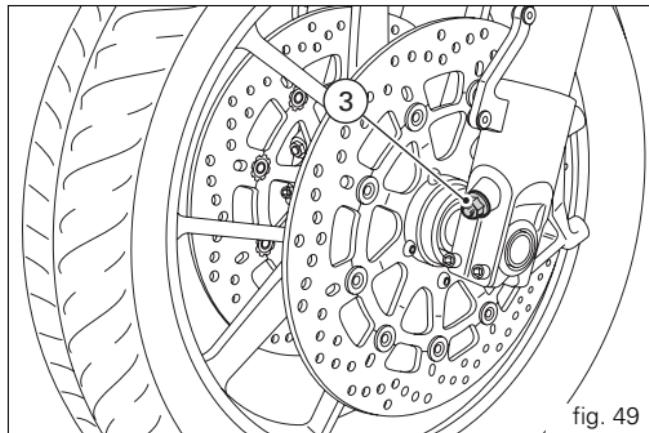
rebound: 1.5 turns $\pm 1/4$ turn;

spring preload: 10 mm (3 turns from fully open position).

To change the preload on the inner spring for each fork leg, turn the adjuster at the hex end (2, fig. 48) with a 22 mm hex spanner.

Important

Adjust both fork legs to the same setting.



Rear shock absorber adjusters (fig. 50)

The shock absorber has external adjusters that enable you to adjust the suspension to suit the load on the motorcycle.

The adjuster (1) located on the right-hand side, where the lower end of the shock absorber is attached to the swingarm, controls rebound damping.

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

Turn the adjusters (1 and 2) clockwise to stiffen the damping (H), or anti-clockwise to soften it (S).

Standard setting from the fully closed position (clockwise):

- unscrew the adjuster (1) by 15 clicks ± 3 clicks;
- unscrew the adjuster (2) by 2 clicks $\pm 1/4$ click.

Spring preload: 19 mm.

The two nuts (3) on the upper part of the shock absorber serve to adjust the preload on the external spring. To change spring preload, slacken off the upper lock nut. Then TIGHTEN or LOOSEN the lower nut to INCREASE or DECREASE spring preload as required.

Warning

! Use a pin wrench to turn the preload adjusting nut. Take special care when turning the nut, to avoid injuring your hand by striking it violently against other parts of the motorcycle if the wrench suddenly slips off the nut while turning.

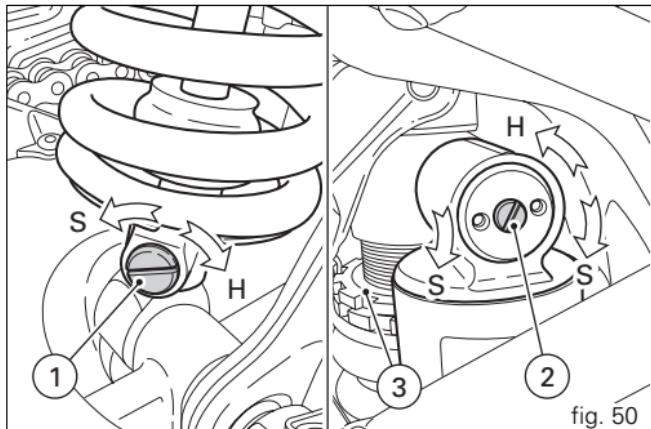


fig. 50

Warning

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

If you plan to carry a passenger and luggage, adjust the rear shock absorber spring load to the maximum setting to improve the handling characteristics of the motorcycle and to avoid the possibility of ground contact. It may also be necessary to adjust the rebound damping accordingly.

Rear view mirror adjustment

To adjust the mirror, loosen nut (A).

Move the mirror (B) to the desired position, then re-tighten nut (A) to secure it in this position

Warning

Never attempt to adjust the position by moving the whole mirror assembly, as this could break it.

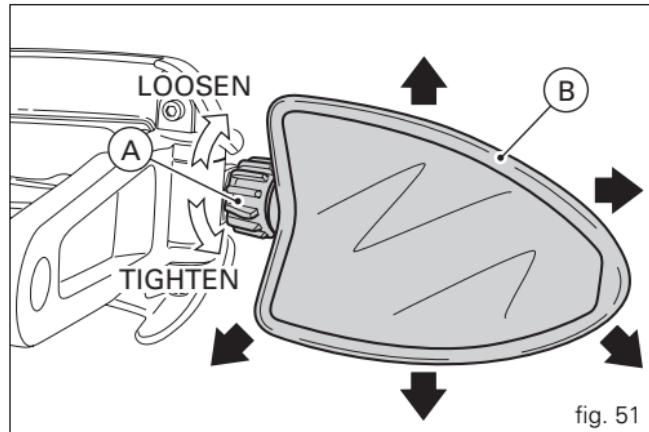


fig. 51

Riding the motorcycle

E

Running-in precautions

Max. engine speed (fig. 52)

Rpm limits to be observed during the running-in period and in normal use:

- 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.

The indicator must not exceed 5500-6000 rpm.

During the first hours of riding, it is advisable to run the engine at varying load and rpm, while keeping within the recommended limit.

For this reason, roads with numerous bends and hilly areas are ideal for running in the engine, brakes and suspension.

For the first 100 km, use the brakes gently. Do not brake violently or keep brake applied for too long. This will enable a correct break-in of friction material on brake pads against brake discs.

To allow all the moving parts in the motorcycle to adapt to one another, and to avoid shortening the life of the main engine components, it is advisable to avoid sudden acceleration and running the engine at high rpm for too long, especially uphill. It is also advisable to check the drive chain frequently and ensure that it is lubricated as required.

From 1000 to 2500 km

At this point, you can ask for more power from the engine, being careful, however, never to exceed 7000 rpm.

Important

Throughout the running-in period, be careful to stick to the recommended maintenance schedule and periodic service intervals indicated in the warranty booklet. Failure to follow these instructions shall release Ducati Motor Holding S.p.A. from all liability for any engine damage or shorter engine life.

Keeping to the running-in recommendations will ensure longer engine life and reduce the need for overhauls and re-tuning.

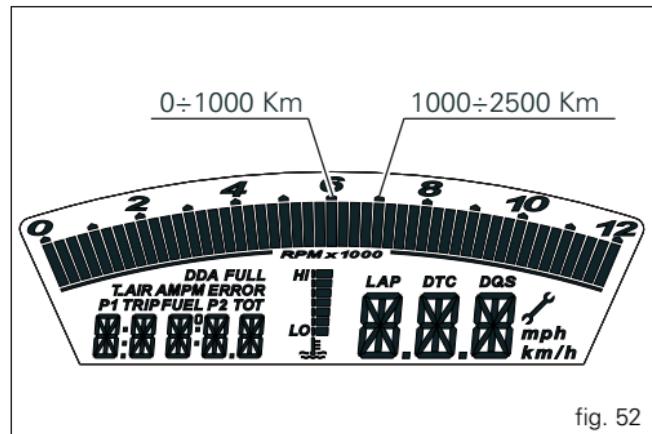


fig. 52

Pre-ride checks

Warning

Failure to carry out these checks before starting may result in damage to the motorcycle and injury to rider.

Before starting, check the following points:

FUEL LEVEL IN THE TANK

Check the fuel level in the tank. Re-fuel if necessary (page 66).

ENGINE OIL LEVEL

Check the oil level in the sump through the sight glass.

Top up if necessary (page 86).

BRAKE AND CLUTCH FLUID

Check the fluid levels in the respective reservoirs (page 70).

TYRE CONDITION

Check the pressure and condition of the tyres (page 84).

CONTROLS

Operate the brake, clutch, throttle and gear change controls (levers, pedals and twistgrip) to check that they function correctly.

LIGHTS AND INDICATORS

Make sure the lights, indicators and horn work properly.

Replace any burnt-out bulbs (page 78).

KEY LOCKS

Check that the fuel filler cap (page 51) and the seat are securely fastened (page 51).

SIDE STAND

Make sure the sidestand operates smoothly and is in the correct position (page 54).



Warning

If you find any faults or malfunctions, do not start the motorcycle and contact your Ducati Dealer or authorized Service Centre.

Starting the engine

Warning

Before starting the engine, familiarise yourself with the controls that you will use when riding (see page 10)

- 1) Turn the ignition switch to ON (fig. 53). Check that both the green light N (8, fig. 4) and the red light  (7, fig. 4) on the instrument panel come on.

Important

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

Notes

 The engine can be started with the sidestand down and the gearbox in neutral. When starting the engine with a gear engaged, pull in the clutch lever (in this case the sidestand must be in the raised position).

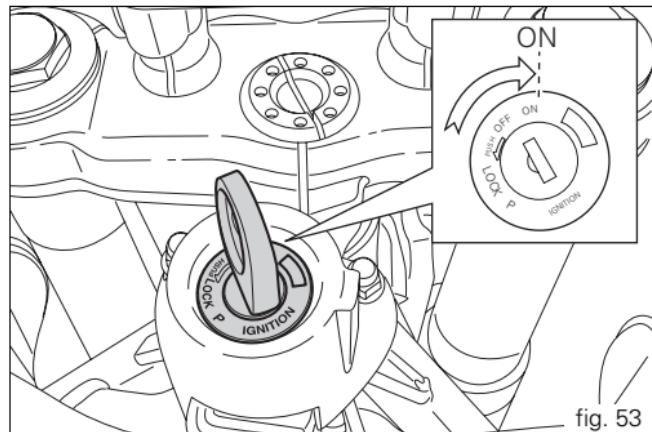


fig. 53

- 2) Make sure that the stop switch (1, fig. 54) is in the $\textcircled{\text{O}}$ (RUN) position, then press the starter button (2).

Notes

If the battery is flat, the system automatically inhibits operation of the starter motor.

Important

Do not run the engine at high revs when cold. Allow some time for the oil to warm up and reach all points that need lubricating.

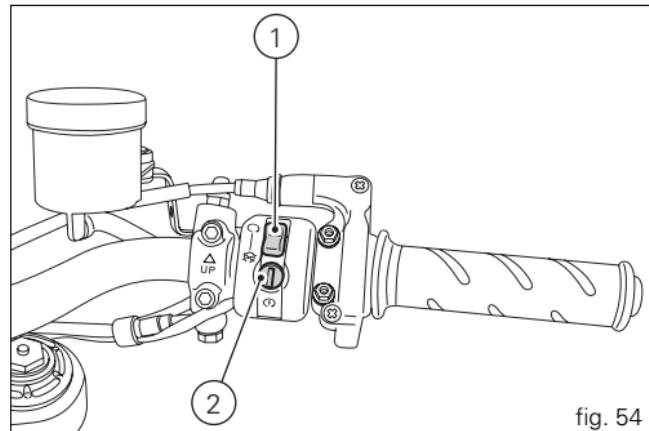


fig. 54

Moving off and changing gear

- 1) Disengage the clutch by squeezing the control lever.
- 2) Push down the gearchange lever firmly with the toe 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 move off.
- 4) Release the clutch lever completely and accelerate.
- 5) To change up a gear, close the throttle to reduce the engine revs, disengage the clutch, lift the gearchange lever and release the clutch lever.

To change down through the gears, proceed as follows: release the twistgrip, disengage the clutch, briefly rev the engine to allow the gears to synchronize, shift down and release the clutch lever.

Use the controls intelligently and opportunely: when riding uphill, do not hesitate to shift down the moment the motorcycle starts to slow down, in order to avoid overloading the engine and putting too much strain on the motorcycle generally.



Important

Avoid sudden acceleration, as this may lead to misfiring and transmission snatching. The clutch lever should not be held in longer than necessary after a gear is engaged, in order to avoid overheating and premature wear of the clutch.

Braking

Slow down in good time, change down a gear to use engine braking, then apply both brakes. Pull in the clutch lever before the motorcycle comes to a stop to prevent the engine stalling.

Warning

 Use both the brake lever and the brake pedal for effective braking. Using only one of the brakes will give you less braking power.

Never use the brake controls too harshly or suddenly as you may lock up the wheels and lose control of the motorcycle. When riding in the rain or on slippery surfaces, braking capacity is significantly reduced. Always use the brakes very gently and carefully when riding under these conditions. Any sudden manoeuvres may lead to loss of control.

When riding down long, steep downhill slopes, change down to use engine braking. Apply the brakes intermittently for brief periods only. Keeping the brakes applied continuously causes the friction material to overheat and dangerously reduces braking effectiveness. Under-inflated or over-inflated tyres reduce braking efficiency and may adversely affect safe riding and road-holding on bends.

Stopping the motorcycle

Reduce speed, change down and release the throttle twistgrip. Change down to engage first gear and then neutral. Apply the brakes and bring the motorcycle to a complete stop. Switch the engine off by turning the key to OFF (page 42).

Parking

Stop and park the motorcycle on the sidestand (see page 54).

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

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

If necessary, you can leave the sidelights on by turning the key to position P.

Important

Do not leave the key at P for long periods or the battery will run down. Never leave the motorcycle unattended with the ignition key inserted.

Warning

 The exhaust system might be hot, even after engine is switched off; take care not to touch the exhaust system with any part of the body and do not park the motorcycle next to inflammable material (wood, dry leaves, etc.).

Warning

 Using padlocks or other locks designed to prevent movement of the motorcycle (such as brake disc locks, rear sprocket locks, and so on) is very dangerous, and may impair motorcycle operation and the safety of rider and passenger.

Refuelling (fig. 55)

Do not overfill the tank when refuelling. The fuel level should always be below the rim of the filler recess.

Warning

! Use fuel with low lead content and an original octane number of 95 minimum (see table "Fluids and lubricants" on page 95).

Check that no fuel is trapped in the filler cap recess.

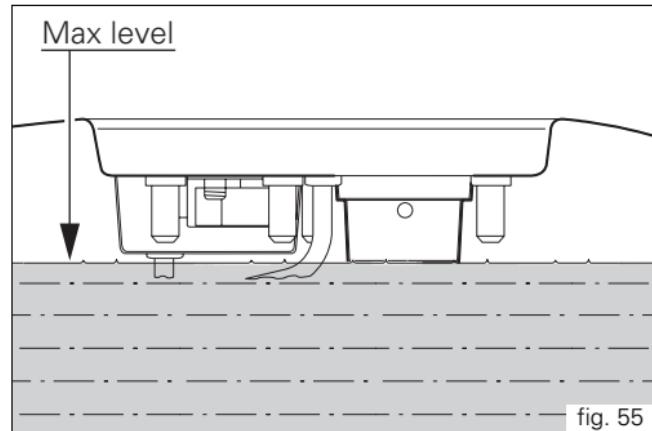


fig. 55

Toolkit and accessories (fig. 56)

A compartment in the left-hand fairing, accessible by opening the inner cover (see page 53) contains:
the toolkit, including:

- spark plug wrench;
- tommy bar for spark plug wrench;
- double-ended screwdriver;
- 3 mm Allen key;
- 4 mm Allen key;
- 5 mm Allen key;
- 10/13 mm open-ended spanner.

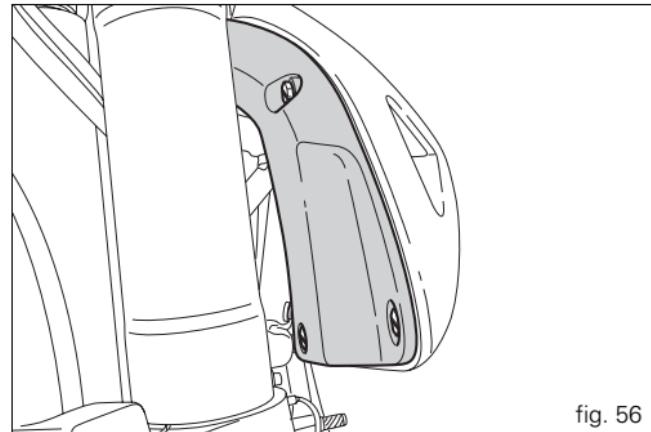


fig. 56

Main Maintenance Operations

Removal of the fairings

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

On refitting the headlight fairing, always refit the nylon washers in correspondence with the retaining screws to avoid damaging the painted parts and the plexiglas windshield.

Right side panel

Raise the seat (page 52).

Unscrew the three bolts (1) securing the cover (2).

Remove the cover (2).

Unscrew the bolts (3) and remove the side panel (4).

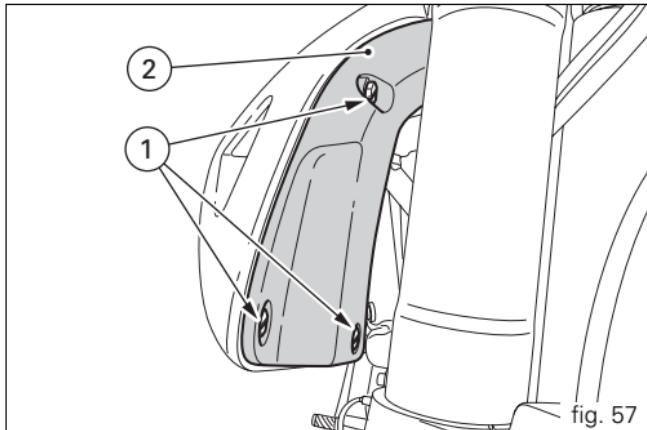


fig. 57

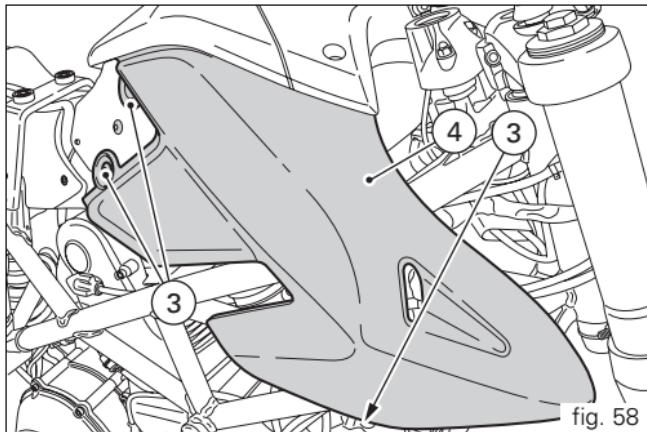


fig. 58

Checking the brake and clutch fluid level

The level must not fall below the MIN mark on the corresponding reservoirs (fig. 59 and fig. 60).

If the level is too low, air can get into the circuit and impair the efficiency of the system.

Brake and clutch fluid must be topped up and changed at the intervals specified in the routine maintenance table (see the Warranty Booklet) by a Ducati Dealer or authorized Service Centre.

Important

It is recommended that all brake and clutch hoses be renewed every four years.

Brake system

If there is excessive play at the brake lever or pedal even though the brake pads are still in good condition, contact a Ducati Dealer or authorized Service Centre to have the system inspected and any air expelled from the circuit.

Warning

Brake and clutch fluid can damage paintwork and plastic parts, so avoid contact. Hydraulic fluid is corrosive and can cause damage and injuries. Never mix fluids of different qualities.

Check that the seals are in good condition.

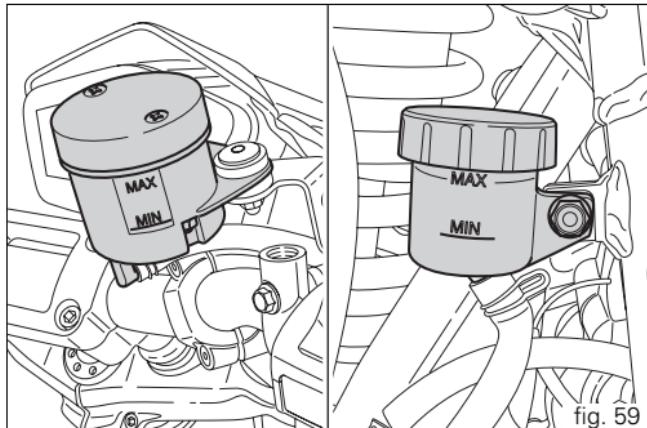


fig. 59

Clutch system (fig. 60)

If there is too much play at the clutch lever and the motorcycle jumps or stops when a gear is engaged, this indicates air in the system. Contact a Ducati Dealer or authorized Service Centre to have the system inspected and the air bled from the system.

Warning

The clutch fluid level in the reservoir tends to rise as the friction material on the clutch plates wears out. Do not exceed the specified level (3 mm above the minimum level).

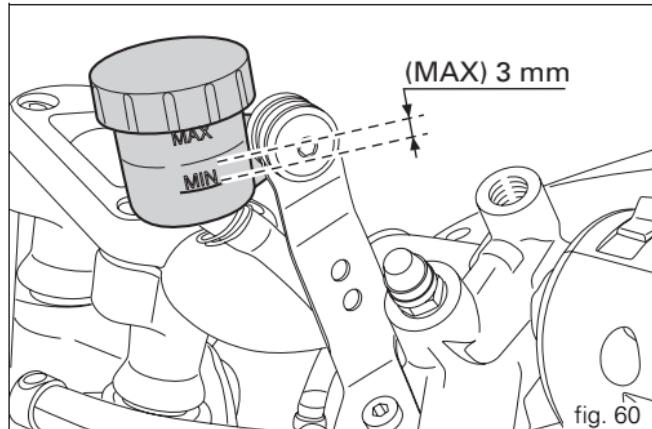


fig. 60

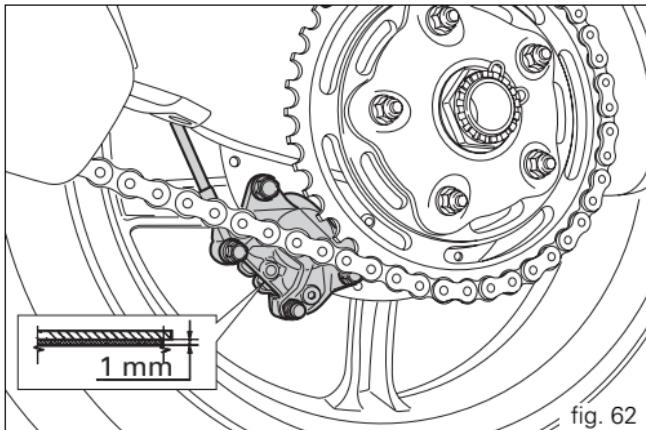
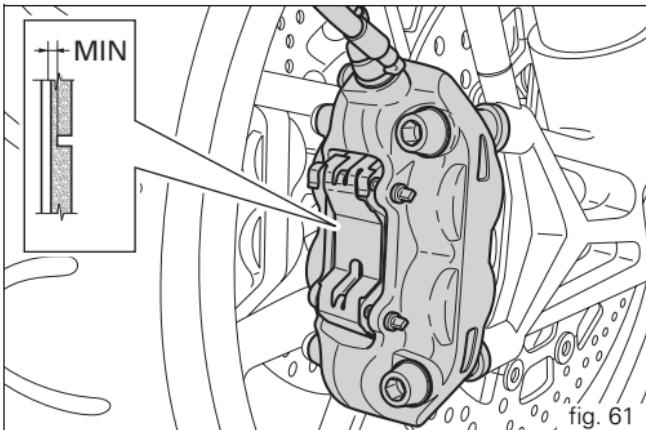
Checking the brake pads for wear (fig. 61)

The brake pads are marked with wear indicators so that they can be checked without removing them from the calipers. If the grooves in the pad friction material are still visible, the pad is still in good condition.

The rear brake pads must be replaced when about 1 mm of friction lining (fig. 62) is still visible through the opening in the calipers.

Important

Have the brake pads replaced by a Ducati Dealer or authorized Service Centre.



Lubricating cables and linkages

The condition of the outer throttle cables should be checked at regular intervals. The outer cables should show no signs of kinking or cracking. Operate the controls to make sure the inner cables slide smoothly inside the outer cables: if you feel any friction or catching, have the cable replaced by a Ducati Dealer or authorized Service Centre.

To prevent problems of this type, open the twistgrip housing by unscrewing the two screws (1, fig. 63) and grease the end of the cable and the race.

Warning

Close the twistgrip housing carefully, inserting the cable in the race.

Refit the housing and tighten the bolts (1) to 1.8 Nm.

To ensure smooth operation of the sidestand pivot, remove any dirt and apply SHELL Alvania R3 grease to all friction points (1, fig. 64).

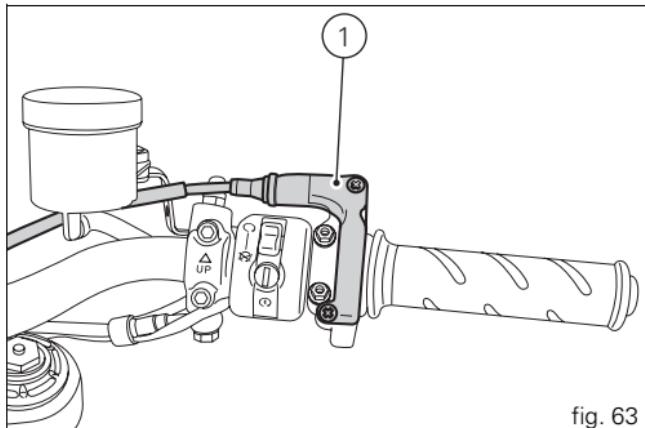


fig. 63

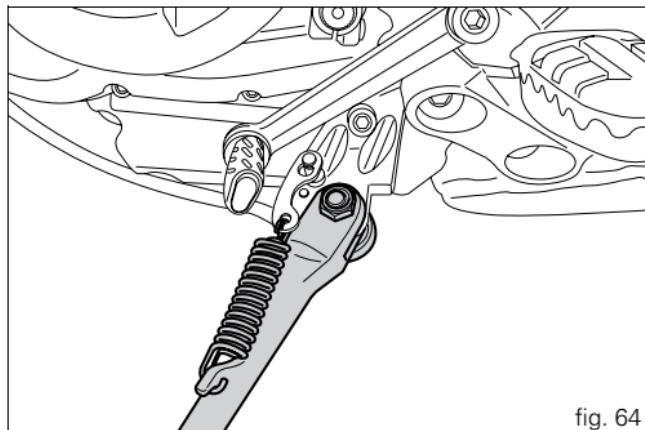


fig. 64

Adjusting the throttle control cable (fig. 65)

In all handlebar positions, the throttle twistgrip should have free play of 2 to 4 mm, measured in terms of rotation of the outer edge of the twistgrip.

If necessary, adjust the freeplay by way of the adjuster (1) on the twistgrip.

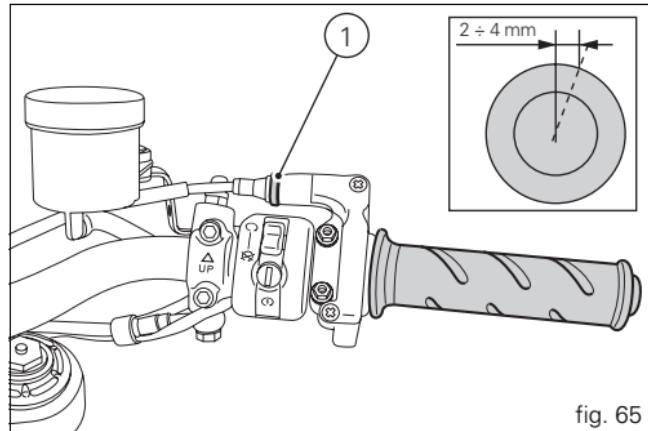


fig. 65

Charging the battery (fig. 66)

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

Remove the seat (page 52). Always disconnect the black negative terminal (-) first, and then the red positive terminal (+). Unscrew the two bolts (1) securing the battery brackets and remove the battery from the battery compartment.

Warning

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

Charge the battery in a well-ventilated area.

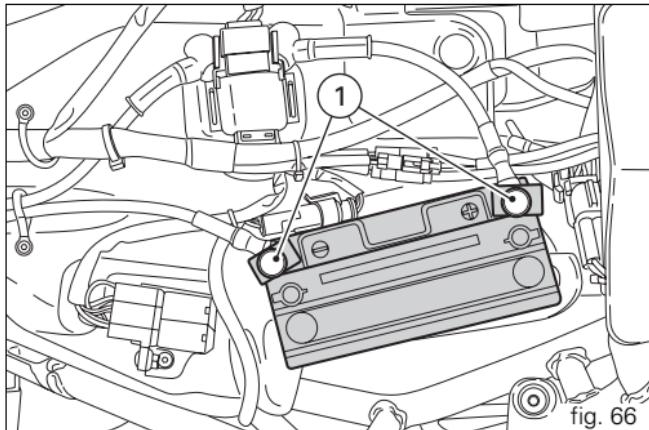
Connect the red battery charger lead to the positive terminal (+) on the battery, and the black lead to the negative terminal (-).

Important

Always connect up the battery before switching the battery charger on: failure to do so can result in sparking at the battery terminals, which could ignite the gases inside the cells.

Always connect the red positive terminal (+) first.

Reinstall the battery on its support and secure the brackets with the bolts (1). Connect the terminals. Apply some grease on the terminal screws to improve conductivity.



Warning

Keep the battery out of the reach of children.

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

Checking the chain tension (fig. 67)

Slowly move the motorcycle to determine the position at which the chain is most taut.

Place the motorcycle on its sidestand and measure the freeplay on the bottom run of the chain in correspondence with the front end of the lower chain guard. Press down on the chain and release it, and check that the distance between the edge of the aluminium swingarm and the centre of the chain pin is 33 to 35 mm, as indicated on the label on the swingarm.

Important

Have the chain tensioned at a Ducati Dealer or authorized Service Centre.

Warning

For the safety of the rider and passenger, it is essential that the swingarm bolts (1, fig. 68) are tightened correctly.

Important

An incorrectly tensioned chain will cause the rapid wear of transmission parts.

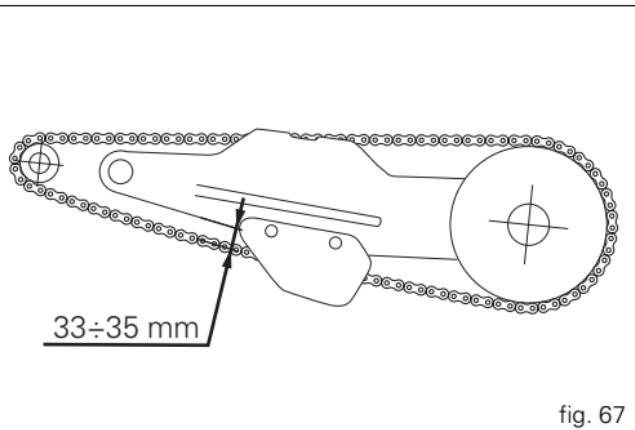


fig. 67

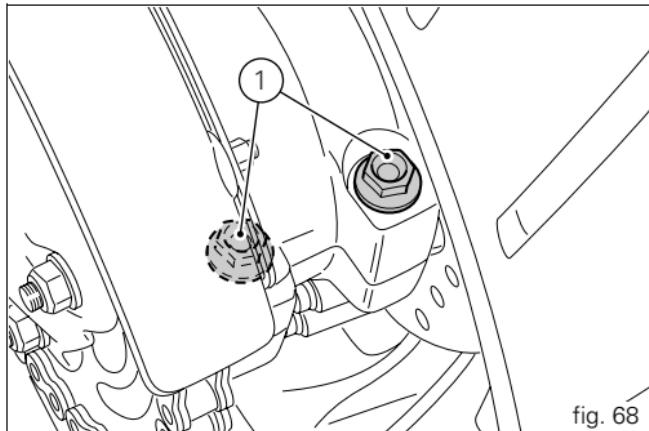


fig. 68

Lubricating the drive chain

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

So as not to damage these seals when cleaning the chain, use special solvents and avoid aggressive washing with high-pressure steam cleaners.

After cleaning, blow the chain dry with compressed air or wipe with an absorbent material, then lubricate each link with SHELL Advance Chain or Advance Teflon Chain.



Important

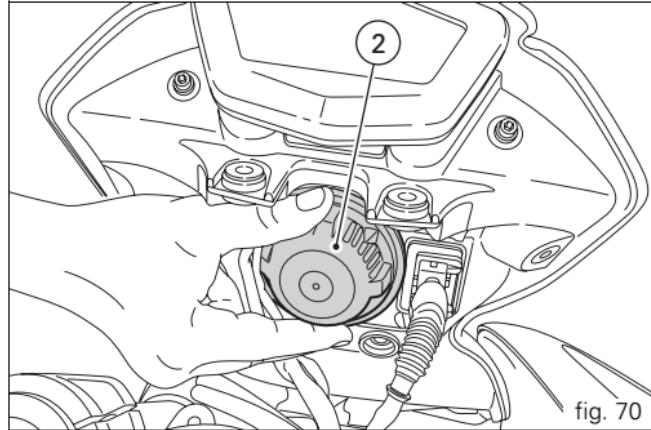
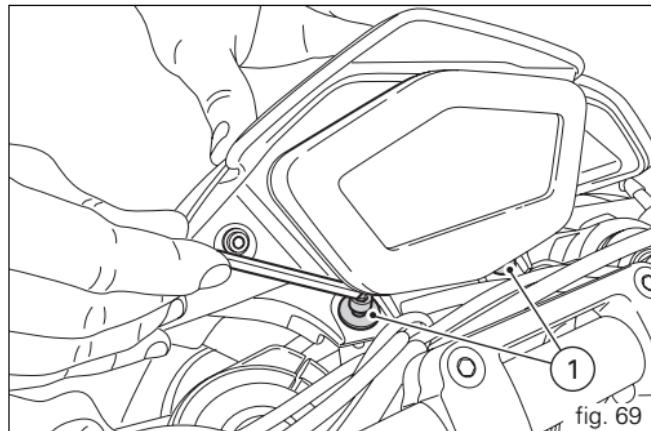
Using non-specific lubricants may cause severe damage to the chain and the front and rear sprocket.

Changing the headlight bulbs

Before replacing a burnt-out bulb, make sure that the new one matches the voltage and wattage specifications in the "Electrical System" paragraph on page 101. Always check that the new bulb works before refitting removed parts.
Unscrew the bolts (1) with a hex socket wrench.

Withdraw the headlight support towards the front of the motorcycle sufficiently to release the knob (2).

Unscrew the knob (2) in anti-clockwise direction.



Unhook the spring (3).

The bulb (4) is of the bayonet-type: press and twist anti-clockwise to remove. Push in the new bulb and turn it clockwise until it clicks into place.

Notes

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.

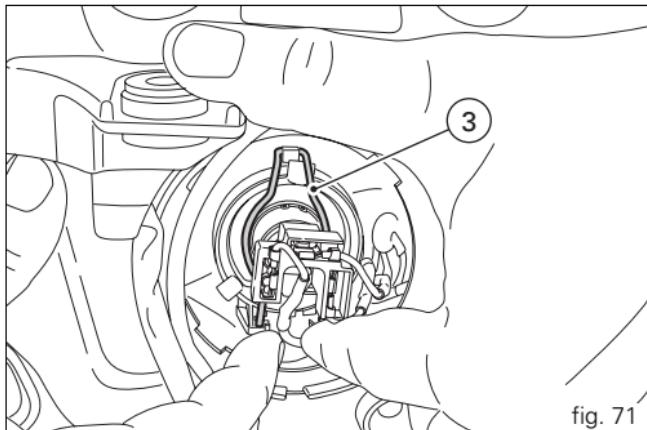


fig. 71

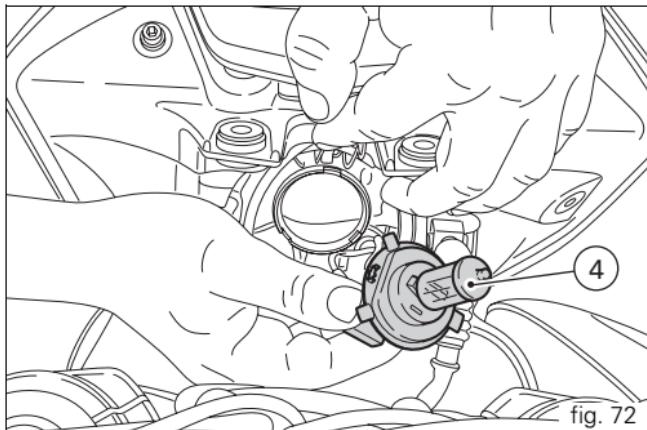
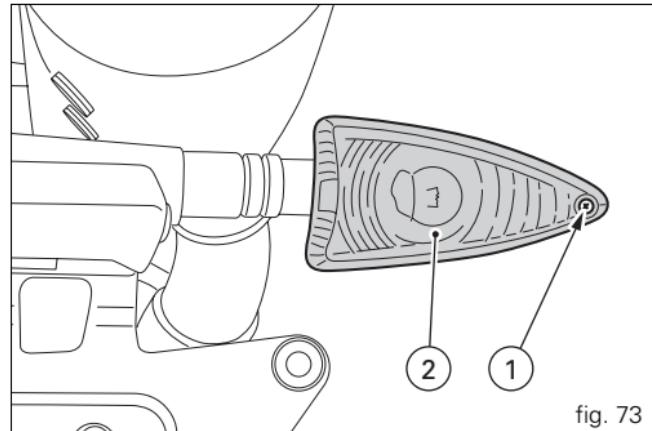


fig. 72

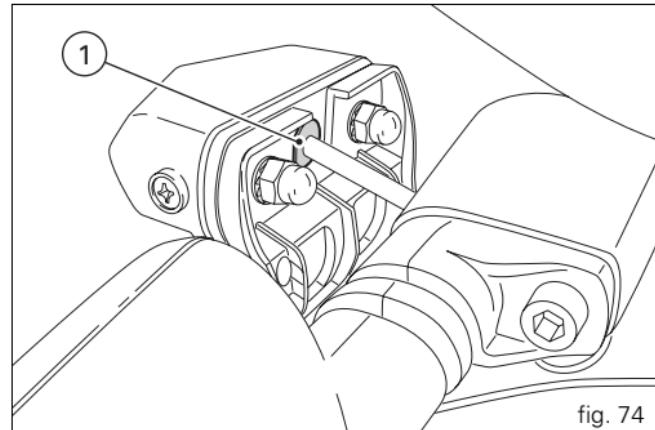
Changing the rear turn signal bulbs

To change the bulbs of the rear turn signals unscrew the bolt (1) and remove the lens (2).



Changing the number plate light bulb

Pull out the rubber sleeve (1) and remove the bulb.



Headlight aim (fig. 75)

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. Draw a horizontal line on the wall at the height of the centre of the headlight and a vertical one in line with the longitudinal axis of the motorcycle.

If possible, perform this check in conditions of low ambient light.

Switch on the low beam headlight:

The height of the upper limit between the dark area and the lit area must not be more than nine tenths of the height of the centre of the headlamp from the ground.

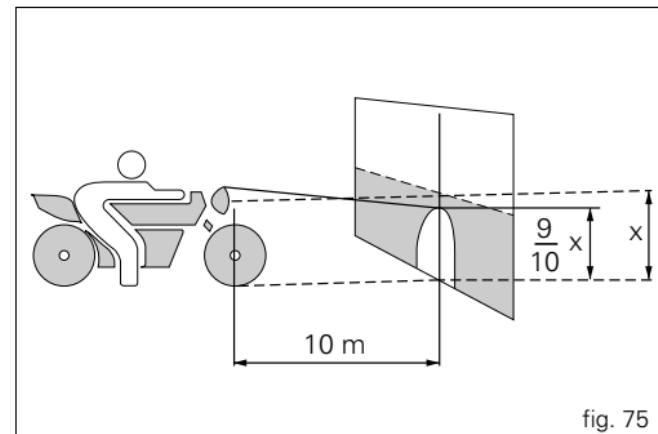


fig. 75

Notes

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

Owners in other countries should adapt this procedure to the regulations in force in the country where the motorcycle is used.

Headlight vertical adjustment (fig. 76 and fig. 77)

Unscrew the bolts (1) with a hex socket wrench and withdraw the headlight support towards the front of the motorcycle to access the headlight aim adjuster screws.

The horizontal alignment of the headlight can be adjusted manually by turning screw (2).

The vertical alignment of the headlamp can be adjusted manually by turning screw (3).

Important

Screws (2) and (3) have no travel limit.

Warning

After using the motorcycle in the rain, or washing, the headlight lens may mist up.

Switching on the headlight for a brief period will clear condensation from the lens.

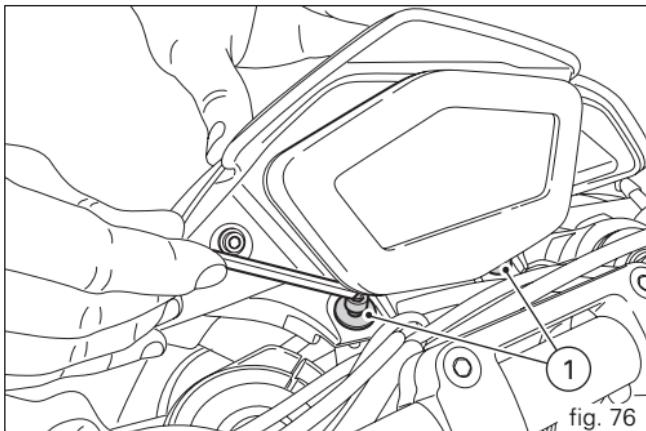


fig. 76

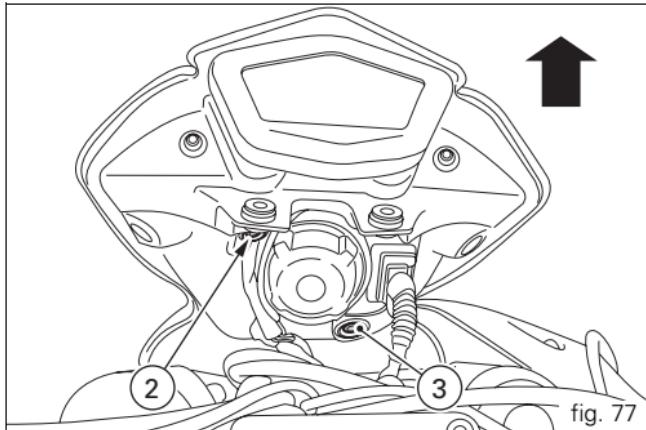


fig. 77

Tubeless tyres

Front tyre pressure:

2.2 bar.

Rear tyre pressure:

2.2 bar.

Notes

 When riding with a pillion passenger, increase the rear tyre pressure to 2.4 bar.

As tyre pressures are affected by changes in temperature and altitude, check and adjust them whenever you are riding in areas where there are large variations in temperature or altitude.

Important

Check and adjust the pressures with the tyres cold.

To prevent distortion of the front wheel rim, increase tyre pressure by 0.2 to 0.3 bar when riding on bumpy roads.

Tyre repair or replacement (Tubeless)

With minor punctures, tubeless tyres take a long time to deflate, as they tend to hold the air inside. If you find that one of the tyres is slightly deflated, check the tyre for slow punctures.

Warning

 Punctured tyres must be renewed.

Replace with tyres of the original brand and type.

Be sure to tighten the valve dust caps securely to prevent leaks while riding. Never fit tyres with inner tubes, as these can cause the tyre to burst suddenly, with possibly serious consequences for the rider and passenger.

After changing the tyre, the wheel must be balanced.

Important

 Do not remove or alter the position of the wheel balancing weights.

Notes

 If tyres need changing, contact a Ducati Dealer or authorized Service Centre to make sure wheels are removed and refitted correctly.

Minimum tread depth

Measure the tread depth (S, fig. 78) at the point where the tread is most worn.

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 cracks and cuts, especially on the side walls, and bulges or large stains that indicate internal damage. Replace them if badly damaged.

Remove any stones or other foreign bodies stuck in the tread.

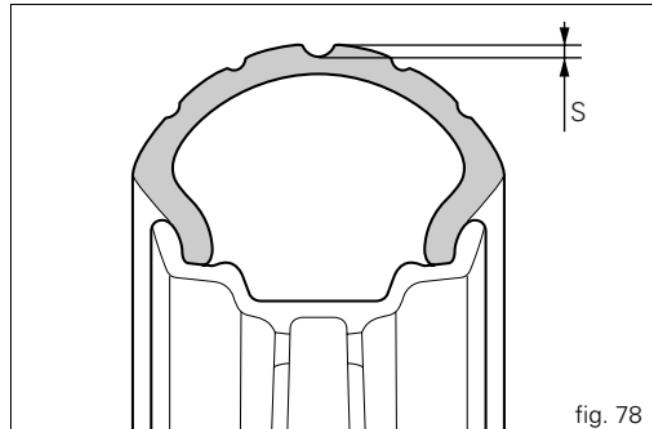


fig. 78

Checking the engine oil level (fig. 79)

Check the engine oil level through the sight glass (1) on the crankcase cover on the right-hand side of the engine. When checking oil level, the motorcycle should be perfectly upright and the engine cold. The oil level should be between the two marks next to the sight glass. Top up the oil level with SHELL Advance Ultra 4, if low. Undo the filler cap (2) and top up to correct level. Replace the filler cap.

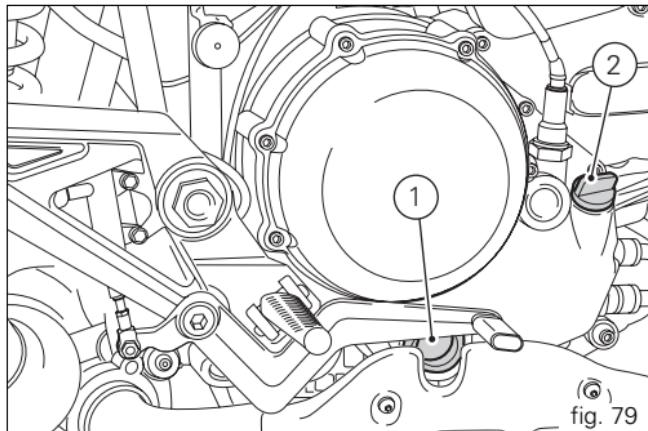
Important

To change the engine oil and filters at the intervals specified in the maintenance table in the Warranty Booklet, contact a Ducati dealer or authorized Service Centre.

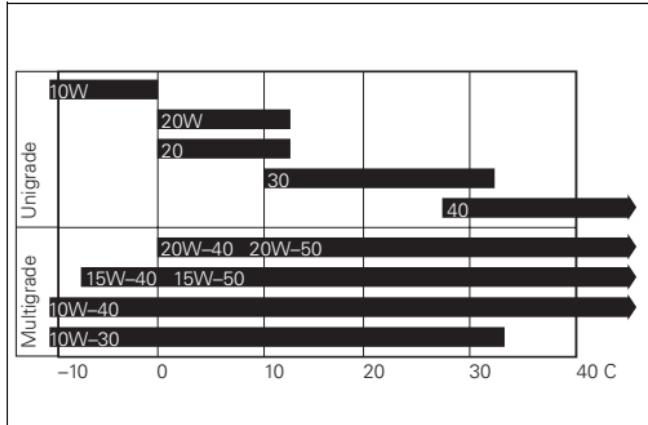
Oil viscosity

SAE 15W-50

The other viscosity values shown in the table can be used if the local average temperature is within the limits specified for that oil viscosity.



(@)
fig. 79



Cleaning or renewing the spark plugs

(fig. 80)

Spark plugs are an important part of the engine and should be checked at regular intervals.

Spark plug condition provides a good indication of engine condition.

Have the spark plugs inspected or renewed at a Ducati Dealer or authorized Service Centre. Firstly, they will check the colour of the ceramic insulator of the central electrode: an even brown colour is a sign that the engine is in good running order.

Secondly, they will check the central electrode for wear and measure electrode gap. The electrode gap should be 0.7 to 0.8 mm.

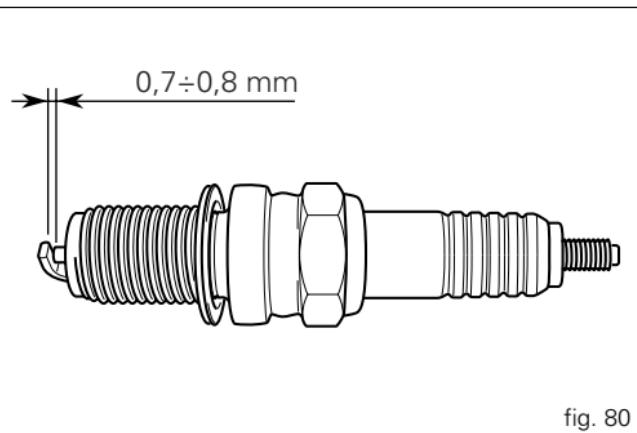


fig. 80

Important

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

General cleaning

To preserve the original shine of the metal surfaces and paintwork, wash and clean your motorcycle at regular intervals depending on the type of use and according to the particular road conditions. Use specific products, where possible biodegradable. Avoid aggressive detergents or solvents.

Important

 Do not wash your motorcycle immediately after use, as marks can form due to evaporation of the water on 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 condensation in the headlight (misting), seizure or serious faults in the front fork, wheel hub assembly, electrical system, front fork seals, air inlets or exhaust silencers, with consequent loss of safety.

If parts of the engine are unusually dirty or greasy, use a degreasing agent, avoiding contact with transmission components (chain, front and rear sprockets, etc.). Rinse with warm water and dry all surfaces with chamois leather.

Warning

 There may be loss of braking efficiency immediately after washing the motorcycle. Never grease or lubricate the brake discs. This will cause loss of braking efficiency. Clean the discs with an oil-free solvent.

Warning

 Washing the motorcycle and riding in rainy or damp conditions can cause misting of the headlight lens. Switching on the headlight for a brief period will help clear condensation from the lens.

Storing the motorcycle

If the motorcycle is to be left unused for a long period, it is advisable to carry out the following operations first:

- clean the motorcycle;
- drain the fuel from 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 paddock stand;
- disconnect and remove the battery.

If the motorcycle has been left unused for more than a month, the battery should be checked and re-charged if necessary.

Protect the motorcycle with the special cover available from Ducati Performance that will not damage the paintwork or retain moisture.

Important notes

In some countries (France, Germany, Great Britain, Switzerland, etc.) there are regulations governing emissions and noise pollution.

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

Maintenance

Programmed maintenance plan: operations to be carried out by the dealer

List of operations with frequency (distance or time interval*)	km x1000	1	12	24	36	48	60
	miles x1000	0.6	7.5	15	22.5	30	37.5
	Months	6	12	24	36	48	60
Change the engine oil		●	●	●	●	●	●
Change the engine oil filter		●	●	●	●	●	●
Clean the engine oil pick-up filter					●		
Check the engine oil pressure				●		●	
Check/adjust the valve clearances (1)		●	●	●	●	●	●
Check the tension of the timing belts (1)		●		●			●
Renew the timing belts				●		●	
Check and clean the spark plugs. Renew if necessary			●		●		
Check and clean the air filter (1)		●		●			●

List of operations with frequency (distance or time interval*)	km x1000	1	12	24	36	48	60
	miles x1000	0.6	7.5	15	22.5	30	37.5
	Months	6	12	24	36	48	60
Change the air filter			●		●		
Check throttle body synchronisation and idle speed setting (1)		●	●	●	●	●	●
Check the brake and clutch fluid levels	●	●	●	●	●	●	●
Change the clutch and brake fluid					●		
Check and adjust the brake and clutch control cables		●	●	●	●	●	●
Check/lubricate the throttle/choke cables		●	●	●	●	●	●
Check tyre pressure and wear	●	●	●	●	●	●	●
Check the brake pads. Renew if necessary	●	●	●	●	●	●	●
Check the steering head bearings			●			●	
Check the drive chain tension, alignment and lubrication	●	●	●	●	●	●	●
Check the clutch disc pack. Renew if necessary (1)		●	●	●	●	●	●
Check the rear wheel cush drive			●		●		
Check the wheel hub bearings			●		●		
Check the indicators and lighting		●	●	●	●	●	●
Check tightness of nuts and bolts securing the engine to the frame	●	●	●	●	●	●	●
Check the sidestand	●	●	●	●	●	●	●
Check tightness of the front wheel axle nut	●	●	●	●	●	●	●
Check tightness of the rear wheel axle nut	●	●	●	●	●	●	●
Check the external fuel hoses		●	●	●	●	●	●

List of operations with frequency (distance or time interval*)	km x1000	1	12	24	36	48	60
	miles x1000	0.6	7.5	15	22.5	30	37.5
	Months	6	12	24	36	48	60
Change the front fork oil				●			
Check the forks and rear shock absorber for oil leaks		●	●	●	●	●	●
Check the front sprocket retaining bolts		●	●	●	●	●	●
General lubrication and greasing		●	●	●	●	●	●
Check and recharge the battery		●	●	●	●	●	●
Road test the motorcycle	●	●	●	●	●	●	●
General cleaning		●	●	●	●	●	●

* Service operation to be carried out in accordance with the specified distance or time intervals (km, miles or months), whichever occurs first.

(1) Operation to be carried out only at the specified distance intervals.

Programmed maintenance plan: operations to be carried out by the customer

	km x1000	1
	miles x1000	0.6
	Months	6
List of operations with type of intervention (distance or time interval*)		
Checking the engine oil level		●
Check the brake and clutch fluid levels		●
Check tyre pressure and wear		●
Check the drive chain tension and lubrication		●
Check the brake pads. If necessary, contact your dealer to renew pads		●

* Service operation to be carried out in accordance with the specified distance or time intervals (km, miles or months), whichever occurs first.

Technical data

Overall dimensions (mm) (fig. 81)

Weights

Dry weight in riding order without fluids and battery:

171 kg.

Fully laden:

390 kg.

⚠ Warning

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

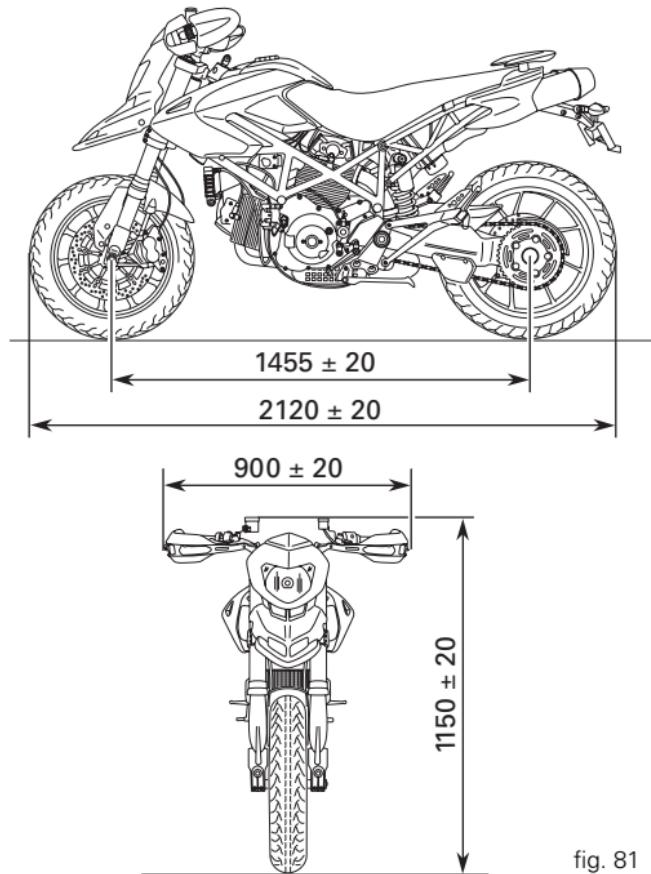


fig. 81

FLUIDS AND LUBRICANTS	TYPE	DM ³ (LITRES)
Fuel tank, including a reserve of 3.5 dm ³ (litres)	Unleaded fuel with 95 fuel octane rating (at least)	12.4
Lubrication circuit	SHELL - Advance Ultra 4	3.8
Front/rear brake and clutch circuits	Special fluid for hydraulic systems SHELL - Advance Brake DOT 4	—
Protection for electrical contacts	Spray for electrical systems SHELL - Advance Contact Cleaner	—
Front fork	SHELL - Advance Fork 7.5 or Donax TA	110±2 mm 690 cc



Important

Do not use additives in fuel or lubricants.

Engine

90 degree twin cylinder four stroke, Desmodromic valve gear, electronic fuel injection, air cooled.

Bore (mm):

98.

Stroke (mm):

71.5.

Total displacement cm³:

1079.

Compression ratio:

$11.3 \pm 0.5:1$.

Maximum power at crankshaft (95/1/EC):

70 kW - 95 hp at 7500 rpm.

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

102.9 Nm - 10.5 kgm at 5750 rpm.



Important

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

Timing system

DESMODROMIC with two valves per cylinder, operated by four rocker arms (two opening rockers and two closing rockers) and one overhead camshaft. Driven by the crankshaft through spur gears, timing belt pulleys and toothed timing belts.

Desmodromic timing system (fig. 82)

- 1) Opening (or upper) rocker arm;
- 2) opening (upper) shim;
- 3) half rings;
- 4) closing (or lower) shim;
- 5) return spring for closing rocker;
- 6) closing (or lower) rocker arm;
- 7) camshaft;
- 8) valve.

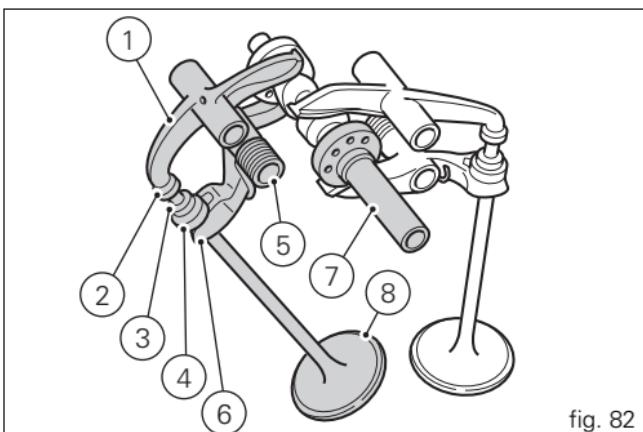


fig. 82

Performance data

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

Spark plug

Ignition is provided by two spark plugs per cylinder. This solution ensures more complete combustion and greater power, especially at medium revs.

Make:

NGK.

Type:

DCPR8E.

alternative

Make:

CHAMPION.

Type:

RA8YCX4.

Fuel system

SIEMENS indirect electronic injection.

Throttle body diameter:

45 mm.

Injectors per cylinder: 1.

Holes per injector: 8.

Fuel supply: 95-98 RON.

Exhaust system

Equipped with catalytic converter in compliance with Euro 3 emission regulations.

E

Transmission

The clutch drum and plates are made entirely from special aluminium alloy.

Dry multiplate clutch operated by a control lever on left handlebar.

Transmission from engine to gearbox input shaft via spur gears.

Front sprocket/clutch sprocket ratio:
32/59.

6 speed gearbox with constant mesh gears, gearchange pedal on left side of motorcycle.

Final drive ratio:
15/41.

Total gear ratios:

1st 15/37

2nd 17/30

3rd 20/27

4th 22/24

5th 24/23

6th 28/24

Drive transmitted from gearbox to rear wheel via chain:

Make:

CZ.

Type:

525 SDZ.

Dimensions:

5/8" x 5/16".

Number of links:

104.



Important

The above gear ratios are approved and should not be modified under any circumstances.

However, if you wish to adapt your motorcycle for competitions or special tracks, Ducati Motor Holding S.p.A. will be pleased to provide information about the special ratios available. Please contact a Ducati Dealer or authorized Service Centre.



Warning

For replacement of the rear sprocket, contact a Ducati Dealer or authorized Service Centre. Incorrect replacement of this component could seriously endanger rider and passenger safety and cause irreparable damage to the motorcycle.

Brakes

Front

Semi-floating drilled dual disc.

Flange material:
aluminium.

Braking surface material:
steel.

Disc diameter:
305 mm.

Hydraulically operated by a control lever on right handlebar.

Braking surface:
 84 cm^2 .

Make of brake calipers:
BREMBO.

Type:
P4.32K fixed caliper, 4 x 32mm Ø pistons.

Friction material:
FERIT I/D 450FF.

Master cylinder type:
Radial PR 18/18.

Rear

With fixed drilled steel disc.

Flange material:
steel.

Braking surface material:
steel.

Disc diameter:
245 mm.

Hydraulically operated by pedal on right side.

Braking surface:
 25 cm^2 .

Make:
BREMBO.

Type:
P34C 2 pistons.

Friction material:
FERIT I/D 450 FF.

Master cylinder type:
PS 11B.



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 copious amounts of running water.

Frame

High-strength tubular steel trellis frame.

Steering angle (on each side):

32°.

Steering geometry is as follows:

Steering head angle:

24°.

Trail:

102 mm.

Wheels

Front

Five spoke, light alloy front wheel.

Dimensions:

MT3.50x17".

Rear

Light alloy, five spokes.

Dimensions:

MT5.50x17".

The front wheel is mounted on a removable axle. The rear wheel is cantilever mounted on the hub at the rear of the single-sided swingarm.

Tyres

Front

Radial tubeless tyre.

Dimensions:

120/70-ZR17.

Rear

Radial tubeless tyre.

Dimensions:

180/55-ZR17.

Suspension

Front

Upside-down hydraulic forks.

Stanchion diameter:

50 mm.

Travel along leg axis:

165 mm.

Rear

Progressive linkage with a rocker arm connecting the frame and upper pivot point of the shock absorber.

The shock absorber is equipped for adjustment of rebound and compression damping and spring preload. At the bottom pivot point it is connected to a single-sided swingarm made from lightweight alloy. The swingarm hinges on a pivot shaft that passes through the frame and engine. This system gives the motorcycle excellent stability.

Shock absorber travel:

60.5 mm.

Wheel travel:

141 mm.

Colour schemes

Ducati anniversary red, code. F_473.101 (PPG); transparent, 228.880 (PPG); red frame with black wheels.

Ducati gloss black, code 248.514 (PPG); transparent, code 228.880 (PPG); black frame with black wheels.

Electrical system

The main components of the electrical system are:

HEADLIGHT:

Single bulb H4 (12 V -55 W/60 W).

Side lights W3W (12 V - 3 W).

ELECTRICAL CONTROLS on handlebars.

FRONT TURN SIGNALS, LED.

REAR TURN SIGNALS, bulbs 12 V - 3 W.

HORN.

BRAKE LIGHT SWITCHES.

BATTERY dry, 12 V - 10 Ah.

Alternator 12 V - 480 W.

ELECTRONIC REGULATOR.

STARTER MOTOR Denso 12 V – 0.7 kW.

Tail light, LED.

Notes

For bulb replacement, see the specific paragraphs on page 78.

Fuses

The electrical system components are protected by six fuses located in the fusebox.

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

KEY TO THE FUSEBOX

Pos.	Items	Rating
1	Key on, starter contactor, lambda, eng. stop	10 A
2	Lights	15 A
3	Loads	15 A
4	Injection	20 A
5	ECU	5 A
6	Instrument panel	5 A
7	DDA and battery charging	5 A
8	Spare	20 A
9	Spare	20 A
10	Spare	15 A

The main fuse box (fig. 83) is located under the right-hand side panel (see page 69). Remove the protective cover to access the fuses.

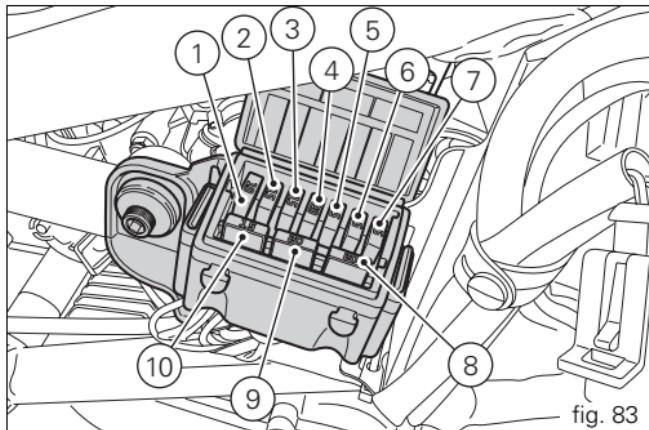


fig. 83

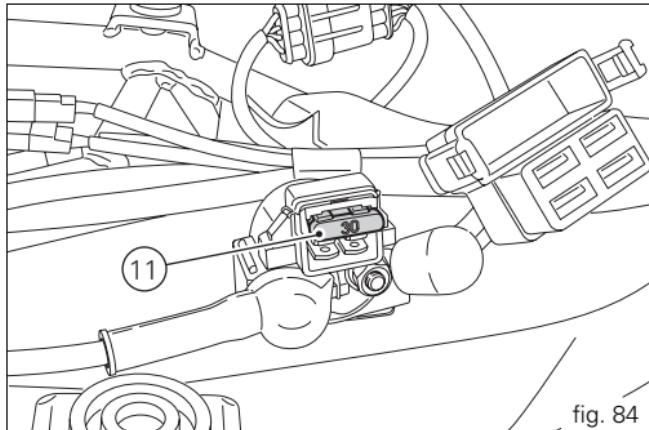


fig. 84

In addition to the fuses in the fusebox, there is a master fuse (11, fig. 84) located on the contactor under the seat, forward of the battery.

Remove the protective cap (11, fig. 84) to expose the fuses. A blown fuse can be identified by a broken filament (12, fig. 85).

Important

Switch the ignition key to OFF before changing a fuse to prevent short circuits.

Warning

Never use a fuse of a different rating than that specified. Failure to observe this rule may damage the electric system or even cause fire.

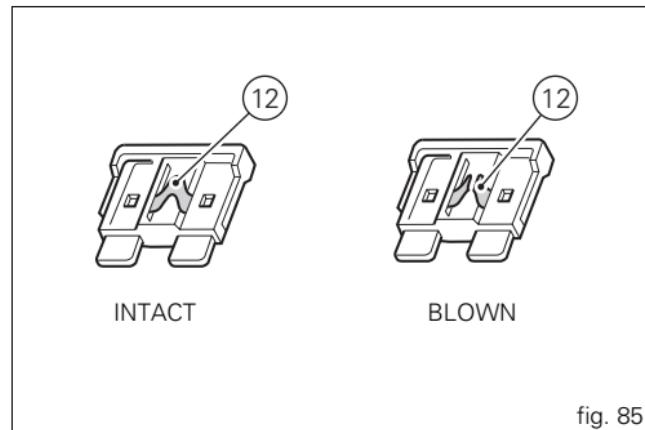


fig. 85

Key to the electrical system/injection system diagram

- 1) Right-hand handlebar switch
- 2) Immobilizer antenna
- 3) Key switch
- 4) Fusebox
- 5) Data acquisition/Diagnostics
- 6) Starter motor
- 7) Starter contactor with MASTER fuse
- 8) Battery
- 9) Engine earth/Electrical system earth
- 10) Regulator
- 11) Alternator
- 12) Tail light
- 13) Rear right turn signal
- 14) Number plate light
- 15) Rear left turn signal
- 16) Fuel tank
- 17) Injection relay
- 18) Speed sensor
- 19) Sidestand switch
- 20) Air temperature sensor
- 21) MAP pressure sensor
- 22) Vertical lambda sensor
- 23) Horizontal lambda sensor
- 24) Horizontal cylinder coil
- 25) Horizontal cylinder spark plug - RH
- 26) Vertical cylinder coil
- 27) Vertical cylinder spark plug - RH
- 28) Horizontal cylinder injector
- 29) Vertical cylinder injector
- 30) Throttle position sensor
- 31) Rpm/timing sensor
- 32) ECU oil temperature sensor
- 33) Stepper motor
- 34) Neutral switch
- 35) Oil pressure switch
- 36) Rear brake light switch
- 37) Front brake light switch
- 38) Clutch switch
- 39) Left-hand handlebar switch
- 40) Exhaust valve motor
- 41) Instrumentation (instrument panel)
- 42) Front left turn signal
- 43) Horn
- 44) Headlight
- 45) Front right turn signal
- 46) Engine ECU

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



Notes

The electrical system wiring diagram can be found at the end of this manual.

Routine maintenance record

KM	NAME OF DUCATI SERVICE CENTRE	MILEAGE	DATE
1000			
12000			
24000			
36000			
48000			
60000			

For United States of America version Only

E

USA

Safety warnings

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



Warning

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

Noise emission warranty

Ducati Motor S.p.A. warrants that this exhaust system, at the time of sale, meets all applicable U.S. EPA Federal noise standards. This warranty extends to the first person who buys this exhaust system for purposes other than resale, and to all subsequent buyers. Warranty claims should be directed to: Ducati North America,

10443 Bandley Drive, Cupertino, California, 95014
Tel: 001.408.253.0499 - Fax: 001.408.253.4099.

Noise and exhaust emission control system information

Source of Emissions

The combustion process produces carbon monoxide and hydrocarbons. Control of hydrocarbons is very important because under certain conditions, they react to form photochemical smog when subjected to sunlight.

Reporting of safety defects

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Ducati North America. If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Ducati North America. To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (or 366-0123 in Washington, D.C. area) or write to: NHTSA, 1200 New Jersey Avenue SE W43-488, Washington, D.C. 20590. You can also obtain other information about motor vehicle safety from the Hotline.

Carbon monoxide does not react in the same way, but is toxic. Ducati utilizes lean carburetor settings and other systems to reduce carbon monoxide and hydrocarbons.

Exhaust Emission Control System

The Exhaust Emission Control System is composed of lean carburetor settings, and no adjustments should be made except idle speed adjustments with the throttle stop screw. The Exhaust Emission Control System is separate from the crankcase emission control system.

Crankcase Emission Control System

The engine is equipped with a closed crankcase system to prevent discharging crankcase emissions into the atmosphere. Blow-by gas is returned to the combustion chamber through the air cleaner and the throttle body.

Evaporative Emission Control System

California motorcycles are equipped with an evaporative emission control system which consists of a charcoal canister and associated piping. This system prevents the escape of fuel vapors from the throttle body and fuel tank.

Tampering warning

Tampering with Noise Control System Prohibited. Federal Law prohibits the following acts or causing thereof:

- (1) the removal or rendering inoperative by any person, other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use; or
- (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

Among those acts presumed to constitute tampering are the acts listed below:

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

Problems that may affect motorcycle emissions

If you are aware of any of the following symptoms, have the vehicle inspected and repaired by your local Ducati dealer.

Symptoms:

Hard starting or stalling after starting.

Rough idle.

Misfiring or backfiring during acceleration.

After-burning (backfiring).

Poor performance (driveability) and poor economy.

Riding safety

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

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

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

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

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

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

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

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

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

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

The throttle should also be used judiciously to avoid skidding the rear wheel from too rapid acceleration or deceleration. On rough roads, exercise caution, slow down, and grip the fuel tank with your knees for better stability.

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

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

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

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

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

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



Warning

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

Gasoline is extremely flammable and is explosive under certain conditions. Refuel in a well ventilated area with the engine stopped. Do not smoke or allow open flames or sparks when refuelling or servicing the fuel system.

Always close the fuel petcock when the engine is not running to prevent flooding of the throttle body. Do not overfill fuel tank (see instructions page 55).

Motorcycle exhaust contains poisonous carbon monoxide gas. Do not inhale exhaust gases and never run the engine in a closed garage or confined area.

Use only Ducati approved parts and accessories.

This motorcycle was not intended to be equipped with a sidecar or to be used to tow any trailer or other vehicle.

Ducati does not manufacture sidecars or trailers and cannot predict the effects of such accessories on handling or stability, but can only warn that the effects will be adverse and any damage to motorcycle components caused by the use of such accessories will not be remedied under warranty.

Warning

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

Protective apparel

Always wear a helmet. Most motorcycle accident fatalities are due to head injuries.

For safety eye protection, gloves, and high top, sturdy boots should also be worn.

The exhaust system becomes very hot during operation, never touch the exhaust system. Wear clothing that fully covers your legs. Do not wear loose clothing which could catch on the control levers, footrests, wheels, or chain.

Any amount of alcohol will significantly interfere with your ability to safely operate your motorcycle. Don't drink and ride.

Vehicle identification number (VIN);

Every Ducati motorcycle is identified by two identification numbers (see page 9). fig. A specifically shows the frame identification numbers.

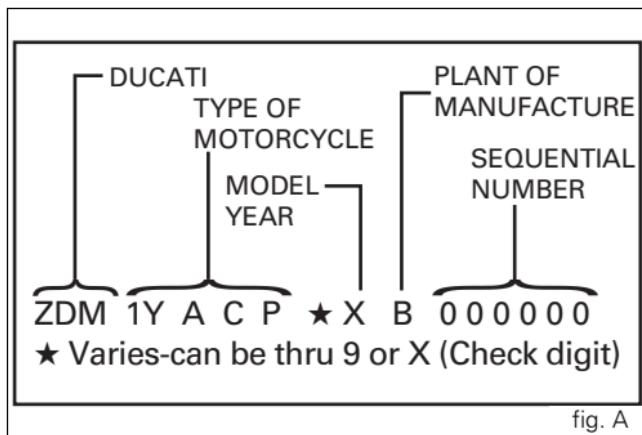


fig. A

Label location (fig. B)

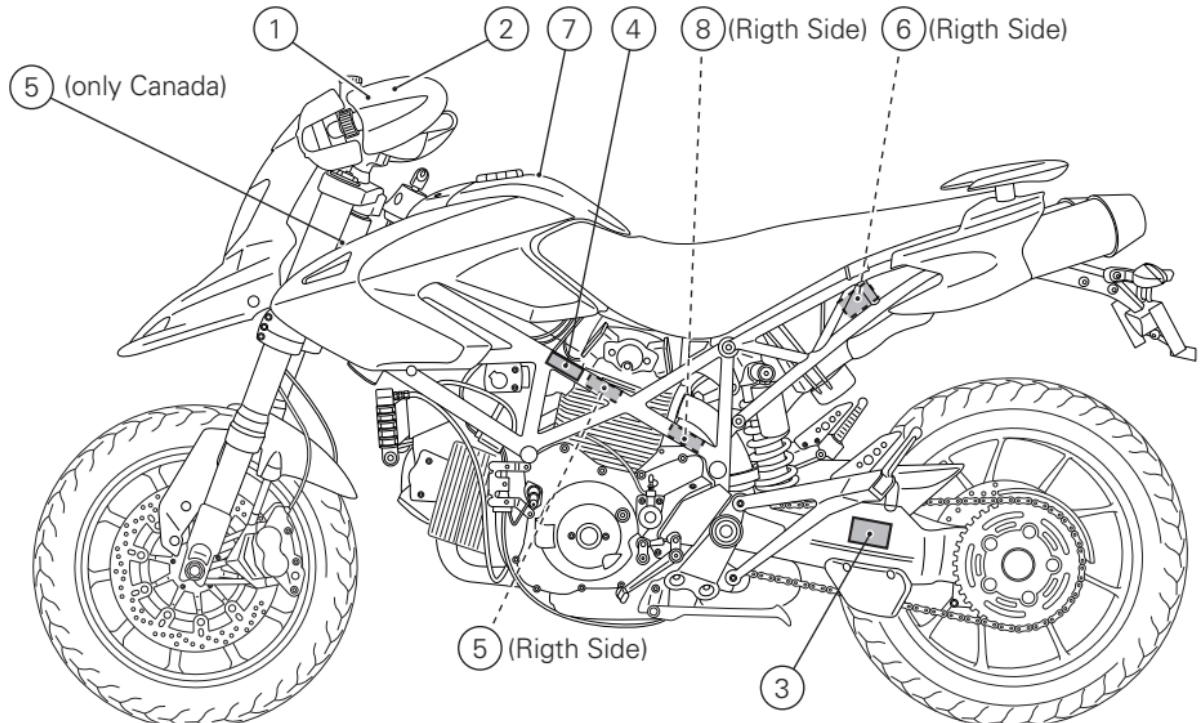


fig. B

OBJECTS IN MIRROR ARE
CLOSER THAN THEY APPEAR

1

2

WARNING

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

Tensione catena (sul cavalletto laterale) posizionare il metro davanti al paracatena, premere verso il basso la catena e rilasciare, tensionare fino a che la distanza tra l'alluminio del forcellone ed il centro del perno catena sia pari: 33 ± 35 mm

Chain tension (on side stand): place ruler in front of chain guard, push chain downwards and release, tension up until distance between the aluminium section of the swingarm and chain pin centre is 33+35 mm



Cod. 433.1.356.1A

3

MOTORCYCLE NOISE EMISSION CONTROL INFORMATION

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

4

5 (Only Canada)

VEHICLE EMISSION CONTROL LABEL

ENGINE DISPLAYMENT: 1100cc, ENGINE FAMILY: V

THIS VEHICLE CONFORMS TO U.S. E.P.A. AND CALIFORNIA REGULATIONS
APPLICABLE TO MODEL YEAR NEW MOTORCYCLES

EVAP FAMILY:

DUCATI MOTOR HOLDING S.p.A.
Via A.C.D'Avila, 3
40132 BOLOGNA
ITALY

TO HORIZONTAL MANIFOLD

TO VERTICAL MANIFOLD

WARM AIR INLET

DATA SHEET

VEHICLE EMISSION CONTROL INFORMATION			
Engine displacement:	cc	THIS VEHICLE CONFORMS TO U.S.A. REGULATIONS APPLICABLE TO ■■■■■ MODEL YEAR NEW MOTORCYCLES	
Engine family:	■■■■■		
Engine exhaust control system:	■■■■■		
ENGINE TUNE-UP SPECIFICATIONS			
ITEM	SPECIFICATIONS	INSTRUCTIONS	
IGNITION TIMING: IDLE SPEED (RPM): IDLE MIXTURE:	■■■■■ TDC at idle speed ■■■■■ mm	No adjustment	No adjustment
VALVE CLEARANCE (in & ex):	Opening ■■■■■ mm Closing ■■■■■ mm	See Service Manual	
SPARK PLUG: CHAMPION SPARK PLUG GAP (mm):	■■■■■	OIL	FUEL: Unleaded gasoline
DUCATI MOTORHOLDING s.p.a. BOLOGNA - ITALY			

6

7

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

8

California emission control warranty statement

Your warranty rights and obligations

The California Air Resources Board is pleased to explain the emission control system warranty on your MY 2010 motorcycle. In California, new motor vehicles must be designated, built and equipped to meet the State's stringent anti-smog standards. Ducati North America, Inc. must warrant the emission control system on your motorcycle for the periods of time listed below provided there has been no abuse, neglect or improper maintenance of your motorcycle. Your emission control system may include parts such as fuel-injection system, the ignition system, catalytic converter, and engine computer. Also included may be hoses, belts, connectors and other emission-related assemblies. Where a warrantable condition exists, Ducati North America, Inc. will repair your motorcycle at no cost to you including diagnosis, parts and labor.

Manufacturer's warranty coverage

- 5 years or 30,000 kilometers (18641 miles), whichever first occurs.

Owner's warranty responsibilities:

- As the motorcycle owner, you are responsible for the performance of the required maintenance listed in your owner's manual. Ducati North America, Inc. recommends that you retain all receipts covering maintenance on your motorcycle, but Ducati North America, Inc. cannot deny warranty solely for the lack of receipts or for your failure to ensure the performance of all scheduled maintenance.
- You are responsible for presenting your motorcycle to a Ducati dealer as soon as a problem exists. The warranty repairs should be completed in a reasonable amount of time, not to exceed 30 days.
- As the motorcycle owner, you should also be aware that Ducati North America, Inc. may deny you warranty coverage if your motorcycle or a part has failed due to abuse, neglect, improper maintenance or unapproved modifications.

If you have any questions regarding your warranty rights and responsibilities, you should contact Ducati North America, Inc. at 001.408.253.0499 or the California Air Resource Board at 9528 Telstar Avenue, El Monte, CA 91731.

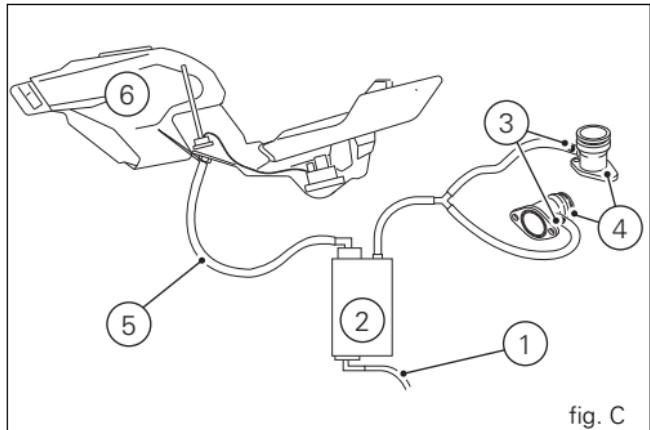
California evaporation emission system

This system consists of (fig. C):

- 1) Warm air inlet;
- 2) Canister;
- 3) Dell'Orto jet;
- 4) Intake manifolds;
- 5) Breather pipe;
- 6) Fuel tank.

Important

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



Ducati limited warranty on emission control system

Ducati North America, Inc., 10443 Bandley Drive Cupertino, California, 95014 warrants that each new 1998 and later Ducati motorcycle, that includes as standard equipment a headlight, tail-light and stoplight, and is street legal:

A) is designed, built and equipped so as to conform at the time of initial retail purchase with all applicable regulations of the United States Environmental Protection Agency, and the California Air Resources Board; and

B) is free from defects in material and workmanship which cause such motorcycle to fail to conform with applicable regulations of the United States Environmental Protection Agency or the California Air Resources Board for a period of use of 30,000 kilometers (18,641 miles) or 5 (five) years from the date of initial retail delivery, whichever first occurs.

I. Coverage

Warranty defects shall be remedied during customary business hours at any authorized Ducati motorcycle dealer located within the United States of America in compliance with the Clean Air Act and applicable regulations of the United States Environmental Protection Agency and the California Air Resources Board. Any part or parts replaced under this warranty shall become the property of Ducati.

In the state of California only, emissions related warranted parts are specifically defined by that state's Emissions Warranty Parts List. These warranted parts are: carburetor and internal parts; intake manifold; fuel tank, fuel injection system; spark advance mechanism; crankcase breather; air cutoff valves; fuel tank cap for evaporative emission controlled vehicles; oil filler cap; pressure control valve; fuel/vapor separator; canister; igniters; breaker governors; ignition coils; ignition wires; ignition points, condensers, and spark plugs if failure occurs prior to the first scheduled replacement, and hoses, clamps, fittings and tubing used directly in these parts. Since emission related parts may vary from model to model, certain models may not contain all of these parts and certain models may contain functionally equivalent parts.

In the state of California only, Emission Control System emergency repairs, as provided for in the California Administrative Code, may be performed by other than an authorized Ducati dealer. An emergency situation occurs when an authorized Ducati dealer is not reasonably available, a part is not available within 30 days, or a repair is not complete within 30 days. Any replacement part can be used in an emergency repair. Ducati will reimburse the owner for the expenses, including diagnosis, not to exceed Ducati's suggested retail price for all warranted parts replaced and labor charges based on Ducati's recommended time allowance for the warranty repair and the geographically appropriate hourly labor rate. The owner may be required to keep receipts and failed parts in order to receive compensation.

II. Limitations

This Emission Control System Warranty shall not cover any of the following:

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

III. Limited liability

A. The liability of Ducati under this Emission Control Systems Warranty is limited solely to the remedying of defects in material or workmanship by an authorized Ducati motorcycle dealer at its place of business during customary business hours. This warranty does not cover inconvenience or loss of use of the motorcycle or transportation of the motorcycle to or from the Ducati dealer. Ducati shall not be liable for any other expenses, loss or damage, whether direct, incidental, consequential or exemplary arising in connection with the sale or use of or inability to use the Ducati motorcycle for any purpose. Some states do not allow the exclusion or limitation of any incidental or consequential damages, so the above limitations may not apply to you.

B. No express emission control system warranty is given by Ducati except as specifically set forth herein. Any emission control system warranty implied by law, including any warranty of merchantability or fitness for a particular purpose, is limited to the express emission control systems warranty terms stated in this warranty. The foregoing statements of warranty are exclusive and in lieu of all other remedies. Some states do not allow limitations on how long an implied warranty lasts so the above limitation may not apply to you.

C. No dealer is authorized to modify this Ducati Limited Emission Control Systems Warranty.

IV. Legal rights

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

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

VI. Additional information

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

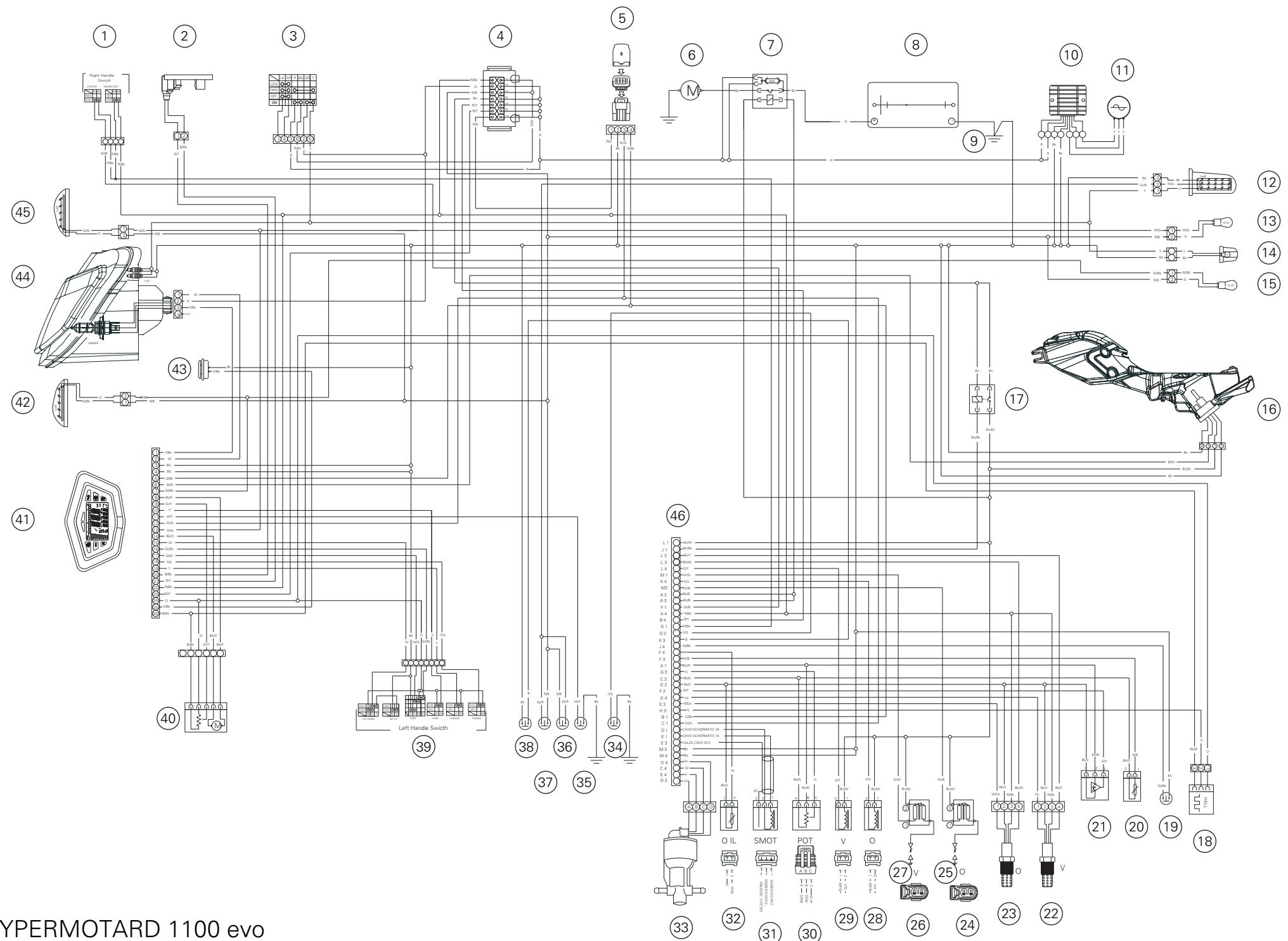
Ducati North America, Inc..
10443 Bandley Drive
Cupertino, California, 95014
Tel: 001.408.253.0499
Fax: 001.408.253.4099
E-mail: customerservice@ducatiusa.com
Web site: www.ducatiusa.com

Routine maintenance record

E

USA

KM	MI	DUCATI SERVICE NAME	MILEAGE	DATE
1,000	600			
12,000	7,500			
24,000	15,000			
36,000	22,500			
48,000	30,000			
60,000	37,500			



HYPERMOTARD 1100 evo

Stampato 04/2010

Cod. 913.7.127.1M

Ducati Motor Holding spa
www.ducati.com

Via Cavalieri Ducati, 3
40132 Bologna, Italia
Tel. +39 051 6413111
Fax +39 051 406580