LIGHT & SMART BIKES

INSTRUCTION MANUAL

EN ISO 4210-2/EN 82079-1

HILL BILL 20"/24"/26"/27.5"

YOUTH BIKE

MTB

BORN AND BASED IN SWITZERLAND

Version 2022-01-EN

NALOO is a brand of Element Sports Trading GmbH

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Version 2022-01-EN

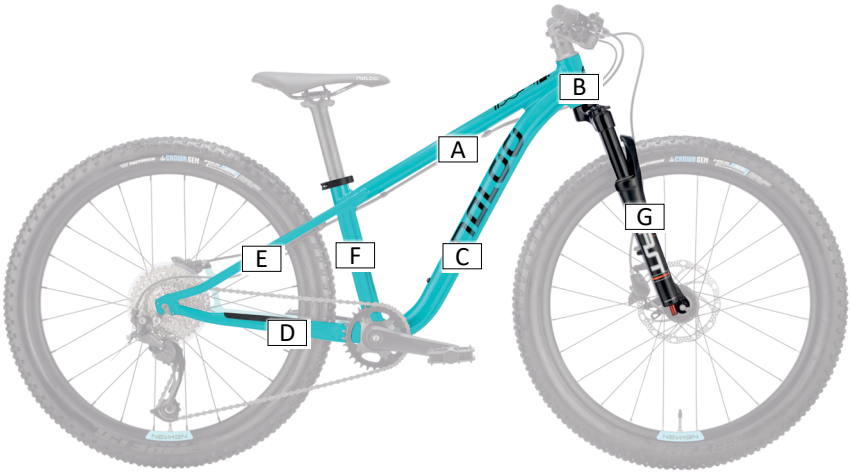
NALOO IS THE SWISS BRAND OF SMART, SUPER-LIGHT CHILDREN'S BIKE

NALOO bikes weigh about 30% less than conventional children's bikes and are among the most lightweight in the market. Children notice the difference immediately. The bike is easier to ride, nippier, easier to accelerate, and makes even lengthier outings child's play.

We choose each and every component carefully and test it for function, ergonomics and weight. This has enabled us to develop a bike that is 100% suited to children's needs.

Real children's bikes for real adventures!

FRAME



- A Top tube
- B Head tube
- C Bottom tube
- D Rear frame chainstay
- E Rear frame seat stay
- F Seat tube
- G Fork / fork suspension

HILL BILL 20"

1 Handlebars with operating elements
2 Brake lever
3 Handlebar stem
4 Front brake
5 Front wheel
6 Valve
7 Pedal
8 Pedal crank
9 Chain
10 Derailleur gear
11 Rear wheel
12 Rear brake
13 Seat post clamp
14 Seat post
15 Saddle

HILL BILL 24"

1 Handlebars with operating elements
2 Brake lever
3 Handlebar stem
4 Front brake
5 Front wheel
6 Valve
7 Pedal
8 Pedal crank
9 Chain
10 Derailleur gear
11 Rear wheel
12 Rear brake
13 Seat post clamp
14 Seat post
15 Saddle

HILL BILL 26"

1 Handlebars with operating elements
2 Brake lever
3 Handlebar stem
4 Front brake
5 Front wheel
6 Valve
7 Pedal
8 Pedal crank
9 Chain
10 Derailleur gear
11 Rear wheel
12 Rear brake
13 Seat post clamp
14 Seat post
15 Saddle

HILL BILL 27.5"

1 Handlebars with operating elements
2 Brake lever
3 Handlebar stem
4 Front brake
5 Front wheel
6 Valve
7 Pedal
8 Pedal crank
9 Chain
10 Derailleur gear
11 Rear wheel
12 Rear brake
13 Seat post clamp
14 Seat post
15 Saddle

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ABOUT THIS MANUAL

1 Reading and storing this manual

This Instruction Manual – referred to hereafter as the “manual” – is part of the scope of supply of this bike.

Whenever this manual refers to “bike” in general, it means any of the bike models described here.

All illustrations in this manual are examples; therefore, individual details on your bike may differ from those shown in this manual.

This manual contains all of the important information on safety and use of the bike. It is based on the standards that apply in the European Union.

Before using your bike for the first time, please read these instructions and all applicable manufacturer's component instructions, especially the safety instructions, carefully and completely.

If you do not follow these instructions and all other applicable manufacturer's component instructions, you may injure yourself and other persons and/or cause damage to property.

Always keep this manual and all applicable manufacturer’s component instructions on hand for further use.

If you pass on your bike to a third party, it is imperative that you include this manual and all applicable manufacturer’s component instructions.

You can download this manual in PDF format from the manufacturer’s homepage.

2 Labelling and meaning of safety notices and warnings

Safety notices and warnings describe hazards that may occur when handling or using the bike and provide instructions on how to avoid such hazards.

Safety notices are summarised in the “SAFETY” section.

Warnings are placed directly at the step or process where the potential hazard arises.

Both the safety notices and action-related warnings are essential for safe use of the bike. You must therefore absolutely read through all safety notices and warnings in a concentrated manner and take care to internalise the contents in order to avoid risks when handling and using the bike.

Safety notices and warnings are indicated as follows in this manual based on the possible consequences of non-compliance.

2.1 Presentation and layout

SIGNAL WORD

Type and source of hazard!

Explanation on type and source of hazard.

» Measures to prevent the hazard.

2.2 Hazard grades

DANGER

The signal word "Danger" indicates a hazard with a high degree of risk: Failure to comply with safety notices and warnings in this category results in death or serious injury.

WARNING

The signal word “Warning” indicates a hazard with a medium degree of risk: Failure to comply with safety notices and warnings in this category can result in death or serious injury.

CAUTION

The signal word “Caution” indicates a hazard with a moderate degree of risk: Failure to comply with safety notices and warnings in this category may result in moderate or minor injuries.

NOTICE

The signal word “Notice” indicates a hazard that can lead to material damage: Failure to comply with safety notices and warnings in this category may damage your bike or cause other damage to property.

3 Explanation of symbols and signs

	You must read and follow the manual.
	This symbol indicates useful additional information on handling and using the bike.

SAFETY

4 Proper use

Neither the manufacturer nor specialist dealer will accept liability for damage which occurs due to improper use. Only use the bike in the manner described in this manual. Any other use is considered improper and may lead to accidents, serious injury or damage to the bike and its components.

The warranty is rendered void in the event of improper use of the bike.

Fundamentally, the following applies:

- The bike is designed for one rider.
- The sitting position on the bike must be correctly adjusted according to the rider's height.
- The maximum permitted total weight for the bike must not be exceeded > Chap. 9 "Maximum permitted total weight" on page 22.
- Country-specific and regional regulations must be observed to comply with the intended use of the bike in road traffic > Chap. 8.2 "Safety instructions for riding in road traffic" on page 21.
- Use of the bike with a child seat and/or trailer (child trailer, cargo trailer, dog trailer etc.) is **not** permitted. Also observe the instructions in the bike passport > Section "Bike passport" on page 66.

Furthermore, the individual specifications on proper use of the relevant bike category of the bike also apply
> Chap. 5 "Categorisation (Classification for usage)" on page 16.

5 Categorisation (Classification for usage)

The categories are based on the "EN 17406 Classification for bikes usage".

Category	The description applies to bikes and EPACs	Typical range ∅ Speed
	used on standard paved surfaces where the tyres are supposed to maintain contact with the ground at average speeds, with occasional drops.	15 km/h to 25 km/h
	Includes Condition 1 as well as unpaved and gravel roads and trails with moderate gradients. In this set of conditions, contact with irregular terrain and repeated loss of tyre contact with the ground may occur. Drops are limited to 15 cm or less.	15 km/h to 25 km/h
	Includes Condition 1 and Condition 2 as well as rough trails, rough unpaved roads, and rough terrain and unimproved roads that require technical skills. Jumps and drops are intended to be less than 60 cm.	Not relevant
	Includes Condition 1, 2 and 3, or downhill gradients on rough trails at speeds less than 40 km/h, or both. Jumps are intended to be less than 120 cm.	Not relevant

If you have specific questions about your model, please contact the manufacturer's Customer Service department.

Max. drop/ jump height	Intended purpose	Type of bike (examples)	Recommended riding skills
< 15 cm	Commuting and leisure with moderate effort	City and urban bikes	No specific riding skills required
< 15 cm	Leisure and trekking with moderate effort	Trekking bike, travel bike	No specific riding skills required
< 60 cm	Sports and competitive with moderately challenging technical trail features	Cross country- and marathon	Requires technical skills and practice
< 120 cm	Sports and competitive with highly challenging technical trail features	All mountain, trail	Requires technical skills, practice, and good riding control

6 Misuse

In order to use your bike safely, avoid the following instances of misuse:

- Use of the bike for competitions, jumps, stunts or tricks if the bike category (classification of bike usage) excludes such use;
- Incorrect repairs and maintenance;
- Structural changes to the bike as delivered, especially to the tuning, and any other modifications to the bike;

INFORMATION

Misuse of the bike can lead to the warranty becoming void.

7 Residual risks

Unavoidably, certain residual risks will remain when using the– bike – despite a well-calculated design by the manufacturer and compliance with the specifications for proper use by the user.

You yourself can reduce, but not completely eliminate, these residual risks by observing all safety notices and warnings. It is therefore important that you are aware of the existence of residual risks when using the bike.

The unpredictable residual risks when using the bike described here may include:

- Unpredictable cycling manoeuvres and/or misconduct on the part of other road users;
- Distraction from the road traffic;
- Misjudging the road-holding capability and speed of the bike as well as your own riding skills, for example;
- Surprising or sudden changes in road characteristics such as black ice;
- Unexpected material defects or signs of wear that can lead to components of the Bike breaking or being impaired in their function.

8 Safety notices

8.1 General safety information

WARNING

Risk of accident and injury!

If you do not follow the instructions listed below, which are intended to help reduce the general risk of accidents and injuries, you expose yourself and possibly other persons to an increased risk of serious injury.

» Only use your bike if you are familiar with its handling and functions and always follow the instructions for the proper use of your bike.
» Ride with foresight in order to recognise events early and be able to react to them.
» Always adapt both your cycling style and speed to current weather conditions and road characteristics.
» Please note in particular that the braking distance can be longer and the tyres have less grip on icy, wet, slippery or dirty roads.
» Pay attention to other road users and adopt a defensive cycling style.
» Always visually inspect the bike before using it. Make sure that the bike and its components are not showing any cracks, scoring, damage or colour changes.
» Make sure that safety-related devices on the bike (e.g., the brakes) are correctly adjusted and functional.
» Never use your bike if safety-relevant components (e.g. the brakes) are damaged or do not function properly.
» Under no circumstances should you arbitrarily exchange components on the bike or make any changes or repairs to the bike or individual components. Have any damage to the bike repaired by your specialist dealer and any damaged components replaced only with suitable original spare parts.
» Contact your specialist dealer if you are unable to carry out work on the bike described in the manual yourself (e.g., making certain adjustments or similar tasks), if you are unsure or if you do not have the correct tools.
» After an accident or fall or if your bike has been subjected to excessive loads, contact your specialist dealer for a professional inspection of your bike.

⚠ CAUTION

Risk of injury when wearing unsuitable clothing!

Since moving parts of the Bike are catching points for clothing, you can injure yourself if you wear unsuitable clothing when using your Bike.

» When cycling, wear tight-fitting legwear if possible instead of wide trousers, dresses or skirts.
» Make sure that loose clothing cannot get caught in the moving parts of the bike, for example by using trouser clips.
» Make sure that no loose straps, laces or the like are hanging down.
» Wear shoes with non-slip soles to prevent your foot from slipping during pedalling.

NOTICE

Risk of damage through improper use!

If the bike is not used in accordance with the instructions for proper use, there is a risk that components may show signs of wear or break more quickly.

» Always observe the permissible total weight of the bike (including the rider and any luggage). The permitted total weight must not be exceeded.
» Make sure that the tyre inflation pressure is set correctly and adjust it if necessary.

8.2 Safety instructions for riding in road traffic

WARNING

Risk of accident and injury!

If you do not follow the instructions listed below, which are intended to help reduce the general risk of accidents and injuries, you could expose yourself and possibly other persons to increased risk.

» Before using your bike in road traffic, make sure that it complies with country-specific regulations. In order to join road traffic, the bike must always be fitted with two independent brakes and a bell.
» Observe and respect all national and regional road traffic regulations. For information on the applicable road traffic regulations of the country or region, contact the Ministry of Transport, for example.
» When cycling, wear a suitable bike helmet tested according to DIN EN 1078 (with CE mark)
» Dress in bright colours when cycling and improve your visibility by wearing reflective elements.
» Do not use your bike if you have consumed alcohol, intoxicants or debilitating drugs.
» Do not use mobile devices such as smartphones or tablets while cycling.
» Be concentrated while cycling. Do not distract yourself by activities such as switching on the light. Stop for such activities.
» Never cycle one-handed or with no-hands in road traffic. Close your hands firmly around both handlebar grips while cycling.
» Cycle on the prescribed cycle paths.

9 Maximum permitted total weight

WARNING

Risk of accident and injury!

Overloading the bike can cause safety-related components to break or fail, resulting in accidents and injuries.

» The maximum permitted total weight of the bike must not be exceeded.

NOTICE

Risk of damage!

Overloading the bike can lead to material damage.

» The maximum permitted total weight of the bike must not be exceeded.

The bike has a maximum permitted total weight that must be observed when using the bike.

The maximum permitted total weight of the bike is specified in the bike passport, > Section “Bike passport” on page 66.

The maximum permitted total weight is calculated from the sum of the following weight specifications:

bike + rider + baggage = maximum permitted total weight.

10 Torques

WARNING

Risk of accident and injury!

Incorrectly tightened screw connections can result in material fatigue and eventually cause the screw connections to break.

» Do not use your bike if you notice any loose screw connections.
» Screw connections must be properly tightened with a torque spanner and to the correct torque values.

Observe the relevant torque values to ensure the screw connections are tightened correctly. A torque spanner with a suitable adjustment range is required for this task.

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

- If you do not have any experience with using torque spanners or if you do not own a suitable torque spanner, ask your specialist dealer to check your screw connections.
- Torque specifications and markings specifying the insertion depth are indicated on individual bike components. Always observe these specifications and markings.

10.1 Overview of tightening torques

The following table lists the torque specifications that have been adapted to the individual parts. Please ask your specialist dealer for any torque specifications that are not listed.

Screw connection	Torque value in Nm
Square crank, M8	Max. 45 Nm
Crank on left hollow axle: M5 M6	 9- 11 Nm 12- 14 Nm
Pedals	31- 34 Nm
Rear axle	Max. 11 Nm
Saddle adjusting screw	Max. 12 Nm
Seat post clamp: M5 Quick-release clamp	 5 Nm 9 Nm

Screw connection	Torque value in Nm
Brake lever on handlebar	According to manufacturer
Shift lever on the handlebar	According to manufacturer
Threadless handlebar stem: Shaft clamp Handlebar clamp	5 Nm 5 Nm

11 Maintenance and wear

WARNING

Risk of accident and injury!

Incorrect or unauthorised assembly and maintenance work can damage the bike and its components.

» Do not overestimate your technical abilities. Have assembly and maintenance work, especially the replacement of components and spare parts, carried out only by an authorised specialist dealer.
» Never work on or modify the bike or its components if you do not have the necessary expertise and tools.

11.1 Wear

WARNING

Risk of accident and injury!

Excessive wear, material fatigue or loose screw connections can cause functional impairment and may lead to accidents or serious falls.

» Check the bike regularly for wear.
» Do not use your bike if you notice any cracks, distortions or changes in colour.
» Do not use your bike if you notice excessive wear or loose screw connections.
» Have the bike checked immediately by your specialist dealer if you notice excessive wear, loose screw connections, cracks, deformation or colour changes.

The bike and its components are subject to wear and high mechanical stress. The materials used have different wear properties based on their characteristics.

Only your specialist dealer can assess wear on components.

- Contact your specialist dealer for advice on components that are subject to wear.
- Check the condition of all wear parts at regular intervals.
- Clean and maintain wear parts regularly.

11.2 Replacing components

WARNING

Risk of accident and injury!

Replacing components or incorrectly selected spare parts may prevent the bike from functioning correctly.

» Have components replaced by your authorised specialist dealer only.
» Have components or spare parts replaced only with original parts.

BEFORE PUTTING THE BIKE INTO SERVICE

12 Getting to know your bike

Your specialist dealer has fully assembled the bike, adjusted all the settings according to your body size and weight, and explained the function and operation of the components to you.

The bike is thus ready to use.

- Ensure that you are well acquainted with the bike before your first ride.
- Take a test ride on your new bike away from road traffic before embarking on long journeys with your bike and/or riding on the road
  - Familiarise yourself with the riding characteristics of your bike.
  - Try the brakes by braking at a slow riding speed first. Once you feel safe while doing this, increase your riding speed and try different braking manoeuvres.
  - Shift through the different gears and familiarise yourself with the riding characteristics of the bike in each gear. You must be able to shift gears without it impairing your traffic awareness.
  - Make sure that the adjusted seating position is also comfortable for longer rides and that you are able to operate the brake lever and controls located on the handlebar safely and easily while riding.
- Break in the disc brakes, if necessary
  > Chap. 20.4 “Breaking in disc brakes” on page 36.
- If necessary, have your specialist dealer change the brake lever configuration if you do not wish to retain the default configuration for the front wheel or rear wheel brake.

13 Checking the bike before starting your journey

Perform the following checks before each journey.

- Before setting off, check that the components listed below are functioning properly and are not damaged.
- Contact your specialist dealer to have the relevant components replaced if you notice that:
  - the component no longer functions properly,
  - the component is damaged,
  - the component is showing excessive signs of wear.

Brakes:

- Check one after the other the front and rear wheels to ensure they lock properly when you pull on the corresponding brake lever.

Gear shift system:

- Lift the rear part of the bike so that you can move the rear wheel and use the pedals to set the rear wheel gently in motion.
- Shift through all the gears: Shifting should be easy; there should be no blockages or unusual noises.

Frame, fork and seat post:

- Check components for damage and signs of wear such as cracks, deformation or colour changes (visual inspection).

Quick-release devices:

- Check whether the quick-release clamps are securely fastened and closed.
- Check whether the initial tension of the quick-release clamps is sufficient.

Screw and plug connections

- Check whether the screw and plug connections are securely closed (visual inspection).

Pedal drive:

- Lift the rear part of the bike so that you can move the rear wheel and use the pedals to set the rear wheel gently in motion.
- Check whether the pedal drive is working properly and is securely fastened.

Handlebar and handlebar stem:

- Check whether the handlebar and handlebar stem are securely mounted in their attachments and cannot move.
- Check components for damage and signs of wear such as cracks, deformation or colour changes (visual inspection).

Tyres:

- Check whether the tyre pressure is sufficient.
- Check whether there are any cracks or foreign objects on the tyres.

Rims and spokes:

- Check the rims for damage and signs of wear such as cracks or deformation (visual inspection).
- Check whether the spokes are evenly tightened.

14 Adjusting the optimum sitting position

CAUTION

Risk of injury!

The incorrect sitting position can cause muscle tension and joint pain. If you have limited access to the controls on the handlebars due to an incorrectly adjusted sitting position, the risk of accidents increases.

» If you are unsure, ask your specialist dealer to adjust the sitting position correctly.

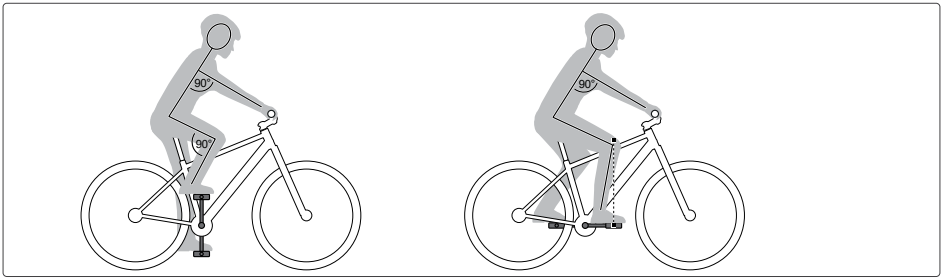


Fig. 1: Guide for optimum sitting position

Various factors can influence optimum adjustment of the sitting position, e.g.:

- the height of the rider,
- the frame size and geometry of the bike,
- the saddle and handlebar settings,
- the conditions of use where applicable (e.g., if the bike is primarily used for sports activities).

Orientation points for adjusting the optimum sitting position:

- Arm and knee (upper leg) angles are 90° when one pedal is up. Your lower leg is slightly bent.
- Your knee is above the axle of the front pedal when one pedal is in front.
- Your arms are relaxed and slightly bent outwards.
- Your back is not vertical in relation to the seat post.

Adjust the saddle and handlebar to achieve the perfect seating position for your needs

> Chap. 28 “Adjusting the saddle” on page 48,

> Chap. 29 “Adjusting the handlebars” on page 51.

PEDAL DRIVE

15 General information

The term “pedal drive” refers to the process or the associated unit with which the bike is basically propelled (manually).

The power applied when you push the pedals (pedalling) is transmitted to one of the wheels via the chain (chain drive). The propelled wheel in turn sets the entire bike in motion.

> **INFORMATION**
>
> It is generally the rear wheel that is thus propelled.

16 Chain drive

16.1 Method of operation and handling

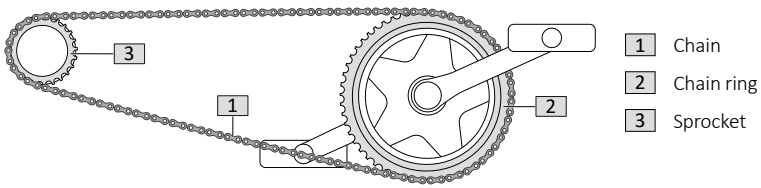


Fig. 2: Chain drive components

The bike’s chain runs on two gear wheels whose teeth interlock with the free openings between the individual chain links that make up the chain.

The gear wheel at the same level as the pedals that rotates when you push on the pedals is known as the chain ring. The rotation of the chain ring is transmitted to the sprocket on the wheel axle via the chain. The rotating sprocket causes the wheel to rotate also which propels the entire bike and sets it in motion.

> **INFORMATION**
>
> It is possible in principle to open a chain and close it once again. Individual chain links can be inserted or removed in order to achieve the perfect chain length.

16.2 Wear and maintenance

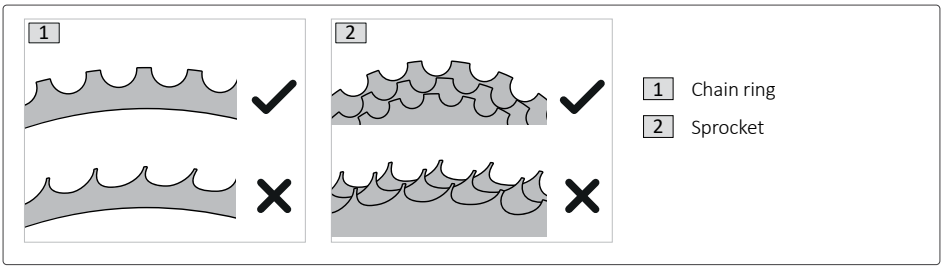


Fig. 3: Possible signs of wear on chain drive components

Chain ring and sprocket

If the teeth on the chain ring and/or the sprocket are worn due to material abrasion, movement of the chain on the corresponding gear wheel is not as reliable and it can slip off easily.

Chain and chain links

If the chain links are worn because of material abrasion, the free openings between them that interlock with the teeth widen. Movement of the chain on the corresponding gear wheel is thus not as reliable and it can slip off easily. You may also have the impression that the chain has stretched.

Check chain rings, sprockets and chain regularly for signs of wear.

- Contact your specialist dealer to replace worn chain rings or sprockets.
- Contact your specialist dealer to adjust the chain correctly or replace it if you have the impression that the chain has widened or if you notice signs of wear on the chain links.

16.3 Cleaning and care

Make sure that the chain drive components are free from any soiling and clean the components regularly to ensure that the chain drive functions correctly.

- Clean the chain using a clean cloth with a dab of oil applied, if required.
- If necessary, clean the gear wheels with a soft brush.
- Lubricate the chain with universal oil:
  - after you have cleaned the chain,
  - if the chain has become excessively wet,
  - at regular intervals, after roughly 15 hours of operation.
- Contact your specialist dealer if the chain drive components are showing tougher signs of soiling or if you notice that chain drive components are damaged.

BRAKES

17 General information

The bike is fitted with at least two brakes which act on the front wheel (front wheel brake) and rear wheel (rear wheel brake) independently of one another.

You can slow down or stop the bike using the brakes. This basically happens by applying one brake to slow down the corresponding wheel and thus decelerate the entire bike.

You operate the brake for the corresponding wheel using the brake lever, which is attached to the handlebar.

18 Brake lever configuration

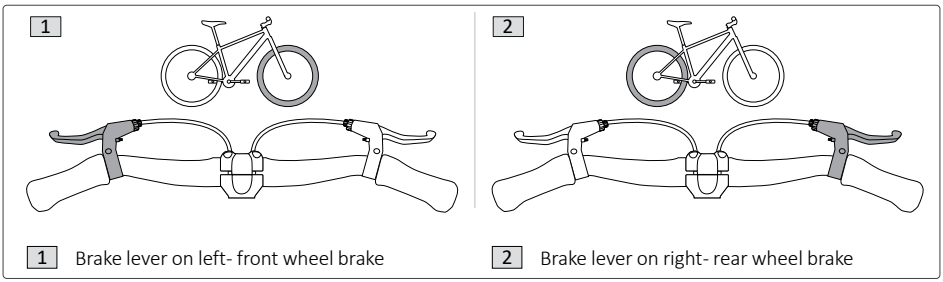


Fig. 4: Brake lever configuration

The brake lever configuration displayed here applies to bikes with two brake levers on the handlebars.

In bikes with a coaster brake that have only one brake lever on the handlebars, the brake lever is generally fitted on the right handlebar grip and operates the front wheel brake.

- Familiarise yourself with the brake lever arrangement before starting to cycle.
- Contact your specialist dealer if you wish to change the brake lever configuration.

19 Warnings on use of brakes

The following warnings always apply to the use of the brakes, regardless of the type or types of brakes fitted on the bike.

WARNING

Risk of accident and injury!

When you ride on icy, wet, slippery or dirty roads, the tyres have less grip. This lack of grip reduces the braking power, your braking distance increases and the bike can swing out if you brake suddenly.

» Always adapt both your cycling style and speed to current weather conditions and road characteristics.

WARNING

Risk of accident and injury!

If you brake the front wheel abruptly, you could be thrown over the handlebar or fall off the bike.

» Use the front brake very carefully when cycling at high speed.
» Always brake simultaneously with front and rear brakes. Make sure that your bike is not braked abruptly with only the front brake, especially when cycling at high speed.
» Adjust the intensity with which you brake your bike – i.e. the braking force – according to the cycling situation.

WARNING

Risk of accident and injury!

Braking the rear wheel suddenly during certain riding manoeuvres may cause the wheel to lock up, resulting in an accident.

» Be very careful when using the rear brake in corners so as to avoid locking the rear wheel.

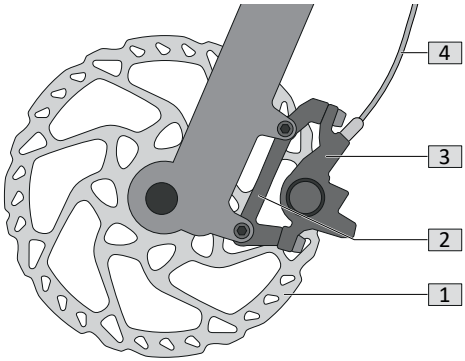
WARNING

Risk of accident and injury!

If the bike is fitted with unsuitable or incorrect brake pads, the braking power can be either too low or too strong or the brake can virtually lose its function entirely and fail completely.

» Replace any brake components (e.g., in the event of repairs) with original spare parts only.

20 Disc brake



1 Brake disc
2 Adapter
3 Brake calliper
4 Hydraulic line

Fig. 5: Disc brake components

20.1 Method of operation

The disc brake creates a braking effect when the brake lever is pulled to decelerate the brake disc.

The brake disc is decelerated by the brake calliper attached to the fork or chainstay. The brake calliper contains brake pads that are pressed against both sides of the brake disc when the brake lever is pulled.

The force is usually transferred hydraulically. Pulling the brake lever increases the pressure of the brake fluid in the hydraulic line. The brake fluid transfers this pressure to the brake calliper and presses the brake pads against the brake disc, thereby braking the wheel.

Depending on the model, the braking force can also be transferred mechanically from the brake lever to the hydraulically controlled brake calliper along a brake cable.

20.2 Warnings relating to the use of disc brakes

WARNING

Risk of accident and injury!

If components of the disc brake wear out without you noticing, a loss of function of the disc brake can result.

» Contact your specialist dealer regularly (annually, after 500 hours of use or after 1,000 km) to have your disc brake(s) checked and any worn components replaced.

WARNING

Risk of injury from rotating brake discs and sharp edges!

Brake discs have sharp edges and can cause serious cuts. Rotating brake discs can sever limbs.

» Do not reach into a rotating brake disc.
» Wear protective gloves when working on or near the brake disc.

WARNING

Risk of accident and injury!

The braking force of the hydraulic braking system decreases.

» Have the brake fluid replaced regularly by your specialist dealer.

CAUTION

Risk of burns from contact with hot brake discs!

Brake discs can become very hot due to solar radiation and during operation, especially when the brake is used intensively (e.g. when cycling downhill or during emergency braking).

» Always let the brake disc cool down first before working on or near the brake disc.

NOTICE

Risk of damage!

Depending on the intensity of use, the brake pads of the disc brake can "glaze" over time, possibly reducing the braking effect and generating annoying noises (squeaking). Glazing can also occur when you make an emergency stop with new brake pads. You may also damage the disc brake components when fitting or removing the corresponding wheel.

» When descending longer gradients, regularly perform sudden, relatively hard braking actions to "release" glazed brake pads. Always make sure that you can perform the cycling or braking manoeuvre in question without risk.
» If the disc brake and/or your bike is new or after the brake pads have been replaced, break in the disc brake away from road traffic before using your bike regularly. See chapter 24.7 "Breaking in disc brakes" on page 57.
» Always contact your specialist dealer to remove or install a wheel with a disc brake fitted to its hub.

20.3 Operating the disc brake

ⓘ INFORMATION

If you actuate the front and rear brakes evenly and almost simultaneously, you can usually control your bike better while braking and reduce your braking distance.

- Pull the brake lever towards the handlebar grip to brake the corresponding wheel.
  - Pull the brake lever harder or all the way to increase or maximise the braking force ("emergency braking").
  - Pull the brake lever less abruptly or release it to reduce the braking force or stop braking.

20.4 Breaking in disc brakes

If a disc brake is new or has been fitted with new brake pads, always break it in before using your bike regularly.

- Make sure that you
  - break in your disc brake away from road traffic,
  - follow any additional manufacturer's instructions for breaking in your disc brake,
  - always remain seated on the saddle when braking for safety reasons and
  - do not brake your bike to a complete standstill, but simply reduce the speed to a walking pace as described below.
- Accelerate your bike to a speed of around 24 km/h and then brake hard and evenly to a walking pace. The wheels must not lock!
- Repeat this process up to 50 times. You will notice that the brakes become more effective after each braking action.
- Allow the brake discs and brake pads to cool down after the breaking-in process or before your first ride.
- After breaking in the disc brake, check the gripping distance of the brake levers and adjust, if necessary:
- The distance between the handlebar grip and the brake lever must be a minimum of 1 cm and you must be able to operate the brake lever safely while riding without taking your hand off the handlebar.
- If the disc brake does not operate effectively after being broken in or if you hear unusual noises when braking, contact your specialist dealer.

20.5 Checking the disc brake

- Check whether the brake lever and brake components are securely fastened.
  - If necessary, tighten any loose screw connections.
  - Contact your specialist dealer to have the brake adjusted if you notice or have the impression that components are loose.
- Make sure that the brake lever is mounted and aligned on the handlebar grip in such a way that it can be operated comfortably while riding.
  - If necessary, release the brake lever attachment and correct alignment. Then tighten the brake lever attachment once again.
- Check the distance between the brake lever when fully applied and the handlebar grip: The distance must be 1 cm at least.
  - Contact your specialist dealer to adjust the brake if the distance is less than 1 cm.
- Check whether the wheel is blocked when the corresponding brake lever is pulled.
  - Contact your specialist dealer to adjust the brake if the wheel is not sufficiently braked or blocked when you pull the brake lever.
- Check the way in which the brake pads move towards and away from the brake disc when the brake lever is pulled and then released: The brake pads should move evenly and symmetrically.
- Check the wear on the brake pads: The brake pads should wear evenly on both sides of the brake disc.
  - Contact your specialist dealer to check the brake if the wear on the brake pads is uneven or asymmetrical.
- Pull the brake lever as far as possible towards the handlebar grip and check whether any brake fluid leaks from the hydraulic line or the connection points to other components.
  - If brake fluid is escaping, contact your specialist dealer to have the brake checked, and if necessary, serviced and adjusted correctly.

20.6 Adjustments

WARNING

Risk of accident and injury!

Loss of braking power due to incorrectly adjusted brake system.

» Adjustments to the brake system should be carried out by your specialist dealer.

Specialist knowledge is required to adjust the brake system correctly.

If you do not have the necessary expertise or the required tools, contact your specialist dealer to do this.

20.7 Wear and maintenance

Depending on the functionality and design of the disc brake, the following components are subject to wear, in particular:

- brake pads,
- brake discs,
- brake fluid (hydraulic),
- brake cables on the disc brake, if fitted.

- Check the brake pads, brake discs and brake cables, if fitted, regularly for signs of wear.
- Contact your specialist dealer
  - if you are unsure or do not know how to detect or comply with the wear limit of components.
  - to have the hydraulics of the disc brake checked and serviced, if necessary.
  - to have wear parts replaced and then the disc brake adjusted again.

20.8 Cleaning and care

Keep all disc brake components free of dirt or clean the components regularly to ensure that your disc brake continues to function reliably and a loss in braking power is avoided.

- Clean soiled components with a damp cloth.
- In particular, wash the brake discs regularly with warm water to keep them free of (coarse) dirt.

GEAR SHIFT SYSTEM

21 General information

WARNING

Risk of accident and injury!

Due to inattentiveness in road traffic.

» Familiarise yourself with the gear shift system before your first ride.
» Shift through the different gears to familiarise yourself with the riding characteristics of the bike in each gear.
» Operate the gear shift system only if this does not distract your attention from the road traffic.
» Come to a stop if you are not able to use the gear shift system safely, e.g. if it malfunctions.

NOTICE

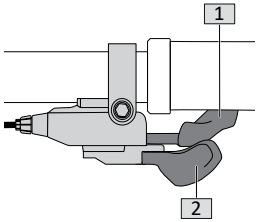
Risk of damage!

Damage to the gear shift system caused by improper use.

» Do not pedal hard when changing gears.
» Do not pedal backwards when shifting.
» Downshift in time before going uphill.
» Only shift in acceleration-free/load-free phases.

The gear shift system can be used to adapt the cadence and the effort required to ride the Bike according to the cycling situation. The system incorporates a model-dependent shifting mechanism that is controlled using the relevant operating element(s).

22 Operating elements

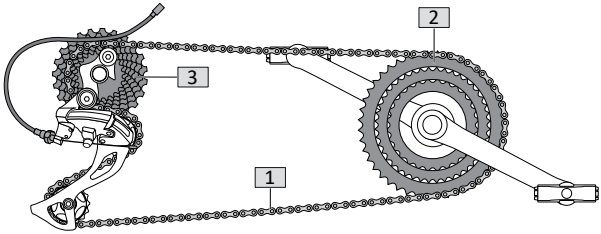


1 Rear shift lever

2 Front shift lever

Fig. 6: Operating elements of the gear shift system

23 Derailleur gear



1 Chain

2 Chain ring (1-3)

3 Sprocket

Fig. 7: Derailleur gear components

23.1 Method of operation

Depending on the model, a bike with a derailleur gear has 1–3 chain rings of different sizes at the same height as the pedals and 7–12 sprockets of different sizes at the rear wheel hub.

The different combinations of chain rings and sprockets that the chain can run create the different gears (chain “transmission”).

High transmission (stronger force/low pedalling frequency):

If the chain is running on one of the smaller sprockets, it is harder to pedal but the bike covers a longer distance for each pedal rotation.

Low transmission (gentler force/high pedalling frequency):

If the chain is running on one of the larger sprockets, it is easier to pedal but the bike covers a shorter distance for each pedal rotation.

Adjusting the required gear is controlled using 1 or 2 operating elements on the handlebars depending on the configuration.

23.2 Operating the derailleur gear

- Operating element for the front derailleur: When shifting gears, the front derailleur moves the chain to the required chain ring.

  A small chain ring is recommended for ascending stretches of road while a larger chain ring is recommended for even stretches of road.
- Operating element for the rear derailleur: When shifting gears, the rear derailleur moves the chain to the required sprocket.

  > Chap. 23.1 “Method of operation” on page 40.

23.3 Checking the derailleur gear

- Check the derailleur gear components regularly to ensure they are functioning correctly and to prevent unnecessary wear.
  - Check that the chain, chain rings, sprockets, front derailleur, rear derailleur and gear cable are not damaged.
  - Check that the distance between the chain and rear derailleur to the rear wheel or to the spokes is sufficient.
  - Check that the rear derailleur is in a vertical position in relation to the sprockets and is not bent.
  - Check the chain tension: The chain should not sag. If you carefully push the rear derailleur forwards (in the direction of the pedals), it should return to its original position by itself when you release it.
  - Lift the rear part of the bike so that you can move the rear wheel and use the pedals to set the rear wheel gently in motion.
  - Shift through all the gears: Shifting should be easy; there should be no blockages or unusual noises.
- Contact your specialist dealer:
  - to replace any damaged or worn derailleur gear components and re-adjust the derailleur gear again afterwards.
  - to check the derailleur gear and adjust it if necessary if you notice any irregularities during the check.

23.4 Wear and maintenance

As a general rule, derailleur gear components show minimum signs of wear if maintained and cared for regularly.

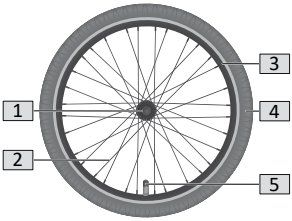
- Please note that the chain will wear more quickly if it runs at a steep angle (e.g. if the chain runs over the smallest chain ring and the smallest sprocket). Avoid such combinations to prevent unnecessary wear on the chain.
- Check the derailleur gear regularly
  > Chap. 23.3 “Checking the derailleur gear” on page 41.
- Contact your specialist dealer to service the derailleur gear if:
  - unusual noises can be heard when shifting gears,
  - problems arise when shifting gears,
  - the chain slips off repeatedly.

23.5 Cleaning and care

- Make sure that the derailleur gear components are kept free of soiling and clean the components regularly to ensure that the derailleur gear functions correctly.
  - Clean the operating elements with a damp cloth.
  - Remove coarse soiling from the chain rings and sprockets, as well as front derailleur and rear derailleur with a damp cloth or a soft brush.
  - After cleaning, lubricate the chain rings, sprockets, front derailleur and rear derailleur with universal oil.

WHEELS

24 General information



1 Hub
2 Spokes
3 Rim
4 Tyres
5 Valve

Fig. 8: Wheels

The weight of the person riding and uneven cycling surfaces place stress on the wheels.

- After an initial riding period, contact your specialist dealer to check the tyres and, if necessary, to re-centre them depending on the initial result but no later than after:
  - the first 300 km distance travelled,
  - 15 hours of use,
  - 3 months.
- Check the wheels every six months to ensure they are in good condition:
  - The wheels must be free of damage and correctly aligned.

24.1 Rims and spokes

The correct and even tension of the rims stabilise true running of the wheels. The stability of the rim is affected if the wheel is not running true and the rim can break as a result.

The tension of the spokes can be impaired if obstacles (e.g., kerbs) are ridden over too quickly or if a spoke nipple becomes loose.

24.2 Tyre types

Tyres and rims alone are generally not airtight but contain an inner tube which is filled with air via the valve. Tubular tyres and UST tubeless tyres are the only exception to this. They are airtight systems that do not contain an additional inner tube.

The tyre size is usually specified (mm or ") on the tyre wall.

24.3 Valve types

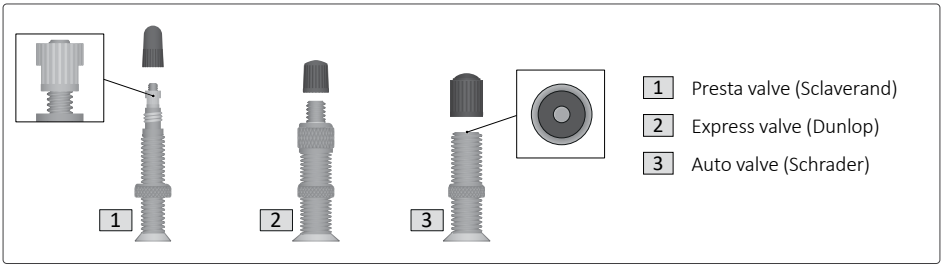


Fig. 9: Valve types

Depending on the valve type on your tyre or tube, you will need a compatible valve connector or adapter to fill the tyre with air.

- If necessary, ask your specialist dealer which valve connector or adapter you require for your tyre.

Presta valve (Sclaverand)

- To open the valve, turn the valve screw upwards (in an anti-clockwise direction).
- To let air out of the tyre, press down the valve screw (without the valve connector/ adapter attached).
- To close the valve, turn the valve screw downwards (in a clockwise direction).

Express valve (Dunlop)

- To let air out of the tyre, turn the top valve nut upwards (in an anti-clockwise direction).
- To replace the valve insert, unscrew the top valve nut completely (in an anti-clockwise direction).
- To close the valve, turn the valve nut down completely (in a clockwise direction).

Auto valve (Schrader)

- To let air out of the tyre, press in the metal pin inside the valve.

24.4 Tyre pressure

INFORMATION

The tyre pressure affects the rolling resistance and suspension of the bike.

As a general rule, you will find two values specified on the tyre for the maximum tyre pressure.

The lower value applies to:
- Lighter riders,
- Riding over uneven surfaces.

The higher value applies to:
- Heavier riders,
- Riding over even surfaces.

- Check the tyre pressure regularly.
  - Pump the tyre or let air out of the tyre if the tyre pressure does not meet the specifications or is not suitable for the intended use.

25 Warnings on wheels

WARNING

Risk of accident and injury!

There is an increased risk of accident and injury if the wheels do not rotate concentrically (true running) or wobble, for example. The rim can break as a result and the rim brakes may lock up.

» Contact your specialist dealer to align the wheels if they are not running concentrically or are wobbling.

WARNING

Risk of accident and injury!

Soiled or missing reflectors can affect your visibility on the road. There is an increased risk of accident as a result.

» Remove any soiling from reflectors and replace missing or worn reflectors immediately.

WARNING

Risk of accident and injury!

There is an increased risk of accident and injury if damaged tyres burst when cycling.

» Check the tyres regularly for damage and signs of wear.
» Do not ride on the bike if the tyres are not intact.

WARNING

Risk of accident and injury!

There is an increased risk of accident and injury if you cycle with the incorrect tyre pressure (too high or too low).

» Observe the specifications for the maximum and minimum tyre pressure for your tyres.
» Contact your specialist dealer if you are unsure about the correct tyre pressure for your tyres.

NOTICE

Risk of damage!

Unsuitable tyres can affect proper functioning or damage bike components.

» Contact your specialist dealer if you have questions about tyre size or are unsure.

26 Pumping up tyres

1. Take a bike pump with a suitable valve connector/adapter for your valve.
2. Remove the protective cap from the valve.
3. Check the tyre pressure using a pressure gauge or a bike pump fitted with a pressure gauge.
4. Pump up the tyre or let air out until you reach the correct tyre pressure.
5. Fit the protective cap you previously removed back on the valve.
6. Then check if the bottom valve nut is correctly and securely screwed on. If necessary, turn it clockwise to tighten.

27 Regular checks

- Check the tyres.
  - To do this, check if:
  - the tyres are showing cracks or damage.
  - the tyre tread is within the correct range or if the tyre is already too heavily worn and must be replaced.
  - Contact your specialist dealer to replace damaged or worn tyres.
- Check the rims.
  - To do this, check if the rims are showing cracks or damage.
  - Check for indentations on the rim using your fingernail or a toothpick. If there are indentations on the rim, the wear limit has been reached and the rim must be replaced.
  - Contact your specialist dealer to check the level of wear on the rims.
  - Contact your specialist dealer to replace damaged or worn rims.
- Check the spoke tension.
  - To do this, carefully press two individual spokes together at a time to check that the tension of the spokes is identical.
  - If you notice that individual spokes have loosened, contact your specialist dealer to tighten the spokes.

SADDLE

The shape of the saddle should be suitable for the intended use and match the physical characteristics and personal preferences of the rider.

If the saddle is set to the perfect position, riders will be able to easily reach all operating elements on the handlebar in a comfortable sitting position as well as touch the ground with their feet to support themselves.

28 Adjusting the saddle

WARNING

Risk of accident and injury!

The seat post can slip or break if you do not observe the minimuminsertion depth.

» Make sure that you observe the minimum insertion depth for the seat post.
» Never shorten the seat post arbitrarily.

NOTICE

Risk of damage!

Bike components may become damaged if you do not adhere to a prescribed minimum extended height of the seat post.

» When adjusting the saddle height, take care not to damage any cables running in the seat tube, Bowden cables or similar.

INFORMATION

Minimum insertion depth of the seat post

There is generally a mark on the seat post which indicates the minimum distance the seat post must be inserted into the seat tube.

If you have adjusted the saddle height correctly, the mark for the minimum insertion depth of the seat post should no longer be visible but rather should be inside the seat tube.

Minimum extended height of the seat post

Depending on the bike model, there is an additional specification for the minimum extended height on the seat post.

The corresponding value indicates the minimum height that the seat post must extend out of the seat tube.

28.1 Adjusting the saddle height

Quick-release clamp

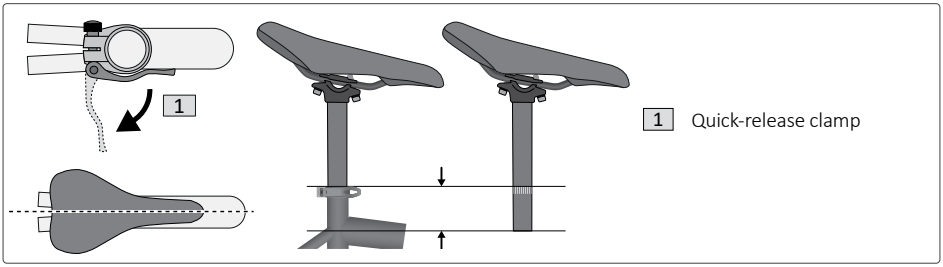


Fig. 10: Adjusting the saddle height (quick-release clamp)

1. Swivel the quick-release lever outwards.
2. Adjust the saddle to the required height.
   - When doing this, observe the minimum insertion depth of the seat post.
3. Align the saddle in a straight line with the frame once you have adjusted it to the correct height.
4. To secure in the adjusted position, swivel the quick-release lever inwards until it is flush with the seat tube.
   - If it is not possible to swivel the quick-release lever in as far as the seat tube, you can reduce the initial tension by turning the adjusting screw in an anti-clockwise direction.
   - Then swivel the quick-release lever in again until it is flush with the seat tube in order to close the seat post clamp.
5. Check if you can rotate the saddle.
   - If you can rotate the saddle, increase the initial tension of the quick-release by turning the adjusting screw in a clockwise direction.

Clamp with clamp screw

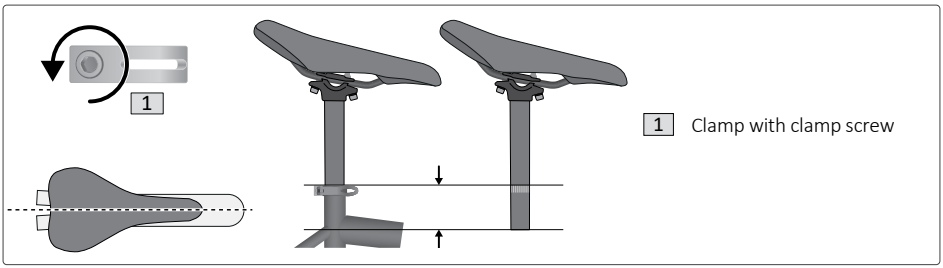


Fig. 11: Adjusting the saddle height (clamp with clamp screw)

1. Unscrew the clamp screw in an anti-clockwise direction until you can move the saddle in the seat tube.
2. Adjust the seat post to the required height.
   - When doing this, observe the minimum insertion depth of the saddle.
3. Align the saddle in a straight line with the frame once you have adjusted it to the correct height.
4. To secure in the adjusted position, tighten the clamp screw in a clockwise direction.
   - Note the torque of the clamping screw > Chap. 10.1 on page 23.
5. Check if you can rotate the saddle.
   - If you can rotate the saddle, check the seat post clamp.

28.2 Adjusting the saddle position

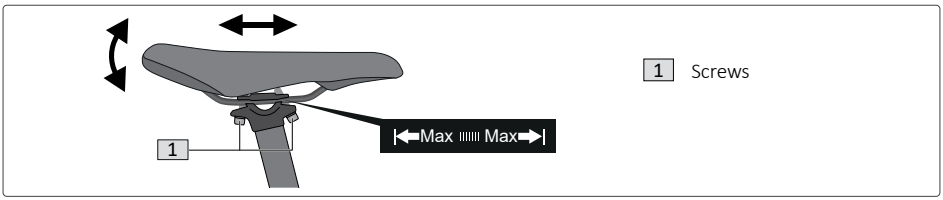


Fig. 12: Adjusting the saddle position

1. Release the screws on the seat post in an anti-clockwise direction.
2. Tilt and move the saddle to the desired position.
   - Observe the marks (Max) for the clamping range.
3. To secure in the adjusted position, tighten the screws on the seat post by turning in a clockwise direction.
   - Note the torque of the screws > Chap. 10.1 on page 23.
4. Check if you can rotate the saddle.
   - If you can rotate the saddle, please contact your specialist dealer.

HANDLEBARS

29 Adjusting the handlebars

NOTICE

Risk of damage!

If you adjust the handlebar direction incorrectly in the case of a threadless handlebar stem, the steering head bearing may become damaged.

» Only tighten the top screw on the threadless handlebar stem so that the steering head bearing is secure but the bearing and handlebars can still move freely.

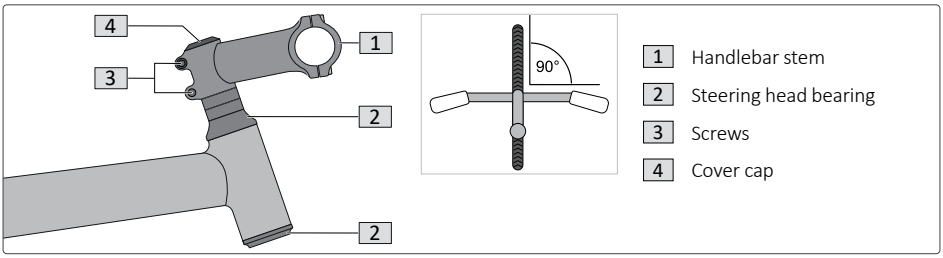


Fig. 13: Adjusting the handlebar stem (clamp with clamp screw)

1. Remove the cover cap at the top of the handlebar stem.
2. Release the screw underneath one revolution in an anti-clockwise direction.
3. Loosen the screws on the shaft clamp so that the handlebar can be turned against the front wheel.
4. Adjust the steering head bearing as described below.
   - Tighten the screw on the top of the handlebar stem in gradual steps (approx. ⅛ of a revolution in a clockwise direction for each step).
   - When doing this, keep the brake for the front wheel pressed.
   - Now if you try to push the bike forwards or backwards, the steering head bearing must be secure and free of play.
   - Hang your bike from its frame. If you now tilt the frame to one side, the front wheel must be able to rotate in this position and move to the left or right by itself.
5. Align the handlebars at an angle of 90° to the front wheel.
6. Tighten the screws on the shaft clamp.
   - Note the torque of the screw > Chap. 10.1 on page 23.
7. Attach the cover cap at the top of the handlebar stem once again.

SUSPENSION FORK

30 General information

WARNING

Risk of accident and injury!

An incorrectly adjusted suspension can affect the road-holding capability of your bike (depending on the condition of the road surface), which may increase the risk of accidents and injuries. Improper handling of suspension components under tension can result in injury.

» Ask your specialist dealer to set up the suspension system for you.
» Always ask your specialist dealer to remove or repair suspension components.

NOTICE

Risk of damage!

Incorrect adjustment or handling can adversely affect your riding comfort and damage the bike and suspension components.

» Ask your specialist dealer to adjust the pneumatic suspension components.
» If you hear unusual noises or feel strong impacts when compressing and decompressing the fork, ask your specialist dealer to inspect the suspension components.

NOTICE

Risk of damage!

Permanent activation of the lock-out function increases the wear on the relevant suspension components.

» Only use the lock-out function if it significantly improves the riding performance.
» Make sure you deactivate the lock-out function again when the cycling situation allows.

A suspension system adapted specifically to the rider increases riding comfort and safety on uneven surfaces.

Depending on the model, your bike may be fitted with a suspension fork instead of a conventional front fork. The suspension fork helps the front wheel absorb bumps and unevenness on the road.

30.1 Functionality and terms

When the suspension is compressed, the corresponding damper rods retract into their mounts and compress the springs inside the suspension component. When the suspension is decompressed, the spring inside pushes the damper rods back to their original position.

The spring tension determines the stiffness of the suspension fork under load and the resistance of the suspension fork to compression.

Hydraulic dampers ensure a controlled, adjustable compression. The compression and decompression stages of the dampers determine the speed at which the spring compresses or decompresses.

As a general rule:

- The higher the stiffness setting of the damper compression or decompression stage, the more sluggishly the suspension fork moves;
- conversely, the lower the setting, the more easily/quickly the suspension fork returns to its original position.

Sag refers to the compression of the suspension by the body weight of the rider. The ideal sag for a suspension fork is usually 15-30% of the total compression distance.

30.2 Spring tension and lock-out function

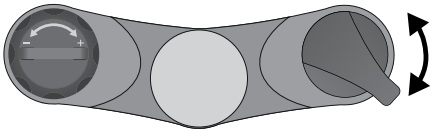


Fig. 14: Mechanical spring tension (left) and lock-out function (right) on the suspension fork

Adjusting the spring tension

You can usually adjust the spring tension yourself if you have the necessary technical knowledge and tools.

If you are unsure of how to adjust the suspension or experience problems when doing so, please consult your specialist dealer.

Mechanical suspension:

1. Remove the cover cap from the stand tube, if available.
2. Turn the rotary knob on the stand tube:
   - clockwise (+) to increase the spring tension.
   - anti-clockwise (-) to decrease the spring tension.

   Make sure that the spring tension is adjusted to the same stiffness setting on both sides.

Pneumatic suspension:

1. Remove the cover cap from the stand tube, if available.
2. Increase or decrease the air pressure to adjust the spring tension.
   - Use a suitable damper pump.
   - Read the manufacturer’s documentation to find out about permissible air pressure levels.

Lock-out function

The lock-out function is activated and deactivated using the rotary knob on the right stand tube of the suspension fork.

The rotational direction for activating or deactivating the lock-out function depends on the model.

INFORMATION

You can use the lock-out function to lock the suspension fork completely, e.g. if you are pedalling hard and the suspension is adversely affecting your progress or riding comfort.

- Please note that the suspension can compress up to 15 mm on uneven road surfaces, even when the lock-out function is activated.

30.3 Wear and maintenance

Observe the information on specified service intervals in the manufacturer's instructions.

If you hear unusual noises when compressing and decompressing the fork or have the impression that the suspension offers no compression resistance, ask your specialist dealer to inspect the suspension components.

30.4 Cleaning and care

- Make sure that the sliding surfaces and seals on the suspension are free from dirt.
  - Wipe off any dirt using a clean cloth with a dab of oil applied, if necessary.
- After cleaning, apply a small quantity of lubricant to the sliding surfaces, e.g. multi-purpose oil. If necessary, consult your specialist dealer for advice on suitable lubricants and care products.
  - After lubricating, push down on the suspension five times to compress it.
  - Afterwards, wipe up any excess lubricant with a clean cloth.

OTHER COMPONENTS

31 Lights

31.1 General information

Bikes must be fitted with the following lighting components for use on public roads in Germany:

- Head lamp
- Tail lamp
- Reflectors on the pedals
- Side reflectors and reflective strips
- White front reflector
- Red rear reflector

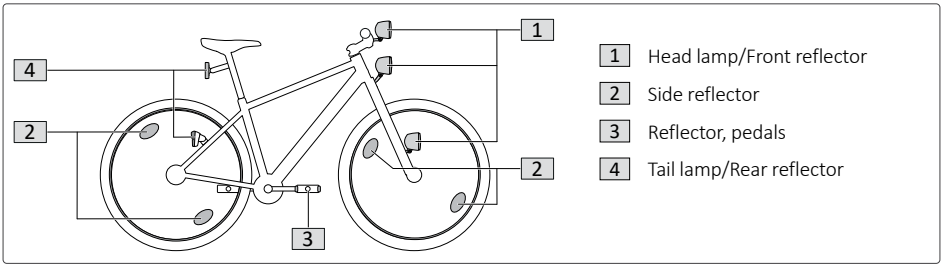


Fig. 15: Lighting components on the bike

- Only ride the bike on public roads if all lighting components meet national and regional requirements.
- Familiarise yourself with national laws and regulations.
- Have any faulty lights replaced by your specialist dealer.

Depending on the bike model, head lamps and tail lamps are operated with a dynamo or separate battery or rechargeable battery in the corresponding lighting component.

31.2 Mounting points

Depending on the bike model, head lamps and tail lamps are fitted on one of the following mounting points:

Head lamp

- On the handlebar
- On the fork

Tail lamp

- On the seat post
- On the seat stay

31.3 Switching the lights on and off

WARNING

Risk of accident and injury!

Riding with inadequate lighting or without any lighting at all makes it difficult for other road users to see you and prevents you from recognising dangers (e.g. obstacles).

» Turn on the lights before riding in low visibility (e.g. fog, dusk) or in the dark.

WARNING

Risk of accident and injury!

If you become distracted when switching on the lights while riding, there is an increased risk of accident and injury.

» Turn on the lights before starting your journey or stop to turn on the lights.

WARNING

Risk of accident and injury!

If the beam of light from the head lamp is too high, it may dazzle oncoming road users. There is a risk of accident and injury.

» Direct the headlight away from oncoming road users so that they are not dazzled by the light.

Side wall dynamo-powered lighting

- The lighting is activated by pressing the pressure point on the dynamo from above so that the dynamo rests against the side of the wheel.
- The lighting is deactivated by pushing the dynamo away from the edge of the wheel back to its original position.

Hub dynamo light or light with separate battery

- The lighting is activated by setting the on/off switch to position I (ON).
- The lighting is deactivated by setting the on/off switch to position II (OFF).

32 Quick-release clamp

WARNING

Risk of accident and injury!

Quick-release clamps that are not properly closed or adjusted can open when riding with the result that the corresponding components are no longer secure.

» Before setting off, make sure that all of the quick-release clamps are closed with sufficient initial tension and resting against the component or frame.
» Only remove or install wheels using the quick-release axles yourself if you have adequate expertise. Contact your specialist dealer otherwise.

CAUTION

Risk of injury!

Risk of crushing injuries to the fingers if you do not handle a quick-release clamp with due care.

» Be careful when opening and closing a quick-release clamp and take care not to get your fingers caught.

Components that are secured in position with quick-release clamps can be quickly adjusted without tools or removed and installed.

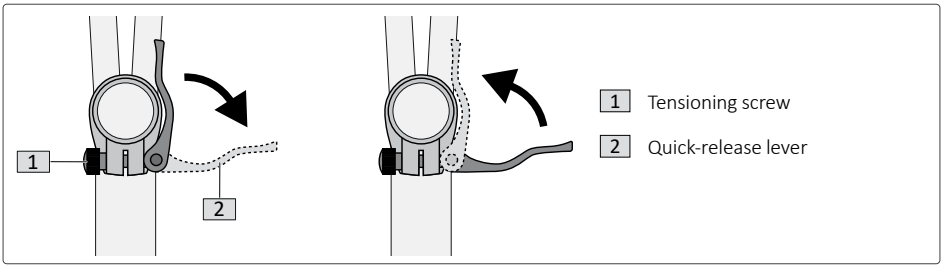


Fig. 16: Quick-release clamp

Opening and closing a quick-release clamp

- To open, pull the quick-release lever outwards (away from the component against which it is resting in closed position).
- To close, fold the quick-release lever against the component in such a way that it makes maximum contact with the component.

- Adjust the setting of the quick-release clamp if you notice that it no longer secures the component or if it closes too easily.
- Have your specialist dealer replace worn or damaged quick-release clamps with suitable original spare parts.

Adjusting a quick-release clamp

1. Open the quick-release lever.
2. Turn the tensioning screw clockwise one quarter of a revolution.
3. Close the quick-release lever.
4. Now check if the quick-release clamp secures the corresponding component. Repeat the process until the quick-release clamp secures the component when closed.

Contact your specialist dealer if you are unable to fasten the component securely.

33 Bell

Depending on the model, your bike is equipped with a bell on delivery. If your bike is not equipped with a bell, you can retrofit one.

- Contact your specialist dealer if you have any questions.

To enable you to make clearly audible acoustic signals for the benefit of other road users while cycling, the Bike must be fitted with an appropriate bell prior to use on public roads.

- If the bell attached to the Bike does not make a clearly audible sound, contact your specialist dealer to have the bell replaced.
- Position the bell on the handlebar so that you can easily reach it without taking your hand off the handlebar grip.

34 Carrier

Fitting a carrier is not permitted.

Observe the information in the bike passport > Section “Bike passport” on page 66

35 Kickstand

Fitting a bike stand to your bike is not permitted.

Observe the information in the bike passport > Section “Bike passport” on page 66

STORAGE AND TRANSPORTATION

36 Storing the bike

1. Clean the bike before placing it into storage for a long period
   > Chap. 38.3 “Cleaning and caring for your bike” on page 63.
2. Shift to the small chain ring at the front and the smallest sprocket at the back in order to relieve the gear cables of as much tension as possible.
3. Keep the bike in a dry room, protected from frost and large temperature fluctuations.
4. Hang the bike by the frame to prevent the tyres from deforming.

37 Transporting bikes

NOTICE

Risk of damage!

Incorrect transportation can damage the bike.

» Secure the bike for transportation so that it cannot slip or fall off.

- Fit the bike in the bike rack for transportation. To do this, observe the information in the manufacturer’s instructions on the bike rack and other components where necessary.
  - Only use approved bike racks which are suitable to transport the bike in an upright position.
  - If necessary, contact your specialist dealer for more information on suitable bike racks.

If you plan to take or transport the bike on a bus, plane, boat or train:

- Before starting your journey, contact the relevant transport company to inquire about transportation requirements.

DISPOSAL

Sort the packaging before you dispose of it.

- Dispose of card and cardboard in your paper container and films in your plastic recyclables container.

Dispose of lubricants, cleaning agents and maintenance products in line with environmental regulations. These products do not belong in the household rubbish, sewage system or in natural habitats.

- Read the information on the packaging.
- Dispose of lubricants, cleaning agents and maintenance products at a collection point for special waste.

Tyres and inner tubes are not residual waste or household rubbish.

- Dispose of inner tubes and tyres at a recycling centre or collection point run by the local city council or municipality.

Disposing of the bike

- Dispose of the bike at a recycling depot.

HOW TO HANDLE THE BIKE

38 Overview of steps

INFORMATION

This section provides a summary of the steps required when using the bike.

You will find more detailed descriptions on the individual functions and steps, including all of the relevant details and warnings, separately in the corresponding sections for the individual components.

- Make sure that you read the separate, detailed sections fully before using the bike for the first time. Do not only read this section "How to handle the bike"!
- Refer back to the separate, detailed sections if you are unsure about bike use or if problems arise when you are using it.

38.1 Preparation

If you are using the bike for the first time

1. Adjust the saddle and handlebar correctly so that you are seated correctly while riding the bike
   > Chap. 28 “Adjusting the saddle” on page 48,
   > Chap. 29 “Adjusting the handlebars” on page 51.
2. Familiarise yourself with how to use the bike
   > Chap. 12 “Getting to know your bike” on page 26.
3. Check the components of the bike before starting your journey
   > Chap. 13 “Checking the bike before starting your journey” on page 26.

You are already familiar with the bike or use it regularly

- Check the components of the bike before starting your journey
  > Chap. 13 “Checking the bike before starting your journey” on page 26.

38.2 Using the bike

Brakes

> Chap. 20.3 “Operating the disc brake” on page 35

- Pull the brake lever towards the handlebar grip to brake the corresponding wheel.
  - Pulling the brake lever harder or all the way increases or maximises the braking force ("emergency braking").
  - Pulling the brake lever less abruptly or releasing it reduces the braking force or stops braking altogether.

Shifting gears

> Section “Gear shift system” on page 39

- Use the operating element of the gear shift system to change to a higher or lower gear.

Transporting baggage

> Chap. 40 “Transporting baggage” on page 65

- Fitting a carrier is not permitted. Observe the information in the bicycle passport > Section “Bike passport” on page 66.

38.3 Cleaning and caring for your bike

Clean the bike and its components regularly.

Pedal drive/components

> Chap. 16.3 “Cleaning and care” on page 30

Front wheel brake and rear wheel brake

> Chap. 20.8 “Cleaning and care” on page 38

Gear shift system components

> Chap. 23.5 “Cleaning and care” on page 42

38.4 Regular inspection of bike components

Check that all of the bike's components are in good condition and functioning properly every six months:

Pedal drive/components

> Chap. 16.2 "Wear and maintenance" on page 30

Front wheel brake and rear wheel brake

> Chap. 20.7 "Wear and maintenance" on page 38

Gear shift system components

> Chap. 23.3 "Checking the derailleur gear" on page 41
> Chap. 23.4 "Wear and maintenance" on page 42

39 After a fall

WARNING

Risk of accident and injury!

Damaged bike components can suddenly break or otherwise fail.

» Do not use your bike if it is damaged or you suspect it is damaged.
» Have the bike checked by your specialist dealer after falls or accidents. Have damaged components replaced with suitable original parts.
» Never try to straighten bent parts yourself.

Accidents and falls can cause damage to the bike that is not visible at first glance, e.g., hairline cracks.

- After a minor fall – e. g., if the bike falls over – check the condition of the bike components yourself and ensure they are functioning properly.

40 Transporting baggage

WARNING

Risk of accident and injury!

Incorrectly transporting baggage compromises road safety. There is an increased risk of accident and injury.

» Do not secure any luggage to the handlebar. Special handlebar bags are the only exception to this.

Fitting a carrier is not permitted.

Observe the information in the bike passport > Section “Bike passport” on page 66

BIKE PASSPORT

Warranty conditions can be found at www.naloobikes.com.

Frame number: _____

Model	Vehicle category > Chap. 5 on page 16	Maximum permitted total weight > Chap. 9 on page 22
☐ Hill Bill 20"	3	55 kg
☐ Hill Bill 24"	3	65 kg
☐ Hill Bill 26"	3	75 kg
☐ Hill Bill 27.5"	3	85 kg

Wheels	
Rim size	☐ 20" ☐ 24" ☐ 26" ☐ 27.5"
Tyre size	.....
Valve type (on delivery)	☐ Auto valve ☐ Express valve ☐ Presta valve

Lights
☐ .....

Carrier	Kickstand
Not permitted!	**Not** permitted!

Child seat	Trailer
Not permitted!	**Not** permitted!

Special features
☐ Vehicle is **not** permitted for use on public roads
☐ Vehicle is permitted for use on public roads, the following equipment has been attached:

.....

.....

.....

.....

.....

Date, stamp/signature of specialist dealer:

HANDOVER DOCUMENT

Specialist dealer

The handover of the bike indicated in the bike passport to the customer took place after:

- the bike had been fully assembled,
- a check of all screw connections,
- a functional check of all components,
- the removal of excess oil and grease,
- a test ride,
- the bike had been adjusted to suit the customer,
- training of the customer on correct use of the bike,
- the customer was advised to carry out an inspection after 200 km,
- the customer had been asked to read the Instruction Manual before using the bike for the first time.

Date, stamp/signature of specialist dealer:

Customer

Surname .....

First name .....

Street .....

Post code/city .....

- The bike passport was filled out by the specialist dealer
- The bike was adjusted to my (my child's) height
- I have received an explanation on basic operation of the bike
- I have been given the Instruction Manual

Place, date .....

Signature of customer .....

noloo

LIGHT & SMART BIKES

BORN AND BASED IN
SWITZERLAND