OWNER'S MANUAL 2021

TXT RACING 125
TXT RACING 250
TXT RACING 280
TXT RACING 300
TXT GP 125
TXT GP 250
TXT GP 280
TXT GP 300

Art. no. 3215017en

GASGAS

DEAR GASGAS CUSTOMER

Congratulations on your decision to purchase a GASGAS motorcycle. You are now the owner of a state-of-the-art sports vehicle which, with appropriate care, will bring you pleasure for a long time to come.

We wish you good and safe riding at all times!

Enter the serial numbers of your vehicle below.

Vehicle identification number (📖 p. 12)	Dealer's stamp
Engine number (📖 p. 12)	

The Owner's Manual contained the latest information for this model series at the time of publication. However, minor differences due to further developments in design cannot be ruled out completely.

All specifications contained herein are non-binding. GASGAS Motorcycles GmbH specifically reserves the right to modify or delete technical specifications, prices, colors, forms, materials, services, designs, equipment, etc., without prior notice and without specifying reasons, to adapt these to local conditions, as well as to stop production of a particular model without prior notice. GASGAS Motorcycles accepts no liability for delivery options, deviations from illustrations and descriptions, as well as misprints and other errors. The models portrayed partly contain special equipment that does not belong to the regular scope of supply.

GASGAS Motorcycles GmbH
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This document is valid for the following models:

TXT RACING 125 EU (F0103UG)
TXT RACING 125 US (F0175UG)
TXT RACING 250 EU (F0303UH)
TXT RACING 250 US (F0375UH)
TXT RACING 280 EU (F0303UI)
TXT RACING 280 US (F0375UI)
TXT RACING 300 EU (F0403UJ)
TXT RACING 300 US (F0475UJ)
TXT GP 125 EU (F0103UK)
TXT GP 125 US (F0175UK)
TXT GP 250 EU (F0303UL)
TXT GP 250 US (F0375UL)
TXT GP 280 EU (F0303UM)
TXT GP 280 US (F0375UM)
TXT GP 300 EU (F0403UN)
TXT GP 300 US (F0475UN)

3215017en

11/2020

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1.1 Symbols used

The meaning of specific symbols is described below.

	Indicates an expected reaction (e.g., of a work step or a function).
	Indicates an unexpected reaction (e.g., of a work step or a function).
	All work marked with this symbol requires specialist knowledge and technical understanding. In the interest of your own safety, have this work performed by an authorized GASGAS Motorcycles workshop. Your motorcycle will be cared for there to the highest degree by specially trained experts using the special tools required.
	Denotes a page reference. More information is provided on the specified page.
	Indicates information with more details or tips.
	Indicates the result of a testing step.
	Indicates a voltage measurement.
	Indicates a current measurement.
	Indicates the end of an activity, including potential reworking.

1.2 Formats used

The typographical formats used in this document are explained below.

Proprietary name	Indicates a proprietary name.
Name®	Indicates a protected name.
Brand™	Indicates a brand available on the open market.
Underlined terms	Refer to technical details of the vehicle or indicate technical terms, which are explained in the glossary.

2 SAFETY ADVICE

2.1 Use definition – intended use

(All EU models)

This vehicle has been designed and built to withstand the normal stresses and strains of trial use.

Info

This vehicle is only authorized for operation on public roads in the homologated (restricted) version.
The derestricted version of this vehicle must only be operated in closed off areas away from public highway traffic.
This vehicle has been designed for trial use and not for motocross.

(All US models)

This vehicle has been designed and built to withstand the normal stresses and strains of trial use.

Info

This vehicle is not approved for use on public roads.
This vehicle has been designed for trial use and not for motocross.

2.2 Misuse

The vehicle must only be used as intended.
Dangers can arise for people, property and the environment through use not as intended.
Any use of the vehicle beyond the intended and defined use constitutes misuse.
Misuse also includes the use of operating and auxiliary fluids which do not meet the required specification for the respective use.

2.3 Safety advice

A number of safety instructions need to be followed to operate the product described safely. Therefore read this instruction and all further instructions included carefully. The safety instructions are highlighted in the text and are referred to at the relevant passages.

Info

Various information and warning labels are attached in prominent locations on the product described. Do not remove any information or warning labels. If they are missing, you or others may not recognize dangers and may therefore be injured.

2.4 Degrees of risk and symbols

Danger

Identifies a danger that will immediately and invariably lead to fatal or serious permanent injury if the appropriate measures are not taken.

Warning

Identifies a danger that is likely to lead to fatal or serious injury if the appropriate measures are not taken.

Caution

Identifies a danger that may lead to minor injuries if the appropriate measures are not taken.

Note

Identifies a danger that will lead to considerable machine and material damage if the appropriate measures are not taken.

Note

Indicates a danger that will lead to environmental damage if the appropriate measures are not taken.

2.5 Tampering warning

Tampering with the noise control system is prohibited. Federal law prohibits the following acts or the causing thereof:

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

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

1 Removal or puncturing of the main silencers, baffles, header pipes or any other components which conduct exhaust gases.
2 Removal or puncturing of parts of the intake system.
3 Lack of proper maintenance.
4 Replacing moving parts of the vehicle, or parts of the exhaust system or intake system, with parts other than those specified by the manufacturer.

2.6 Safe operation

Danger

Danger of accidents A rider who is not fit to ride poses a danger to him or herself and others.

– Do not operate the vehicle if you are not fit to ride due to alcohol, drugs or medication.
– Do not operate the vehicle if you are physically or mentally impaired.

Danger

Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and death.

– Always make sure there is sufficient ventilation when running the engine.
– Use effective exhaust extraction when starting or running the engine in an enclosed space.

Warning

Danger of burns Some vehicle components become very hot when the vehicle is operated.

– Do not touch any parts such as the exhaust system, radiator, engine, shock absorber, or brake system before the vehicle parts have cooled down.
– Let the vehicle parts cool down before you perform any work on the vehicle.

Only operate the vehicle when it is in perfect technical condition, in accordance with its intended use, and in a safe and environmentally compatible manner.
The vehicle should only be used by trained persons. An appropriate driver's license is needed to drive the vehicle on public roads.
Have malfunctions that impair safety immediately eliminated by an authorized GASGAS Motorcycles workshop.
Adhere to the information and warning labels on the vehicle.

2.7 Protective clothing

Warning

Risk of injury Missing or poor protective clothing presents an increased safety risk.

– Wear appropriate protective clothing such as helmet, boots, gloves as well as trousers and a jacket with protectors on all rides.
– Always wear protective clothing that is in good condition and meets the legal regulations.

In the interest of your own safety, GASGAS Motorcycles recommends that you only operate the vehicle while wearing protective clothing.

2.8 Work rules

Unless specified otherwise, the ignition must be turned off during all work (models with ignition lock, models with remote key) or the engine must be at a standstill (models without ignition lock or remote key).
Special tools are necessary for certain tasks. The tools are not a component of the vehicle, but can be ordered using the number in parentheses. Example: bearing puller (15112017000)
During assembly, use new parts to replace parts which cannot be reused (e.g. self-locking screws and nuts, expansion screws, seals, sealing rings, O-rings, pins, and lock washers).
In the case of certain screws, a screw adhesive (e.g., **Loctite®**) is required. Observe the manufacturer's instructions.
If a screw adhesive (e.g., **Precote®**) has already been applied to a new part, do not apply any additional thread locker.
After disassembly, clean the parts that are to be reused and check them for damage and wear. Change damaged or worn parts.
After completing a repair or service work, check the operating safety of the vehicle.

2.9 Environment

If you use your motorcycle responsibly, you can ensure that problems and conflicts do not occur. To protect the future of the motorcycle sport, make sure that you use your motorcycle legally, be environmentally aware, and respect the rights of others.
When disposing of used oil, other operating and auxiliary fluids, used components, and, if applicable, the end-of-life motorcycle, comply with the respective laws and regulations of the respective country.

2.10 Owner's Manual

Read this owner's manual carefully and completely before making your first trip. The Owner's Manual contains useful information and many tips on how to operate, handle, and service your motorcycle. This is the only way to find out how best to customize the vehicle for your own use and how you can protect yourself from injury.

Tip
Store the Owner's Manual on your terminal device, for example, so that you can read it whenever you need to.

If you would like to know more about the vehicle or have questions on the material you read, please contact an authorized GASGAS Motorcycles dealer.
The Owner's Manual is an important component of the vehicle. If the vehicle is sold, the Owner's Manual must be downloaded again by the new owner.
The Owner's Manual can be downloaded several times using the QR code or the link on the delivery certificate.

The Owner's Manual is also available for download from your authorized GASGAS Motorcycles dealer and on the GASGAS Motorcycles website. A printed copy can also be ordered from your authorized GASGAS Motorcycles dealer.
International GASGAS Motorcycles website: http://www.gasgas.com

3.1 Manufacturer and implied warranty

The work specified in the service schedule may only be carried out in an authorized GASGAS Motorcycles workshop and confirmed in the **GASGAS Motorcycles Dealer.net**, as otherwise all warranty claims will be void. Damage or secondary damage caused by tampering with and/or conversions on the vehicle are not covered by the manufacturer warranty.

3.2 Fuel, auxiliary substances

Note

Environmental hazard Improper handling of fuel is a danger to the environment.

– Do not allow fuel to enter the groundwater, the soil, or the sewage system.

Use fuels and auxiliary substances in accordance with the Owner's Manual and specification.

3.3 Spare parts, accessories

For your own safety, only use spare parts and accessory products that are approved and/or recommended by GASGAS Motorcycles and have them installed by an authorized GASGAS Motorcycles workshop. GASGAS Motorcycles accepts no liability for other products and any resulting damage or loss.
Certain spare parts and accessory products are specified in parentheses in the descriptions. Your authorized GASGAS Motorcycles dealer will be glad to advise you.

The current accessories for your vehicle can be found on the GASGAS Motorcycles website.
International GASGAS Motorcycles website: http://www.gasgas.com

3.4 Service

A prerequisite for perfect operation and prevention of premature wear is that the service, care, and tuning work on the engine and chassis is properly carried out as described in the Owner's Manual. An incorrect suspension setting can lead to damage and breakage of chassis components.
Use of the vehicle under difficult conditions, such as on sand or on wet, dusty and muddy surfaces, can result in significantly increased wear of components, such as the drive train, brake system, air filter or suspension components. For this reason, it may be necessary to inspect or replace parts before the next scheduled service.
It is imperative that you adhere to the stipulated run-in times and service intervals. If you observe these exactly, you will ensure a much longer service life for your motorcycle.
The relevant mileage or time interval is whichever occurs first.

3.5 Figures

The figures contained in the manual may depict special equipment.
In the interest of clarity, some components may be shown disassembled or may not be shown at all. It is not always necessary to disassemble the component to perform the activity in question. Please follow the instructions in the text.

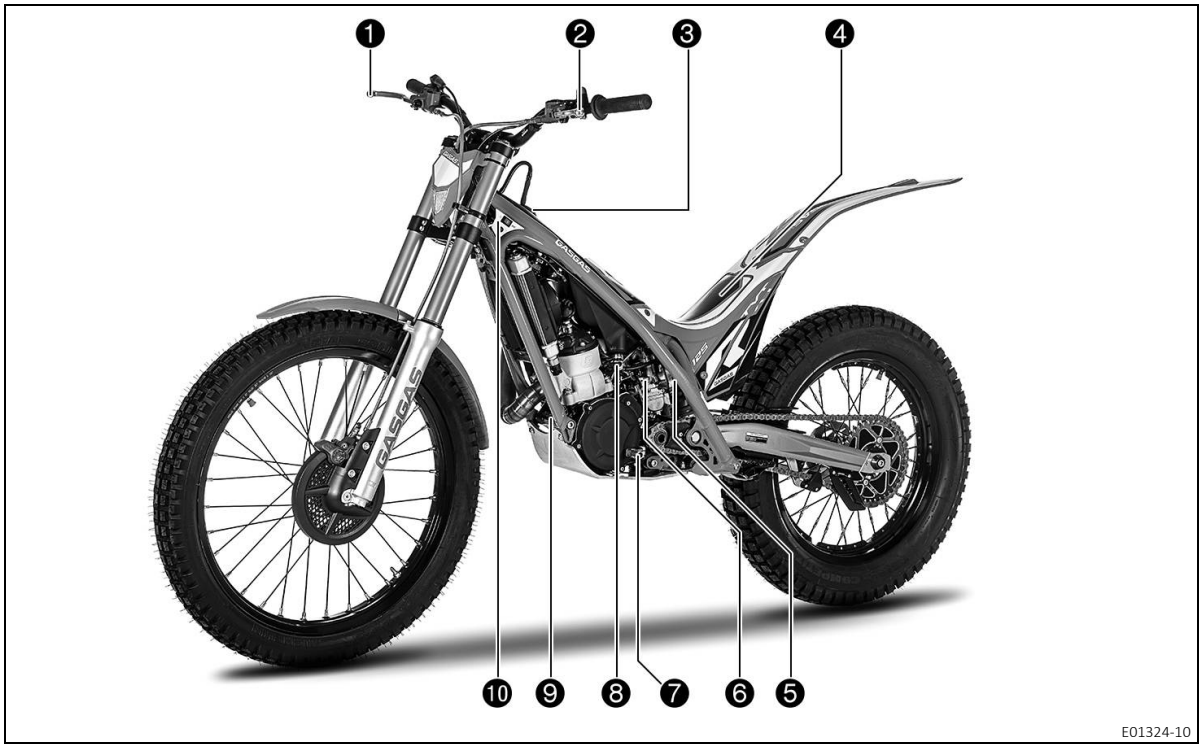
3.6 Customer service

Your authorized GASGAS Motorcycles dealer will be happy to answer any questions you may have regarding your vehicle and GASGAS Motorcycles.

A list of authorized GASGAS Motorcycles dealers can be found on the GASGAS Motorcycles website.
International GASGAS Motorcycles website: http://www.gasgas.com

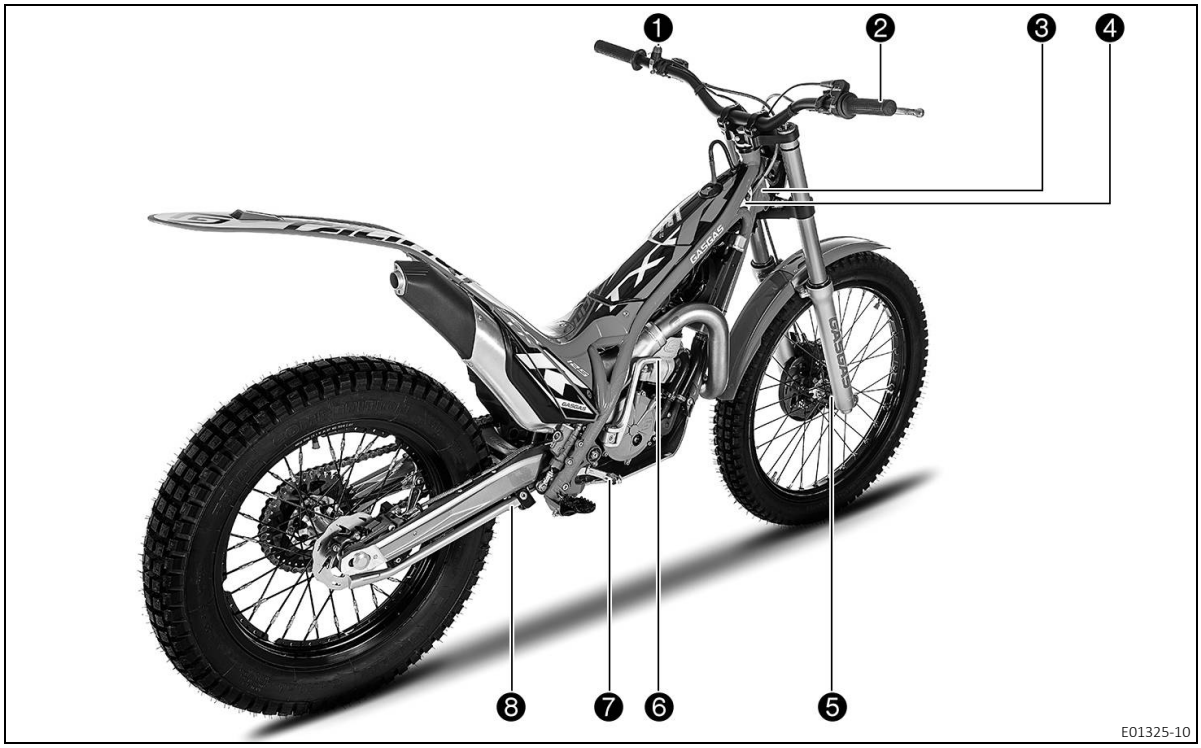
4 VIEW OF VEHICLE

4.1 View of vehicle, front left (example)



1. Hand brake lever (p. 13)
2. Clutch lever (p. 13)
3. Fuel tank filler cap
4. Air filter box cover
5. Shock absorber rebound adjustment
6. Choke button (p. 16) **(Option: Not homologized)**
7. Shift lever (p. 17)
8. Fuel tap (p. 16)
9. Engine number (p. 12)
10. Light switch (p. 14) **(Option: Not homologized)**

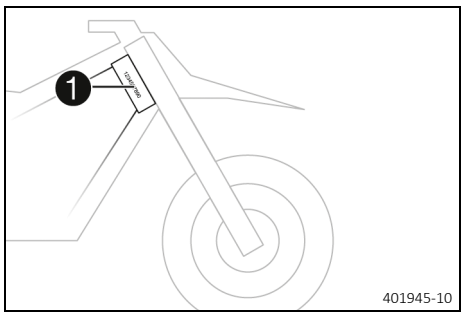
4.2 View of vehicle, rear right (example)



1. Magnetic switch (p. 13) **(Option: Not homologized)**
2. Throttle grip (p. 13)
3. Vehicle identification number (p. 12)
3. Type label (p. 12)
4. Map switch (p. 15) **(Option: Not homologized)**
5. Fork article number (p. 12)
6. Kick starter lever (p. 17)
7. Foot brake lever (p. 17)
8. Side stand (p. 18)

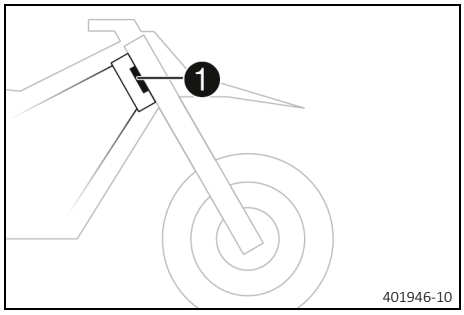
5 SERIAL NUMBERS

5.1 Vehicle identification number



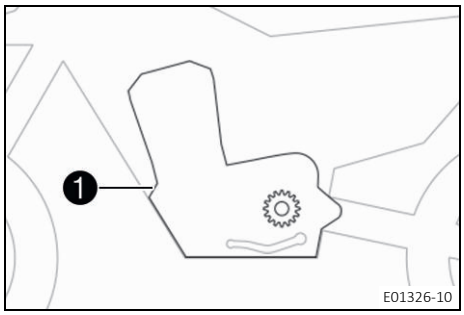
The vehicle identification number ❶ is stamped on the right side of the steering head.

5.2 Type label



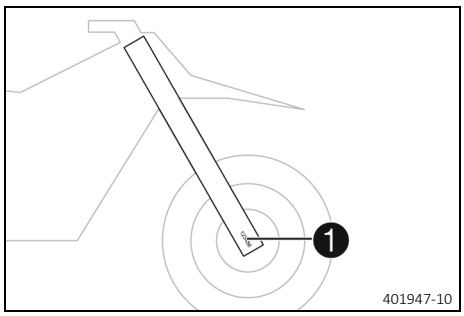
Type label ❶ is fixed to the front of the steering head.

5.3 Engine number



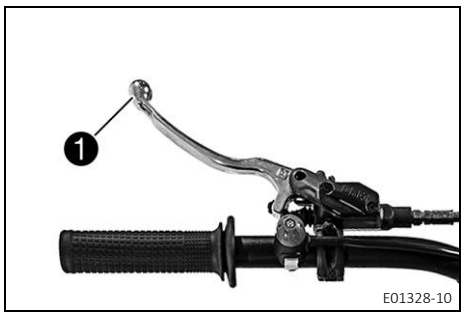
The engine number ❶ is stamped onto the engine case at the top.

5.4 Fork article number



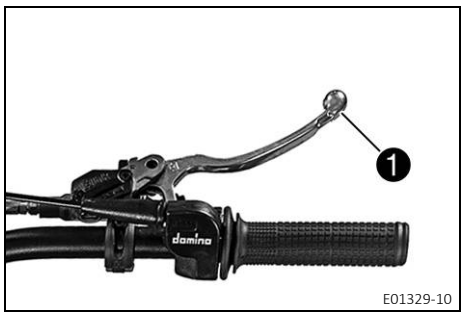
The fork article number ❶ is stamped on the inside of the axle clamp.

6.1 Clutch lever



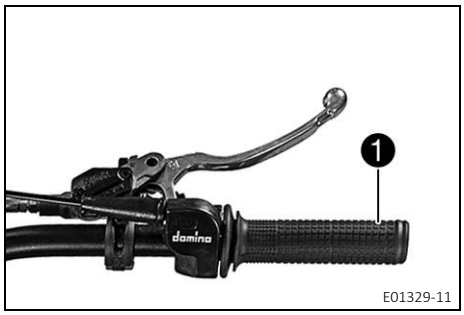
Clutch lever ❶ is fitted on the handlebar on the left.
The clutch is activated hydraulically and adjusts itself automatically.

6.2 Hand brake lever



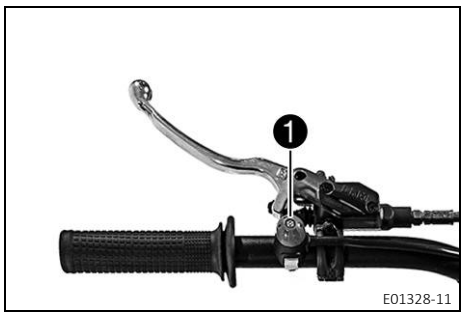
The hand brake lever ❶ is located on the right side of the handlebar.
The front brake is engaged using the hand brake lever.

6.3 Throttle grip



The throttle grip ❶ is fitted on the right side of the handlebar.

6.4 Magnetic switch (Option: Not homologized)



The holder for the magnetic switch ❶ is located on the left side of the handlebar.

Possible states

- Magnetic switch ☒ mounted – When the magnetic switch is mounted, the vehicle can be started and ridden.
- Magnetic switch ☒ removed – When the magnetic switch is removed, the vehicle cannot be started or ridden.

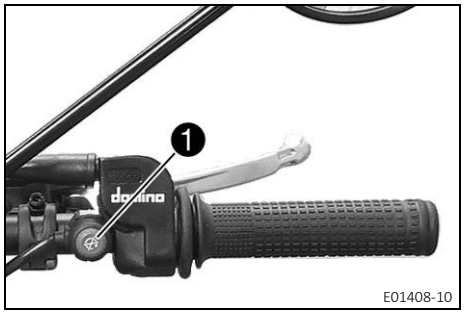
Warning

Risk of injury If the magnetic switch remains in the holder during a fall, the vehicle is not immediately deactivated.

– Make sure that the loop of the magnetic switch is securely attached to the user's protective clothing or wrist so that the magnetic switch is disconnected from the holder in the event of a fall.

If the red magnetic switch on the handlebar is disconnected from the holder, e.g., in the event of a fall, the vehicle is switched off.
By removing the magnetic switch from the handlebar, the vehicle can be quickly switched off in any operating state.

6.5 Stop button (Option: Homologized)

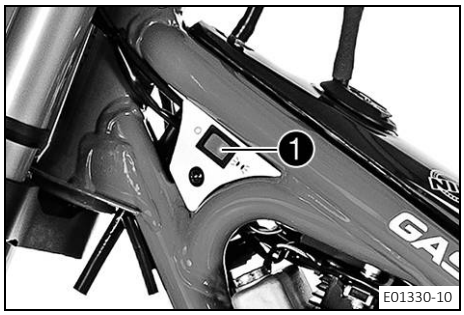


The stop button ❶ is located on the right side of the handlebar.

Possible states

- The stop button ⊠ is in the basic position – In this position, the ignition circuit is closed and the engine can be started.
- Stop button ⊠ pressed – In this position, the ignition circuit is interrupted, a running engine stops, and a non-running engine will not start.

6.6 Light switch (Option: Not homologized)

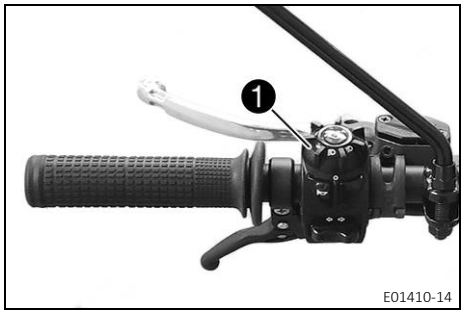


The light switch ❶ is mounted on the frame on the left behind the steering head.

Possible states

	Light on – Light switch is tilted to the rear. In this position, the front light and the tail light are switched on.
●	Light off – Light switch is tilted to the front. In this position, the front light and the tail light are switched off.

6.7 Light switch (Option: Homologized)

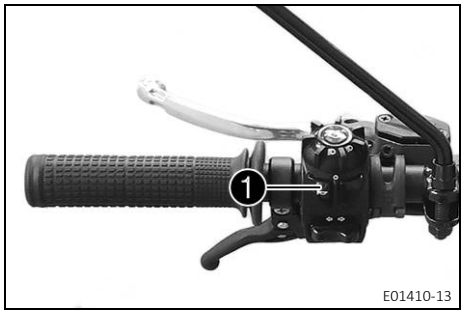


Light switch ❶ is fitted on the left side of the handlebar.

Possible states

	Low beam on – The light switch is turned counterclockwise. In this position, the low beam and the tail light are switched on.
	High beam on – Light switch is turned clockwise. In this position, the high beam and the tail light are switched on.

6.8 Horn button (Option: Homologized)

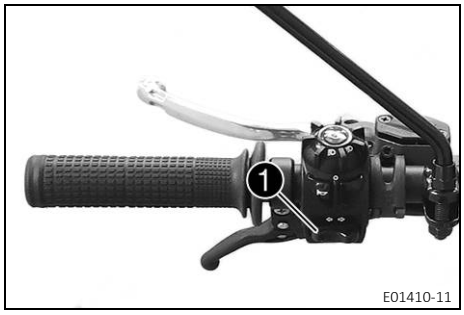


Horn button ❶ is fitted on the left side of the handlebar.

Possible states

- The horn button is in the basic position
- The horn button is pressed – The horn is operated in this position.

6.9 Turn signal switch (Option: Homologized)

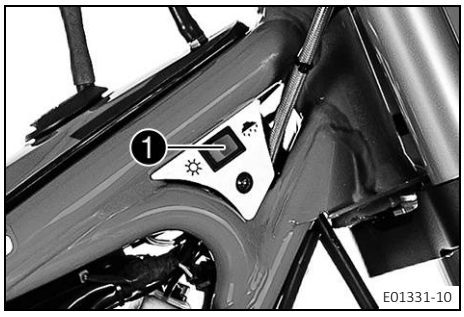


Turn signal switch ❶ is fitted on the left side of the handlebar

Possible states

- Turn signal off – The turn signal switch is in the central position.
- Right turn signal, on – The turn signal switch is turned to the right.
- Left turn signal, on – The turn signal switch is turned to the left.

6.10 Map switch (Option: Not homologized)



The map switch ❶ is mounted on the frame on the right behind the steering head.

Possible states

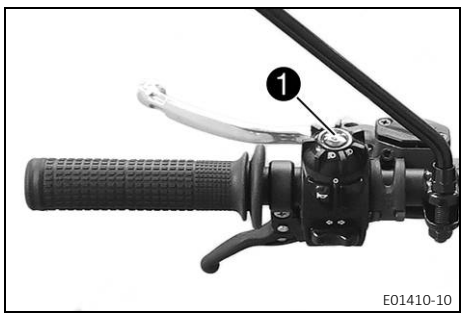
	Map switch tilted backwards. – The ignition timing map **Performance** is active in this position.
	Map switch tilted forwards. – The ignition timing map **Soft** is active in this position.

The engine characteristic can be altered with the map switch.

Info

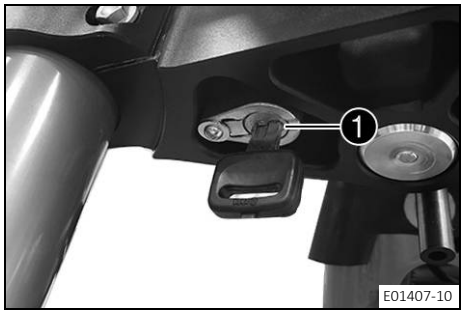
The map switch has no function in the homologated (restricted) condition of the motorcycle.

6.11 Malfunction indicator lamp (Option: Homologized)



The malfunction indicator light ❶ is fitted on the left side of the handlebar.
The on-board diagnostics has a malfunction indicator lamp to indicate malfunctions.
When starting, the malfunction indicator lamp lights up for five seconds and then goes out.
If the malfunction indicator light is permanently lit, the on-board diagnostics has detected an malfunction in the vehicle electronics. Come safely to a halt, and contact an authorized GASGAS Motorcycles workshop.

6.12 Steering lock (Option: Homologized)



The steering lock ❶ is located on the underside of the lower triple clamp.
The steering lock is used to lock the steering. Steering, and therefore riding, is no longer possible.

6.13 Fuel tap

The fuel tap is on the left side of the fuel tank.
Open or close the fuel supply to the carburetor using tap handle ❶ on the fuel tap.

Possible states

- Fuel supply closed **OFF –** No fuel can flow from the fuel tank to the carburetor.
- Fuel supply open **ON –** Fuel can flow from the fuel tank to the carburetor. The fuel tank empties down to the reserve level.
- Fuel reserve supply open **RES –** Fuel can flow from the fuel tank to the carburetor. The fuel tank empties completely.

6.14 Choke button (Option: Not homologized)

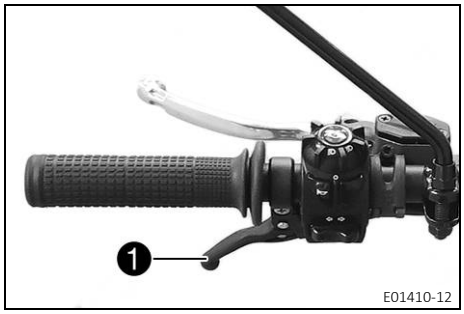
Choke ❶ is fitted on the left side of the carburetor.
Activating the choke function frees a drill hole in the carburetor through which the engine can draw extra fuel. This results in a richer fuel-air mixture, which is needed for a cold start.

Info
If the engine is warm, the choke function must be deactivated.

Possible states

- Choke function activated **–** The choke lever is pulled out to the stop.
- Choke function deactivated **–** The choke lever is pushed in to the stop.

6.15 Choke lever (Option: Homologized)



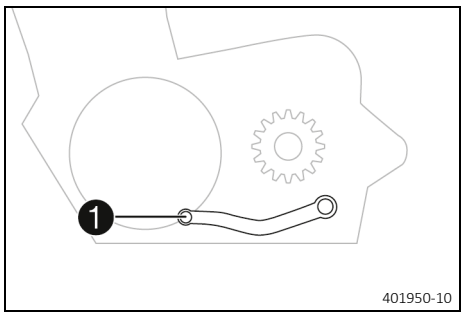
The choke lever ❶ is fitted on the left side of the handlebar.
Activating the choke function frees a drill hole in the carburetor through which the engine can draw extra fuel. This results in a richer fuel-air mixture, which is needed for a cold start.

Info
If the engine is warm, the choke function must be deactivated.

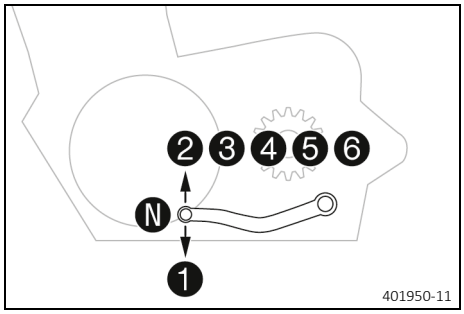
Possible states

- Choke function activated **–** Choke lever pulled out all the way.
- Choke function deactivated **–** Choke lever in basic position.

6.16 Shift lever

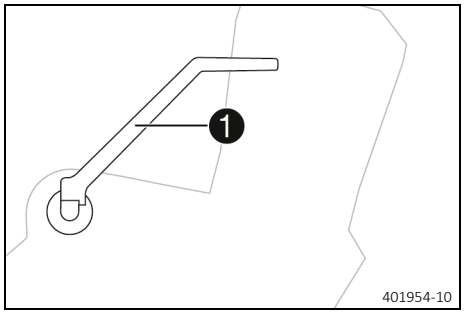


Shift lever ❶ is mounted on the left of the engine.



The gear positions can be seen in the figure.
The neutral or idle position is between the first and second gears.

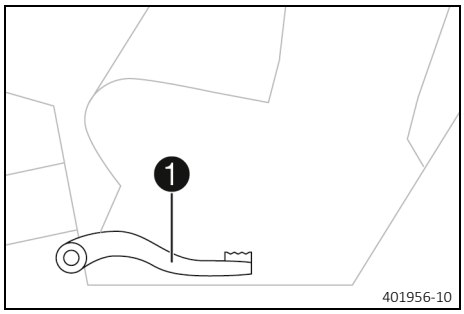
6.17 Kick starter lever



Kick starter lever ❶ is fitted on the right side of the engine.
The kick starter lever can be swiveled.

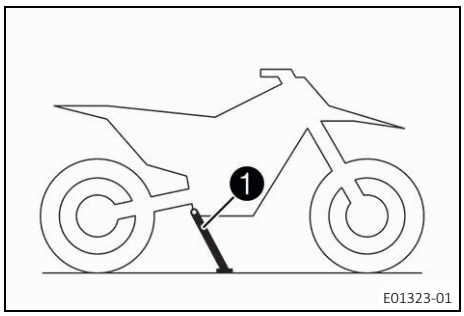
Info
Before riding, swing the kick starter lever inwards towards the engine.

6.18 Foot brake lever

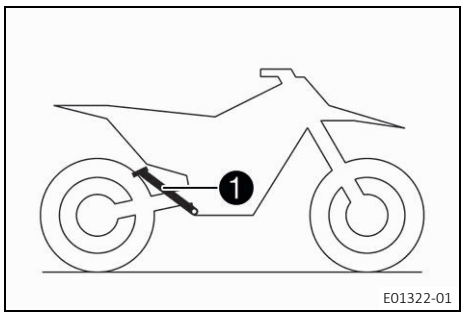


Foot brake lever ❶ is located in front of the right footrest.
The rear brake is engaged with the foot brake lever.

6.19 Side stand



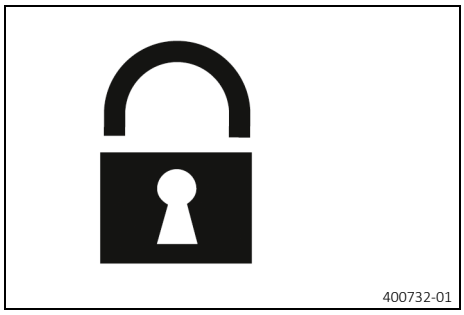
The side stand ❶ is located on the right of the vehicle.



The side stand ❶ is used for parking the motorcycle.

Info
The side stand ❶ must be folded up during motorcycle use.

6.20 Locking the steering (Option: Homologized)

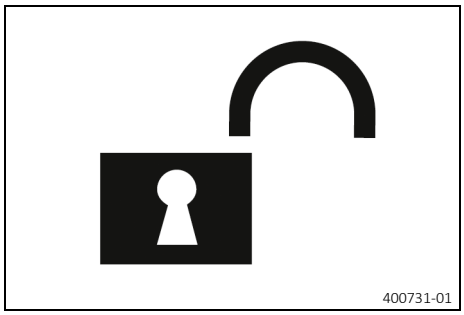


Preparatory work
– Stop and park. (📖 p. 25)

Main work
– Turn handlebar as far as possible to the right.
– Insert the key for the steering lock into the steering lock, turn it to the left, press it in, and turn it to the right. Pull out the key for the steering lock.
✔ Steering is no longer possible.

Info
Never leave the key for the steering lock in the steering lock.

6.21 Unlocking the steering (Option: Homologized)



– Insert the key for the steering lock into the steering lock, turn it to the left, pull it out, and turn it to the right. Pull out the key for the steering lock.
✔ The handlebar can now be moved again.

Info
Never leave the key for the steering lock in the steering lock.

6.22 Opening the fuel tank filler cap

Danger

Fire hazard Fuel is highly flammable.

The fuel in the fuel tank expands when warm and can escape if overfilled.

- Do not fuel the vehicle in the vicinity of open flames or lit cigarettes.
- Switch off the engine for refueling.
- Make sure that no fuel is spilled; particularly not on hot parts of the vehicle.
- If any fuel is spilled, wipe it off immediately.
- Observe the specifications for refueling.

Warning

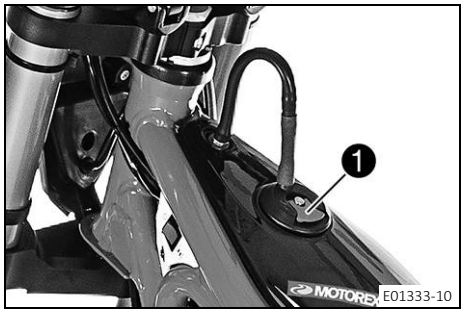
Danger of poisoning Fuel is poisonous and a health hazard.

- Avoid skin, eye and clothing contact with fuel.
- Immediately consult a doctor if you swallow fuel.
- Do not inhale fuel vapors.
- In case of skin contact, rinse the affected area with plenty of water.
- Rinse the eyes thoroughly with water, and consult a doctor in case of fuel contact with the eyes.
- Change your clothing in case of fuel spills on them.
- Keep fuels correctly in a suitable canister, and out of the reach of children.

Note

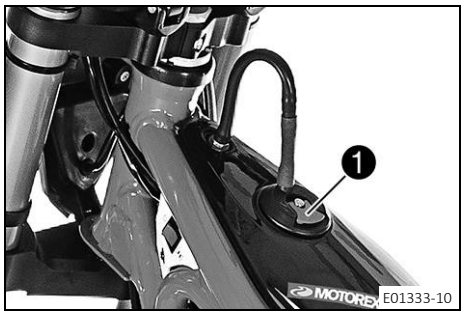
Environmental hazard Improper handling of fuel is a danger to the environment.

- Do not allow fuel to enter the groundwater, the soil, or the sewage system.



– Fold up fuel tank quick release ❶, turn it counterclockwise and take it off by pulling it upward.

6.23 Closing the fuel tank filler cap

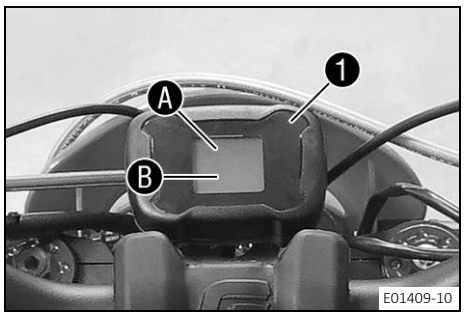


– Put on the fuel tank quick release ❶ with the label **GASGAS** facing upward and turn it clockwise until the fuel tank is firmly closed.

Guideline

Route vent hose free of kinks.

6.24 Combination instrument (Option: Homologized)



The combination instrument ❶ is attached in front of the handlebar.
The area Ⓐ displays the total distance traveled in kilometers or miles.
The area Ⓑ shows the current speed in km/h or mph.
The speedometer is updated every 0.5 seconds.

Info
The displayed units (kilometers, km/h or miles, mph) cannot be changed and depend on the country version.
Nothing can be cleared or adjusted on the combination instrument.

7.1 Advice on preparing for first use

Danger

Danger of accidents A rider who is not fit to ride poses a danger to him or herself and others.

– Do not operate the vehicle if you are not fit to ride due to alcohol, drugs or medication.
– Do not operate the vehicle if you are physically or mentally impaired.

Warning

Risk of injury Missing or poor protective clothing presents an increased safety risk.

– Wear appropriate protective clothing such as helmet, boots, gloves as well as trousers and a jacket with protectors on all rides.
– Always wear protective clothing that is in good condition and meets the legal regulations.

Warning

Danger of crashing Different tire tread patterns on the front and rear wheel impair the handling characteristic.

Different tire tread patterns can make the vehicle significantly more difficult to control.

– Make sure that only tires with a similar tire tread pattern are fitted to the front and rear wheel.

Warning

Danger of accidents An unadapted riding style impairs the handling characteristic.

– Adapt your riding speed to the road conditions and your riding ability.

Warning

Danger of accidents The vehicle is not designed to carry passengers.

– Do not ride with a passenger.

Warning

Danger of accidents The brake system fails in the event of overheating.

If the foot brake lever is not released, the brake linings drag continuously.

– Take your foot off the foot brake lever if you do not want to brake.

Warning

Danger of accidents Total weight and axle loads influence the handling characteristic.

– Do not exceed the maximum permissible overall weight or the axle loads.

Warning

Risk of misappropriation People who act without authorization endanger themselves and others.

– Do not leave the vehicle unattended if the engine is running.
– Protect the vehicle against access by unauthorized persons.

Info

When using the motorcycle, remember that others may be disturbed by excessive noise.

– Ensure that the pre-sale inspection work has been carried out by an authorized GASGAS Motorcycles workshop.
– Read the entire Owner's Manual before riding for the first time.
– Get to know the controls.
– Adjust basic position of the clutch lever. 🔧 (📖 p. 65)
– Adjust basic position of the hand brake lever. 🔧 (📖 p. 67)
– Adjust the basic position of the foot brake lever. 🔧 (📖 p. 74)
– Adjust the basic position of the shift lever. 🔧 (📖 p. 99)

– Get used to the handling characteristic of the motorcycle on suitable terrain before undertaking a more challenging ride.

Info
When offroad, it is recommended that you are accompanied by another person on another vehicle so that you can help each other.

– Also, ride as slowly as possible and in a standing position to get a better feel for the motorcycle.
– Do not undertake any off-road trips that exceed your ability and experience.
– Hold the handlebar firmly with both hands and keep your feet on the footrests when riding.
– Do not carry the luggage.
– The maximum permissible overall weight and the maximum permissible axle loads must not be exceeded.
– Check the spoke tension. (📖 p. 85)

Guideline

The spoke tension must be checked after half an hour of operation.

– Run the engine in. (📖 p. 22)

7.2 Running in the engine

– During the running-in phase, do not exceed the specified engine performance.

Guideline

Maximum engine performance	
During the first three operating hours	< 70 %
During the first five operating hours	< 100 %

– Avoid fully opening the throttle!
– Check the idle speed regularly.

Guideline

Idle speed	900 … 1,100 rpm

Info
The idle speed may change during the run-in time.

» If the idle speed changes:
  – Carburetor – adjust the idle speed. 🔧 (📖 p. 98)

7.3 Preparing the vehicle for difficult operating conditions

Info
Use of the vehicle under difficult conditions, such as on sand or on wet, dusty and muddy surfaces/offroad, can result in significantly increased wear of components, such as the air filter, drive train, brake system, or suspension components. For this reason, it may be necessary to inspect or replace parts before the next scheduled service.

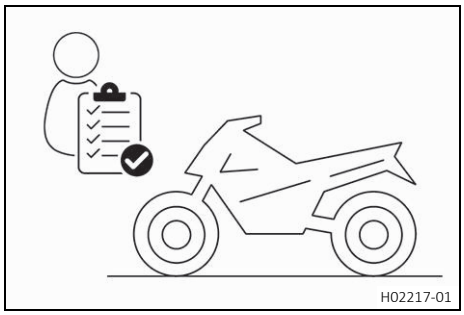
– Clean the air filter and air filter box. (📖 p. 54)

Info
Check the air filter approx. every 30 minutes.

– Check the electrical connector for humidity and corrosion and to ensure it is firmly seated.
» If humidity, corrosion, or damage is found:
  – Clean and dry the connector, or change it if necessary.

8.1 Checks and maintenance measures when preparing for use

Info
Before every trip, check the condition of the vehicle and ensure that it is safe to operate.
The vehicle must be in perfect technical condition when it is being operated.



- Check the gear oil level. (📖 p. 101)
- Check the electrical system.
- Check the front brake fluid level. (📖 p. 69)
- Check the rear brake fluid level. (📖 p. 75)
- Check the front brake linings. (📖 p. 71)
- Check the brake linings of the rear brake. (📖 p. 77)
- Check that the brake system is functioning properly.
- Check the antifreeze and coolant level. (📖 p. 91)
- Check the chain for dirt. (📖 p. 61)
- Check the chain tension. (📖 p. 62)
- Check the tire condition. (📖 p. 84)
- Check the tire pressure. (📖 p. 85)
- Check the spoke tension. (📖 p. 85)

Info
The spoke tension must be checked regularly as incorrect spoke tension will strongly impair riding safety.

- Clean the dust boots of the fork legs. (📖 p. 40)
- Check the air filter.
- Check the settings of all controls and ensure that they can be operated smoothly.
- Check all screws, nuts, and hose clips regularly for tightness.
- Check the fuel level.

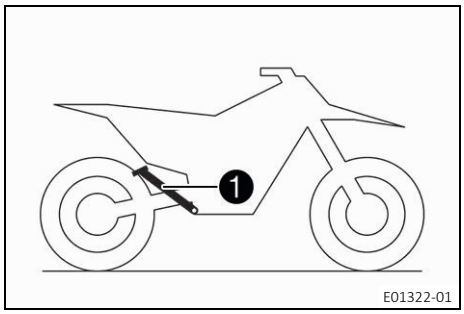
8.2 Starting

Danger
Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and death.
- Always make sure there is sufficient ventilation when running the engine.
- Use effective exhaust extraction when starting or running the engine in an enclosed space.

Note
Engine damage High revving speed with a cold engine negatively impacts the lifespan of the engine.
- Always run the engine warm at a low speed.

Info
If the motorcycle is unwilling to start, the cause can be old fuel in the float chamber. The flammable elements of the fuel evaporate after a long time of standing.
If the float chamber is filled with fresh fuel, the engine starts immediately.

The motorcycle has been out of use for more than 1 week (Option: Not homologized)
- Empty the carburetor float chamber. 🔧 (📖 p. 100)



– Turn tap handle of the fuel tap to the **ON** position.
  ✔ Fuel can flow from the fuel tank to the carburetor.
– Swing up the side stand ❶.
– Shift the transmission into neutral.

Condition

The engine is cold

(Option: Not homologized)

– Pull the choke lever out as far as possible.

(Option: Homologized)

– Pull the choke lever all the way to the stop.

– Press the kick starter lever robustly through its full range.

Info

Do not open the throttle.

8.3 Starting off

Info

Switch on the light before riding so you are easily visible.
The side stand must be folded up during motorcycle use.

– Pull the clutch lever, shift into first-gear, release the clutch lever slowly and at the same time open the throttle carefully.

8.4 Shifting, riding

Warning

Danger of accidents If you change down at high engine speed, the rear wheel blocks and the engine races.

– Do not change into a low gear at high engine speed.

Info

If you hear unusual noises while riding, stop immediately, switch off the engine, and contact an authorized GAS-GAS Motorcycles workshop.
First-gear is used for starting off and for steep inclines.

– Shift into a higher gear when conditions allow (incline, road situation, etc.). To do so, release the throttle while simultaneously pulling the clutch lever, shift into the next gear, release the clutch lever and open the throttle.
– If the choke function has been activated, deactivate it after the engine has warmed up.
– After reaching maximum speed by fully opening the throttle grip, turn the throttle back so it is ¾ open. This will barely reduce the speed, but fuel consumption will be considerably lower.
– Only open the throttle as much as the engine can handle – abrupt throttle grip opening increases fuel consumption.
– To shift down, apply the brakes and close the throttle at the same time.
– Pull the clutch lever and shift into a lower gear, release the clutch lever slowly, and either open the throttle or shift again.
– Switch off the engine if you are likely to be running at idle speed or stationary for a long time.

  Guideline

≥ 2 min

– Avoid frequent or lengthy slipping of the clutch. This causes the gear oil, engine and cooling system to heat up.

– Ride at a low engine speed instead of at a high engine speed with a slipping clutch.

8.5 Braking

Warning
Danger of accidents Excessively forceful application of the brakes blocks the wheels.
– Adjust application of the brakes to the respective riding situation and riding surface conditions.

Warning
Danger of accidents A spongy pressure point on the front or rear brake reduces braking efficiency.
– Check the brake system and do not continue riding until the problem is eliminated. (Your authorized GAS-GAS Motorcycles workshop will be glad to help.)

Warning
Danger of accidents Moisture and dirt impair the brake system.
– Brake carefully several times to dry out and remove dirt from the brake linings and the brake discs.

– On sandy, wet, or slippery surfaces, use the rear brake.
– Always finish braking before you go into a bend. Shift down to a lower gear appropriate to your speed.

8.6 Stopping, parking

Warning
Risk of misappropriation People who act without authorization endanger themselves and others.
– Do not leave the vehicle unattended if the engine is running.
– Protect the vehicle against access by unauthorized persons.

Warning
Danger of burns Some vehicle components become very hot when the vehicle is operated.
– Do not touch any parts such as the exhaust system, radiator, engine, shock absorber, or brake system before the vehicle parts have cooled down.
– Let the vehicle parts cool down before you perform any work on the vehicle.

Note
Material damage The vehicle may be damaged by incorrect procedure when parking.
Significant damage may be caused if the vehicle rolls away or falls over.
The components for parking the vehicle are designed only for the weight of the vehicle.

– Park the vehicle on a firm and level surface.
– Ensure that nobody sits on the vehicle when the vehicle is parked on a stand.

Note
Fire hazard Hot vehicle components pose a fire hazard and explosion risk.
– Do not park the vehicle near to materials which are highly flammable or explosive.
– Allow the vehicle to cool down before covering it.

– Apply the brakes on the motorcycle.
– Shift the transmission into neutral.

(Option: Not homologized)
– While the engine is idling, remove the magnetic switch ⊠ from the holder on the handlebars.

(Option: Homologized)

– Press and hold the stop button ⊠ while the engine is idling until the engine stops.

– Park the motorcycle on firm ground.

8.7 Transporting

Note

Danger of damage The parked vehicle can roll away or fall over.

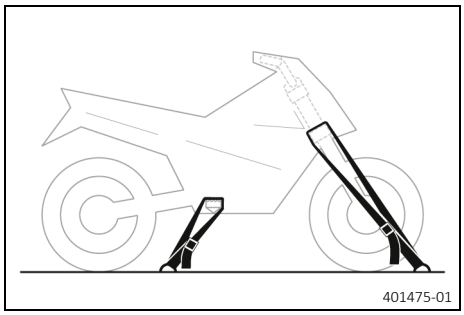
– Park the vehicle on a firm and level surface.

Note

Fire hazard Hot vehicle components pose a fire hazard and explosion risk.

– Do not park the vehicle near to materials which are highly flammable or explosive.

– Allow the vehicle to cool down before covering it.



– Switch off the engine.

– Use tension belts or other suitable devices to secure the motorcycle against falling over or rolling away.

8.8 Refueling

Danger

Fire hazard Fuel is highly flammable.

The fuel in the fuel tank expands when warm and can escape if overfilled.

– Do not fuel the vehicle in the vicinity of open flames or lit cigarettes.

– Switch off the engine for refueling.

– Make sure that no fuel is spilled; particularly not on hot parts of the vehicle.

– If any fuel is spilled, wipe it off immediately.

– Observe the specifications for refueling.

Warning

Danger of poisoning Fuel is poisonous and a health hazard.

– Avoid skin, eye and clothing contact with fuel.

– Immediately consult a doctor if you swallow fuel.

– Do not inhale fuel vapors.

– In case of skin contact, rinse the affected area with plenty of water.

– Rinse the eyes thoroughly with water, and consult a doctor in case of fuel contact with the eyes.

– Change your clothing in case of fuel spills on them.

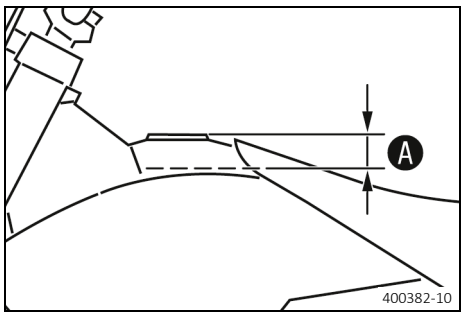
Note

Environmental hazard Improper handling of fuel is a danger to the environment.

– Do not allow fuel to enter the groundwater, the soil, or the sewage system.

– Switch off the engine.

– Open the fuel tank filler cap. (📖 p. 19)



– Fill the fuel tank with fuel up to a maximum of level A.

Guideline

Dimension A	35 mm (1.38 in)

Total fuel tank capacity, approx.	2.4 l (2.5 qt.)	Super unleaded (98 octane) mixed with 2-stroke engine oil (1:67) (📖 p. 118)

Engine oil, 2-stroke (📖 p. 117)

– Close the fuel tank filler cap. (📖 p. 19)

9 SERVICE SCHEDULE

9.1 Additional information

Any further work that results from the compulsory work or from the recommended work must be ordered separately and invoiced separately.
Different service intervals may apply in your country, depending on the local operating conditions.
Individual service intervals and scopes may change in the course of technical developments. The most up-to-date service schedule can always be found on GASGAS Motorcycles Dealer.net. Your authorized GASGAS Motorcycles dealer will be glad to advise you.

9.2 Required work

	after every race	Every 100 operating hours	Every 60 operating hours	Every 20 operating hours	After 3 operating hours
Change the gear oil. 🔧 (📖 p. 101)	○	●	●	●	
Check the front brake linings. (📖 p. 71)		●	●	●	●
Check the brake linings of the rear brake. (📖 p. 77)		●	●	●	●
Check brake discs. (📖 p. 73)		●	●	●	●
Check the brake lines for damage and tightness.		●	●	●	●
Check the rear brake fluid level. (📖 p. 75)		●	●	●	●
Check the free travel of the foot brake lever. (📖 p. 74)		●	●	●	●
Check the frame. 🔧 (📖 p. 63)		●	●	●	●
Check the link fork. 🔧 (📖 p. 64)		●	●	●	●
Checking the fork bearing for play.		●	●	●	
Check the heim joint for play. 🔧		●	●	●	●
Check the shock absorber linkage. 🔧		●	●	●	●
Check the tire condition. (📖 p. 84)		●	●	●	●
Check the tire pressure. (📖 p. 85)		●	●	●	●
Check the wheel bearing for play.		●	●	●	●
Check the wheel hubs. 🔧		●	●	●	●
Check the rim run-out. 🔧		●	●	●	●
Check the spoke tension. (📖 p. 85)		●	●	●	●
Check the chain, rear sprocket, engine sprocket, and chain guide.		●	●	●	●
Check the chain tension. (📖 p. 62)		●	●	●	●
Check the shock absorber for tightness. 🔧		●	●	●	
Grease all moving parts (e.g., hand lever, chain, ...) and check for smooth operation. 🔧		●	●	●	●
Check/correct the fluid level of hydraulic clutch. (📖 p. 65)		●	●	●	●
Check the front brake fluid level. (📖 p. 69)		●	●	●	●
Check the free travel of the hand brake lever. (📖 p. 67)		●	●	●	●
Check the steering head bearing play. (📖 p. 45)		●	●	●	●
Check the reed valve housing, reed valve and intake flange. 🔧		●	●	●	
Change the spark plug and spark plug connector. 🔧			●		
Check the clutch. 🔧		●	●	●	●
Check all hoses (e.g. fuel, cooling, bleeder, drainage hoses, etc.) and sleeves for cracking, tightness, and correct routing. 🔧		●	●	●	●
Check the antifreeze and coolant level. (📖 p. 91)		●	●	●	●
Check the cables for damage and for routing without kinks. 🔧		●	●	●	●

					after every race
				Every 100 operating hours	
			Every 60 operating hours		
		Every 20 operating hours			
	After 3 operating hours				
Check the headlight setting.		●	●	●	
Check that the throttle cables are undamaged, routed without kinks, and set correctly.		●	●	●	●
Clean the air filter and air filter box. (📖 p. 54)		●	●	●	●
Change the glass fiber yarn filling of the main silencer. 🔧 (📖 p. 58)				●	
Service the fork. 🔧			●		
Check the tightness of the safety-relevant screws and nuts which are easily accessible. 🔧		●	●	●	●
Check the idle speed. 🔧		●	●	●	●
Final check: Check the vehicle for operating safety and take for a test ride. 🔧		●	●	●	●
Make a service entry in **GASGAS Motorcycles Dealer.net**. 🔧	●	●	●	●	●

○ One-time interval

● Periodic interval

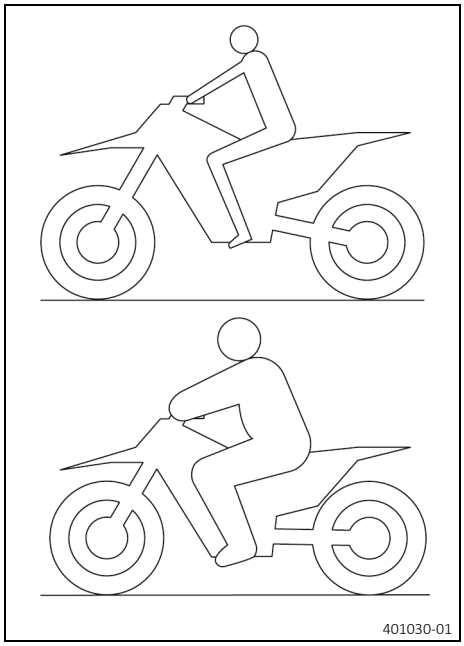
9.3 Recommended work

					Every 40 operating hours when used for motorsports
				every 48 months	
			every 12 months		
		Every 120 operating hours			
	Every 60 operating hours				
Change the front brake fluid. 🔧			●	●	
Change the rear brake fluid. 🔧			●	●	
Change the hydraulic clutch fluid. 🔧 (📖 p. 66)			●	●	
Lubricate the steering head bearing. 🔧 (📖 p. 48)			●	●	
Check/set the carburetor components. 🔧	●	●	●	●	
Change the needle jet. 🔧	●	●			
Change the coolant. 🔧 (📖 p. 93)				●	
Perform engine service including removing and installing the engine. (Change the connecting rod, conrod bearing, and crank pin. Change the piston. Check the transmission and the shift mechanism. Change all engine bearings.) 🔧		●			●

● Periodic interval

10.1 Checking the basic chassis setting with the rider's weight

Info
When adjusting the basic chassis setting, first adjust the shock absorber and then the fork.



- For optimal motorcycle riding characteristics and to avoid damage to forks, shock absorbers, link fork and frame, the basic settings of the suspension components must match the rider's weight.
- This vehicle is delivered pre-set for a standard rider's weight (with full protective clothing).

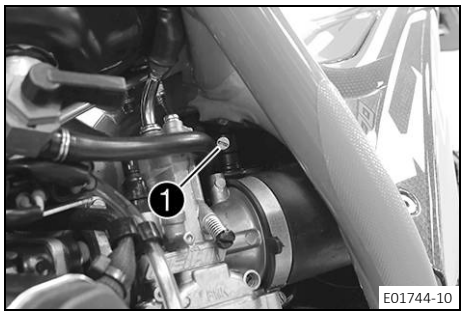
  Guideline

Standard rider weight	75 … 85 kg (165 … 187 lb.)

- If the rider's weight is above or below this range, the basic setting of the suspension components must be adjusted accordingly.
- Small weight differences can be compensated by adjusting the spring preload, but in the case of large weight differences, the springs must be replaced.

10.2 Adjusting the rebound damping of the shock absorber

Caution
Risk of injury Parts of the shock absorber will move around if the shock absorber is detached incorrectly.
The shock absorber is filled with highly compressed nitrogen.
- Please follow the description provided. (Your authorized GASGAS Motorcycles workshop will be glad to help.)



(All GP models)
- Turn adjusting screw 1 clockwise up to the last perceptible click.
- Turn counterclockwise by the appropriate number of clicks.

  Guideline

Rebound damping (TXT GP 125)	
Standard	23 clicks
Rebound damping (TXT GP 250/280/300)	
Standard	23 clicks

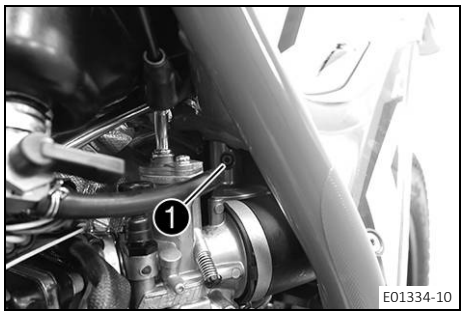
Info
Turn clockwise to increase damping; turn counterclockwise to reduce damping.

(All EU RACING models)
- Turn adjusting screw 1 clockwise up to the last perceptible click.
- Turn counterclockwise by the appropriate number of clicks.

Guideline

Rebound damping (TXT RACING 125 EU)	
Standard	25 clicks
Rebound damping (TXT RACING 250/280/300 EU)	
Standard	25 clicks

Info
Turn clockwise to increase damping; turn counterclockwise to reduce damping.



(All US RACING models)

– Turn adjusting screw ❶ clockwise up to the last perceptible click.
– Turn counterclockwise by the appropriate number of clicks.

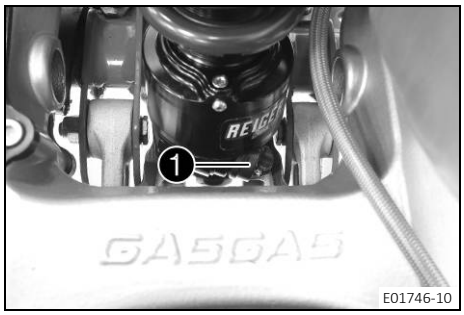
Guideline

Rebound damping	
Standard	20 clicks

Info
Turn clockwise to increase damping; turn counterclockwise to reduce damping.

10.3 Adjusting the compression damping of the shock absorber (All GP models)

Caution
Risk of injury Parts of the shock absorber will move around if the shock absorber is detached incorrectly.
The shock absorber is filled with highly compressed nitrogen.
– Please follow the description provided. (Your authorized GASGAS Motorcycles workshop will be glad to help.)



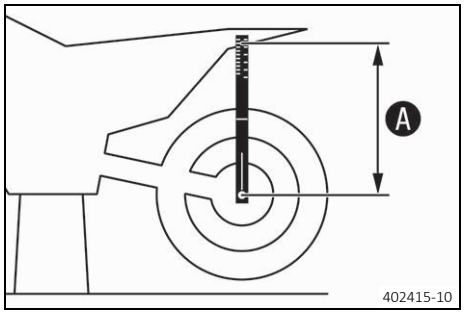
– Turn adjusting screw ❶ clockwise up to the last perceptible click.
– Turn counterclockwise by the appropriate number of clicks.

Guideline

Compression damping (TXT GP 125)	
Standard	15 clicks
Compression damping (TXT GP 250/280/300)	
Standard	15 clicks

Info
Turn clockwise to increase damping; turn counterclockwise to reduce damping.

10.4 Measuring the dimension of the rear wheel unloaded



Preparatory work

– Raise the motorcycle with a lift stand. (📖 p. 40)

Main work

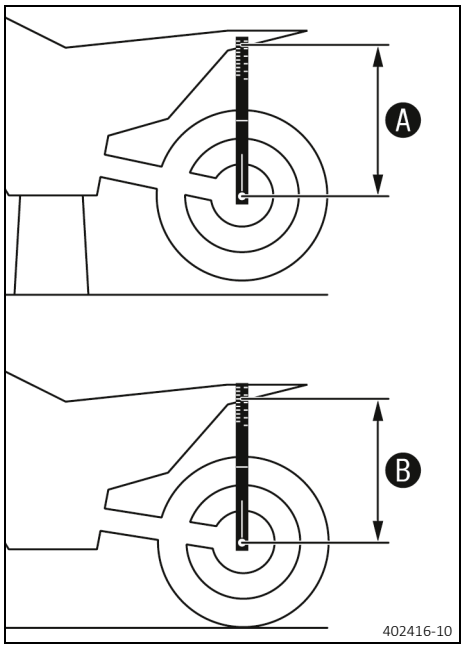
– Position the sag gage in the rear axle and measure the distance to the rear fender.

– Note the value as dimension Ⓐ.

Finishing work

– Remove the motorcycle from the lift stand. (📖 p. 40)

10.5 Checking the static sag of the shock absorber



– Measure dimension Ⓐ of rear wheel unloaded. (📖 p. 32)

– Hold the motorcycle upright with aid of an assistant.

– Measure the distance again between the rear axle and the rear fender using the sag gage.

– Note the value as dimension Ⓑ.

Info

The static sag is the difference between measurements Ⓐ and Ⓑ.

– Check the static sag.

Static sag (All US RACING models)	10 … 15 mm (0.39 … 0.59 in)
Static sag (TXT RACING 125 EU)	10 … 15 mm (0.39 … 0.59 in)
Static sag (TXT RACING 250/280/300 EU)	10 … 15 mm (0.39 … 0.59 in)
Static sag (TXT GP 125)	10 … 15 mm (0.39 … 0.59 in)
Static sag (TXT GP 250/280/300)	10 … 15 mm (0.39 … 0.59 in)

» If the static sag is less or more than the specified value:

– Adjust the spring pretension of the shock absorber. 🔧 (📖 p. 33)

10.6 Adjusting the spring preload of the shock absorber

Caution

Risk of injury Parts of the shock absorber will move around if the shock absorber is detached incorrectly.
The shock absorber is filled with highly compressed nitrogen.

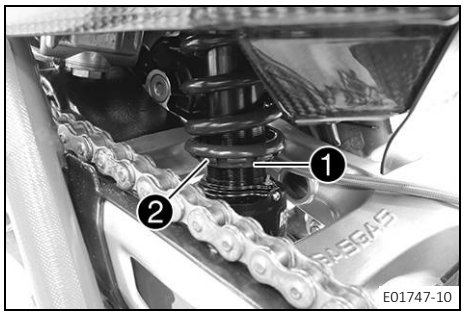
– Please follow the description provided. (Your authorized GASGAS Motorcycles workshop will be glad to help.)

Info

Note the current adjustment before changing the spring preload - e.g. measure the spring length.

Info

Depending on the static sag and/or the riding sag, it may be necessary to increase or decrease the spring preload.



(All GP models)

– Loosen retaining ring ❶.

– Adjust the spring preload by turning adjusting ring ❷.

Guideline

Spring preload (TXT GP 125)	7 mm (0.28 in)
Spring preload (TXT GP 250/280/300)	7 mm (0.28 in)

Info

Turn counterclockwise to increase the spring preload.
Turning clockwise reduces the spring preload.
The necessary tools are included.

– Hold adjusting ring ❷ and tighten retaining ring ❶.

(All EU RACING models)

– Loosen retaining ring ❶.

– Adjust the spring preload by turning adjusting ring ❷.

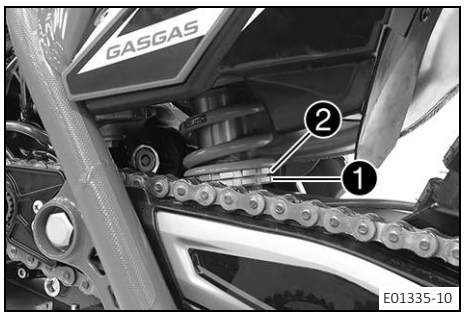
Guideline

Spring preload (TXT RACING 125 EU)	7 mm (0.28 in)
Spring preload (TXT RACING 250/280/300 EU)	7 mm (0.28 in)

Info

Turn counterclockwise to increase the spring preload.
Turning clockwise reduces the spring preload.
The necessary tools are included.

– Hold adjusting ring ❷ and tighten retaining ring ❶.



(All US RACING models)

– Loosen retaining ring ❶.

– Adjust the spring preload by turning adjusting ring ❷.

Guideline

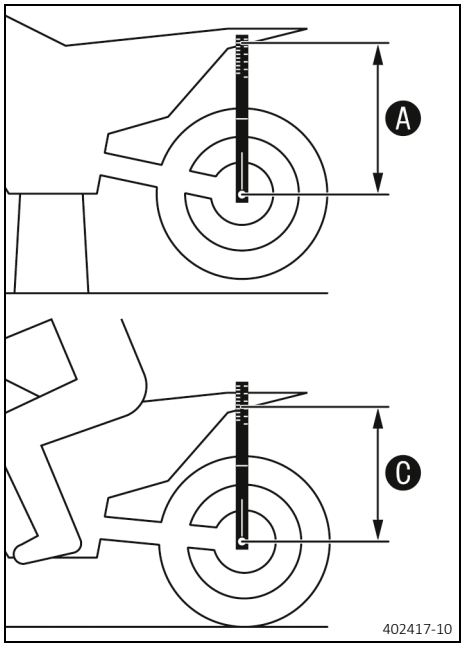
Spring preload	7.5 mm (0.295 in)

Info

Turn counterclockwise to increase the spring preload.
Turning clockwise reduces the spring preload.
The necessary tools are included.

– Hold adjusting ring ❷ and tighten retaining ring ❶.

10.7 Checking the riding sag of the shock absorber



– Measure dimension Ⓐ of rear wheel unloaded. (📖 p. 32)

– With another person holding the motorcycle, the rider, wearing full protective clothing, sits on the seat in a normal riding position (feet on footrests) and bounces up and down a few times.

✔ The rear wheel suspension levels out.

– Another person again measures the distance between the rear axle and the rear fender using the sag gage.

– Note the value as dimension Ⓒ.

Info

The riding sag is the difference between measurements Ⓐ and Ⓒ.

– Check riding sag.

Guideline

Riding sag (All US RACING models)	70 … 75 mm (2.76 … 2.95 in)
Riding sag (TXT RACING 125 EU)	70 … 75 mm (2.76 … 2.95 in)
Riding sag (TXT RACING 250/280/300 EU)	70 … 75 mm (2.76 … 2.95 in)
Riding sag (TXT GP 125)	70 … 75 mm (2.76 … 2.95 in)
Riding sag (TXT GP 250/280/300)	70 … 75 mm (2.76 … 2.95 in)

» If the riding sag differs from the specified measurement:

– Adjust the riding sag. 🔧 (📖 p. 35)

10.8 Adjusting the riding sag

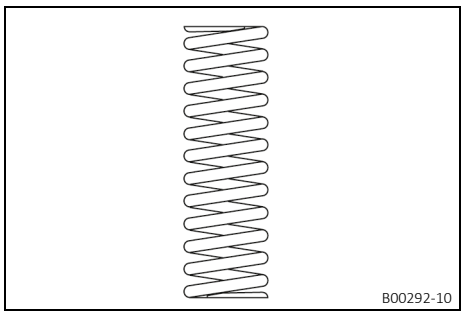
Caution

Risk of injury Parts of the shock absorber will move around if the shock absorber is detached incorrectly.
The shock absorber is filled with highly compressed nitrogen.

– Please follow the description provided. (Your authorized GASGAS Motorcycles workshop will be glad to help.)

Preparatory work

– Raise the motorcycle with a lift stand. (p. 40)
– Remove the fuel tank. (p. 59)
– Remove the air filter box. (p. 51)
– Remove the manifold. (p. 54)
– Remove main silencer. (p. 57)
– Remove the shock absorber. (p. 50)
– After removing the shock absorber, clean it thoroughly.



Main work

– Choose and mount a suitable spring.

Guideline

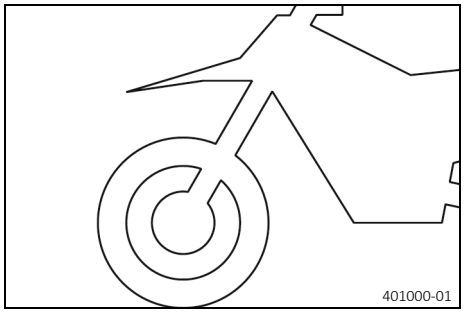
Spring rate (All US RACING models)	
Weight of rider: 55 … 70 kg (121 … 154 lb.)	65 N/mm (371 lb/in)
Weight of rider: 70 … 85 kg (154 … 187 lb.)	70 N/mm (400 lb/in)
Weight of rider: 85 … 100 kg (187 … 220 lb.)	75 N/mm (428 lb/in)
Spring rate (TXT RACING 125 EU)	
Weight of rider: 55 … 70 kg (121 … 154 lb.)	65 N/mm (371 lb/in)
Weight of rider: 70 … 80 kg (154 … 176 lb.)	67.5 N/mm (385.4 lb/in)
Weight of rider: 80 … 85 kg (176 … 187 lb.)	70 N/mm (400 lb/in)
Weight of rider: 85 … 100 kg (187 … 220 lb.)	72.5 N/mm (414 lb/in)
Spring rate (TXT RACING 250/280/300 EU)	
Weight of rider: 55 … 70 kg (121 … 154 lb.)	67.5 N/mm (385.4 lb/in)
Weight of rider: 70 … 80 kg (154 … 176 lb.)	70 N/mm (400 lb/in)
Weight of rider: 80 … 85 kg (176 … 187 lb.)	72.5 N/mm (414 lb/in)
Weight of rider: 85 … 100 kg (187 … 220 lb.)	75 N/mm (428 lb/in)
Spring rate (TXT GP 125)	
Weight of rider: 55 … 70 kg (121 … 154 lb.)	65 N/mm (371 lb/in)
Weight of rider: 70 … 80 kg (154 … 176 lb.)	67.5 N/mm (385.4 lb/in)
Weight of rider: 80 … 85 kg (176 … 187 lb.)	70 N/mm (400 lb/in)
Weight of rider: 85 … 100 kg (187 … 220 lb.)	72.5 N/mm (414 lb/in)
Spring rate (TXT GP 250/280/300)	
Weight of rider: 55 … 70 kg (121 … 154 lb.)	67.5 N/mm (385.4 lb/in)
Weight of rider: 70 … 80 kg (154 … 176 lb.)	70 N/mm (400 lb/in)
Weight of rider: 80 … 85 kg (176 … 187 lb.)	72.5 N/mm (414 lb/in)
Weight of rider: 85 … 100 kg (187 … 220 lb.)	75 N/mm (428 lb/in)

Finishing work

- Install the shock absorber. (📖 p. 50)
- Install the main silencer. (📖 p. 57)
- Install the air filter box. (📖 p. 51)
- Install the fuel tank. (📖 p. 60)
- Remove the motorcycle from the lift stand. (📖 p. 40)
- Check the static sag of the shock absorber. (📖 p. 32)

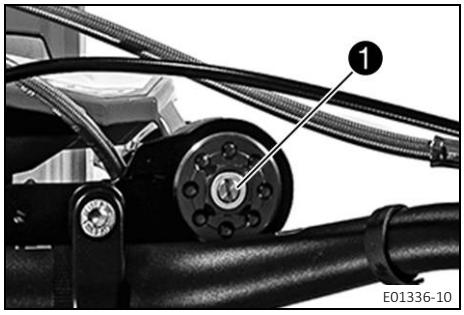
– Check the riding sag of the shock absorber. (📖 p. 34)
– Adjust the rebound damping of the shock absorber. (📖 p. 30)

10.9 Basic setting of the fork



For various reasons, no exact riding sag can be determined for the fork. As with the shock absorber, smaller differences in the rider's weight can be compensated by the spring preload.
However, if the fork frequently bottoms out (hard end stop on compression), harder springs must be fitted to avoid damage to the fork and frame.
If the fork feels unusually hard after extended periods of operation, the fork legs need to be bled.

10.10 Adjusting the rebound damping of the fork



– Turn adjusting screw 1 clockwise all the way.

Info
Adjusting screw 1 is located at the upper end of the right fork leg.

– Turn counterclockwise by the appropriate number of clicks.

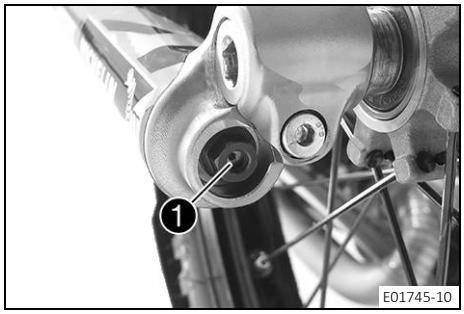
Guideline

Rebound damping (All RACING models)	
Standard	19 clicks
Rebound damping (All GP models)	
Standard	19 clicks

Info
Turn clockwise to increase damping; turn counterclockwise to reduce damping.

10.11 Adjusting the compression damping of the fork (All GP models)

Info
The hydraulic compression damping determines the fork suspension behavior.



– Turn adjusting screw 1 clockwise all the way.

Info
Adjusting screw 1 is located at the lower end of the right fork leg.

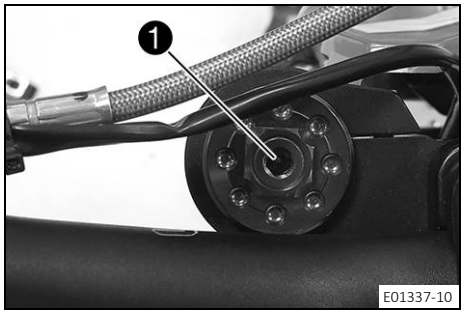
– Turn counterclockwise by the number of rotations corresponding to the fork type.

Guideline

Compression damping	
Standard	1.75 turns

Info
Turn clockwise to increase damping; turn counterclockwise to reduce damping during compression.

10.12 Adjusting the spring preload of the fork



– Turn adjusting screw 1 counterclockwise all the way.

Info
Adjusting screw 1 is located at the upper end of the left fork leg.

– Turn clockwise by the appropriate number of turns.

Guideline

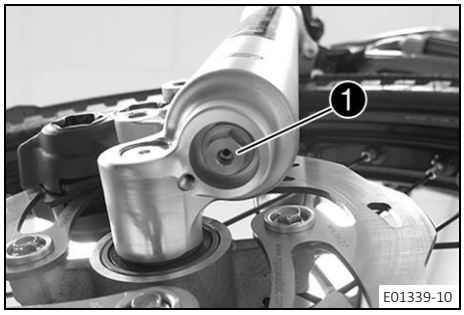
Spring preload (All RACING models)	
Standard	5.5 turns
Spring preload (All GP models)	
Standard	5.5 turns

Info
Turn clockwise to increase the spring preload; turn counterclockwise to reduce the spring preload.
Adjusting the spring preload has no influence on the absorption setting of the rebound.
Basically, however, you should set the rebound damping higher with a higher spring preload.

10.13 Adjusting fork fluid barrier

Info
The fluid barrier determines the behavior of the end position damping and the puncture resistance of the fork.

Preparatory work
– Remove front brake disc guard. (p. 68)



Main work
– Turn the adjusting screw 1 clockwise as far as it will go.

Info
The adjusting screw 1 is located on the underside of the left fork leg.

– Turn counterclockwise by the appropriate number of clicks.

Guideline

Fluid barrier (All RACING models)	
Standard	2.5 turns
Fluid barrier (All GP models)	
Standard	2.5 turns

Info

Turning it counterclockwise increases the damping of the fluid barrier: the end position damping and the puncture resistance of the fork increase.
Turning it clockwise reduces the damping of the fluid barrier: the end position damping and the puncture resistance of the fork decrease.

Finishing work

– Install the brake disc guard at the front. (📖 p. 68)

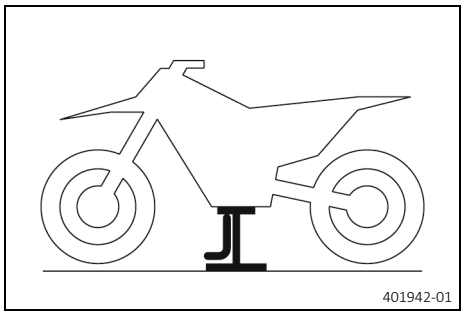
11.1 Raising the motorcycle with a lift stand

Note

Material damage The vehicle may be damaged by incorrect procedure when parking.

Significant damage may be caused if the vehicle rolls away or falls over.
The components for parking the vehicle are designed only for the weight of the vehicle.

– Park the vehicle on a firm and level surface.
– Ensure that nobody sits on the vehicle when the vehicle is parked on a stand.


401942-01

– Raise the motorcycle at the frame underneath the engine.
  ✔ Neither wheel is in contact with the ground.
– Secure the motorcycle against falling over.

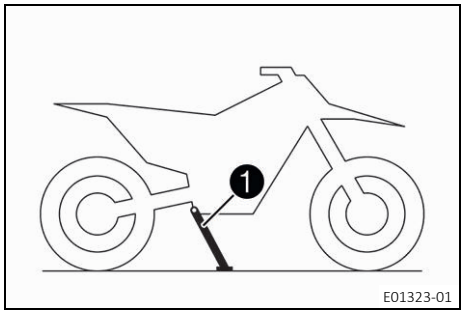
11.2 Removing the motorcycle from the lift stand

Note

Material damage The vehicle may be damaged by incorrect procedure when parking.

Significant damage may be caused if the vehicle rolls away or falls over.
The components for parking the vehicle are designed only for the weight of the vehicle.

– Park the vehicle on a firm and level surface.
– Ensure that nobody sits on the vehicle when the vehicle is parked on a stand.



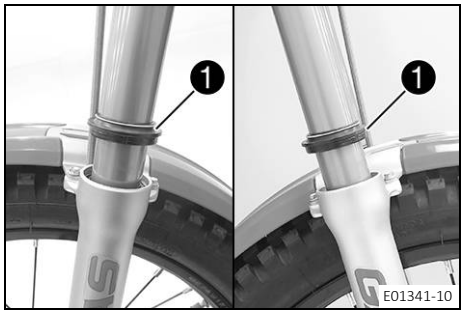
E01323-01

– Remove the motorcycle from the lift stand.
– Remove the lift stand.
– To park the motorcycle, press side stand ❶ to the ground with your foot and lean the motorcycle on it.

Info
The side stand must be folded up during motorcycle use.

11.3 Cleaning the dust boots of the fork legs

Preparatory work
– Raise the motorcycle with a lift stand. (📖 p. 40)



E01341-10

Main work
– Push dust boots ❶ of both fork legs upwards.

Info
The dust boots remove dust and coarse dirt particles from the inside fork tubes. Over time, dirt can accumulate behind the dust boots. If this dirt is not removed, the oil seals behind can start to leak.

Warning

Danger of accidents Oil or grease on the brake discs reduces the braking effect.

- Always keep the brake discs free of oil and grease.
- Clean the brake discs with brake cleaner when necessary.

– Clean and oil the dust boots and inside fork tubes of both fork legs.

Universal oil spray (📖 p. 120)

– Press the dust boots back into the installation position.
– Remove the excess oil.

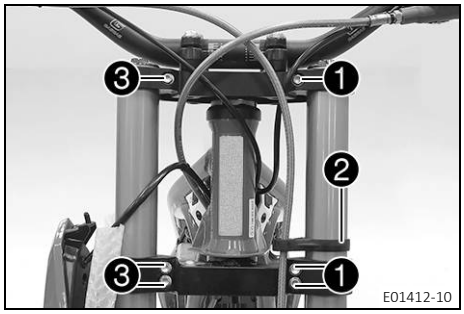
Finishing work

– Remove the motorcycle from the lift stand. (📖 p. 40)

11.4 Removing the fork legs 🔧

Preparatory work

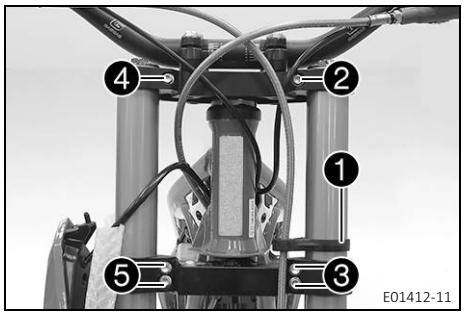
– Raise the motorcycle with a lift stand. (📖 p. 40)
– Remove the front wheel. 🔧 (📖 p. 81)
– Remove front brake disc guard. 🔧 (📖 p. 68)
– Remove front brake caliper. 🔧 (📖 p. 68)
– Remove the front fender. (📖 p. 49)
– Remove the headlight mask. (📖 p. 48)



Main work

– Loosen screws ❶. Remove the fork leg on the left while carefully sliding the brake line guide ❷ from the fork leg.
– Loosen screws ❸. Remove the right fork leg.

11.5 Installing the fork legs 🔧



Main work

– Position the left fork leg while carefully pushing the brake line guide ❶ onto the fork leg.
– Tighten screw ❷.

  Guideline

Screw, top triple clamp	M6	12 Nm (8.9 lbf ft)

– Tighten screws ❸.

  Guideline

Screw, bottom triple clamp	M6	10 Nm (7.4 lbf ft)

– Position the right fork leg.
– Tighten screw ❹.

Guideline

Screw, top triple clamp	M6	12 Nm (8.9 lbf ft)

– Tighten screws ❺.

Guideline

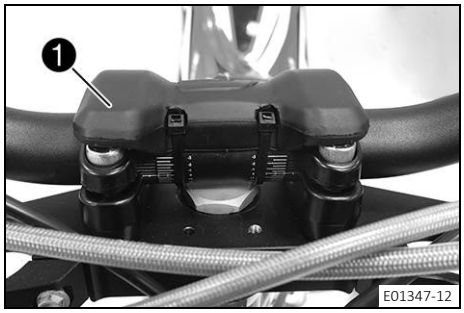
Screw, bottom triple clamp	M6	10 Nm (7.4 lbf ft)

Info
Grooves are milled into the side of the upper end of the fork legs. The first milled groove (from the top) must be flush with the upper edge of the upper triple clamp.
The suspension is located in the left fork leg. The rebound damping is located in the right fork leg.

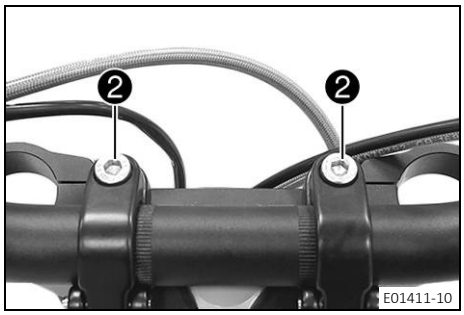
Finishing work
– Install the front wheel. (p. 81)
– Install the front brake caliper. (p. 68)
– Install the brake disc guard at the front. (p. 68)
– Install the front fender. (p. 50)
– Install the headlight mask. (p. 49)

11.6 Removing the lower triple clamp

Preparatory work
– Raise the motorcycle with a lift stand. (p. 40)
– Remove the front wheel. (p. 81)
– Remove front brake disc guard. (p. 68)
– Remove front brake caliper. (p. 68)
– Remove the front fender. (p. 49)
– Remove the headlight mask. (p. 48)
– Remove the fork legs. (p. 41)

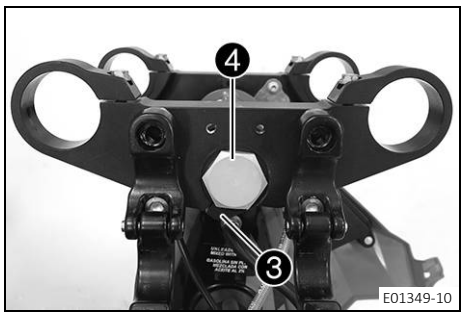


Main work
– Remove handlebar cushion ❶.

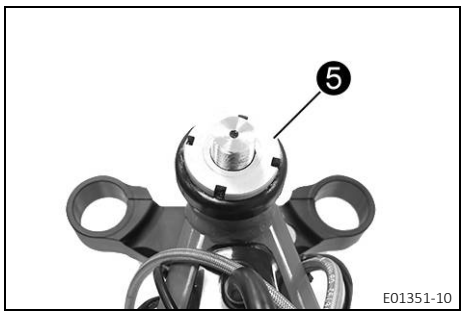


– Remove screws ❷.
– Take off handlebar and place it to the rear carefully.

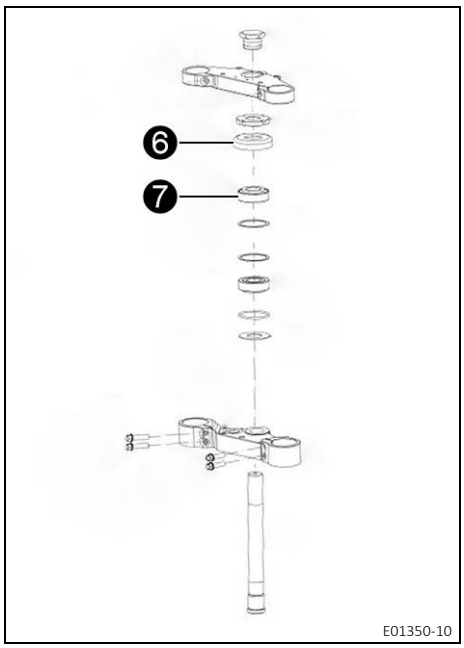
Info
Cover the components to protect them against damage.
Do not kink the cables and lines.



– Remove screw ❸.
– Remove steering head nut ❹ and carefully remove upper triple clamp.

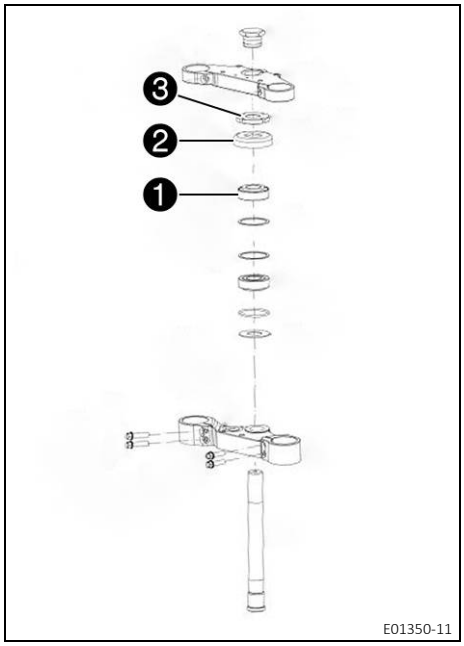


– Remove adjusting ring ❺.



– Remove the lower triple clamp downwards from the steering head.
– Remove protection cap ❻ and remove upper tapered roller bearing ❼.

11.7 Installing the lower triple clamp



Main work

– Clean the bearing and sealing elements, check for damage, and grease.

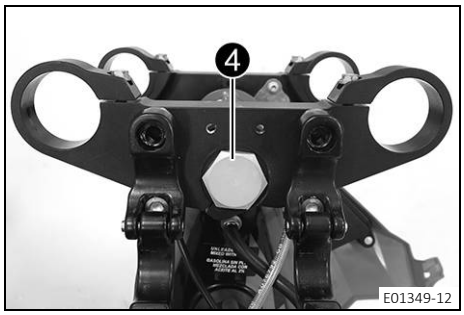
Long-life grease (📖 p. 119)

– Insert the lower triple clamp with the steering stem. Mount upper steering head bearing ❶.

– Push on protective ring ❷.

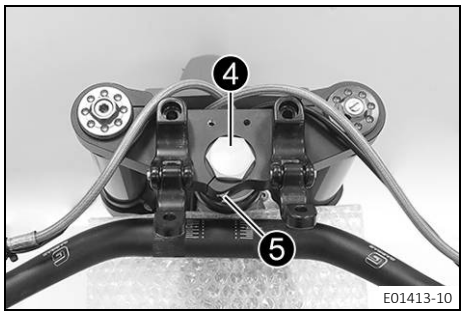
– Mount and tighten adjusting ring ❸ until there is no play in the steering head bearing.

– Position the upper triple clamp.



– Mount steering head nut ❹, but do not tighten yet.

– Install the fork legs. 🔧 (📖 p. 41)



– Tighten steering head nut ❹.

Guideline

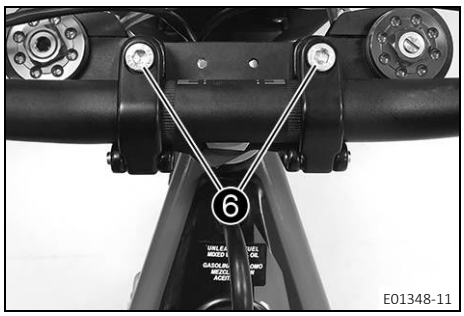
Nut, steering head	M20	50 Nm (36.9 lbf ft)

– Using a plastic hammer, tap lightly on the upper triple clamp to avoid stresses.

– Mount and tighten screw ❺.

Guideline

Screw, steering stem	M6	12 Nm (8.9 lbf ft)

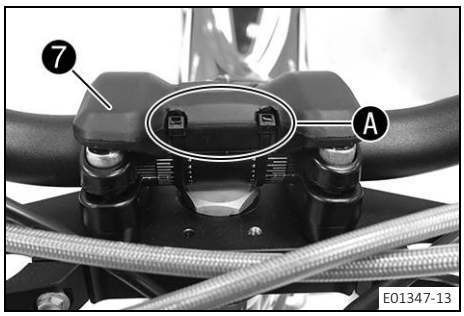


– Position the handlebars in the handlebar clamps.

– Mount and tighten screws ❻.

Guideline

Screw, handlebar clamp	M8	25 Nm (18.4 lbf ft)



– Mount handlebar cushion 7 in area A.

Finishing work

– Check that the wiring harness, throttle cables, and brake and clutch lines can move freely and are routed correctly.

11.8 Checking the steering head bearing play

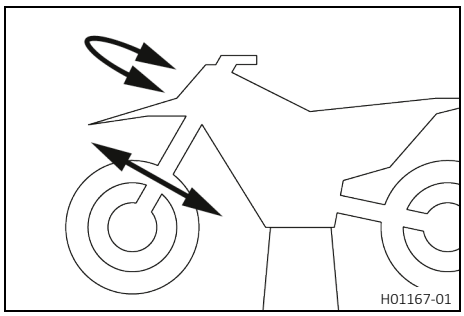
Warning

Danger of accidents Incorrect steering head bearing play impairs the handling characteristic and damages components.

– Correct incorrect steering head bearing play immediately. (Your authorized GASGAS Motorcycles workshop will be glad to help.)

Preparatory work

– Raise the motorcycle with a lift stand. (📖 p. 40)



Main work

– Move the handlebar to the straight-ahead position. Move the fork legs to and fro in the direction of travel.

Play should not be detectable on the steering head bearing.

» If there is detectable play:

– Adjust the steering head bearing play. 🔧 (📖 p. 45)

– Move the handlebar to and fro over the entire steering range.

It must be possible to move the handlebar easily over the entire steering range. There should be no detectable detent positions.

» If detent positions are detected:

– Adjust the steering head bearing play. 🔧 (📖 p. 45)

– Check the steering head bearing and change if necessary.

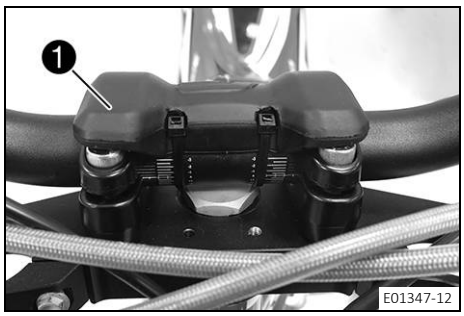
Finishing work

– Remove the motorcycle from the lift stand. (📖 p. 40)

11.9 Adjusting the steering head bearing play 🔧

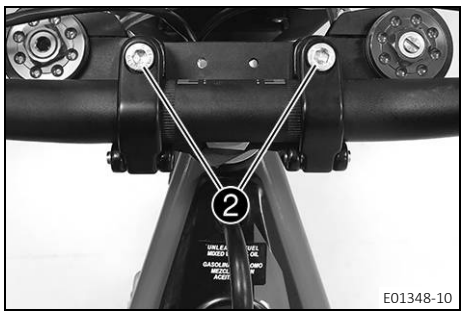
Preparatory work

– Raise the motorcycle with a lift stand. (📖 p. 40)



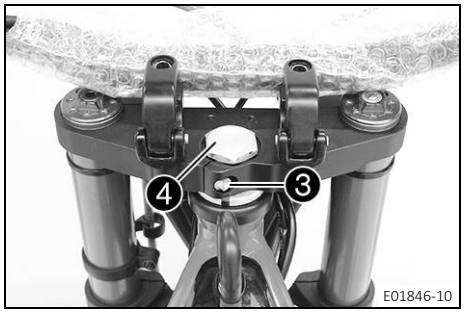
Main work

– Remove handlebar cushion ❶.



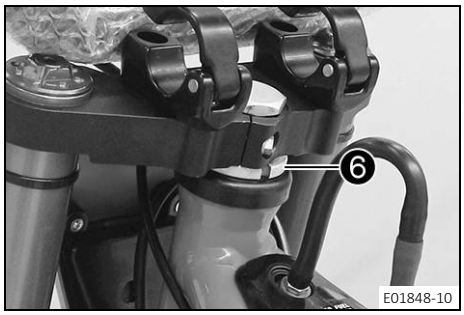
– Remove screws ❷.
– Take off handlebar and place carefully to the front.

Info
Cover the components to protect them against damage.
Do not kink the cables and lines.

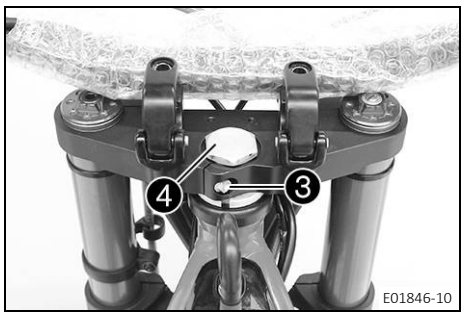


– Loosen screw ❸.
– Loosen steering head screw ❹.

– Loosen screws ❺.



– Tighten adjusting ring ❻ until there is no play in the steering head bearing.



– Tighten the steering head screw ❹.

Guideline

Nut, steering head	M20	50 Nm (36.9 lbf ft)

– Using a plastic hammer, tap lightly on the upper triple clamp to avoid stresses.
– Tighten screw ❸.

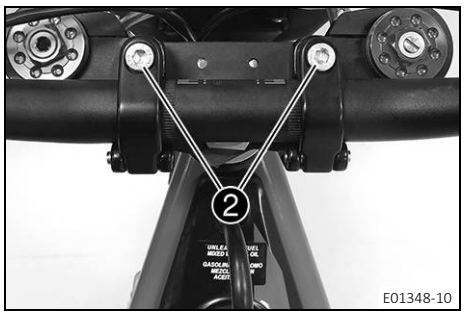
Guideline

Screw, steering stem	M6	12 Nm (8.9 lbf ft)

– Tighten screws ❺.

Guideline

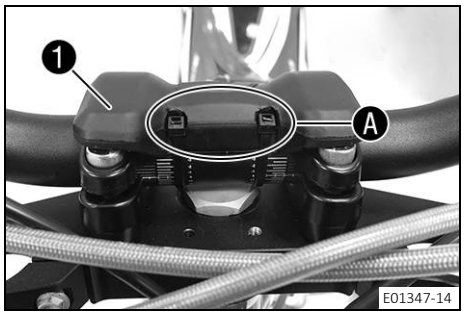
Screw, top triple clamp	M6	12 Nm (8.9 lbf ft)



– Position the handlebar, mount and tighten screws ❷.

Guideline

Screw, handlebar clamp	M8	25 Nm (18.4 lbf ft)

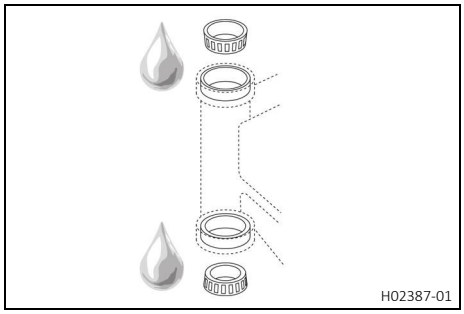


– Mount handlebar cushion ❶ in area Ⓐ.

Finishing work

– Check that the wiring harness, throttle cables, and brake and clutch lines can move freely and are routed correctly.
– Check the steering head bearing play. (📖 p. 45)
– Remove the motorcycle from the lift stand. (📖 p. 40)

11.10 Lubricating the steering head bearing



– Remove the lower triple clamp. (p. 42)
– Install the lower triple clamp. (p. 44)

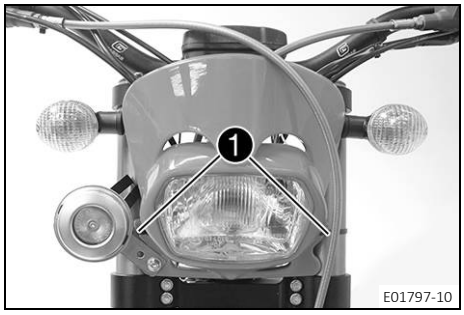
Info
The steering head bearing is cleaned and lubricated in the course of removal and installation of the lower triple clamp.

11.11 Removing the headlight mask

(Option: Not homologized)

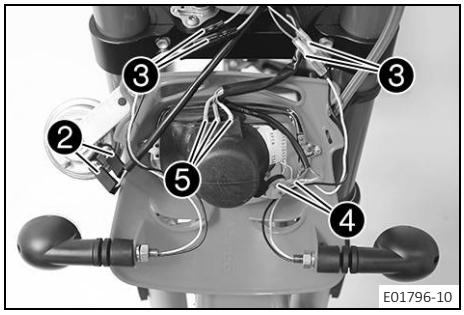
– Remove cable tie(s) 1.
– Remove the headlight mask towards the front and hang it carefully to the side.

Info
Cover the components to protect them against damage. Do not kink the cables and lines.



(Option: Homologized)

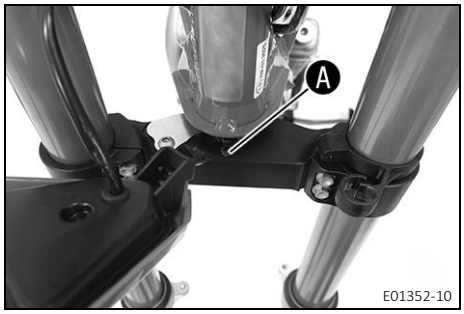
– Remove cable tie(s) 1.
– Swivel the headlight mask forward.



Info
Note the assignment of the cable colors.

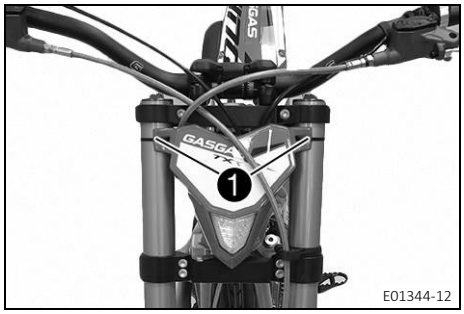
– Disconnect the connector 2 of the horn.
– Disconnect connector 3 of the turn signal lamps.
– Disconnect connector 4 of the parking light.
– Disconnect connector 5 of the headlight bulb.
– Take off the headlight mask.

11.12 Installing the headlight mask

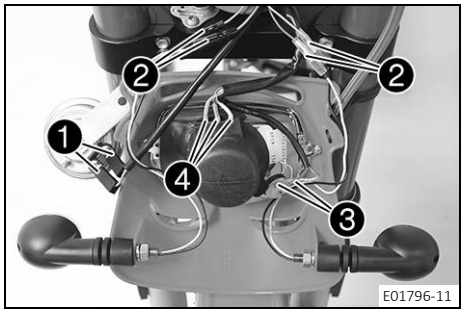


(Option: Not homologized)

– Hook in the headlight mask in area Ⓐ.



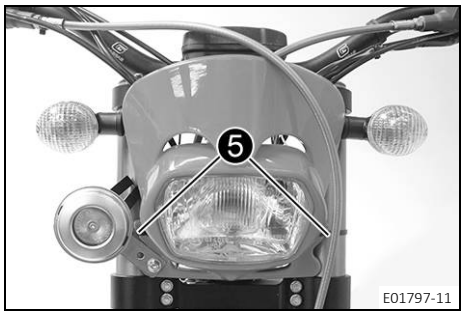
– Secure the headlight mask to the fork legs with cable ties ❶.



(Option: Homologized)

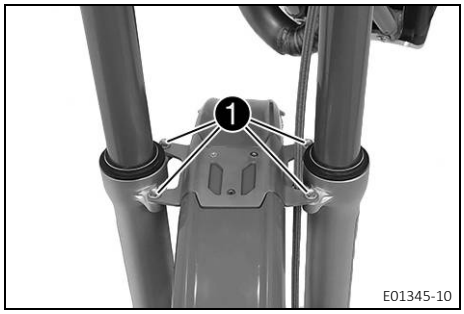
Info
Plug in connector according to the noted cable colors.

– Plug in connector ❶ of the horn.
– Plug in connector ❷ of the turn signal lamps.
– Plug in connector ❸ of the parking light.
– Plug in connector ❹ of the headlight bulb.



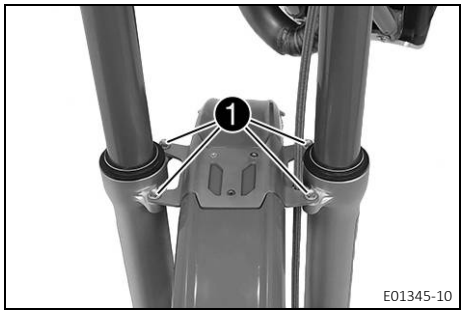
– Position the headlight mask.
– Secure the headlight mask to the fork legs with cable ties ❺.

11.13 Removing the front fender



– Remove screws ❶ and take off the fender.

11.14 Installing the front fender



– Position the front fender. Mount and tighten screws ❶.

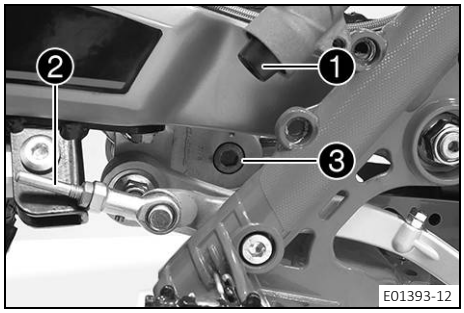
Guideline

Front fender	M6	10 Nm (7.4 lbf ft)

11.15 Removing the shock absorber

Preparatory work

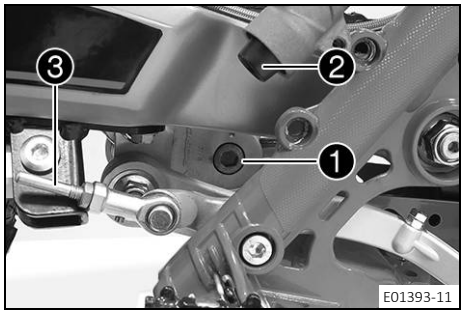
– Raise the motorcycle with a lift stand. (📖 p. 40)
– Remove the fuel tank. (📖 p. 59)
– Remove the air filter box. (📖 p. 51)
– Remove the manifold. (📖 p. 54)
– Remove main silencer. (📖 p. 57)



Main work

– Pull off foot brake cylinder ❶ from the push rod ❷.
– Lift the rear wheel and secure it.
– Remove screw ❸.
– Remove the shock absorber from the top carefully.

11.16 Installing the shock absorber



Main work

– Position the shock absorber carefully from above.
– Mount and tighten screw ❶.

Guideline

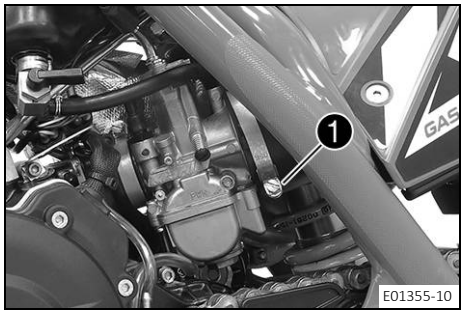
Screw, bottom shock absorber	M10	45 Nm (33.2 lbf ft) **Loctite®243™**

– Push the foot brake cylinder ❷ onto the push rod ❸.
– Unlock and lower the rear wheel.

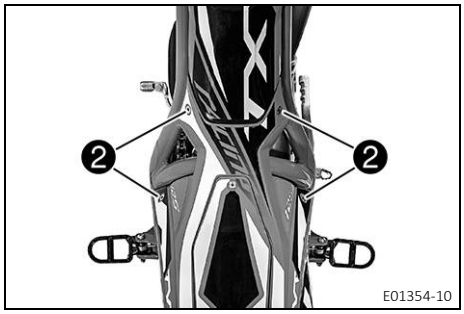
Finishing work

– Install the main silencer. (📖 p. 57)
– Install the air filter box. (📖 p. 51)
– Install the fuel tank. (📖 p. 60)
– Remove the motorcycle from the lift stand. (📖 p. 40)

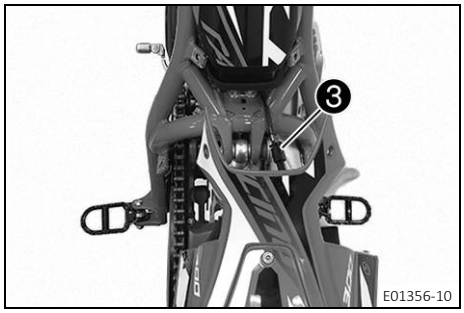
11.17 Removing the air filter box



– Release hose clamp ❶.

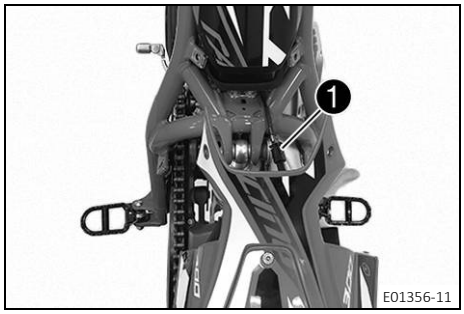


– Remove screws ❷.

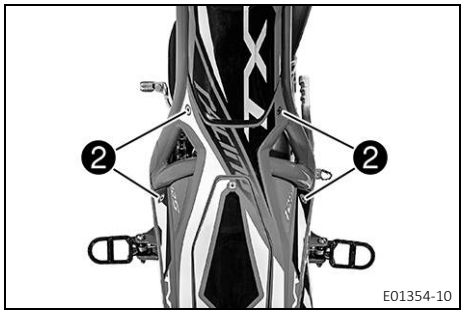


– Lift the air filter box from the frame until the plug-in connector ❸ is visible while pulling the inlet sleeve off the carburetor.
– Disconnect plug-in connector ❸.
– Lift the air filter box off the frame.

11.18 Installing the air filter box



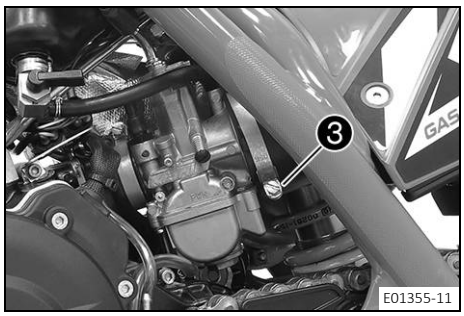
– Join plug-in connector ❶.
– Carefully position the air filter box on the frame and slide the inlet sleeve onto the carburetor.



– Mount and tighten screws ❷.

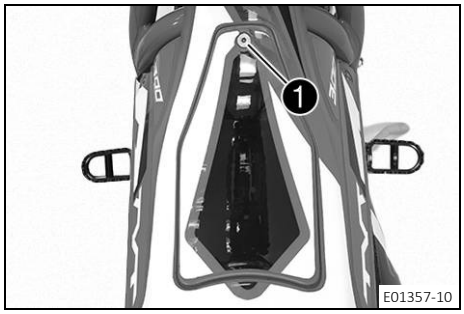
Guideline

Screw, air filter box	M6	8 Nm (5.9 lbf ft) **Loctite®243™**



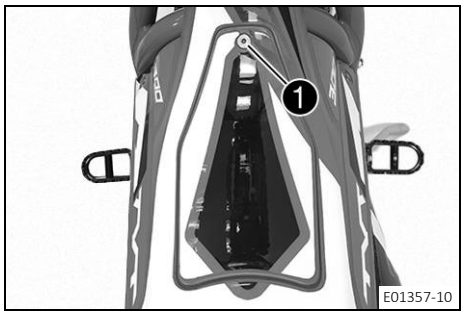
– Position and tighten hose clamp ❸.

11.19 Removing the air filter box cover



– Remove screw ❶.
– Take off the air filter box cover by lifting it forwards.

11.20 Installing the air filter box cover



– Suspend the air filter box cover at the rear and mount and tighten the screw ❶.

Guideline

Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)

11.21 Removing the air filter

Note

Engine damage Unfiltered intake air has a negative effect on the service life of the engine.

Dust and dirt will enter the engine without an air filter.

– Only operate the vehicle if it is equipped with an air filter.

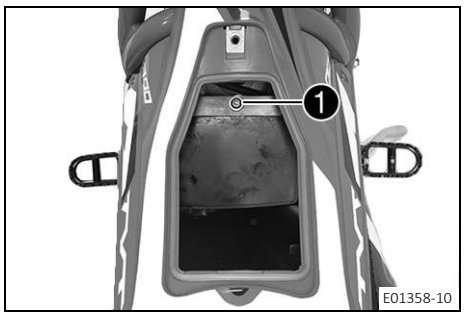
Note

Environmental hazard Hazardous substances cause environmental damage.

– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Preparatory work

– Remove the air filter box cover. (📖 p. 52)



Main work

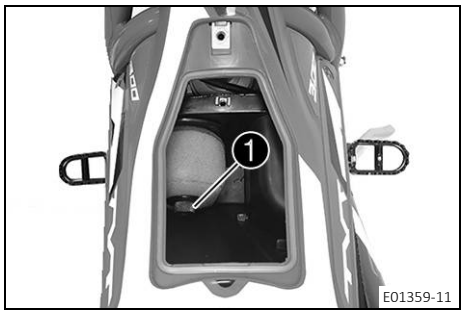
– Remove the screw ❶ and remove the air filter cover from the air filter box.

– Remove screw ❷.
– Remove air filter with air filter support from the air filter box.
– Remove air filter from air filter support.

11.22 Installing the air filter

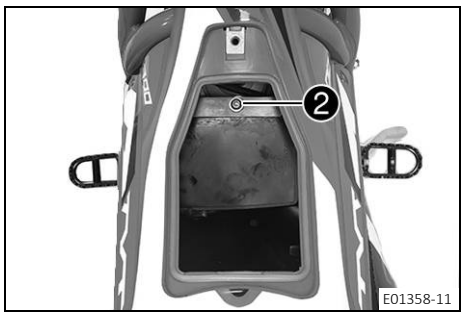
Main work

– Mount the clean air filter on the air filter support.



– Position the air filter, mount screw ❶, and tighten.

Info
If the air filter is not mounted correctly, dust and dirt may enter the engine and result in damage.



– Position the air filter cover in the air filter box; mount screw ❷, and tighten.

Guideline

Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)

Finishing work

– Install the air filter box cover. (📖 p. 52)

11.23 Cleaning the air filter and air filter box

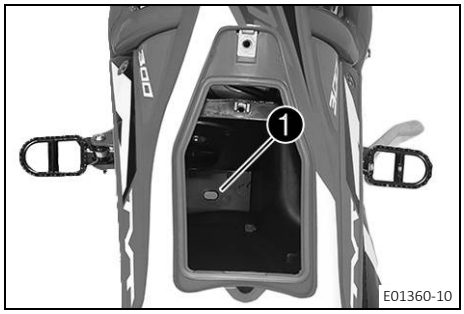
Note

Environmental hazard Hazardous substances cause environmental damage.

– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info

Do not clean the air filter with fuel or petroleum since these substances attack the foam.



Preparatory work

– Remove the air filter box cover. (📖 p. 52)
– Remove the air filter. 🔧 (📖 p. 52)

Main work

– Wash the air filter thoroughly in special cleaning liquid and allow it to dry properly.

Air filter cleaner (📖 p. 119)

Info

Only press the air filter to dry it, never wring it out.

– Oil the dry air filter with a high-grade air filter oil.

Oil for foam air filter (📖 p. 119)

– Clean the air filter box.
– Check the flap ❶ on the underside of the air filter box for correct function.

Info

This flap serves as a valve for draining liquids.

Finishing work

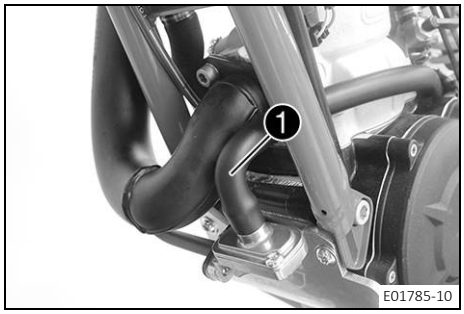
– Install the air filter. (📖 p. 53)
– Install the air filter box cover. (📖 p. 52)

11.24 Removing the manifold 🔧

Warning

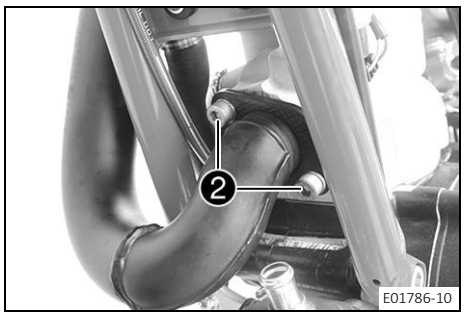
Danger of burns The exhaust system gets very hot when the vehicle is driven.

– Allow the exhaust system to cool down before performing any work on the vehicle.

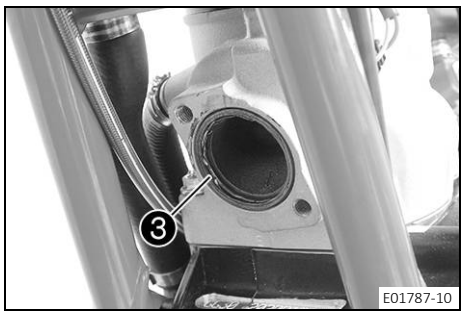


(Option: Homologized)

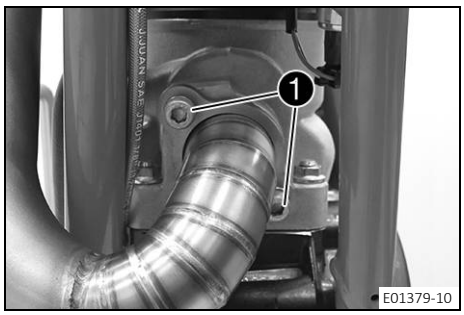
– Pull off hose ❶.



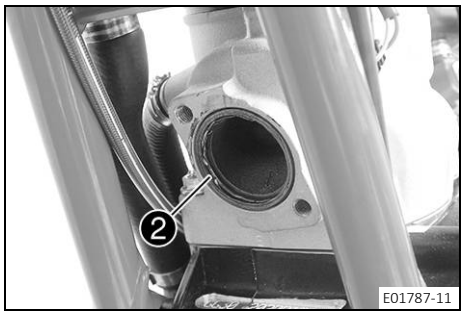
– Remove screws ❷.
– Take off the manifold in a forward direction.



– Remove gasket ❸.



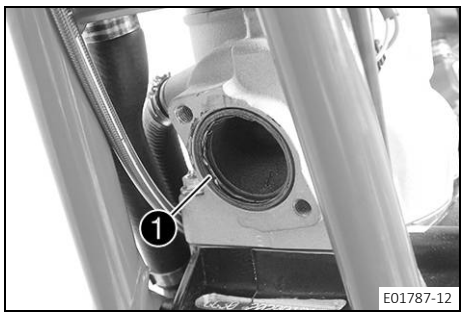
(Option: Not homologized)
– Remove screws ❶.
– Take off the manifold in a forward direction.



– Remove gasket ❷.

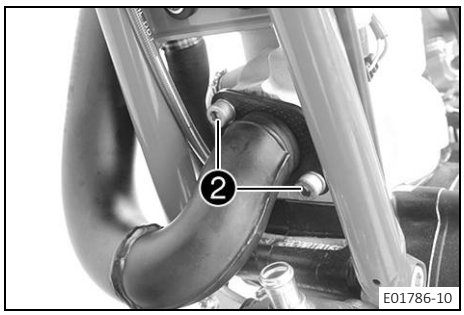
11.25 Installing the manifold

Warning
Danger of burns The exhaust system gets very hot when the vehicle is driven.
– Allow the exhaust system to cool down before performing any work on the vehicle.



(Option: Homologized)

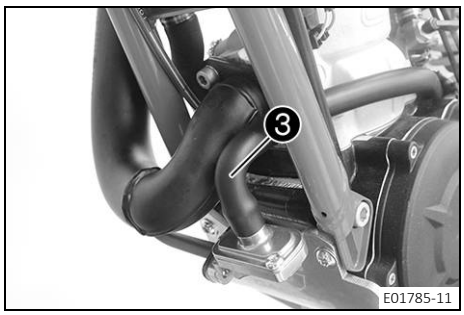
– Mount gasket ❶.



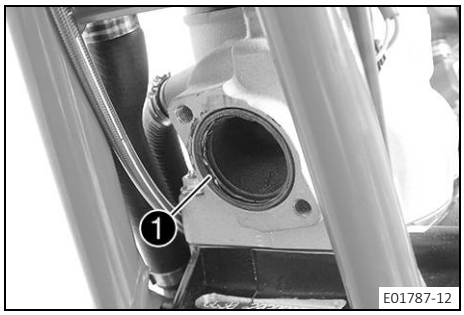
– Position the manifold.
– Mount and tighten screws ❷.

Guideline

Screw, manifold	M8	12 Nm (8.9 lbf ft)

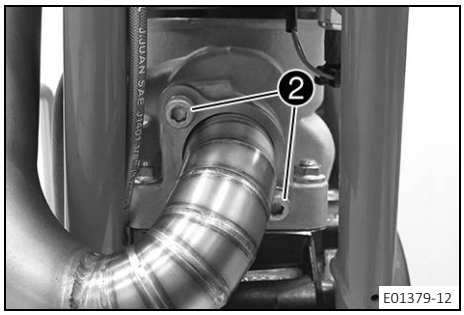


– Mount hose ❸.



(Option: Not homologized)

– Mount gasket ❶.



– Position the manifold.
– Mount and tighten screws ❷.

Guideline

Screw, manifold	M8	12 Nm (8.9 lbf ft)

11.26 Removing the main silencer

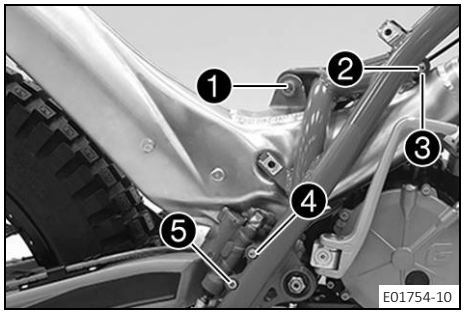
Warning

Danger of burns The exhaust system gets very hot when the vehicle is driven.

– Allow the exhaust system to cool down before performing any work on the vehicle.

Preparatory work

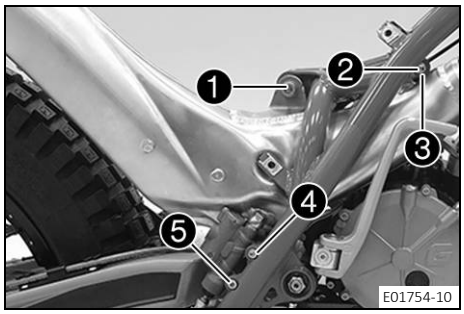
– Remove the fuel tank. (p. 59)
– Remove the air filter box. (p. 51)
– Remove the manifold. (p. 54)



Main work

– Remove screw 1.
– Remove screw 2 and nut 3.
– Remove screw 4 with the spacer.
– Remove screw 5.
– Carefully take off the main silencer to the rear.

11.27 Installing the main silencer



Main work

– Position the main silencer.
– Position the shock absorber and mount screw 1, but do not tighten it yet.
– Mount screw 2 with nut 3 but do not tighten it yet.
– Mount screw 4 with the spacer, but do not tighten yet.
– Mount screw 5, but do not tighten yet.
– Shake the main silencer slightly to avoid strain.
– Install the manifold. (p. 55)
– Tighten screw 1.

Guideline

Screw, top shock absorber	M10	50 Nm (36.9 lbf ft) **Loctite®243™**

– Tighten screw 2.

Guideline

Screw, main silencer	M6	12 Nm (8.9 lbf ft)

– Tighten screws 4 and 5.

Guideline

Screw, foot brake cylinder	M6	10 Nm (7.4 lbf ft)

Finishing work

– Install the air filter box. (p. 51)
– Install the fuel tank. (p. 60)

11.28 Changing the glass fiber yarn filling of the main silencer

Warning

Danger of burns The exhaust system gets very hot when the vehicle is driven.

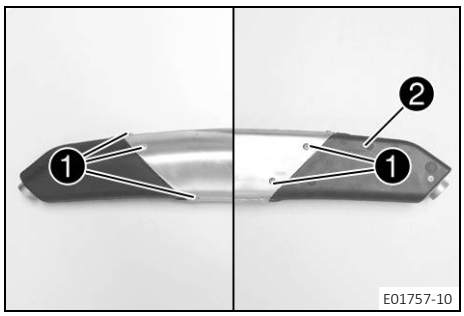
– Allow the exhaust system to cool down before performing any work on the vehicle.

Info

Over time, the fibers of the glass fiber yarn filling escape and the damper "burns" out.
Not only is the noise level higher, but the performance characteristics change.

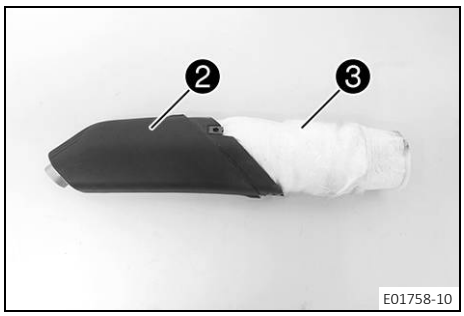
Preparatory work

– Remove the fuel tank. (p. 59)
– Remove the air filter box. (p. 51)
– Remove the manifold. (p. 54)
– Remove main silencer. (p. 57)



Main work

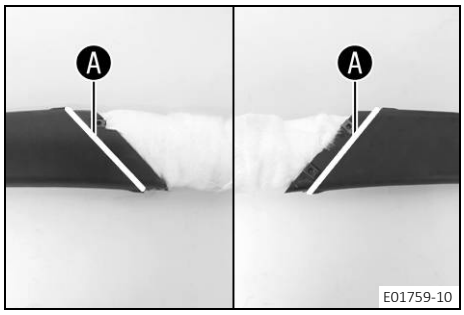
– Remove screws 1.
– Remove silencer cap 2.



– Pull out inner tube 3 with glass fiber yarn filling.
– Pull glass fiber yarn filling from the inner tube.
– Mount the new glass fiber yarn filling on the inner tube.
– Clean the parts that need to be reinstalled and check for damage.
– Position inner tube 3 with glass fiber yarn filling in silencer cap 2.

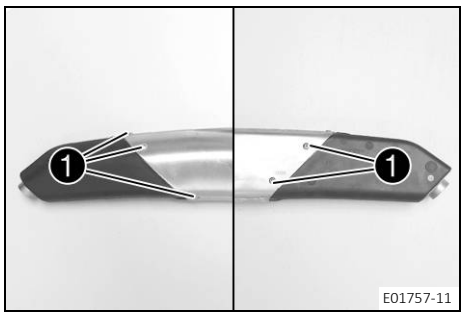
  Guideline

  The side of the inner tube with the larger inside diameter must be positioned in the silencer cap.



– Seal silencer cap in area A.

  Loctite® 5910



– Mount and tighten screws 1.

Finishing work

– Install the main silencer. (p. 57)
– Install the air filter box. (p. 51)
– Install the fuel tank. (p. 60)

11.29 Removing the fuel tank

Danger

Fire hazard Fuel is highly flammable.

The fuel in the fuel tank expands when warm and can escape if overfilled.

– Do not fuel the vehicle in the vicinity of open flames or lit cigarettes.
– Switch off the engine for refueling.
– Make sure that no fuel is spilled; particularly not on hot parts of the vehicle.
– If any fuel is spilled, wipe it off immediately.
– Observe the specifications for refueling.

Warning

Danger of poisoning Fuel is poisonous and a health hazard.

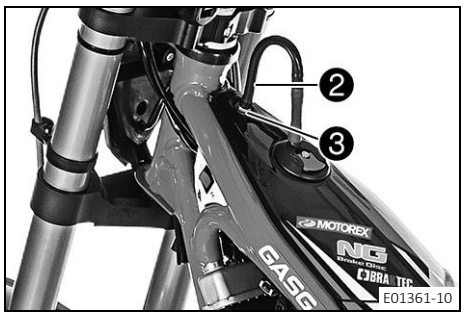
– Avoid skin, eye and clothing contact with fuel.
– Immediately consult a doctor if you swallow fuel.
– Do not inhale fuel vapors.
– In case of skin contact, rinse the affected area with plenty of water.
– Rinse the eyes thoroughly with water, and consult a doctor in case of fuel contact with the eyes.
– Change your clothing in case of fuel spills on them.
– Keep fuels correctly in a suitable canister, and out of the reach of children.

– Turn tap handle of the fuel tap to the **OFF** position.

– Push hose clamp 1 toward the rear and pull off the fuel hose.

Info

Remaining fuel may flow out of the fuel hose.



- Pull off vent hose ❷.
- Remove screw ❸.
- Lift the fuel tank at the front and remove it from the frame.

11.30 Installing the fuel tank

Danger

Fire hazard Fuel is highly flammable.

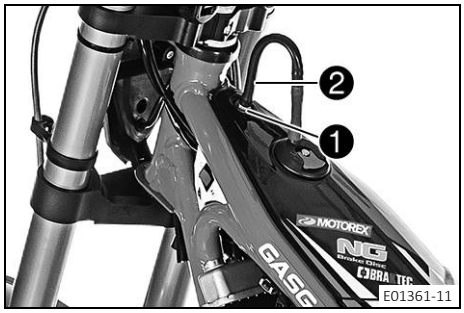
The fuel in the fuel tank expands when warm and can escape if overfilled.

- Do not fuel the vehicle in the vicinity of open flames or lit cigarettes.
- Switch off the engine for refueling.
- Make sure that no fuel is spilled; particularly not on hot parts of the vehicle.
- If any fuel is spilled, wipe it off immediately.
- Observe the specifications for refueling.

Warning

Danger of poisoning Fuel is poisonous and a health hazard.

- Avoid skin, eye and clothing contact with fuel.
- Immediately consult a doctor if you swallow fuel.
- Do not inhale fuel vapors.
- In case of skin contact, rinse the affected area with plenty of water.
- Rinse the eyes thoroughly with water, and consult a doctor in case of fuel contact with the eyes.
- Change your clothing in case of fuel spills on them.



- Position the fuel tank in the frame, mount and tighten screw ❶.

  Guideline

Screw, fuel tank fastening	M6	8 Nm (5.9 lbf ft)

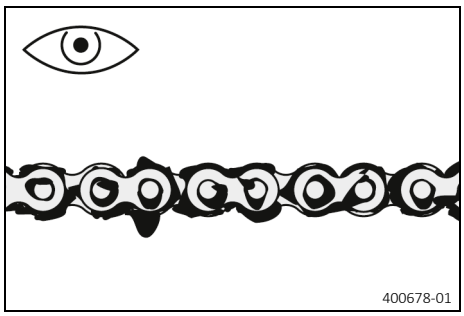
- Attach vent hose ❷.

  Guideline

Route vent hose free of kinks.

- Attach fuel hose and secure with hose clamp ❸.

11.31 Checking the chain for dirt



– Check the chain for coarse dirt accumulation.
  » If the chain is very dirty:
    – Clean the chain. (p. 61)

11.32 Cleaning the chain

Warning

Danger of accidents Lubricants on the tires reduces the road grip.

– Remove lubricants from the tires using a suitable cleaning agent.

Warning

Danger of accidents Oil or grease on the brake discs reduces the braking effect.

– Always keep the brake discs free of oil and grease.
– Clean the brake discs with brake cleaner when necessary.

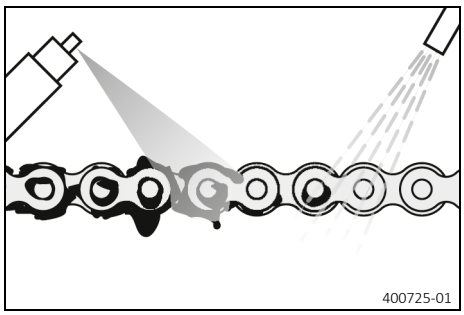
Note

Environmental hazard Hazardous substances cause environmental damage.

– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info

The service life of the chain depends largely on its maintenance.



Preparatory work

– Raise the motorcycle with a lift stand. (p. 40)

Main work

– Rinse off the loose dirt with a gentle jet of water.
– Remove old grease residue with chain cleaner.

Chain cleaner (p. 119)

– After drying, apply chain spray.

Off-road chain spray (p. 119)

Finishing work

– Remove the motorcycle from the lift stand. (p. 40)

11.33 Checking the chain tension

Warning

Danger of accidents Incorrect chain tension damages components and results in accidents.

If the chain is tensioned too much, the chain, engine sprocket, rear sprocket, transmission and rear wheel bearings wear more quickly. Some components may break if overloaded.
If the chain is too loose, the chain may fall off the engine sprocket or the rear sprocket. As a result, the rear wheel locks or the engine will be damaged.

– Check the chain tension regularly.
– Set the chain tension in accordance with the specification.

Preparatory work

– Raise the motorcycle with a lift stand. (📖 p. 40)

Main work

– Determine distance Ⓐ between link fork and chain adjuster.

Info

The vehicle has a spring preloaded chain adjuster.
Chain wear is not always even, so you should repeat this measurement at different chain positions.

Chain tension	10 … 20 mm (0.39 … 0.79 in)

» If the chain tension does not meet the specification:
– Adjust the chain tension. (📖 p. 62)

Finishing work

– Remove the motorcycle from the lift stand. (📖 p. 40)

11.34 Adjusting the chain tension

Warning

Danger of accidents Incorrect chain tension damages components and results in accidents.

If the chain is tensioned too much, the chain, engine sprocket, rear sprocket, transmission and rear wheel bearings wear more quickly. Some components may break if overloaded.
If the chain is too loose, the chain may fall off the engine sprocket or the rear sprocket. As a result, the rear wheel locks or the engine will be damaged.

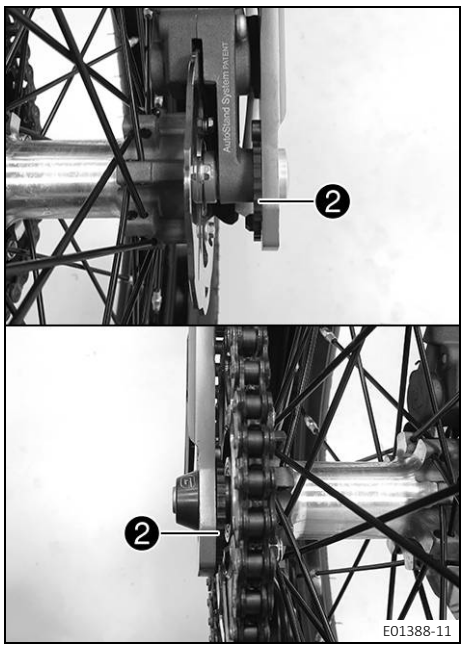
– Check the chain tension regularly.
– Set the chain tension in accordance with the specification.

Preparatory work

– Raise the motorcycle with a lift stand. (📖 p. 40)
– Check the chain tension. (📖 p. 62)

Main work

– Loosen screw ❶.



– Adjust the chain tension by turning eccentrics ❷ left and right.

Guideline

Chain tension	10 … 20 mm (0.39 … 0.79 in)
Turn eccentrics left and right so that the eccentrics are on the same detent. The rear wheel is then correctly aligned.	

– Tighten screw ❶.

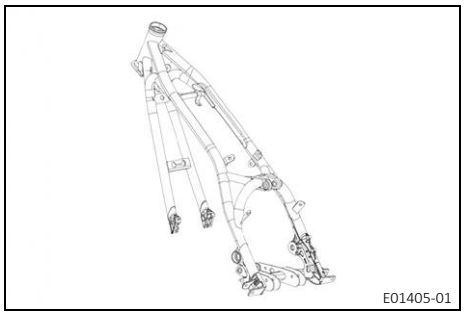
Guideline

Screw, rear wheel spindle	M10	50 Nm (36.9 lbf ft)

Finishing work

– Remove the motorcycle from the lift stand. (📖 p. 40)

11.35 Checking the frame



– Check the frame for damage, cracks, and deformation.

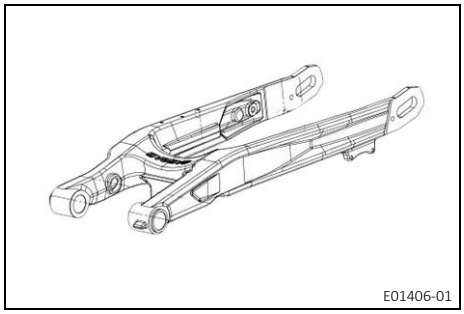
» If the frame shows signs of damage, cracks, or deformation:

– Change the frame.

Guideline

Repairs on the frame are not permitted.

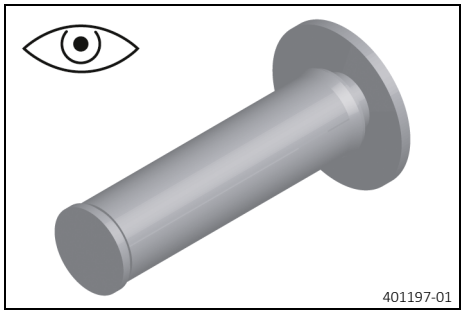
11.36 Checking the link fork


E01406-01

– Check the link fork for damage, cracking, and deformation.
  » If the link fork shows signs of damage, cracking, or deformation:
    – Change the link fork.

Info
Always replace a damaged link fork. GASGAS Motorcycles does not permit repairing link forks.

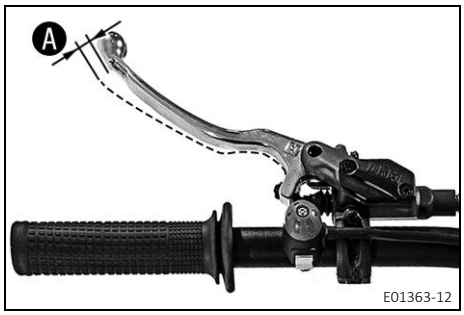
11.37 Checking the rubber grip


401197-01

– Check the rubber grips on the handlebar for damage, wear, and looseness.
  » If a rubber grip is damaged, worn, or loose:
    – Change and secure the rubber grip.

Rubber grip adhesive (00062030051) (p. 119)

11.38 Checking the free travel of the clutch lever



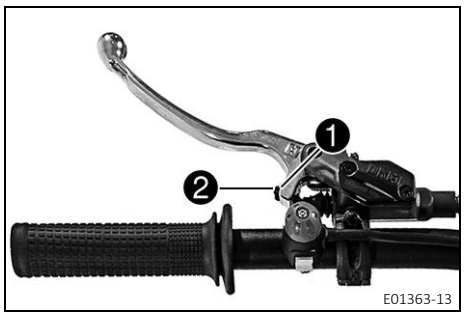
E01363-12

– Pull the clutch lever and check free travel A.

Free travel of clutch lever	≥ 3 mm (≥ 0.12 in)

  » If the free travel does not match the specification:
    – Set the free travel of the clutch lever. (p. 64)

11.39 Adjusting the free travel of the clutch lever



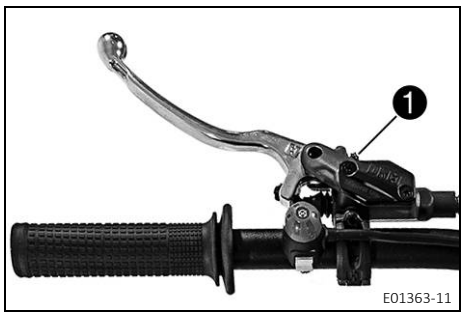
E01363-13

– Check the free travel of the clutch lever. (p. 64)
– Loosen nut 1.
– Adjust the free travel of the clutch lever with adjusting screw 2.

Info
Turn the adjusting screw clockwise to reduce free travel. The pressure point moves away from the handlebar.
Turn the adjusting screw counterclockwise to increase free travel. The pressure point moves towards the handlebar.
The range of adjustment is limited.
Do not use force.
Do not make any adjustments while riding.

– Hold adjusting screw 2 and tighten nut 1.

11.40 Adjusting the basic position of the clutch lever



Main work

– Adjust the basic position of the clutch lever to your hand size by turning adjusting screw 1.

Info

Turn the adjusting screw counterclockwise to decrease the distance between the clutch lever and the handlebar.
Turn the adjusting screw clockwise to increase the distance between the clutch lever and the handlebar.
The range of adjustment is limited.
Do not use force.
Do not make any adjustments while riding.

Finishing work

– Check the free travel of the clutch lever. (p. 64)

11.41 Checking/correcting the fluid level of hydraulic clutch

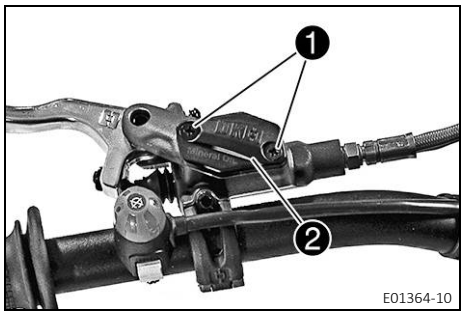
Note

Environmental hazard Hazardous substances cause environmental damage.

– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info

The fluid level rises with increasing wear of the clutch facing discs.
Do not use brake fluid.



– Move the hydraulic clutch fluid reservoir mounted on the handlebar into a horizontal position.
– Remove screws 1.
– Take off cover 2 with membrane.
– Check the fluid level.

Fluid level below container rim	4 mm (0.16 in)

» If the level of the fluid does not meet specifications:
– Correct the fluid level of the hydraulic clutch.

Hydraulic fluid (15) (p. 118)

– Position cover 2 with the membrane. Mount and tighten screws 1.

11.42 Changing the hydraulic clutch fluid

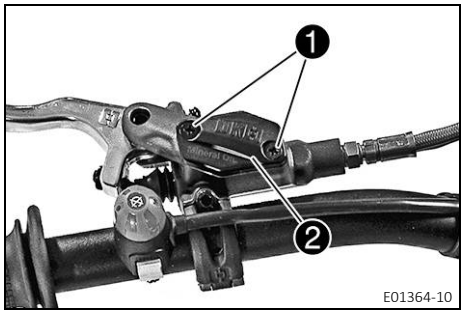
Note

Environmental hazard Hazardous substances cause environmental damage.

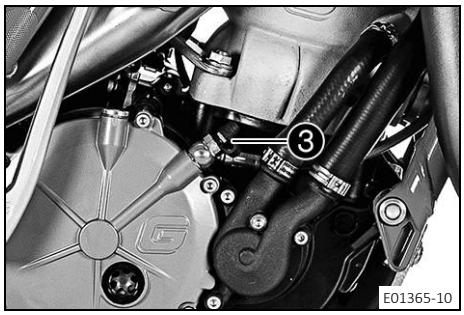
– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info

Do not use brake fluid.



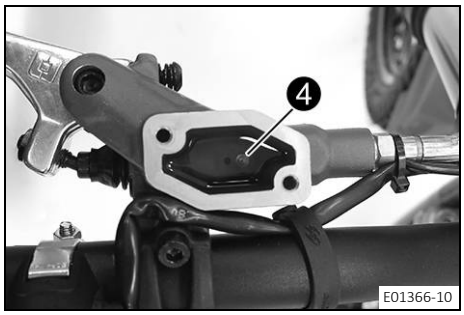
– Move the hydraulic clutch fluid reservoir mounted on the handlebar into a horizontal position.
– Remove screws 1.
– Take off cover 2 with membrane.



– Fill the bleeding syringe with the appropriate hydraulic fluid.

Hydraulic fluid (15) (📖 p. 118)

– On the clutch slave cylinder, remove the protection cap, release bleeder screw 3 and mount the bleeding syringe.



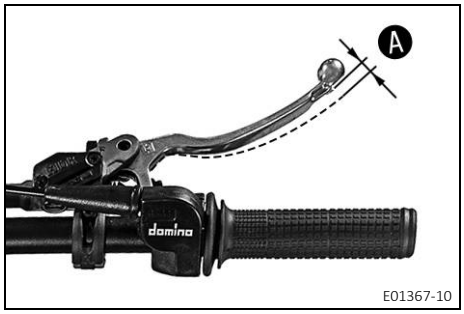
– Now press the fluid into the system until it emerges from hole 4 of the master cylinder without bubbles.
– Occasionally extract the fluid from the master cylinder reservoir to prevent overflowing.
– Remove the bleeding syringe. Tighten the bleeder screw. Mount the protection cap.
– Correct the fluid level of the hydraulic clutch.

Guideline

Fluid level below container rim	4 mm (0.16 in)

– Position cover 2 with the membrane. Mount and tighten screws 1.

12.1 Checking the free travel of the hand brake lever

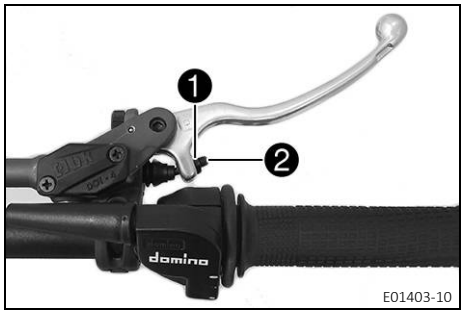


– Pull the hand brake lever and check the free travel Ⓐ.

Free travel of hand brake lever	≥ 3 mm (≥ 0.12 in)

» If the free travel does not match the specification:
– Set the free travel of the hand brake lever. 🔧 (📖 p. 67)

12.2 Adjusting the free travel of the hand brake lever 🔧



– Check the free travel of the hand brake lever. (📖 p. 67)
– Loosen nut ❶.
– Adjust the free travel of the hand brake lever with adjusting screw ❷.

Info
Turn the adjusting screw clockwise to reduce free travel. The pressure point moves away from the handlebar.
Turn the adjusting screw counterclockwise to increase free travel. The pressure point moves towards the handlebar.
The range of adjustment is limited.
Do not use force.
Do not make any adjustments while riding.

– Hold adjusting screw ❷ and tighten nut ❶.

12.3 Adjusting the basic position of the hand brake lever 🔧

Main work
– Adjust basic position of the hand brake lever to your hand size by turning adjusting screw ❶.

Info
Turn the adjusting screw clockwise to decrease the distance between the hand brake lever and the handlebar.
Turn the adjusting screw counterclockwise to increase the distance between the hand brake lever and the handlebar.
The range of adjustment is limited.
Only turn the adjusting screw by hand, and do not use force.
Do not make any adjustments while riding.

Finishing work
– Check the free travel of the hand brake lever. (📖 p. 67)

12.4 Removing front brake disc guard

– Remove screws 1 and take off the brake disc guard to the rear.

12.5 Installing the front brake disc guard

– Position the brake disc guard at the front.
– Mount and tighten screws 1.

Guideline

Screw, front brake caliper	M8	25 Nm (18.4 lbf ft) **Loctite®243™**

12.6 Removing front brake caliper

Preparatory work

– Remove front brake disc guard. (p. 68)

Main work

– Press back the brake linings by slightly tilting the brake caliper laterally on the brake disc.
– Pull the brake caliper carefully up from the brake disc and hang to the side.

Info

Cover the components to protect them against damage.

12.7 Installing the front brake caliper

Warning

Danger of accidents Oil or grease on the brake discs reduces the braking effect.

– Always keep the brake discs free of oil and grease.
– Clean the brake discs with brake cleaner when necessary.

Main work

– Position the brake caliper on the brake disc carefully.

Finishing work

– Install the brake disc guard at the front. (📖 p. 68)

12.8 Checking the front brake fluid level

Warning

Danger of accidents An insufficient brake fluid level will cause the brake system to fail.

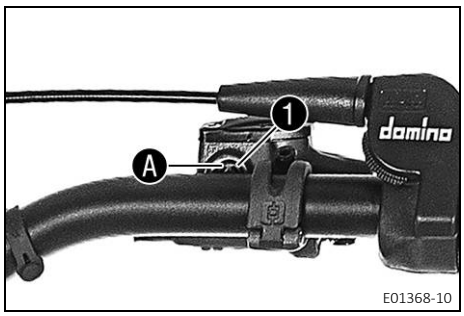
If the brake fluid level drops below the specified marking or the specified value, the brake system is leaking or the brake linings are worn down.

– Check the brake system and do not continue riding until the problem is eliminated. (Your authorized GASGAS Motorcycles workshop will be glad to help.)

Warning

Danger of accidents Old brake fluid reduces the braking effect.

– Make sure that brake fluid for the front and rear brake is changed in accordance with the service schedule. (Your authorized GASGAS Motorcycles workshop will be glad to help.)



– Move the brake fluid reservoir mounted on the handlebar to a horizontal position.
– Check the brake fluid level in level viewer 1.
  » If an air bubble is visible in upper range of the level viewer A:
    – Add front brake fluid. (📖 p. 69)

12.9 Adding front brake fluid

Warning

Danger of accidents An insufficient brake fluid level will cause the brake system to fail.

If the brake fluid level drops below the specified marking or the specified value, the brake system is leaking or the brake linings are worn down.

– Check the brake system and do not continue riding until the problem is eliminated. (Your authorized GASGAS Motorcycles workshop will be glad to help.)

Warning

Skin irritation Brake fluid causes skin irritation.

– Keep brake fluid out of the reach of children.
– Wear suitable protective clothing and safety glasses.
– Do not allow brake fluid to come into contact with the skin, the eyes or clothing.
– Consult a doctor immediately if brake fluid has been swallowed.
– Rinse the affected area with plenty of water in the event of contact with the skin.
– Rinse eyes thoroughly with water immediately and consult a doctor if brake fluid comes into contact with the eyes.
– If brake fluid spills on to your clothing, change the clothing.

Warning

Danger of accidents Old brake fluid reduces the braking effect.

– Make sure that brake fluid for the front and rear brake is changed in accordance with the service schedule. (Your authorized GASGAS Motorcycles workshop will be glad to help.)

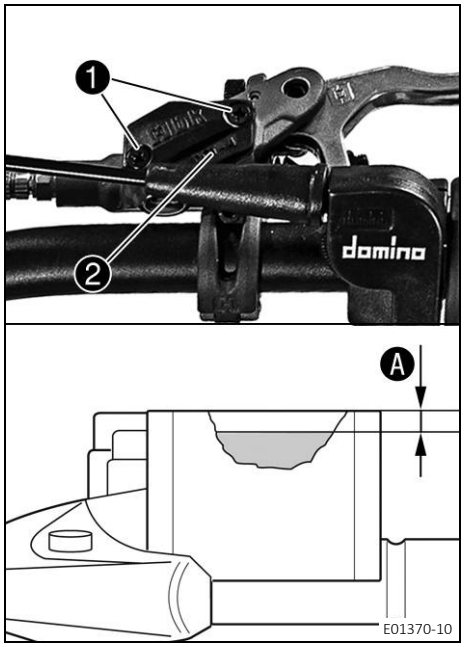
Note

Environmental hazard Hazardous substances cause environmental damage.

– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info

Never use DOT 5 brake fluid. It is silicone-based and purple in color. Oil seals and brake lines are not designed for DOT 5 brake fluid.
Avoid contact between brake fluid and painted parts. Brake fluid attacks paint.
Only use clean brake fluid from a sealed container.



Preparatory work

– Check the front brake linings. (📖 p. 71)

Main work

– Move the brake fluid reservoir mounted on the handlebar to a horizontal position.
– Remove screws 1.
– Take off cover 2 with membrane.
– Add brake fluid to level A.

Guideline

Level A (brake fluid level below reservoir rim)	5 mm (0.2 in)

Brake fluid DOT 4 / DOT 5.1 (📖 p. 117)

– Position cover 2 with the membrane. Mount and tighten screws 1.

Info

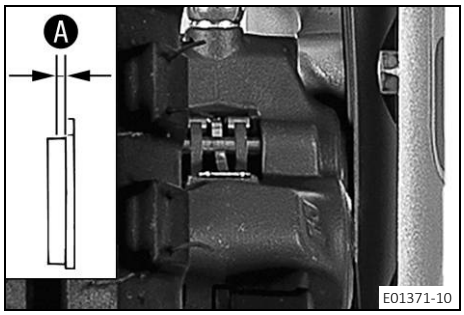
Use water to immediately clean up any brake fluid that has overflowed or spilled.

12.10 Checking the front brake linings

Warning

Danger of accidents Worn-out brake linings reduce the braking effect.

– Ensure that worn-out brake linings are replaced immediately. (Your authorized GASGAS Motorcycles workshop will be glad to help.)



– Check the brake linings for minimum thickness Ⓐ.

Minimum thickness Ⓐ	≥ 1 mm (≥ 0.04 in)

» If the minimum thickness is less than specified:

– Change the brake linings of the front brake. 🔧 (📖 p. 71)

– Check the brake linings for damage and cracking.

» If damage or wear is encountered:

– Change the brake linings of the front brake. 🔧 (📖 p. 71)

12.11 Changing the brake linings of the front brake 🔧

Warning

Danger of accidents Incorrect servicing will cause the brake system to fail.

– Ensure that service work and repairs are performed professionally. (Your authorized GASGAS Motorcycles workshop will be glad to help.)

Warning

Skin irritation Brake fluid causes skin irritation.

– Keep brake fluid out of the reach of children.
– Wear suitable protective clothing and safety glasses.
– Do not allow brake fluid to come into contact with the skin, the eyes or clothing.
– Consult a doctor immediately if brake fluid has been swallowed.
– Rinse the affected area with plenty of water in the event of contact with the skin.
– Rinse eyes thoroughly with water immediately and consult a doctor if brake fluid comes into contact with the eyes.
– If brake fluid spills on to your clothing, change the clothing.

Warning

Danger of accidents Old brake fluid reduces the braking effect.

– Make sure that brake fluid for the front and rear brake is changed in accordance with the service schedule. (Your authorized GASGAS Motorcycles workshop will be glad to help.)

Warning

Danger of accidents Oil or grease on the brake discs reduces the braking effect.

– Always keep the brake discs free of oil and grease.
– Clean the brake discs with brake cleaner when necessary.

Warning

Danger of accidents Brake linings which have not been approved alter the braking efficiency.

Not all brake linings are tested and approved for GASGAS motorcycles. The structure and friction coefficient of the brake linings, and thus their brake power, may vary greatly from that of original brake linings.
If brake linings are used that differ from the original equipment, compliance with the original homologation is not guaranteed. In this case, the vehicle no longer corresponds to its condition at delivery and the manufacturer warranty shall be void.

– Only use brake linings approved and recommended by GASGAS Motorcycles.

Note

Environmental hazard Hazardous substances cause environmental damage.

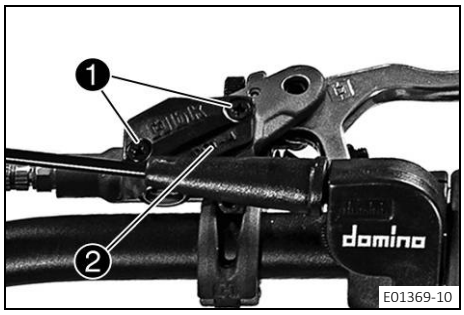
– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info

Never use DOT 5 brake fluid. It is silicone-based and purple in color. Oil seals and brake lines are not designed for DOT 5 brake fluid.
Avoid contact between brake fluid and painted parts. Brake fluid attacks paint.
Only use clean brake fluid from a sealed container.

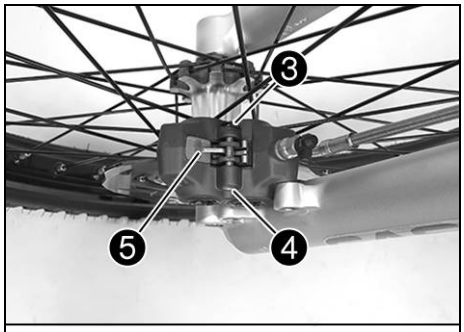
Preparatory work

– Remove front brake disc guard. (p. 68)
– Remove front brake caliper. (p. 68)



Main work

– Move the brake fluid reservoir mounted on the handlebar to a horizontal position.
– Remove screws 1.
– Take off cover 2 with membrane.

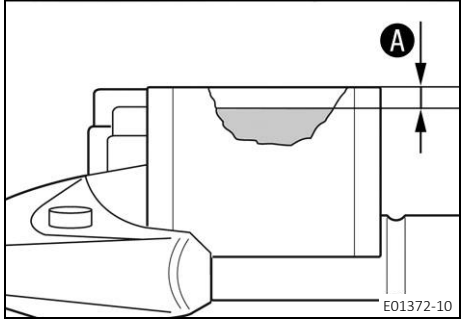


– Take off lock washer 3 and remove screw 4.
– Take off retainer spring 5 and remove the brake linings.
– Clean brake caliper.
– Position the new brake linings.

Info

Always change the brake linings in pairs.

– Position retaining spring 5.
– Mount and tighten screw 4.



Info

To make it easier to mount the screw, push the retainer spring down.
Make sure the retainer spring is seated correctly.

– Mount lock washer 3.
– Add brake fluid to level A.

Guideline

Level Ⓐ (brake fluid level below reservoir rim)	5 mm (0.2 in)

Brake fluid DOT 4 / DOT 5.1 (📖 p. 117)

– Position cover ❷ with the membrane. Mount and tighten screws ❶.

Info
Use water to immediately clean up any brake fluid that has overflowed or spilled.

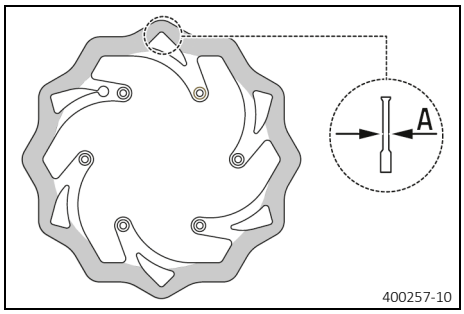
Finishing work
– Install the front brake caliper. 🔧 (📖 p. 68)
– Install the brake disc guard at the front. 🔧 (📖 p. 68)

12.12 Checking brake discs

Warning
Danger of accidents Worn-out brake discs reduce the braking effect.
– Make sure that worn-out brake discs are replaced immediately. (Your authorized GASGAS Motorcycles workshop will be glad to help.)

Condition

Preparatory work
– Remove front brake disc guard. 🔧 (📖 p. 68)



Main work
– Check front and rear brake disc thickness at multiple points for the dimension Ⓐ.

Info
Wear reduces the thickness of the brake disc around the contact surface of the brake linings.

Brake discs - wear limit	
front	2.7 mm (0.106 in)
rear	2.7 mm (0.106 in)

» If the brake disc thickness is less than the specified value:
– Change the front brake disc. 🔧
– Change the rear brake disc. 🔧

– Check front and rear brake discs for damage, cracking, and deformation.
» If the brake disc exhibits damage, cracking, or deformation:
– Change the front brake disc. 🔧
– Change the rear brake disc. 🔧

Finishing work
– Install the brake disc guard at the front. 🔧 (📖 p. 68)

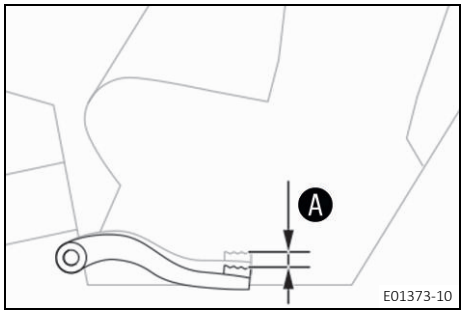
12.13 Checking the free travel of the foot brake lever

Warning

Danger of accidents The brake system fails in the event of overheating.

If there is no free travel on the foot brake lever, pressure builds up in the brake system on the rear brake.

– Set the free travel on the foot brake lever in accordance with the specification.



– Move the foot brake lever back and forth between the end stop and the contact to the foot brake cylinder piston and check free travel Ⓐ.

Guideline

Free travel at foot brake lever	3 … 5 mm (0.12 … 0.2 in)

» If the free travel does not match the specification:

– Adjust the basic position of the foot brake lever. (📖 p. 74)

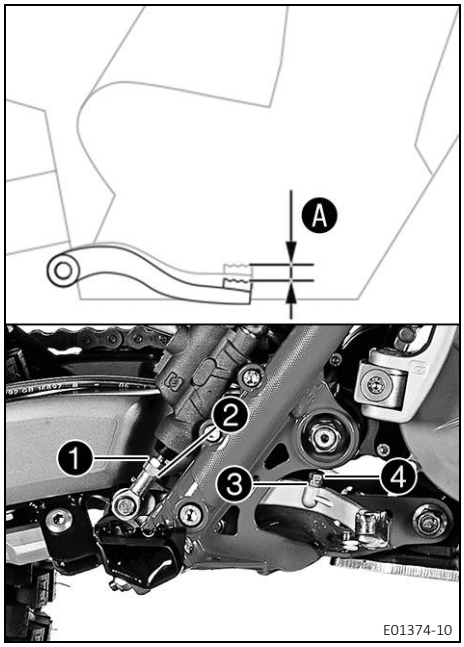
12.14 Adjusting the basic position of the foot brake lever

Warning

Danger of accidents The brake system fails in the event of overheating.

If there is no free travel on the foot brake lever, pressure builds up in the brake system on the rear brake.

– Set the free travel on the foot brake lever in accordance with the specification.



– Loosen nut ❶ and, with push rod ❷, turn it back until you have maximum free travel.

– To adjust the basic position of the foot brake lever to individual requirements, loosen nut ❸ and turn screw ❹ accordingly.

Info

The range of adjustment is limited.

– Turn push rod ❷ accordingly until you have free travel Ⓐ. If necessary, adjust the basic position of the foot brake lever.

Guideline

Free travel at foot brake lever	3 … 5 mm (0.12 … 0.2 in)

– Hold screw ❹ and tighten nut ❸.

– Hold push rod ❷ and tighten nut ❶.

12.15 Checking the rear brake fluid level

Warning

Danger of accidents An insufficient brake fluid level will cause the brake system to fail.

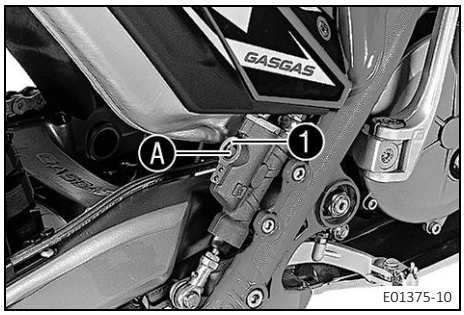
If the brake fluid level drops below the specified marking or the specified value, the brake system is leaking or the brake linings are worn down.

– Check the brake system and do not continue riding until the problem is eliminated. (Your authorized GAS-GAS Motorcycles workshop will be glad to help.)

Warning

Danger of accidents Old brake fluid reduces the braking effect.

– Make sure that brake fluid for the front and rear brake is changed in accordance with the service schedule. (Your authorized GASGAS Motorcycles workshop will be glad to help.)



– Position the vehicle upright.
– Check the brake fluid level in level viewer 1.
  » If the brake fluid level has dropped below the marking A:
    – Add rear brake fluid. (p. 75)

12.16 Adding rear brake fluid

Warning

Danger of accidents An insufficient brake fluid level will cause the brake system to fail.

If the brake fluid level drops below the specified marking or the specified value, the brake system is leaking or the brake linings are worn down.

– Check the brake system and do not continue riding until the problem is eliminated. (Your authorized GAS-GAS Motorcycles workshop will be glad to help.)

Warning

Skin irritation Brake fluid causes skin irritation.

– Keep brake fluid out of the reach of children.
– Wear suitable protective clothing and safety glasses.
– Do not allow brake fluid to come into contact with the skin, the eyes or clothing.
– Consult a doctor immediately if brake fluid has been swallowed.
– Rinse the affected area with plenty of water in the event of contact with the skin.
– Rinse eyes thoroughly with water immediately and consult a doctor if brake fluid comes into contact with the eyes.
– If brake fluid spills on to your clothing, change the clothing.

Warning

Danger of accidents Old brake fluid reduces the braking effect.

– Make sure that brake fluid for the front and rear brake is changed in accordance with the service schedule. (Your authorized GASGAS Motorcycles workshop will be glad to help.)

Note

Environmental hazard Hazardous substances cause environmental damage.

– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

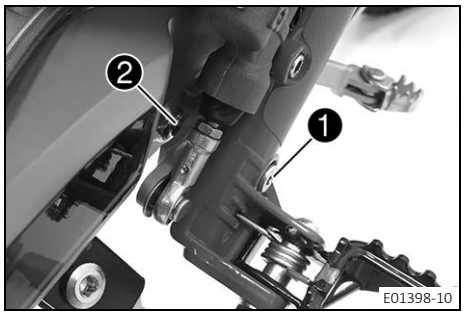
Info

Never use DOT 5 brake fluid. It is silicone-based and purple in color. Oil seals and brake lines are not designed for DOT 5 brake fluid.
Avoid contact between brake fluid and painted parts. Brake fluid attacks paint.
Only use clean brake fluid from a sealed container.

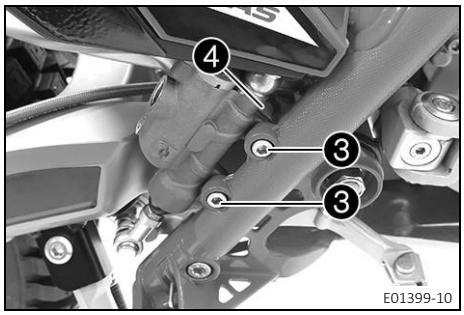
Preparatory work

– Check the brake linings of the rear brake. (p. 77)

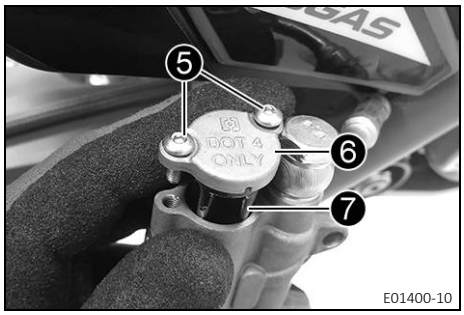
Main work



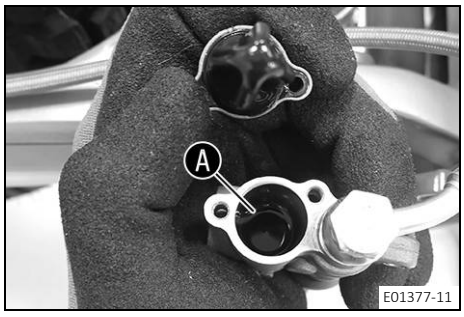
– Remove screw ❶ with nut ❷.
– Pull the push rod out of the foot brake cylinder and remove the foot brake lever to the front.



– Remove screws ❸ with plastic bushing ❹.
– Carefully remove the brake cylinder and hold it vertically.



– Remove screws ❺ and cover ❻ with membrane ❼.



– Add brake fluid up to the marking Ⓐ.

Brake fluid DOT 4 / DOT 5.1 (p. 117)

– Position cover ❻ with membrane ❼ and mount and tighten screws ❺.

Info

Use water to immediately clean up any brake fluid that has overflowed or spilled.

– Position the foot brake cylinder.

– Mount and tighten screws ❸ with plastic bushing ❹.

Guideline

Screw, foot brake cylinder	M6	10 Nm (7.4 lbf ft)

– Position foot brake lever; insert push rod into foot brake cylinder.
– Mount and tighten screw ❶ with nut ❷.

Guideline

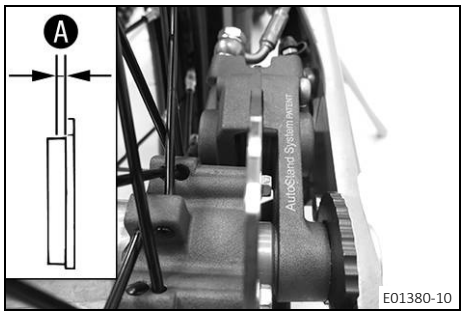
Screw, foot brake lever	M8	25 Nm (18.4 lbf ft) **Loctite®243™**

12.17 Checking the brake linings of the rear brake

Warning

Danger of accidents Worn-out brake linings reduce the braking effect.

– Ensure that worn-out brake linings are replaced immediately. (Your authorized GASGAS Motorcycles workshop will be glad to help.)



– Check the brake linings for minimum thickness Ⓐ.

Minimum thickness Ⓐ	≥ 1 mm (≥ 0.04 in)

» If the minimum thickness is less than specified:
– Change the rear brake linings. (📖 p. 77)

– Check the brake linings for damage and cracking.

» If damage or wear is encountered:
– Change the rear brake linings. (📖 p. 77)

12.18 Changing the rear brake linings

Warning

Danger of accidents Incorrect servicing will cause the brake system to fail.

– Ensure that service work and repairs are performed professionally. (Your authorized GASGAS Motorcycles workshop will be glad to help.)

Warning

Skin irritation Brake fluid causes skin irritation.

– Keep brake fluid out of the reach of children.
– Wear suitable protective clothing and safety glasses.
– Do not allow brake fluid to come into contact with the skin, the eyes or clothing.
– Consult a doctor immediately if brake fluid has been swallowed.
– Rinse the affected area with plenty of water in the event of contact with the skin.
– Rinse eyes thoroughly with water immediately and consult a doctor if brake fluid comes into contact with the eyes.
– If brake fluid spills on to your clothing, change the clothing.

Warning

Danger of accidents Old brake fluid reduces the braking effect.

– Make sure that brake fluid for the front and rear brake is changed in accordance with the service schedule. (Your authorized GASGAS Motorcycles workshop will be glad to help.)

Note

Environmental hazard Hazardous substances cause environmental damage.

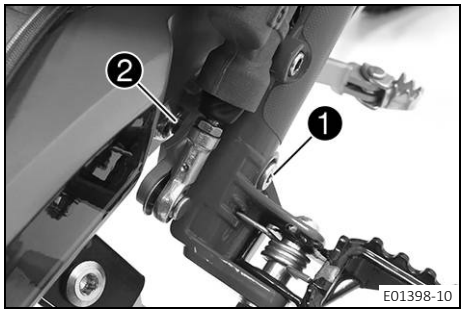
– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info

Never use DOT 5 brake fluid. It is silicone-based and purple in color. Oil seals and brake lines are not designed for DOT 5 brake fluid.
Avoid contact between brake fluid and painted parts. Brake fluid attacks paint.
Only use clean brake fluid from a sealed container.

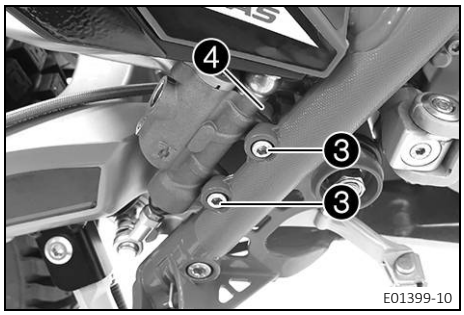
Preparatory work

– Raise the motorcycle with a lift stand. (📖 p. 40)
– Remove the rear wheel. 🔧 (📖 p. 82)

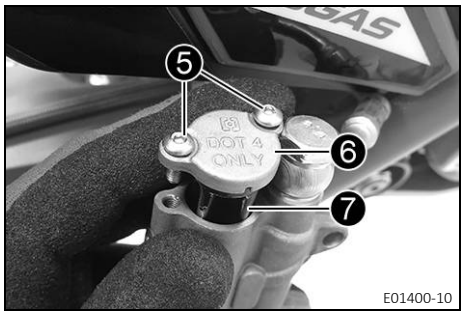


Main work

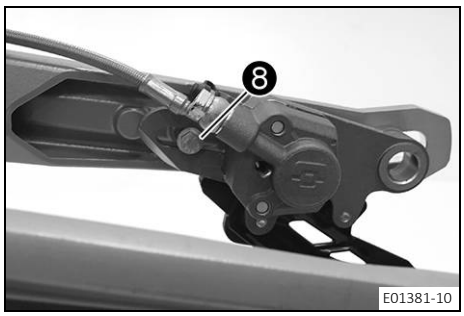
– Remove screw ❶ with nut ❷.
– Pull the push rod out of the foot brake cylinder and remove the foot brake lever to the front.



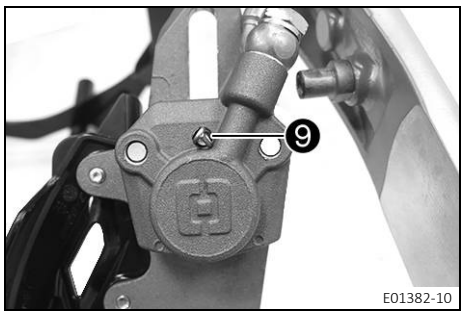
– Remove screws ❸ with plastic bushing ❹.



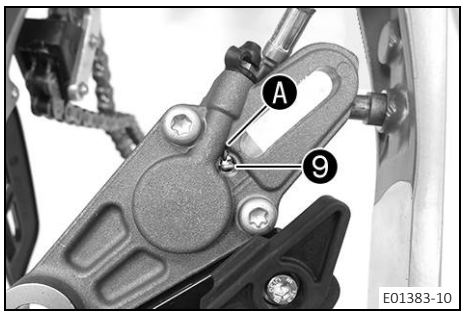
– Remove screws ❺.
– Remove cover ❻ with membrane ❼.
– Secure the compensating tank in a vertical position.



- Remove screw 8.
- Carefully remove the brake caliper from the link fork.



- Remove clamping spring 9 to the right.
- Push back brake piston and remove brake linings.
- Clean brake caliper.



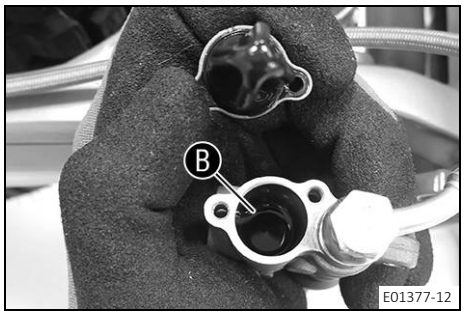
- Insert the new brake linings.

Info
Always change the brake linings in pairs.

- Mount clamping spring 9 from the right and make sure that the clamping spring is locked in groove A.
- Position the brake caliper on the link fork and mount and tighten screw 8.

Guideline

Screw, rear brake caliper	M6	12 Nm (8.9 lbf ft) **Loctite®243™**

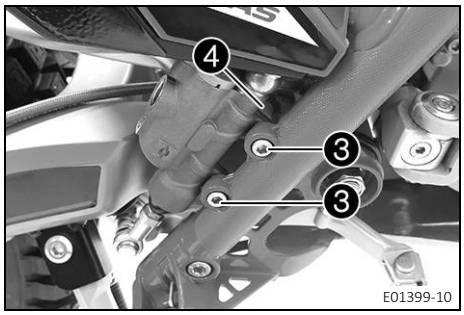


- Add brake fluid to level B.

Brake fluid DOT 4 / DOT 5.1 (p. 117)

- Position cover 6 with membrane 7 and mount and tighten screws 5.

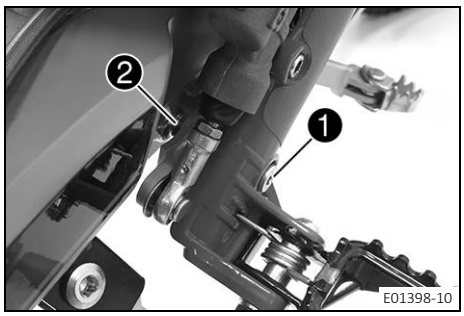
Info
Use water to immediately clean up any brake fluid that has overflowed or spilled.



- Position the foot brake cylinder.
- Mount and tighten screws 3 with plastic bushing 4.

Guideline

Screw, foot brake cylinder	M6	10 Nm (7.4 lbf ft)

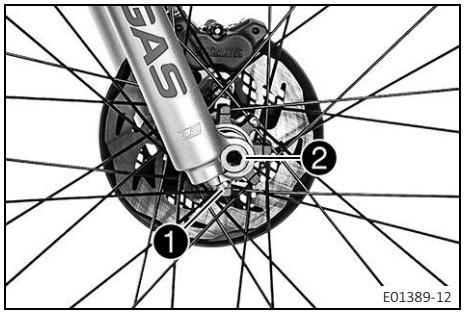


– Position foot brake lever; insert push rod into foot brake cylinder.
– Mount and tighten screw ❶ with nut ❷.

Guideline

Screw, foot brake lever	M8	25 Nm (18.4 lbf ft) **Loctite®243™**

13.1 Removing the front wheel



Preparatory work

– Raise the motorcycle with a lift stand. (p. 40)

Main work

– Loosen screw 1 by several rotations.

– Loosen wheel spindle 2.

– Press the left-hand side of wheel spindle 2 to push the wheel spindle out of the axle clamp.

Warning

Danger of accidents Damaged brake discs reduce the braking effect.

– Always lay the wheel down in such a way that the brake disc is not damaged.

– Hold front wheel and remove wheel spindle. Take the front wheel out of the fork.

Info

Do not actuate the hand brake lever when the front wheel is removed.

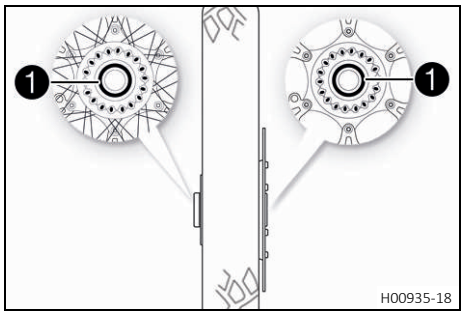
13.2 Installing the front wheel

Warning

Danger of accidents Oil or grease on the brake discs reduces the braking effect.

– Always keep the brake discs free of oil and grease.

– Clean the brake discs with brake cleaner when necessary.



– Check the wheel bearing for damage and wear.

» If the wheel bearing is damaged or worn:

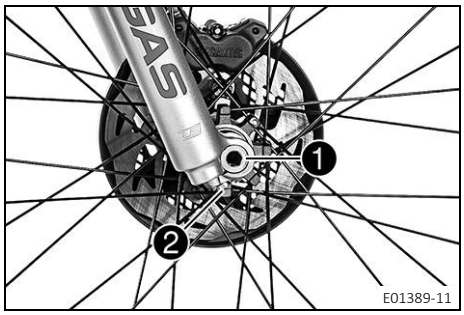
– Change front wheel bearing.

– Clean and lightly grease the wheel spindle.

Long-life grease (p. 119)

– Jack up the front wheel into the fork, position it, and insert the wheel spindle.

✔ The brake linings are correctly positioned.



– Tighten wheel spindle 1.

Guideline

Wheel spindle, front	M18	50 Nm (36.9 lbf ft)

– Operate the hand brake lever several times until the brake linings are seated correctly against the brake disc.

– Remove the motorcycle from the lift stand. (p. 40)

– Operate the front brake and compress the fork a few times firmly.

✔ The fork legs straighten.

– Tighten screw 2.

Guideline

Screw, axle clamp	M8	23 Nm (17 lbf ft)

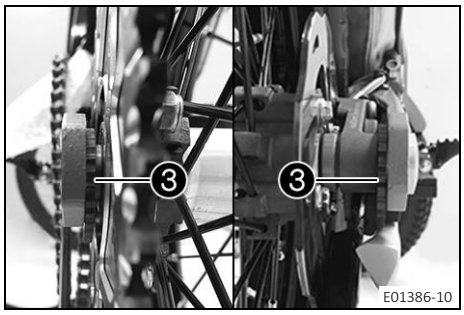
13.3 Removing the rear wheel

Preparatory work

– Raise the motorcycle with a lift stand. (📖 p. 40)

Main work

– Remove screw ❶ with spacer ❷.



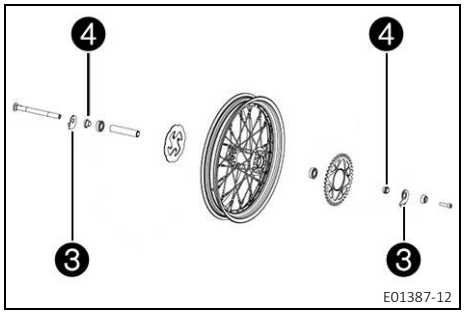
– Turn eccentrics ❸ so that the greatest possible chain play is present.
– Push the rear wheel forward as far as possible. Remove the chain from the rear sprocket.

Info
Cover the components to protect them against damage.

Warning
Danger of accidents Damaged brake discs reduce the braking effect.
– Always lay the wheel down in such a way that the brake disc is not damaged.

– Holding the rear wheel, withdraw the wheel spindle to the right. Take the rear wheel out of the link fork.

Info
Do not operate the foot brake lever when the rear wheel is removed.



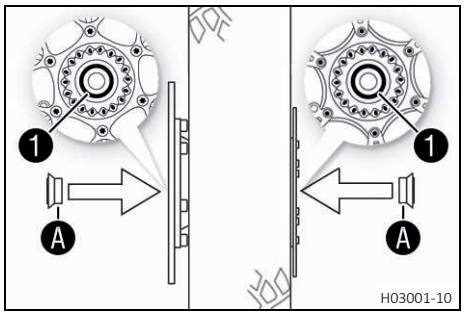
– Remove eccentrics ❸ and spacers ❹.

13.4 Installing the rear wheel

Warning

Danger of accidents Oil or grease on the brake discs reduces the braking effect.

– Always keep the brake discs free of oil and grease.
– Clean the brake discs with brake cleaner when necessary.

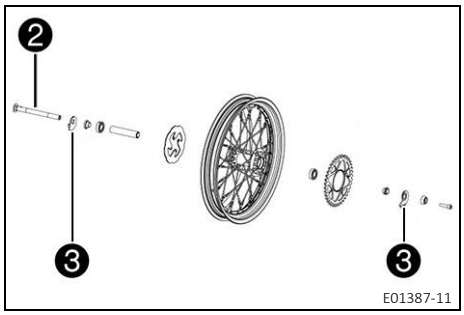


Main work

– Check the wheel bearing for damage and wear.
  » If the wheel bearing is damaged or worn:
    – Change the rear wheel bearing.
– Clean and grease shaft seal rings ❶ and contact surfaces Ⓐ of the spacers.

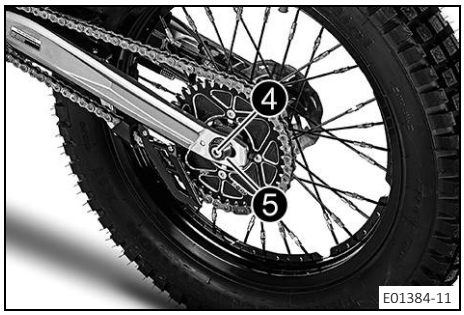
  Long-life grease (p. 119)

– Insert the spacers.

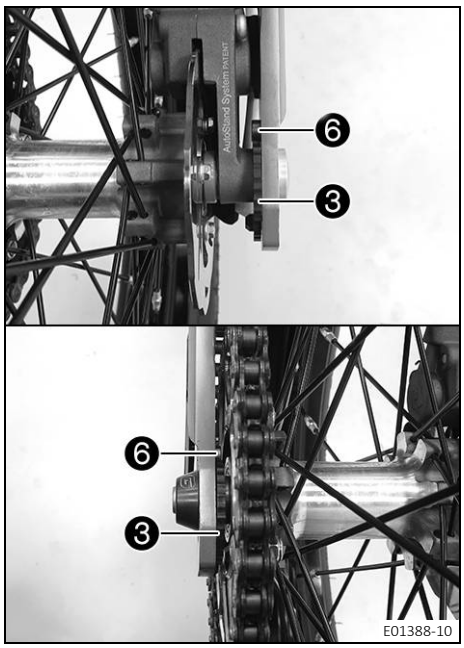


– Lift the rear wheel into the link fork, position it, and insert wheel spindle ❷ with eccentric ❸.
– Mount the chain.

  ✓ The brake linings are correctly positioned.



– Mount screw ❹ with spacer ❺, but do not tighten yet.
– Operate the foot brake lever repeatedly until the brake linings are in contact with the brake disc and there is a pressure point.



– Make sure that eccentrics ❸ are fitted correctly to the screws of link fork ❻.
– Adjust the chain tension. (📖 p. 62)
– Tighten screw ❹.

Guideline

Screw, rear wheel spindle	M10	50 Nm (36.9 lbf ft)

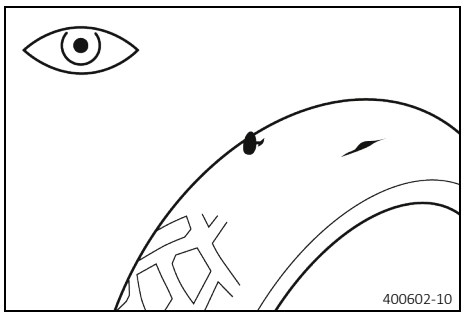
Finishing work

– Remove the motorcycle from the lift stand. (📖 p. 40)

13.5 Checking the tire condition

Info

Only mount tires approved and/or recommended by GASGAS Motorcycles.
Other tires could have a negative effect on handling characteristics.
The type, condition, and pressure of the tires all have a major impact on the handling characteristic of the motorcycle.
The tires mounted on the front and rear wheels must have a similar profile.
Worn tires have a negative effect on handling characteristics, especially on wet surfaces.



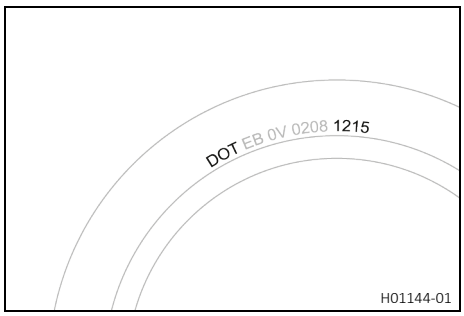
– Check the front and rear tires for cuts, embedded objects, and other damage.
  » If the tires have cuts, run-in objects, or other damage:
    – Change the tires.
– Check tread depth.

Info

Adhere to the legally required minimum tread depth.

Minimum tread depth	≥ 2 mm (≥ 0.08 in)

» If the tread depth is less than the minimum tread depth:
  – Change the tires.



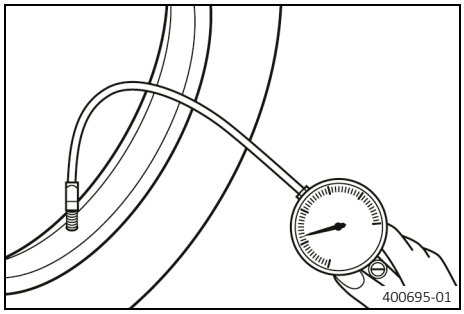
– Check the tire age.

Info
The tire date of manufacture is usually contained in the tire label and is indicated by the last four digits of the **DOT** number. The first two digits indicate the week of manufacture and the last two digits the year of manufacture.
GASGAS Motorcycles recommends that the tires be changed after five years at the latest, regardless of the actual wear.

» If the tires are more than five years old:
– Change the tires.

13.6 Checking tire pressure

Info
Low tire pressure leads to abnormal wear and overheating of the tire.
Correct tire pressure ensures optimal riding comfort and maximum tire service life.



– Remove protection cap.
– Check tire pressure when the tires are cold.

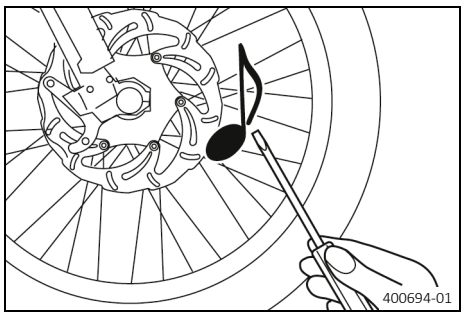
Street tire pressure (Option: Homologized)	
Front	1.2 bar (17 psi)
rear	1.2 bar (17 psi)

Offroad tire pressure	
front	0.42 bar (6.1 psi)
rear	0.30 bar (4.4 psi)

» If the tire pressure does not meet specifications:
– Correct tire pressure.
– Mount the protection cap.

13.7 Checking the spoke tension

Warning
Danger of accidents Incorrectly tensioned spokes impair the handling characteristic and result in secondary damage.
The spokes break due to being overloaded if they are too tightly tensioned. If the tension in the spokes is too low, then lateral and radial run-out will form in the wheel. Other spokes will become looser as a result.
– Check spoke tension regularly, and in particular on a new vehicle. (Your authorized GASGAS Motorcycles workshop will be glad to help.)



– Strike each spoke briefly using a screwdriver blade.

Info

The frequency of the sound depends on the spoke length and spoke diameter.
If you hear different tone frequencies from different spokes of equal length and diameter, this is an indication of different spoke tensions.

You should hear a high note.

» If the spoke tension differs:

– Correct the spoke tension.

– Check the spoke torque.

Guideline

Spoke nipple, front wheel	M4.5	2 Nm (1.5 lbf ft)
Spoke nipple, rear wheel	M4.5	3 Nm (2.2 lbf ft)

14.1 Diagnostics connector

The diagnostics connector ❶ is located on the right-hand side above the radiator fan.

14.2 Changing the headlight bulb (Option: Homologized)

Note

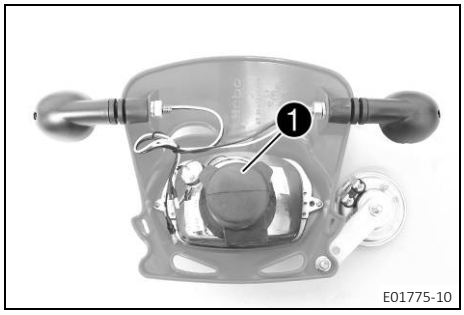
Damage to reflector Grease on the reflector reduces the light intensity.

Grease on the bulb will evaporate due to the heat and be deposited on the reflector.

– Clean and degrease the bulbs before mounting.
– Do not touch the bulbs with your bare hands.

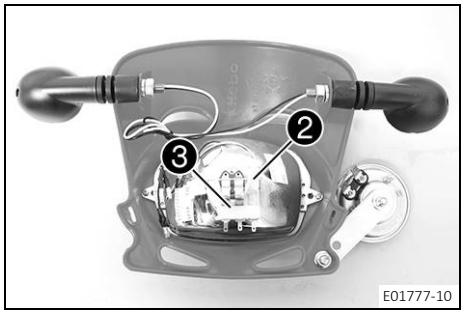
Preparatory work

– Remove the headlight mask. (📖 p. 48)

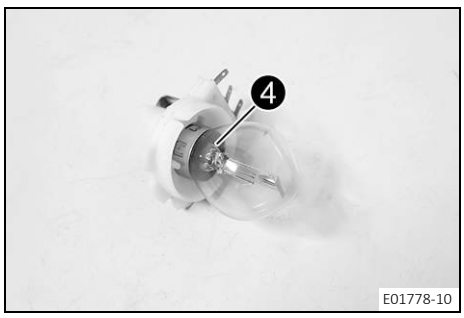


Main work

– Remove protection cap ❶.



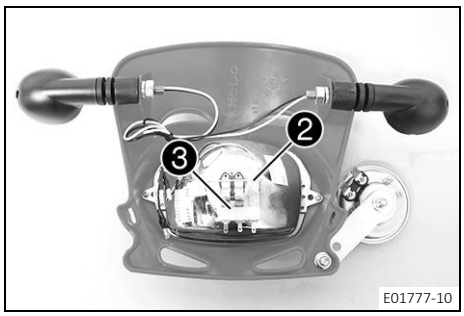
– Fold retainer spring ❷ downward.
– Pull out bulb socket ❸ with headlight bulb.



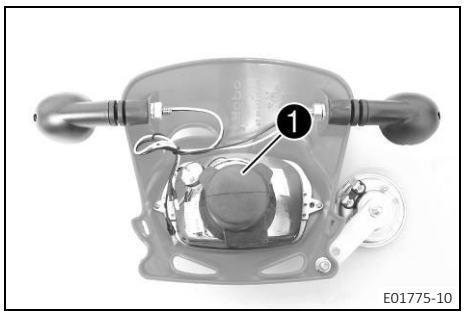
– Carefully push headlight bulb ❹ downward and turn clockwise until it unlocks.
– Remove the headlight bulb.
– Insert the new headlight bulb.

Low beam/high beam (BILUX bulb / socket BA20D) (📖 p. 112)

– Carefully push headlight bulb ❹ downward and turn counterclockwise until it locks.



– Insert the bulb socket ❸ and headlight bulb in the reflector.
– Fold retainer spring ❷ upward.



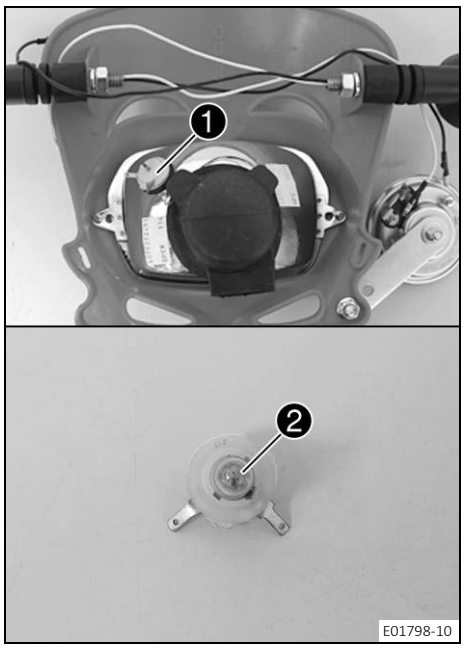
– Mount protection cap ❶.

Finishing work
– Install the headlight mask. (📖 p. 49)

14.3 Changing the position light lamp (Option: Homologized)

Note
Damage to reflector Grease on the reflector reduces the light intensity.
Grease on the bulb will evaporate due to the heat and be deposited on the reflector.
– Clean and degrease the bulbs before mounting.
– Do not touch the bulbs with your bare hands.

Preparatory work
– Remove the headlight mask. (📖 p. 48)



Main work

– Carefully pull position light socket ❶ out of the housing.
– Remove bulb ❷.
– Position a new bulb ❷ in the socket.

Position light (T4W / socket BA9s) (📖 p. 112)

– Carefully position position light socket ❶ in the housing.

Finishing work

– Install the headlight mask. (📖 p. 49)

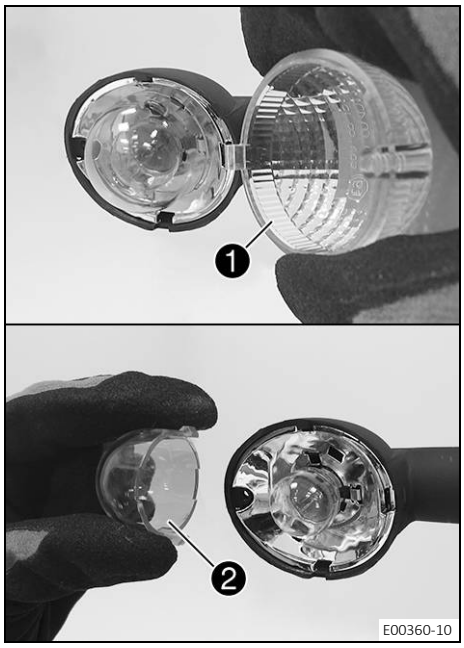
14.4 Changing the turn signal bulb (Option: Homologized)

Note

Damage to reflector Grease on the reflector reduces the light intensity.

Grease on the bulb will evaporate due to the heat and be deposited on the reflector.

– Clean and degrease the bulbs before mounting.
– Do not touch the bulbs with your bare hands.



Main work

– Remove the screw on the rear of the turn signal housing.
– Carefully remove turn signal glass ❶.
– Lightly squeeze orange cap ❷ in the area of the holding lugs and take it off.
– Press the turn signal bulb lightly into the socket, turn it counter-clockwise by about 30°, and pull it out of the socket.

Info
Do not touch the reflector with your fingers and keep it free from grease.

– Press the new turn signal bulb carefully into the socket and turn it clockwise until it stops.

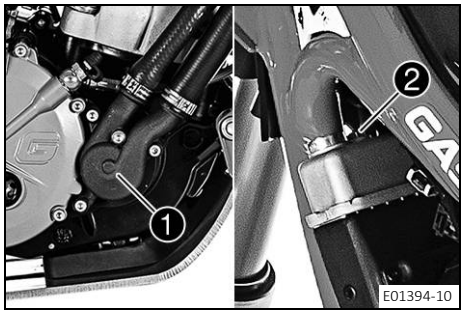
Turn signal (R10W / socket BA15s) (📖 p. 112)

– Mount the orange cap.
– Position the turn signal glass.
– Insert the screw and first turn counterclockwise until it engages in the thread with a small jerk. Tighten the screw lightly.

Finishing work

– Check that the turn signal system is functioning properly.

15.1 Cooling system



Water pump ❶ in the engine ensures forced circulation of the coolant. The pressure in the cooling system resulting from heat is regulated by a valve ❷ in the radiator.

15.2 Checking the antifreeze and coolant level

Warning

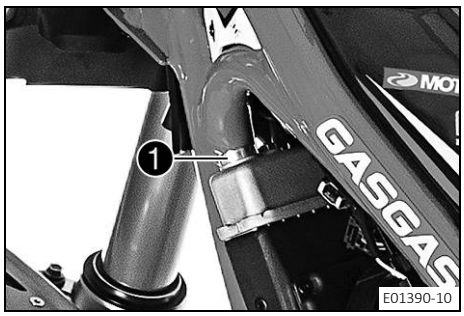
Danger of scalding During motorcycle operation, the coolant gets very hot and is under pressure.

- Do not open the radiator, the radiator hoses or other cooling system components if the engine or the cooling system are at operating temperature.
- Allow the cooling system and the engine to cool down before you open the radiator, the radiator hoses or other components of the cooling system.
- In the event of scalding, rinse the area affected immediately with lukewarm water.

Warning

Danger of poisoning Coolant is toxic and a health hazard.

- Keep coolant out of the reach of children.
- Do not allow coolant to come into contact with the skin, the eyes and clothing.
- Consult a doctor immediately if coolant is swallowed.
- Rinse the affected area immediately with plenty of water in the event of contact with the skin.
- Rinse eyes thoroughly with water and consult a doctor immediately if coolant gets into the eyes.
- Change clothing if coolant spills onto your clothing.



Condition

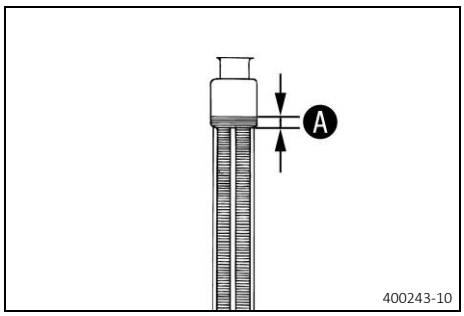
The engine is cold.

- Stand the motorcycle upright on a horizontal surface.
- Remove radiator cap screw ❶.
- Check the antifreeze in the coolant.

−25 … −45 °C (−13 … −49 °F)

» If the antifreeze in the coolant does not match the specified value:

  - Correct the antifreeze in the coolant.



– Check the coolant level in the radiator.

Coolant level Ⓐ above the radiator fins	5 mm (0.2 in)

» If the coolant level does not match the specified value:
  – Correct the coolant level.

– Mount and tighten radiator cap screw ❶.

15.3 Draining the coolant

Warning

Danger of scalding During motorcycle operation, the coolant gets very hot and is under pressure.

– Do not open the radiator, the radiator hoses or other cooling system components if the engine or the cooling system are at operating temperature.
– Allow the cooling system and the engine to cool down before you open the radiator, the radiator hoses or other components of the cooling system.
– In the event of scalding, rinse the area affected immediately with lukewarm water.

Warning

Danger of poisoning Coolant is toxic and a health hazard.

– Keep coolant out of the reach of children.
– Do not allow coolant to come into contact with the skin, the eyes and clothing.
– Consult a doctor immediately if coolant is swallowed.
– Rinse the affected area immediately with plenty of water in the event of contact with the skin.
– Rinse eyes thoroughly with water and consult a doctor immediately if coolant gets into the eyes.
– Change clothing if coolant spills onto your clothing.

Condition
The engine is cold.

– Position the motorcycle upright.
– Place an appropriate container under the water pump cover.
– Remove radiator cap screw ❶.
– Remove screw ❷.
– Completely drain the coolant.
– Mount and tighten screw ❷ with a new seal ring.
  Guideline

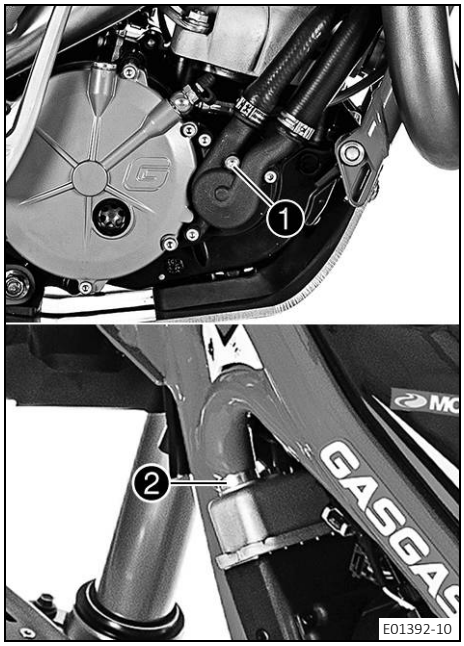
Coolant drain plug	M6	10 Nm (7.4 lbf ft)

15.4 Refilling with coolant

Warning

Danger of poisoning Coolant is toxic and a health hazard.

- Keep coolant out of the reach of children.
- Do not allow coolant to come into contact with the skin, the eyes and clothing.
- Consult a doctor immediately if coolant is swallowed.
- Rinse the affected area immediately with plenty of water in the event of contact with the skin.
- Rinse eyes thoroughly with water and consult a doctor immediately if coolant gets into the eyes.
- Change clothing if coolant spills onto your clothing.



- Make sure that screw ❶ is tightened.
- Position the motorcycle upright.
- Completely fill the radiator with coolant and mount and tighten radiator cap screw ❷.

Coolant (📖 p. 117)

Danger

Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and death.

- Always make sure there is sufficient ventilation when running the engine.
- Use effective exhaust extraction when starting or running the engine in an enclosed space.

- Allow the engine to warm up and cool down again.
- Check the antifreeze and coolant level. (📖 p. 91)

15.5 Changing the coolant

Warning

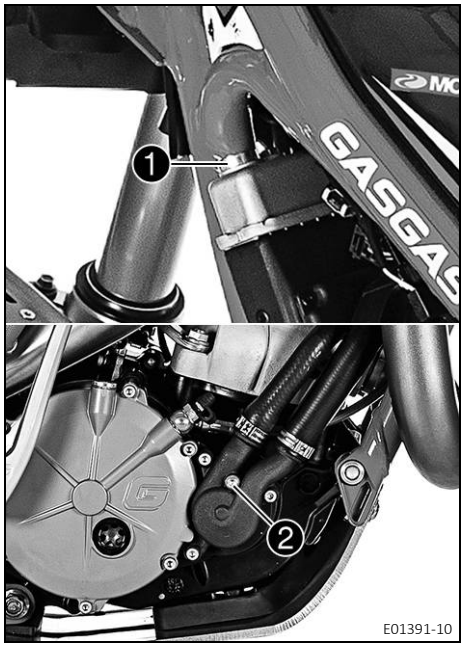
Danger of scalding During motorcycle operation, the coolant gets very hot and is under pressure.

- Do not open the radiator, the radiator hoses or other cooling system components if the engine or the cooling system are at operating temperature.
- Allow the cooling system and the engine to cool down before you open the radiator, the radiator hoses or other components of the cooling system.
- In the event of scalding, rinse the area affected immediately with lukewarm water.

Warning

Danger of poisoning Coolant is toxic and a health hazard.

- Keep coolant out of the reach of children.
- Do not allow coolant to come into contact with the skin, the eyes and clothing.
- Consult a doctor immediately if coolant is swallowed.
- Rinse the affected area immediately with plenty of water in the event of contact with the skin.
- Rinse eyes thoroughly with water and consult a doctor immediately if coolant gets into the eyes.
- Change clothing if coolant spills onto your clothing.



Condition
The engine is cold.

– Position the motorcycle upright.
– Place an appropriate container under the water pump cover.
– Remove radiator cap screw ❶.
– Remove screw ❷.
– Completely drain the coolant.
– Mount and tighten screw ❷ with a new seal ring.
  Guideline

Coolant drain plug	M6	10 Nm (7.4 lbf ft)

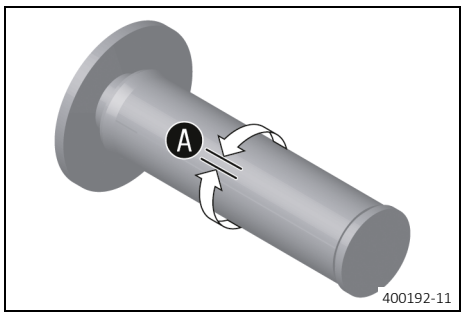
– Completely fill the radiator with coolant and mount and tighten radiator cap screw ❶.

Coolant (📖 p. 117)

Danger
Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and death.
– Always make sure there is sufficient ventilation when running the engine.
– Use effective exhaust extraction when starting or running the engine in an enclosed space.

– Allow the engine to warm up and cool down again.
– Check the antifreeze and coolant level. (📖 p. 91)

16.1 Checking the play in the throttle cable



– Check the throttle grip for smooth operation.
– Move the handlebar to the straight-ahead position. Turn the throttle grip back and forth slightly and determine the play in throttle cable Ⓐ.

Play in throttle cable	2 … 3 mm (0.08 … 0.12 in)

» If the throttle cable play does not meet the specified value:
– Adjust the play in the throttle cable. (📖 p. 95)

Danger

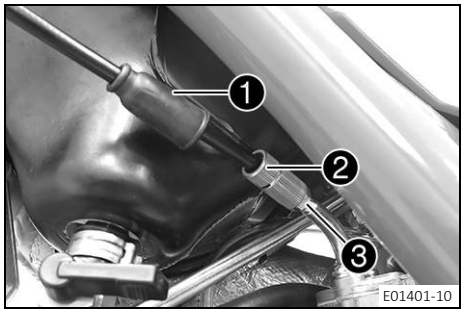
Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and death.
– Always make sure there is sufficient ventilation when running the engine.
– Use effective exhaust extraction when starting or running the engine in an enclosed space.

– Start the engine and let it run at idle speed. Move the handlebar to and fro over the entire steering range.

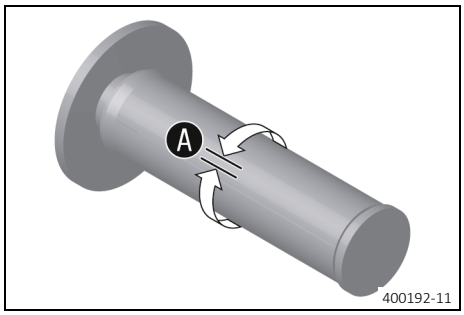
The idle speed must not change.

» If the idle speed changes:
– Adjust the play in the throttle cable. (📖 p. 95)

16.2 Adjusting the play in the throttle cable



Main work
– Move the handlebar to the straight-ahead position.
– Push back sleeve ❶.
– Ensure that the throttle cable sleeve is pushed all the way into barrel adjuster ❷.
– Loosen nut ❸.



– Turn barrel adjuster ❷ so that there is play Ⓐ in the throttle cable at the throttle grip.
Guideline

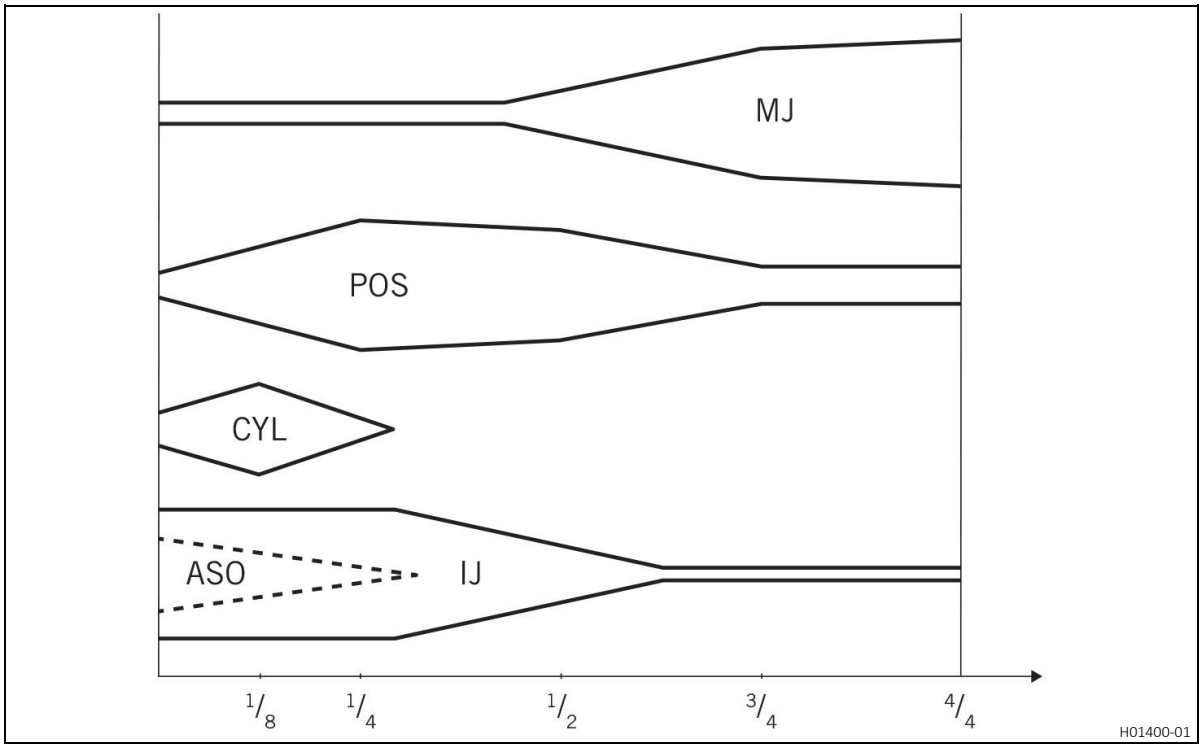
Play in throttle cable	2 … 3 mm (0.08 … 0.12 in)

– Tighten nut ❸.
– Slide on sleeve ❶.

Finishing work
– Check the throttle grip for smooth operation.
– Check the play in the throttle cable. (📖 p. 95)

16.3 Carburetor tuning

Effects of carburetor tuning



The different carburetor components must be tuned both to one another and for the use intended.

Main jet MJ

The main jet MJ has the greatest influence with the throttle slide open (full throttle).
If the insulator of a new spark plug is very light or white after a brief ride at full throttle, or if the engine knocks, a larger main jet needs to be used. If the insulator is dark brown or sooty, a smaller main jet needs to be used.

Needle position POS

The needle position has the greatest influence in the mid throttle slide range.
If the engine stutters when accelerating with a partially open throttle slide, the jet needle must be lowered. If the engine knocks when accelerating at the full power rpm range, the jet needle must be raised.

Cylindrical part of the needle CYL

The cylindrical part of the needle has the greatest influence when the throttle slide is almost closed.

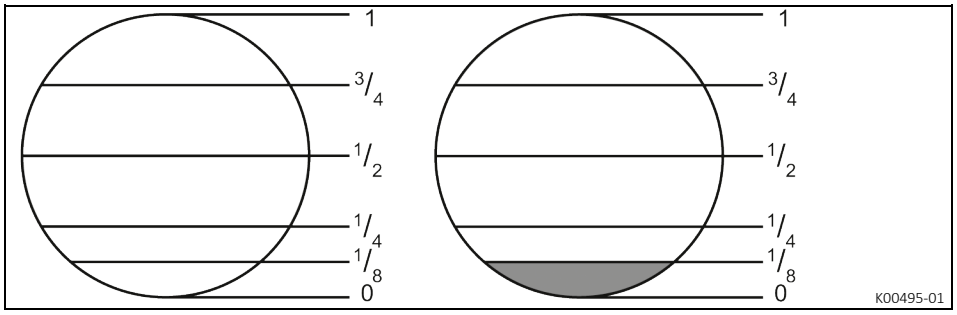
Idling jet IJ

The idling jet has the greatest influence in the low to mid throttle slide range.
If the engine stutters at idle speed or when accelerating with a partially open throttle slide, a smaller idling jet must be used. If the engine knocks in this power range, then a larger idling jet must be used.

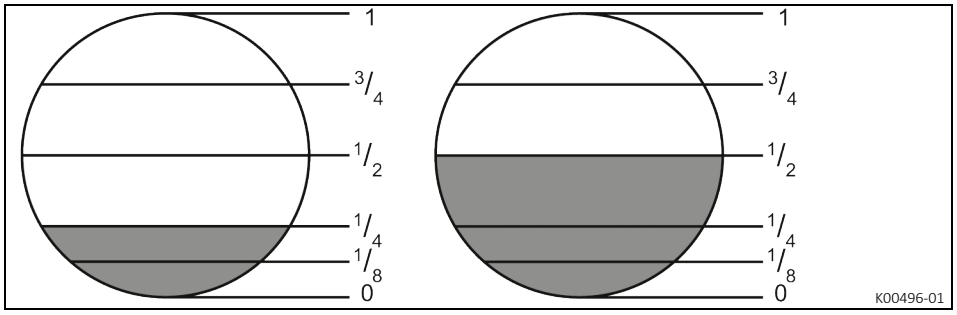
Idle air adjusting screw open ASO

The idle air adjusting screw has the greatest influence at idle speed.

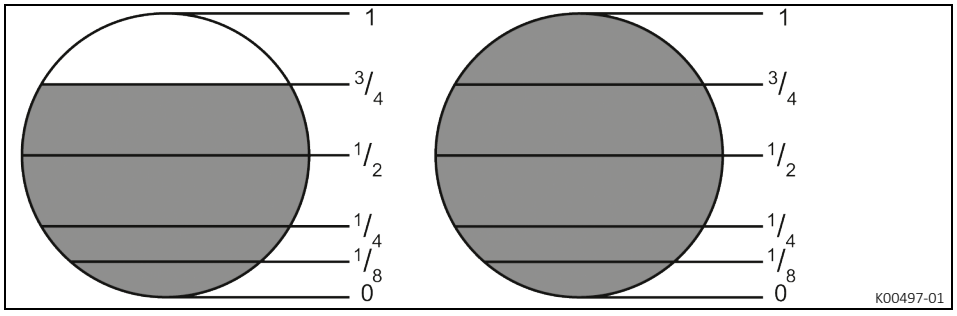
Influence of throttle slide adjustment



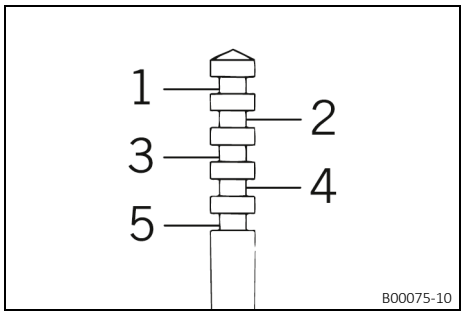
The idling jet has the greatest influence when the throttle slide is closed. The first cylindrical part of the needle and the clip position have only minimal influence.
When the throttle slide is 1/8 open, the first cylindrical part of the needle, the idling jet and the clip position have the greatest influence.



When the throttle slide is 1/4 open, the idling jet and the clip position have the greatest influence. The influence of the first cylindrical part of the needle is less.
When the throttle slide is 1/2 open, the position of the needle has the greatest influence. The influence of the main jet and the idling jet is only minimal.



When the throttle slide is 3/4 open, the influence of the main jet is greatest. The clip position and the idling jet have only minimal influence.
When the throttle slide is fully open, the influence of the main jet is greatest. The clip position and the idling jet have only minimal influence.

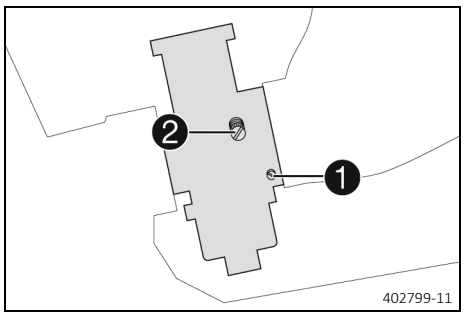


Clip position

1... 5	Clip position from above

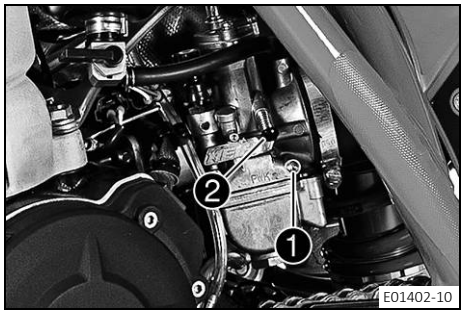
The five possible clip positions are shown here.
The carburetor tuning depends on the defined ambient and operating conditions.

16.4 Carburettor – idle speed



The idle setting of the carburetor significantly influences the vehicle's starting behavior, the stability of the idle speed, and the vehicle's response when accelerating. An engine with a correctly set idle speed will be easier to start than one with an incorrectly set idle speed.
The idle mixture is adjusted using the idle air adjusting screw ❶.
The idle speed is adjusted with adjusting screw ❷.

16.5 Carburetor – adjusting the idle speed



– Screw in idle air adjusting screw ❶ all the way and turn it to the specified basic setting.

Guideline

Idle air adjusting screw (All 280 models)	
open	1 turn
Idle air adjusting screw (All 125/250/300 models)	
open	1.25 turns

– Run the engine until warm.

Guideline

Warming-up phase	≥ 5 min

Danger

Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and death.

– Always make sure there is sufficient ventilation when running the engine.
– Use effective exhaust extraction when starting or running the engine in an enclosed space.

– Adjust the idle speed with adjusting screw ❷.

Guideline

Choke function deactivated – The choke lever is pushed in to the stop. (Option: Not homologized) (📖 p. 16)	
Choke function deactivated – Choke lever in basic position. (Option: Homologized) (📖 p. 16)	
Idle speed	900 … 1,100 rpm

– Turn idle air adjusting screw ❶ slowly in a clockwise direction until the idle speed begins to fall.
– Note the position and turn the idle air adjusting screw slowly counterclockwise until the idle speed again begins to fall.
– Adjust to the point between these two positions with the highest idle speed.

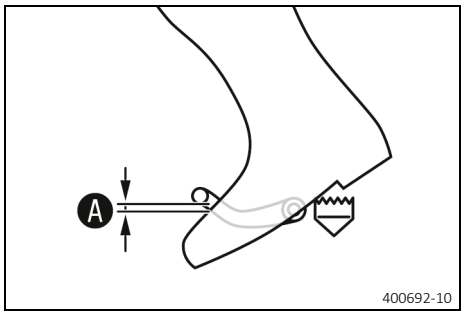
Info

If there is a big engine speed rise, reduce the idle speed to a normal level and repeat the above steps.
If the procedure described here does not lead to satisfactory results, the cause may be a wrongly dimensioned idling jet.
If you can turn the idle air adjusting screw to the end without any change of engine speed, mount a smaller idling jet.
After changing the idling jet, start from the beginning with the adjusting steps.
Following extreme air temperature or altitude changes, adjust the idle speed again.

16.6 Checking the basic position of the shift lever

Info

When driving, the shift lever must not touch the rider's boot when in the basic position.
When the shift lever keeps touching the boot, the transmission will be subject to an excessive load.

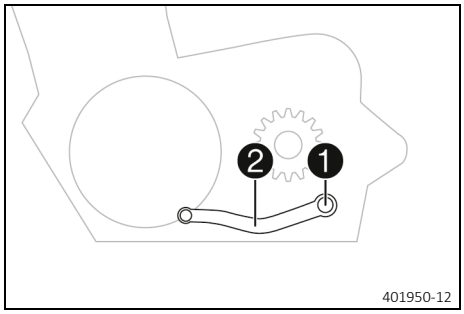


– Sit on the vehicle in the riding position and determine distance Ⓐ between the upper edge of your boot and the shift lever.

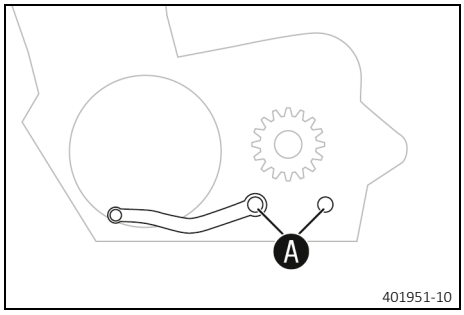
Distance between shift lever and upper edge of boot	10 … 20 mm (0.39 … 0.79 in)

» If the distance does not meet specifications:
– Adjust the basic position of the shift lever. (📖 p. 99)

16.7 Adjusting the basic position of the shift lever



– Remove screw ❶ and take off shift lever ❷.



– Clean gear teeth Ⓐ of the shift lever and shift shaft.
– Mount the shift lever on the shift shaft in the required position and engage gearing.

Info

The range of adjustment is limited.
The shift lever must not come into contact with any other vehicle components during the shift procedure.

– Mount and tighten screw ❶.

Guideline

Screw, shift lever	M5	8 Nm (5.9 lbf ft)

17.1 Emptying the carburetor float chamber (Option: Not homologized)

Danger

Fire hazard Fuel is highly flammable.

The fuel in the fuel tank expands when warm and can escape if overfilled.

- Do not fuel the vehicle in the vicinity of open flames or lit cigarettes.
- Switch off the engine for refueling.
- Make sure that no fuel is spilled; particularly not on hot parts of the vehicle.
- If any fuel is spilled, wipe it off immediately.
- Observe the specifications for refueling.

Warning

Danger of poisoning Fuel is poisonous and a health hazard.

- Avoid skin, eye and clothing contact with fuel.
- Immediately consult a doctor if you swallow fuel.
- Do not inhale fuel vapors.
- In case of skin contact, rinse the affected area with plenty of water.
- Rinse the eyes thoroughly with water, and consult a doctor in case of fuel contact with the eyes.
- Change your clothing in case of fuel spills on them.
- Keep fuels correctly in a suitable canister, and out of the reach of children.

Note

Environmental hazard Improper handling of fuel is a danger to the environment.

- Do not allow fuel to enter the groundwater, the soil, or the sewage system.

Info

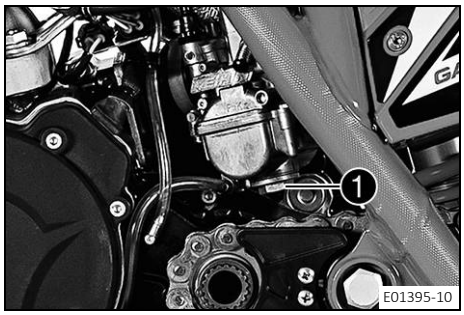
Water in the float chamber results in malfunctioning.

Condition

The engine is cold.

Preparatory work

- Turn tap handle of the fuel tap to the **OFF** position.
  - ✓ Fuel no longer flows from the fuel tank to the carburetor.



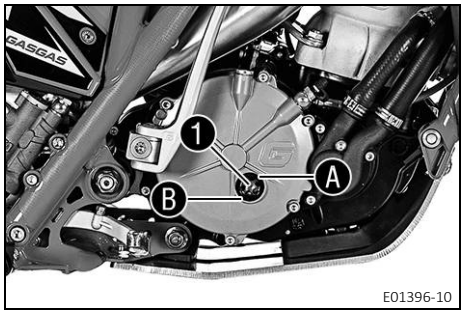
Main work

- Place a cloth under the carburetor to capture the draining fuel.
- Remove screw plug 1.
- Fully drain the fuel.
- Mount and tighten screw plug 1.

17.2 Checking the gear oil level

Condition
Engine stopped a few minutes ago.

Preparatory work
– Stand the motorcycle upright on a horizontal surface.



Main work
– Check the gear oil level in level viewer ❶.

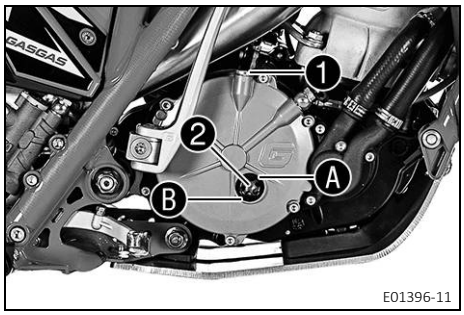
The gear oil level is between the upper Ⓐ edge of the level viewer and the bottom Ⓑ edge of the level viewer.

» If the gear oil level is below the bottom Ⓑ edge of the level viewer:
– Add the gear oil. (📖 p. 101)

17.3 Adding the gear oil

Info
Too little gear oil or poor-quality gear oil results in premature wear to the transmission.
Gear oil must only be topped up when the engine is cold.

Preparatory work
– Park the motorcycle on a level surface.



Main work
– Remove filler plug ❶.
– Add gear oil until the gear oil level in level viewer ❷ is between the upper Ⓐ and lower Ⓑ edge.

Gear oil (API GL-4, SAE 75W) (📖 p. 117)

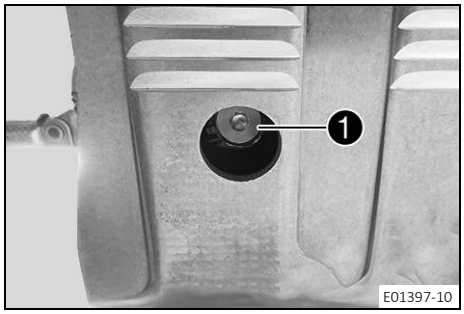
– Mount and tighten filler plug ❶.

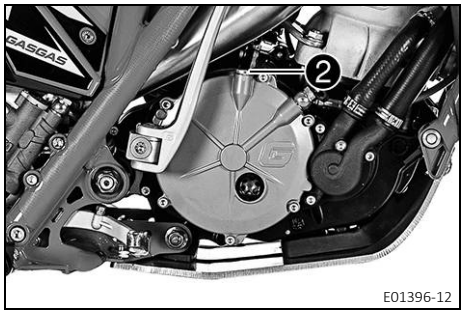
17.4 Changing the gear oil 🔧

Warning
Danger of scalding Engine and gear oil get very hot when the motorcycle is ridden.
– Wear suitable protective clothing and safety gloves.
– In the event of scalding, rinse the area affected immediately with lukewarm water.

Note
Environmental hazard Hazardous substances cause environmental damage.
– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info
The gear oil drain plug is located on the left side of the underside of the engine.
To facilitate draining, there is a hole in the engine guard at the level of the gear oil drain plug.





Condition

The engine is at operating temperature.

Preparatory work

– Park the motorcycle on a level surface.
– Position an appropriate container under the engine.

Main work

– Remove gear oil drain plug ❶.
– Let the gear oil drain fully.
– Thoroughly clean the gear oil drain plug.
– Clean the sealing surface on the engine.
– Mount and tighten gear oil drain plug ❶ with a new seal ring.

Guideline

Drain plug for gear oil	M12	15 Nm (11.1 lbf ft)

– Remove filler plug ❷ and fill up with gear oil.

Gear oil	0.37 l (0.39 qt.)	Gear oil (API GL-4, SAE 75W) (📖 p. 117)

– Mount and tighten filler plug ❷.

Danger

Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and death.

– Always make sure there is sufficient ventilation when running the engine.
– Use effective exhaust extraction when starting or running the engine in an enclosed space.

– Start the engine and check for leaks.

Finishing work

– Check the gear oil level. (📖 p. 101)

18.1 Cleaning the motorcycle

Note

Material damage Components become damaged or destroyed if a pressure cleaner is used incorrectly.

The high pressure forces water into the electrical components, connectors, throttle cables, and bearings, etc.
Pressure which is too high causes malfunctions and destroys components.

– Do not direct the water jet directly on to electrical components, connectors, throttle cables or bearings.
– Maintain a minimum distance between the nozzle of the pressure cleaner and the component.

Minimum clearance	60 cm (23.6 in)

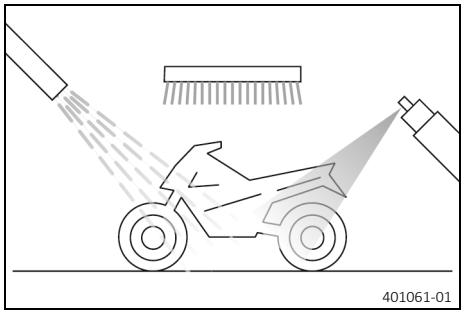
Note

Environmental hazard Hazardous substances cause environmental damage.

– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info

To maintain the value and appearance of the motorcycle over a long period, clean it regularly.
Avoid direct sunshine when cleaning the motorcycle.



– Close off exhaust system to keep water from entering.
– Remove the coarse dirt particles with a gentle water jet.
– Spray the heavily soiled parts with a normal commercial motorcycle cleaner and clean using a brush.

Motorcycle cleaner (p. 119)

Info

Use warm water containing normal motorcycle cleaner and a soft sponge.
Never apply motorcycle cleaner to a dry vehicle; always rinse the vehicle with water first.

– After rinsing the motorcycle with a gentle spray of water, allow it to dry thoroughly.

(Option: Not homologized)

– Empty the carburetor float chamber. (p. 100)

– Remove the closure of the exhaust system.

Warning

Danger of accidents Moisture and dirt impair the brake system.

– Brake carefully several times to dry out and remove dirt from the brake linings and the brake discs.

– After cleaning, ride the vehicle a short distance until the engine warms up.

Info

The heat produced causes water at inaccessible locations in the engine and on the brake system to evaporate.

– After the motorcycle has cooled down, lubricate all moving parts and pivot points.
– Clean the chain. (p. 61)

– Treat bare metal (except for brake discs and the exhaust system) with a corrosion inhibitor.

Preserving materials for paints, metal and rubber (📖 p. 119)

– Treat all plastic parts and powder-coated parts with a mild cleaning and care product.

Special cleaner for glossy and matte paint finishes, metal and plastic surfaces (📖 p. 119)

– Oil the steering lock.

Universal oil spray (📖 p. 120)

19.1 Storage

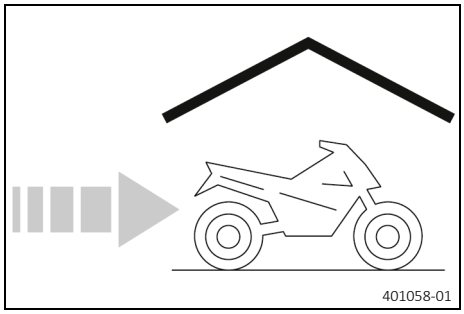
Warning

Danger of poisoning Fuel is poisonous and a health hazard.

- Avoid skin, eye and clothing contact with fuel.
- Immediately consult a doctor if you swallow fuel.
- Do not inhale fuel vapors.
- In case of skin contact, rinse the affected area with plenty of water.
- Rinse the eyes thoroughly with water, and consult a doctor in case of fuel contact with the eyes.
- Change your clothing in case of fuel spills on them.
- Keep fuels correctly in a suitable canister, and out of the reach of children.

Info

If the motorcycle is not being used for an extended length of time, additional measures are recommended.
Before storing the motorcycle, check all parts for function and wear. If service, repairs, or replacements are necessary, you should do this during the storage period (less workshop overload). This allows you to avoid long waiting periods when the next season starts.



- When refueling for the last time before taking the motorcycle out of service, add fuel additive.

  Fuel additive (p. 119)

- Refuel. (p. 26)
- Clean the motorcycle. (p. 103)
- Change the gear oil. (p. 101)
- Check the antifreeze and coolant level. (p. 91)

(Option: Not homologized)

- Empty the carburetor float chamber. (p. 100)
- Check the tire pressure. (p. 85)
- Store the vehicle in a dry location that is not subject to large fluctuations in temperature.

Info

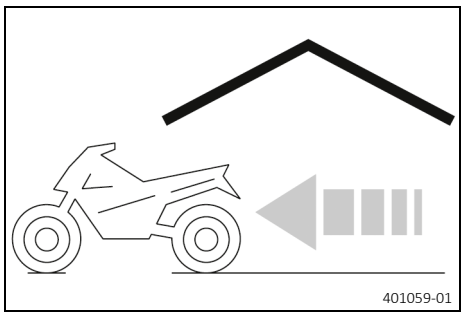
GASGAS Motorcycles recommends jacking up the motorcycle.

- Raise the motorcycle with a lift stand. (p. 40)
- Cover the vehicle with a tarp or a similar cover that is permeable to air.

Info

Do not use non-porous materials since they prevent humidity from escaping, thus causing corrosion.
Avoid running the engine for a short time only. Because the engine will not warm up sufficiently, the water vapor produced during combustion will condense, causing engine parts and the exhaust system to rust.

19.2 Preparing for use after storage



- Remove the motorcycle from the lift stand. (📖 p. 40)
- Perform checks and maintenance measures when preparing for use. (📖 p. 23)
- Take a test ride.

Faults	Possible cause	Action
Engine does not start	Operating error	– Carry out start procedure. (📖 p. 23)
	The motorcycle has been in disuse for an extended period and old fuel is in the float chamber	**(Option: Not homologized)** – Empty the carburetor float chamber. 🔧 (📖 p. 100)
	Fuel supply interrupted	– Check the fuel tank breather. – Clean the fuel tap. – Check/adjust the carburetor components.
	Spark plug sooty or wet	– Clean and dry the spark plug and spark plug connector, or change if necessary.
	Plug gap of spark plug too wide	– Adjust plug gap. Guideline Spark plug gap 0.7 … 0.8 mm (0.028 … 0.031 in)
	Fault in ignition system	– Check the ignition system. 🔧
	Magnetic switch cable in the wiring harness chafed; magnetic switch defective	– Check magnetic switch. 🔧
	Connector or ignition coil loose or oxidized	– Clean the connector and treat with contact spray.
	Water in carburetor or jets blocked	– Check/adjust the carburetor components.
The engine has no idle speed	Idling jet blocked	– Check/adjust the carburetor components.
	Adjusting screws on the carburetor are in turned to the wrong position	– Carburetor – adjust the idle speed. 🔧 (📖 p. 98)
	Faulty spark plug	– Change the spark plug.
	Faulty ignition	– Check the ignition coil. 🔧 – Check the spark plug connector. 🔧
Engine has too little power	Fuel supply interrupted	– Check the fuel tank breather. – Clean the fuel tap. – Check/adjust the carburetor components.
	Air filter is very dirty	– Clean the air filter and air filter box. (📖 p. 54)
	Exhaust system leaking or deformed	– Check exhaust system for damage.
	Fault in ignition system	– Check the ignition system. 🔧
	Damaged membrane or reed valve housing	– Check the membrane and reed valve housing.
The engine stutters or there is backfiring through the carburetor	Lack of fuel	– Turn tap handle of the fuel tap to the **ON** position. – Turn tap handle of the fuel tap to the **RES** position. – Refuel. (📖 p. 26)
	The engine takes in false air	– Check the intake flange and carburetor for firm seating.
	Connector or ignition coil loose or oxidized	– Clean the connector and treat with contact spray.

Faults	Possible cause	Action
Engine overheats	Too little coolant in cooling system	– Check the cooling system for tightness. – Check the antifreeze and coolant level. (📖 p. 91)
	Too little air stream	– Switch off the engine when standing.
	Radiator fins very dirty	– Clean the radiator fins.
	Foam formation in the cooling system	– Drain the coolant. 🔧 (📖 p. 92) – Refill with coolant. (📖 p. 93)
	Damaged cylinder head or cylinder head gasket	– Check the cylinder head and cylinder head gasket.
	Bent radiator hose	– Change the radiator hose. 🔧
White smoke development (steam in the exhaust gas)	Damaged cylinder head or cylinder head gasket	– Check the cylinder head and cylinder head gasket.
Gear oil emerges from the vent hose	Too much gear oil added	– Check the gear oil level. (📖 p. 101)
Water in the gear oil	Damaged radial shaft seal ring or water pump	– Check the radial shaft seal ring and the water pump.

21.1 Engine

Design	1-cylinder 2-stroke gasoline engine, water-cooled, with membrane inlet
Displacement (All 125 models)	124.8 cm³ (7.616 cu in)
Displacement (All 250 models)	247.7 cm³ (15.116 cu in)
Displacement (All 280 models)	272.2 cm³ (16.611 cu in)
Displacement (All 300 models)	294.1 cm³ (17.947 cu in)
Stroke (All 125 models)	54.5 mm (2.146 in)
Stroke (All 250 models)	60 mm (2.36 in)
Stroke (All 280 models)	60 mm (2.36 in)
Stroke (All 300 models)	60 mm (2.36 in)
Hole (All 125 models)	54 mm (2.13 in)
Hole (All 250 models)	72.5 mm (2.854 in)
Hole (All 280 models)	76 mm (2.99 in)
Hole (All 300 models)	79 mm (3.11 in)
Primary transmission	27:75
Clutch	Multidisc clutch in oil bath/hydraulically operated
Transmission	6-gear transmission, GASGAS*Four / Six System
Transmission ratio	
first-gear	24x27x23x28x15x33
second-gear	14:36
third-gear	15:33
fourth-gear	28x23x27x24x14x36
fifth-gear	24:27
sixth-gear	28:23
Ignition system	Contactless controlled fully electronic ignition with digital ignition adjustment
Spark plug	NGK BPR5 ES
Spark plug gap	0.7 … 0.8 mm (0.028 … 0.031 in)
Starting aid	Kick starter system

21.2 Engine tightening torques

Screw, clutch spring	M4	6 Nm (4.4 lbf ft)
Screw for shift shaft spring	M5	7 Nm (5.2 lbf ft)
Screw for spring shift lock	M5	8 Nm (5.9 lbf ft) **Loctite®243™**
Screw, alternator cover	M5	8 Nm (5.9 lbf ft)
Screw, clutch cover	M5	8 Nm (5.9 lbf ft)
Screw, crankshaft speed sensor	M5	8 Nm (5.9 lbf ft)
Screw, inner clutch hub	M5	8 Nm (5.9 lbf ft)
Screw, kick starter stop	M5	8 Nm (5.9 lbf ft)
Screw, membrane fixation	M5	8 Nm (5.9 lbf ft)
Screw, shift drum locating unit	M5	7 Nm (5.2 lbf ft) **Loctite®243™**
Screw, shift lever	M5	8 Nm (5.9 lbf ft)
Screw, shift lever	M5	6 Nm (4.4 lbf ft) **Loctite®243™**

Screw, stator	M5	8 Nm (5.9 lbf ft) **Loctite®243™**
Screw, water pump impeller	M5	8 Nm (5.9 lbf ft)
Coolant drain plug	M6	10 Nm (7.4 lbf ft)
Screw, cylinder head	M6	15 Nm (11.1 lbf ft)
Screw, kick starter lever	M6	12 Nm (8.9 lbf ft) **Loctite®243™**
Nut, cylinder base	M10	30 Nm (22.1 lbf ft)
Screw, rotor	M10	50 Nm (36.9 lbf ft) **Loctite®243™**
Drain plug for gear oil	M12	15 Nm (11.1 lbf ft)
Filler plug	M12	12 Nm (8.9 lbf ft)
Spark plug	M14x1.25	27 Nm (19.9 lbf ft)
Nut, primary gear wheel	M23x1	50 Nm (36.9 lbf ft) **Loctite®243™**

21.3 Carburetor

21.3.1 Option: Homologized

Carburetor type	Dell'Orto PHBG 21BS
Needle position (All 125 models)	2nd position from top
Needle position (All 250 models)	1st position from top
Needle position (All 280/300 models)	3rd position from top
Jet needle	W7
Main jet (All 125 models)	65
Main jet (All 250/280/300 models)	75
Idling jet (All 250 models)	30
Idling jet	33
Idle air adjusting screw (All 125 models)	
open	1 turn
Idle air adjusting screw (All 250 models)	
open	0.5 turns
Idle air adjusting screw (All 280/300 models)	
open	1.25 turns

21.3.2 Option: Not homologized

Carburetor type	KEIHIN PWK 28
Needle position (All 300 models)	Fourth position from top
Needle position (All 125/250/280 models)	3rd position from top
Jet needle	JJH
Main jet (All 125 models)	125
Main jet (All 250 models)	125
Main jet (All 280 models)	125
Main jet (All 300 models)	125
Idling jet (All 125 models)	52
Idling jet (All 250 models)	45
Idling jet (All 280 models)	45
Idling jet (All 300 models)	48

Idle air adjusting screw (All 280 models)	
open	1 turn
Idle air adjusting screw (All 125/250/300 models)	
open	1.25 turns

21.4 Capacities

21.4.1 Gear oil

Gear oil	0.37 l (0.39 qt.)	Gear oil (API GL-4, SAE 75W) (📖 p. 117)

21.4.2 Coolant

Coolant	0.4 l (0.4 qt.)	Coolant (📖 p. 117)

21.4.3 Fuel

Total fuel tank capacity, approx.	2.4 l (2.5 qt.)	Super unleaded (98 octane) mixed with 2-stroke engine oil (1:67) (📖 p. 118)

Fuel reserve, approx.	0.15 l (0.16 qt.)

21.5 Chassis

Frame	Tubular frame made of chrome molybdenum steel
Fork (All RACING models)	**Tech 39 mm**
Fork (All GP models)	**Tech 39 mm**
Suspension travel (All GP models)	
front	167 mm (6.57 in)
rear	174 mm (6.85 in)
Suspension travel (All RACING models)	
front	167 mm (6.57 in)
rear	174 mm (6.85 in)
Shock absorber (TXT RACING 125 EU)	**Reiger 2V**
Shock absorber (TXT RACING 250/280/300 EU)	**Reiger 2V**
Shock absorber (All US RACING models)	**Öhlins 2V**
Shock absorber (TXT GP 250/280/300)	**Reiger 3V**
Shock absorber (TXT GP 125)	**Reiger 3V**
Brake system	
front	Disc brake with axially mounted 4-piston brake caliper
rear	Disc brake with 2-piston brake caliper
Brake discs - diameter	
front	185 mm (7.28 in)
rear	150 mm (5.91 in)
Brake discs - wear limit	
front	2.7 mm (0.106 in)
rear	2.7 mm (0.106 in)
Street tire pressure (Option: Homologized)	
Front	1.2 bar (17 psi)
rear	1.2 bar (17 psi)

Offroad tire pressure	
front	0.42 bar (6.1 psi)
rear	0.30 bar (4.4 psi)
Secondary drive ratio (All 125 models)	09:48
Secondary drive ratio (All 250/280/300 models)	10:39
Chain	5/8 x 1/4"
Wheelbase	1,320 ± 10 mm (51.97 ± 0.39 in)
Seat height unloaded	630 mm (24.8 in)
Ground clearance unloaded	325 mm (12.8 in)
Weight when ready for racing without fuel approx. (TXT RACING 125)	66.7 kg (147 lb.)
Weight when ready for racing without fuel approx. (TXT RACING 250/280/300)	69.4 kg (153 lb.)
Weight when ready for racing without fuel approx. (TXT GP 125)	65.3 kg (144 lb.)
Weight when ready for racing without fuel approx. (TXT GP 250/280/300)	67.9 kg (149.7 lb.)
Homologated weight without fuel approx. (TXT RACING 125 EU)	69.8 kg (153.9 lb.)
Homologated weight without fuel approx. (TXT RACING 250/280/300 EU)	72.4 kg (159.6 lb.)
Homologated weight without fuel approx. (TXT GP 125 EU)	68.3 kg (150.6 lb.)
Homologated weight without fuel approx. (TXT GP 250/280/300 EU)	70.9 kg (156.3 lb.)
Maximum permissible front axle load	97 kg (214 lb.)
Maximum permissible rear axle load	127 kg (280 lb.)
Maximum permissible overall weight	224 kg (494 lb.)

21.6 Electrical system

Low beam/high beam (Option: Homologized)	BILUX bulb / socket BA20D	12 V 35/35 W
Position light (Option: Homologized)	T4W / socket BA9s	12 V 4 W
Turn signal (Option: Homologized)	R10W / socket BA15s	12 V 10 W
Tail light (Option: Homologized)	P21/5W / socket BAY15d	12 V 5 W

21.7 Tires

Front tire	**Rear tire**
2.75 - 21 M/C 45L TT Michelin Trial Competition X11	**4.00 R 18 M/C 64L TL** Michelin Trial Competition X11
The tires specified represent one of the possible series production tires. Additional information is available in the Service section under: http://www.gasgas.com	

21.8 Fork

21.8.1 All GP models

Fork article number	BT20000GG-CKR-1
Fork	**Tech 39 mm**
Compression damping	
Standard	1.75 turns
Rebound damping	
Standard	19 clicks
Fluid barrier	
Standard	2.5 turns
Spring preload	
Standard	5.5 turns
Air chamber length	
Air chamber length, left	130 mm
Air chamber length, right	75 mm

21.8.2 All RACING models

Fork article number	BT20000GG-CJT-1
Fork	**Tech 39 mm**
Rebound damping	
Standard	19 clicks
Fluid barrier	
Standard	2.5 turns
Spring preload	
Standard	5.5 turns
Air chamber length	
Air chamber length, left	130 mm
Air chamber length, right	75 mm

21.9 Shock absorber

21.9.1 TXT RACING 125 EU

Shock absorber article number	BT30000GG-DBZ-1
Shock absorber	**Reiger 2V**
Rebound damping	
Standard	25 clicks
Spring preload	7 mm (0.28 in)
Spring rate	
Weight of rider: 55 … 70 kg (121 … 154 lb.)	65 N/mm (371 lb/in)
Weight of rider: 70 … 80 kg (154 … 176 lb.)	67.5 N/mm (385.4 lb/in)
Weight of rider: 80 … 85 kg (176 … 187 lb.)	70 N/mm (400 lb/in)
Weight of rider: 85 … 100 kg (187 … 220 lb.)	72.5 N/mm (414 lb/in)
Static sag	10 … 15 mm (0.39 … 0.59 in)
Riding sag	70 … 75 mm (2.76 … 2.95 in)

21.9.2 TXT RACING 250/280/300 EU

Shock absorber article number	BT30000GG-DBV-1
Shock absorber	**Reiger 2V**
Rebound damping	
Standard	25 clicks
Spring preload	7 mm (0.28 in)
Spring rate	
Weight of rider: 55 … 70 kg (121 … 154 lb.)	67.5 N/mm (385.4 lb/in)
Weight of rider: 70 … 80 kg (154 … 176 lb.)	70 N/mm (400 lb/in)
Weight of rider: 80 … 85 kg (176 … 187 lb.)	72.5 N/mm (414 lb/in)
Weight of rider: 85 … 100 kg (187 … 220 lb.)	75 N/mm (428 lb/in)
Static sag	10 … 15 mm (0.39 … 0.59 in)
Riding sag	70 … 75 mm (2.76 … 2.95 in)

21.9.3 TXT GP 125

Shock absorber article number	BT30000GG-DBG-1
Shock absorber	**Reiger 3V**
Rebound damping	
Standard	23 clicks
Compression damping	
Standard	15 clicks
Spring preload	7 mm (0.28 in)
Spring rate	
Weight of rider: 55 … 70 kg (121 … 154 lb.)	65 N/mm (371 lb/in)
Weight of rider: 70 … 80 kg (154 … 176 lb.)	67.5 N/mm (385.4 lb/in)
Weight of rider: 80 … 85 kg (176 … 187 lb.)	70 N/mm (400 lb/in)
Weight of rider: 85 … 100 kg (187 … 220 lb.)	72.5 N/mm (414 lb/in)
Static sag	10 … 15 mm (0.39 … 0.59 in)
Riding sag	70 … 75 mm (2.76 … 2.95 in)

21.9.4 TXT GP 250/280/300

Shock absorber article number	BT30000GG-DBD-1
Shock absorber	**Reiger 3V**
Rebound damping	
Standard	23 clicks
Compression damping	
Standard	15 clicks
Spring preload	7 mm (0.28 in)
Spring rate	
Weight of rider: 55 … 70 kg (121 … 154 lb.)	67.5 N/mm (385.4 lb/in)
Weight of rider: 70 … 80 kg (154 … 176 lb.)	70 N/mm (400 lb/in)
Weight of rider: 80 … 85 kg (176 … 187 lb.)	72.5 N/mm (414 lb/in)
Weight of rider: 85 … 100 kg (187 … 220 lb.)	75 N/mm (428 lb/in)
Static sag	10 … 15 mm (0.39 … 0.59 in)
Riding sag	70 … 75 mm (2.76 … 2.95 in)

21.9.5 All US RACING models

Shock absorber article number	BT30000GG-CSV-1
Shock absorber	**Öhlins 2V**
Rebound damping	
Standard	20 clicks
Spring preload	7.5 mm (0.295 in)
Spring rate	
Weight of rider: 55 … 70 kg (121 … 154 lb.)	65 N/mm (371 lb/in)
Weight of rider: 70 … 85 kg (154 … 187 lb.)	70 N/mm (400 lb/in)
Weight of rider: 85 … 100 kg (187 … 220 lb.)	75 N/mm (428 lb/in)
Static sag	10 … 15 mm (0.39 … 0.59 in)
Riding sag	70 … 75 mm (2.76 … 2.95 in)

21.10 Chassis tightening torques

Screw, rear brake line guide	M4	5 Nm (3.7 lbf ft)
Spoke nipple, front wheel	M4.5	2 Nm (1.5 lbf ft)
Spoke nipple, rear wheel	M4.5	3 Nm (2.2 lbf ft)
Remaining nuts, chassis	M5	5 Nm (3.7 lbf ft)
Remaining screws, chassis	M5	5 Nm (3.7 lbf ft)
Screw, brake disc guard, rear wheel rear	M5	6 Nm (4.4 lbf ft)
Screw, chain sprocket guard	M5	6 Nm (4.4 lbf ft)
Screw, clutch master cylinder	M5	5 Nm (3.7 lbf ft)
Screw, hand brake cylinder	M5	6 Nm (4.4 lbf ft)
Screw, link fork, chain guard	M5	6 Nm (4.4 lbf ft)
Front fender	M6	10 Nm (7.4 lbf ft)
Remaining nuts, chassis	M6	10 Nm (7.4 lbf ft)
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)
Screw, air filter box	M6	8 Nm (5.9 lbf ft) **Loctite®243™**
Screw, bottom triple clamp	M6	10 Nm (7.4 lbf ft)
Screw, brake disc	M6	12 Nm (8.9 lbf ft) **Loctite®243™**
Screw, brake disc guard, rear wheel front	M6	12 Nm (8.9 lbf ft)
Screw, CDI bracket	M6	12 Nm (8.9 lbf ft)
Screw, chain guard on frame	M6	12 Nm (8.9 lbf ft)
Screw, foot brake cylinder	M6	10 Nm (7.4 lbf ft)
Screw, fuel tank fastening	M6	8 Nm (5.9 lbf ft)
Screw, main silencer	M6	12 Nm (8.9 lbf ft)
Screw, radiator bracket	M6	10 Nm (7.4 lbf ft)
Screw, rear brake caliper	M6	12 Nm (8.9 lbf ft) **Loctite®243™**
Screw, rear fender center	M6	10 Nm (7.4 lbf ft)
Screw, rear fender side	M6	6 Nm (4.4 lbf ft)
Screw, stand fastening on link fork	M6	12 Nm (8.9 lbf ft) **Loctite®243™**

Screw, steering stem	M6	12 Nm (8.9 lbf ft)
Screw, top triple clamp	M6	12 Nm (8.9 lbf ft)
Remaining nuts, chassis	M8	25 Nm (18.4 lbf ft)
Remaining screws, chassis	M8	25 Nm (18.4 lbf ft)
Screw, axle clamp	M8	23 Nm (17 lbf ft)
Screw, brake cable guiding	M8	25 Nm (18.4 lbf ft) **Loctite®243™**
Screw, chain adjuster	M8	20 Nm (14.8 lbf ft) **Loctite®243™**
Screw, engine brace on frame	M8	25 Nm (18.4 lbf ft)
Screw, engine guard	M8	25 Nm (18.4 lbf ft)
Screw, foot brake lever	M8	25 Nm (18.4 lbf ft) **Loctite®243™**
Screw, front brake caliper	M8	32 Nm (23.6 lbf ft)
Screw, front brake caliper	M8	25 Nm (18.4 lbf ft) **Loctite®243™**
Screw, handlebar clamp	M8	25 Nm (18.4 lbf ft)
Screw, handlebar support	M8	20 Nm (14.8 lbf ft)
Screw, manifold	M8	12 Nm (8.9 lbf ft)
Screw, pull rod on frame	M8	30 Nm (22.1 lbf ft)
Screw, radiator safety valve	M8	5 Nm (3.7 lbf ft)
Screw, side stand	M8	25 Nm (18.4 lbf ft) **Loctite®243™**
Banjo bolt,.clutch master cylinder	M10	18 Nm (13.3 lbf ft)
Banjo bolt,.clutch slave cylinder	M10	20 Nm (14.8 lbf ft)
Remaining nuts, chassis	M10	45 Nm (33.2 lbf ft)
Remaining screws, chassis	M10	45 Nm (33.2 lbf ft)
Screw, bell crank	M10	45 Nm (33.2 lbf ft)
Screw, bottom shock absorber	M10	45 Nm (33.2 lbf ft) **Loctite®243™**
Screw, engine mounting bracket	M10	50 Nm (36.9 lbf ft)
Screw, pull rod on bell crank	M10	45 Nm (33.2 lbf ft)
Screw, rear wheel spindle	M10	50 Nm (36.9 lbf ft)
Screw, top shock absorber	M10	50 Nm (36.9 lbf ft) **Loctite®243™**
Screw, link fork	M14	50 Nm (36.9 lbf ft)
Nut, swingarm pivot	M16x1.5	70 Nm (51.6 lbf ft)
Wheel spindle, front	M18	50 Nm (36.9 lbf ft)
Nut, steering head	M20	50 Nm (36.9 lbf ft)

Brake fluid DOT 4 / DOT 5.1

Standard/classification
– DOT

Guideline
– Use only brake fluid that complies with the specified standard (see specifications on the container) and that exhibits the corresponding properties.

Recommended supplier
Castrol
– **REACT PERFORMANCE DOT 4**

MOTOREX®
– **Brake Fluid DOT 5.1**

Coolant

Guideline
– Only use high-grade, silicate-free coolant with corrosion inhibitor additive for aluminum motors. Low grade and unsuitable antifreeze causes corrosion, deposits and frothing.
– Do not use pure water as only coolant is able to meet the requirements needed in terms of corrosion protection and lubrication properties.
– Only use coolant that complies with the requirements stated (see specifications on the container) and that has the relevant properties.

Antifreeze protection to at least	−25 °C (−13 °F)

The mixture ratio must be adjusted to the necessary antifreeze protection. Use distilled water if the coolant needs to be diluted.

The use of premixed coolant is recommended.

Observe the coolant manufacturer specifications for antifreeze protection, dilution and miscibility (compatibility) with other coolants.

Recommended supplier
MOTOREX®
– **COOLANT M3.0**

Engine oil, 2-stroke

Standard/classification
– JASO FD (📖 p. 121)

Guideline
– Only use high-grade 2-stroke engine oil from a reputable brand.

fully synthetic

Recommended supplier
MOTOREX®
– **Cross Power 2T**

Gear oil (API GL-4, SAE 75W)

Standard/classification
– API (API GL-4)
– SAE (📖 p. 121) (SAE 75W)

Guideline
– Use only gear oils that comply with the specified standards (see specifications on the container) and that exhibit the required properties.

Fully synthetic gear oil

Recommended supplier
MOTOREX®
– **Trial Gear Oil**

Hydraulic fluid (15)

Standard/classification
– ISO VG (15)

Guideline
– Use only hydraulic oil that complies with the specified standard (see specifications on the container) and that possesses the corresponding properties.

Recommended supplier
MOTOREX®
– **Hydraulic Fluid 75**

Super unleaded (ROZ 98 / RON 98 / PON 94)

Standard/classification
– DIN EN 228 (ROZ 98 / RON 98 / PON 94)

Super unleaded (98 octane) mixed with 2-stroke engine oil (1:67)

Standard/classification
– DIN EN 228
– JASO FD (📖 p. 121) (1:67)

Mixture ratio

1:67	Engine oil, 2-stroke (📖 p. 117) Super unleaded (ROZ 98 / RON 98 / PON 94) (📖 p. 118)

Recommended supplier
MOTOREX®
– **Cross Power 2T**

Air filter cleaner

Recommended supplier
MOTOREX®
– **Racing Bio Dirt Remover**

Chain cleaner

Recommended supplier
MOTOREX®
– **Chain Clean**

Fuel additive

Recommended supplier
MOTOREX®
– **Fuel Stabilizer**

Long-life grease

Recommended supplier
MOTOREX®
– **Bike Grease 2000**

Motorcycle cleaner

Recommended supplier
MOTOREX®
– **Moto Clean**

Off-road chain spray

Recommended supplier
MOTOREX®
– **Chainlube Offroad**

Oil for foam air filter

Recommended supplier
MOTOREX®
– **Racing Bio Liquid Power**

Preserving materials for paints, metal and rubber

Recommended supplier
MOTOREX®
– **Moto Protect**

Rubber grip adhesive (00062030051)

Recommended supplier
KTM AG
– **GRIP GLUE**

Special cleaner for glossy and matte paint finishes, metal and plastic surfaces

Recommended supplier
MOTOREX®
– **Quick Cleaner**

Universal oil spray

Recommended supplier
MOTOREX®
– **Joker 440 Synthetic**

JASO FD

JASO FD is a classification for a 2-stroke engine oil that was specifically developed for the extreme demands of racing. Thanks to first-rate synthetic esters and specially designed additives, superb combustion is achieved even under extreme operating conditions.

SAE

The SAE viscosity classes were defined by the Society of Automotive Engineers and are used for classifying oils according to their viscosity. The viscosity describes only one property of oil and says nothing about quality.

25 LIST OF ABBREVIATIONS

Art. no.	Article number
ca.	circa
cf.	compare
e.g.	for example
etc.	et cetera
i.a.	inter alia
no.	number
poss.	possibly

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