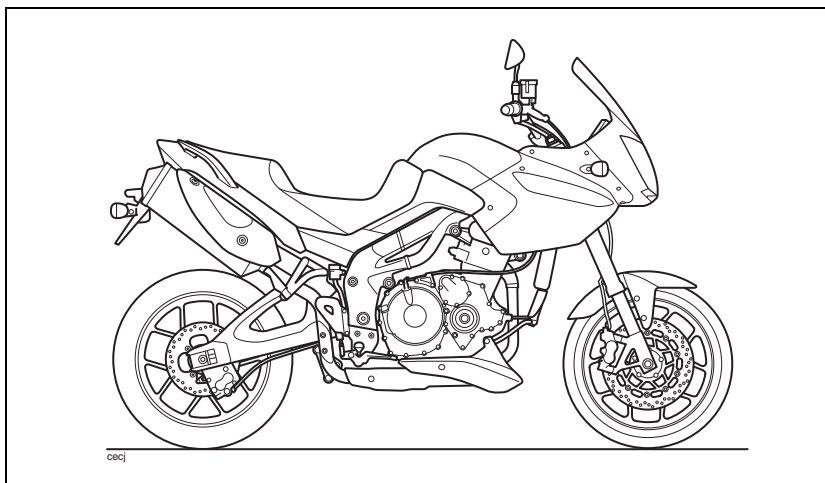


FOREWORD

This handbook contains information on the Triumph Tiger motorcycle. Always store this owner's handbook with the motorcycle and refer to it for information whenever necessary.



Warnings, Cautions and Notes

Throughout this owner's handbook particularly important information is presented in the following form:

Warning

This warning symbol identifies special instructions or procedures, which if not correctly followed could result in personal injury, or loss of life.

Caution

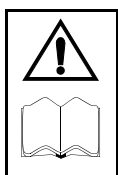
This caution symbol identifies special instructions or procedures, which, if not strictly observed, could result in damage to, or destruction of, equipment.

Note:

- **This note symbol indicates points of particular interest for more efficient and convenient operation.**

Foreword

Warning Labels



At certain areas of the motorcycle, the symbol (left) can be seen. The symbol means 'CAUTION: REFER TO THE HANDBOOK' and will be followed by a pictorial representation of the subject

concerned.

Never attempt to ride the motorcycle or make any adjustments without reference to the relevant instructions contained in this handbook.

See pages 12 to 13 for the location of all labels bearing this symbol. Where necessary, this symbol will also appear on the pages containing the relevant information.

Maintenance

To ensure a long, safe and trouble free life for your motorcycle, maintenance should only be carried out by an authorized Triumph dealer.

Only an authorized Triumph dealer will have the necessary knowledge, equipment and skills to maintain your Triumph motorcycle correctly.

To locate your nearest Triumph dealer, visit the Triumph web-site at www.triumph.co.uk or telephone Triumph Motorcycles America Limited on (678) 854 2010.

Noise Control System

Tampering with the Noise Control System is Prohibited.

Owners are warned that the law may prohibit:

- a) 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 and,
- b) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

Owner's Handbook

Thank you for choosing a Triumph motorcycle. This motorcycle is the product of Triumph's use of proven engineering, exhaustive testing, and continuous striving for superior reliability, safety and performance.

Please read this owner's handbook before riding in order to become thoroughly familiar with the correct operation of your motorcycle's controls, its features, capabilities and limitations.

This handbook includes safe riding tips, but does not contain all the techniques and skills necessary to ride a motorcycle safely.

Triumph strongly recommends that all riders undertake a safety course approved by the Motorcycle Safety Foundation to ensure safe operation of this motorcycle. Information about the nearest Motorcycle Safety Foundation course to you can be obtained by calling the following nationwide toll free number: 800-447-4700, or by writing to the Motorcycle Safety Foundation at: 2, Jenner Street, Irvine, California 92718.

Warning

This owner's handbook, and all other instructions that are supplied with your motorcycle, should be considered a permanent part of your motorcycle and should remain with it even if your motorcycle is subsequently sold.

All riders must read this owner's handbook and all other instructions which are supplied with your motorcycle, before riding, in order to become thoroughly familiar with the correct operation of your motorcycle's controls, its features, capabilities and limitations. Do not lend your motorcycle to others as riding when not familiar with your motorcycle's controls, features, capabilities and limitations can lead to an accident.

Foreword

Information

The information contained in this publication is based on the latest information available at the time of printing. Triumph reserves the right to make changes at any time without prior notice, or obligation.

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This handbook contains a number of different sections. The table of contents below will help you find the beginning of each section where, in the case of the major sections, a further table of contents will help you find the specific subject required.

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FOREWORD - SAFETY FIRST

The Motorcycle

 **Warning**

This motorcycle is designed for on-road use only. It is not suitable for off-road use. Off-road operation could lead to loss of control of the motorcycle resulting in an accident causing injury or loss of life.

 **Warning**

This motorcycle is not designed to tow a trailer or be fitted with a sidecar. Fitting a sidecar and/or a trailer may result in loss of control and an accident.

 **Warning**

This motorcycle is designed for use as a two-wheeled vehicle capable of carrying a rider on his/her own, or a rider and one passenger (subject to a passenger seat being fitted).

The total weight of the rider, and any passenger, accessories and luggage must not exceed the maximum load limit of 440 lbf ft (200 kg).

Fuel and Exhaust Fumes

 **Warning**

GASOLINE IS HIGHLY FLAMMABLE:

Always turn off the engine when refuelling.

Do not refuel or open the fuel filler cap while smoking or in the vicinity of any open (naked) flame.

Take care not to spill any gasoline on the engine, exhaust pipes or mufflers when refuelling.

If gasoline is swallowed, inhaled or allowed to get into the eyes, seek immediate medical attention.

Spillage on the skin should be immediately washed off with soap and water and clothing contaminated with gasoline should immediately be removed.

Burns and other serious skin conditions may result from contact with gasoline.

 **Warning**

Never start your engine or let it run for any length of time in a closed area. The exhaust fumes are poisonous and may cause loss of consciousness and death within a short time. Always operate your motorcycle in the open-air or in an area with adequate ventilation.

Foreword - Safety First

Riding

Warning

Never ride the motorcycle when fatigued or under the influence of alcohol or other drugs.

Riding when under the influence of alcohol or other drugs is illegal.

Riding when fatigued or under the influence of alcohol or other drugs reduces the rider's ability to maintain control of the motorcycle and may lead to loss of control and an accident.

Warning

All riders must be licensed to operate the motorcycle. Operation of the motorcycle without a license is illegal and could lead to prosecution.

Operation of the motorcycle without formal training in the correct riding techniques that are necessary to become licensed is dangerous and may lead to loss of motorcycle control and an accident.

Warning

Always ride defensively and wear the protective equipment mentioned elsewhere in this foreword. Remember, in an accident, a motorcycle does not give the same impact protection as a car.

Warning

This Triumph motorcycle should be operated within the legal speed limits for the particular road travelled. Operating a motorcycle at high speeds can be potentially dangerous since the time available to react to given traffic situations is greatly reduced as road speed increases. Always reduce speed in potentially hazardous driving conditions such as bad weather or heavy traffic.

Warning

Continually observe and react to changes in road surface, traffic and wind conditions. All two-wheeled vehicles are subject to external forces which may cause an accident. These forces include but are not limited to:

- Wind draft from passing vehicles;
- Potholes, uneven or damaged road surfaces;
- Bad weather;
- Rider error.

Always operate the motorcycle at moderate speed and away from heavy traffic until you have become thoroughly familiar with its handling and operating characteristics. Never exceed the legal speed limit.

Foreword - Safety First

Warning

Ensure that you know and respect the rules of the road. Read and observe publications such as 'MOTORCYCLE SAFETY', 'YOU AND YOUR MOTORCYCLE, RIDING TIPS' and also read and become familiar with the contents of the MOTORCYCLE HANDBOOK for your state.

Caution

This Triumph motorcycle is not fitted with spark arresters. Operation in forests, brush or grass areas may violate state and local laws and regulations.

Note:

Wobble/Weave

A weave is a relatively slow oscillation of the rear of the motorcycle, while a wobble is a rapid, possibly strong shaking of the handlebar. These are related but distinct stability problems usually caused by excessive weight in the wrong place, or by a mechanical problem such as worn or loose bearings or under-inflated or unevenly worn tires.

Your solution to both situations is the same. Keep a firm hold on the handlebars without locking arms or fighting the steering. Smoothly ease off the throttle to slow gradually. Do not apply the brakes, and do not accelerate to try to stop the wobble or weave. In some cases, it helps to shift your body weight forward by leaning over the tank.

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Foreword - Safety First

Helmet and Clothing

Warning

When riding the motorcycle, both rider and passenger must always wear a motorcycle helmet, eye protection, gloves, trousers (close fitting around the knee and ankle) and a brightly colored jacket. Brightly colored clothing will considerably increase a rider's (or passenger's) visibility to other operators of road vehicles. Although full protection is not possible, wearing correct protective clothing can reduce the risk of injury when riding.

Warning

A helmet is one of the most important pieces of riding gear as it offers protection against head injuries. You and your passenger's helmet should be carefully chosen and should fit you or your passenger's head comfortably and securely. A brightly colored helmet will increase a rider's (or passenger's) visibility to other operators of road vehicles.

An open face helmet offers some protection in an accident though a full face helmet will offer more.

Always wear a visor or approved goggles to help vision and to protect your eyes.



When choosing a helmet, always look for a DOT (Department of Transport) sticker indicating that the helmet has DOT approval. Do not buy a helmet without DOT approval.

Foreword - Safety First

Handlebars and Footrests

Warning

The rider must maintain control of the vehicle by keeping hands on the handlebars at all times.

The handling and stability of a motorcycle will be adversely affected if the rider removes his hands from the handlebars, resulting in loss of motorcycle control and an accident.

Warning

The rider and passenger must always use the footrests provided, during operation of the vehicle.

By using the footrests, both rider and passenger will reduce the risk of inadvertent contact with any motorcycle components and will also reduce the risk of injury from entrapment of clothing.

Foreword - Safety First

Parking

Warning

Always turn off the engine and remove the ignition key before leaving the motorcycle unattended. By removing the key, the risk of use of the motorcycle by unauthorized or untrained persons is reduced.

When parking the motorcycle, always remember the following:

Engage first gear to help prevent the motorcycle from rolling off the stand.

The engine and exhaust system will be hot after riding. DO NOT park where pedestrians, animals and/or children are likely to touch the motorcycle.

Do not park on soft ground or on a steeply inclined surface. Parking under these conditions may cause the motorcycle to fall over.

For further details, please refer to the 'How to Ride the Motorcycle' section of this owner's handbook.

Parts and Accessories

Warning

Owners should be aware that the only approved parts, accessories and conversions for any Triumph motorcycle are those which carry official Triumph approval and are fitted to the motorcycle by an authorized dealer.

In particular, it is extremely hazardous to fit or replace parts or accessories whose fitting requires the dismantling of, or addition to, either the electrical or fuel systems and any such modification could cause a safety hazard.

The fitting of any non-approved parts, accessories or conversions may adversely affect the handling, stability or other aspect of the motorcycle operation that may result in an accident causing injury or death.

Triumph does not accept any liability whatsoever for defects caused by the fitting of non-approved parts, accessories or conversions or the fitting of any approved parts, accessories or conversions by non-approved personnel.

Foreword - Safety First

Maintenance/Equipment

Warning

Consult your authorized Triumph dealer whenever there is doubt as to the correct or safe operation of this Triumph motorcycle.

Remember that continued operation of an incorrectly performing motorcycle may aggravate a fault and may also compromise safety.

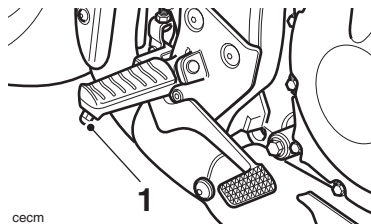
Warning

Ensure all equipment that is required by law is installed and functioning correctly. The removal or alteration of the motorcycle's lights, mufflers, emission or noise control systems can violate the law. Incorrect or improper modification may adversely affect the handling, stability or other aspect of the motorcycle operation, which may result in an accident causing injury or death.

Warning

Use of a motorcycle with bank angle indicators worn beyond the maximum limit (when 0.40 in (10 mm) of the bank indicator remains) will allow the motorcycle to be banked to an unsafe angle.

Banking to an unsafe angle may cause instability, loss of motorcycle control and an accident.



cecm
1. Bank angle indicator

Warning

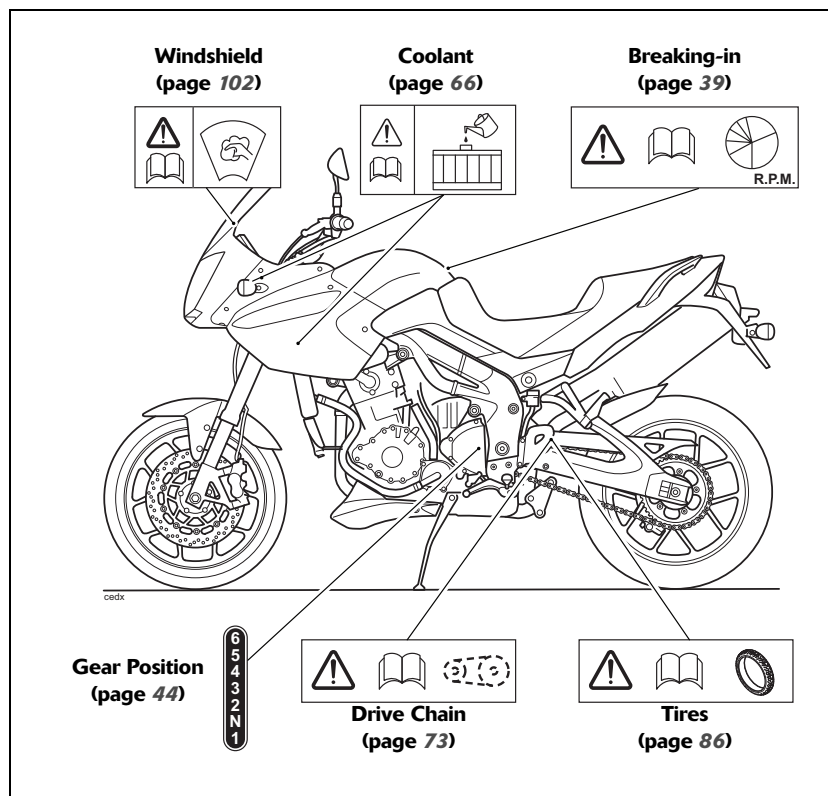
If the motorcycle is involved in an accident, collision or fall, it must be taken to an authorized Triumph dealer for inspection and repair. Any accident can cause damage to the motorcycle that, if not correctly repaired, may cause a second accident that may result in injury or death.

Warning Labels

WARNING LABELS

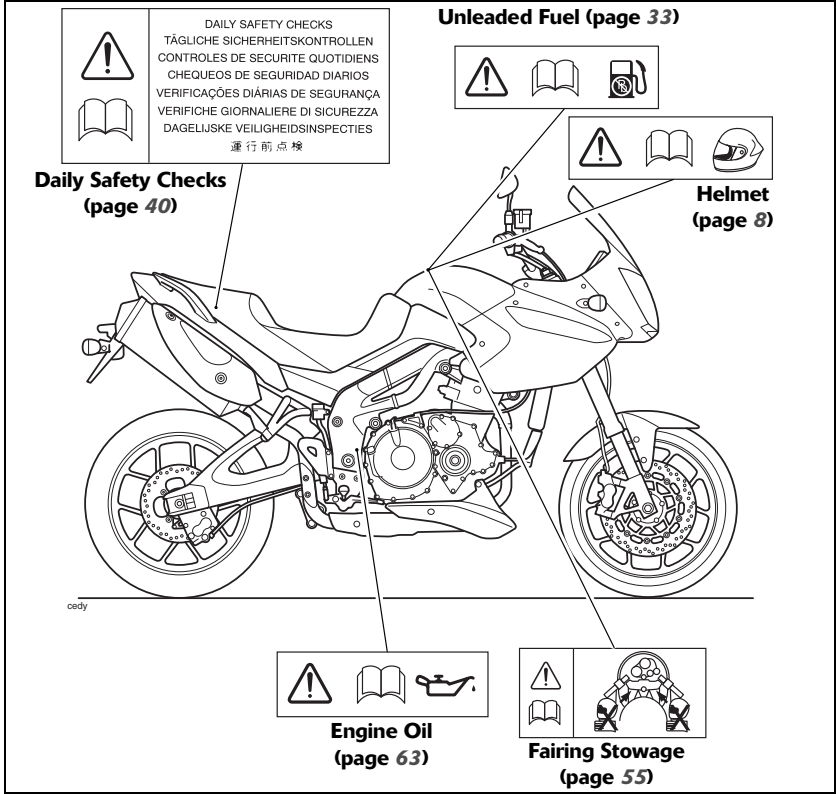
The labels detailed on this and the following pages draw your attention to important safety information in this handbook. Before riding, ensure that all riders have understood and complied with all the information to which these labels relate.

Warning Label Locations



Warning Labels

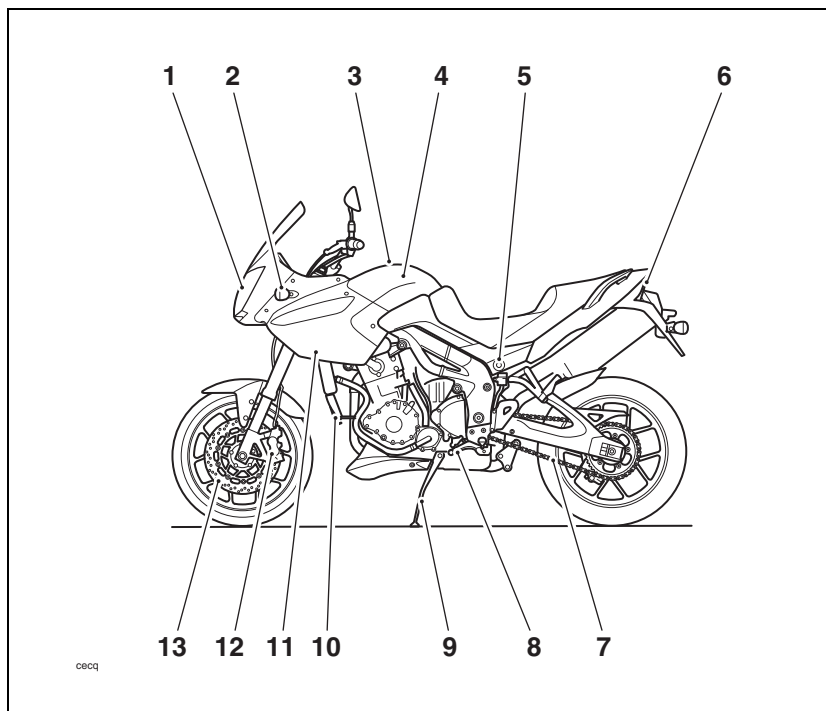
Warning Label Locations (continued)



Parts Identification

PARTS IDENTIFICATION

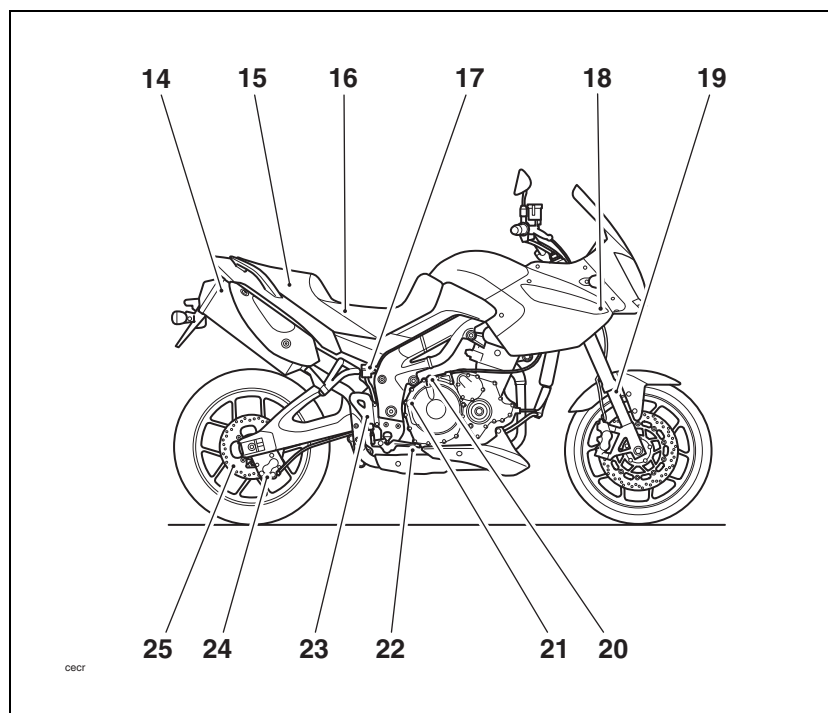
Parts Identification



- | | |
|----------------------|-----------------------------------|
| 1. Headlight | 8. Gearshift pedal |
| 2. Front turn signal | 9. Side stand |
| 3. Fuel filler cap | 10. Oil cooler |
| 4. Fuel tank | 11. Radiator/Coolant pressure cap |
| 5. Seat lock | 12. Front brake caliper |
| 6. Brake/Tail light | 13. Front brake disc |
| 7. Drive chain | |

Parts Identification

Parts Identification (continued)

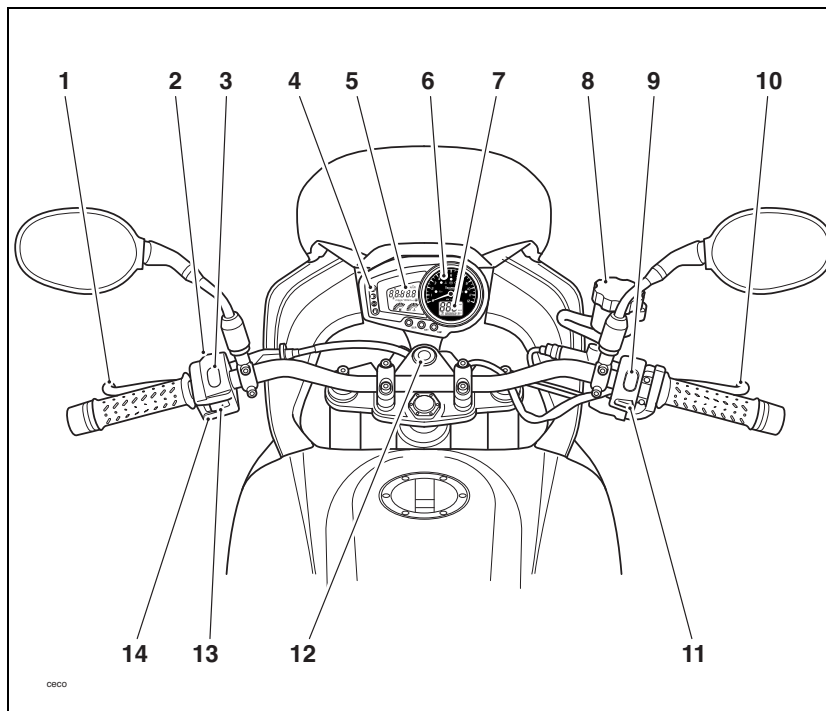


- 14. Muffler
- 15. Tool kit
- 16. Battery
- 17. Rear brake fluid reservoir
- 18. Coolant expansion tank
- 19. Front fork

- 20. Clutch cable
- 21. Oil filler cap/Dipstick
- 22. Rear brake pedal
- 23. Rear suspension unit
- 24. Rear brake caliper
- 25. Rear brake disc

Parts Identification

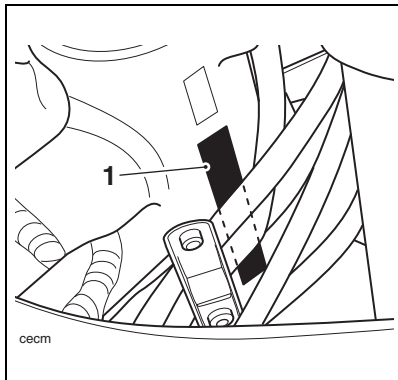
Parts Identification (continued)



- | | |
|----------------------------|--------------------------------|
| 1. Clutch lever | 8. Front brake fluid reservoir |
| 2. Passing button | 9. Engine stop switch |
| 3. Headlight dimmer switch | 10. Front brake lever |
| 4. Warning lights | 11. Starter button |
| 5. Trip computer display | 12. Ignition switch |
| 6. Tachometer | 13. Turn signal switch |
| 7. Speedometer | 14. Horn button |

SERIAL NUMBERS

Vehicle Identification Number (VIN)

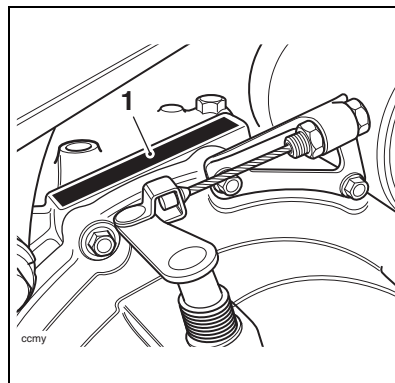


1. VIN number

The vehicle identification number is stamped into the steering head area of the frame. It is also displayed on a label which is attached to the steering head.

Record the vehicle identification number in the space below.

Engine Serial Number



1. Engine serial number

The engine serial number is stamped on the engine crankcase, immediately above the clutch cover.

Record the engine serial number in the space provided below.

Serial Numbers

This page intentionally left blank

GENERAL INFORMATION

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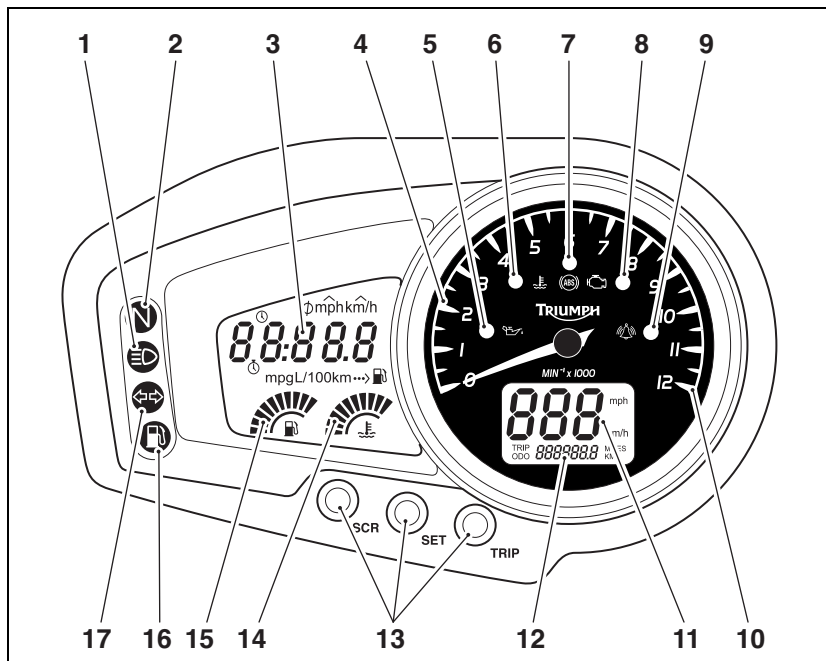
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General Information

Instrument Panel Layout



- | | |
|---|--|
| 1. High beam indicator light | 9. Alarm status indicator light (alarm is an accessory) |
| 2. Neutral indicator light | 10. Tachometer 'red zone' |
| 3. Clock/Trip computer display | 11. Speedometer |
| 4. Tachometer | 12. Odometer/Trip meters |
| 5. Low oil pressure warning light | 13. Scroll/Set/Trip buttons |
| 6. High coolant temperature warning light | 14. Coolant temperature display |
| 7. ABS warning light (ABS models only) | 15. Fuel gauge |
| 8. Engine management malfunction indicator light | 16. Low fuel level indicator light |
| | 17. Turn signal indicator light |

General Information

Speedometer and Odometer

The digital speedometer indicates the road speed of the motorcycle. The read-out displays the motorcycle road speed in increments of one mile (or kilometer) per hour.

In the speedometer face is the electronic odometer and two trip meters. For details of the operation of the odometer and trip meters, please refer to the following pages.

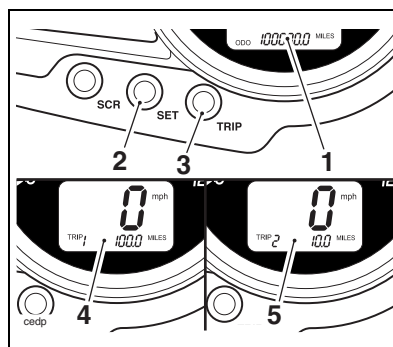
Tachometer

The tachometer shows the engine speed in revolutions per minute - rpm (r/min). On the right side of the tachometer face is the 'red zone'. Engine rpm (r/min) in the red zone is above maximum recommended engine speed and is also above the range for best performance.

Caution

Never allow engine rpm to enter the 'red zone' as severe engine damage may result.

Odometer/Trip Meter



1. Odometer/Trip meter display
2. Set button
3. Trip button
4. Trip meter 1 display
5. Trip meter 2 display

The odometer shows the total distance that the motorcycle has travelled.

The odometer and two trip meters are located in the same display frame as the speedometer. Either trip meter shows the distance that the motorcycle has travelled since the meter on display was last reset to zero.

Warning

Do not attempt to switch between odometer and trip meter display modes or reset the trip meter with the motorcycle in motion as this may lead to loss of motorcycle control and an accident.

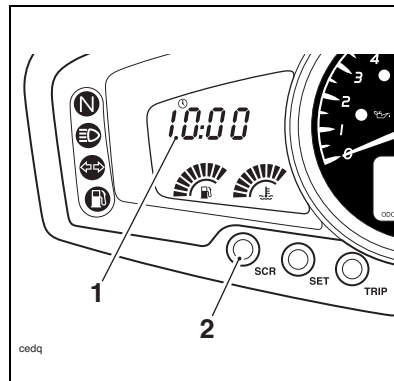
General Information

Use the 'trip' button to switch between the odometer and trip meter display modes. Press the 'trip' button repeatedly until the desired display is visible. The display will scroll through in the order:

- Odometer
- Trip Meter 1
- Trip Meter 2

To reset either of the trip meters, select and display the trip meter to be zeroed then press the 'trip' and 'set' buttons together for 2 seconds. After 2 seconds, the trip meter on display will reset to zero.

Clock/Trip Computer



1. Clock/Trip computer display
2. Scroll button

The clock and trip computer information appear on the same display.

The trip computer provides an indication of fuel consumption, range, speed, time and distance, recorded and calculated since the last reset.

Each display provides the following information:

Instantaneous Fuel Consumption

An indication of the fuel consumption at an instant in time.

Average Fuel Consumption

An indication of the average fuel consumption, calculated from when the trip computer was last reset. After a reset the display will show dashes until 0.1 miles/km has been covered.

General Information

Range

This is an indication of the probable distance that can be travelled on the remaining fuel in the tank.

Trip Distance

The total distance travelled, since the last reset.

Trip Time

The total time elapsed, since the last reset.

Average Speed

The average speed is calculated from when the trip computer was last reset. After a reset the display will show dashes until 1 mile/km has been covered.

Maximum Speed

The maximum speed achieved since the last reset is displayed.

Trip Computer Operation

Display Section

When the ignition is switched on the clock display is shown. To access the trip computer information press the 'scroll' button.

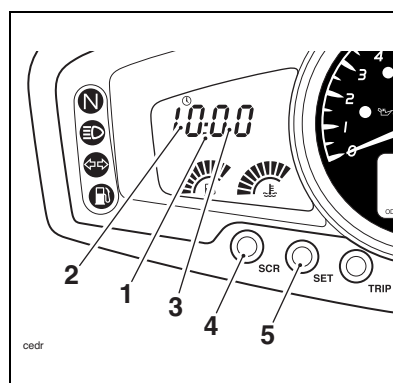
Press the 'scroll' button repeatedly until the desired display is visible. The trip display will scroll through in the order:

- Clock
- Instantaneous Fuel Consumption
- Average Fuel Consumption
- Range
- Trip Distance
- Trip Time
- Average Speed
- Maximum Speed

Clock Adjustment

Warning

Do not attempt to adjust the clock with the motorcycle in motion as this may lead to loss of motorcycle control and an accident.



1. Clock display
2. Hours read-out
3. Minutes read-out
4. Scroll button
5. Set button

To reset the clock, select the clock display and press both 'scroll' and 'set' buttons together. After a short time, the clock's hour display will start to flash.

To reset the hour display, ensure that the hour display is still flashing then depress the 'scroll' button to change the setting. Each individual press will change the setting by one digit.

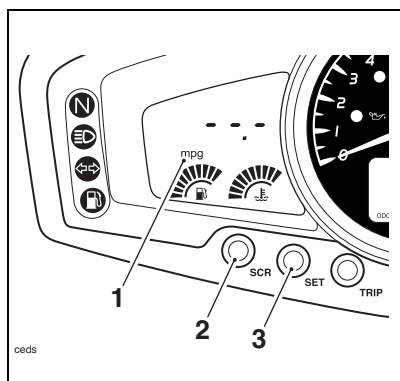
When the correct hour display is shown, press the 'set' button. The minutes display will

General Information

begin to flash. The minutes display is adjusted in the same way as for the hours.

Once both hours and minutes are correctly set, press the 'set' button to confirm the setting. The display will cease to flash.

Trip Computer Reset



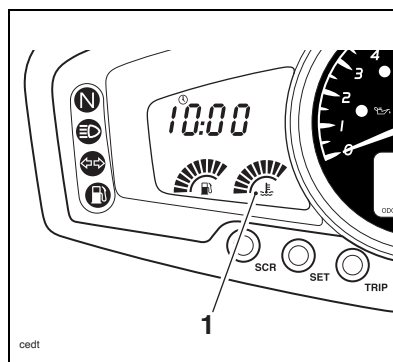
1. Trip computer display
2. Scroll button
3. Set button

Warning

Do not attempt to switch between the trip computer display modes or reset the trip computer with the motorcycle in motion as this may lead to loss of motorcycle control and an accident.

To reset the trip computer only, select one of the trip computer displays, press the 'scroll' and 'set' buttons simultaneously for 2 seconds. After 2 seconds, the trip computer will reset.

Coolant Temperature Gauge



1. Coolant temperature gauge

The coolant temperature gauge indicates the temperature of the engine coolant.

When the ignition is switched on, all 10 bars of the display will be shown. When the engine is started from cold the display will show 1 bar. As the temperature increases more bars will be shown in the display.

The normal temperature range is between 3 and 6 bars.

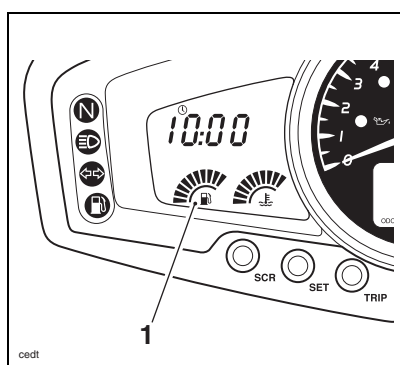
If the coolant temperature becomes too high the display will show 10 bars and the high coolant temperature warning light in the tachometer will illuminate.

Caution

Do not continue to run the engine if either of the high temperature warnings are displayed as severe engine damage may result.

General Information

Fuel Gauge



1. Fuel gauge

The fuel gauge indicates the amount of fuel in the tank.

With the ignition switched on, the number of bars shown in the display indicates the level of fuel in the tank.

When the fuel tank is full all 10 bars are displayed and when empty, no bars are displayed. Other gauge markings indicate intermediate fuel levels between full and empty.

When 2 bars are displayed the low fuel warning light will illuminate and the trip computer will switch to 'Range' display. This indicates there are approximately 0.92 US gal (3.5 liters) of fuel remaining in the tank and you should refuel at the earliest opportunity.

If the ignition is switched off and on again, without refuelling, the trip computer will not automatically display the 'Range' screen again, it will instead display the trip computer screen in use before the fuel level became low.

Warning Lights

Turn Signals



When the ignition is switched on and the turn signal switch is pushed to the left or right, the turn signal indicator light will flash on and off at the same speed as the turn signals.

High Beam



When the ignition is switched on and the headlight dimmer switch is set to 'high beam', the high beam warning light will illuminate.

Low Fuel



The low fuel indicator will illuminate when there are approximately 0.92 US gal (3.5 liters) of fuel remaining in the tank.

Neutral



The neutral warning light indicates when the transmission is in neutral (no gear selected). The warning light will illuminate when the transmission is in neutral with the ignition switch in the ON position.

Low Oil Pressure Warning Light



With the engine running, if the engine oil pressure becomes dangerously low, the low oil pressure warning light in the tachometer will illuminate.

General Information

Caution

Stop the engine immediately if the low oil pressure warning light illuminates. Do not restart the engine until the fault has been rectified.

Severe engine damage will result from running the engine when the low oil pressure warning light is illuminated.

The low oil pressure warning light in the tachometer will illuminate if the ignition is switched on without running the engine.

High Coolant Temperature Warning Light



With the engine running, if the engine coolant temperature becomes dangerously high, the high coolant temperature warning light in the tachometer will illuminate.

Caution

Stop the engine immediately if the high coolant temperature warning light illuminates. Do not restart the engine until the fault has been rectified.

Severe engine damage will result from running the engine when the high coolant temperature warning light is illuminated.

The high coolant temperature warning light in the tachometer will illuminate if the ignition is switched on without running the engine.

Engine Management System Malfunction Indicator Light



The malfunction indicator light for the engine management system illuminates when the ignition is switched on (to indicate that it is working) but should not become illuminated when the engine is running.

If the malfunction indicator light becomes illuminated when the engine is running, this indicates that a fault has occurred in one or more of the systems controlled by the engine management system. In such circumstances, the engine management system will switch to 'limp-home' mode so that the journey may be completed, if the fault is not so severe that the engine will not run.

Warning

Reduce speed and do not continue to ride for longer than is necessary with the malfunction indicator light illuminated. The fault may adversely affect engine performance, exhaust emissions and fuel consumption. Reduced engine performance could cause a dangerous riding condition, leading to loss of control and an accident. Contact an authorized Triumph dealer as soon as possible to have the fault checked and rectified.

Note:

- **If the malfunction indicator light flashes when the ignition is switched on, contact an authorized Triumph dealer as soon as possible to have the situation rectified. In these circumstances the engine will not start.**

General Information

ABS (Anti-Lock Brake System) Indicator Light

(Only on models equipped with ABS)



The ABS indicator light illuminates to show that the ABS function is not available. Illumination is normal after engine start-up, and until the motorcycle first reaches a speed exceeding 6 mph (10 km/h). Unless there is a fault, it should not illuminate again until the engine is restarted.

If the indicator light becomes illuminated at any other time while riding it indicates that the ABS has a malfunction that requires investigation.

Warning

If the ABS is not functioning, the brake system will continue to function as a non ABS braking system. Do not continue to ride for longer than is necessary with the indicator light illuminated. Contact an authorized Triumph dealer as soon as possible to have the fault checked and rectified. In this situation braking too hard will cause the wheels to lock resulting in loss of control and an accident.

See also Braking on page 45.

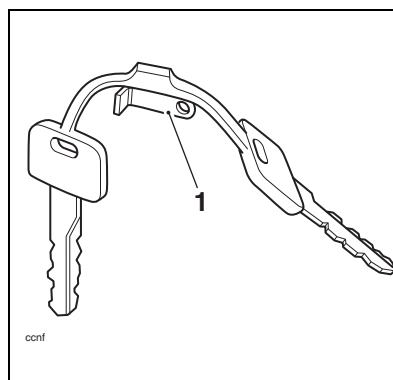
Alarm Indicator Light



The alarm light will illuminate when the conditions described in the accessory alarm instructions are met.

The light does not function unless an alarm is fitted.

Ignition Key



1. Key number tag

In addition to operating the steering lock/ignition switch, the ignition key is required to operate the seat lock and fuel tank cap.

When the motorcycle is delivered from the factory, two keys are supplied together with a small tag bearing the key number. Make a note of the key number and store the spare key and key number tag in a safe place away from the motorcycle.

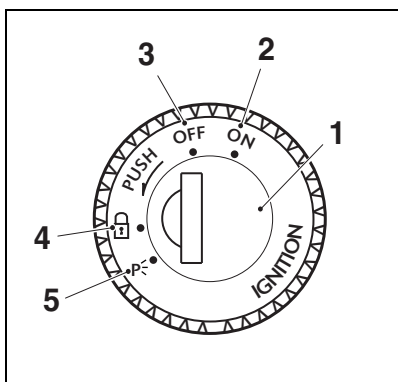
Your authorized Triumph dealer can supply a replacement key cut from details of the key number or can cut a new key using the original as a master.

Caution

Do not store the spare key with the motorcycle as this will reduce all aspects of security.

General Information

Ignition Switch/Steering Lock



1. Ignition switch/Steering lock
2. OFF position
3. ON position
4. LOCK position
5. PARK position

Ignition Switch Positions

This is a four position, key operated switch. The key can be removed from the switch only when it is in the OFF, LOCK or P (PARK) position.

To LOCK: Turn the key to the OFF position, push and fully release the key, then rotate it to the LOCK position.

To PARK: Turn the key from the LOCK position to the P position. The steering will remain locked. The front position lights, tail light and license plate light will illuminate.

Note:

- **Do not leave the steering lock in the P position for long periods of time as this will cause the battery to discharge.**

Warning

For reasons of security and safety, always move the ignition switch to the OFF position and remove the key, when leaving the motorcycle unattended.

Any unauthorized use of the motorcycle may cause injury to the rider, other road users and pedestrians and may also cause damage to the motorcycle.

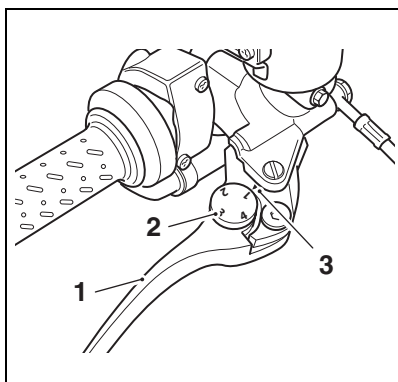
Warning

With the key in the LOCK or P position the steering will become locked.

Never turn the key to the LOCK or P positions while the motorcycle is moving as this will cause the steering to lock. Locked steering will cause loss of motorcycle control and an accident.

General Information

Brake and Clutch Lever Adjusters



1. Lever
2. Adjuster wheel
3. Triangular mark

An adjuster is fitted to the front brake and clutch levers. The adjusters allow the distance from the handlebar to the levers to be changed to one of four positions, to suit the span of the operator's hands.

To adjust the levers, push each lever forward and turn the adjuster wheel to align one of the numbered positions with the triangular mark on the lever holder.

The distance from the handlebar grip to the released lever is shortest when set to number four and longest when set to number one.

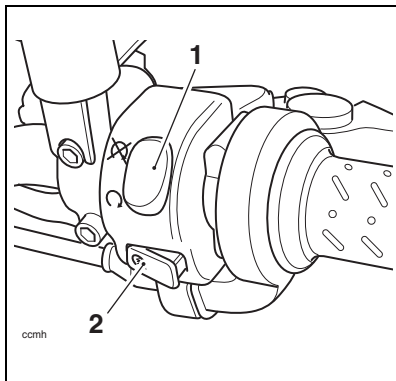
Warning

Do not attempt to adjust the levers with the motorcycle in motion as this may lead to loss of motorcycle control and an accident.

After adjusting the levers, operate the motorcycle in an area free from traffic to gain familiarity with the new lever setting. Do not loan your motorcycle to anyone as they may change the lever setting from the one you are familiar with causing loss of control or an accident.

General Information

Right Handlebar Switches



1. Engine stop switch
2. Starter button

Engine Stop Switch

In addition to the ignition switch being turned to the ON position, the engine stop switch must be in the RUN position for the motorcycle to operate.

The engine stop switch is for emergency use. If an emergency arises which requires the engine to be stopped, move the engine stop switch to the STOP position.

Note:

- **Although the engine stop switch stops the engine, it does not turn off all the electrical circuits and this may cause difficulty in restarting the engine due to a discharged battery. Ordinarily, only the ignition switch should be used to stop the engine.**

Caution

Do not leave the ignition switch in the ON position unless the engine is running as this may cause damage to electrical components and will discharge the battery.

Starter Button

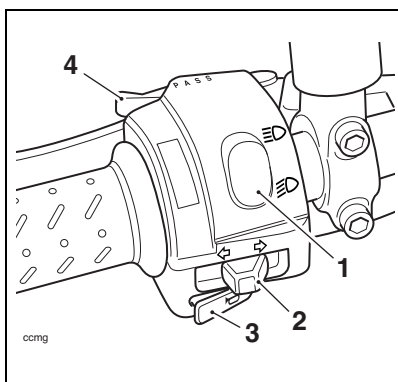
The starter button operates the electric starter. For the starter to operate, the clutch lever must be pulled to the handlebar.

Note:

- **Even if the clutch lever is pulled to the handlebar, the starter will not operate if the side stand is down and a gear is engaged.**

General Information

Left Handlebar Switches



1. **Headlight dimmer switch**
2. **Turn signal switch**
3. **Horn button**
4. **Pass button**

Headlight Dimmer Switch

High or low beam can be selected with the headlight dimmer switch. To select high beam, push the switch forward. To select low beam, push the switch rearwards. When the high beam is turned on, the high beam indicator light will illuminate.

Note:

- **A lighting on/off switch is not fitted to this model. The headlight, tail light and license plate light all function automatically when the ignition is turned to the ON position.**

Turn Signal Switch

When the turn signal switch is pushed to the left or right and released, the corresponding turn signals will flash on and off. To turn off the turn signals, push and release the switch.

Horn Button

When the horn button is pushed, with the ignition switch turned to the ON position, the horn will sound.

Pass Button

When the pass button is pressed the headlight main beam will be switched on. It will remain on as long as the button is held in and will turn off as soon as the button is released.

General Information

Fuel Requirement/Refuelling

Fuel Grade



cbny

This Triumph motorcycle is designed to run on unleaded gasoline with a CLC or AKI octane rating $(R+M)/2$ of 89 or higher. Federal regulations require that pumps delivering unleaded gasoline are marked 'UNLEADED' and that the Cost of Living Council (CLC) or Anti-Knock Index (AKI) octane rating is also displayed. These ratings are an average of the Research Octane Number (RON) and the Motor Octane Number (MON).

Caution

In all countries except Australia, Hong Kong, New Zealand, and South Africa, the exhaust system is fitted with catalytic converters to help reduce exhaust emission levels. The catalytic converters can be permanently damaged if the motorcycle is allowed to run out of fuel or if the fuel level is allowed to get very low. Always ensure you have adequate fuel for your journey.

Caution

The use of leaded fuel is illegal in most countries, states or territories. Use of leaded fuel will damage the catalytic converter (if fitted).

Note:

- If 'knocking' or 'pinging' occurs at a steady engine speed under normal load, use a different brand of gasoline or gasoline which has a higher octane rating.

Oxygenated Gasoline

To help in meeting clean air standards, some areas of the U.S. use oxygenated gasoline to help reduce harmful emissions. These gasolines are a blend of conventional gasoline and another compound such as alcohol. This Triumph motorcycle will give its best performance when using unleaded gasoline. However, the following should be used as a guide if you use any oxygenated fuels.

Ethanol

Ethanol fuel is a mixture of 10% Ethanol and 90% gasoline and is often described under the names 'gasohol', 'Ethanol enhanced', or 'contains Ethanol'. This fuel may be used in your Triumph motorcycle.

MTBE (Methyl Tertiary Butyl Ether)

The use of gasolines containing up to 15% MTBE (Methyl Tertiary Butyl Ether) is permitted in this Triumph motorcycle.

General Information

Methanol

Caution

Fuels containing methanol should not be used as damage to components in the fuel system can be caused by contact with methanol.

Caution

Because of the generally higher volatility of oxygenated fuels, starting, engine response and fuel consumption may be adversely affected by their use. Should any of these difficulties be experienced, run the motorcycle on normal unleaded gasoline.

Warning

To help reduce hazards associated with refuelling, always observe the following fuel safety instructions:

Gasoline (fuel) is highly flammable and can be explosive under certain conditions. When refuelling, turn the ignition switch to the OFF position.

Do not smoke.

Do not use a mobile telephone.

Make sure the refuelling area is well ventilated and free from any source of flame or sparks. This includes any appliance with a pilot light.

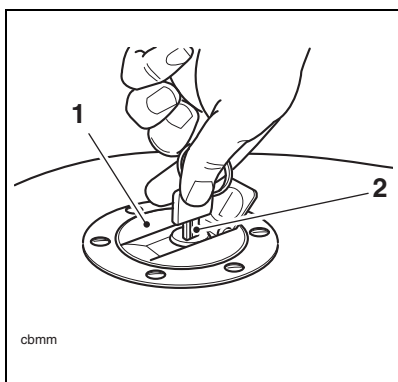
Never fill the tank until the fuel level rises into the filler neck. Heat from sunlight or other sources may cause the fuel to expand and overflow creating a fire hazard.

After refuelling always check that the fuel filler cap is correctly closed and locked.

Because gasoline (fuel) is highly flammable, any fuel leak or spillage, or any failure to observe the safety advice given above will lead to a fire hazard, which could cause damage to property, injury to persons or death.

General Information

Fuel Tank Cap



1. Fuel tank cap
2. Key

To open the fuel tank cap, lift up the flap covering the lock itself. Insert the key into the lock and turn the key clockwise.

To close and lock the cap, push the cap down into place with the key inserted, until the lock 'clicks' into place. Withdraw the key and close the key cover.

Caution

Closing the cap without the key inserted will damage the cap, tank and lock mechanism.

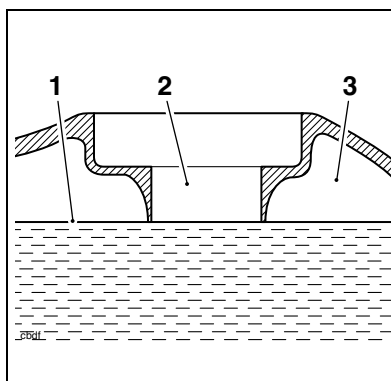
Filling the Fuel Tank

Avoid filling the tank in rainy or dusty conditions where airborne material can contaminate the fuel.

Caution

Contaminated fuel may cause damage to fuel system components.

Fill the fuel tank slowly to help prevent spillage. Do not fill the tank to a level above the bottom of the filler neck. This will ensure there is enough air space to allow for fuel expansion if the fuel inside the tank expands through absorption of heat from the engine or from direct sunlight.



1. Maximum fuel level
2. Fuel filler neck
3. Air space

After refuelling always check that the fuel filler cap is correctly closed and locked.

General Information

Warning

Overfilling the tank can lead to fuel spillage.

If fuel is spilled, thoroughly clean up the spillage immediately and dispose of the materials used safely.

Take care not to spill any fuel on the engine, exhaust pipes, tires or any other part of the motorcycle.

Because fuel is highly flammable, any fuel leak or spillage, or any failure to observe the safety advice given above may lead to a fire hazard, which could cause damage to property and injury or death to persons.

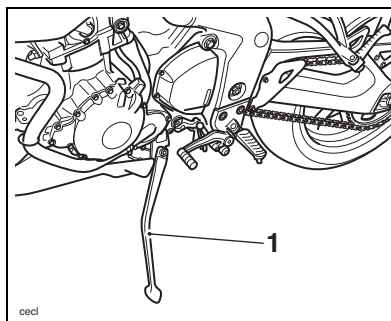
Fuel spilled near to, or onto the tires will reduce the tire's ability to grip the road. This will result in a dangerous riding condition potentially causing loss of motorcycle control and an accident.

After refuelling, the fuel gauge and range to empty information will be updated only while riding the motorcycle.

Depending on the riding style, this could take approximately 5 minutes.

Stand

Side Stand



1. Side stand

The motorcycle is equipped with a side stand on which the motorcycle can be parked.

Warning

The motorcycle is fitted with an interlock system to prevent it from being ridden with the side stand in the down position.

Never attempt to ride with the side stand down or interfere with the interlock mechanism as this will cause a dangerous riding condition leading to loss of motorcycle control and an accident.

Note:

- **When using the side stand, always turn the handlebars fully to the left and leave the motorcycle in first gear.**

Whenever the side stand is used before riding, always ensure that the stand is fully up after first sitting on the motorcycle.

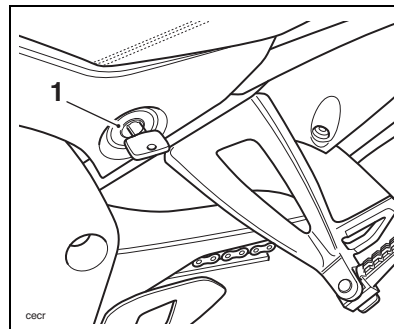
For instructions on safe parking, refer to the 'How to Ride the Motorcycle' section.

General Information

Tool Kit and Handbook

The tool kit is stored, attached by a strap, to the underside of the seat. The Owner's Handbook is stored in the storage box beneath the seat. Remove the seat to gain access to either the tool kit or the Owner's Handbook.

Seat Lock



1. Seat lock

The seat lock is located on the left hand side of the battery tray, in line with the footrest mounting. To remove the seat, insert the ignition key into the seat lock and turn it counter-clockwise while pressing down on the rear of the seat. This will release the seat from its lock and allow it to be slid rearwards for complete removal from the motorcycle.

Seat Care

To prevent damage to the seat or seat cover, care must be taken not to drop or lean the seat against any surface which may damage the seat or seat cover.

General Information

Caution

To prevent damage to the seat or seat cover, care must be taken not to drop the seat. Do not lean the seat against the motorcycle or any surface which may damage the seat or seat cover. Instead, place the seat, with the seat cover facing upwards, on a clean, flat surface which is covered with a soft cloth.

Do not place any item on the seat which may cause damage or staining to the seat cover.

To install the seat, engage the seat's tongue under the fuel tank and press down at the rear to engage in the seat lock.

Warning

To prevent detachment of the seat during riding, after fitting always grasp the seat and pull firmly upwards. If the seat is not correctly secured in the lock, it will detach from the lock. A loose or detached seat could cause loss of motorcycle control and an accident.

Global Positioning System (GPS) Power Socket

A power connector socket for accessory GPS systems is provided underneath the instrument assembly, on the cockpit wiring harness. A universal GPS connector lead is available from your authorized Triumph dealer.

General Information

Breaking-in



Breaking-in is the name given to the process that occurs during the first hours of a new vehicle's operation.

In particular, internal friction in the engine will be higher when components are new. Later on, when continued operation of the engine has ensured that the components have 'bedded in', this internal friction will be greatly reduced.

A period of careful breaking-in will ensure lower exhaust emissions, and will optimize performance, fuel economy and longevity of the engine and other motorcycle components.

During the first 500 miles (800 kilometers):

- Do not use full throttle.
- Avoid high engine speeds at all times.
- Avoid riding at one constant engine speed, whether fast or slow, for a long period of time.
- Avoid aggressive starts, stops, and rapid accelerations, except in an emergency.
- Do not ride at speeds greater than 3/4 of maximum engine speed.

From 500 to 1000 miles (800 to 1500 kilometers):

- Engine speed can gradually be increased to the rev limit for short periods.

Both during and after breaking-in has been completed:

- Do not over-rev the engine when cold.
- Do not lug the engine. Always downshift before the engine begins to 'struggle'.
- Do not ride with engine speeds unnecessarily high. Shifting up a gear helps reduce fuel consumption, reduces noise and helps to protect the environment.

General Information


Safe Operation

Daily Safety Checks



Check the following items each day before you ride. The time required is minimal, and these checks will help ensure a safe, reliable ride.

If any irregularities are found during these checks, refer to the Maintenance and Adjustment section or see your authorized Triumph dealer for the action required to return the motorcycle to a safe operating condition.

 Warning
Failure to perform these checks every day before you ride may result in serious motorcycle damage or an accident causing serious injury or death.

Check:

Fuel: Adequate supply in tank, no fuel leaks (page 33).

Engine Oil: Correct level on dipstick. Add correct specification oil as required. No leaks from the engine or oil cooler (page 64).

Drive Chain: Correct adjustment (page 73).

Tires/Wheels: Correct inflation pressures (when cold). Tread depth/wear, tire/wheel damage, punctures etc. (page 86).

Nuts, Bolts, Fasteners: Visually check that steering and suspension components, axles, and all controls are properly tightened or

fastened. Inspect all areas for loose/damaged fasteners.

Steering Action: Smooth but not loose from lock to lock. No binding of any of the control cables (page 80).

Brakes: Pull the brake lever and push the brake pedal to check for correct resistance. Investigate any lever/pedal where the travel is excessive before meeting resistance, or if either control feels spongy in operation (page 77).

Brake Pads: There should be more than 0.06 in (1.5 mm) of friction material remaining on all the pads (page 77).

Brake Fluid Levels: No brake fluid leakage. Brake fluid levels must be between the MAX and MIN marks on both reservoirs (page 79).

Front Forks: Smooth action. No leaks from fork seals (page 82).

Throttle: Throttle grip free play 0.08 - 0.12 in (2 - 3 mm). Ensure that the throttle grip returns to the idle position without sticking (page 69).

Clutch: Smooth operation and correct cable free play (page 72).

Coolant: No coolant leakage. Check the coolant level in the expansion tank (when the engine is cold) (page 66).

Electrical Equipment: All lights and horn function correctly (page 28).

Engine Stop: Stop switch turns the engine off (page 42).

Stands: Returns to the fully up position by spring tension. Return springs not weak or damaged (page 36).

How to Ride the Motorcycle

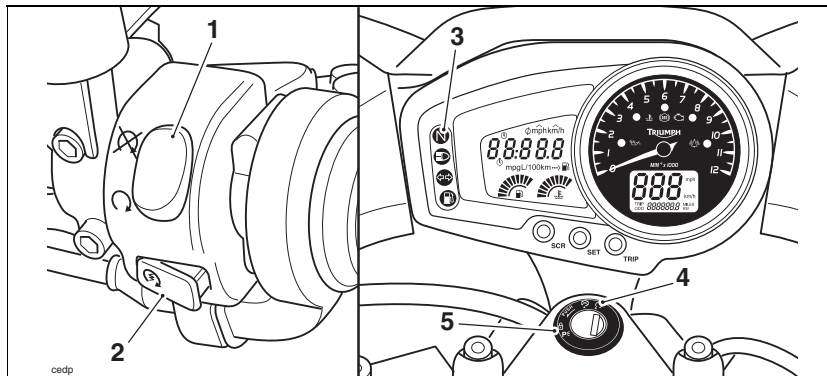
HOW TO RIDE THE MOTORCYCLE

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How to Ride the Motorcycle

To Stop the Engine



1. Engine stop switch
2. Starter button
3. Neutral indicator light
4. ON position
5. Ignition switch

Close the throttle completely.

Select neutral.

Turn the ignition switch off.

Position the motorcycle on a firm, level surface and park it on the side stand.

Lock the steering.

Caution

The engine should normally be stopped by turning the ignition switch to the OFF position. The engine stop switch is for emergency use only. Do not leave the ignition switched on with the engine stopped. Electrical damage may result.

How to Ride the Motorcycle

To Start the Engine

Check that the engine stop switch is in the RUN position.

Ensure the transmission is in neutral.

Turn the ignition switch on.

Note:

- **When the ignition is switched on, the tachometer needle will quickly sweep from zero to maximum and then return to zero. The instrument warning lights will illuminate and will then go off (except those which normally remain on until the engine starts - see page 26. It is not necessary to wait for the needle to return to zero before starting the engine.**
- **In very cold conditions, part open the throttle to aid cold starting. Return it to the closed position once the engine has started.**

Pull the clutch lever fully into the handlebar.

Leaving the throttle fully closed, push the starter button until the engine starts.

Warning

Never start the engine or run the engine in a confined area. Exhaust fumes are poisonous and can cause loss of consciousness and death within a short period of time. Always operate your motorcycle in the open-air or in an area with adequate ventilation.

Caution

Do not operate the starter continuously for more than 5 seconds as the starter motor will overheat and the battery will become discharged. Wait 15 seconds between each operation of the starter to allow for cooling and recovery of battery power.

Do not let the engine idle for long periods as this may lead to overheating which will cause damage to the engine.

Caution

The low oil pressure warning light should go out shortly after the engine starts.

If the low oil pressure warning light stays on after starting the engine, stop the engine immediately and investigate the cause. Running the engine with low oil pressure will cause severe engine damage.

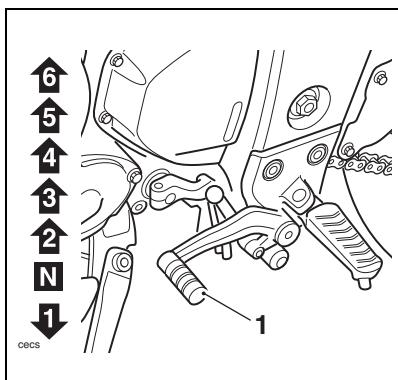
- The motorcycle is equipped with starter lockout switches. The switches prevent the electric starter from operating when the transmission is not in neutral with the side stand down.
- If the side stand is extended while the engine is running, and the transmission is not in neutral then the engine will stop regardless of clutch position.

How to Ride the Motorcycle

Moving Off

Pull in the clutch lever and select first gear. Open the throttle a little and let out the clutch lever slowly. As the clutch starts to engage, open the throttle a little more, allowing enough engine speed to avoid stalling.

Shifting Gears



1. Gearshift pedal



Close the throttle while pulling in the clutch lever. Shift into the next higher or lower gear. Open the throttle part way, while releasing the clutch lever. Always use the clutch when shifting gear.

Warning

Take care to avoid opening the throttle too far or too fast in any of the lower gears as this can lead to the front wheel lifting from the ground (pulling a 'wheelie') and to the rear tire breaking traction (wheel spin).

Always open the throttle cautiously, particularly if you are unfamiliar with the motorcycle, as a 'wheelie' or loss of traction will cause loss of motorcycle control and an accident.

Note:

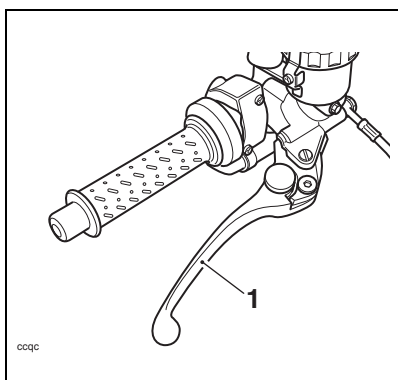
- **The gearshift mechanism is the 'positive stop' type. This means that, for each movement of the gearshift pedal, you can only select each gear, one after the other, in ascending or descending order.**

Warning

Do not shift to a lower gear at speeds that will cause excessive engine rpm (r/min). This can lock the rear wheel causing loss of control and an accident. Engine damage may also be caused. Shifting down should be done such that low engine speeds will be ensured.

How to Ride the Motorcycle

Braking



1. Front brake lever

Warning

WHEN BRAKING, OBSERVE THE FOLLOWING:

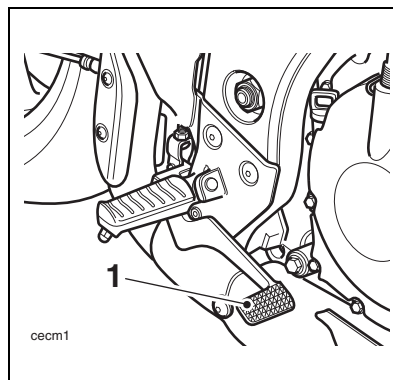
Close the throttle completely, leaving the clutch engaged to allow the engine to help slow down the motorcycle.

Downshift one gear at a time such that the transmission is in first gear when the motorcycle comes to a complete stop.

When stopping, always apply both brakes at the same time. Normally the front brake should be applied a little more than the rear.

Downshift or fully disengage the clutch as necessary to keep the engine from stalling.

Never lock the brakes, as this may cause loss of control of the motorcycle and an accident.



1. Rear brake pedal

Warning

For emergency braking, disregard downshifting, and concentrate on applying the front and rear brakes as hard as possible without skidding. Riders should practice emergency braking in a traffic-free area.

Triumph strongly recommends that all riders take a course of instruction, which includes advice on safe brake operation. Incorrect brake technique could result in loss of control and an accident.

How to Ride the Motorcycle

Warning

For your safety, always exercise extreme caution when braking (whether or not ABS is fitted), accelerating or turning as any improper action can cause loss of control and an accident. Independent use of the front or rear brakes reduces overall braking performance. Extreme braking may cause either wheel to lock, reducing control of the motorcycle and causing an accident (see ABS warnings below).

When possible, reduce speed or brake before entering a turn as closing the throttle or braking in mid-turn may cause wheel slip leading to loss of control and an accident.

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

Warning

When descending a long steep gradient, use engine braking by down-shifting and use the brakes intermittently. Continuous brake application can overheat the brakes and reduce their effectiveness.

Riding with your foot on the brake pedal or your hands on the brake lever may actuate the brake light, giving a false indication to other road users. It may also overheat the brake, reducing braking effectiveness.

Do not coast with the engine switched off, and do not tow the motorcycle. The transmission is pressure-lubricated only when the engine is running. Inadequate lubrication may cause damage or seizure of the transmission, which can lead to sudden loss of motorcycle control and an accident.

How to Ride the Motorcycle

ABS (Anti-lock Brake System) models only

Warning

Where fitted, ABS prevents the wheels from locking, therefore maximising the effectiveness of the braking system in emergencies and when riding on slippery surfaces. The potentially shorter braking distances ABS allows under certain conditions are not a substitute for good riding practice.

Always ride within the legal speed limit.

Never ride without due care and attention. Always reduce speed in consideration of weather, road and traffic conditions.

Take care when cornering. If the brakes are applied in a corner, the ABS will not be able to counteract the weight and momentum of the motorcycle. This can result in loss of control and an accident.

Under some circumstances it is possible that a motorcycle equipped with ABS may require a longer stopping distance than an equivalent motorcycle without ABS.

ABS Warning Light

The ABS indicator light illuminates to show that the ABS function is not available. Illumination is normal after engine start-up, and until the motorcycle first reaches a speed exceeding 6 mph (10 km/h). Unless there is a fault, it should not illuminate again until the engine is restarted.

If the indicator light becomes illuminated at any other time while riding it indicates that the ABS has a malfunction that requires investigation.

Note:

- **Normally, the rider will perceive ABS operation as a harder feel or a pulsation of the brake lever and pedal. As the ABS is not an integrated braking system, it does not control both the front and rear brake at the same time, this pulsation may be felt in the lever, the pedal or both.**
- **The ABS may be activated by sudden upward or downward changes in the road surface.**

Warning

If the ABS is not functioning, the brake system will continue to function as a non-ABS braking system. Do not continue to ride for longer than is necessary with the indicator light illuminated. Contact an authorized Triumph dealer as soon as possible to have the fault checked and rectified. In this situation braking too hard will cause the wheels to lock resulting in loss of control and an accident.

How to Ride the Motorcycle

Warning

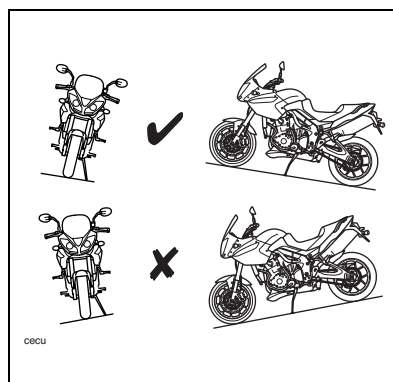
The ABS warning light will illuminate when the rear wheel is driven at high speed for more than 30 seconds when the motorcycle is on a stand. This reaction is normal.

When the ignition is switched off and the motorcycle is re-started the warning light will illuminate until the motorcycle reaches a speed exceeding 19 mph (30 km/h).

Warning

The ABS computer operates by comparing the relative speed of the front and rear wheels. Use of non-recommended tires can affect wheel speed and cause the ABS function not to operate, potentially leading to loss of control and an accident in conditions where the ABS would normally function.

Parking



Select neutral and turn the ignition switch to the OFF position.

Lock the steering to help prevent theft.

Always park on a firm, level surface to prevent the motorcycle from falling.

When parking on a hill, always park facing uphill to prevent the motorcycle from rolling off the stand. Engage first gear to prevent the motorcycle from moving.

On a lateral (sideways) incline, always park such that the incline naturally pushes the motorcycle towards the side stand.

Do not park on a lateral (sideways) incline of greater than 6° and never park facing downhill.

Note:

- **When parking near traffic at night, or when parking in a location where parking lights are required by law, leave the tail, license plate and position lights on by turning the ignition switch to P (Park).**

How to Ride the Motorcycle

Do not leave the switch in the P position for long periods of time as this will discharge the battery.

Warning

Do not park on a soft or on a steeply inclined surface. Parking under these conditions may cause the motorcycle to fall over causing damage to property and personal injury.

Warning

Gasoline is extremely flammable and can be explosive under certain conditions. If parking inside a garage or other structure, be sure it is well ventilated and the motorcycle is not close to any source of flame or sparks. This includes any appliance with a pilot light.

Failure to follow the above advice may cause a fire resulting in damage to property or personal injury.

Warning

The engine and exhaust system will be hot after riding. DO NOT park where pedestrians and children are likely to touch the motorcycle.

Touching any part of the engine or exhaust system when hot may cause unprotected skin to become burnt.

Considerations for High-Speed Operation

Warning

This Triumph motorcycle should be operated within the legal speed limits for the particular road travelled. Operating a motorcycle at high speeds can be potentially dangerous since the time available to react to given traffic situations is greatly reduced as road speed increases. Always reduce speed in consideration of weather and traffic conditions.

Warning

Only operate this Triumph motorcycle at high speed in closed-course on-road competition or on closed-course racetracks. High-speed operation should only then be attempted by riders who have been instructed in the techniques necessary for high-speed riding and are familiar with the motorcycle's characteristics in all conditions.

High-speed operation in any other circumstances is dangerous and will lead to loss of motorcycle control and an accident.

How to Ride the Motorcycle

Warning

The handling characteristics of a motorcycle at high speed may vary from those you are familiar with at legal road speeds. Do not attempt high-speed operation unless you have received sufficient training and have the required skills as a serious accident may result from incorrect operation.

Warning

The items listed are extremely important and must never be neglected. A problem, which may not be noticed at normal operating speeds, may be greatly exaggerated at high speeds.

General

Ensure the motorcycle has been maintained according to the scheduled maintenance chart.

Steering

Check that the handlebar turns smoothly without excessive free play or tight spots. Ensure that the control cables do not restrict the steering in any way.

Luggage (if fitted)

Make certain that any luggage containers are closed, locked and securely fitted to the motorcycle.

Brakes

Check that the front and rear brakes are functioning properly. On models equipped with ABS, check that the system is functioning by ensuring that the ABS indicator light does not remain illuminated at speeds above 6 mph (10 km/h).

Tires

High-speed operation is hard on tires, and tires that are in good condition are crucial to riding safely. Examine their overall condition, inflate to the correct pressure (when the tires are cold), and check the wheel balance. Securely install the valve caps after checking tire pressures. Observe the information given in the Maintenance and Specification sections on tire checking and tire safety.

Fuel

Have sufficient fuel for the increased fuel consumption that will result from high-speed operation.

Caution

In all countries except Australia, Hong Kong, New Zealand and South Africa, the exhaust system is fitted with a catalytic converter to help reduce exhaust emission levels. The catalytic converter can be permanently damaged if the motorcycle is allowed to run out of fuel or if the fuel level is allowed to get very low. Always ensure you have adequate fuel for your journey.

How to Ride the Motorcycle

Engine Oil

Make certain that the engine oil level is correct. Ensure that the correct grade and type of oil is used when topping-off.

Coolant

Check that the coolant level is at the upper level line in the expansion tank. (Always check the level with the engine cold.)

Electrical Equipment

Make certain that the headlight, tail/brake light, turn signals, horn, etc. all work properly.

Miscellaneous

Visually check that all fasteners are tight.

How to Ride the Motorcycle

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Accessories and Loading

ACCESSORIES AND LOADING

The addition of accessories and carrying additional weight can affect the motorcycle's handling characteristics, causing changes in stability and necessitating a reduction in speed. The following information has been prepared as a guide to the potential hazards of adding accessories to a motorcycle and carrying passengers and additional loads.

Warning

Incorrect loading may result in an unsafe riding condition leading to an accident.

Always ensure any loads carried are evenly distributed on both sides of the motorcycle. Ensure that the load is correctly secured such that it will not move around while the motorcycle is in motion.

Always check the load security regularly (though not while the motorcycle is in motion) and ensure that the load does not extend beyond the rear of the motorcycle.

Never exceed the maximum vehicle loading weight of 440 lbs (200 kg).

This maximum loading weight is made up from the combined weight of the rider, passenger, any accessories fitted and any load carried.

Warning

Do not install accessories or carry luggage that impairs the control of the motorcycle. Make sure that you have not adversely affected the visibility of any lighting component, road clearance, banking capability (i.e. lean angle), control operation, wheel travel, front fork movement, visibility in any direction, or any other aspect of the motorcycle's operation.

Warning

Never ride an accessory equipped motorcycle, or a motorcycle carrying a payload of any kind, at speeds above 80 mph (130 km/h). In either/both of these conditions, speeds in excess of 80 mph (130 km/h) should not be attempted even where the legal speed limit permits this.

The presence of accessories and/or payload will cause changes in the stability and handling of the motorcycle.

Failure to allow for changes in motorcycle stability may lead to loss of control or an accident. Remember that the 80 mph (130 km/h) absolute limit will reduce by the fitting of non-approved accessories, incorrect loading, worn tires, overall motorcycle condition and poor road or weather conditions.

Accessories and Loading

Warning

This motorcycle must not be operated above the legal road speed limit except in authorized closed-course conditions.

Warning

Only operate this Triumph motorcycle at high speed in closed-course on-road competition or on closed-course racetracks. High-speed operation should only then be attempted by riders who have been instructed in the techniques necessary for high-speed riding and are familiar with the motorcycle's characteristics in all conditions.

High-speed operation in any other circumstances is dangerous and will lead to loss of motorcycle control and an accident.

Warning

Your passenger should be instructed that he or she can cause loss of motorcycle control by making sudden movements or by adopting an incorrect seated position.

The rider should instruct the passenger as follows:

- It is important that the passenger sits still while the motorcycle is in motion and does not interfere with the operation of the motorcycle.
- To keep his or her feet on the passenger footrests and to firmly hold onto the seat strap or the rider's waist or hips.
- Advise the passenger to lean with the rider when travelling around corners and not to lean unless the rider does so.

Warning

Do not carry animals on your motorcycle. An animal could make sudden and unpredictable movements that could lead to loss of motorcycle control and an accident.

Accessories and Loading

Warning

The handling and braking capabilities of a motorcycle will be affected by the presence of a passenger. The rider must make allowances for these changes when operating the motorcycle with a passenger and should not attempt such operation unless trained to do so and without becoming familiar and comfortable with the changes in motorcycle operating characteristics that this brings about.

Motorcycle operation without making allowances for the presence of a passenger could lead to loss of motorcycle control and an accident.

Warning

Do not carry a passenger unless he or she is tall enough to reach the footrests provided.

A passenger who is not tall enough to reach the footrests will be unable to sit securely on the motorcycle and may cause instability leading to loss of control and an accident.

Warning

If the passenger seat is used to carry small objects, they must not exceed 11 lb (5 kg) in weight, must not impair control of the motorcycle, must be securely attached and must not extend beyond the rear or sides of the motorcycle.

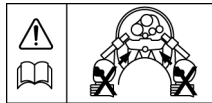
Carrying of objects in excess of 11 lb (5 kg) in weight, that are insecure, impair control or extend beyond the rear or sides of the motorcycle may lead to loss of motorcycle control and an accident.

Even if small objects are correctly loaded onto the rear seat, the maximum speed of the motorcycle must be reduced to 80 mph (130 km/h).

Warning

Never attempt to store any items between the frame and the fuel tank. This can restrict the steering and will cause loss of control leading to an accident.

Weight attached to the handlebar or front fork will increase the mass of the steering assembly and can result in loss of steering control leading to an accident.



Accessories and Loading

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Maintenance and Adjustment

MAINTENANCE AND ADJUSTMENT

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Maintenance and Adjustment

Scheduled Maintenance

To maintain the motorcycle in a safe and reliable condition, the maintenance and adjustments outlined in this section must be carried out as specified in the schedule of daily checks, and also in line with the scheduled maintenance chart. The information that follows describes the procedures to follow when carrying out the daily checks and some simple maintenance and adjustment items.

Warning

Special tools, knowledge and training are required in order to correctly carry out the maintenance items listed in the scheduled maintenance chart. Only an authorized Triumph dealer will have this knowledge and equipment.

Since incorrect or neglected maintenance can lead to a dangerous riding condition, always have an authorized Triumph dealer carry out the scheduled maintenance of this motorcycle.

Maintenance and Adjustment

Operation Description	Odometer Reading in Miles (Kms) or Time Period, whichever comes first						
		First Service	A Service	B Service	C Service	D Service	A Service
	Every	500 (800) 1 month	6,000 (10,000) 1 year	12,000 (20,000) 2 years	18,000 (30,000) 3 years	24,000 (40,000) 4 years	30,000 (50,000) 5 years
Engine and oil cooler - check for leaks	-	•	•	•	•	•	•
Engine oil - replace	-	•	•	•	•	•	•
Engine oil filter - replace	-	•	•	•	•	•	•
Valve clearances - check/adjust	-			•		•	
Air cleaner - replace	-			•		•	
Engine ECM - check for stored DTCs	-	•	•	•	•	•	•
Spark plugs - check	-		•		•		•
Spark plugs - replace	-			•		•	
Throttle bodies - balance	-		•	•	•	•	•
Throttle cables - check/adjust	Day	•	•	•	•	•	•
Cooling system - check for leaks	Day	•	•	•	•	•	•
Coolant level - check/adjust	Day	•	•		•		•
Coolant - replace	-			•		•	
Fuel system - check for leaks, chafing etc.	Day	•	•	•	•	•	•
Lights, instruments and electrical systems - check	Day	•	•	•	•	•	•
Steering - check for free operation	Day	•	•	•	•	•	•
Steering head bearings - check/adjust	-	•	•	•	•	•	•
Steering head bearings - lubricate	-			•		•	
Forks - check for leaks/smooth operation	Day	•	•	•	•	•	•
Fork oil - replace	-					•	
Brake fluid levels - check	Day	•	•	•	•	•	•
Brake fluid - replace		Every 2 years					
Brake pads - check wear levels	Day	•	•	•	•	•	•
Brake master cylinders - check for fluid leaks	-	•	•	•	•	•	•
Brake calipers - check for fluid leaks and seized pistons	-	•	•	•	•	•	•

Maintenance and Adjustment

Operation Description	Odometer Reading in Miles (Kms) or Time Period, whichever comes first						
		First Service	A Service	B Service	C Service	D Service	A Service
	Every	500 (800) 1 month	6,000 (10,000) 1 year	12,000 (20,000) 2 years	18,000 (30,000) 3 years	24,000 (40,000) 4 years	30,000 (50,000) 5 years
Drive chain - lubricate	Every 200 miles (300 kms)						
Drive chain - wear check	Every 500 miles (800 kms)						
Drive chain slack - check/adjust	Day	•	•	•	•	•	•
Drive chain rubbing strip - check	-		•	•	•	•	•
Fasteners - inspect visually for security	Day	•	•	•	•	•	•
Wheels - inspect for damage	Day	•	•	•	•	•	•
Tire wear/tire damage - check	Day	•	•	•	•	•	•
Tire pressures - check/adjust	Day	•	•	•	•	•	•
Clutch cable - check/adjust	Day	•	•	•	•	•	•
Secondary air injection system - check/clean	-			•		•	
Stand - check operation	Day	•	•	•	•	•	•
Secondary exhaust pipe damp bolts - check/adjust	-	•	•	•	•	•	•
Fuel and evaporative loss* hoses - replace	-					•	

*Evaporative system fitted to California models only.

Maintenance and Adjustment

Warning

All maintenance is vitally important and must not be neglected. Incorrect maintenance or adjustment may cause one or more parts of the motorcycle to malfunction. A malfunctioning motorcycle may lead to loss of control and an accident.

Weather, terrain and geographical location affects maintenance. The maintenance schedule should be adjusted to match the particular environment in which the vehicle is used and the demands of the individual owner.

Since incorrect or neglected maintenance can lead to a dangerous riding condition, always have an authorized Triumph dealer carry out the scheduled maintenance of this motorcycle.

Triumph Motorcycles cannot accept any responsibility for damage or injury resulting from incorrect maintenance or improper adjustment carried out by the owner.

Engine Oil



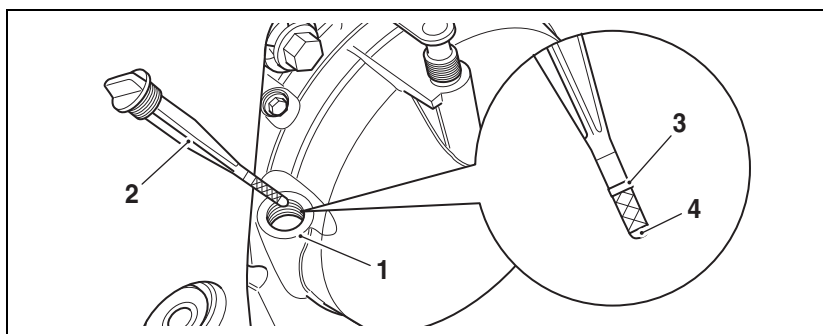
In order for the engine, transmission, and clutch to function correctly, maintain the engine oil at the correct level, and change the oil and oil filter in accordance with scheduled maintenance requirements.

Warning

Motorcycle operation with insufficient, deteriorated, or contaminated engine oil will cause accelerated engine wear and may result in engine or transmission seizure. Seizure of the engine or transmission may lead to sudden loss of control and an accident.

Maintenance and Adjustment

Oil Level Inspection



1. Filler
2. Filler plug/dipstick
3. Upper marking
4. Lower marking

Note:

- **An accurate indication of the level of oil in the engine is only shown when the engine oil is at normal operating temperature, the motorcycle is upright (not on the side stand) and the filler plug/dipstick has been installed and fully tightened.**

Warning

Never start the engine or run the engine in a confined area. Exhaust fumes are poisonous and can cause loss of consciousness and death within a short period of time. Always operate your motorcycle in the open-air or in an area with adequate ventilation.

Caution

Running the engine with insufficient oil will cause engine damage. If the low oil pressure indicator remains on, stop the engine immediately and investigate the cause.

Start the engine and run at idle for approximately five minutes.

Stop the engine and wait for three minutes to allow the oil to settle.

With the motorcycle upright, remove the filler plug/dipstick, wipe the blade clean, install and fully tighten .

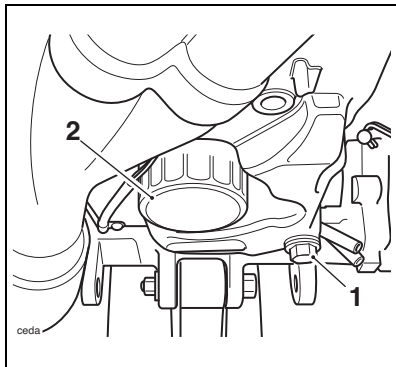
Remove the filler plug/dipstick.

The oil level is indicated by lines on the filler plug/dipstick. When full, the indicated oil level must be level with the upper marking on the dipstick.

If the oil level is below the lower marking, add oil a little at a time until the correct level is reached. Once the correct level is reached, install the filler plug/dipstick.

Maintenance and Adjustment

Oil and Oil Filter Change



1. Oil drain plug
2. Oil filter

The engine oil and filter must be replaced in accordance with scheduled maintenance requirements.

Warning

Prolonged or repeated contact with engine oil can lead to skin dryness, irritation and dermatitis. In addition, used engine oil contains harmful contamination that can lead to skin cancer. Always wear suitable protective clothing and avoid skin contact with used oil.

Warm up the engine thoroughly, and then stop the engine and secure the motorcycle in an upright position on level ground.

Place an oil drain pan beneath the engine.

Remove the oil drain plug. Discard the sealing washer.

Warning

The oil may be hot to the touch. Avoid contact with the hot oil by wearing suitable protective clothing, gloves, eye protection, etc. Contact with hot oil may cause the skin to be scalded or burned.

Unscrew and remove the oil filter using Triumph service tool T3880313. Dispose of the old filter in an environmentally friendly way.

Apply a thin smear of clean engine oil to the sealing ring of the new oil filter. Install the oil filter and tighten to **7 lbf ft (10 Nm)**.

After the oil has completely drained out, install a new sealing washer to the drain plug. Install and tighten the plug to **18 lbf ft (25 Nm)**.

Fill the engine with a 10W/40 or 15W/50 semi or fully synthetic motorcycle engine oil that meets specification API SH (or higher) AND JASO MA.

Start the engine and allow it to idle for a minimum of 30 seconds.

Caution

Raising the engine speed above idle, before the oil reaches all parts of the engine can cause engine damage or seizure. Only raise engine speed after running the engine for 30 seconds to allow the oil to circulate fully.

Maintenance and Adjustment

Caution

If the engine oil pressure is too low, the low oil pressure warning light will illuminate. If this light stays on when the engine is running, stop the engine immediately and investigate the cause. Running the engine with low oil pressure will cause engine damage.

Ensure that the low oil pressure warning light extinguishes shortly after starting.

Turn off the ignition, check the oil level using the method previously described, and top-off to between the minimum and maximum level lines on the dipstick.

Disposal of Used Engine Oil and Oil Filters

To protect the environment, do not pour oil on the ground, down sewers or drains, or into groundwater sources. Do not place used oil filters in with general waste. If in doubt, contact your local authority.

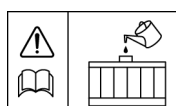
Oil Specification and Grade

Triumph high performance fuel injected engines are designed to use 10W/40 or 15W/50 semi or fully synthetic motorcycle engine oil that meets specification API SH (or higher) AND JASO MA.

Do not add any chemical additives to the engine oil. The engine oil also lubricates the clutch and any additives could cause the clutch to slip.

Do not use mineral, vegetable, non-detergent oil, castor based oils or any oil not conforming to the required specification. The use of these oils may cause instant, severe engine damage.

Cooling System



To ensure efficient engine cooling, check the coolant level each day before riding the motorcycle, and top-off the coolant if the level is low.

Caution

A year-round type of anti-freeze is installed in the cooling system when the motorcycle leaves the factory. It is colored green, contains a 50% solution of ethylene glycol, and has a freezing point of -31°F (-35°C).

Corrosion Inhibitors

To protect the cooling system from corrosion, the use of corrosion inhibitor chemicals in the coolant is essential.

If coolant containing a corrosion inhibitor is not used, the cooling system will accumulate rust and scale in the water jacket and radiator. This will block the coolant passages, and considerably reduce the efficiency of the cooling system.

The anti-freeze recommended in the Specification section, mixed 50/50 with distilled water will provide the necessary corrosion inhibition.

Maintenance and Adjustment

Warning

Always use the anti-freeze in accordance with the instructions of the manufacturer.

Coolant mixture that contains anti-freeze and corrosion inhibitors contains toxic chemicals that are harmful to the human body. Never swallow anti-freeze or any of the motorcycle coolant.

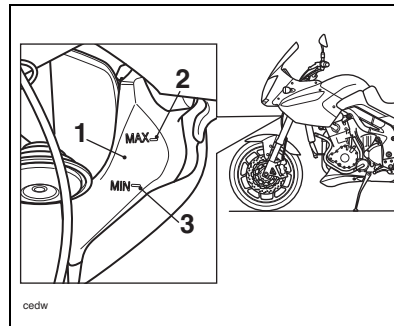
Distilled water must be used to dilute coolant to the correct mixture ratio.

In an emergency, tap water can be added to the cooling system. However, the coolant must then be changed and returned to the correct mixture ratio using distilled water and new coolant as soon as possible.

Caution

Distilled water must be used to dilute coolant to the correct mixture ratio. If hard water is used in the cooling system, it will cause scale accumulation in the engine and radiator and considerably reduces the efficiency of the cooling system. Reduced cooling system efficiency may cause the engine to overheat and suffer severe damage.

Coolant Level Inspection



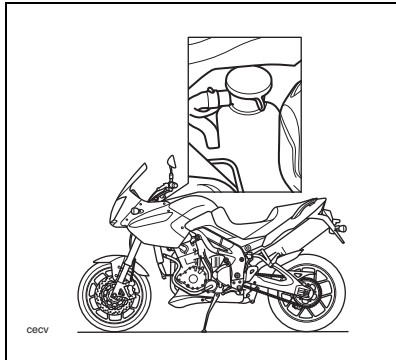
1. Expansion tank
2. MAX mark
3. MIN mark

Position the motorcycle on level ground and in an upright position.

Check the coolant level in the expansion tank by looking up, through the center opening of the front fairing. The coolant level should be between the MAX and MIN marks. If the coolant is below the minimum level, the coolant level must be adjusted.

Maintenance and Adjustment

Coolant Level Adjustment



Coolant Expansion Tank Cap

Warning

Do not remove the expansion tank or radiator pressure cap when the engine is hot. When the engine is hot, the coolant inside the radiator will be hot and also under pressure. Contact with this hot, pressurized coolant will cause scalds and skin damage.

Allow the engine to cool.

Remove the cap from the expansion tank, located below the left hand cockpit infill panel, and add coolant mixture through the filler opening until the level reaches the MAX mark. Install the cap.

Note:

- It is not necessary to remove the left hand cockpit infill panel in order to remove the coolant expansion tank cap.
- If the coolant level is being checked because the coolant has overheated, also check the level in the radiator and top-off if necessary.
- In an emergency, water alone can be added to the cooling system. However, the coolant must then be returned to the correct mixture ratio using distilled water and new coolant as soon as possible.

Coolant Change

Have the coolant changed by an authorized Triumph dealer in accordance with scheduled maintenance requirements.

Maintenance and Adjustment

Radiator and Hoses

Check the radiator hoses for cracks or deterioration, and hose clips for tightness in accordance with scheduled maintenance requirements. Have your authorized Triumph dealer replace any defective items.

Check the radiator grille and fins for obstructions by insects, leaves or mud. Clean off any obstructions with a stream of low-pressure water.

Warning

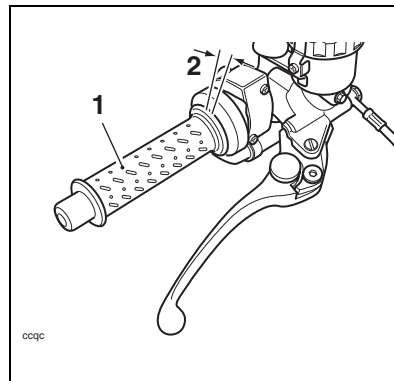
The fan operates automatically when the engine is running. Always keep hands and clothing away from the fan as contact with the rotating fan can cause injury.

Caution

Using high-pressure water sprays, such as from a car wash facility or household pressure washer, can damage the radiator fins, cause leaks and impair the radiator's efficiency.

Do not obstruct or deflect airflow through the radiator by installing unauthorized accessories, either in front of the radiator or behind the cooling fan. Interference with the radiator airflow can cause overheating, potentially resulting in engine damage.

Throttle Control



1. Throttle grip
2. 0.08 - 0.12 in (2 - 3 mm)

Warning

The throttle grip controls the throttle valves in the throttle bodies. If the throttle cables are incorrectly adjusted, either too tight or too loose, the throttle may be difficult to control and performance will be adversely affected.

Check the throttle grip free play in accordance with the scheduled maintenance requirements and make adjustments as necessary.

Maintenance and Adjustment

Warning

Always be alert for changes in the 'feel' of the throttle and have the throttle system checked by an authorized Triumph dealer if any changes are detected. Changes can be due to wear in the mechanism, which could lead to a sticking throttle.

An incorrectly adjusted, sticking or stuck throttle will lead to loss of motorcycle control and an accident.

Check that the throttle opens smoothly, without undue force and that it closes without sticking. Have your authorized Triumph dealer check the throttle system if a problem is detected or any doubt exists.

Check that there is 0.08 - 0.12 in (2 - 3 mm) of throttle grip free play when lightly turning the throttle grip back and forth.

If there is an incorrect amount of free play, Triumph recommends that you have adjustments made by your authorized Triumph dealer. However, in an emergency, throttle adjustment may be made as follows:

Inspection

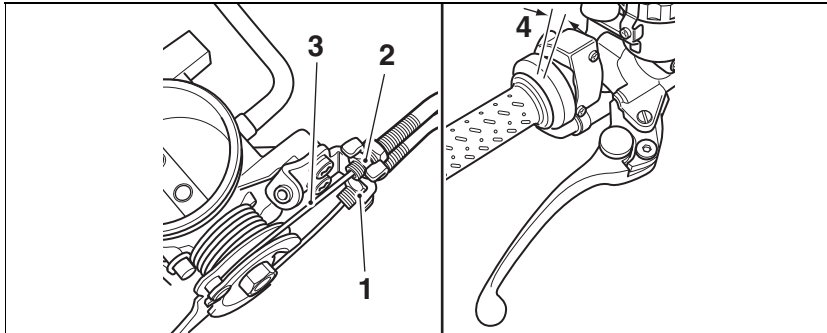
Warning

Use of the motorcycle with incorrectly adjusted, incorrectly routed, sticking or damaged throttle cables will interfere with the throttle function resulting in loss of motorcycle control and an accident.

To avoid incorrect adjustment, incorrect routing, or continued use of a sticking or damaged throttle, always have your throttle checked and adjusted by your authorized Triumph dealer.

Maintenance and Adjustment

Adjustment



1. Opening cable adjuster
2. Closing cable adjuster
3. Closing cable – free play measurement point
4. Opening cable – free play measurement point

Remove the seat.

Disconnect the battery, negative (black) lead first.

Remove the fuel tank.

Loosen the locknuts on the 'opening' cable adjusters.

Rotate the 'opening' cable adjuster at the twist grip end such that it has an equal amount of adjustment in each direction.

Rotate the 'opening' cable adjuster at the throttle body end of the cable to give 0.08 - 0.12 in (2 - 3 mm) of play at the twist grip. Tighten the locknut.

Make any minor adjustments as necessary to give 0.08 - 0.12 in (2 - 3 mm) of play using the adjuster near the twist grip end of the cable. Tighten the locknut.

With the throttle fully closed, ensure that there is 0.08 - 0.12 in (2 - 3 mm) of free play

in the 'closing' cable at the throttle cam attached to the throttle bodies. If necessary, adjust at the throttle body end in the same way as the 'opening' cable, until 0.08 - 0.12 in (2 - 3 mm) of play is present.

Warning

Ensure that all the adjuster locknuts of all cables are tightened, as a loose locknut could result in a sticking throttle.

An incorrectly adjusted, sticking or stuck throttle can lead to loss of motorcycle control and an accident.

Install the fuel tank.

Reconnect the battery, positive (red) lead first.

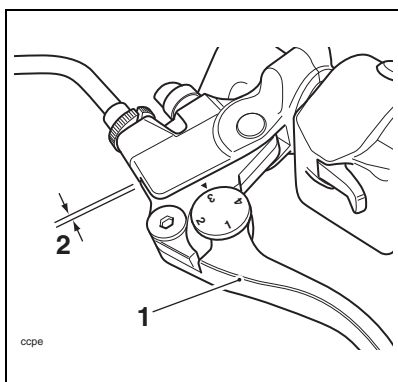
Install the seat.

Check that the throttle opens smoothly, without undue force and that it closes without sticking.

Ride carefully to your nearest authorized Triumph dealer and have them check the throttle system thoroughly before riding again.

Maintenance and Adjustment

Clutch



1. Clutch lever
2. 0.08 - 0.12 in (2 - 3 mm)

The motorcycle is equipped with a cable-operated clutch.

If the clutch lever has excessive free play, the clutch may not disengage fully. This will cause difficulty in shifting gear and selecting neutral. This may cause the engine to stall and make the motorcycle difficult to control. Conversely, if the clutch lever has insufficient free play the clutch may not engage fully, causing the clutch to slip, which will reduce performance and cause premature clutch wear.

Clutch lever free play must be checked in accordance with scheduled maintenance requirements.

Inspection

Check that there is 0.08 - 0.12 in (2 - 3 mm) clutch lever free play at the lever.

If there is an incorrect amount of free play, adjustments must be made.

Adjustment

Note:

- The clutch adjuster sleeve is prevented from turning by a ratchet mechanism.

Turn the adjuster sleeve until the correct amount of clutch lever free play is achieved.

If correct adjustment cannot be made using the lever adjuster, use the cable adjuster at the lower end of the cable.

Loosen the adjuster locknut.

Turn the outer cable adjuster to give 0.08 - 0.12 in (2 - 3 mm) of free play at the clutch lever.

Tighten the locknut.

Maintenance and Adjustment

Drive Chain



For safety and to prevent excessive wear the drive chain must be checked, adjusted and lubricated in accordance with scheduled maintenance requirements. Checking, adjustment and lubrication must be carried out more frequently for extreme conditions such as salty or heavily gritted roads.

If the chain is badly worn or incorrectly adjusted (either too loose or too tight) the chain could jump off the sprockets or break. Therefore, always replace worn or damaged chains using genuine Triumph parts supplied by an authorized Triumph dealer.

Warning

A loose or worn chain, or a chain that breaks or jumps off the sprockets could catch on the engine sprocket or lock the rear wheel.

A chain that snags on the engine sprocket will injure the rider and lead to loss of motorcycle control and an accident.

Similarly, locking the rear wheel will lead to loss of motorcycle control and an accident.

Chain Lubrication

Lubrication is necessary every 200 miles (300 km) and also after riding in wet weather, on wet roads, or any time that the chain appears dry.

Use the special chain lubricant as recommended in the Specification section.

Apply lubricant to the sides of the rollers then allow the motorcycle to stand unused for at least 8 hours (overnight is ideal). This will allow the oil to penetrate to the chain O-rings etc.

Before riding, wipe off any excess oil.

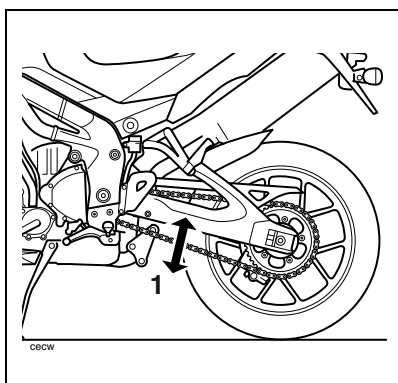
If the chain is especially dirty, clean first and then apply oil as mentioned above.

Caution

Do not use a pressure wash to clean the chain as this may cause damage to the chain components.

Maintenance and Adjustment

Chain Free – Movement Inspection



1. Maximum movement position

Warning

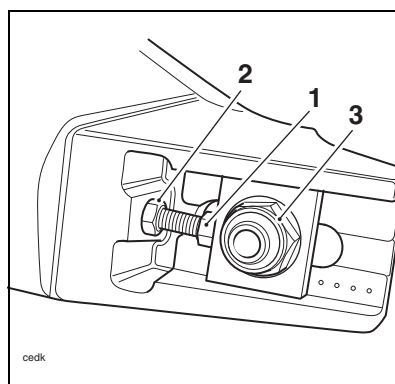
Before starting work, ensure the motorcycle is stabilized and adequately supported. This will help prevent injury to the operator or damage to the motorcycle.

Park the motorcycle on the side stand.

Rotate the rear wheel to find the position where the chain is tightest, and measure the vertical movement of the chain midway between the sprockets.

Chain Free – Movement Adjustment

The vertical movement of the drive chain must be in the range 1.37 - 1.57 in (35 - 40 mm).



1. Adjuster bolt
2. Adjuster bolt locknut
3. Rear wheel spindle nut

Loosen the wheel spindle nut.

Release the locknuts on both the left hand and right hand chain adjuster bolts.

Moving both adjusters by an equal amount, turn the adjuster bolts clockwise to increase chain free-movement and counter-clockwise to reduce chain free-movement.

When the correct amount of chain free-movement has been set, push the wheel into firm contact with the adjuster. Tighten both adjuster locknuts to **20 lbf ft (27 Nm)** and the rear wheel spindle nut to **81 lbf ft (110 Nm)**.

Repeat the chain adjustment check. Re-adjust if necessary.

Maintenance and Adjustment

Warning

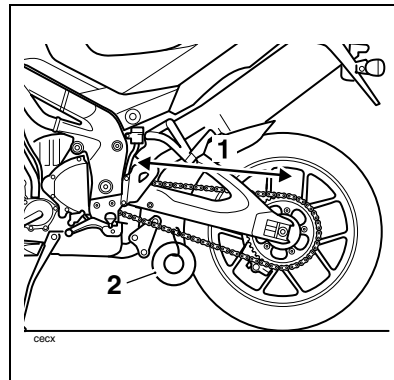
Operation of the motorcycle with insecure adjuster locknuts or a loose wheel spindle may result in impaired stability and handling of the motorcycle. This impaired stability and handling may lead to loss of control or an accident.

Check the rear brake effectiveness. Rectify if necessary.

Warning

It is dangerous to operate the motorcycle with defective brakes and you must have your authorized Triumph dealer take remedial action before you attempt to ride the motorcycle again. Failure to take remedial action may reduce braking efficiency leading to loss of control or an accident.

Chain and Sprocket Wear Inspection



1. Measure across 20 links
2. Weight

Remove the chain guards.

Stretch the chain taut by hanging a 20 - 40 lb (10 - 20 kg) weight on the chain.

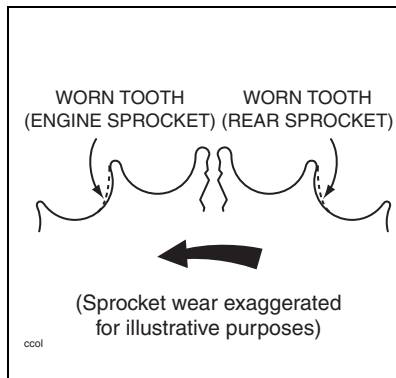
Measure the length of 20 links on the straight part of the chain from pin center of the 1st pin to the pin center of the 21st pin. Since the chain may wear unevenly, take measurements in several places.

If the length exceeds the maximum service limit of 12.5 in (319 mm), the chain must be replaced.

Rotate the rear wheel and inspect the drive chain for damaged rollers, and loose pins and links.

Maintenance and Adjustment

Also inspect the sprockets for unevenly or excessively worn or damaged teeth.



If there is any irregularity, have the drive chain and/or the sprockets replaced by an authorized Triumph dealer.

Install the chain guards.

Warning

The use of non-approved chains may result in a broken chain or may cause the chain to jump off the sprockets.

Use a genuine Triumph supplied chain as specified in the Triumph Parts Catalog.

Never neglect chain maintenance and always have chains installed by an authorized Triumph dealer.

Caution

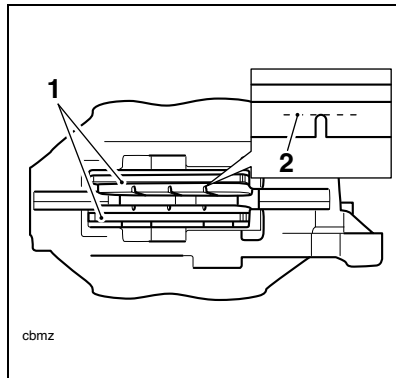
If the sprockets are found to be worn, always replace the sprockets and drive chain together.

Replacing worn sprockets without also replacing the chain will lead to premature wear of the new sprockets.

Maintenance and Adjustment

Brakes

Brake Wear Inspection



1. Brake pads

2. Minimum thickness line

Brake pads must be inspected in accordance with scheduled requirements and replaced if worn to, or beyond the minimum service thickness.

If the lining thickness of any pad (front or rear brakes) is less than 0.06 in (1.5 mm), that is, if the pad has worn down to the bottom of the grooves, replace all the pads on the wheel.

Warning

Brake pads must always be replaced as a wheel set. At the front, where two calipers are fitted on the same wheel, replace all the brake pads in both calipers.

Replacing individual pads will reduce braking efficiency and may cause an accident.

After replacement brake pads have been fitted, ride with extreme caution until the new pads have 'broken in'.

Brake Pad Wear Compensation

Disc and brake pad wear is automatically compensated for and has no effect on the brake lever or pedal action. There are no parts that require adjustment on the front and rear brakes.

Warning

If the brake lever or pedal feels soft when it is applied, or if the lever/pedal travel becomes excessive, there may be air in the brake lines and hoses or the brakes may be defective.

It is dangerous to operate the motorcycle under such conditions and your authorized Triumph dealer must rectify the fault before riding.

Riding with defective brakes may lead to loss of motorcycle control and an accident.

Maintenance and Adjustment

Disc Brake Fluid

Inspect the level of brake fluid in both reservoirs and change the brake fluid in accordance with scheduled maintenance requirements. Use only DOT 4 fluid as recommended in the Specification section. The brake fluid must also be changed if it becomes, or is suspected of having become, contaminated with moisture or any other contaminants.

Warning

Brake fluid is hygroscopic which means it will absorb moisture from the air.

Any absorbed moisture will greatly reduce the boiling point of the brake fluid causing a reduction in braking efficiency.

Because of this, always replace brake fluid in accordance with scheduled maintenance requirements.

Always use new brake fluid from a sealed container and never use fluid from an unsealed container or from one which has been previously opened.

Do not mix different brands or grades of brake fluid.

Check for fluid leakage around brake fittings, seals and joints and also check the brake hoses for splits, deterioration and damage.

Always rectify any faults before riding.

Failure to observe and act upon any of these items may cause a dangerous riding condition leading to loss of control and an accident.

Warning

If the ABS is not functioning, the brake system will continue to function as a standard non ABS braking system. In this situation braking too hard will cause the wheels to lock resulting in loss of control and an accident.

Reduce speed and do not continue to ride for longer than is necessary with the indicator light illuminated. Contact an authorized Triumph dealer as soon as possible to have the fault checked and rectified.

Warning

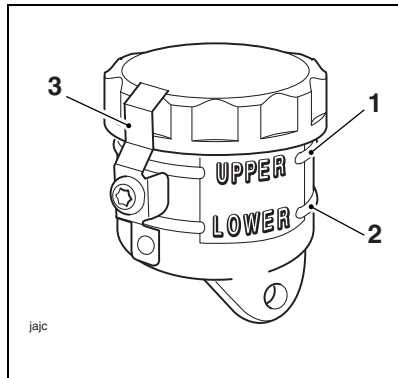
Failure to observe and act upon any of these items may cause a dangerous riding condition leading to loss of control and an accident.

Note:

- **On models equipped with ABS, a special tool is required to bleed the braking system. Contact your authorized Triumph dealer when the brake fluid needs renewing or the hydraulic system requires maintenance.**

Maintenance and Adjustment

Brake Fluid Level Inspection and Adjustment



1. Front brake fluid reservoir, upper level line
2. Lower level line
3. Safety clip

The brake fluid level in the reservoirs must be kept between the upper and lower level lines (reservoir held horizontal).

Remove the safety clip (front only).

Remove the reservoir cover.

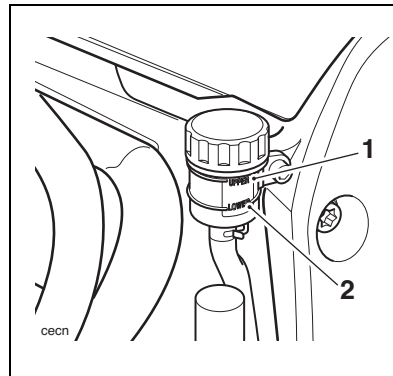
Fill the reservoir to the upper level line using new DOT 4 fluid from a sealed container.

Install the reservoir cover ensuring that the diaphragm seal is correctly installed.

Install the safety clip.

Warning

If there has been an appreciable drop in the level of the fluid in either fluid reservoir, consult your authorized Triumph dealer for advice before riding. Riding with depleted brake fluid levels, or with a brake fluid leak is dangerous and will cause reduced brake performance potentially leading to loss of motorcycle control and an accident.



1. Rear brake fluid reservoir, upper level line
2. Lower level line

Maintenance and Adjustment

Brake Light Switches

The brake light is activated independently by either the front or rear brake. If, with the ignition in the ON position, the brake light does not work when the front brake lever is pulled or the rear brake pedal is pressed, have your authorized Triumph dealer investigate and rectify the fault.

Warning

Riding the motorcycle with defective brake lights is illegal and dangerous.

An accident causing injury to the rider and other road users may result from use of a motorcycle with defective brake lights.

Steering/Wheel Bearings

Caution

To prevent risk of injury from the motorcycle falling during the inspection, ensure that the motorcycle is stabilized and secured on a suitable support. Do not exert extreme force against each wheel or rock each wheel vigorously as this may cause the motorcycle to become unstable and cause injury by falling from its support. Ensure that the position of the support block will not cause damage to the sump.

Steering Inspection

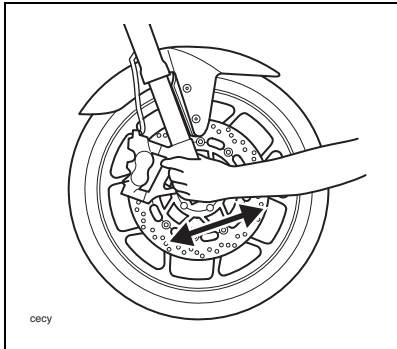
Lubricate and inspect the condition of the steering head (steering) bearings in accordance with scheduled maintenance requirements.

Note:

- **Always inspect the wheel bearings at the same time as the steering bearings.**

Maintenance and Adjustment

Inspecting the Steering (Steering Head) Bearings for Free Play



Inspecting the Steering for Free Play

Position the motorcycle on level ground, in an upright position.

Raise the front wheel above the ground and support the motorcycle.

Standing at the front of the motorcycle, hold the lower end of the front forks and try to move them forward and backward.

If any free play can be detected in the steering (steering head) bearings, ask your authorized Triumph dealer to inspect and rectify any faults before riding.

Warning

Riding the motorcycle with incorrectly adjusted or defective steering (steering head) bearings is dangerous and may cause loss of motorcycle control and an accident.

Remove the support and place the motorcycle on the side stand.

Wheel Bearings Inspection

If the wheel bearings in the front or rear wheel allow play in the wheel hub, are noisy, or if the wheel does not turn smoothly, have your authorized Triumph dealer inspect the wheel bearings.

The wheel bearings must be inspected at the intervals specified in the scheduled maintenance chart.

Position the motorcycle on level ground, in an upright position.

Raise the front wheel above the ground and support the motorcycle.

Standing at the side of the motorcycle, gently rock the top of the front wheel from side to side.

If any free play can be detected, ask your authorized Triumph dealer to inspect and rectify any faults before riding.

Reposition the lifting device and repeat the procedure for the rear wheel.

Warning

Operation with worn or damaged front or rear wheel bearings is dangerous and may cause impaired handling and instability leading to an accident. If in doubt, have the motorcycle inspected by an authorized Triumph dealer before riding.

Remove the support and place the motorcycle on the side stand.

Maintenance and Adjustment

Front Suspension

Front Fork Inspection

Examine each fork for any sign of damage, scratching of the slider surface, or for oil leaks.

If any damage or leakage is found, consult an authorized Triumph dealer.

To check that the forks operate smoothly:

- Position the motorcycle on level ground.
- While holding the handlebars and applying the front brake, pump the forks up and down several times.
- If roughness or excessive stiffness is detected, consult your authorized Triumph dealer.
- The suspension movement will be affected by adjustment settings.

Warning

Riding the motorcycle with defective or damaged suspension is dangerous and may lead to loss of control and an accident.

Warning

Never attempt to dismantle any part of the suspension units, as all units contain pressurized oil. Skin and eye damage can result from contact with the pressurized oil.

Maintenance and Adjustment

Suspension Setting Chart

LOADING		FRONT			REAR	
		Spring Pre-load	Rebound Damping	Compression Damping	Rebound Damping	Spring Pre-load
Solo Riding	Standard	3.00	1.00	1.00	1.00	16.00
	Firmer	3.00	0.5	0.5	0.5	13.00
Rider and Luggage		3.00	0.75	0.75	0.75	10.00
Rider and Passenger		3.00	0.75	0.75	0.75	8.00
Rider, Passenger and Luggage		3.00	0.75	0.75	0.75	6.00
Adjustment Notes		Number of adjuster lines visible above the fork top cap	Number of adjuster turns back from the fully clockwise (maximum) position	Number of adjuster turns back from the fully clockwise (maximum) position	Number of adjuster turns back from the fully clockwise (maximum) position	Number of clicks back from the fully clockwise (maximum) position

Note:

- **These charts are only a guide. Setting requirements may vary for rider weight and personal preferences. See the following pages for information regarding suspension adjustment.**

The standard suspension settings provide a comfortable ride and good handling characteristics for general, solo riding. The chart shows suggested settings for the front and rear suspension under other operating conditions.

 **Warning**

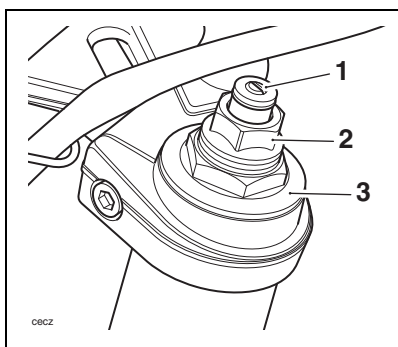
Ensure that the correct balance between front and rear suspension is maintained. Suspension imbalance could significantly change handling characteristics leading to loss of control and an accident. Refer to the chart above for further information or consult your dealer.

 **Warning**

Ensure that the adjusters are set to the same setting on both forks. Settings which vary from left to right could significantly change handling characteristics leading to loss of control and an accident.

Maintenance and Adjustment

Front Suspension Settings



1. Rebound/Compression damping adjuster (see notes)
2. Spring pre-load adjuster
3. Fork top cap

Spring Pre-Load Adjustment

The spring pre-load adjusters are located at the top of each fork.

To change the spring pre-load, rotate the adjuster clockwise to increase pre-load, or counter-clockwise to decrease pre-load. Always set the pre-load adjusters such that there are an equal number of graduation lines visible on both forks.

Note:

- **The motorcycle is delivered from the factory with the spring pre-load set at position 3 (three lines visible above the fork top cap).**

Note:

- **The left hand fork is fitted with a rebound damping adjuster. The right hand fork has a compression damping adjuster.**

Rebound Damping Adjustment

The rebound damping adjuster is located at the top of the left hand fork only.

To change the rebound damping force, rotate the slotted adjuster clockwise to increase, or counter-clockwise to decrease. Always count the number of turns back from the fully clockwise (maximum) position.

Note:

- **The motorcycle is delivered from the factory with the rebound set at one turn back from maximum.**

Compression Damping Adjustment

The compression damping adjuster is located at the top of the right hand fork only.

To change the compression damping force rotate the slotted adjuster clockwise to increase, or counter-clockwise to decrease. Always count the number of turns back from the fully clockwise (maximum) position.

Note:

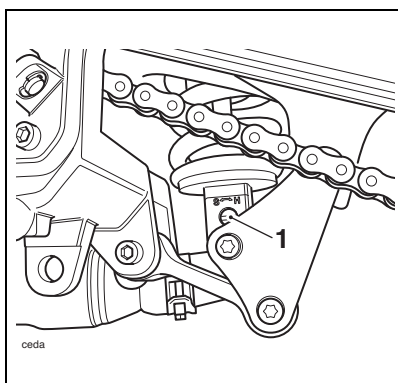
- **The motorcycle is delivered from the factory with the compression damping set at one turn back from maximum.**

Rear Suspension Adjustment

The rear suspension unit is adjustable for both rebound and spring pre-load.

Maintenance and Adjustment

Rebound Damping Adjustment



1. Rebound damping adjuster

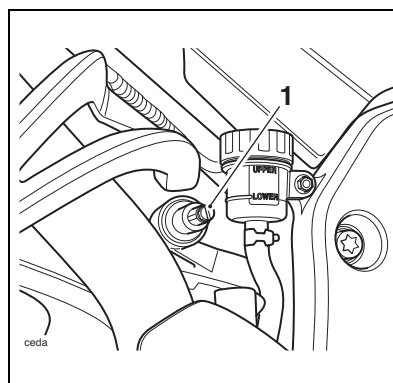
The rebound damping adjuster is located at the bottom of the rear suspension unit on the left hand side of the motorcycle.

To adjust the rebound damping setting, rotate the adjuster clockwise to increase rebound damping and counter-clockwise to decrease. Always count the number of turns back from the fully clockwise (maximum) position.

Note:

- The motorcycle is delivered from the factory with the rebound adjuster set at one turn back from maximum.

Spring Pre-Load Adjustment



1. Spring pre-load adjuster

The spring pre-load adjuster is situated on the right hand side of the motorcycle, at the top of the rear suspension unit.

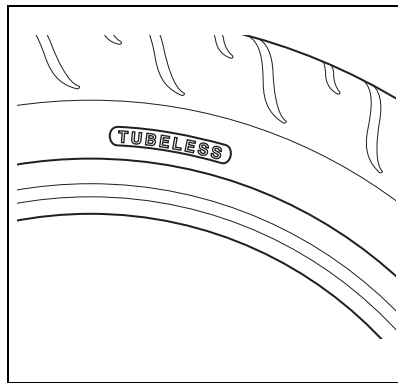
To adjust the spring pre-load setting rotate the slotted adjuster clockwise to increase, or counter-clockwise to decrease.

Note:

- The settings are measured by the number of adjuster 'clicks' out from the fully screwed in position.
- The motorcycle is delivered from the factory with the spring pre-load set to 16 'clicks' back from the fully screwed in position.

Maintenance and Adjustment

Tires



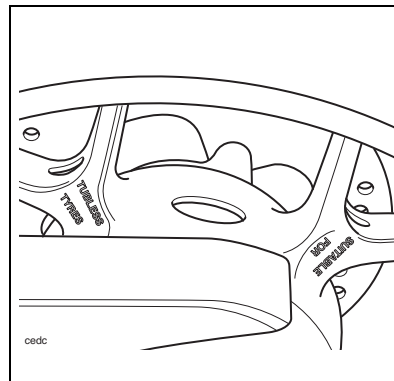
Typical Tire Marking



This motorcycle is equipped with tubeless tires, valves and wheel rims. Use only tires marked 'TUBELESS' and tubeless valves on rims marked 'SUITABLE FOR TUBELESS TIRES'.

Tire Inflation Pressures

Correct inflation pressure will provide maximum stability, rider comfort and tire life. Always check tire pressures before riding when the tires are cold. Check tire pressures daily and adjust if necessary. See the Specification section for details of the correct inflation pressures.



Wheel Marking

Warning

Incorrect tire inflation will cause abnormal tread wear and instability problems that may lead to loss of control and an accident.

Under-inflation may result in the tire slipping on, or coming off the rim. Over-inflation will cause instability and accelerated tread wear.

Both conditions are dangerous as they may cause loss of control leading to an accident.

Maintenance and Adjustment

Tire Wear

As the tire tread wears down, the tire becomes more susceptible to punctures and failure. It is estimated that 90% of all tire problems occur during the last 10% of tread life (90% worn). It is therefore not recommended to use tires until they are worn to their minimum.

Minimum Recommended Tread Depth

In accordance with the periodic maintenance chart, measure the depth of the tread with a depth gauge, and replace any tire that has worn to, or beyond the minimum allowable tread depth specified in the table below:

Under 80 mph (130 km/h)	0.08 in (2 mm)
Over 80 mph (130 km/h)	Rear 0.12 in (3 mm) Front 0.08 in (2 mm)

Warning

This motorcycle must not be operated above the legal road speed limit except in authorized closed-course conditions.

Warning

Only operate this Triumph motorcycle at high speed in closed-course on-road competition or on closed-course racetracks. High-speed operation should only then be attempted by riders who have been instructed in the techniques necessary for high-speed riding and are familiar with the motorcycle's characteristics in all conditions. High-speed operation in any other circumstances is dangerous and will lead to loss of motorcycle control and an accident.

Warning

Operation with excessively worn tires is hazardous and will adversely affect traction, stability and handling which may lead to loss of control and an accident.

When tubeless tires become punctured, leakage is often very slow. Always inspect tires very closely for punctures. Check the tires for cuts, embedded nails or other sharp objects. Operation with punctured or damaged tires will adversely affect motorcycle stability and handling which may lead to loss of control or an accident.

Check the rims for dents or deformation. Operation with damaged or defective wheels or tires is dangerous and loss of motorcycle control or an accident could result.

Always consult your authorized Triumph dealer for tire replacement, or for a safety inspection of the tires.

Maintenance and Adjustment

Tire Replacement

All Triumph motorcycles are carefully and extensively tested in a range of riding conditions to ensure that the most effective tire combinations are approved for use on each model. It is essential that approved tires, fitted in approved combinations, are used when purchasing replacement tires. The use of non-approved tires, or approved tires in non-approved combinations, may lead to motorcycle instability and an accident. See the Specification section for details of approved tire combinations. Always have tires fitted and balanced by your authorized Triumph dealer who has the necessary training and skills to ensure safe, effective installation.

Warning

On models equipped with ABS, the ABS computer operates by comparing the relative speed of the front and rear wheels. Use of non-recommended tires can affect wheel speed and cause the ABS function not to operate, potentially leading to loss of control and an accident in conditions where the ABS would normally function.

Warning

If a tire sustains a puncture, the tire must be replaced. Failure to replace a punctured tire, or operation with a repaired tire can lead to instability, loss of control or an accident.

Warning

Do not install tube-type tires on tubeless rims. The bead will not seat and the tires could slip on the rims, causing rapid tire deflation that may result in a loss of vehicle control and an accident. Never install an inner tube inside a tubeless tire. This will cause friction inside the tire and the resulting heat build-up may cause the tube to burst resulting in rapid tire deflation, loss of vehicle control and an accident.

Warning

If tire damage is suspected, such as after striking the curb, ask your authorized Triumph dealer to inspect the tire both internally and externally. Remember, tire damage may not always be visible from the outside. Operation of the motorcycle with damaged tires could lead to loss of control and an accident.

Maintenance and Adjustment

Warning

When replacement tires are required, consult your authorized Triumph dealer who will arrange for the tires to be selected, in a correct combination, from the approved list and fitted according to the tire manufacturer's instructions.

When tires are replaced, allow time for the tires to seat to the rim (approximately 24 hours). During this seating period, ride cautiously as an incorrectly seated tire could cause loss of control or an accident.

Initially, the new tires will not produce the same handling characteristics as the worn tires and the rider must allow adequate riding distance (approximately 100 miles) to become accustomed to the new handling characteristics.

24 hours after fitting, the tire pressures must be checked and adjusted, and the tires examined for correct seating. Rectification must be carried out as necessary.

The same checks and adjustments must also be carried out when 100 miles have been travelled after fitting.

Warning

Tires that have been used on a rolling road dynamometer may become damaged. In some cases, the damage may not be visible on the external surface of the tire. Tires must be replaced after such use as continued use of a damaged tire may lead to instability, loss of control and an accident.

Warning

Accurate wheel balance is necessary for safe, stable handling of the motorcycle. Do not remove or change any wheel balance weights. Incorrect wheel balance may cause instability leading to loss of control and an accident.

When wheel balancing is required, such as after tire replacement, see your authorized Triumph dealer.

Only use self-adhesive weights. Clip on weights may damage the wheel and tire resulting in tire deflation, loss of control and an accident.

Warning

Use of a motorcycle with incorrectly seated tires, incorrectly adjusted tire pressures, or when not accustomed to its handling characteristics may lead to loss of control and an accident.

Maintenance and Adjustment

Battery

Warning

Under some circumstances, the battery can give off explosive gases; keep sparks, flames and cigarettes away. Provide adequate ventilation when charging or using the battery in an enclosed space.

The battery contains sulphuric acid (battery acid). Contact with skin or eyes may cause severe burns. Wear protective clothing and a face shield.

If battery acid gets on your skin, flush with water immediately.

If battery acid gets in your eyes, flush with water for at least 15 minutes and SEEK MEDICAL ATTENTION IMMEDIATELY.

If battery acid is swallowed, drink large quantities of water and SEEK MEDICAL ATTENTION IMMEDIATELY.

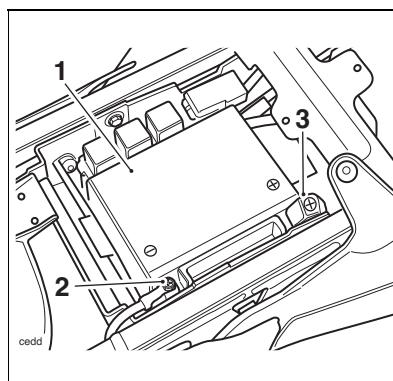
KEEP BATTERY ACID OUT OF THE REACH OF CHILDREN.

Warning

The battery contains harmful materials. Always keep children away from the battery whether or not it is fitted in the motorcycle.

Do not attach jump leads to the battery, touch the battery cables together or reverse the polarity of the cables as any of these actions may cause a spark which would ignite battery gases causing a risk of personal injury.

Battery Removal



1. Battery
2. Negative (black) terminal
3. Positive (red) terminal

Remove the seat (see page 37).

Disconnect the battery leads, negative (black) lead first.

Take the battery out of the case.

Warning

Ensure that the battery terminals do not touch the motorcycle frame as this may cause a short circuit or spark, which would ignite battery gases causing a risk of personal injury.

Battery Disposal

Should the battery ever require replacement, the original battery must be handed to a recycling agent who will ensure that the dangerous substances from which the battery is manufactured do not pollute the environment.

Maintenance and Adjustment

Battery Maintenance

Clean the battery using a clean, dry cloth. Be sure that the cable connections are clean.

Warning

The battery acid is corrosive and poisonous and will cause damage to unprotected skin. Never swallow battery acid or allow it to come into contact with the skin. To prevent injury, always wear eye and skin protection when handling the battery.

The battery is a sealed type and does not require any maintenance other than checking the Voltage and routine recharging, such as during storage.

It is not possible to adjust the battery acid level in the battery; the sealing strip must not be removed.

Battery Discharge

Caution

The charge level in the battery must be maintained to maximize battery life.

Failure to maintain the battery charge level could cause serious internal damage to the battery.

Under normal conditions, the motorcycle charging system will keep the battery fully charged. However, if the motorcycle is unused, the battery will gradually discharge due to a normal process called self discharge; the clock, engine control module (ECM) memory, high ambient temperatures, or the addition of electrical security systems or other electrical accessories will all increase this rate of battery discharge. Disconnecting the battery from the motorcycle during storage will reduce the rate of discharge.

Maintenance and Adjustment

Battery Maintenance During Storage and Infrequent Use of the Motorcycle

During storage or infrequent use of the motorcycle, inspect the battery Voltage weekly using a digital multimeter. Follow the manufacturer's instructions supplied with the meter.

Should the battery Voltage fall below 12.7 Volts, the battery should be charged (see page 92).

Allowing a battery to discharge or leaving it discharged for even a short period of time causes sulphation of the lead plates. Sulphation is a normal chemical reaction inside the battery, however over time the sulphate can crystallise on the plates making recovery difficult or impossible. This permanent damage is not covered by the motorcycle warranty, as it is not due to a manufacturing defect.

Keeping the battery fully charged reduces the likelihood of it freezing in cold conditions. Allowing a battery to freeze will cause serious internal damage to the battery.

Battery Charging

For help with selecting a battery charger, checking the battery Voltage or battery charging, contact your local authorized Triumph dealer.

Warning

The battery gives off explosive gases; keep sparks, flames and cigarettes away. Provide adequate ventilation when charging or using the battery in an enclosed space.

The battery contains sulphuric acid (battery acid). Contact with the skin or eyes may cause severe burns. Wear protective clothing and a face shield.

If battery acid gets on your skin, flush with water immediately.

If battery acid gets in your eyes, flush with water for at least 15 minutes and SEEK MEDICAL ATTENTION IMMEDIATELY.

If battery acid is swallowed, drink large quantities of water and SEEK MEDICAL ATTENTION IMMEDIATELY.

KEEP BATTERY ACID OUT OF THE REACH OF CHILDREN.

Caution

Do not use an automotive quick charger as it may overcharge and damage the battery.

Should the battery Voltage fall below 12.7 Volts the battery should be charged using a Triumph approved battery charger. Always follow the instructions supplied with the battery charger.

Maintenance and Adjustment

For extended periods of storage (beyond two weeks) the battery should be removed from the motorcycle and kept topped up using a Triumph approved maintenance charger.

Similarly, should the battery charge fall to a level where it will not start the motorcycle, remove the battery from the motorcycle before charging.

Battery Installation

Warning

Ensure that the battery terminals do not touch the motorcycle frame as this may cause a short circuit or spark, which would ignite battery gases causing a risk of personal injury.

Place the battery in the battery case.

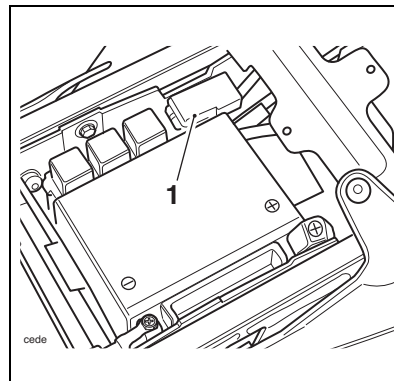
Reconnect the battery leads, positive (red) lead first.

Apply a light coat of grease to the terminals to prevent corrosion.

Cover the positive terminal with the protective cap.

Install the seat (see page 38).

Fuse Box



1. Fuse box

The fuse box is located beneath the seat.

To allow access to the fuse box, the seat must be removed.

Warning

Always replace blown fuses with new ones of the correct rating (as specified on the fuse box cover) and never use a fuse of higher rating. Use of an incorrect fuse could lead to an electrical problem, resulting in motorcycle damage, loss of motorcycle control and an accident.

Maintenance and Adjustment

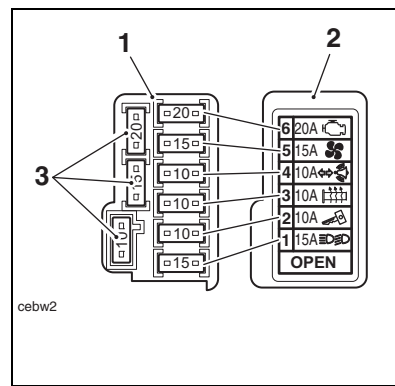
Fuse Identification

Circuit Protected	Position	Rating (Amps)
Dip and main beam headlights, starter relay	1	15
Ignition switch, starter circuit	2	10
Accessory socket, GPS (Global Positioning System), heated grips	3	10
Turn signals, alarm, horn, auxiliary lights	4	10
Cooling fan	5	15
Engine management system	6	20

Note:

- The starter solenoid has an additional 30 Amp fuse, attached directly to the solenoid, beneath the seat.

The fuse identification numbers listed in the table correspond with those printed on the fuse box cover, as shown below. Spare fuses are located at right angles to the main fuses and should be replaced if used.

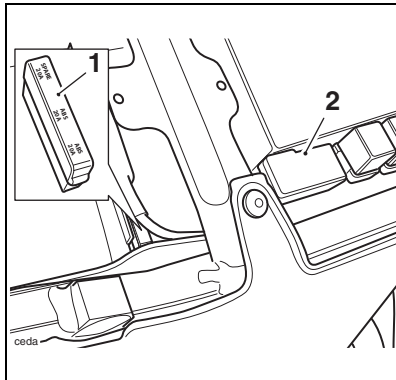


- Fuse box
- Fuse box cover
- Spare fuses

Maintenance and Adjustment

ABS (Anti-Lock Brake System) fuse box

Models equipped with ABS have an additional fuse box located under the seat, at the forward edge of the underseat storage box.



1. ABS fuse box
2. Main fuse box

Headlights

Warning

Adjust road speed to suit the visibility and weather conditions in which the motorcycle is being operated.

Ensure that the beams are adjusted to illuminate the road surface sufficiently far ahead without blinding oncoming traffic. An incorrectly adjusted headlight may impair visibility causing an accident.

Warning

Never attempt to adjust a headlight beam when the motorcycle is in motion.

Any attempt to adjust a headlight beam when the motorcycle is in motion may result in loss of control and an accident.

Caution

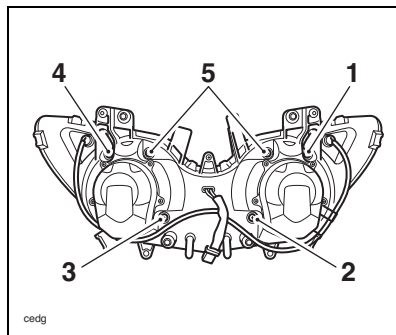
If the motorcycle is to be used under closed-course conditions, you may be asked to tape the visible outer surface of the headlight.

When taped, the headlight will overheat and distort the outer surface. Therefore, to avoid headlight distortion, always disconnect the headlights when they are taped for use under closed-course conditions.

Maintenance and Adjustment

Headlight Adjustment

Each headlight can be adjusted by means of vertical and horizontal adjustment screws located on the rear of each headlight.



1. Horizontal adjustment screw (right hand)
2. Vertical adjustment screw (right hand)
3. Vertical adjustment screw (left hand)
4. Horizontal adjustment screw (left hand)
5. Pivot screws (**DO NOT** adjust these screws)

Note:

- **If the horizontal headlight aim is to be adjusted, remove the cockpit infill panels to gain access to the adjustment screws.**

Switch on the headlight to be adjusted.

Caution

Do not adjust the pivot screws as this may cause the headlight reflector to become detached from the pivot screw, leading to irreparable damage to the headlight.

Turn the vertical adjustment screws on each headlight clockwise to lower the beam or counter-clockwise to raise the beam.

On the right hand headlight turn the horizontal adjustment screw clockwise to move the beam to the right or counter-clockwise to move the beam to the left.

On the left hand headlight turn the horizontal adjustment screw clockwise to move the beam to the left or counter-clockwise to move the beam to the right.

Switch the headlights off when the beam settings are satisfactory.

Maintenance and Adjustment

Headlight Bulb Replacement

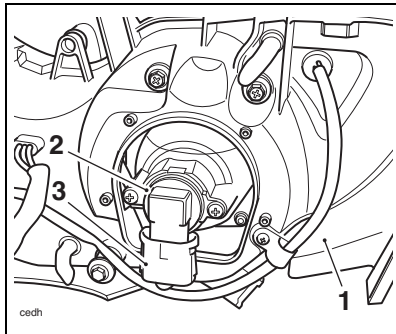
It is not necessary to remove the headlight when bulb replacement becomes necessary.

Warning

The bulbs become hot during use. Always allow sufficient time for the bulb to cool before handling. Avoid touching the glass part of the bulb. If the glass is touched or gets dirty, clean with alcohol before reuse.

To replace a bulb:

Right Hand Side



1. Headlight unit
2. Bulb and bulb retainer
3. Multi-plug

Remove the seat.

Disconnect the battery, negative (black) lead first.

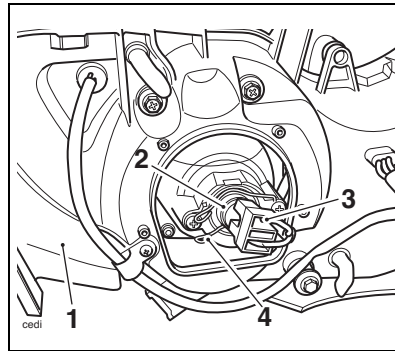
Remove the four screws and remove the right hand bulb cover.

Disconnect the multi-plug from the bulb retainer.

Remove the bulb and bulb retainer from the headlight assembly by rotating it clockwise.

Installation is the reverse of the removal procedure.

Left Hand Side



1. Headlight unit
2. Bulb
3. Multi-plug
4. Wire retainer

Disconnect the battery, negative (black) lead first.

Remove the four screws and remove the left hand bulb cover.

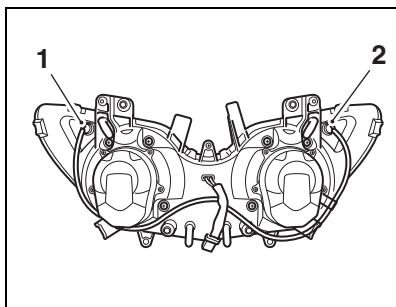
Disconnect the multi-plug from the bulb.

Detach the wire retainer from its clip (do not remove the screw) then remove the bulb from the headlight unit.

Installation is the reverse of the removal procedure.

Maintenance and Adjustment

Position Lamp Bulb Replacement



1. Position lamp bulb (left hand)
2. Position lamp bulb (right hand)

The position lamps are installed to the left and right of each headlight. To replace a bulb, remove the cockpit infill panel for the bulb to be replaced, detach the rubber retainer from the headlight and pull out the bulb.

Installation is the reverse of the removal procedure.

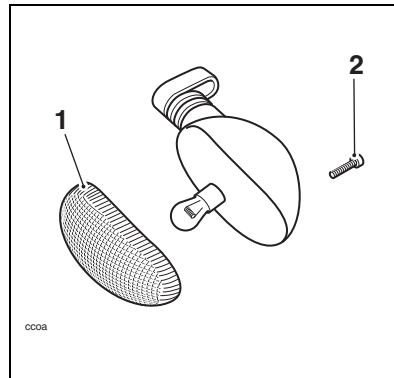
Brake/Tail Light

Brake/Tail Light Replacement

The brake/tail light unit is a sealed, maintenance free LED unit.

Turn Signal Lights

Bulb Replacement



1. Turn Signal lens
2. Securing screw

The lens on each turn signal light is held in place by a securing screw located in the body of the light.

Remove the screw and remove the lens to gain access to the bulb for replacement.

Maintenance and Adjustment

License Plate Light

Bulb Replacement

Remove the seat.

Disconnect the battery, negative (black) lead first.

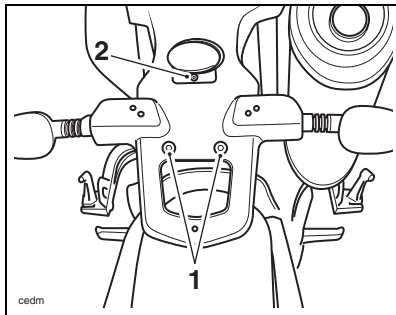
Remove the license plate.

⚠ Caution

Do not pull the rear mudguard more than is necessary to access the license plate light's inside fastener nut. Damage to the rear mudguard will result from bending the mudguard too far.

Remove the two lower rear mudguard fasteners. Gently pull the mudguard rearwards to allow access to the license plate light retaining nut.

Counter-hold the nut to prevent it from turning and remove the license plate light fastener screw. Collect the nut from the mudguard.



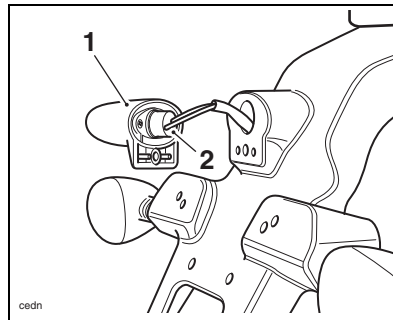
1. Lower rear mudguard fasteners
2. License plate light fastener screw

Detach the license plate light from the rear mudguard.

⚠ Caution

To avoid cable damage, do not pull the bulb holder using the cables. Pull only on the bulb holder.

Carefully remove the bulb holder from the back of the license plate light unit and remove the bulb.



1. License plate light
2. Bulb holder

Installation is the reverse of the removal procedure, noting the following:

Tighten the license plate lamp fastener to **26 lbf in (3 Nm)**.

Tighten the lower rear mudguard fasteners to **53 lbf ft in (6 Nm)**.

Reconnect the battery, positive (red) lead first.

Maintenance and Adjustment

Cleaning

Frequent, regular cleaning is an essential part of the maintenance of your motorcycle. If regularly cleaned, the appearance will be preserved for many years. Cleaning with cold water containing an automotive cleaner is essential at all times but particularly so after exposure to sea breezes, sea water, dusty or muddy roads and in winter when roads are treated for ice and snow. Do not use household detergent, as the use of such products will lead to premature corrosion.

Although, under the terms of your motorcycle warranty, cover is provided against the corrosion of certain items, the owner is expected to observe this reasonable advice which will safeguard against corrosion and enhance the appearance of the motorcycle.

Preparation for Washing

Before washing, precautions must be taken to keep water off the following places.

Rear opening of the exhausts: Cover with a plastic bag secured with rubber bands.

Clutch and brake levers, switch housings on the handlebar: Cover with plastic bags.

Ignition switch and steering lock: Cover the keyhole with tape.

Remove any items of jewellery such as rings, watches, zips or belt buckles, which may scratch or otherwise damage painted or polished surfaces.

Use separate cleaning sponges or cleaning cloths for washing painted/polished surfaces and chassis areas. Chassis areas (such as mudguards) will be exposed to more abrasive road grime and dust, which may then scratch painted or polished surfaces, if the same sponge or cleaning cloths are used.

Where to be Careful

Avoid spraying water with any great force near the following places:

- Instruments;
- Brake cylinders and brake calipers;
- Under the fuel tank;
- Steering head bearings.

Caution

Do not spray any water at all under the fuel tank. The engine's air intake duct is located under the fuel tank, and any water sprayed in this area could enter the airbox and engine, causing damage to both items.

Caution

Use of high-pressure spray washers is not recommended. When using pressure washers, water may be forced into bearings and other components causing premature wear from corrosion and loss of lubrication.

Note:

- **Use of soaps that are highly alkaline will leave a residue on painted surfaces, and may also cause water spotting. Always use a low alkaline soap to aid the cleaning process.**

Maintenance and Adjustment

After Washing

Remove the plastic bags and tape, and clear the air intakes.

Lubricate the pivots, bolts and nuts.

Test the brakes before motorcycle operation.

Start the engine and run it for 5 minutes. Ensure adequate ventilation for the exhaust fumes.

Use a dry cloth to absorb water residue. Do not allow water to stand on the machine as this will lead to corrosion.

Warning

Never wax or lubricate the brake discs. Loss of braking power and an accident could result. Clean the disc with a proprietary brand of oil free brake disc cleaner.

Unpainted Aluminum Items

Items such as brake and clutch levers must be correctly cleaned to preserve their appearance.

Use a proprietary brand of aluminum cleaner which does not contain abrasive or caustic elements.

Clean aluminum items regularly, in particular after use in inclement weather, where the components must be hand washed and dried each time the machine is used.

Warranty claims due to inadequate maintenance will not be allowed.

Cleaning of the Exhaust System

All parts of the exhaust system of your motorcycle must be cleaned regularly to avoid a deterioration of its appearance. These instructions can be applied to chrome, brushed stainless steel and carbon fiber components alike.

Note:

- **The exhaust system must be cool before washing to prevent water spotting.**

Washing

Prepare a mixture of cold and mild automotive cleaner. Do not use a highly alkaline soap as commonly found at commercial car washes because it leaves a residue.

Wash the exhaust system with a soft cloth. Do not use an abrasive scouring pad or steel wool. They will damage the finish.

Rinse the exhaust system thoroughly.

Ensure no soap or water enters the exhausts.

Drying

Dry the exhaust system as far as possible with a soft cloth. Do not run the engine to dry the system or spotting will occur.

Protecting

When the exhaust system is dry, rub 'Motorex 645 Clean and Protect' into the surface.

Maintenance and Adjustment

Caution

The use of products containing silicone will cause discoloration of the chrome and must not be used. Similarly, the use of abrasive cleaners and polishes will damage the system and must not be used.

It is recommended that regular protection be applied to the system as this will both protect and enhance the system's appearance.

Windshield Cleaning



Clean the windshield with a solution of mild soap or detergent and lukewarm water. After cleaning, rinse well and then dry with a soft, lint free cloth.

Caution

Products such as window cleaning fluids, insect remover, rain repellent, scouring compounds, gasoline or strong solvents such as alcohol, acetone, carbon tetrachloride, etc. will damage the windshield. Never allow these products to contact the windshield.

If the transparency of the windshield is reduced by scratches or oxidation which cannot be removed, the windshield must be replaced.

Warning

Never attempt to clean the windshield while the motorcycle is in motion as releasing the handlebars may cause loss of vehicle control and an accident.

Operation of the motorcycle with a damaged or scratched windshield will reduce the rider's forward vision. Any such reduction in forward vision is dangerous and may lead to an accident causing injury or death.

Warning

Corrosive chemicals such as battery acid will damage the windshield. Never allow corrosive chemicals to contact the windshield.

STORAGE

Preparation for Storage

Clean and dry the entire vehicle thoroughly.

Fill the fuel tank with the correct grade of unleaded fuel and add a fuel stabilizer (if available), following the fuel stabilizer manufacturer's instructions.

 **Warning**

Gasoline is extremely flammable and can be explosive under certain conditions. Turn the ignition switch off. Do not smoke. Make sure the area is well ventilated and free from any source of flame or sparks; this includes any appliance with a pilot light.

Remove the spark plug from each cylinder and put several drops (0.16 fl oz (5 ml)) of engine oil into each cylinder. Cover the spark plug holes with a piece of cloth or rag. With the engine stop switch in the RUN position, push the starter button for a few seconds to coat the cylinder walls with oil. Install the spark plugs, tightening to **9 lbf ft (12 Nm)**.

Change the engine oil and filter (see page 65).

Check and if necessary correct the tire pressures (see page 108).

Set the motorcycle on a stand so that both wheels are raised off the ground. (If this cannot be done, put boards under the front and rear wheels to keep dampness away from the tires.)

Spray rust inhibiting oil (there are a host of products on the market and your dealer will be able to offer you local advice) on all

unpainted metal surfaces to prevent rusting. Prevent oil from getting on rubber parts, brake discs or in the brake calipers.

Lubricate and if necessary adjust the drive chain (see page 73).

Make sure the cooling system is filled with a 50% mixture of anti-freeze and distilled water solution (see page 68).

Remove the battery, and store it where it will not be exposed to direct sunlight, moisture, or freezing temperatures. During storage it should be given a slow charge (one ampere or less) about once every two weeks (see page 90).

Store the motorcycle in a cool, dry area, away from sunlight, and with a minimum daily temperature variation.

Put a suitable porous cover over the motorcycle to keep dust and dirt from collecting on it. Avoid using plastic or similar non-breathable, coated materials that restrict air flow and allow heat and moisture to accumulate.

Storage

Preparation after Storage

Install the battery (if removed) (see page 93).

If the motorcycle has been stored for more than four months, change the engine oil (see page 65).

Check all the points listed in the Daily Safety Checks section.

Before starting the engine, remove the spark plugs from each cylinder.

Put the side stand down.

Crank the engine on the starter motor several times until the oil pressure light goes out.

Replace the spark plugs, tightening to **9 lbf ft (12 Nm)**, and start the engine.

Check and if necessary correct the tire pressures (see page 108).

Clean the entire vehicle thoroughly.

Check the brakes for correct operation.

Test ride the motorcycle at low speeds.

Specifications

SPECIFICATIONS

Dimensions

Overall Length	83.1in (2,110 mm)
Overall Width	33.1 in (840 mm)
Overall Height.....	52.0 in (1,320 mm)
Wheelbase.....	59.4in (1,510 mm)
Seat Height	32.8 in (835 mm)

Weights

Dry Weight	436 lb (198 kg)
Maximum Payload	440 lb (200 kg)

Engine

Type.....	In-line 3 cyl.
Displacement.....	1050 cc
Bore x Stroke	3.11 x 2.8 in (79 x 71.4 mm)
Compression Ratio	12.0:1
Cylinder Numbering.....	Left to Right
Cylinder Sequence Number.....	1 at left
Firing Order	1-2-3
Starting System.....	Electric Starter

Specifications

Performance

Maximum Power (DIN 70020)	114 bhp (115 PS) at 9,400 rpm
Maximum Torque	74 ft.lbf (100 Nm) at 6,250 rpm

Lubrication

Lubrication	Forced Lubrication (wetsump)
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Engine Oil Capacities

Dry Fill	0.92 US gal (3.5 liters)
Oil/Filter Change	0.84 US gal (3.2 liters)
Oil Change Only	0.79 US gal (3.0 liters)

Cooling

Coolant Type	Mobil Antifreeze
Water/Anti-freeze ratio	50/50
Coolant Capacity	0.52 US gal (2.0 liters)
Thermostat Opens (nominal)	185°F (85°C)

Fuel System

Type	Electronic Fuel Injection
Injectors	Solenoid Operated
Fuel Pump	Submerged Electric
Fuel Pressure (nominal)	43.5 psi (3 bar)

Fuel

Type	89 (R+M)/2
Tank Capacity	5.28 US gal (20 liters)

Specifications

Ignition

Ignition System	Digital Inductive
Electronic Rev Limiter (r/min)	9,500 (r/min)
Spark Plug	NGK CR9EK
Spark Plug Gap	0.027 in (0.7 mm)
Gap Tolerance	+0.002/-0.004 in (+0.05/-0.1 mm)

Transmission

Transmission Type	6 Speed, Constant Mesh
Clutch Type	Wet, Multi-Plate
Final Drive Chain	RK 530 FXW
Primary Drive Ratio	1.75:1 (60/105)
Gear Ratios:	
Final Drive Ratio	2.444:1 (18/44)
1st	2.733:1 (15/41)
2nd	1.947:1 (19/37)
3rd	1.545:1 (22/34)
4th	1.292:1 (24/31)
5th	1.154:1 (26/30)
6th	1:1 (28/28)

Specifications

Tires

Tire Pressures (Cold):

Front 34 lb/in² (2.34 Bar)

Rear 42 lb/in² (2.90 Bar)

Front Size 120/70 ZR17

Rear Size 180/55 ZR17

Approved Tires

Option 1, Front and Rear Michelin Pilot Road S

Option 2, Front Bridgestone BT014SF

Option 2, Rear Bridgestone BT014F

Warning

Use the recommended tires **ONLY** in the combinations given. Do not mix tires from different manufacturers or mix different specification tires from the same manufacturers as this may result in loss of motorcycle control and an accident.

Electrical Equipment

Battery 12 Volt, 10 Ah

Alternator 12 Volt, 38 Ah

Headlight 1 x 12 Volt, 55 watt H7 Halogen (left hand side)

1 x 12 Volt, 65 watt H9 Halogen (right hand side)

Tail/Brake Light LED

Turn Signal Lights 12 Volt, 10 watt

Specifications

Frame

Rake	23.2°
Trail	3.45 in (87.7 mm)

Tightening Torques

Oil Filter	7 lbf ft (10 Nm)
Oil Drain Plug	18 lbf ft (25 Nm)
Spark Plug	9 lbf ft (12 Nm)
Rear Wheel Spindle	81 lbf ft (110 Nm)
Chain Adjuster Locknut	20 lbf ft (27 Nm)

Fluids and Lubricants

Engine Oil	Semi or fully synthetic 10W/40 or 15W/50 motorcycle engine oil which meets specification API SH (or higher) and JASO MA, such as Mobil 1 Racing 4T
Brake and Clutch Fluid	Mobil Universal Brake and Clutch Fluid DOT 4
Coolant	Mobil Antifreeze
Bearings and Pivots	Mobil Grease HP 222
Drive Chain	Mobil Chain Spray or Mobilube HD 80

Specifications

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