

Translations of the original instructions

Bicycle
Pedelec











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1.1 Means of representation

1.1.1 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 these jobs performed by an authorized workshop! There, your cycle will be optimally cared for by specially trained experts using the special tools required.
 -  Indicates a page reference (more information is provided on the specified page).
 -  Indicates information with more details.
 -  Indicates information with more tips.
 -  Indicates the result of a testing step.
 -  Indicates the end of an activity, including potential reworking.
-

1.1.2 Formats used

The typographical formats used in this document are explained below.

Proprietary name	Indicates a proprietary name.
Name[®]	Indicates a protected name.
Make[™]	Indicates a brand available on the open market.
<u>Underlined terms</u>	Refer to technical details of the cycle or indicate technical terms, which are explained in the glossary.

2.1 Safety instructions

General information

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

categories of dangers 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.

2.2 Original instructions



Info

In these original instructions, bicycles without motors and pedelecs are both grouped under the generic term cycle.

If a section of text applies to only one of the two types of cycles, either the term bicycle or pedelec will be used.

If no distinction is made, both cycle types are meant.



Info

Pedelec (Pedal Electric Cycle) = e-bike that supports the cyclist with up to maximum pedal assist (📖 p. 19) when pedaling.

The original instructions contain useful information and many tips on how to operate, handle, and service your cycle. This is the only way to find out how best to adjust the cycle for your own use and how you can protect yourself from injury.

- It is important that you read these original instructions carefully and completely before making your first trip.
- Keep the original instructions in an accessible place so you can refer to them as needed.
- If you would like to know more about the cycle or have questions about the instructions, please contact an authorized dealer.

All figures in these instructions are exemplary, therefore the appearance of your cycle may differ from the representation in this document.

These instructions describe all possible equipment and may therefore deviate from the condition of the cycle at delivery.

The original instructions are an important component of the cycle. If the cycle is sold, the original instructions must be passed on to the new owner.

The original instructions and more information can be found on the following websites.

Website of manufacturer

Felt Bicycles	Website: www.feltbicycles.com
GASGAS	Website: www.gasgas.com
Husqvarna E-Bicycles	Website: www.husqvarna-bicycles.com
R RAYMON	Website: www.r-raymon-bikes.com
Liteville	Website: www.liteville.com

2.3 Misuse of the pedelec

In order to use your pedelec safely, make sure to adhere to the following points:

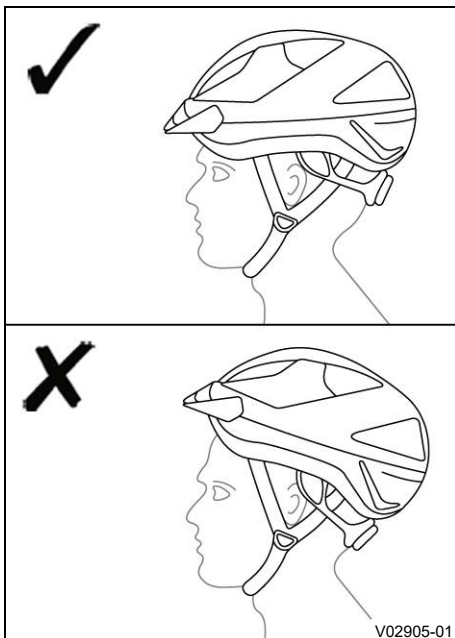
- Do not use the pedelec for competitions, jumps, stunts or tricks, unless the bicycle type expressly allows this.
- Make sure that all repairs and maintenance are performed correctly.
- Make sure that you use the battery in the proper fashion.
- Do not structurally alter the delivery condition of the pedelec. Do not tune or manipulate the pedelec.
- Do not open or modify pedelec components.
- Do not charge outside the temperature range specified by the manufacturer.
- Do not allow a deep discharge of the battery to occur due to long charging pauses or improper storage of the battery outside the optimum storage temperature specified by the manufacturer.



Info

Ambient temperatures below 10 °C and above 40 °C can reduce the range. Exposure to particularly high or particularly low ambient temperatures can over time accelerate the wear and tear of the battery or even damage the battery. Misuse of the pedelec can invalidate the guarantee / implied warranty.

2.4 Helmet



- Always wear a suitable and appropriate helmet when using the cycle.
- Make sure the helmet fits correctly.

2.5 Instructions for cycling in traffic



WARNING

Risk of injury Lack of or inadequate head protection poses an increased safety risk.

- Always wear a suitable helmet when riding.



WARNING

Danger of accidents When you are not clearly visible to other road users, the risk of accidents increases.

- Switch on the lighting in poor visibility and when it is dark.
- Wear light-colored clothing with reflective elements when cycling.
- Before cycling off, make sure which lighting elements, if any, have a stand light function.



WARNING

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

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

Before your first trip, find out about the country-specific and regional regulations on equipment, such as:

- Whether it is compulsory to wear a helmet
- Whether it is compulsory to wear a safety vest
- Brakes
- Lighting and reflectors
- Bell
- Trailer, child trailer, and children's seat



Info

Laws and regulations can change at any time. Inform yourself regularly about the country-specific and regional regulations.

2.6 Fire hazard



WARNING

Fire hazard Damaged rechargeable lithium ion batteries present a fire hazard. Massive mechanical damage may cause an internal cell short circuit and then cause the battery to self-ignite.

- Contact your authorized dealer immediately if major damage to the rechargeable lithium ion battery has occurred.

There is no particular fire hazard for the pedelec when the rechargeable lithium ion battery is intact. However, should the cycle catch fire, inform the fire department that an electric cycle with a rechargeable lithium ion battery is on fire.

2.7 Torques



WARNING

Danger of accidents Improper tightening of screw connections can lead to material fatigue.

- Do not use the cycle if the screw connections are loose.
- Tighten screw connections with the correct torque.

When tightening screw connections, observe the torque specifications, especially for components made of aluminum or carbon (📖 p. 5). This requires a torque wrench with an appropriate setting range.

The correct torque of a screw connection depends on the material and diameter of the screw connection as well as on the material and design of the component.

Torque specifications are usually found on the component or in the manufacturer's supplementary instructions. If different torques are indicated on two connected components, the lower of the two values always applies.

2.8 Work rules

Unless otherwise noted, the battery must be removed before performing any work on pedelecs.

Unless otherwise noted, normal conditions apply to all tasks and descriptions.

Guideline

Ambient temperature	20 °C
Ambient air pressure	1,013 mbar
Relative air humidity	60 ±5 %

2.9 Notes on carbon components



WARNING

Danger of accidents If the cycle has been subjected to heavy loads or has fallen, non-visible cracks or deformations can occur on carbon parts.

- Do not use components that are cracked or broken.
- Inspect carbon parts after the cycle been subjected to heavy loads or has fallen, even if no damage is visible. 🔍
- Inspect carbon parts monthly during normal use of the cycle, even if the cycle has not been subjected to heavy loads or has fallen.



CAUTION

Risk of injury Damaged carbon parts can have splinters.

- Handle damaged carbon parts with care.

Carbon is a material that requires special care during assembly, storage, and while riding.

Unlike metal components, carbon parts do not bend or deform, which is why a damaged component may appear normal upon cursory inspection.

Perform the following steps if the bike has been involved in any severe incidents, for example, a fall or a collision:

- Check the components for scratches, nicks, and other surface defects.
- Check the components for cracks and that they have not become weak.
- Check the components for delamination (where the material fractures into layers).
- Make sure that damaged components are replaced.
- Observe the torque specifications of the component manufacturer.



Info

The torque specifications can be found on the components or in the manufacturer's original instructions.

Observe the following points when maintaining, caring for, transporting, and storing carbon components:

- Observe the torque specifications of the component manufacturer.
- Do not lubricate carbon components with conventional grease, but rather use a special mounting paste.
- Do not expose carbon components to high temperatures.

Guideline

$\leq 45\text{ }^{\circ}\text{C}$

- Do not clamp the carbon frame of the cycle in a mounting support or bike carrier, clamp the cycle instead on the seat post.

2.10 Taking children with you



WARNING

Danger of accidents The lack of or an inadequate helmet poses an increased safety risk.

- Always make sure your child wears an appropriate helmet when riding.
- Only ever let your child wear a helmet that is in perfect condition and which complies with legal requirements.
- When you ride a bicycle, set an example for your child and wear a suitable helmet.



WARNING

Danger of accidents The additional weight of a children's seat or child trailer changes the handling characteristics of the cycle.

- Familiarize yourself with the altered driving characteristics of the cycle when using a children's seat or child trailer before cycling in traffic.
- Do not exceed the maximum loads of the children's seat or child trailer.
- Do not exceed the permissible total weight.

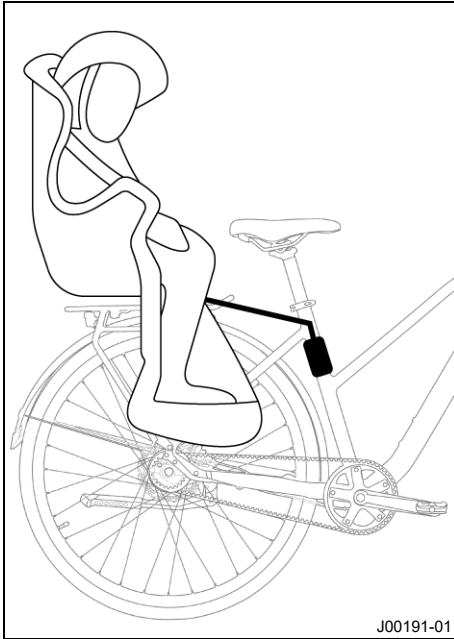


WARNING

Danger of accidents Incorrect installation of a trailer coupling or children's seat can cause components to break.

- Have children's seats, trailers, and trailer couplings installed by an authorized dealer.

Children's seat



- Do not use a children's seat on cycles with carbon frames or on full-suspension models.



Info

It may be the case that no children's seat can be used due to the design.

An authorized dealer may be able to recommend a suitable children's seat if the cycle is suitable for the use of a children's seat.

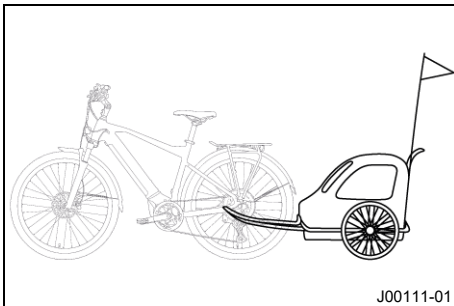
- Mount suitable children's seats only on the frame and not on the carrier rack.
- Make sure that the saddle springs and dropper seatposts, as well as any other moving parts, are fully covered.



Info

There is the risk that the child will reach in and crush their fingers.

Child trailer



Unless otherwise indicated on the cycle:

- The maximum trailer capacity for a child trailer with brakes is 40 kg.
- The maximum trailer capacity for a child trailer without brakes is 80 kg.



Info

Deviating specifications on the cycle have priority.

- Only use child trailers that are suitable for the cycle model.



Info

It may be the case that no child trailers can be used due to the design.

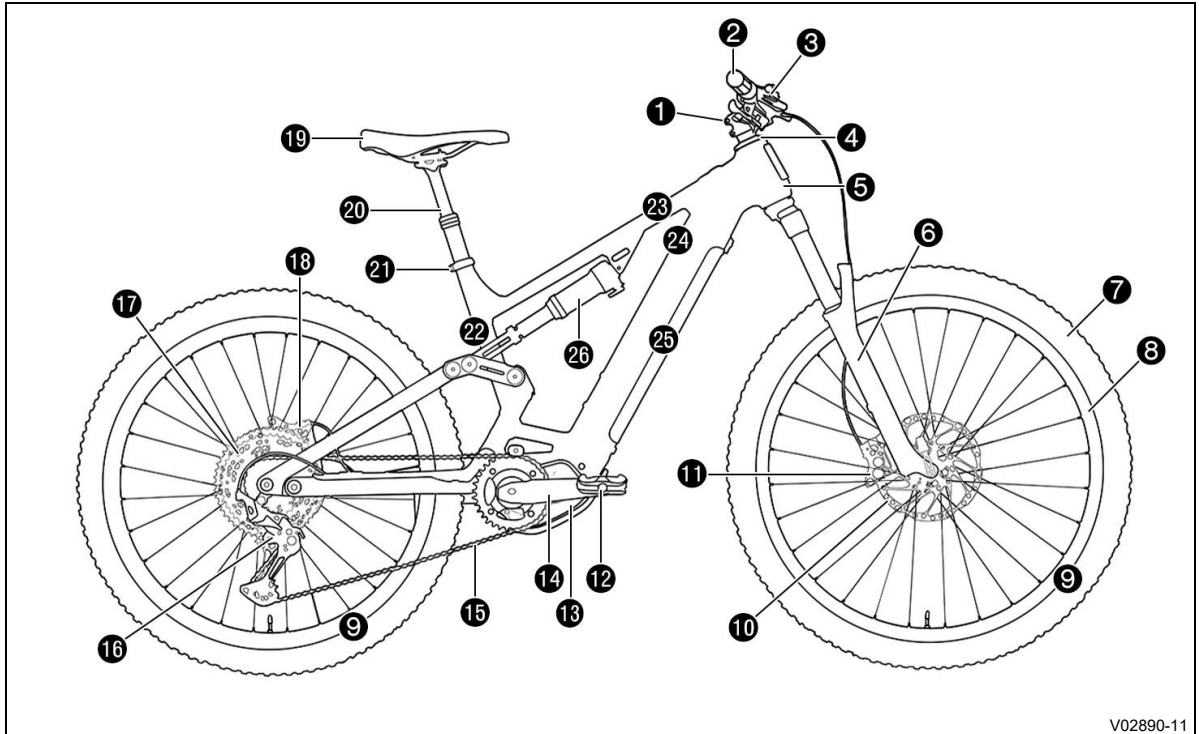
An authorized dealer may be able to recommend a suitable child trailer if the cycle is suitable for the use of a child trailer.

- Please note the increased cycle length.
- Only transport the number of children for which the child trailer is approved.
- Only use child trailers with functional lighting that complies with legal requirements.
- Use a child trailer with a children's seat.
- Use a flexible bike flag that is at least 1.5 m high with a fluorescent flag.
- Use covers for spokes and wheel arches.

3.1 Cycle overview of the electric mountain bike

i Info

Bicycles are not equipped with the components of the e-drive (📖 p. 18).



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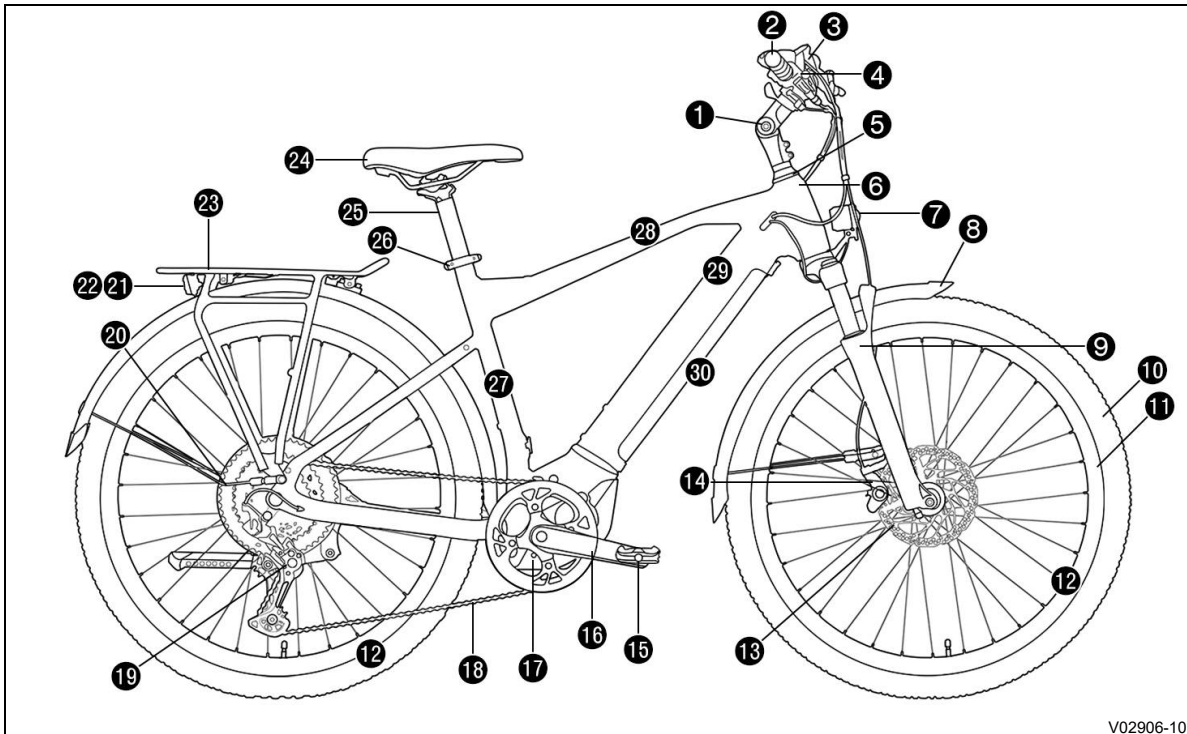
- | | |
|-------------------|-------------------|
| ① Stem | ⑭ Crank arm |
| ② Grip | ⑮ Chain |
| ③ Handlebars | ⑯ Rear derailleur |
| ④ Headset | ⑰ Cassette |
| ⑤ Head tube | ⑱ Rear brake |
| ⑥ Suspension fork | ⑲ Saddle |
| ⑦ Tires | ⑳ Seat post |
| ⑧ Rim | ㉑ Seat post clamp |
| ⑨ Wheel | ㉒ Seat tube |
| ⑩ Brake disc | ㉓ Top tube |
| ⑪ Front brake | ㉔ Down tube |
| ⑫ Pedal | ㉕ Battery |
| ⑬ Motor | ㉖ Shock |

3.2 Cycle overview of the trekking e-bike



Info

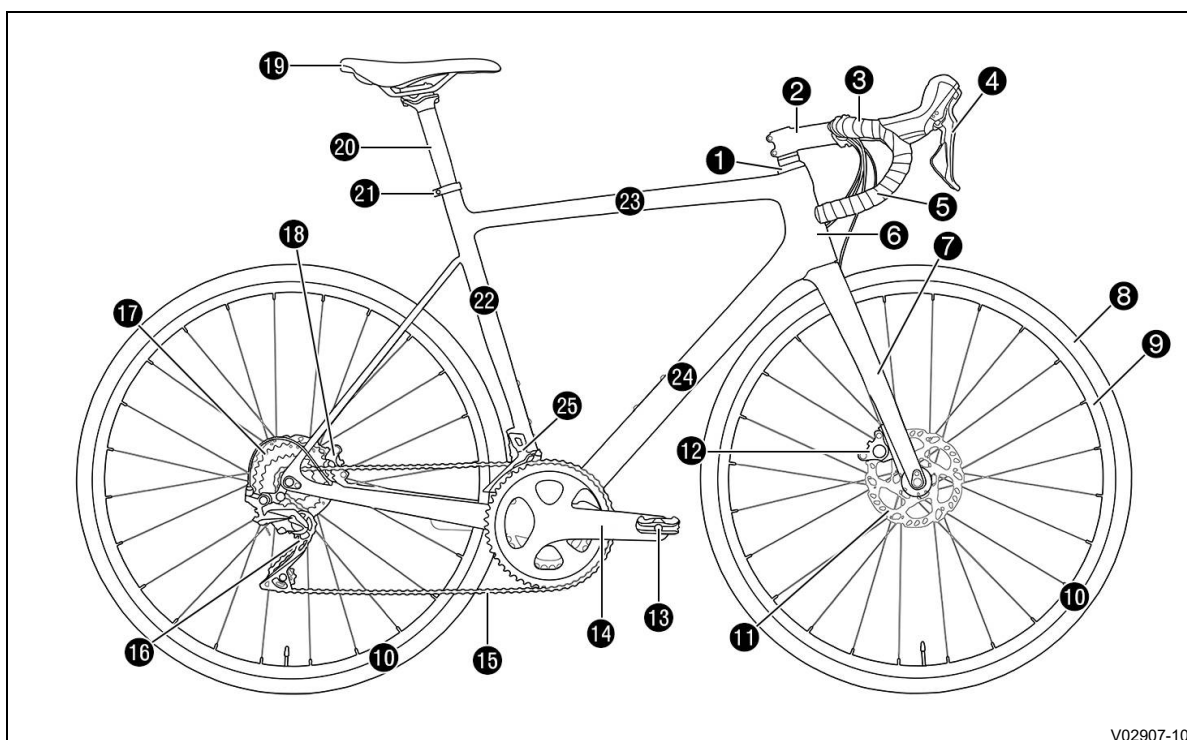
Bicycles are not equipped with the components of the e-drive (📖 p. 18).



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- | | |
|-------------------|-------------------|
| ① Stem | ⑩ Tires |
| ② Grip | ⑪ Rim |
| ③ Bell | ⑫ Wheel |
| ④ Handlebars | ⑬ Brake disc |
| ⑤ Headset | ⑭ Front brake |
| ⑥ Head tube | ⑮ Pedal |
| ⑦ Headlight | ⑯ Crank arm |
| ⑧ Fenders | ⑰ Motor |
| ⑨ Suspension fork | ⑱ Chain |
| | ⑲ Rear derailleur |
| | ⑳ Cassette |
| | ㉑ Tail light |
| | ㉒ Reflector |
| | ㉓ Carrier rack |
| | ㉔ Saddle |
| | ㉕ Seat post |
| | ㉖ Seat post clamp |
| | ㉗ Seat tube |
| | ㉘ Top tube |
| | ㉙ Down tube |
| | ㉚ Battery |

3.3 Cycle overview of the road bike



V02907-10

- | | | | |
|---|-------------|---|------------------|
| ① | Headset | ⑭ | Crank arm |
| ② | Stem | ⑮ | Chain |
| ③ | Handlebars | ⑯ | Rear derailleur |
| ④ | Brake lever | ⑰ | Cassette |
| ⑤ | Grip | ⑱ | Rear brake |
| ⑥ | Head tube | ⑲ | Saddle |
| ⑦ | Fork | ⑳ | Seat post |
| ⑧ | Tires | ㉑ | Seat post clamp |
| ⑨ | Rim | ㉒ | Seat tube |
| ⑩ | Wheel | ㉓ | Top tube |
| ⑪ | Brake disc | ㉔ | Down tube |
| ⑫ | Front brake | ㉕ | Front derailleur |
| ⑬ | Pedal | | |

3.4 Use definition and intended use



WARNING

Danger of accidents Misuse can lead to accidents, serious injuries or damage to the cycle.

- Only use the cycle as described in the original instructions.



WARNING

Danger of accidents Incorrectly selected spare parts can cause the cycle to malfunction.







- Ask your authorized dealer for advice on suitable spare parts.
- Only use original spare parts.

i Info

There is a symbol on the bicycle detailing the intended use.
This symbol is usually attached to the type label.
The manufacturer or dealer accepts no liability for damage caused by misuse.

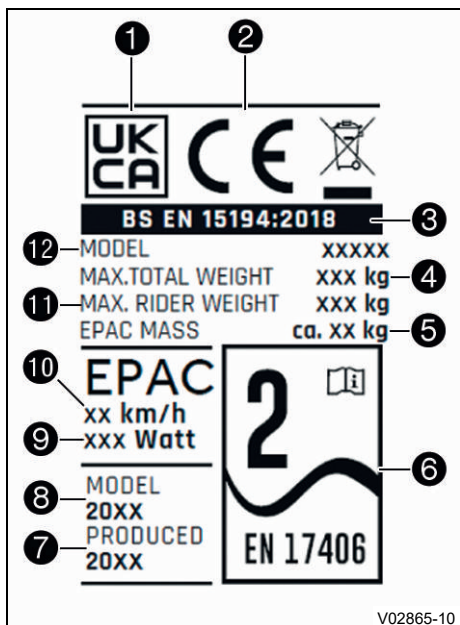
The specified define use is described in the table below.

Defined use

Symbol	Bicycle type Example:	Height of drops and jumps	Average speed	Description
	City and urban bikes	< 15 cm	15 km/h ... 25 km/h	Cycles are only intended for use on normal surfaces. The tires are intended to maintain contact with the ground and travel at average speeds with the occasional drop.
	Trekking and touring bikes	< 15 cm	15 km/h ... 25 km/h	These cycles can be used for class 1 conditions and can also be used on unpaved roads and gravel roads with moderate climbs and descents. Under these conditions, contact with uneven terrain and repeated loss of tire contact with the ground may occur.
	Cross-country and marathon bikes	< 60 cm	Not relevant	These cycles can be used for class 1 and 2 conditions and can also be used on rough paths, uneven unpaved roads, difficult terrain, and undeveloped trails, which call for technical skills and abilities.
	Mountain bikes, trail bikes	< 120 cm	Not relevant	These cycles can be used for class 1, 2, and 3 conditions and can also be used for descents on unpaved roads at speeds exceeding 40 km/h (24 mph).
	Downhill, dirt jump, and freeride bikes	> 120 cm	Not relevant	These cycles can be used for class 1, 2, 3, and 4 conditions and can also be used for extreme jumps or descents on unpaved roads at speeds exceeding 50 km/h (31 mph), or any combination thereof.
	Road bikes, time trial bikes, and triathlon bikes	< 15 cm	30 km/h ... 55 km/h	These cycles can be used for class 1 conditions and used in competitions or other occasions at high speeds exceeding 50 km/h (31 mph), for example in downhill and sprinting.

3.5 Type label**3.5.1 Type label for pedelec****i Info**

The type label is usually located on the rear part of the seat tube.

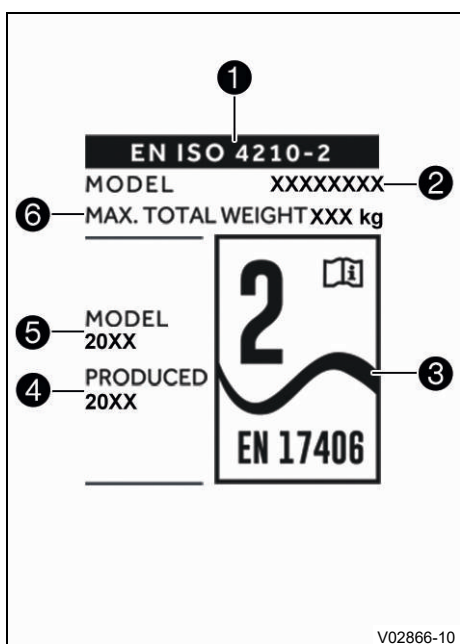


- 1 UKCA symbol
- 2 CE symbol
- 3 Applicable standard
- 4 Permissible total weight (📖 p. 13)
- 5 Weight of pedelec
- 6 Use definition and intended use (📖 p. 10)
- 7 Year of manufacture
- 8 Model year
- 9 Average motor power
- 10 Maximum pedal assist
- 11 Maximum rider's weight (optional)
- 12 Model designation

3.5.2 Type label for bicycle

i Info

The type label is usually located on the rear part of the seat tube.



- 1 Applicable standard
- 2 Model designation
- 3 Use definition and intended use (📖 p. 10)
- 4 Year of manufacture
- 5 Model year
- 6 Permissible total weight (📖 p. 13)

3.6 Permissible total weight

**WARNING**

Danger of accidents Overloading the cycle can cause components to break.
- Do not exceed the permissible total weight.

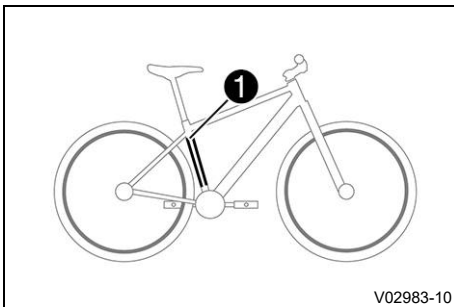
**Info**

The permissible total weight is indicated on the type label.

The cycle has a permissible total weight that must not be exceeded.

The permissible total weight results from cycle + cyclist + luggage / backpack / children's seat etc.

3.7 Frame size



The specifications of the frame size are usually located on the front or rear part of seat tube ①.

4.1 Instructions on preparing for initial use



WARNING

- Risk of injury** Lack of or inadequate head protection poses an increased safety risk.
- Always wear a suitable helmet when riding.



WARNING

- Danger of accidents** A rider who is not fit to ride poses a danger to him or herself and others.
- Do not operate the cycle if you are not fit to ride due to alcohol, drugs or medication.
 - Do not operate the cycle if you are physically or mentally impaired.

- Ensure that the pre-sales inspection work has been carried out by an authorized dealer.
 - ✓ A delivery certificate is transferred upon cycle handover.
- Read the entire original instructions before riding for the first time.
- Get to know the controls.
- Familiarize yourself with the brake lever allocation.
- Set the height of the saddle. (📖 p. 43)
- Adjust the saddle offset. (📖 p. 45)
- Adjust the angle of the saddle. (📖 p. 45)
- Adjust the position of the brake lever. (📖 p. 32)
- Adjust the travel of the brake lever. (📖 p. 32)
- Get used to the handling characteristics of the cycle on suitable terrain before making a longer trip.
- Keep your feet on the pedals while riding and do not ride hands-free.

4.2 Checks and maintenance measures when preparing for use



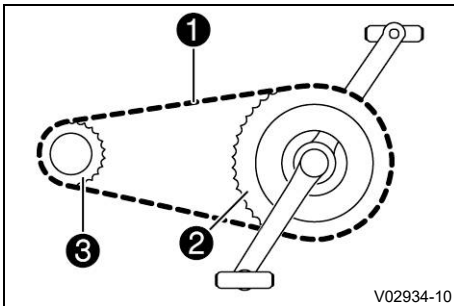
Info

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

- Check the disc brakes. (📖 p. 34)
- Check the chain drive. (📖 p. 15)
- Clean the chain drive. (📖 p. 16)
- Check the derailleur gear. (📖 p. 26)
- Check the belt drive. (📖 p. 17)
- Check the gear hub. (📖 p. 29)
- Clean and care for the suspension. (📖 p. 55)
- Check the tire condition. (📖 p. 42)
- Check the tire pressure. (📖 p. 42)
- Check the rims. (📖 p. 38)
- Check that the thru axles and quick releases are tight.
- Check that the handlebars and stem are seated firmly.
- Check the function and setting of the lighting.
- Check that the bell is functioning correctly.

Bicycles are powered manually. Pedelecs are powered manually and by pedal assist. The muscle power applied during pedaling is transmitted via the chain or drive belt, which in turn sets the rear wheel in motion, driving the cycle as a whole and setting it in motion.

5.1 Chain drive



Chain ① runs over two sprockets. The sprocket that starts to rotate when you pedal is referred to as chainring ②. The rotation of the chainring is transmitted via the chain to sprocket ③ on the rear wheel. The rotating sprocket also rotates the wheel and sets the cycle in motion.

Depending on the model, a cycle with chain drive can be equipped with the following components and functions:

- [Derailleur gear](#) (p. 22)
- [Gear hub](#) (p. 27)
- [Coaster brake](#) (p. 37)

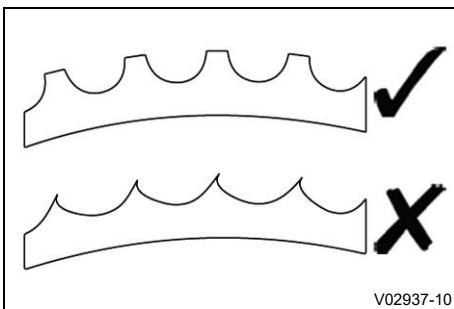
5.1.1 Checking the chain drive

i Info

The teeth of the chainring and sprocket as well as the chain links of the chain are subject to wear due to abrasion. As a result, the chain is guided less reliably on the sprockets and can run off the sprockets.

i Info

The chain should be changed as soon as possible because, if the chain is stretched, the sprocket and chainring will wear out faster.



- Check chainring and sprocket for wear.
 - » When the chainring or sprocket is worn:
 - Change the chainring or sprocket. 🛠️
 - Replace the chain. 🛠️
- Check the chain tension by carefully pushing the rear derailleur forward and then releasing it.
 - ✓ The chain does not sag.
 - ✓ The rear derailleur automatically moves back to the original position.

5.1.2 Cleaning the chain drive



WARNING

Danger of accidents Lubricant on the tires reduces the traction.

- Remove the lubricant 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, cleaning agents, brake fluid etc. properly and in compliance with the applicable regulations.



Info

If the components of the chain drive are free of contamination and cleaned regularly, the functionality of the chain drive will be maintained over a long period of time.

- Clean the chain with a clean cloth and chain cleaner if necessary.
- Clean the sprockets with a soft brush.
- Lubricate chain with chain oil.

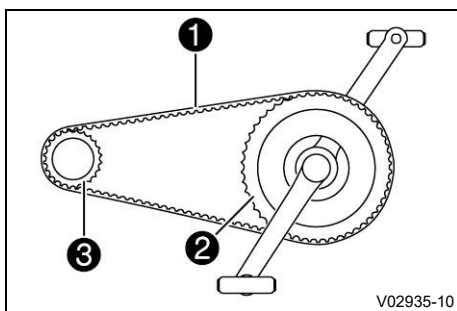
5.2 Belt drive



NOTE

Material damage Incorrect handling will damage the drive belt.

- Do not twist, bend, or kink the drive belt.
- Do not roll the drive belt onto the belt drive sprockets during installation.
- Do not use tools such as screwdrivers as levers when installing the drive belt.



Drive belt **1** runs over two belt drive sprockets. The rotation of front belt drive sprocket **2** is transmitted via the drive belt to rear belt drive sprocket **3** on the rear wheel. The rotation of the rear belt drive sprocket also rotates the wheel and sets the cycle in motion.

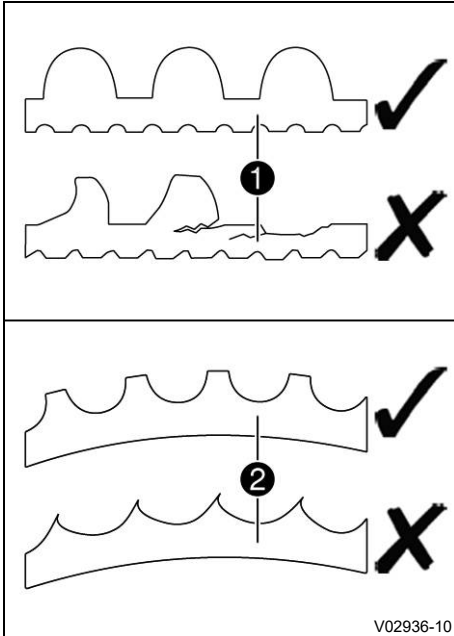
Depending on the model, a cycle with a belt drive can be equipped with the following components and functions:

- [Gear hub](#) (📖 p. 27)
- [Coaster brake](#) (📖 p. 37)

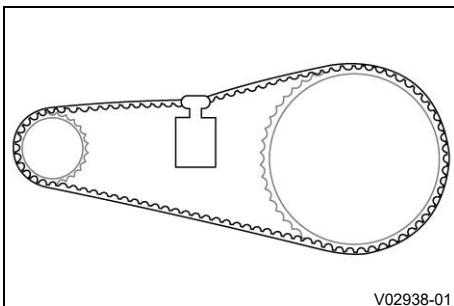
5.2.1 Checking the belt drive

i Info

The teeth of the belt drive sprockets and the belt are subject to wear due to abrasion. As a result, the drive belt is guided less reliably on the belt drive sprockets and can run off the belt drive sprockets.



- Check drive belt **1** and belt drive sprocket **2** for wear.
 - » If the drive belt is worn:
 - Change the drive belt. 🔧
 - » If the belt drive sprocket is worn:
 - Change the drive belt and belt drive sprocket. 🔧



- Check the belt tension.
 - » If the drive belt is not correctly tensioned:
 - Adjust the belt tension. 🔧

5.2.2 Cleaning the belt drive



NOTE

Material damage Unsuitable cleaning agents will damage the belt drive.

- Only clean the belt drive with water and a soft brush.

i Info

If the components of the belt drive are free of contamination and cleaned regularly, the functionality of the belt drive will be maintained over a long period of time.

- Only clean the belt drive with water and a soft brush.

6.1 E-drive



CAUTION

- Risk of injury** The e-drive can be activated unintentionally.
- Remove the battery before carrying out any work on the pedelec.

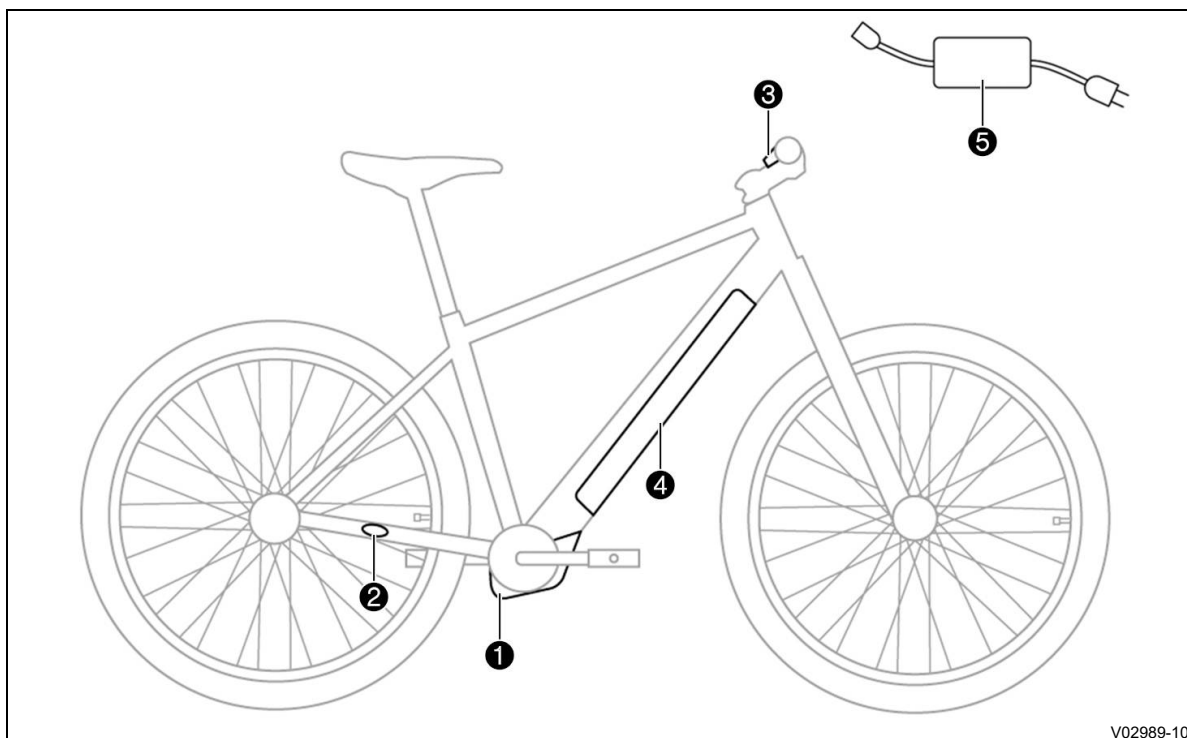


Info

The manufacturer's instructions for the e-drive contain detailed descriptions of all components of the e-drive and all relevant details such as safety instructions.

Unlike conventional bicycles, the pedelec is equipped with an electronic auxiliary motor that assists the cyclist when pedaling.

The drive consists of the following components:



V02989-10







- | | |
|-------------------------|-----------|
| ① Motor | ④ Battery |
| ② Speed sensor | ⑤ Charger |
| ③ Mode switch / display | |

Differences between a pedelec and a bicycle:

- The pedelec weighs significantly more and therefore has a different load distribution.
- There is increased wear on brake components and different braking behavior due to the increased weight.
- There is increased wear of drive components on a pedelec with a mid-mount motor.

Symbols on e-drive components

	Products marked with this symbol comply with all applicable regulations of the European Economic Area.
	Products marked with this symbol comply with all applicable regulations of the United Kingdom economic area.

	Electrical appliances marked with this symbol marking must not be disposed of in household or residual waste. Consumers are required by law to dispose of electrical equipment with this marking at appropriate collection points for environmentally sound recycling.
	Batteries marked with this symbol must not be disposed of in household or residual waste. Consumers are required by law to dispose of batteries with this marking at appropriate collection points for environmentally sound recycling.
	Marking for products that may only be used indoors.
	Electrical device complies with protection class II: The device has double or reinforced insulation as protection against electric shock.
	Symbol for direct current (DC).
	Symbol for alternating current (AC).

6.2 Operating mode



CAUTION

Risk of injury Moving parts pose a crushing and pinching hazard.

- Only use the push assist when pushing the pedelec.
- Only use push assist when the pedelec is upright and on both wheels.

When switched on, the electric auxiliary motor assists in propelling the pedelec. Pedal assist switches off automatically when the maximum speed is reached. When traveling at speeds above this, the pedelec is powered exclusively by muscle power.

Maximum pedal assist

Maximum pedal assist (except USA, Canada, New Zealand)	25 km/h
Maximum pedal assist (USA, Canada, New Zealand)	32 km/h
Push assist available until	6 km/h

The speed is measured with a speed sensor and spoke magnet or a magnet in the brake rotor on the rear wheel.

Pedal assist depends on the force with which the pedals are pedaled. If there is no pedaling, there is also no support of the e-drive. An exception here is push assist, which – once activated – helps when pushing the pedelec. The pedelec must be held securely with both hands and the wheels must be in contact with the ground.



Info

Push assist is used exclusively as an aid when pushing the bike. It must not be used when a person is sitting on the cycle.

6.3 Cycling without pedal assist

The pedelec can be operated without pedal assist like a conventional bicycle, for example, if the battery is depleted during a tour. The pedelec can also be operated when the motor is not switched on or when no support is selected on the control panel.

The pedelec can also be operated with the battery removed. For this, the connection contacts must be protected from dirt and damage with a suitable cover.



Info

As the lighting is powered by the e-drive, the lighting will only work for a limited time once pedal assist switches off.

The lighting does not work if you are cycling with the battery removed.

6.4 Range

The range depends on several factors:

- Selected riding mode
- Speed
- Tire type and tire pressure
- Track conditions
- Weather conditions
- Total weight
- Age and condition of the battery

6.5 Overheating protection



CAUTION

Danger of burns Parts of the e-drive become hot during operation.

- Do not touch the motor or battery during operation or immediately after operation.

The e-drive switches off automatically if it starts to overheat to avoid damage to the e-drive.

In order to avoid overheating of the e-drive, a low riding mode should be selected for routes with steep ascents or when there are high ambient temperatures.

6.6 Charging the battery



WARNING

Risk of injury There is a risk of electric shock in a moist environment. The battery charger is not waterproof.

- Only use the battery charger in dry conditions.
- Ensure that no fluids flow or drip onto the battery charger.



WARNING

Risk of injury There is a risk of electric shock if the battery charger or the cables have been manipulated or damaged. The battery charger does not contain any parts which require maintenance.

- Do not modify the battery charger or the cables.
- Only use original cables.
- Never open the battery charger housing.
- Do not use the battery charger if cables, socket connectors, or parts of the battery charger have been damaged or are soiled.



WARNING

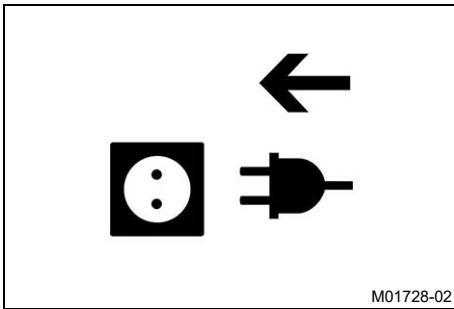
Risk of injury If the battery charger is used incorrectly, its intrinsic safety cannot be guaranteed.

- Only use the charger to charge the pedelec's battery.
- Only operate the battery charger using household sockets with a ground conductor.
- Do not use any additional adapters or extensions.
- Follow the applicable safety instructions of the power connection.



Info

Depending on the model, the battery can also be charged when it is installed.



- If necessary, remove the protection cap of the charge port.
- Make sure that all socket connectors, bushings, and cables are dry.
- Connect the charging plug of the charger to the charge port of the battery or the pedelec.

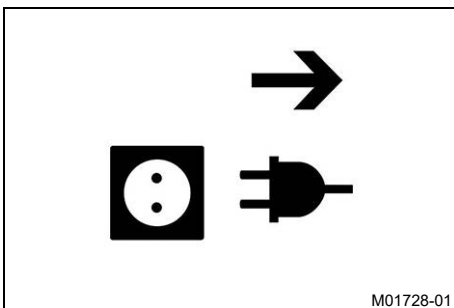
Guideline

The contacts on the charging plug and charge port must match.

- Connect the power plug for the battery charger to the mains connection.
 - ✓ Charging starts automatically.
 - ✓ The display or the mode switch show the state of charge.
- Monitor the state of charge on the display or on the mode switch.

i Info

It is recommended not to leave the pedelec unattended for long periods during charging.



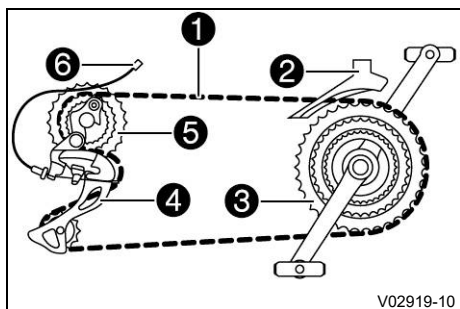
- Make sure that all socket connectors, bushings, and cables are dry.
- Disconnect the battery charger power plug from the mains connection.
- Disconnect the charging plug from the battery or pedelec.
- If there is a protection cap on the charge port, replace it.

7 Shift mechanism

7.1 Derailleur gear

The cycle will usually have gears. Exceptions are, for example, kids' bikes, which are equipped with only one gear, depending on the model.

Mechanical derailleur gear



- ① Chain
- ② Front derailleur
- ③ Chain ring
- ④ Rear derailleur
- ⑤ Cassette
- ⑥ Shift cable

The derailleur gear consists of a chain, a cassette on the rear wheel, and one or more (max. 3) chainrings mounted on the crank arm.

The controls for shifting gears are located on the handlebars.

Using the shift mechanism, the power provided by the cyclist can be adapted to best suit the road conditions and the speed.

Electronic derailleur gear

An electronic derailleur gear is powered by a battery. Electronic pulses control the rear derailleur and front derailleur. An actuator performs the gear shift.

The shift cables of the mechanical variant are omitted.

7.1.1 Shifting



WARNING

Danger of accidents The likelihood of having an accident on the road increases if you are not paying proper attention.

- Familiarize yourself with the gears before your first ride.
- Change gears only when the traffic situation permits.
- Stop if, for example, you cannot shift the gears safely due to a malfunction.



NOTE

Material damage Incorrect operation of the shift mechanism increases the wear of components.

- Do not pedal with force when shifting gears.
- Do not pedal backwards when shifting gears.
- Leave good time to shift down on inclines.
- Always start off in a low gear.

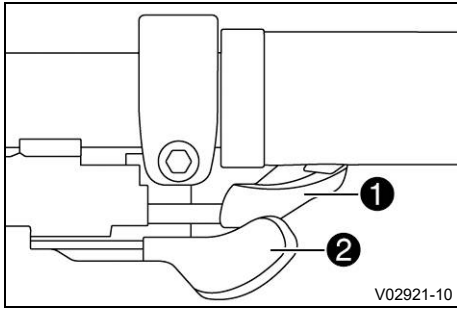
Shifting the sprocket



Info

The position and operation of the shift lever may vary depending on the model. As a rule, the shifting unit for the sprocket is located on the right half of the handlebars.

conditions: Gear shift lever



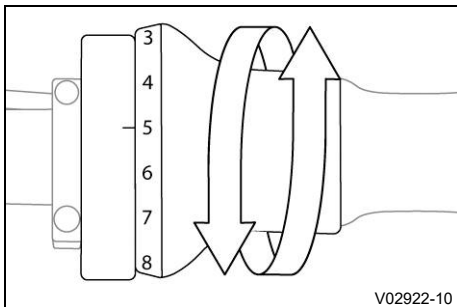
- Press upper shift lever ① to shift to the next smaller sprocket.

i Info
Depending on the model, it may be possible to operate the upper shift lever with the index finger.

- Press lower shift lever ② to shift to the next larger sprocket.

i Info
Depending on the model, it may be possible to shift down several gears. The shift lever has to be pushed further to do so.

conditions: Twist shifter



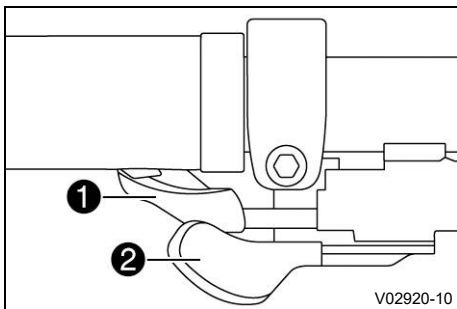
- Turn the twist shifter up or down to change gear.

i Info
The twist shifter is marked with numbers to indicate the selected gear.

Shifting the chainrings

i Info
The position and operation of the shift lever may vary depending on the model. The shifting unit for the chainrings is located on the left side of the handlebars.

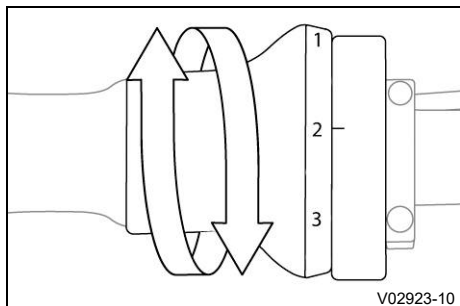
conditions: Gear shift lever



- Press upper shift lever ① to shift to the next smaller sprocket.
- Press lower shift lever ② to shift to the next larger sprocket.

7 Shift mechanism

conditions: Twist shifter



- Turn the twist shifter up or down to change gear.



Info

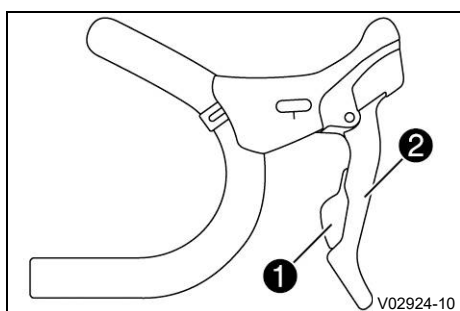
The twist shifter is marked with numbers to indicate the selected gear.

Shifting when using a drop bar



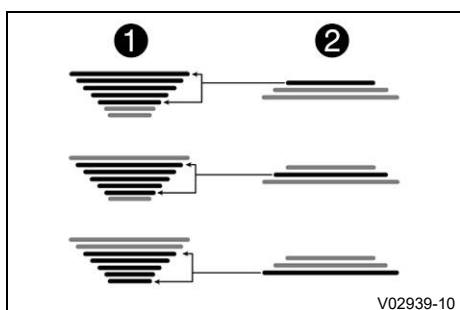
Info

On models with a drop bar, the shift levers are integrated into the brake levers. Depending on the model of the gearshift, the assignment of the shift levers may vary.



- Press shift lever ① or move brake lever ② sideways to shift.

7.1.2 Cog wheel combination



NOTE

Material damage An incorrect gear combination can damage the gears.

- Do not use the small chainring with the smallest sprockets.
- Do not use the large chainring with the largest sprockets.

If the chain is crooked, for example with a small chainring and the smallest sprocket, sprocket ①, chainring ②, and the chain wear faster than when using the recommended combinations.



Tip


Select the gear combination so that the chain runs as straight as possible in the direction of travel.

7.1.3 Adjusting the shift mechanism

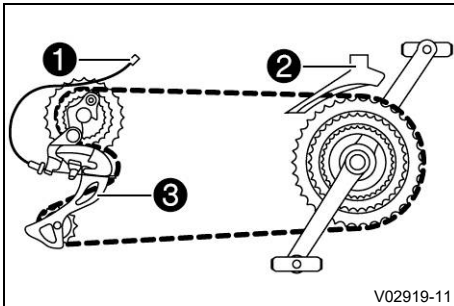


WARNING

Danger of accidents If the shift mechanism is set incorrectly, the chain may jam or jump off.

- Set the gears in accordance with the specification. 

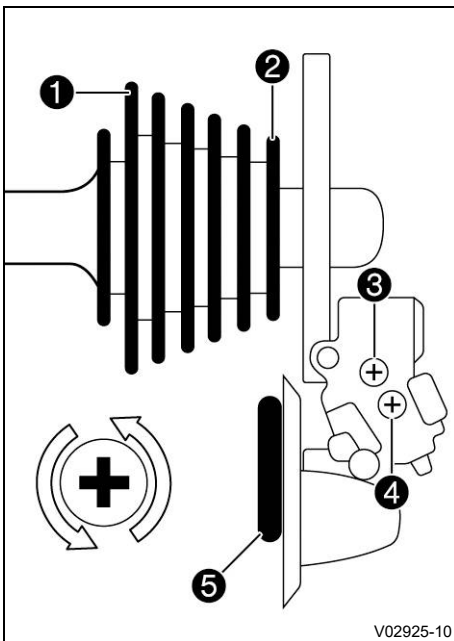
Derailleur gear



- ① Shift cable
- ② Front derailleur
- ③ Rear derailleur

For the shift mechanism to work smoothly, the rear derailleur and front derailleur must be adjusted correctly.

7.1.3.1 Adjusting the rear derailleur

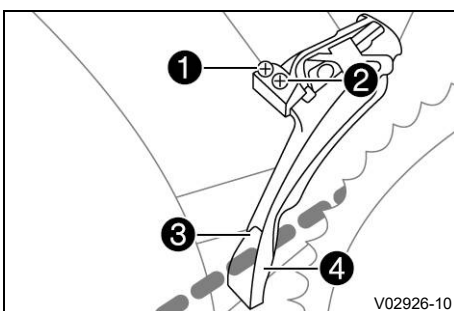


- Shift the chain to the largest chainring and to smallest sprocket ② on the cassette.

i Info
To prevent the chain from falling into the spokes or falling off the smallest sprocket, the limit stop is adjusted on the inside and outside (**L** and **H**).
L stands for **low gear** and means the lowest gear.
H stands for **high gear** and means the highest gear.

- Turn limit screw **H** ④ until pulley wheel ⑤ is exactly below smallest sprocket ②.
- Shift the chain to the smallest chainring and to largest sprocket ① on the cassette.
- Turn limit screw **L** ③ until pulley wheel ⑤ is exactly below largest sprocket ①.

7.1.3.2 Adjusting the front derailleur



- Shift the chain to the smallest chainring and to the largest sprocket on the cassette.

i Info
To prevent the chain from falling off the smallest or the largest chainring, the limit stop is adjusted on the inside and outside (**L** and **H**).
L stands for **low gear** and means the lowest gear.
H stands for **high gear** and means the highest gear.

- Adjust limit screw **L** ②.

Guideline

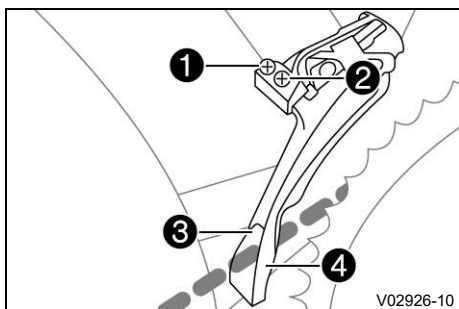
Distance between inner guide plate ③ and chain	1 mm
--	------

- Shift the chain to the largest chainring and to the smallest sprocket on the cassette.

- Adjust limit screw **H** ①.

Guideline

7 Shift mechanism



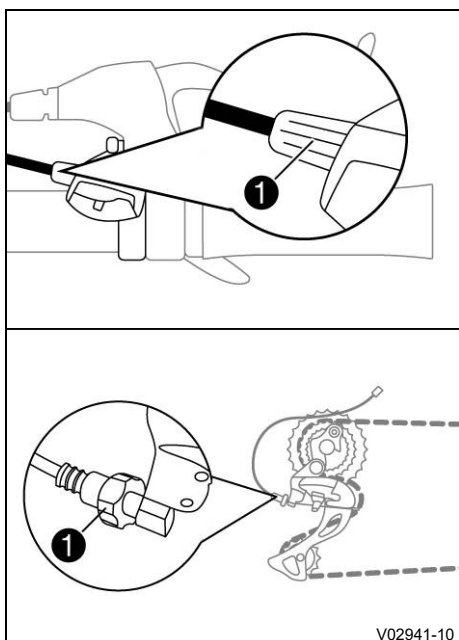
Distance between outer guide plate ④ and chain	1 mm
--	------

7.1.3.3 Adjusting the tension of the shift cable

i Info

If noises occur during shifting, the shift lever tension must be adjusted correctly.

Depending on the model, the adjusting wheel may be located on the control element or on the rear derailleur.



- Turn the tensioning screw ① by half a turn.
 - ✓ If the noise decreases: Continue turning in small increments in the same direction until no noise is heard when cycling.
 - ✗ If the noise increases: Turn in small increments in the opposite direction until no noise is heard when cycling.

7.1.4 Checking the derailleur gear

i Info

Regularly check the components of the derailleur gear to ensure they are functioning correctly and to prevent wear.

If one of the steps was not successful, the shift mechanism must be adjusted and repaired if necessary. 🔧

- Check chain, chainrings, sprockets, front derailleur, rear derailleur, and shift cables for damage.
 - ✓ The shift mechanism is not damaged.
- Make sure that there is sufficient clearance between the rear derailleur/chain and the rear wheel or between the rear derailleur/chain and the spokes.
- Make sure that the rear derailleur is vertical to the sprockets and not bent.
- Check the chain tension, carefully push the rear derailleur forward and then release it.
 - ✓ The chain does not sag.

- ✓ The rear derailleur automatically moves back to the original position.
- Lift the cycle so that the rear wheel can be moved and use the pedals to set it in motion.
- Change through all gears.
- ✓ The shift mechanism is smooth without blockages or unusual noises.

7.1.5 Cleaning and maintenance



WARNING

Danger of accidents Lubricant on the tires reduces the traction.

- Remove the lubricant 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.

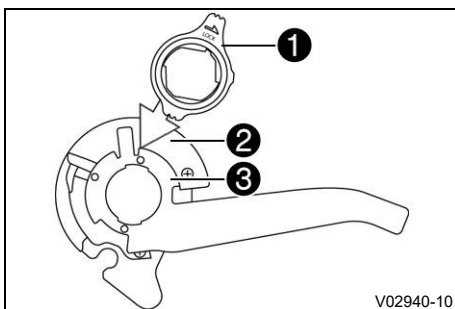
- Dispose of oils, grease, cleaning agents, brake fluid etc. properly and in compliance with the applicable regulations.

- Clean the controls with a damp soft cloth.
- Remove bigger pieces of dirt from the chainrings, sprockets, rear derailleur, and front derailleur with a cloth or soft brush.
- Apply a suitable chain cleaner to the chain, wipe with a clean cloth and allow to dry.
- After cleaning, grease the chain with a suitable lubricant.

7.2 Gear hub

The cycle will usually have gears. Exceptions are, for example, kids' bikes, which are equipped with only one gear, depending on the model.

Gear hub



- ① Fastening
- ② Shift fork shaft
- ③ Bracket

The gear hub is installed in the rear wheel.

The controls for shifting gears are located on the handlebars.

Using the shift mechanism, the power provided by the cyclist can be adapted to best suit the road conditions and the speed.

7.2.1 Shifting



WARNING

Danger of accidents The likelihood of having an accident on the road increases if you are not paying proper attention.

- Familiarize yourself with the gears before your first ride.
- Change gears only when the traffic situation permits.
- Stop if, for example, you cannot shift the gears safely due to a malfunction.



NOTE

Material damage Incorrect operation of the shift mechanism increases the wear of components.

- Do not pedal with force when shifting gears.
- Do not pedal backwards when shifting gears.
- Leave good time to shift down on inclines.
- Always start off in a low gear.



Info

Depending on the model, a twist shifter or a shift lever with a gear indicator may be installed. As a rule, gear hubs are equipped with a twist shifter. This will be described below.

- Turn the twist shifter up or down to change gear.



Info

The twist shifter is marked with numbers to indicate the selected gear.

7.2.2 Adjusting the gear hub



WARNING

Danger of accidents If the shift mechanism is adjusted incorrectly, it can cause the gears to slip and the pedals will not drive the chain.

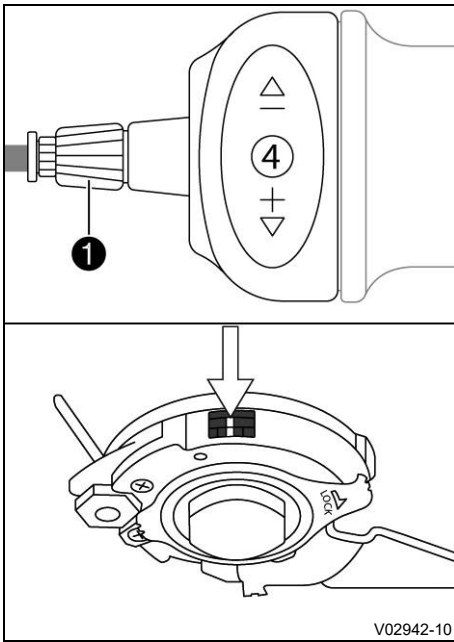
- Set the gears in accordance with the specification.



NOTE

Material damage Incorrect operation of the shift mechanism increases the wear of components.

- Do not pedal with force when shifting gears.
- Do not pedal backwards when shifting gears.
- Leave good time to shift down on inclines.
- Always start off in a low gear.



- Set the twist shifter or shift lever to the middle gear.



Info

With an 8-speed shift mechanism, the middle gear corresponds to the 4th gear.

- Turn adjusting screw ① so that both color-coded markings on the rear hub match.
- Check the settings by taking the cycle for a test ride.
 - » When the gear hub does not work correctly:
 - Adjust the gear hub, repair if necessary. 🛠️

7.2.3 Checking the gear hub



Info

Regularly check the components of the gear hub to ensure they are functioning correctly and to prevent wear.

The components of the gear hub are subjected to greater stress during intensive use, heavy contamination or when exposed to a salt. In these cases, the gear hub requires more frequent maintenance.

- Change the oil of the gear hub once a year. 🛠️
- Check all components of the gear hub for damage.
- Check shift cables and shift cable sheathing for damage and cracks.
 - » If components of the gear hub are damaged:
 - Repair the gear hub. 🛠️
- Lift the cycle so that the rear wheel can be moved and use the pedals to set it in motion.
- Change through all gears.
 - ✓ The shift mechanism is smooth without blockages or unusual noises.
 - » If blockages or unusual noises occur:
 - Adjust the gear hub, repair if necessary. 🛠️

7.2.4 Cleaning and maintenance

- Clean the controls with a damp soft cloth.
- Remove dirt with a damp cloth or soft brush.

8.1 Brake system



WARNING

Danger of accidents Moisture, dirt, and road salt impair the brake system.

- Brake carefully several times to dry out and remove dirt and road salt from the brake pads and the brake rotors.
- Adjust your riding style and speed to weather and road conditions.



WARNING

Danger of accidents Increased weight and higher speeds increase the pedelec's braking distance.

- Familiarize yourself with the braking characteristics of your cycle before riding in traffic.
- Think ahead when cycling and keep sufficient distance to other road users and parked cars.



WARNING

Danger of accidents The brake system fails in the event of overheating. If the brake levers are not released, the brake pads will rub continuously.

- Do not let the brake pads rub continuously.
- If possible, brake at intervals to allow the brake system to cool down.






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.

The cycle is equipped with two independent brakes, one acting on the front wheel and the other on the rear wheel.

The cycle may be equipped with the following brakes, depending on the model:

- [Disc brakes](#) ( p. 33)
- [Caliper brake](#) ( p. 35)
- [Coaster brake](#) ( p. 37)

8.2 Pulling the brake lever



WARNING

Danger of accidents If the front brake is applied with too much force, the cycle can overturn.

- Use the brake lever for the front wheel carefully at high speeds to avoid flipping over.
- Always brake with both brakes simultaneously for optimum brake performance.



WARNING

Danger of accidents The brake lever position in relation to the brake body can vary.

- Familiarize yourself with the brake lever allocation before operating the cycle.
- Note the brake lever position in the cycle identification specifications.
- Have the brake levers changed if you want a different brake lever position. 🔧



WARNING

Danger of accidents Moisture, dirt, and road salt impair the brake system.

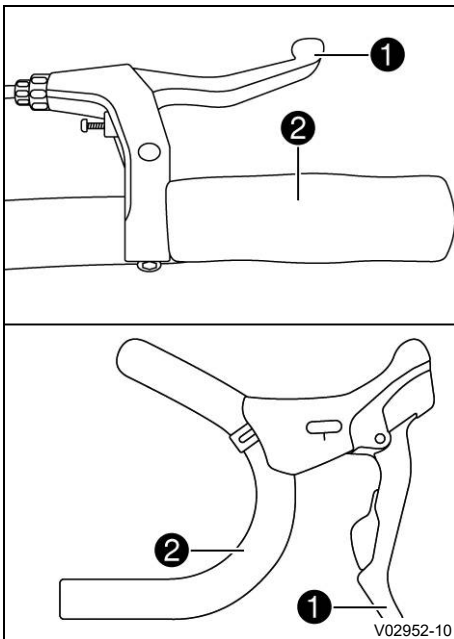
- Brake carefully several times to dry out and remove dirt and road salt from the brake pads and the brake rotors.
- Adjust your riding style and speed to weather and road conditions.



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.

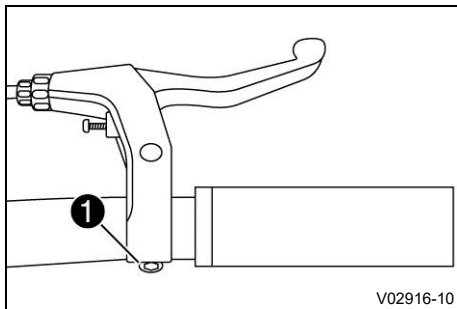


- Pull brake lever ① in the direction of grip ②.

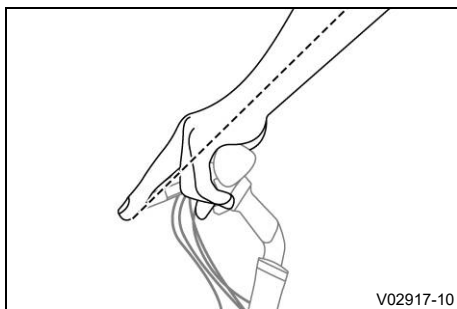
8.3 Adjust brake lever

8.3.1 Adjusting the position

Main work



- Loosen screw ❶ on the brake lever counterclockwise.



- Position brake lever.
 - ✓ Finger, hand, and forearm should be in a line when riding.
 - ✓ The finger rests comfortably on the brake lever, which can be operated safely at all times.
- Tighten screw ❶ on the brake lever clockwise with the recommended torque.

Rework

- Perform a brake test.

8.3.2 Adjusting lever travel

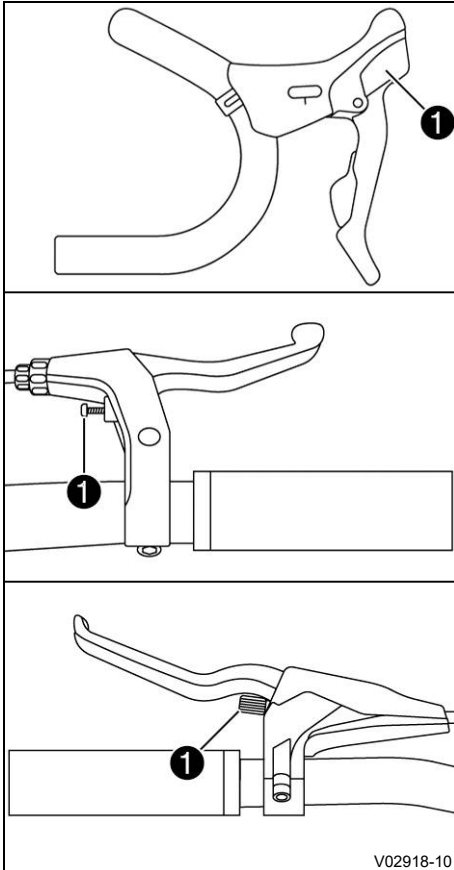
i Info

The type and position of the lever travel adjustment differ depending on the brake type and brake manufacturer.

Hydraulic and mechanical brake levers usually have an adjusting screw.

It must be possible to operate the brake lever easily and safely.

Main work




- If necessary, remove the protection cap of the adjusting screw.
- Turn adjusting screw ① to adjust the lever travel.
- Check distance between the pulled brake lever and grip.

Guideline

Distance	$\geq 1 \text{ cm}$
----------	---------------------

» If the distance does not meet specifications:

- Adjust the brake system. 
- If necessary, mount the protection cap of the adjusting screw.

Rework

- Perform a brake test.

8.4 Disc brakes



WARNING

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

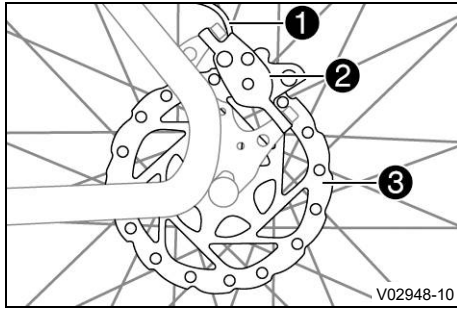
- Always keep the brake discs free of oil and grease.
- Clean the brake discs with brake cleaner when necessary.



CAUTION

Danger of burns Brake rotors heating up during operation.

- Allow the brake rotors to cool before touching them.



Actuating the brake lever of a hydraulic disc brake builds up brake fluid pressure in brake hose ①. The brake pistons are pressed outward and press the brake pads against brake rotors ③ from both sides. Brake caliper ② is attached to the fork for the front wheel brake and to the frame for the rear wheel brake. The brake rotor is attached to the wheel hub.

8.4.1 Checking the disc brakes



Info

Both front and rear brakes are to be checked in the same way.

- Check the screw connections of the brake system for tightness.
 - » If screw connections are loose:
 - Tighten the screw connections with the specified torque.
- Check distance between the pulled brake lever and grip.

Guideline

Distance	≥ 1 cm
----------	-------------

- » If the distance does not meet specifications:
 - Adjust the brake system. 🛠️
- Check the lining thickness of the brake pads.

Guideline

Minimum thickness	> 1 mm
-------------------	----------

 - » If it is less than the minimum thickness:
 - Change the brake pads. 🛠️
- Gently pull and push on the brake rotor.
 - ✓ The brake rotor is mounted on the hub with no play.
 - ✗ The brake rotor has play.
 - Fasten the brake rotor correctly. 🛠️
- Push cycle and brake.
 - ✓ The wheel locks when a reasonable amount of force is applied.
 - ✗ The brake action is too weak or non-existent.
 - Adjust the brake system. 🛠️
- Pull the brake lever while checking the brake system for leaks.
 - ✓ No brake fluid leaks from the brake hose or at the connection points.
 - ✗ Brake fluid is leaking out.
 - Repair the brake system. 🛠️
- Pull and release the brake lever.
 - ✓ Brake pads move evenly and symmetrically towards the brake rotor and back.
 - ✗ Brake disc is pressed in one direction or brake pads move unevenly.
 - Adjust the brake system. 🛠️

8.4.2 Cleaning and maintenance



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 components with a damp cloth.
- Wash the brake rotor with water if it is heavily soiled.

8.4.3 Braking in the disc brake



Info

When new brake pads have been installed, the disc brake must be broken in. Observe the specifications of the brake manufacturer.

- Speed the cycle up.

Guideline

≈ 25 km/h

- Slow down sharply and evenly to a walking pace.

Guideline

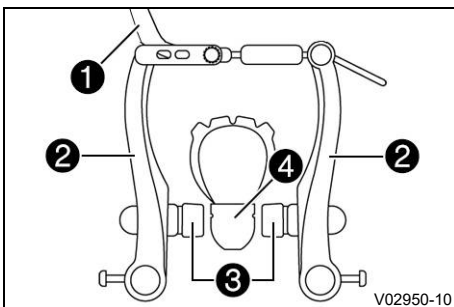
Do not allow the wheels to lock.

Do not brake to a standstill.

- Repeat the process up to 50 times.
- Allow the brake rotors and brake pads to cool down.
- Adjust the travel of the brake lever. (📖 p. 32)
- Perform a brake test.
 - » If the brake performance is insufficient or unusual noises occur:
 - Adjust the brake system. 🛠️

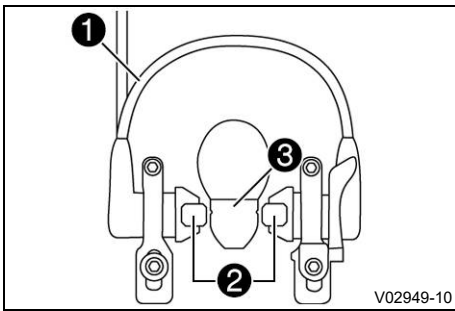
8.5 Caliper brake

8.5.1 Mechanical rim brake



When the brake lever of the mechanical rim brake is pulled, brake cable ① pulls brake arms ② together and brake pads ③ are pressed against rim ④.

8.5.2 Hydraulic rim brake



When the brake lever of the hydraulic rim brake is pulled, pressure is built up in the brake fluid in brake hose ① and brake pads ② are pressed against rim ③.

8.5.3 Checking the caliper brake

i Info

Both front and rear brakes are to be checked in the same way.

- Check the screw connections of the brake system for tightness.
 - » If screw connections are loose:
 - Tighten the screw connections to the specified torque.
- Check distance between the pulled brake lever and grip.

Guideline

Distance	$\geq 1 \text{ cm}$
----------	---------------------

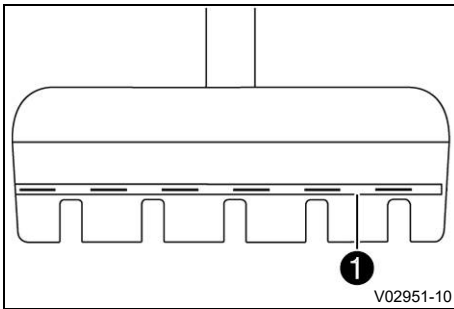
- » If the distance does not meet specifications:
 - Adjust the brake system. 🛠️
- Push cycle and brake.
 - ✓ The wheel locks when a reasonable amount of force is applied.
 - ✗ The brake action is too weak or non-existent.
 - Adjust the brake system. 🛠️
- Pull and release the brake lever.
 - ✓ Brake pads move evenly and symmetrically towards the rim and return.
 - ✗ Brake pads move unevenly.
 - Adjust the brake system. 🛠️
- Check the position of the brake pads on the brake rim side.
 - ✓ The brake pads rub centrally on the rim side.
 - ✗ The brake pads are mounted too high or too low.
 - Adjust the brake system. 🛠️

conditions: Mechanical rim brake

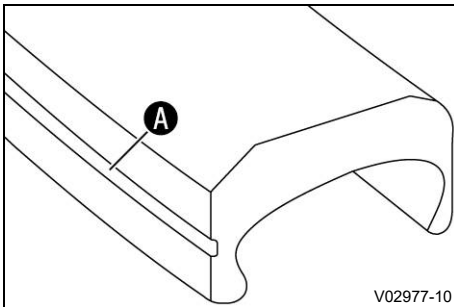
- Pull and release the brake lever.
 - ✓ The brake cable does not get caught and does not rub.
 - ✓ The brake cable is not damaged.
 - ✗ The sheath of the brake cable is damaged or wire strands are broken.
 - Repair the brake system. 🛠️

conditions: Hydraulic rim brake

- Pull the brake lever while checking the brake system for leaks.
 - ✓ No brake fluid leaks from the brake hose or at the connection points.
 - ✗ Brake fluid is leaking out.
 - Repair the brake system. 🛠️



- Check the lining thickness of the brake pads.
 - » If wear limit **1** has been reached or has not yet been reached:
 - Change the brake pads. 🛠️



- Check the rim for wear.
 - » If wear indicator **A** is no longer visible:
 - Change the rim. 🛠️

8.5.4 Cleaning and maintenance



WARNING

Danger of accidents Oil or grease on the rim reduces the brake action.

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

- Clean components with a damp cloth.
- Clean the rim with a damp cloth if it is dirty.

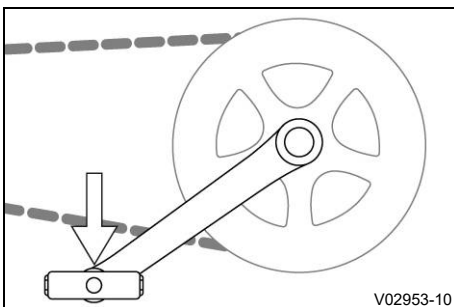
8.6 Coaster brake



WARNING

Danger of accidents If the chain falls off the chainring, the coaster brake is ineffective.

- Carefully brake with the front brake if the coaster brake is ineffective.



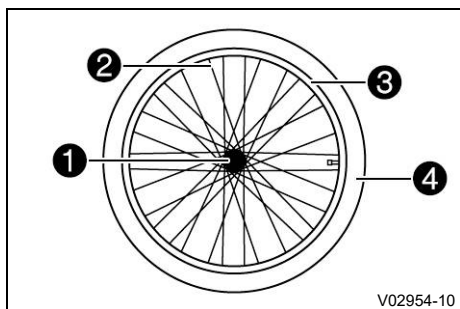
Info

The greatest braking effect can be achieved when the pedals are in a horizontal position and force is applied to the rear pedal from above.

The coaster brake is applied when the pedal is pressed against the direction of travel.

9 Wheel and tires

9.1 Wheel



Front and rear wheel consist of hub ①, spokes ②, rim ③ and tire ④ mounted on the rim.

Depending on the cycle model, a tube is inserted in the tire. For this purpose, rim tape is additionally glued into the surface to protect the tube from damage from the rim well or spoke nipples.

If no tube is used, tubular tires are used for racing bikes and tubeless tires are used for mountain bikes.

9.1.1 Rims and spokes

The tension of the spokes can be affected if you cycle over obstacles, such as a curb, or if a spoke nipple comes loose.

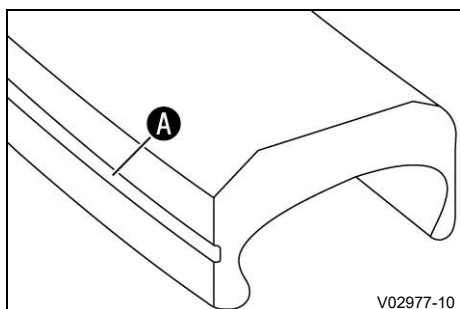
A correct and even tension in the spokes stabilizes the trueness of the wheels. If individual spokes are loose, the wheel no longer runs smoothly and the rim stability is compromised, which means that the rim can break.

9.1.2 Checking the rims

- Check the rims for dents and cracks.
 - » If the rim is cracked or has severe damage:

- Change the rim. 🛠️

conditions: Caliper brake



- Check the rim for wear.
 - » If wear indicator ① is no longer visible:
 - Change the rim. 🛠️

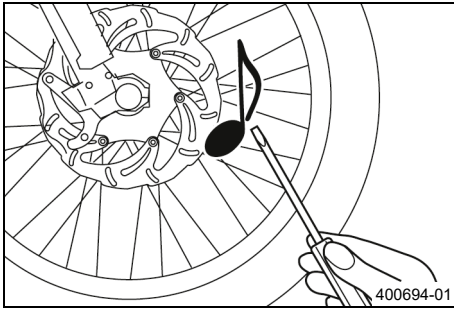
9.1.3 Checking the spoke tension



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 cycle.




- 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. 

9.1.4 Fitting a wheel with quick release



WARNING

Danger of accidents If the quick release axle is closed or adjusted improperly, the quick release axle can open while driving. The wheel is then no longer fixed.

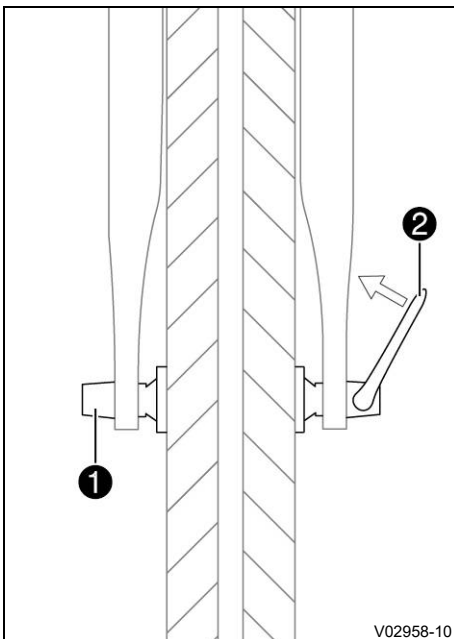
- Before each journey, make sure that all quick releases are closed with sufficient preload and are in contact with the frame or suspension fork.



NOTE

Material damage Incorrect handling will damage the quick releases.

- Close the quick release lever by hand only and do not use any tools or other aids.



- Clean and lightly grease the quick release.
- Turn hub axle nut **1** one to two turns clockwise onto the quick release axle.
- Insert the quick release axle into the wheel.
- Position the wheel in the dropouts.

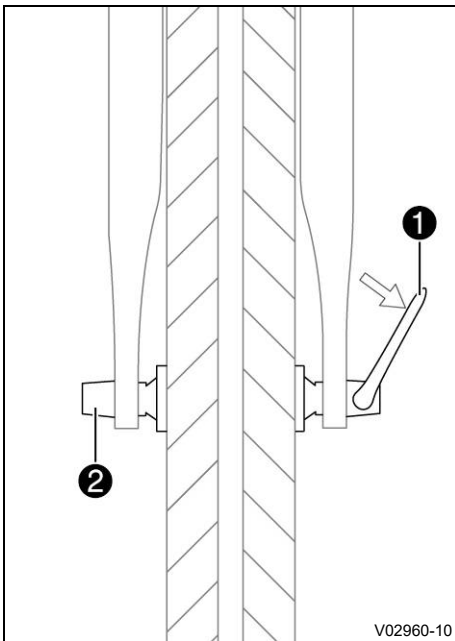
Guideline

If necessary, observe the direction of travel of the tire.

- ✓ The brake pads are correctly positioned.
- Close quick release lever **2** upward all the way.
- Check that the wheel is fitted tightly.
 - » If the wheel is not tight or the quick release can be closed without any force:
 - Open quick release lever **2**.
 - Turn hub axle nut **1** a couple of turns clockwise onto the quick release axle.
 - Close quick release lever **2** and check again that the wheel is tightly fitted.

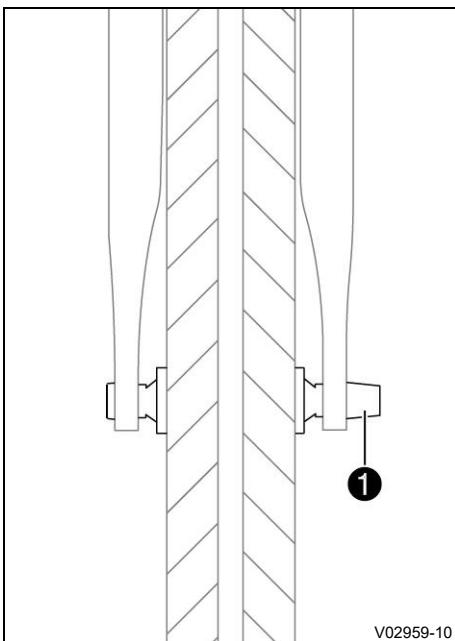
9 Wheel and tires

9.1.5 Removing a wheel with quick release



- Open lever **1** of the quick release axle.
- Turn hub axle nut **2** counterclockwise until the wheel can be removed.

9.1.6 Fitting a wheel with thru axle



- Clean and lightly grease thru axle **1**.
- Position the front wheel and insert the thru axle.

Guideline

If necessary, observe the direction of travel of the tire.

- ✓ The brake pads are correctly positioned.

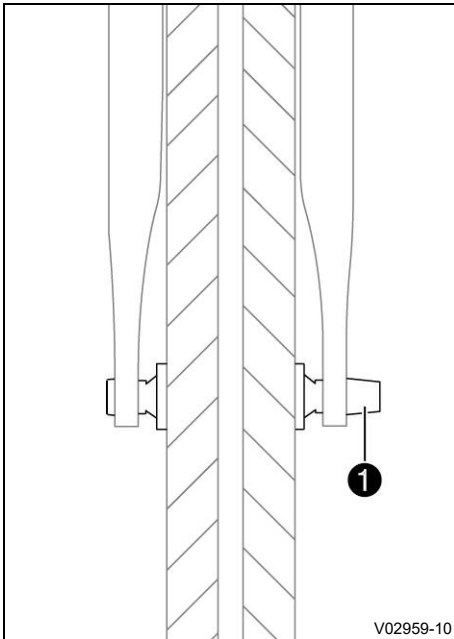
- Mount the thru axle.

i Info

Depending on the model, the thru axle can be secured by tightening with or without tools, with a quick release lever or a combination of both.

Follow the instructions of the thru axle manufacturer.

9.1.7 Removing a wheel with a thru axle



- Loosen thru axle ①.



Info

Depending on the model, the thru axle can be released with or without tools, with a quick release lever or a combination of both.

Follow the instructions of the thru axle manufacturer.

- Firmly hold the front wheel and pull the thru axle out.
- Take the wheel off.

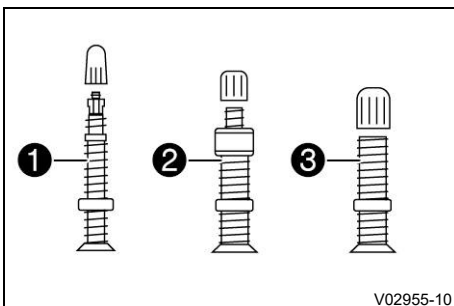
9.2 Tires

9.2.1 Overview of valve types



Info

The cycle is equipped with one of the following types of valves.



- ① Presta valve
- ② Dunlop valve
- ③ Schrader valve

9.2.2 Tire pressure

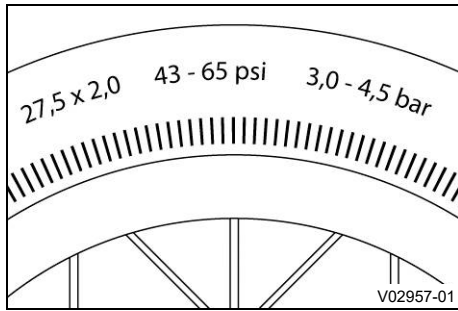


WARNING

Danger of accidents If the tire pressure is too high, the tube may burst or the rim may break. If the tire pressure is too low, the tube and rim can be damaged.

- Observe the information on the tire sidewall regarding the minimum and maximum tire pressures.
- Use a pump with a pressure gage.

9 Wheel and tires



The specified tire pressure is indicated on the tire sidewall. The specified tire pressure can be in bar or psi.

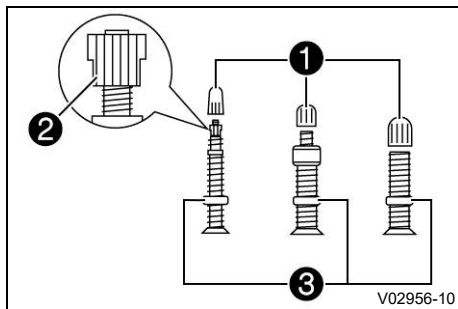
A tire pressure of the specified lower limit is suitable for:

- Cyclists of a lighter weight
- Cycling on uneven ground
- Cycling with higher suspension comfort with higher rolling resistance

A tire pressure of the specified upper limit is suitable for:

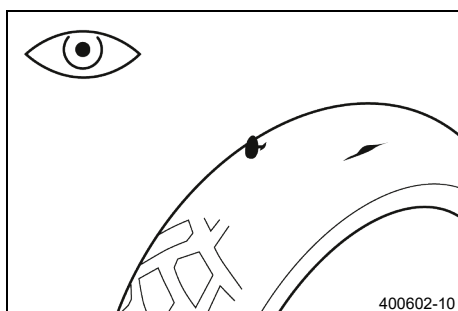
- Cyclists of a heavier weight
- Cycling on even ground
- Cycling with low rolling resistance with low suspension comfort

9.2.3 Check the tire pressure



- Remove protection cap **1** on the valve.
- Presta valve (📖 p. 41): Open knurled screw **2** all the way.
- Check the tire pressure.
 - » If the tire pressure does not meet specifications:
 - Correct the tire pressure.
- Presta valve: Close knurled screw **2**.
- Mount protection cap **1**.
- Check that valve nut **3** is tight.
 - » If the valve nut is loose:
 - Tighten valve nut.

9.2.4 Checking the tire condition



- 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. 🛠️

10.1 Setting the height of the saddle



WARNING

Danger of accidents The seat post can crack or break if used incorrectly.

- Always push the seat post into the seat tube to the minimum insertion depth.
- Do not shorten the seat post.



Info

The cycle is equipped with either a rigid seat post or a telescopic seat post.

The seat post is attached with a seat post clamp.

Seat post clamps are designed with quick releases or clamp bolts.

The height of the saddle is adjusted using the seat post clamp.

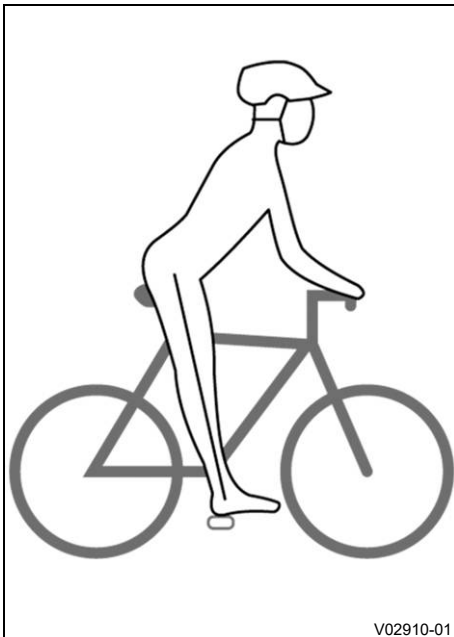


Info

Depending on the cycle model, the seat post may not be able to be completely inserted into the seat tube.

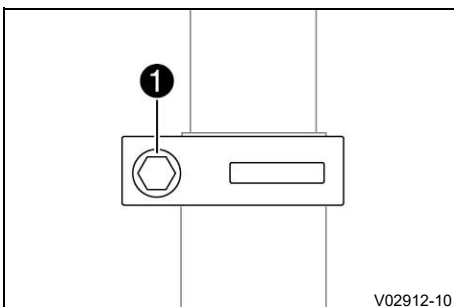
If the seat post encounters an obstacle in the seat tube, the seat post must be pulled up slightly and secured.

If an optimal seating position can not be achieved, a shorter seat post must be used.



- Sit on the saddle and support yourself by leaning against a wall.
- Place the heel on the pedal on the side away from the wall.
- Move the pedal to the lowest point.
 - ✓ The leg is fully extended.
 - ✗ The leg is not fully extended.
 - Set the seat post higher.
 - ✗ Pedal is not reached.
 - Lower the seat post.

Seat post clamp with clamp bolt



- Hold the saddle and loosen clamp bolt ❶ of the seat post clamp counterclockwise until the seat post can be moved in the seat tube.

- Position the seat post to the desired height.

Guideline

Observe the minimum insertion depth and minimum extension height of the seat post.

- Tighten clamp bolt ❶ of the seat post clamp clockwise to the specified torque.

- ✓ The saddle cannot be twisted.

Seat post clamp with quick release



WARNING

Danger of accidents If the quick release axle is closed or adjusted improperly, the quick release axle can open while driving. The seat post is then no longer fixed.

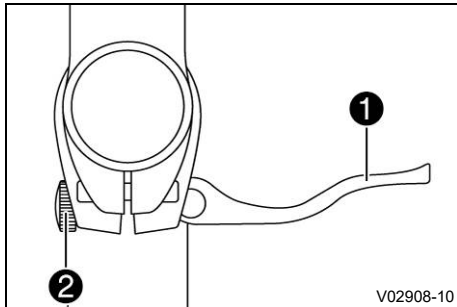
- Before each journey, make sure that the quick release is closed with sufficient preload and are in contact with the seat tube.



NOTE

Material damage The quick release or the frame will be damaged if handled improperly.

- Close the quick release lever by hand only and do not use any tools or other aids.



- Hold the saddle and open the quick release lever ①.
- Position the seat post to the desired height.

Guideline

Observe the minimum insertion depth and minimum extension height of the seat post.

- Close quick release lever ① until the quick release lever rests against the seat tube.
 - ✓ The saddle cannot be twisted.
 - ✗ The saddle can be twisted, the preload is too low.
 - Open the quick release lever.
 - Slightly turn adjusting screw ② clockwise.
 - Close the quick release lever and check the saddle again.
 - ✗ The quick release lever cannot be flipped by hand, the preload is too high.
 - Open the quick release lever.
 - Slightly turn adjusting screw ② counterclockwise.
 - Close the quick release lever and check the saddle.

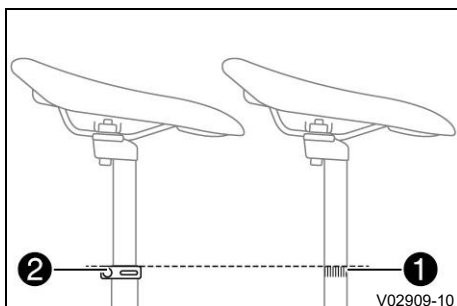
10.2 Minimum insertion depth



WARNING

Danger of accidents The seat post can crack or break if used incorrectly.

- Always push the seat post into the seat tube to the minimum insertion depth.
- Do not shorten the seat post.



Seat posts have a marked minimum insertion depth, which indicates the minimum length of seat post that must be inserted into the seat tube.



Info

Marking ① on the seat post must be below seat post clamp ②.

10.3 Minimum extension height



NOTE

Danger of damage If the seat post is pushed in too far, components inside the seat tube can be damaged.

- Adjust the seat height so that no lines, cables or wires inside the seat tube are damaged.

Depending on the model, a minimum extension height of the seat post must be observed. The value indicates how far the seat post must protrude from the seat tube.

10.4 Adjusting the angle of the saddle



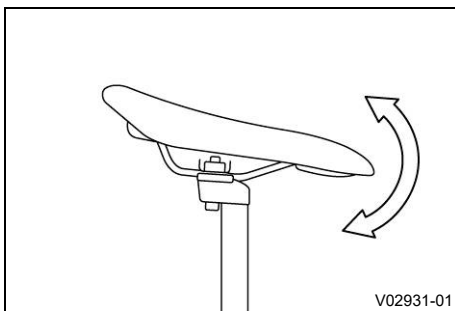
Info

The saddle is fastened to the seat post with one or two bolts. These bolts can be used to adjust the inclination of the saddle.



Tip

As a basic setting, align the saddle horizontally.



- Loosen the bolt(s) of the saddle clamp under the saddle counterclockwise.
- Adjust the angle of the saddle.
 - ✓ If present, the latch engages correctly.
- Tighten the saddle clamp bolt(s) clockwise to the specified torque.

10.5 Adjusting the saddle offset



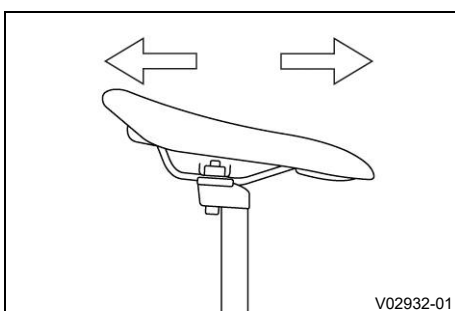
Info

The saddle offset is the distance between the tip of the saddle and the center of the handlebars. The saddle is fastened to the seat post with one or two bolts. These bolts can be used to adjust the saddle offset.



Tip

As a basic setting, position the saddle in the center.



- Loosen the bolt(s) of the saddle clamp under the saddle counterclockwise.
- Adjust the desired saddle offset by pulling it forward or backward.

Guideline

If necessary, observe the marked clamping area on the saddle rails.

- Tighten the saddle clamp bolt(s) clockwise to the specified torque.

11.1 Handlebar and stem



WARNING


Danger of accidents If the handlebar is bent or straightened, the material becomes fatigued. The handlebar may break as a result.

- Change the handlebar if the handlebar is damaged or bent.



WARNING

Danger of accidents The stem can crack or break if used incorrectly.

- Always push the stem into the steerer tube to the minimum insertion depth.
- Make sure that adjustment work is performed professionally. 

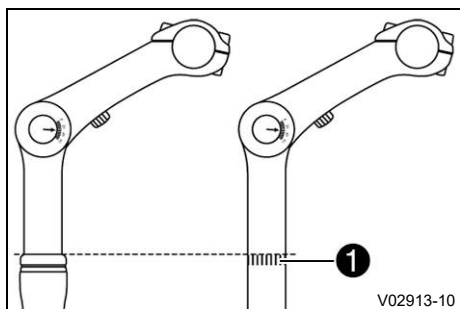
The stem connects the handlebar to the fork.

Depending on the cycle model, a rigid or adjustable stem can be mounted.

Stems can be clamped via an internal clamp or with screws from the outside.

11.2 Minimum insertion depth of stem


Stems with internal clamping have a marked minimum insertion depth, which indicates the minimum length of stem that must be inserted into the steerer tube.



Marking **1** on the stem must not be visible.



Info

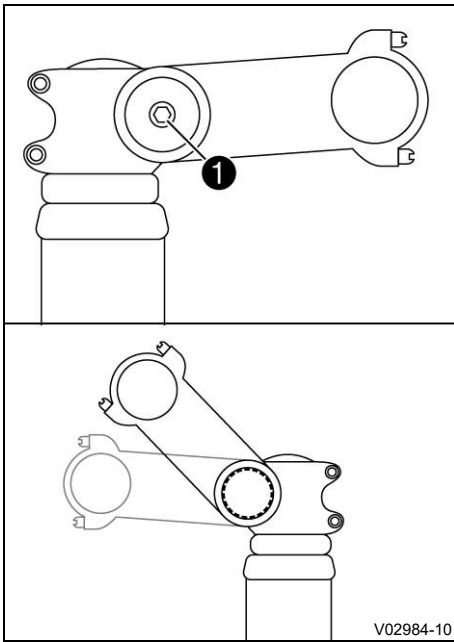
For stems that are clamped from the outside (Ahead stems), the height is adjusted with headset spacers that are positioned under the stem on the steerer tube. 

11.3 Adjusting the stem angle



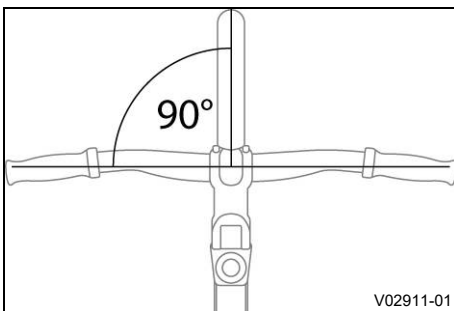
Info

Depending on the cycle model, an angle-adjustable stem may be installed.



- Loosen screw ❶ counterclockwise until the center-lock locking loosens.
- Press on screw ❶ to loosen the stem.
- Adjust the angle of the stem.
 - ✓ The cyclist's hands and forearms are in a line.
- Press the adjustment part into the stem until the center-lock locking engages.
- Tighten screw ❶ clockwise to the recommended torque.

11.4 Checking the straight-ahead position



- Check the straight-ahead position of the handlebar.
Guideline

Angle	90°
-------	-----

- » If the handlebar is not aligned straight:
 - Align the handlebar. 🛠️

11.5 Aero bars



WARNING

Danger of accidents The greater the distance between the grip position and the brake lever, the greater the reaction distance and therefore the braking distance.

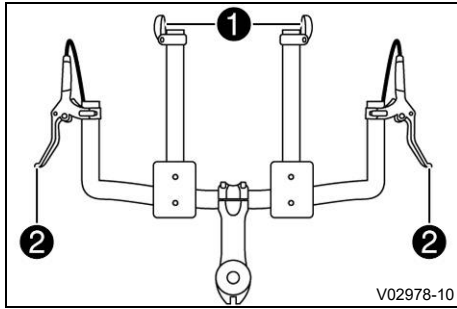
- Get used to reaching for the brake levers before cycling in traffic.
- Think ahead and cycle with particular caution when using aero bars.



Info

Aero bars are used in order to be able to adopt the most aerodynamic position possible in a triathlon or for a time trial on racing bikes.

11 Handlebar and stem



With aero bars, the shift levers are often located at handlebar plug ① and brake levers ② are mounted on the base handlebar.

When an aero bar is used, the brake levers are not within reach.

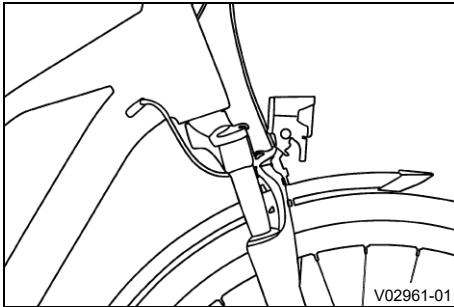
12.1 Suspension in general

To optimize the riding characteristics of the cycle and to avoid damaging the suspension fork, shock, and frame, the basic settings of the suspension components must match the rider's weight.

The cycle may be equipped with the following suspension components, depending on the model:

- [Suspension fork](#) (📖 p. 49)
- [Damper](#) (📖 p. 52)
- [Dropper seat post](#) (📖 p. 54)

12.2 Suspension fork



The suspension fork absorbs shocks from the front wheel and increases riding comfort and safety on uneven surfaces. The settings must be adapted to the rider's weight and to the intended use.

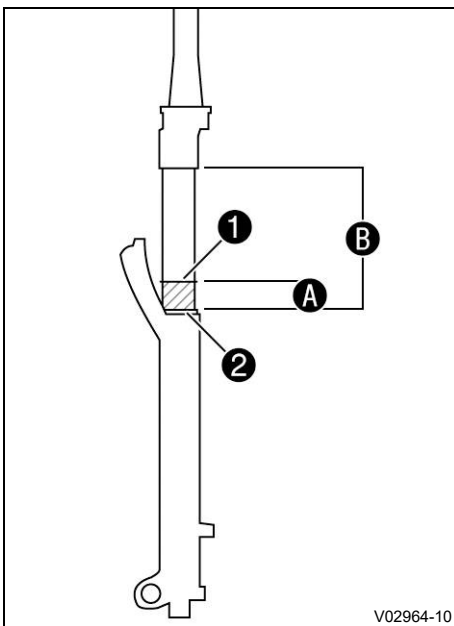
Info

Refer to the suspension fork manufacturer's instructions for recommended air pressure and other adjustment information, if applicable.

12.2.1 Checking the sag

Info

Sag refers to the compression of the suspension due to body weight.



- Sit on the cycle.
- Hold the cycle upright with the aid of an assistant.
- Push O-ring ① up to dust seal ②.



Tip

If there is no O-ring mounted on the suspension fork, a cable tie can also be used.

Remove the cable tie again when preparing for use.

- Carefully get off the cycle without allowing the fork to compress further.
- Measure sag **A** and divide by overall spring travel **B**.

Guideline

Sag	15 % ... 30 %
-----	---------------

» If the sag deviates from the specification:

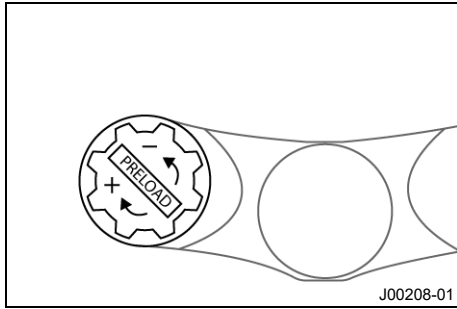
- Adjust the sag. 🔧

12.2.2 Adjusting the preload

Info

Depending on the suspension fork model, a preload adjustment may be available.

12 Suspension



- If necessary, remove the protection cap of the adjuster.
- Turn **PRELOAD** adjuster to set the preload.

Guideline

If the preload can be adjusted on both sides of the fork, the **PRELOAD** adjusters must be equally set.



Info

Turning clockwise increases the spring preload.
Turning counterclockwise reduces the spring preload.

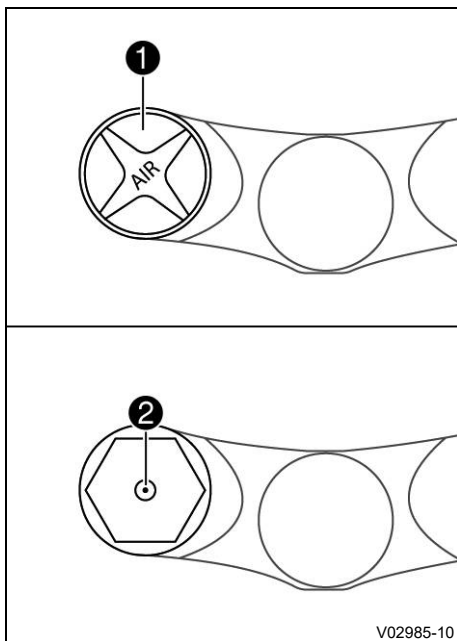
- If necessary, mount the protection cap of the adjuster.

12.2.3 Suspension fork valve



Info

Depending on the suspension fork model, there may be a valve for adjusting the air pressure in the air chamber.



The valve is used to adjust the pressure in the air chamber of the suspension fork to the rider's weight with the aid of a suspension pump.

To reach valve **2** of the air chamber, protection cap **1** must first be removed.

The valve for the air chamber is usually located at the upper end of the left fork leg.

12.2.4 Lockout



NOTE

Material damage If the lockout function is used on uneven ground, the suspension fork can be damaged.

- Only use the lockout function on level ground.

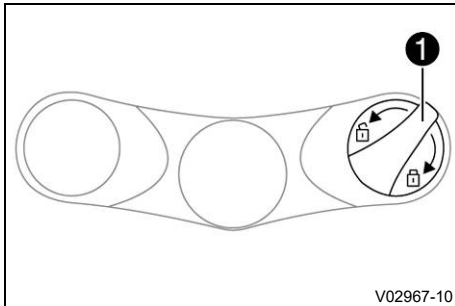


Info

Depending on the suspension fork model, the cycle may be equipped with a lockout function.

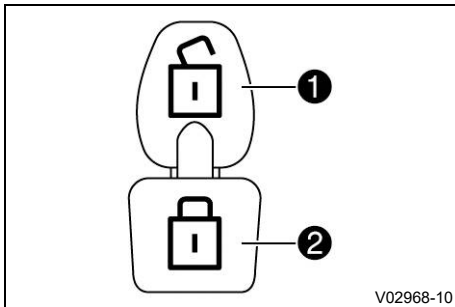
Depending on the model, either an adjuster is mounted on the suspension fork or a remote control is mounted on the handlebar to operate the lockout function and thus lock the suspension fork.

Adjuster



Turning adjuster **1** clockwise locks the suspension fork.
Turning adjuster **1** counterclockwise unlocks the suspension fork.

Remote control

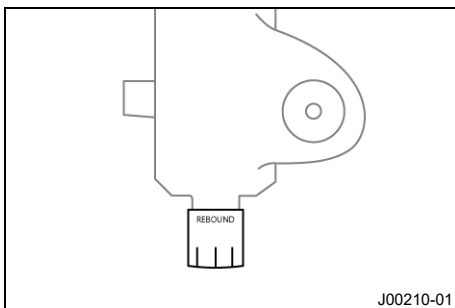


Pressing button **1** locks the suspension fork.
Pressing button **2** unlocks the suspension fork.

12.2.5 Rebound

i Info

Depending on the suspension fork model, the cycle may be equipped with rebound damping. If applicable, the suspension fork is equipped with **low-speed** and **high-speed** rebound damping.



REBOUND rebound damping affects the speed at which the suspension fork rebounds after compression.

The rate of suspension rebound affects the contact between the wheel and the ground, and therefore also the control over the cycle. The suspension fork should rebound quickly enough to maintain traction without feeling bumpy or too abrupt. If there is too much rebound damping, the suspension fork cannot rebound quickly enough before the next bump.

The adjuster for the rebound damping is usually located at the lower end of the right fork leg.

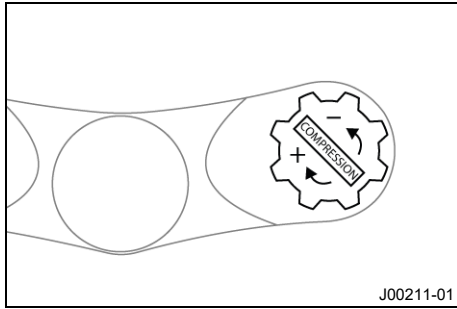
i Info

Turning clockwise increases the rebound damping. Turning counterclockwise reduces the rebound damping.

12.2.6 Compression damping

i Info

Depending on the suspension fork model, the cycle may be equipped with compression damping. If applicable, the suspension fork is equipped with **low-speed** and **high-speed** compression damping.

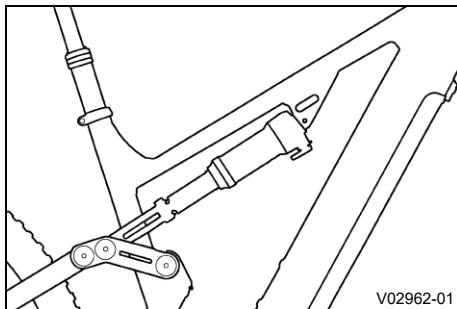


COMPRESSION compression damping influences the speed at which the suspension fork compresses when compressed. If the compression damping is too low, the suspension fork can sag or bottom out. The adjuster for the rebound damping is usually located at the upper end of the right fork leg.

i Info

Turning clockwise increases the compression damping. Turning counterclockwise reduces the compression damping.

12.3 Shock



The shock absorber absorbs shocks at the rear wheel and increases riding comfort and safety on uneven surfaces. The settings must be adapted to the rider's weight and to the intended use.

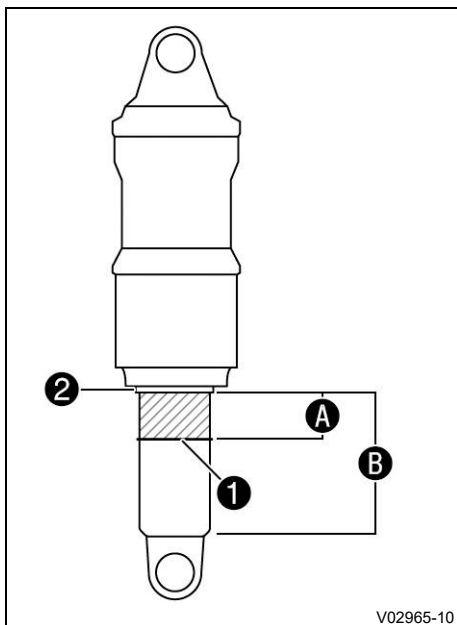
i Info

Refer to the shock manufacturer's instructions for recommended air pressure and other adjustment information, if applicable.

12.3.1 Checking the sag

i Info

Sag refers to the compression of the suspension due to body weight.



- Sit on the cycle.
- Hold the cycle upright with the aid of an assistant.
- Push O-ring **1** up to dust seal **2**.



Tip

If there is no O-ring mounted on the shock, a cable tie can also be used.

Remove the cable tie again when preparing for use.

- Carefully get off the cycle without allowing the shock to compress further.
- Measure sag **A** and divide by overall spring travel **B**.

Guideline

Sag	15 % ... 30 %
-----	---------------

» If the sag deviates from the specification:

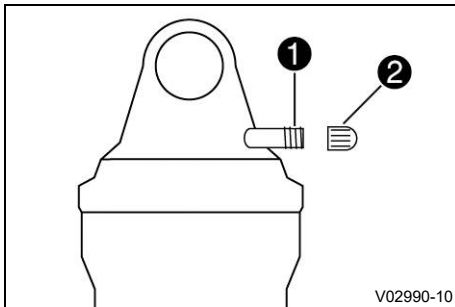
- Adjust the sag.

12.3.2 Air suspension valve



Info

Depending on the shock model, there may be a valve for adjusting the air pressure in the air chamber.



The valve is used to adjust the pressure in the air chamber of the shock to the rider's weight with the aid of a suspension pump. To reach valve **1** of the air chamber, protection cap **2** must first be removed.

12.3.3 Lockout



NOTE

Material damage If the lockout function is used on uneven ground, the shock absorber can be damaged.

- Only use the lockout function on level ground.

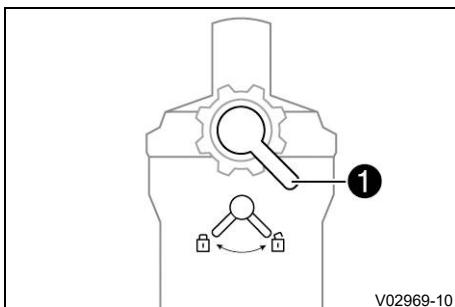


Info

Depending on the shock model, the cycle may be equipped with a lockout function.

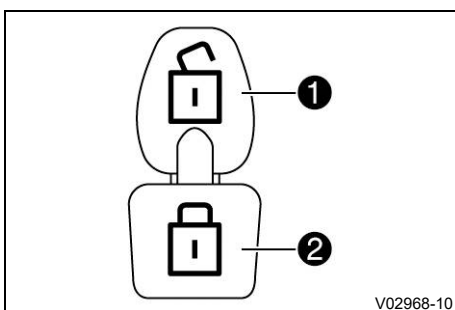
Depending on the model, either an adjuster is mounted on the shock, or a remote control is mounted on the handlebar to operate the lockout function and thus lock the shock.

Adjuster



Turning adjuster **1** locks or unlocks the shock.

Remote control

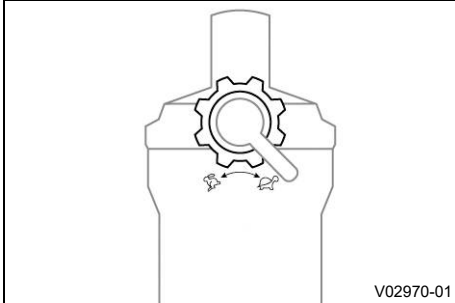


Pressing button **1** unlocks the shock.
Pressing button **2** locks the shock.

12.3.4 Rebound

i Info

Depending on the shock model, the cycle may be equipped with rebound damping. If applicable, the shock is equipped with **low-speed** and **high-speed** rebound damping.



REBOUND rebound damping affects the speed at which the shock rebounds after compression.

The rate of suspension rebound affects the contact between the wheel and the ground, and therefore also the control over the cycle. The shock should rebound quickly enough to maintain traction without feeling bumpy or too abrupt. If there is too much rebound damping, the shock cannot rebound quickly enough before the next bump.

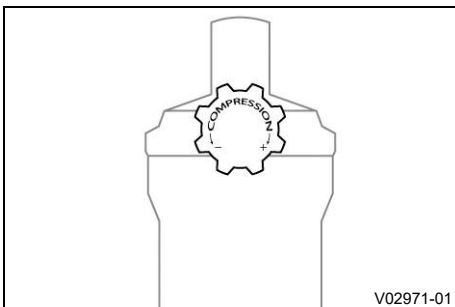
i Info

Turning clockwise increases the rebound damping. Turning counterclockwise reduces the rebound damping.

12.3.5 Compression damping

i Info

Depending on the shock model, the cycle may be equipped with compression damping. If applicable, the shock is equipped with **low-speed** and **high-speed** compression damping.



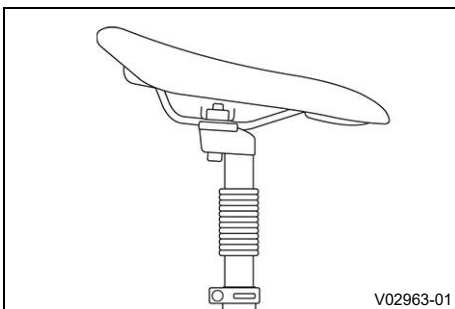
COMPRESSION compression damping influences the speed at which the shock compresses when compressed.

If the compression damping is too low, the shock can sag or bottom out.

i Info

Turning clockwise increases the compression damping. Turning counterclockwise reduces the compression damping.

12.4 Dropper seat post




A dropper seat post increases riding comfort and safety on uneven surfaces. The dropper seat post must be adjusted to the cyclist's body weight.

i Info

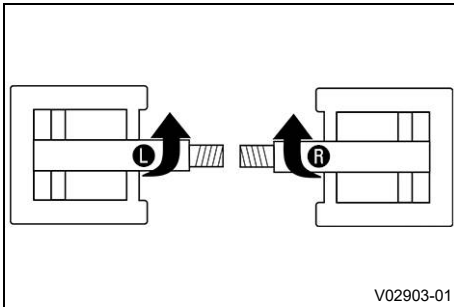
The instructions of the seat post manufacturer may contain information on adjusting it.

12.5 Cleaning and caring for the suspension

- Remove dirt from sliding surfaces and gaskets with a clean cloth.
- Clean sliding surfaces with a suitable oil.
- Compress and then let the suspension rebound five times.
- Remove any oil remaining on the sliding surfaces with a clean cloth.
- Check the behavior of the suspension.
 - » If unusual noises occur or the suspension gives way without resistance:
 - Check the suspension. 

13.1 Pedals

13.1.1 Mounting the pedals



- Lightly grease the pedal threads.
- Mount the right pedal with **R** marking (right-hand thread) clockwise on the right crank arm and tighten with the specified tightening torque.
- Mount the left pedal with **L** marking (left-hand thread) counterclockwise on the left crank arm and tighten with the specified tightening torque.

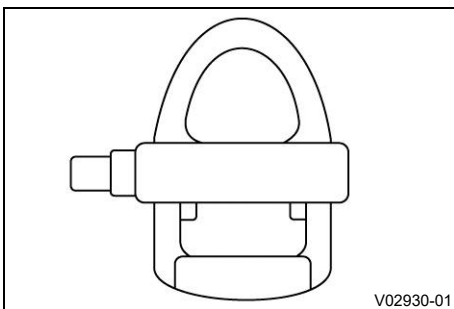
13.1.2 Clipless pedal



WARNING

Danger of accidents If the clipless pedals are adjusted incorrectly, the shoes can come loose too easily or it may be difficult to release them.

- Adjust the release setting and the cleat before the first use.
- First practice clicking into the pedals and then releasing the shoes from the clipless pedals while standing.
- Release the shoes from the clipless pedals in good time before stopping.



Clipless pedals have a device that creates a firm connection with matching shoes. Locking in the shoes increases support, stability, and the transfer of force.

13.2 Lighting



WARNING

Danger of accidents When you are not clearly visible to other road users, the risk of accidents increases.

- Switch on the lighting in poor visibility and when it is dark.
- Wear light-colored clothing with reflective elements when cycling.
- Before cycling off, make sure which lighting elements, if any, have a stand light function.



WARNING

Danger of accidents Operating the lighting while riding distracts you from the traffic.

- Stop the cycle before switching the lighting off or on.
- Do not operate the lighting while riding.



CAUTION

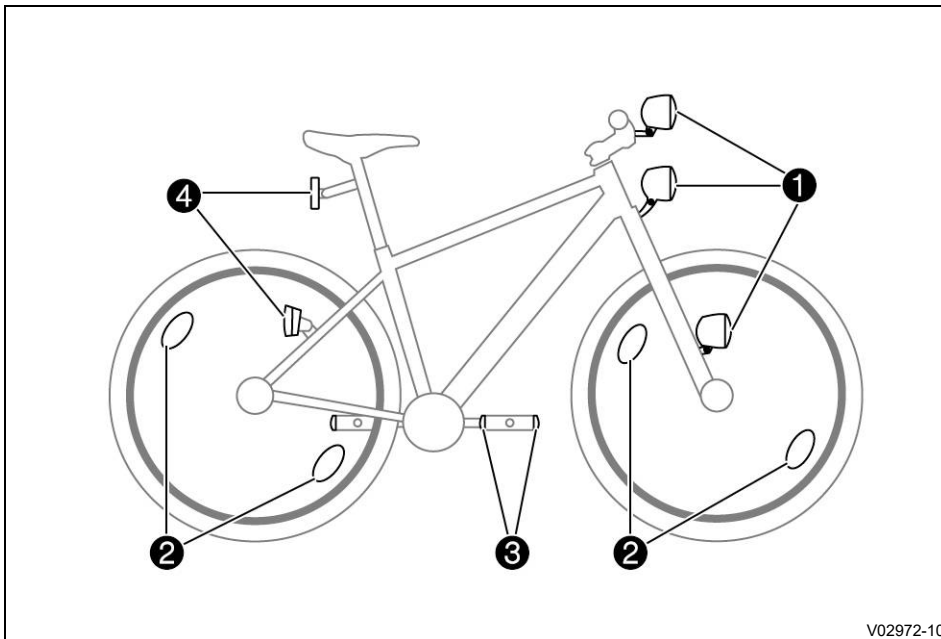
Risk of injury The lighting gets hot during operation.

- Do not touch the lighting during operation or immediately thereafter.

When on public roads, the cycle must be equipped with the following lighting components:

- Headlight
- Tail light
- Reflectors on the pedals
- Reflectors on the front and rear wheel
- White reflector at the front
- Red reflector at the rear

All lighting components must comply with national and regional requirements.



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- | | |
|--|----------------------------|
| ① Headlight / front reflector | ③ Reflectors on the pedals |
| ② Reflectors on the front and rear wheel | ④ Tail light |

Depending on the model, the headlight and tail light are located in one of the following mounting positions.

Headlight:

- On the head tube
- Above the fenders
- On the fork

Tail light:

- Under the carrier rack
- On the fender
- On the seat stay

Depending on the model, the headlight and tail light are operated differently:

- Dynamo hub (📖 p. 58) for bicycles
- Battery or accumulator for the lighting component
- Power supply of the e-drive (📖 p. 58) for pedelecs

13 More components

13.2.1 Dynamo hub

i Info

Bicycles are usually equipped with dynamo hubs.
Depending on the model, the dynamo hub is switched on and off via a switch on the headlight.

The dynamo hub is located in the front hub and is connected to the head light.
The headlight is connected to the tail light. The tail light is switched on and off together with the headlight.
The dynamo hub supplies the lighting system with voltage as soon as the front wheel is moved.
The lighting system may have a stand light function, so that the headlight or the tail light can continue to shine for a brief period after stopping.

13.2.2 E-drive

On pedelecs, the power supply for the lighting comes from the e-drive.
The lighting is switched on and off at the control element.
Headlight and tail light are switched on and off together.


i Info

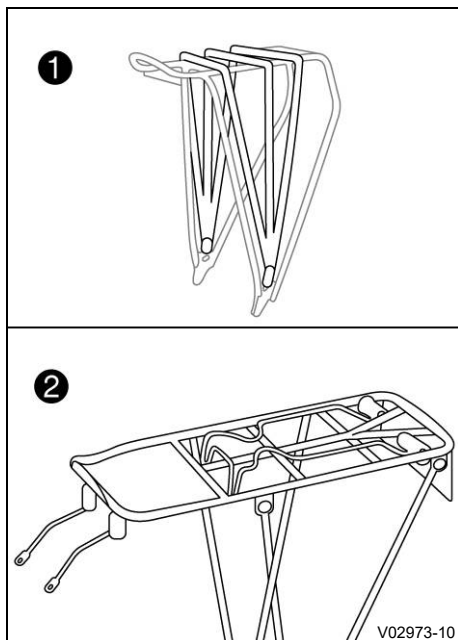
If the battery is discharged and there is no longer any pedal assist, the lighting can still be operated for a short time.

13.3 Carrier rack

NOTE

Material damage Improper installation or use of an unsuitable carrier rack can damage the cycle.

- When retrofitting or converting, only use a carrier rack that is certified in accordance with DIN EN ISO 11243.
- Before installation, make sure that your cycle is suitable for mounting a carrier rack. 
- Observe the maximum load of the carrier rack and the permissible total weight.
- Do not make any structural changes to the carrier rack.

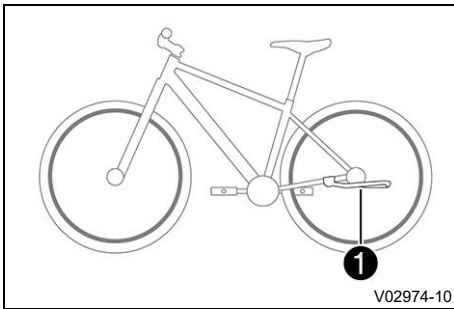


The carrier rack can be used to transport light loads. The load is fixed to the carrier rack with tie downs **1** or a spring-loaded bracket **2**.

i Info

The maximum load is noted on the carrier rack.

13.4 Kickstands



i Info

Depending on the model, the cycle may be equipped with a kickstand.

The kickstand must be folded up when the cycle is being used.

Kickstand **1** is used for parking the cycle.

14.1 Cleaning the cycle



NOTE

Material damage The cycle and the e-drive on pedelecs are not suitable for pressure cleaning. The high pressure forces water into the electrical components, connectors, bearings, etc. As a result, components may be damaged or destroyed.

- Never clean the cycle and the e-drive of the pedelec with a pressure cleaner or a powerful jet of water.



NOTE

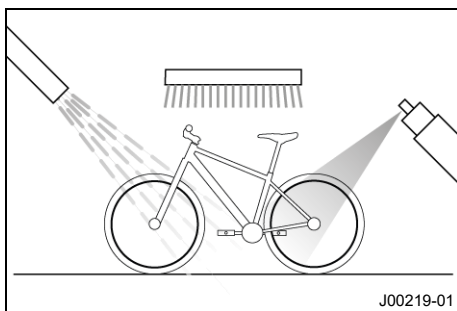
Environmental hazard Hazardous substances cause environmental damage.

- Dispose of oils, grease, cleaning agents, brake fluid etc. properly and in compliance with the applicable regulations.



Info

Clean the cycle regularly to maintain its value and appearance.
Avoid direct sunlight on the cycle during cleaning.



- Remove the coarse dirt particles with a gentle water jet.
- Spray the heavily soiled parts with a normal commercial bike cleaner and clean using a brush.



Info

Use warm water with commercially available bike cleaner and a soft sponge.
Never apply bike cleaner to a dry cycle; always rinse the cycle with water first.

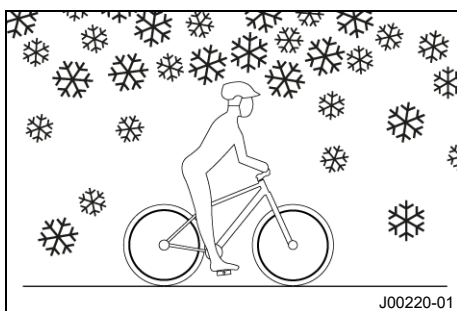
- After rinsing the cycle with a gentle spray of water, allow it to dry thoroughly.
- Clean the chain drive. (📖 p. 16)

14.2 Checks and maintenance steps for winter operation



Info

If you use the cycle in winter, you must expect salt on the roads. It is therefore recommended to take precautions against corrosive road salt.



- Clean the cycle. (📖 p. 60)
- Clean brake system.



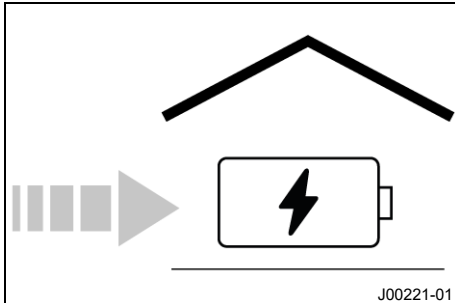
Info

After cycling on salt-treated roads, the entire cycle including the brake system should be thoroughly cleaned with cold water and dried.
Warm water enhances the corrosive effects of salt.

15.1 Storing the battery

i Info

If the pedelec will not be used for a month or longer, it is recommended to remove the battery and store it separately.



- If the state of charge of the battery is above 60%, drain the battery to below 60%.
- Remove the battery.
- Install the battery cover.
- Charge the battery to approximately 60%.
- Store the battery in a dry location that is not subject to large fluctuations in temperature.

Guideline

Ideal storage temperature	15 °C ... 25 °C
---------------------------	-----------------

i Info

If the state of charge is very high or very low, the battery will age faster.

Due to self-discharge, the battery's state of charge decreases during storage.

The capacity of the battery decreases as it ages.

Proper storage can maximize the service life.

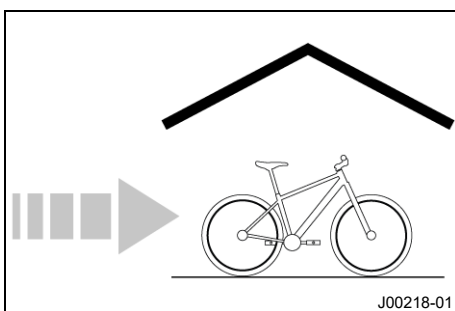
- Check the state of charge monthly.
 - » If the battery is discharged more than 50%:
Charge the battery for approximately 10 minutes.

15.2 Storing the cycle

i Info

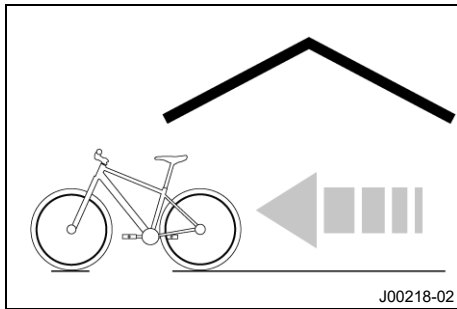
If the cycle will not be ridden for an extended period, additional steps are recommended.

Have service work, repairs or conversions performed outside the cycling season, if possible. This allows you to avoid long waiting periods when the next season starts.



- Check all cycle parts for function and wear.
- Clean the cycle. (📖 p. 60)
- Store the cycle in a dry location that is not subject to large fluctuations in temperature.
- If the cycle has a mechanical derailleur gear, shift to the smallest chainring at the front and the smallest sprocket at the rear to reduce the load on the bowden cables.
- In the case of a pedelec: Store the battery. (📖 p. 61)

15.3 Preparing for use after storage



- Perform checks and maintenance measures when preparing for use. (📖 p. 14)
- In the case of a pedelec: Install and charge the battery.
- Take a test ride.

15.4 Transporting the cycle



WARNING

Danger of accidents An incorrectly secured or unsecured cycle can detach from the transport system during travel and cause serious accidents.

- Before driving off, check that the cycle is secured properly.



WARNING

Danger of accidents If the cycle is transported incorrectly, air may enter the brake system and the brake system may fail.

- Do not transport a cycle with hydraulic brakes upside down.

- In the case of a pedelec: Remove battery and cover contacts with insulation tape. Stow the battery, observing the applicable transport regulations.
- If possible, remove the display or bike computer if the cycle is transported on a bike carrier.
- Use the transport lock for the disc brake if the cycle is transported without a wheel.
- Use tension belts or other suitable devices to secure the cycle against falling over or rolling away.

15.5 Disposal



Info

The e-drive, display including mode switch, rechargeable batteries, batteries, and speed sensors must all be recycled in an environmentally friendly manner.



Tip

Delete personal data from accessory devices.

Users are required to dispose of pedelecs, electrical or electronic components, rechargeable batteries, and batteries at appropriate collection points or participating retailers.

- Remove the battery of the electric drive and any other installed rechargeable batteries and batteries of other components.
- Dispose of the pedelec (without rechargeable batteries / batteries) at a suitable collection point for waste electrical equipment.
- Dispose of rechargeable batteries and batteries separately at a suitable collection point.
- If necessary, observe additional applicable regulations.

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