OMNIUM

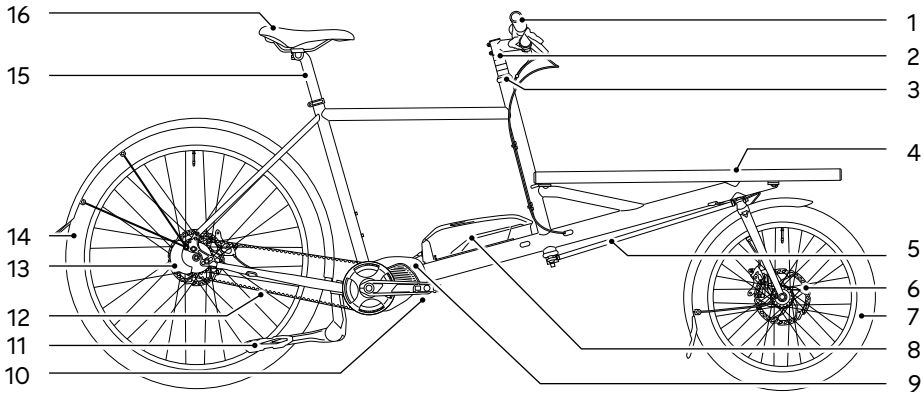
ORIGINAL OPERATING INSTRUCTIONS

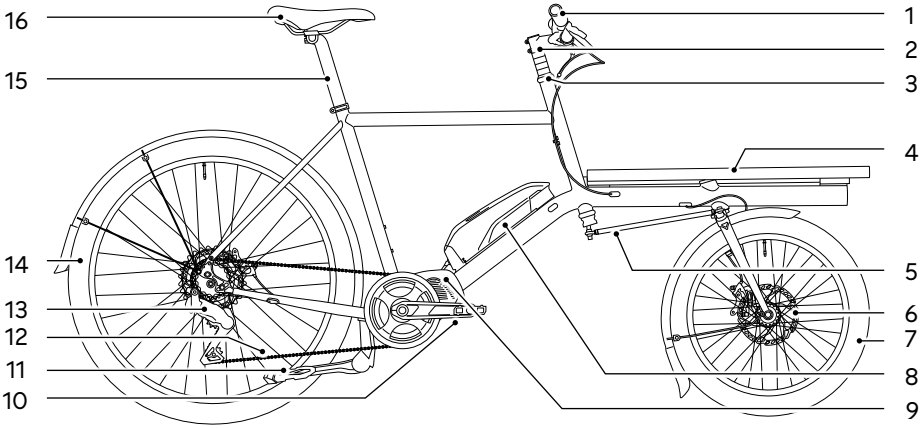
E-CARGO & E-MINI-MAX

ENGLISH

1 Cargo bike parts

The figure/illustration may vary depending on the cargo bike model or equipment selected. Read the specific information about your equipment in the appropriate sections.





1 Handlebar
2 Handlebar stem
3 Control head tube
4 Transport surface
5 Steering rod
6 Disc brake
7 Front wheel
8 Battery pack
9 Motor (engine)
10 Pedal
11 Stand
12 Belt/chain
13 Gear shift
14 Rear wheel
15 Seatpost
16 Saddle

2 In case of emergency

This section contains information about handling the battery. Despite compliance with all safety measures the battery can become a hazard, e.g. if it is ignited (see section “Residual hazards” on page 18).

→ In the event of an emergency, act in a way that does not endanger yourself or others at any time.

→ In case of emergency, follow the instructions on this page.

→ Read these instructions immediately so that you can react in an alert and prepared manner in the event of an emergency.

→ Keep a suitable fire extinguisher at hand at all times.

2.1 General protective measures

If faults or damage are detected on the battery:

1. Do not use the battery.
2. Wear protective gloves when touching the battery.
3. Do not inhale escaping gases or vapours.
4. Avoid skin contact with leaking fluid.

2.2 Excessive heat

If excessive heat is detected on the battery:

1. Have the battery checked by your dealer immediately. Inform your dealer of the battery condition before transporting it.
2. For short-term interim storage, select an outside location and place the battery in a fire-resistant container or on the ground if possible.
3. If the battery is stored outside, secure the storage location clearly and over a wide area.

2.3 In the event of deformation, smell, liquid

If deformation, odour, or leaking fluid is detected on the battery:

1. Place the battery in a fire- and acid-resistant container, such as stone or clay, and cover the battery with sand if you are not at risk and physically capable.
2. Use a fire extinguisher to extinguish the fire if there is no danger to you and if you are physically capable.
3. Dispose of the battery at your dealer immediately.
4. Select an outside location for temporary interim storage.
5. Secure the storage location clearly and over a wide area if you store the battery outdoors.

2.4 When the battery burns

1. Call the fire department immediately.
2. Use a suitable fire extinguisher to extinguish the fire if there is no danger to you and you are physically capable.
3. Cool the battery by placing the battery in a fire-proof container filled with water if you are not at risk and you are physically capable. The water must completely surround the battery.
4. Cover the battery completely with sand if there is no danger to you and you are physically capable.

3 Safety

This section contains information on how to use your cargo bike safely.

3.1 Instructions for safe use

You reduce your risk of accident and injury by following the following instructions for safe use of your cargo bike:

- Do not use the cargo bike unless you are familiar with the operation and all functions.
- Use the cargo bike only as described in the intended use.
- Do not let people with reduced physical, sensory or mental abilities or lack of experience and knowledge use the cargo bike.
- Do not let children play with the cargo bike.
- Protect your cargo bike from unauthorized access, e.g. by locking it with a lock or removing the battery.
- Do not let children carry out cleaning, care and maintenance.
- If you do not have the necessary knowledge and tools for adjustments and repairs, have the adjustments and repairs done by your bicycle dealer.

3.2 Warning signals/symbols and word definitions

The purpose of warnings is to draw your attention to potential hazards. The warnings require your full attention and understanding of the statements. Failure to follow a warning may result in personal injury to you or others. The warnings alone do not prevent any hazards. Follow all warning notices to avoid a risk when using the cargo bike.

The warnings in this manual have the following meanings:

WARNING

This signal word refers to a medium risk hazard that could result in death or serious injury if not avoided.

CAUTION

This signal word refers to a low-risk hazard that can result in minor or moderate injury if not avoided.

NOTE

This signal word warns of possible property damage.

3.3 General safety instructions

In the interest of your safety, also observe the following safety instructions:

WARNING

Wet, slippery or dirty roads can increase braking distance or reduce traction.

Risk of accident and injury!

► Adapt riding style and speed to the weather and road conditions.

CAUTION

With smooth shoes, you can slip off the pedals.

Risk of injury!

► Wear shoes with a non-slip sole.

CAUTION

The use of recumbent or aerodynamic handlebars restricts the range of the controls and the stopping distance is longer.

Risk of injury!

► Ride carefully and adjust the riding style.

CAUTION

Moving parts of the cargo bike can become catch points for clothing and body parts.

Risk of injury!

► Do not let loose bands hang down, such as laces or bands on jackets.

► Wear tight-fitting legwear or use trouser clamps.

► Before cleaning or servicing, inspect all moving parts of the cargo bike.

NOTE

Incorrect or improper use of the cargo bike can cause parts of the cargo bike to wear, damage or break more quickly.

Risk of damage!

► Do not ride the cargo bike over stairs or other curbs.

► Do not jump over ramps or hills with the cargo bike.

► Do not use the cargo bike to make fast descents.

► Do not ride the cargo bike through deep water.

► Observe the maximum permissible total weight of the cargo bike.

► Observe the cargo bike temperature limits.
► Observe the tire inflation pressure.

3.4 Safety instructions for loading and unloading

WARNING

Ignorance of braking behaviour when unladen and laden, especially on sloping roads or in bends, can lead to accidents.

Risk of accident and injury!

► Adjust the riding style and speed to the load and the road conditions.
► Familiarize yourself with the braking behaviour. Check how the cargo bike behaves depending on whether it is loaded or unloaded.

CAUTION

An unfavourable weight distribution of the load can adversely affect the braking behaviour and the driving stability of the cargo bike.

Risk of injury!

► Before loading the cargo bike, place it on a firm, level surface and secure the cargo bike to prevent it from rolling away.
► Load the cargo bike only within the maximum permissible total weight and permissible axle loads.
► Only place the load on the loading surface along the longitudinal centreline of the cargo bike.
► Keep the load's centre of gravity as low as possible.
► For partial loads, distribute the weight so that each axle is proportionally loaded.
► Always secure the load with suitable securing material (e.g. tension belts).

3.5 Safety instructions for the charger

WARNING

Improper handling of electrical current and live components can result in electric shock and serious injury.

Risk of electric shock and injury!

► Check the charger, power cord and mains plug for damage before each use.
► Do not use the charger if damage is identified or suspected.

► Only use the charger indoors and under supervision.
► Only connect the charger to a properly installed power outlet.
► Do not allow the charger to come into contact with water or other liquids.

NOTE

Incorrect use can damage the charger.

Risk of damage!

► When charging, place the charger on fire-resistant materials.
► Only charge the original battery with the charger.
► After charging, always unplug the mains plug from the wall socket.
► Observe additional safety instructions on the charger.

3.6 Battery safety instructions

WARNING

If the battery is ignited, escaping gases or liquids such as hydrofluoric acid can cause serious injury.

Risk of injury!

► Immediately move away from the location of the fire.
► Avoid the location of the fire and shield it from the surrounding area.
► Call the fire brigade.

WARNING

Internal damage to the battery can cause overheating and leakage of gases and liquids.

Risk of fire and explosion!

► Have the battery checked by a bicycle dealer after falls or hard impacts.
► Do not open, disassemble, puncture, or deform the battery and battery housing.

CAUTION

Lithium leaking from a damaged battery can injure skin or eyes.

Risk of injury!

► Only touch damaged batteries with protective gloves.
► Wear protective goggles and protective clothing when in contact with damaged batteries.

NOTE

Incorrect use can damage the battery.

Risk of damage!

- ▶ Do not charge the battery if the battery may be damaged.
- ▶ When charging, place the battery on fire-resistant materials.
- ▶ Only charge the battery with the original charger.
- ▶ Keep the battery away from fire and other heat sources.
- ▶ Do not allow the battery to come into contact with water or other liquids.

3.7 Road safety

You will increase your safety when using the cargo bike on the road by following the general safety instructions below:

- → Only use the cargo bike on the road if the equipment complies with the country-specific road traffic regulations.
- → Observe and follow country and regional road traffic regulations.
- → When riding, wear a suitable bicycle helmet, which is tested according to the standard DIN EN 1078 and bears the CE mark.
- → Wear light clothing with reflective elements when riding.
- → Do not ride the cargo bike if you have taken alcohol, intoxicants or debilitating medication.
- → Do not use mobile devices such as smartphones or MP3 players while riding.
- → Do not distract yourself with other activities while riding, such as turning on the lights.
- → Never ride the cargo bike hands-free.

Please note that road traffic also includes private areas, forest and field paths if they are publicly accessible.

You will increase your safety when riding by following the following additional instructions:

- → Check with the Ministry of Transport for information on the country or region's road traffic regulations.
- → Always keep up-to-date on the changed contents of the applicable regulations.
- → Ride carefully and take care of other road users.
- → Ride in such a way that no one is harmed, endangered, obstructed or bothered.
- → Use the prescribed roadways for bicycles.

3.8 Tuning or changes

WARNING

Tuning or tampering with the speed of your cargo bike can negatively affect braking and driving behaviour, resulting in accidents and injuries.

Risk of accident and injury!

► Do not make any structural changes.

CAUTION

The cargo bike may behave differently than you expect after changes to the drive system.

Risk of injury!

► Do not make any structural changes to the drive system.

NOTE

Tuning your cargo bike can cause irreparable damage.

Risk of damage!

► Do not make any structural changes to the drive system.

- Tuning can cause irreparable damage to your cargo bike.
- Frames, wheels and brakes are not designed for higher speeds.
- Any modification of the drive system or ABS system will result in the exclusion of warranty or other claims for compensation.
- Tuning your cargo bike has legal consequences.
- The speeds of cargo bikes above 25 km/h require a driver's license and insurance, including license plates. This only applies if the motor assistance of the cargo bike exceeds 25 km/h.
- Riders of cargo bikes with a speed above 25 km/h are subject to the obligation to wear a helmet. This only applies if the motor assistance of the cargo bike exceeds 25 km/h.
- Any modification of the drive system will result in the loss of driving license.
- Any change in the drive system results in the loss of insurance cover (private liability).
- In case of repeat offending, an entry in the certificate of good conduct can be made (criminal record).
- Any modification of the drive system will result in the loss of the Declaration of Conformity (CE).
- Any modification of the drive system precludes participation in road traffic.

The tuning and manipulation of the cargo bike includes, for example

- repositioning the speed sensor,
- the installation of a tuning chip,

- replacement of the sprockets with parts that do not meet the specification (number of teeth) of the original parts and making further changes to the hardware components,
- changes to the control software.

The tuning and manipulation of the cargo bike/S-cargo bike can have legal consequences for the user.

Possible consequences are:

- An administrative offence and a fine,
- a criminal offence for riding without a driving license, and in the event of a repeat offence, an entry in the certificate of good conduct,
- the withdrawal of the driving license,
- the loss of insurance cover in the case of private liability insurance,
- the loss of liability for defects in quality, the warranty and the warranty claims,
- a partial fault in an accident.

For more information, contact your bicycle dealer for the component replacement guide.

3.9 Other regulations

To participate in road traffic, cargo bikes must be equipped with two independent brakes and a bell.

3.10 Replacement of components

WARNING

Replacing components or incorrectly selected spare parts can cause the cargo bike to malfunction.

Risk of accident and injury!

► Only have components replaced by your bicycle dealer.

► Use only original spare parts.

3.11 Misuses

To safely use your cargo bike, eliminate the following misuses:

- Use of the cargo bike for competitions, jumps, stunts or tricks;
- Improper repairs and maintenance;
- Incorrect use of the battery;
- Structural changes to the delivery condition of the cargo bike, in particular the tuning, and any other changes to the cargo bike;
- The opening and modification of cargo bike components;
- Charging operations outside the temperature range of +5 to +45 °C;
- Deep discharge of the battery due to charging breaks of more than 3 months or improper storage of the battery outside the optimal storage temperature of +10 to +25 °C.

Incorrect use of the cargo bike may result in the exclusion of the warranty.

3.12 Residual hazards

Even if you observe all safety and warnings, you are exposed to the following unforeseeable residual risks when using the cargo bike:

- Misconduct of other road users;
- Unpredictable road characteristics, e.g. in the event of slippery conditions caused by black ice/freezing rain;
- Unpredictable material defects or material fatigue which can lead to component breakage or failure.

→ Ride with foresight and defensively.

→ Inspect the cargo bike for cracks, scoring, colour changes, or component damage before each ride.

→ Before each ride, check the function of the safety-relevant components such as the brakes.

→ After a fall or accident, have the cargo bike checked for damage by your bicycle dealer.

3.13 Taking children with you

Inform yourself (see section “Bicycle pass” on page 80) whether it is allowed to carry children on your cargo bike. When carrying children, observe the following instructions:

WARNING

The additional weight changes the handling characteristics of the cargo bike.

Risk of accident and injury!

► Observe the maximum towing load and the maximum permissible total weight.

► After installing a child seat or a child trailer, familiarize yourself with the changed handling characteristics of the cargo bike off the road.

WARNING

Incorrect installation of a child seat or trailer hitch can cause component breakage.

Risk of accident and injury!

► Have child seats, trailers and towbars installed by a bicycle dealer.

- → Your bicycle dealer will be happy to help you choose suitable child seats, child trailers and trailer systems for your cargo bike.
- → Read the relevant user manual for the child seat, child trailer or towing system.
- → In the accompanying operating instructions, observe the maximum permissible weight for the child seat, child trailer or trailer system.
- → Only take a child in the child seat or trailer if the child is younger than 8 years old and weighs less than 22 kg.
- → You must be at least 16 years of age in order to take a child in the child seat or in the child trailer.
- → Only take a child with you in a child seat or in a child trailer if it is wearing an adapted bicycle helmet that is tested according to DIN EN 1078 and carries the CE mark.
- → For the use of child seats, child trailers and trailer systems, you must observe and follow the local and regional regulations.
- → Make sure there are no loose belts that could get caught in one of the wheels.
- → Brake earlier and plan for longer braking distance and sluggish steering.
- → Practice getting on and off away from main traffic and off the road.
- → Practice the correct behaviour with your child while driving.
- → Ride with foresight and defensively.

3.13.1 Taking children in a child seat

- → A child seat or baby seat can be used with the customised combination of the cargo bike with a child seat rack or baby carrier mount.
- → Have child seats mounted on the frame only. Attaching attachments (child seat) to the luggage rack using pinch clamps can cause breakage and is strictly forbidden.
- → Your bicycle dealer will be happy to help you choose suitable child seats for your cargo bike.
- → When installing a child seat, allow all moving components to be covered.

3.13.2 Taking children in a child trailer

WARNING

A cargo bike with a child trailer is much longer and harder to stop due to the pushing force of the child trailer.

Risk of accident and injury!

► Ride the cargo bike with child trailer at a moderate speed.

► Consider a longer stopping distance.

When using child trailers, note the following points:

→ Only have child trailers fitted if your cargo bike is suitable for this (see section “Bicycle pass” on page 80).

→ Only a child trailer tested according to DIN EN 15918 offers you the best possible safety.

→ Note the maximum towing load:

- The maximum towing load for unbraked trailers is 40 kg.
- The maximum towing load for braked trailers is 80 kg.

→ Off-road practice the altered handling of your cargo bike due to the increased weight and extra length.

→ Carry a maximum of two children in a child trailer.

→ Use only child trailers with lighting that complies with local and regional regulations.

→ For a safe seating of the child, choose a child trailer with suitable seats and restraint systems.

→ Have the child trailer equipped with a minimum 1.5 m high and flexible flagpole with a fluorescent pennant and with covers of the spokes and wheel arches.

→ For maximum safety, choose a child trailer with a stable passenger compartment and seat belts.

4 Basics

4.1 Read and store the user manual

This original operating manual – hereinafter referred to as the user manual – belongs to this cargo bike. The user manual provides important information on the setup and use of the cargo bike. Read all warnings and notes in this manual, especially the section "Safety", carefully before using the cargo bike. Failure to follow the warnings and instructions in this user manual can result in serious injury and damage to the cargo bike. Keep the user manual at hand so that it is always available. If you pass on your cargo bike to third parties, hand over the user manual as well.

4.2 Symbols and icons

	Be sure to read the user manual.
	Supplementary notes to the instructions for action or use.
1.	Instructions for action in a specific order start with a number.
→	Instructions for action without a fixed sequence start with an arrow.
•	Lists/Bullets begin with a period.
	Electrical equipment bearing this marking must not be disposed of in domestic or residual waste. Consumers are legally obliged to dispose of electrical equipment with this marking at suitable collection points for environmentally friendly recycling.
	Batteries and accumulators bearing this label must not be disposed of in domestic or residual waste. Consumers are legally obliged to dispose of batteries and accumulators with this label at suitable collection points for environmentally friendly recycling.
	Labelling for recyclable materials intended for recycling. Dispose of the packaging in a single type. Add carton and cardboard to the waste paper and foils to the recyclable material collection.
	Products marked with this symbol comply with all applicable Community provisions of the European Economic Area.
	Symbol for products that may only be used indoors.
	The mains connection 230 V~/50 Hz has protection class II.
	Direct current (DC) symbol
	Alternating current (AC) symbol

4.3 Units and their meaning

In this user manual or on components of your cargo bike, you will find the following units:

Unit	Meaning	Unit for
°	Degrees	Angular dimension
°C	Degrees Celsius	Temperature
°F	Degree Fahrenheit	Temperature (USA)
1/sec	per second	Revolutions
"	inches	Unit of length (USA) 1 inch = 2.54 cm
bar	Bar	Pressure
g	Grams	Mass (weight)
h	Hour	Time
Hz	Hertz	Frequency
kg	Kilograms	Mass (weight)
km/h	Kilometres per hour	Speed
kPa	Kilopascal	Pressure
mph	Miles per hour	Speed
Nm	Newton meters	Torque
psi	Pound per square inch	Pressure (USA)

4.4 Intended use

The manufacturer or bicycle dealer accepts no liability for damage caused by improper use. Use the cargo bike only as described in this user manual. Any other use is considered improper and may result in accidents, serious injury or damage to the cargo bike.

The warranty expires if the cargo bike is not used for its intended purpose.

The cargo bike is intended to be used by one person as a driver to transport loads and goods on the transport surface and to whose height (1.5–2 m) the seating position has been adjusted. Additional passengers can be transported on the rack, when the right equipment is installed.

The cargo bike is only intended for use on roads and paths with a smooth surface. It can also be used on light gravel and roads with pavestones. Any use on uneven roads that are not paved, concreted or asphalted can cause the cargo bike to fail.

The intended use of the cargo bike includes the initial inspection at the latest 2 months after the purchase of the cargo bike or after the first 500 km of riding – whichever occurs first.

The cargo bike is not intended for use with above-average strain, e.g. use at racing and competition events is considered not to be intended.

The following is also considered to be incorrect use of the cargo bike:

- riding over curb edges;
- bumping on curb edges;
- riding on one wheel only;
- intentionally induced oversteering due to hectic steering movements;
- emergency braking without danger.

For the intended use of the cargo bike in road traffic, you must know, understand and observe the country-specific and regional regulations.

The vibrations acting on the rider, depending on the surface, must be estimated and compared with the permissible vibration limits and the duration of exposure. Appropriate information on workplace design must be defined by the operator.

The A-weighted emission sound pressure level on the driver's ears is less than 70 db(A).

4.5 Maximum permissible total weight

The cargo bike has a maximum permissible total weight, which you must observe when using the cargo bike. For the maximum permissible total weight, see

- the CE sticker on your cargo bike or
- the bicycle pass (see section “Bicycle pass” on page 80).

→ Determine the unladen weight of your cargo bike by weighing it with a suspended scale, with all optional equipment if necessary.

The maximum permissible total weight is obtained by adding the following weight information:

Cargo bike + driver + cargo etc. = maximum permissible total weight.

→ You reduce your risk of accident and injury and damage to the cargo bike by always observing the maximum permissible total weight of the cargo bike. Failure to do so may result in the exclusion of warranty and guarantee.

4.6 Information on torques

WARNING

Improper tightening of screw connections can lead to material fatigue and the breakage of screw connections.

Risk of accident and injury!

► Do not use the cargo bike if screw connections are loose.

► Tighten the screw connections to the correct torques.

The torques must be observed for proper tightening of the screw connections. This requires a torque wrench with an appropriate setting range.

→ If you have no experience with torque wrenches or do not have a suitable torque wrench, have the screw connections checked by your bicycle dealer.

The correct torque of a bolted joint depends on the material and diameter of the screw, as well as the material and construction of the component.

→ If you are tightening screw connections yourself, check whether your cargo bike is equipped with components made of aluminium or carbon (see section “Bicycle pass” on page 80).

  → Observe the specific torques for components made of aluminium or carbon.

→ Individual components of the cargo bike are marked with information on torques or markings for the insertion depth. Be sure to observe these information and markings.

Not all components are listed in this table.

The torque specifications are basic values.

→ For additional components, ask for the appropriate torque, if necessary, or read the enclosed manufacturer's operating instructions for the components.

Component	Screw connection	Torque in Nm
Clamp for the handlebar	Fastening screws	5
Brake lever	Fastening screw	4-6
Screws on the stem for attachment to the steerer tube.	Fastening screw	5-7
Fork headset	Locking screw	9
Steering rod	M8 bolt and nut	15-20
	Fastening screw with nut	9
	Fastening screw for strut length adjustment	5-10
Rear mudguard	Fastening screws	9
	Fastening screw for strut length adjustment	5-10
Brake calliper and adapter	Fastening screws	6-8
Front axle	Allen key axle	10
Rear wheel bolt	Nexus/Alfine	30-35
	Thru Axle	10
Locking disc brake	Locking ring	40
Inserts for forks	Fastening screw	6-8

Component	Screw connection	Torque in Nm
Battery holder	Holder for key and lower housing (attachment to frame) Fastening screw	1.6-1.8
	Fastening screws for button unit and lower housing cover	0.6
Bottle connections (all)	Fastening screw	2-3
Drive unit	Fastening screw	11.2-12.5
	Cover fastening screw	0.6
	Circlip (for chainring)	35-45
	Fastening screws for light cable	0.6
Bike computer and electronic gear lever	Screw for fastening the strap	0.8
	Housing fastening screw (with nut)	0.6
Crank arm	Fastening screw for the crank	0.7-1.5
	Fastening screw for the crank	12-14
Speed sensor	Mounting and magnet fastening screw	1.5-2
Motor unit	Fastening nut	6-10
Chainring bolts	Fastening screw	12-16
Pedals		35-40
Double stand	Fastening screw	21-23
Adjustable dropouts	Fastening screw	35-40
Opening of the frame	Fastening screw	13
Fastening of the saddle	M6 fixing screw	10-12
Saddle clamp	Bolt	4-7

4.7 Direction of rotation of screws

→ Tighten the nuts, bolts and thru-axles clockwise.

→ Unscrew the nuts, bolts and thru-axles counterclockwise.

If there are any deviations from these rules, the relevant direction of rotation is indicated in the respective section.

4.8 Sitting position

CAUTION

An incorrectly adjusted sitting position can cause muscle tension and joint pain.

Risk of injury!

► Have the seat position adjusted correctly by a bicycle dealer.

CAUTION

An incorrect seating position limits the accessibility of controls on the handlebars.

Risk of accident and injury!

► Have the seat position adjusted correctly by a bicycle dealer.

In order to control the cargo bike safely, the seating position must be adapted to your individual needs.

The optimal seating position depends on the size and geometry of the cargo bike frame, the height of the rider, and the handlebar and saddle settings. Expert knowledge is required to adjust the optimal seating position. The optimum seating position can also depend on the use of the cargo bike, for example when it is used predominantly in a sporty manner.

The essential features of an optimal seating position are:

- When one pedal is up, the knee angle of the upper leg and the arm angle are 90°. The lower leg is slightly bent (see Fig. "Features of an optimal seating position", left).
- When one pedal is in the front, the knee is above the axle of the front pedal (see Fig. "Features of an optimal seating position", right).
- The arms are relaxed and slightly bent outwards (not shown in the picture).
- The back is not perpendicular to the seat post.

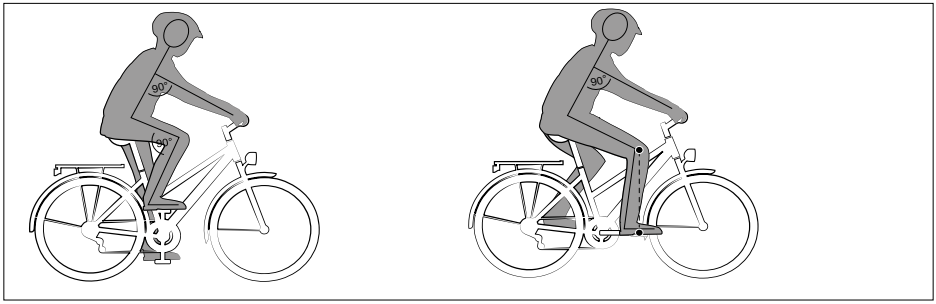


Fig.: Features of an optimal seating position (example)

4.9 Transportation

NOTE

Incorrect use of bicycle carriers can result in property damage.

Risk of damage!

- ► Use only approved bicycle carriers that allow the cargo bike to be transported upright.
- ► Inform your bicycle dealer about the use of bicycle carriers.
- ► Secure the cargo bike to prevent it from slipping and falling.

Depending on the model, a transport lock for the disc brake is included in the scope of delivery.

→ Have a bicycle dealer explain how to use the transport lock.

→ To transport the cargo bike, use the transport lock.

→ Transport the cargo bike upright.

4.10 After a fall

WARNING

Falls or accidents can cause damage such as hairline cracks on the cargo bike. Components may be damaged without you recognizing it.

Risk of accident and injury!

- ► After a fall or accident, have the cargo bike checked for damage by your bicycle dealer.
- ► Do not straighten damaged components.
- ► Have damaged components replaced by a bicycle dealer immediately.
- ► Do not use the cargo bike if damage to the cargo bike is detected or suspected.

A fall or accident can damage components. Damage to carbon components is not always visible. Fibres or coatings can become detached or destroyed, and the strength of the components can deteriorate.

→ Have carbon components replaced by a bicycle dealer after a fall or accident.

→ After a slight fall, check all components of the cargo bike, e.g. if the cargo bike has fallen over.

→ If in doubt and for repairs, contact a bicycle dealer.

4.11 Wear

WARNING

Excessive wear, material fatigue, or loose screw connections can cause malfunctions that can cause accidents or falls.

Risk of accident and injury!

- ▶ Regularly check the cargo bike for wear.
- ▶ Do not use the cargo bike if there are cracks, deformations, or colour changes.
- ▶ Do not use the cargo bike if excessive wear or loose screw connections are present.
- ▶ Have the cargo bike checked immediately by your bicycle dealer if there is excessive wear, loose screws, cracks, deformations or colour changes.

The cargo bike, like all mechanical components, is subject to wear and stress. Different materials can react differently to wear or deterioration due to stress. Any type of crack, groove, or colour change indicates the expiration of the component's life. Worn components must be replaced.

Wear on components made of aluminium, carbon or composite materials can only be assessed by a bicycle dealer. Components made of composite materials are sensitive to high temperatures (e.g. heat radiation) and may be damaged.

Hard impacts, shocks and strains are harmful to frames, forks and wheels made of carbon and composite materials. The internal structure of the material is adversely altered without this being visible.

→ Consult a bicycle dealer for advice on the wearing components of your cargo bike.

→ Check the condition of all wearing parts regularly.

→ Maintain the wearing parts regularly.

5 Information about the cargo e-bike

This section contains information about the basic properties and components of the cargo e-bike.

→ Observe the enclosed manufacturer's operating instructions for the components of your cargo e-bike.

Depending on the model, your cargo e-bike may be equipped differently.

5.1 Differences between cargo e-bike and bicycle

Unlike a pedal-driven bicycle, a cargo e-bike includes the following additional components:

- Electric drive (motor),
- Battery pack,
- Operating unit,
- Display,
- Charger.

The additional components of the cargo e-bike lead to significant differences between a cargo e-bike and a pedal-operated bicycle.

- The cargo e-bike has a significantly higher weight and a different weight distribution than a bicycle. This changes the driving behaviour.
  → Familiarize yourself with the handling of the cargo e-bike off the road.
- The electric drive has a significant influence on the braking behaviour.
  → Familiarize yourself with the braking behaviour of the cargo e-bike off the road.
- Cargo e-bike require higher braking forces. As a result, wear can be higher than on bicycles.
- Their average speed will increase due to the electric drive.
  → Drive carefully. Note that other road users must adjust to the higher speed of the cargo e-bike.

→ In particular, handling the battery and charger requires appropriate expertise.

→ Do not make any changes to the additional components of your cargo e-bike.

5.2 Electric drive

The electric drive is intended to drive your cargo e-bike only and may not be used for any other purpose.

Depending on the model, the electric drive supports the use of your cargo e-bike in two ways.

5.2.1 Riding assistance

The electric drive only supports you when riding when you push the pedals (pedalling). The strength of the support is automatically adjusted depending on:

- the selected support level,
- the pedal force,
- the load and
- the speed.

The electric drive supports you when pedalling up to a speed of 25 km/h. If you reach a speed higher than 25 km/h, the electric drive switches off automatically. If the speed drops below 25 km/h, the electric drive automatically switches on again.

5.2.2 Support when pushing

Depending on the model, your cargo bike can be equipped with a pushing aid.

The pushing aid helps you to push the cargo bike. The speed of this function can be up to 6 km/h depending on the gear selected. The smaller the selected gear, the lower the speed.

CAUTION

The independent turning of the cranks and pedals when switching on the pushing aid can cause injury.

Risk of injury!

► Keep clear of the pedal cranks and pedals when switching on the pushing aid.

5.3 Range

The electric drive is a support motor. The range is decisively influenced by your pedalling force.

→ Set the support level as low as possible.

The lower the pedal drive cadence, the higher the energy requirement for the drive.

→ Operate the gear shift as if you were driving without assistance.

→ Use the smaller gears of your gear shift when climbing, headwinds or heavy loads.

When starting up, the drive requires a lot of energy.

→ Always ride in a small gear with the highest possible pedal force.

→ Shift to a smaller gear in good time before making an incline.

→ Drive with foresight so that unnecessary stops can be avoided.

Energy consumption increases at high loads.

→ Do not transport unnecessary loads.

Lack of care and maintenance can lead to a reduced range.

→ Treat the cargo bike carefully and observe all information on the battery in the manufacturer's operating instructions.

→ Check the tire pressure regularly.

→ Keep the maintenance intervals.

Temperatures below +10°C can reduce battery performance during operation. If you are not using your cargo bike:

→ Remove the battery from the holder at low ambient temperatures and store it (see section “Storing the battery” on page 72).

→ Do not insert the battery into the holder until you are ready to ride.

5.4 Riding with an empty battery

If the battery charge is completely depleted during the ride, you can use your cargo bike like a pedal-operated bicycle.

If the battery charge is exhausted, the electric drive switches off. The lighting will be supplied with energy.

5.5 Overheat protection of the drive

CAUTION

The electric drive and battery can become very hot during operation. If it comes into contact with the skin, you may be injured.

Risk of injury!

► Do not touch the electric drive or the battery.

The electric drive is automatically protected against damage caused by overheating. If the temperature of the drive is too high, the electric drive automatically switches off.

→ To avoid overheating of the electric drive, set a low level of support when the outside temperature is high or the path is sharply rising.

→ If the electric drive is switched off when the battery is charged and the speed is below 25 km/h, do not use the cargo bike temporarily to cool the electric drive.

  → If cooling the electric drive does not correct the problem, have the cargo bike checked by your bicycle dealer.

5.6 Battery notes

Your cargo bike is equipped with a lithium-ion battery (Li-Ion battery). Li-ion batteries have a relatively high energy density. Therefore, handling these batteries requires a lot of attention.

→ Observe the safety instructions for the battery (see section “Battery safety instructions” on page 14).

→ For reliable operation and a long service life, also observe the following notes:

A partial charge does not harm the battery; it has no memory effect. Partial charging is evaluated proportionally according to their capacity. For example, a 50% charge is half a charge cycle.

NOTE

Due to technical self-discharge of the battery, irreparable damage can occur.

Risk of damage!

► Recharge an empty battery immediately.

→ Observe the temperature limits for the battery (see enclosed manufacturer's operating instructions).

→ Note that outside temperatures below +10°C may reduce battery performance.

→ Note that the battery may lose performance after approximately 500 full charges (charging cycles).

→ Please note that after initial use, you will get used to the electrical support. This may result in a perceived loss of battery performance.

→ If there is a loss of performance or a significantly reduced operating time, contact your bicycle dealer.

→ Never make changes to the battery yourself.

5.6.1 Charging times

When the battery is empty, a full charge can take between approximately 4 and 8 hours, depending on the charger used. The duration of the charging process still depends on the following factors:

- battery capacity,
- battery charge status,
- temperature of the battery and
- temperature of the environment.

→ Observe the enclosed manufacturer's operating instructions when using the battery of your cargo bike.

5.6.2 Using the battery

→ Always switch off your cargo bike before removing the battery.

→ Remove the battery from the cargo bike before carrying out any work (e.g. repair, transport, maintenance).

→ Observe the enclosed manufacturer's operating instructions when using the battery of your cargo bike.

5.6.3 Transporting or shipping the battery

Lithium-ion batteries are subject to the requirements of the Hazardous Goods Act. Undamaged batteries may be transported on the road by private users without further restrictions.

→ For commercial transport, observe the special requirements for packaging and labelling, e.g. for air transport or forwarding orders.

→ Check with your transport company or your bicycle dealer for information on how to transport the battery and suitable transport packaging.

→ When transporting the cargo bike, remove the battery and transport it separately and securely against shocks and impacts.

If you are transporting your cargo bike by car, see section “Transportation” on page 27.

5.7 Protective devices

Depending on the model, the battery of your cargo bike may be equipped with protective devices:

- Protection against overheating
- Protection against deep discharge

→ Observe the enclosed manufacturer's operating instructions when using the battery of your cargo bike.

5.8 Information on the additional components of the cargo bike

→ Observe the safety instructions for the charger, see section “Safety instructions for the charger” on page 13 when using the charger.

→ Refer to the enclosed manufacturer's operating instructions if you are using additional components of your cargo bike.

5.9 Instructions for use

5.9.1 Road traffic information

The support of the cargo bike is effective up to a speed of 25 km/h. The technical design of your cargo bike complies with the European standard EN 15194 for electrically assisted bicycles, the standard DIN 79010 for transport and cargo bicycles and the bicycle standard DIN EN ISO 4210.

→ Check with the Ministry of Transport for information on the country or region's road traffic regulations.

→ Keep up-to-date with the changes in the content of the applicable regulations.

5.9.2 Commissioning

In order to commission your cargo bike, the following requirements must be met:

- A charged battery is inserted,
- the control panel/display is functional and mounted on the cargo bike.

→ Observe the enclosed manufacturer's operating instructions if you want to put your cargo bike into operation.

5.10 Residual hazards

The use of the cargo bike is associated with the following unforeseeable residual hazards, despite compliance with all safety instructions:

5.10.1 Risk of injury

- Internal, invisible damage and the event of a fire can result in the release of gases, vapours and liquids from the battery. Injuries to the external and internal organs are possible, for example, in case of skin contact or by inhalation of the gases.

5.10.2 Risk of fire

- Internal, invisible damage can ignite the battery and ignite objects in the surrounding area.

5.10.3 Risk of damage

- When the battery burns, hydrofluoric acid escapes with the flue gas. Hydrofluoric acid is highly corrosive and permanently damages surfaces.

6 Basic settings

The following section contains information about

- how to check your cargo bike before you start riding,
- how to adjust your seating position and
- how to make other basic settings.

If you do not have the necessary knowledge and tools for the basic settings, have the basic settings made by your bicycle dealer.

6.1 Before the first ride

Your bicycle dealer has fully assembled and adjusted the cargo bike. This means that the cargo bike is ready to ride.

Learn about important functions of the cargo bike before the first ride.

→ Familiarize yourself with the handling characteristics of your cargo bike off the road.

→ If you are unfamiliar with the assignment of the brake levers for the front or rear brake, have the assignment of the brake levers changed by your bicycle dealer.

→ Familiarize yourself with the braking characteristics of your brakes off the road and at low speeds.

→ For hydraulic brakes, apply both brake levers several times to centre the brake pads in the calliper.

→ Practice off-road handling of the gear shift so that you can operate the gear shift in such a way that your attention to road traffic is not impaired.

→ Check that you can still take a comfortable sitting position during long journeys and that you can safely operate all components on the handlebars while riding.

6.2 Before each trip, check:

→ Inspect the cargo bike for damage and excessive wear before each ride.

→ Do not use the cargo bike if you notice damage or excessive wear.

→ Have damaged or worn components replaced by a bicycle dealer.

Before each trip, check:

- **The brakes**
  → Push the cargo bike and operate one brake at a time; the braked front or rear wheel must lock.
- **The gear shift**
  → Check that the gears are easy and silent to shift.
- **The frame, fork and seat post**
  → Visual inspection: There must be no cracks, deformations or colour changes on the frame, fork or seat post.
- **The quick-release devices**
  → Check that all quick-release devices are securely closed and correctly secured.
  → Check the preload of all quick-release devices.
- **The screw and plug connections**n
  → Visual inspection: The screw and plug connections must be closed correctly.
- **The pedal drive**
  → Check that the pedal drive is working and is correctly mounted.
- **The lighting**
  → Check that the head light and tail light are working.
- **The bell**
  → Check if the bell gives a clear tone.
- **The handlebar and stem**
  → Check that the handlebars and handlebar stem are firmly in place.
  → Visual inspection: There must be no cracks, deformations or colour changes on the handlebar or handlebar stem.
- **The tires**
  → Check the tire inflation pressure.
  → Check the tires for cracks and foreign objects.
- **The rims and spokes**
  → Visual inspection: There must be no cracks, deformations or excessive wear on the rims.
  → Check the spokes for even tension.

6.3 Adjusting the seat position

Finding the right seating position depends on

- the height of the driver,
- the frame size of the cargo bike
- and the settings of the handlebars and the saddle.

WARNING

Improper adjustment of the saddle height or handlebar height endangers the function and safety of the bicycle component.

Risk of accident and injury!

► Observe the minimum insertion depth of the seat post.

CAUTION

An incorrectly adjusted sitting position can cause muscle tension and joint pain.

Risk of injury!

► Have the seat position adjusted correctly by a bicycle dealer.

CAUTION

An incorrectly adjusted seating position can result in restricted access to controls on the handlebars.

Risk of accident and injury!

► Have the seat position adjusted correctly by a bicycle dealer.

The appropriate seating position may also depend on the use of the cargo bike, for example, when it is used primarily for sports purposes.

To adjust the saddle height, see section “Adjusting the saddle” on page 68.

Adjust the handlebar height only if you have the necessary knowledge and tools (see section “Handlebar” on page 66).

If your cargo bike has an “Ahead” handlebar stem, have the handlebar height adjusted by a bicycle dealer.

If you do not achieve a suitable seating position by adjusting the saddle and handlebar, you can achieve a suitable seating position by replacing components. Components that can be replaced for this purpose

- the seat post,
- the saddle,
- the handlebar stem,
- the handlebars,
- the cranks.

→ If the seating position cannot be adjusted properly, have components of different dimensions installed by a bicycle dealer.

→ Note that racing bikes may experience a decrease in foot clearance due to the replacement of the crank arms or tires.

If you sell or pass on the cargo bike to another person, replacing components can be a way to achieve a suitable seating position for another person.

6.4 Observe the torques

The torque is used to specify the force of the torsional effect, e.g. on screw connections on the cargo bike. The respective torques must be observed in order to properly tighten screw connections (see section “Information on torques” on page 23).

WARNING

Improper tightening of screw connections can lead to material fatigue and the breakage of screw connections.

Risk of accident and injury!

► Do not use the cargo bike if screw connections are loose.

► Tighten the screw connections to the correct torques.

7 Battery pack

7.1 Basics

WARNING

Internal damage to the battery can cause overheating, outgassing or loss of fluid even long after damage occurs.

Risk of fire and explosion!

- ► Have the battery checked by the service partner after falls or hard impacts.
- ► Do not open, disassemble, puncture or deform the battery.

NOTE

Incorrect use of the battery can damage the battery, the motor or surrounding objects, e.g. by overheating.

Risk of damage!

- ► Use the supplied battery only for the original motor.
- ► Only use approved the original battery for the original motor.
- ► Keep the battery away from fire and other heat sources and protect it from intense sunlight.
- ► Protect the battery from moisture. Never spray or clean the battery with liquids.
- ► Do not use the battery if abnormal heat, odour, or discolouration is detected and/or if the battery is damaged.

NOTE

Due to technical self-discharge of the battery, irreparable damage can occur.

Risk of damage!

- ► Recharge an empty battery immediately.

Your cargo bike is equipped with a lithium-ion battery (Li-Ion battery). Li-ion batteries are safe when used as intended.

Li-ion batteries have a relatively high energy density. Therefore, handling these batteries requires a lot of attention.

7.2 Using the battery

This section provides information on how to use the battery. The cargo bike has one rechargeable battery.

7.2.1 Charging the battery

The battery must be fully charged before first use to ensure full battery performance.

The battery can be removed from the cargo bike for charging.

WARNING

Incorrect use of the battery can result in a short circuit with a risk of fire.

Risk of injury and fire!

► Only use the original charger to charge the battery.

► Do not use the charger if you notice or suspect damage.

The battery and the charger have connectors that only accept the connector to match the polarity.

When the battery is empty, a full charge takes approximately 4 to 5 hours.

→ Fully charge the battery after each ride.

→ Ideally, charge the battery at an ambient temperature between +10°C and +25°C.

The duration of the charging process depends on the following factors:

- battery capacity,
- battery charge status,
- Temperature of the battery,
- temperature of the environment.

1. Remove the battery from the battery compartment.
2. Connect the charger to a power outlet that corresponds to the rating plate on the charger.
3. Connect the battery to the charger.
4. Insert the charging plug into the charging socket on the battery.

7.2.2 Storing the battery

If you do not use the battery for a long time, store it as follows:

→ Check the charge status of the battery.

→ Charge the battery to approximately 50% of its capacity.

→ After each charge, disconnect the battery from the charger and unplug the charger from the wall socket.

→ Remove the battery from the battery compartment for storage and place it in a safe place.

→ Store the battery in such a way that it cannot fall and is not accessible to children and animals.

→ Store the battery in a dry, well-ventilated place at a stable room temperature, approx. +10 to +25 °C, at maximum +5 to +45 °C.

→ Protect the battery from moisture.

→ Make sure that the upper and lower temperature limits are not exceeded or undercut during storage.

→ If you store the battery for more than 3 months, charge the battery to approximately 50 to 70 % (2 to 3 LEDs) of its capacity every 3 to 6 months.

7.2.3 Transporting or shipping battery

Lithium-ion batteries are subject to the requirements of the Hazardous Goods Act.

→ For commercial transport, observe the special requirements for packaging and labelling, e.g. for air transport or forwarding orders.

→ Check with the transport company or a service partner for information on how to transport the battery and suitable transport packaging.

7.2.4 Overheat protection

The battery is equipped with temperature monitoring. Charging is only possible in the temperature range between 0 °C and +40 °C (optimum +10 to +25 °C). If the battery is outside the charging temperature range, you cannot charge the battery.

→ Disconnect the battery from the charger and allow it to reach charging temperature.

→ Do not connect the battery to the charger until it reaches the permissible charging temperature.

CAUTION

Temperatures above +40°C can cause skin injury.

Risk of injury!

► Allow the battery to cool down if charging is prematurely stopped.

1. Unplug the plug from the wall socket.
2. When the battery has cooled down, remove the charging plug from the charging socket.
3. Have the battery checked by a service partner.

For your safety, reliable operation and long battery life, it is important to observe the following information:

A partial charge does not harm the battery; it has no memory effect. Partial charges are evaluated proportionally according to their capacity (a charge of 50% corresponds to ½ of a charging cycle).

→ Observe the temperature limits for the battery.

→ Note that outside temperatures below +10°C may reduce battery performance.

→ Keep in mind that a battery loses power as it ages.
→ Keep in mind that after initial use, you will get used to the electrical support. This may result in a perceived loss of battery performance.
→ If there is a loss of performance or significantly reduced operating time, contact a service partner.
→ Never make changes to the battery yourself.

7.3 The charger

7.3.1 Basics

On the bottom of the charger is a summary of important safety information that includes:

→ For safe use, observe the safety instructions for the charger (see section "Safety instructions for the charger" on Page 13).
→ Use indoors only.
→ Only charge the cargo bike battery. Other batteries may explode and cause injury.
→ Do not replace the power cord. There is a risk of fire and explosion.
→ Read the information on the rating plate of the charger.
→ Connect the charger to a power outlet that corresponds to the rating plate on the charger.

7.3.2 Operating the charger

WARNING

Incorrect use of the charger may result in a short circuit with a risk of fire.

Risk of injury and fire!

► Do not use the charger if you notice or suspect damage.
► Use only the original charger.

WARNING

Improper handling of electrical current and live components can cause an electric shock.

Risk of electric shock!

► Before each use, check for damage to the charger, power cord or mains plug.
► Do not use the charger if you notice or suspect damage.
► Do not use the charger if humidity or moisture has entered the charger.
► Use the charger only to charge the original battery.

Do not use the charger unless you have checked the charger, power cord and power plug for damage and no damage has been found.

The ambient temperature during charging must not be below 0 and not above +40 °C.

The optimum ambient temperature during charging is between +10 and +25 °C.

The charger has a country-specific mains plug and a charging cable.

Before charging, make sure that no metallic objects stick to the plug of the charging cable or to the charging connector.

1. Connect the charger to the power cord.
2. Use the mains plug to connect the charger only to a properly installed socket.
3. Insert the plug of the charging cable into the charging port on the battery.
4. Unplug the plug after each charging operation.

8 Electric drive

WARNING

If you do not focus on road traffic, you put yourself and other road users at risk.

Risk of accident and injury!

- ► Do not use your smartphone while driving.
- ► When reading the display while driving, first keep an eye on the road traffic.
- ► Stop for settings on the control panel or to read long information.
- ► Adapt riding style and speed to the weather and road conditions.

The electric drive of the cargo bike consists of several individual components:

- Motor (engine)
- Battery pack
- Control panel/on-board computer

Detailed operating instructions for the Shimano "EP801 Cargo" motor and the "SC-EN600" display can be found under the following QR code:

→ Familiarize yourself with the characteristics of your cargo bike, even if you have some experience with electrically assisted bicycles.

→ Test the different levels of support and load conditions of the cargo bike off the road until you feel comfortable handling the cargo bike.

8.1 Range

The range depends on many factors, such as:

- Support level;
  - The higher the support level, the lower the range.
- Tyre inflation pressure;
- Age, care and charge status of the battery;
- Track profile and road characteristics;
- Weather conditions, such as headwinds;
- Weight of the payload.

8.2 Riding with an empty battery

If the battery charge is completely depleted during the ride, you can use your cargo bike like a normal bicycle.

When the battery charge is exhausted, the motor shuts down. The lighting will be supplied with energy until the battery is completely empty.

9 Brakes

WARNING

In wet conditions, braking performance may be reduced and braking distance extended.

Risk of accident and injury!

► Adjust your riding style and speed to suit weather conditions and road conditions.

WARNING

Pressing the front brake can cause a rollover.

Risk of accident and injury!

► Use the front wheel brake lever carefully at high speeds.

► Adapt the braking force of the brakes to the riding situation.

► Always brake with both brakes at the same time.

WARNING

A locking rear wheel can cause falls.

Risk of accident and injury!

► Use the rear brake carefully when cornering.

WARNING

Incorrect brake linings can result in reduced or excessive braking performance or brake failure.

Risk of accident and injury!

► Replace brake components only with original spare parts.

A brake is a technical device for decelerating an object. The braking system refers to the whole of the individual parts.

Your cargo bike is equipped with at least two disc brakes that act independently of each other on the front and rear wheels.

→ For a short braking distance, brake evenly with both brakes.

9.1 Checking the brakes

Perform the following instructions for the front and rear brakes:

1. Check all the brake system bolts for tightness.
2. Check that the brake lever is firmly attached to the handlebar.
   → If you find loose screw connections, have the screws tightened by your bicycle dealer.
3. Check that there is at least 1 cm between the brake lever and the handle when the brake lever is fully engaged.
   → If the distance is less than 1 cm, have the brake system adjusted by your bicycle dealer.
4. Check the wear of the brake pads.
   → Ask your bicycle dealer how to check the wear.
5. Check that the brake disc is sitting free of play on the front or rear wheel by gently moving the brake disc back and forth.
6. Check whether the front or rear wheel locks when the brake is applied.
   → If you notice a low braking effect, have the brake system adjusted by your bicycle dealer.

9.2 Brake lever assignment

The brake levers are assigned in the basic configuration as follows:

The right brake lever operates the rear brake and the left brake lever operates the front brake.

→ Familiarize yourself with the brake lever assignment before riding. Contact your bicycle dealer if you want to change the brake lever assignment.

9.3 Disc brake

WARNING

Wear can cause the disc brake to fail.

Risk of accident and injury!

► Have the disc brake checked by your bicycle dealer at least once a year or after 1000 km.

CAUTION

Contact with hot brake discs can cause burns.

Risk of injury!

► Allow the brake discs to cool before touching them.

NOTE

Long-term use can cause brake pads to be glazed.

Risk of damage!

► If it is safe to do so, brake in bursts and with greater force on long downhill slopes.

NOTE

Removing the front or rear wheel can damage the brake.

Risk of damage!

► Only have the front or rear wheel removed and installed by your bicycle dealer.

NOTE

Emergency braking with new brake pads results in the glazing of the brake pads.

Risk of damage!

► "Brake in" new disc brakes away from road traffic.

9.3.1 Basics

When the brake lever is pulled, the brake pistons in the calliper of the disc brake are pushed outward. The brake pistons press the brake pads against the brake disc.

→ Check the disc brake regularly for wear and function.

→ Immediately remove any dirt from the disc brake and brake disc components with a slightly dampened cloth.

→ For disc brakes, clean the brake discs regularly with brake cleaner or warm water.

Using the disc brake will cause wear to the brake pads and disc.

In the case of a disc brake with cable, the brake cable also wears out.

In the case of a hydraulic disc brake, the brake fluid also wears out.

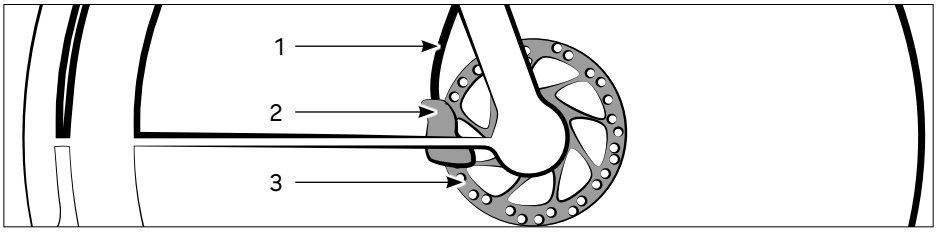


Fig.: Hydraulic disc brake (example)

1 Hydraulic line
2 Brake calliper
3 Brake disc

Ask a bicycle dealer for a test aid to check the wear of the brake pads. Depending on your type of brake, this can be the transport lock, for example.

→ Follow the instructions below for the front and rear brakes.

1. Check that the brake pads move smoothly and symmetrically toward the brake disc and back as the brake lever is pulled and released.
   → If you can move the brake disc or the brake pads move unevenly, have the brake checked by a bicycle dealer.
2. Tighten the brake lever and check for brake fluid leaks from the lines, fittings or brake pads.
   → If brake fluid leaks, do not use the cargo bike.
   → Have the disc brake repaired by a bicycle dealer.

If the disc brakes are new or if the brake pads or discs have been replaced, the disc brakes must be “braked in”.

→ Refer to the manufacturer's instructions or ask a bicycle dealer.
   → If the disc brakes are not working properly after braking, or if you hear unusual noises when braking, have the disc brakes checked by your bicycle dealer.

9.3.2 Operating the disc brake

The rear wheel locks earlier than the front wheel with the same braking force.

Depending on the model, your cargo bike is equipped with different types of brakes on the front and rear wheels.

→ To brake, pull the brake lever with your fingers toward the handlebar.

→ Adjust the braking effect by the force you use to pull the brake lever.

To release the disc brake, release the brake lever.

For a short braking distance, brake evenly with both brakes.

9.3.3 Adjusting the disc brake

WARNING

Incorrectly adjusted brakes may reduce braking performance or cause brakes to fail.

Risk of accident and injury!

► Only have the brakes adjusted by a bicycle dealer.

► If necessary, have the brake adjustment explained by a bicycle dealer.

If you do not have the necessary knowledge and tools to adjust the disc brake, have the disc brake adjusted by your bicycle dealer.

9.3.4 Replacing the brake pads

WARNING

Incorrect or improperly installed brake pads can cause malfunctions, such as failure of the disc brake.

Risk of accident and injury!

► Use only original disc brake pads.

► Get expert advice when purchasing the brake pads.

► Have the brake pads replaced by a bicycle dealer.

→ Check if the brake pads are worn.

→ Have the brake pads replaced by a bicycle dealer.

10 Drives

Cargo bikes are driven manually and by engine support. The muscle force exerted during pedalling is transmitted to the chain (chain drive) or the belt (belt drive) by means of the pedal drive, which in turn sets the rear wheel in motion, thereby driving/setting in motion the cargo bike as a whole.

→ Use the "Chain drive" or "Belt drive" sections below to find out about the model-dependent drive type of your cargo bike and observe the safety and maintenance information listed there.

10.1 Pedal drive

10.1.1 Basics

Components of the pedal drive are

- Pedal,
- Pedal crank,
- Bottom bracket,
- Sprocket.

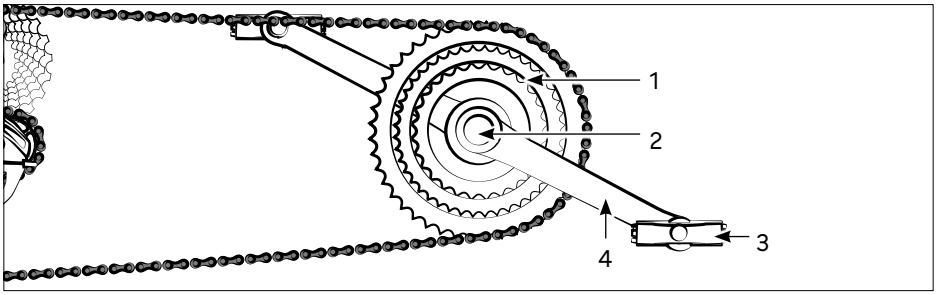


Fig.: Pedal drive (Example)

1 Sprocket
2 Bottom bracket
3 Pedal
4 Pedal crank

10.1.2 Operating the pedal drive

→ Start the pedal drive by pedalling so that the chain or belt rotates to set the cargo bike in motion.

10.1.3 Checking the pedal drive

→ Make sure that the crank arm, bottom bracket and pedals are fixed by trying to move the pedals both sideways and vertically up and down with some pressure.

→ If the crank arm, bottom bracket, or pedal can move sideways or vertically, turn to a bicycle dealer for a check and, if necessary, repair.

10.2 Chain drive

10.2.1 Basics

A cargo bike with chain drive can be equipped with the following components/ functions depending on the model:

- Hub gear
- Chain shift
- Coaster brake

→ Clean the chain with a clean cloth, if necessary, lightly oiled cloth.

→ If necessary, clean the ring gear and sprockets with a soft brush.

→ Regularly lubricate the chain with universal oil:

- After cleaning,
- After riding in the rain,
- After 15 operating hours.

→ Make sure that all components of the chain drive are free of damage.

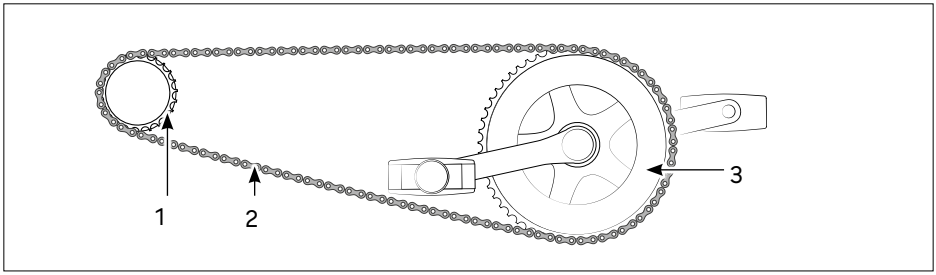


Fig.: Chain drive (example)

1 Ring gear
2 Chain
3 Chainring

→ For more stubborn dirt that cannot be removed with the above-mentioned products or if you notice damage to the chain drive components, contact a bicycle dealer.

10.2.2 Operating the chain drive

→ Push the pedals with your feet:
The muscle power used for pedalling is transferred to the chain by means of the pedal drive and sets the chain drive in motion. The rotation of the chain acts on the rear wheel, driving the cargo bike.

10.2.3 Adjusting the chain drive

→ Have the ring gear or sprocket replaced by a bicycle dealer if you find that individual teeth are dangerously pointed (so-called shark teeth).

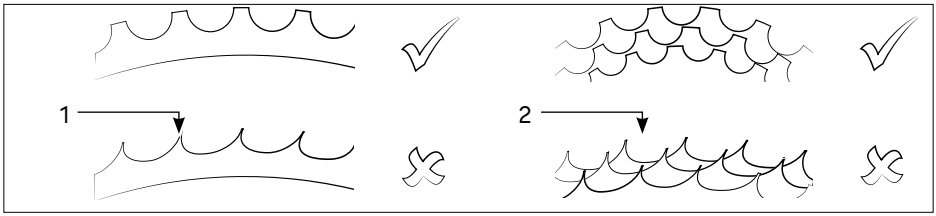


Fig.: Wear

1 Sprocket wear
2 Ring gear wear

10.3 Belt drive

10.3.1 Basics

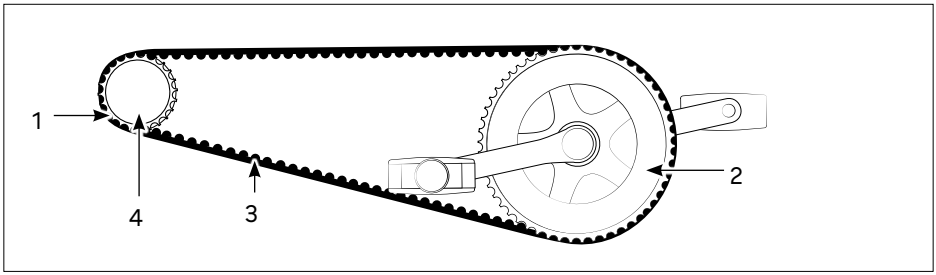


Fig.: Belt drive

1 Rear disc
2 Front disc
3 Belt
4 Rear side disc

Depending on the model, a cargo bike with belt drive can be equipped with the following components/functions:

- Hub gear
- Coaster brake

NOTE

Improper handling can damage the belt.

Risk of damage!

► Do not kink, bend, twist, tie, flip the belt or use as a wrench.
► Do not roll the belt on the sprocket during assembly.
► Do not use a lever (such as a screwdriver) to attach the belt.

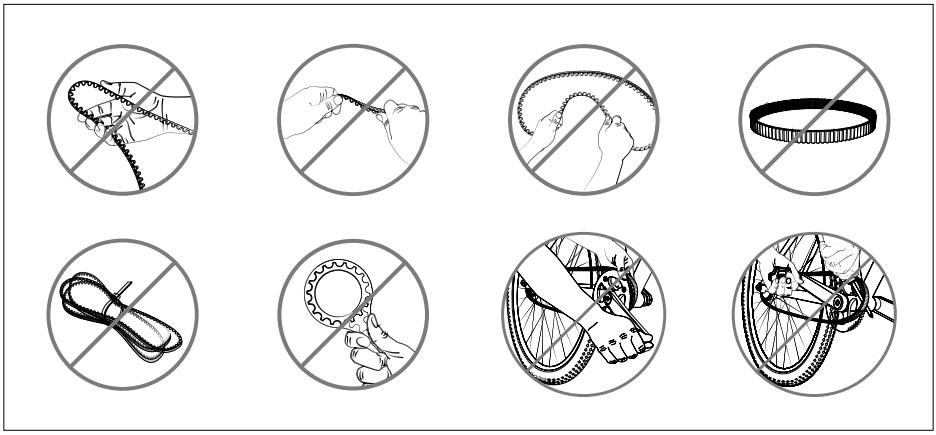


Fig.: Types of damage

10.3.2 Operating the belt drive

→ Push the pedals with your feet:
The muscle power used for pedalling is transferred to the belt by means of the pedal drive and sets the belt drive in motion. The rotation of the belt acts on the rear wheel, driving the cargo bike.

10.3.3 Adjusting the belt drive

10.3.3.1 Checking belt tension

The belt tension must be 14–20 kg for the belt drive to function properly.

→ Periodically contact a bicycle dealer to check the belt tension and adjust it if necessary.

10.3.3.2 Checking the wear on the belt drive

→ Check all components of the belt drive for wear at regular intervals.

→ Contact a bicycle dealer to have the belt replaced if you notice signs of wear such as sharp teeth, cracks or missing teeth on the belt.

→ Have the ring gear replaced by a bicycle dealer if you find that individual teeth are dangerously pointed (so-called shark teeth).

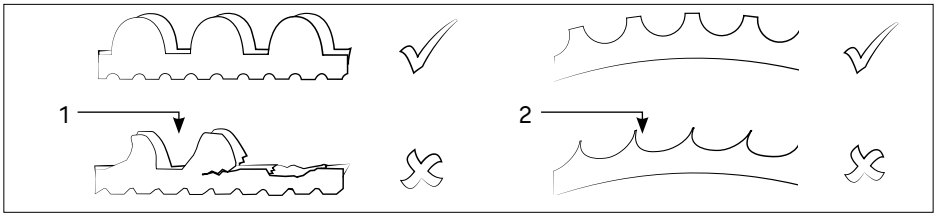


Fig.: Wear

1 Belt wear

2 Ring gear wear

11 Gear shift

Gear shifting allows the rider to adjust the power required for the drive to suit the track conditions and speed.
The gear shift is made up of the switchable gearbox and the corresponding controls.

The cargo bike is equipped with a Shimano Di2 shift. The Di2 system uses switching commands that are transmitted via cables. A central battery supplies power to the system, while a distribution box manages and controls commands and settings.

To prevent premature wear, observe the following information:

→ Do not push the pedals too forcefully while shifting.

→ Shift to the desired gear early before cycling uphill.

→ Regularly check all gear shift components as described in the appropriate section for your gear shift.

→ Consult a bicycle dealer if components are damaged, if you notice unusual noises during the shift process, or if you cannot shift into all gears properly.

11.1 Chain shift

11.1.1 Basics

Models with a derailleur system have a 1 chain wheel on the crank and 7–11 sprockets on the rear wheel.

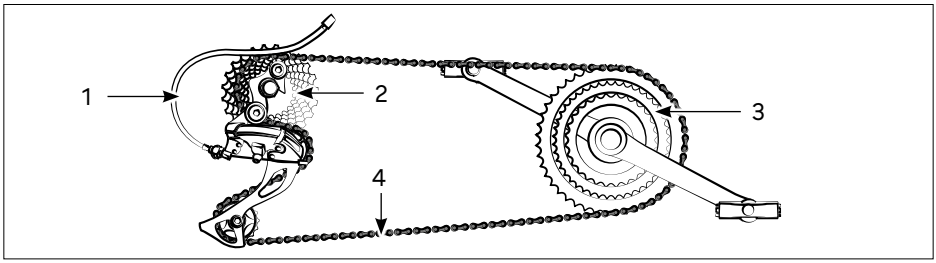


Fig.: Chain shift (example)

1 Switch cable
2 Rear wheel sprockets
3 Chain wheels on the pedal drive
4 Chain

11.1.1.1 Maintaining chain gears

→ Clean the control elements using a damp cloth.

→ Use a damp cloth or soft brush to remove coarse dirt from accessible parts of the switchable gearbox.

→ After cleaning, grease the components of the switchable gearbox with suitable lubricant, e.g. universal oil.

→ Remove excess lubricant immediately to avoid contamination and environmental pollution.

11.1.1.2 Checking the chain shift and chain tension

→ Check all components of the chain shift for damage.

→ Check if the rear derailleur is vertical or bent laterally.

→ Check that there is sufficient clearance between the rear derailleur/chain and the spokes.

→ Consult a bicycle dealer if components are damaged, the rear derailleur is bent laterally or there is no/little clearance between the rear derailleur/chain and spokes.

The chain is held under tension by means of the deflection rollers in the shift cage according to the selected chain wheels and sprockets.

→ Make sure the chain is properly tensioned and not sagging.

→ Carefully push the shift cage forward toward the pedal crank and ensure that the shift cage moves back to its original position automatically.

→ Consult a bicycle dealer if the chain is sagging or the shift cage does not move back or hook automatically.

11.1.2 Operating the chain gear

WARNING

If you are unsure or have trouble operating the gear shift, you may be distracted from road traffic.

Risk of accident and injury!

► Familiarize yourself with the gear shift functions before riding.

► Stop riding if there are problems with the operation of the gear shift, e.g. due to malfunction.

NOTE

If you operate the gear shift incorrectly, it can be damaged.

Risk of damage!

► Do not push the pedals forcefully while shifting.

► Do not pedal backwards when shifting.

► Shift to the desired gear early before making an incline.

11.2 Hub gear

11.2.1 Basics

The Shimano Nexus 5-speed hub gear is located in the rear wheel hub. Depending on the model, a gear lever acts as a control element.

Intensive use, heavy contamination, or when you use your cargo bike in a saline environment, the components of the hub gear are subjected to more stress, so testing and maintenance should be carried out at shorter intervals.

→ Inspect all components of the hub gear for damage.

→ Inspect the switching cables and check the sheaths of the switching cables and the wire cores for damage or cracks.

→ Check the function of the hub gear as follows:

1. Raise the cargo bike on the frame so that the rear wheel moves freely.
2. Use the pedals to move the rear wheel.
3. Change through all gears.
4. Check that you can shift into all gears correctly.
   Also note unusual noises during the shift process.

→ Consult a bicycle dealer if components are damaged, if you notice unusual noises during the shift process, or if you cannot shift into all gears properly.

→ Maintain the components of the hub gear with suitable care products to reduce increased wear due to weather conditions and environmental influences. Consult a bicycle dealer for information on suitable care products.

11.2.2 Operating the hub gear

WARNING

If you are unsure or have problems with using the hub gear, this may distract you from road traffic.

Risk of accident and injury!

- ► Familiarize yourself with the hub gear functions before riding.
- ► Operate the hub gear only if this does not distract you from the road traffic.
- ► Stop if problems arise when operating the hub gear, e.g. due to malfunctions.

NOTE

If you operate the hub gear incorrectly, it can be damaged.

Risk of damage!

- ► Do not push the pedals forcefully while shifting.
- ► Do not pedal backwards when shifting.
- ► Shift to the desired gear early before making an incline.

12 Lighting

12.1 Basics

Cargo bikes intended for road traffic shall be equipped with the following lighting components:

- Headlights,
- Taillight,
- Retro-reflectors on the pedals,
- Side lamps for front and rear wheels or light strips,
- White front reflector,
- Red rear retro-reflector (see Fig. "Lighting equipment").

→ Ensure that all lighting components meet national and regional requirements.

In many countries, the lighting components mentioned above must be present and operational on the cargo bike even if the cargo bike is used only during the day (when it is bright) in road traffic.

The LEDs in the headlight and taillight cannot be replaced. When the LEDs have reached their end of life, the corresponding lighting component must be replaced.

→ Have faulty lighting replaced by a bicycle dealer.

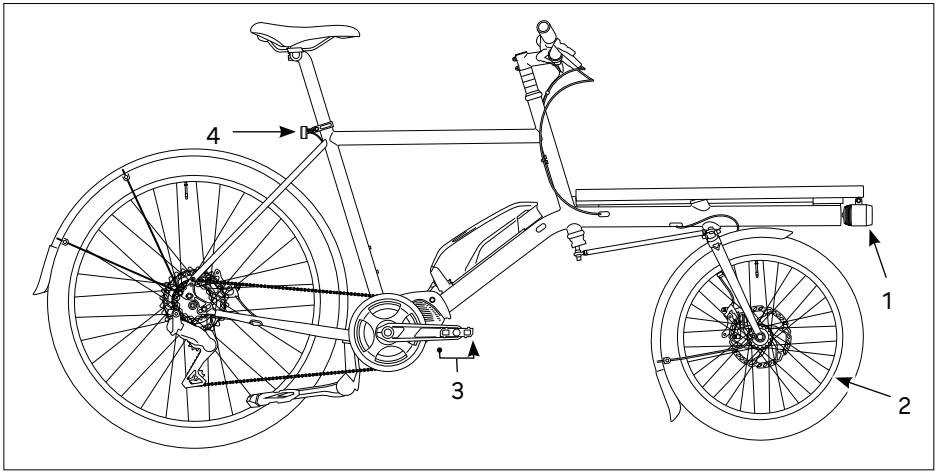


Fig.: Lighting equipment

1 Headlight with retro-reflector (white)
2 Light strips (white)
3 Retro-reflector on pedal (yellow)
4 Rear light with retro-reflector (red)

Both the headlight and the rear light are not included in the standard setup and must be mounted as an extra feature to the cargo bike.

- The headlight (1) can be mounted under the load carrier.
- The rear light (4) can be mounted on the seat post.

12.2 Operating the lighting

WARNING

If there is no or insufficient lighting, other road users may see you poorly and may miss you, unevenness in the road or obstacles.

Risk of accident and injury!

► Always switch on the lighting in poor visibility conditions (e.g. at dusk) and darkness.

WARNING

If you turn on the lights while riding, you may be distracted from road traffic.

Risk of accident and injury!

► Switch on the lighting only when stationary.

The lighting can be switched on at the control panel.

12.3 Adjusting the lighting

WARNING

If the headlight lighting range is not set correctly, you might blind oncoming road users.

Risk of accident!

► Check the correct adjustment of the light range regularly.

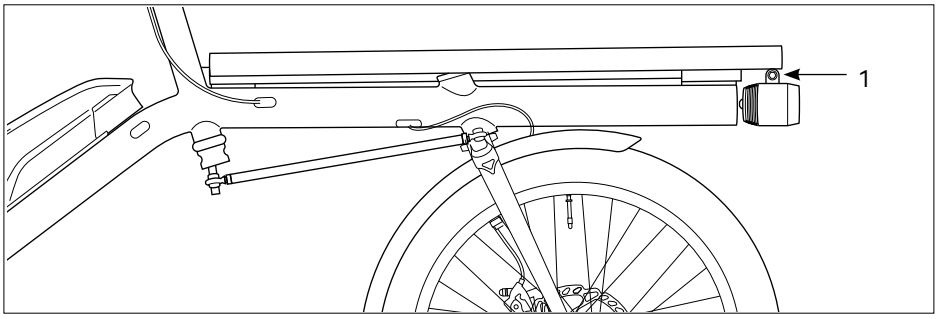


Fig.: Adjusting screw

1 Screw

The headlight shall be positioned so that the emitted beam is halfway up from the headlight at a distance of 5 m.

1. Turn on the headlight to check the alignment of the emerging beam.
2. Loosen the screw a few turns counterclockwise.
3. Align the headlight correctly.
4. Fix the headlight by tightening the screw clockwise.

13 Wheels and tires

13.1 Basics

The front and rear wheels consist of the hub, spokes, rim and the tire running on the rim with or without a hose inserted.

For models with a hose, there is also a rim tape on the rim to protect the hose from the bottom of the rim and spoke nipples.
When used, the front and rear wheels are heavily stressed by the rider's weight and uneven surfaces.

→ After breaking in (after 300 km at the latest, 15 hours of use or 3 months, whichever occurs first), contact a bicycle dealer to have the front and rear wheels checked and re-centred if necessary.

→ Periodically check the front and rear wheels for damage and correct alignment after breaking-in.

13.1.1 Rims and spokes

WARNING

If the front or rear wheels are not centred or are wobbling, riding safety is impaired and rim brakes may lock.

Risk of accident and injury!

► Have the front and rear wheels aligned by the bicycle dealer if they are not centred or if they wobble.

If the spokes are not correctly and evenly tensioned, the front or rear wheel concentricity may be affected. If obstacles such as a curb edge or a spoke nipple is coming loose quickly, this can affect the tension of individual spokes.

If individual spokes are not correctly tensioned or damaged, the affected wheel will no longer run smoothly, it will wobble and the rim stability will be at risk and the rim may break.

13.1.2 Wear limit

Some models have recesses on the rims to determine wear.

→ Slide your fingernail or a toothpick over the recess.

  → If you hardly notice the depression or do not notice it at all, do not use the cargo bike. The rim must be replaced by a bicycle dealer.

13.2 Settings

13.2.1 Checking and adjusting the spokes

→ Ensure that the spokes are evenly tensioned by gently squeezing two spokes together.

→ Have the spokes tensioned by a bicycle dealer if you notice that individual spokes have become loose.

13.2.2 Checking the wear limit or replacing the rim

→ Check the rims at regular intervals for cracks and damage.

→ For composite rims, have the wear determined by a bicycle dealer.

→ Have a damaged rim replaced immediately. To do this, contact a bicycle dealer.

Particularly hollow-chamber rims and rims made of composite materials and aluminium can suffer damage that is not visible.

14 Tyres and valves

14.1 Basics

CAUTION

If reflectors are dirty or missing, other road users may see you poorly.

Risk of accident and injury!

► Keep reflectors clean and replace missing or worn reflectors immediately.

CAUTION

Damaged tires may burst while driving.

Risk of accident and injury!

► Check regularly for damaged or worn tires.

NOTE

If the tires fitted are not the original size, components may be damaged.

Risk of damage!

► If you have questions about tire size or are unsure, contact a bicycle dealer.

There are different types of tires that are used depending on the intended use of a cargo bike.

The tire size is indicated in millimetres or inches on the side of the tire.

- Notation for millimetre specification: Width–inner diameter, e.g. 52–559.
  - The inflated tire is 52 mm wide and the inner diameter is 559 mm.
- Notation for inch specification: Internal diameter × width, e.g. 26" × 2.35".
  - The inflated tire is 2.35" wide, the inner diameter is 26".

The tire and rim are not airtight, but the air is held inside the tire by a hose that is filled with air through the valve.
The only exception to this are tubular and UST tires.

→ Make sure that the tires are not cracked or damaged by foreign objects.

→ Check the wear level of the tire profile and make sure that the tires are not worn too much.

→ Consult a bicycle dealer if the tires are cracked or damaged or if the profile is heavily worn.

14.1.1 Valve types

→ To purchase an air pump with a matching valve plug or adapter for your valve, contact a bicycle dealer.

Valve types listed below (incl. operating instructions) are used as standard for bicycle hoses:

- Presta valve (Sclaverand): Secured in the valve with a tappet.

1. Turn the thumbscrew counterclockwise to the maximum upward position to open the valve.
2. Place the appropriate valve plug or adapter on the valve to inflate the tire.
3. Press down the thumbscrew (without a valve plug or adapter on the valve) to release air.
4. Turn the thumbscrew clockwise to the maximum downward position to close the valve.

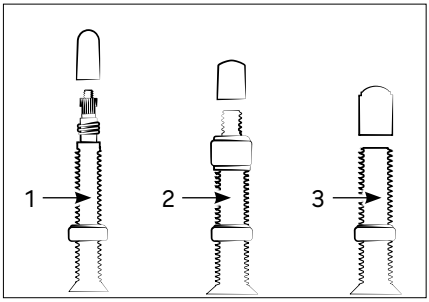


Fig.: Valve types (example)
1 Presta valve (Sclaverand)
2 Flash valve (Dunlop)
3 Auto valve (Schrader)

- Lightning valve (Dunlop): Secured with union nut.

1. Turn the top knurled nut counterclockwise upwards to release air from the tire:
2. Unscrew the upper knurled nut completely to change the valve insert.
3. Turn the top knurled nut clockwise to the maximum downward direction to close the valve.

- Auto valve (Schrader): Secured in the valve with a tappet.
  → Push the valve tappet down (into the valve) to release air from the tire.

14.1.2 Tire inflation pressure

WARNING

If the tire pressure is too high, the hose may burst or break the rim while driving; if the tire pressure is too low, the hose may be damaged.

Risk of accident and injury!

► Observe the maximum and minimum tire pressures.

► Use an air pump with the pressure gauge.

Observe the maximum tire inflation pressure, determined by the lower of the two values indicated on the rim or tire flank.

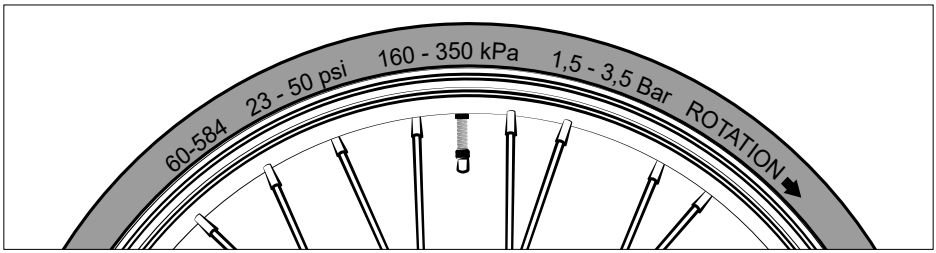


Fig.: Print on the tire flank (example)

A tire inflation pressure corresponding to the specified **lower limit** is suitable for:

- Light riders,
- riding on uneven ground,
- riding with higher suspension comfort and higher rolling resistance.

A tire inflation pressure corresponding to the specified **upper limit** is suitable for:

- Heavier riders,
- riding on a flat surface,
- riding with low rolling resistance and reduced suspension comfort.

→ Regularly check that the tire inflation pressure is within the specified range and is correctly adjusted for the rider and intended riding.

→ Observe the maximum and minimum tire inflation pressure specifications.

→ Fill the tire with air

- at least according to the specified lower limit and
- at most, according to the specified upper limit.

→ It might also be necessary to increase tyre pressure when riding with heavy loads.

→ Use an air pump with a pressure gauge to check the tire pressure during inflation.

14.2 Settings

Tyre pressure affects the rolling resistance and suspension of the cargo bike.

1. Make sure that your air pump has the appropriate valve plug or adapter for your valve.
2. Remove the protective cap from the valve.
3. Check the tire pressure using a pressure gauge or an air pump with a pressure gauge.
4. Increase or decrease the tire pressure as desired by inflating or deflating the tire.
5. Cap the valve using the protective cap removed previously.
6. After adjusting the tire pressure, make sure that the lower knurled nut of the valve is correctly and firmly seated. If necessary, fix the knurled nut by turning it clockwise in the direction of the rim.

15 Other components

15.1 Handlebar

15.1.1 Basics

The handlebar of the cargo bike acts as a decisive element for direction control and it contains control elements such as the brake lever.

A handlebar stem with external clamping is installed on your cargo bike.

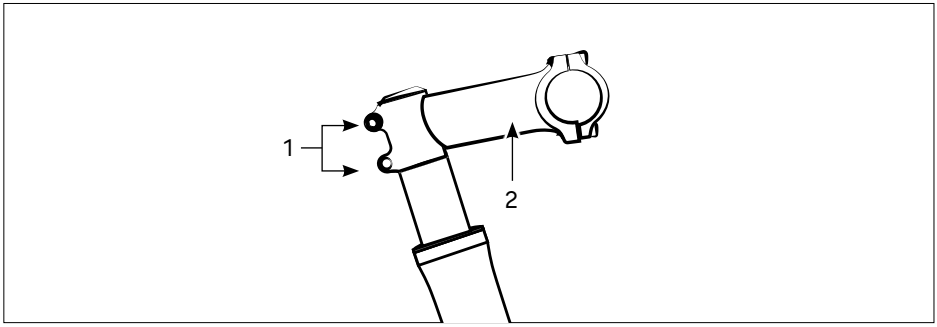


Fig.: Handlebar stem

1 Screws

2 Handlebar stem with external clamping

On some models, the tilt setting on the handlebar stem can also be varied.

→ If you have any questions about handling, contact your dealer if the tilt setting of your model can be changed.

15.1.2 Operating the handlebars

Depending on the design of the handlebar, it can affect steering and braking performance. Therefore, the steering and braking behaviour should be tested on a quiet route before the first ride.

→ When riding, hold both handlebar grips with your hands. The wrists should not bend and you should take a comfortable sitting position when riding.

15.1.3 Settings: Handlebar height

WARNING

Improper settings endanger the function and safety of the components.

Risk of accident and injury!

► Observe the torques.

► Observe the minimum insertion depth of the handlebar stem.

Adjusting the handlebar height on a handlebar stem with external clamping requires expertise.

→ Contact your dealer to have the handlebar height of the handlebar stem with external clamping adjusted.

15.1.4 Settings: Handlebar direction and headset bearing adjustment

NOTE

If you adjust the handlebar stem with external clamping incorrectly, the headset bearing may be damaged.

Risk of damage!

► Tighten the upper bolt on the handlebar stem with the external clamping as tightly as possible so that the headset bearing has no play, but the bearing and handlebar can move freely at the same time.

1. Loosen the screw on the top by half a turn anti-clockwise.
2. Loosen both screws on the stem clamp anti-clockwise until you can turn the handlebars against the front wheel.

The adjustment of the headset bearing is described below.

3. Turn the screw on the top clockwise in small increments (by a maximum of one eighth of a turn).
4. Tighten the screw clockwise so that the headset bearing is fixed and has no play.
5. Hold down the handbrake for the front wheel and try pushing the cargo bike forwards and backwards to check that the headset bearing is fixed and has no play.
6. Lift the cargo bike by the frame and tilt the frame to one side:
   - The front wheel must be able to move of its own accord in this position and to the left or right. The headset bearing is correctly adjusted if it is fixed and has no play, and the front wheel is movable and moves to the left or right of its own accord.

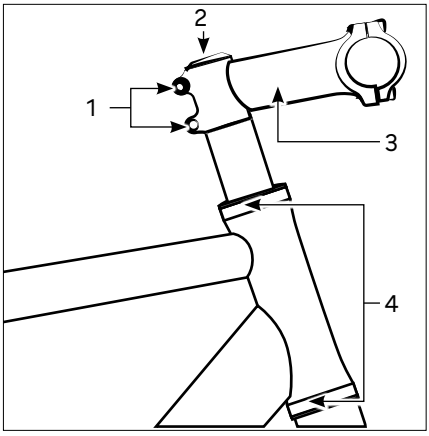


Fig.: Control head tube

1 Screws	3 Handlebar stem
2 Cap	4 Headset bearing

7. Align the handlebar direction so that the handlebar is at a 90° angle to the front wheel.
8. Fix the setting by tightening both screws on the handlebar stem clockwise. Take the appropriate torques into account.

15.2 Saddle

15.2.1 Basics

The saddle acts as a seat for the rider.

The shape of the saddle should be chosen according to the intended use, personal preferences and physical characteristics of the rider.

15.2.2 Adjusting the saddle

When the saddle is optimally adjusted, the rider can take a comfortable sitting position, reach all the controls on the handlebars easily and support himself with his feet on the ground.

15.2.2.1 Saddle height

WARNING

Improper adjustment of the seat height will endanger the function and safety of the seat post.

Risk of accident and injury!

► Observe the minimum insertion depth of the seat post.

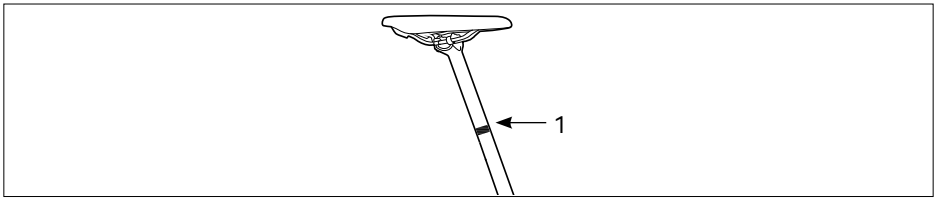


Fig.: Seat post clamp

1 Marking

1. Secure the saddle with one hand.
2. Release the seat post clamp with the other hand by:
3. Move the saddle up or down. Note that the mark (1) on the seat post must not be visible (see Fig. "Seat post clamp").
4. Align the saddle in a line with the frame.
5. Fix the setting by tighting the bolt on the seat post clamp clockwise. Take the appropriate torques into account.
6. Make sure the seat post is fixed by sitting on the seat and bouncing up and down.
7. Make sure the saddle is fixed by trying to twist it with some pressure.

15.2.2.2 Saddle position

You can adjust the saddle tilt and distance to the handlebars.

1. Loosen the the two bolts (1) on the seat post one to two turns anticlockwise (see Fig. "Saddle clamp").
2. Align the saddle by sliding it into the correct position.
3. Fix the adjustment by turning the bolts on the seat post clockwise. Take the appropriate torques into account.
4. Make sure the saddle is fixed by trying to move it with some pressure.

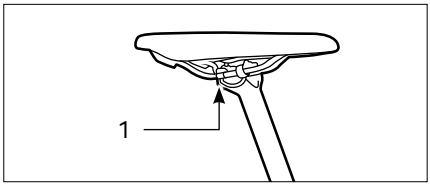


Fig.: Saddle clamp

1 Bolts

→ Consult a bicycle dealer if the saddle cannot be fixed securely or if you are unsure.

15.3 Pedals

15.3.1 Basics

The pedals are attached to the cranks. The cargo bike is driven by the feet via the pedals.

Depending on the cargo bike model, the cargo bike is equipped with folding pedals, block pedals, pedal hooks or click pedals.

Especially the use of pedal hooks and click pedals requires exercise. For pedal hooks, it is recommended to use bicycle shoes and adjust the pull strap only if you have mastered entering and exiting the pedal hooks.

Click pedals are only intended for use with special shoes that snap into the click pedals. Have a bicycle dealer explain how it works.

15.3.2 Operating the pedals

→ Push the pedals (pedalling) so that the chain or belt rotates to set the cargo bike in motion.

15.3.3 Installing the pedals

→ When installing pedals, note that the right pedal is fitted with a right-hand thread and the left pedal is fitted with a left-hand thread. The pedal threads in the crank are tightened by turning both pedals in the direction of travel and releasing both pedals by turning them out in the opposite direction of travel.

15.4 Luggage

WARNING

Improper loading of the cargo bike will endanger the functions and safety of the cargo bike.

Risk of accident and injury!

- ► Secure luggage on the load carrier to prevent it from falling or slipping.
- ► Only use undamaged straps or similar.
- ► Check that there are no loose belts that could get caught in one of the wheels.
- ► Take into account changes in riding behaviour due to payload.
- ► Place your luggage so that the centre of gravity is in the centre.

CAUTION

When you release tensioning belts or clamps abruptly, you may get your fingers pinched or hit by a rebound strap.

Risk of injury!

- ► Carefully operate the tensioning straps and clamping brackets and hold them securely when opening and closing.

→ Please note that luggage can only be transported safely on the carrier.

→ When loading the cargo bike, make sure that reflectors or lights are still clearly visible.

→ When riding, take into account the additional weight and possibly unusual handling. You may have to expect a longer braking distance and a change in steering behaviour.

→ Secure the luggage on the load carrier using straps or similar to prevent it from falling or slipping.

→ Place heavy luggage so that the centre of gravity is as low as possible, e.g. in panniers.

→ Always make sure that the straps or ropes used for fastening cannot get into moving parts, such as the rotating rear wheel or the pedal crank.

15.5 Bell

15.5.1 Basics

A bicycle bell is usually a bright-sounding metal bell that you use to signal other road users to draw their attention.

→ Contact a bicycle dealer to have the bell replaced if you cannot produce a clearly audible signal with your bell.

→ Position the bell on the handlebar so that you can easily reach it without taking your hand off the handlebar grip.

15.5.2 Operating the bell

→ Press the bell button and then release it to generate a signal.

15.5.3 Adjusting the bell

→ Position the bell on the handlebar so that you can easily reach it without taking your hand off the handlebar grip.

15.6 Stand

15.6.1 Basics

The stand allows you to park the cargo bike upright when not in use.

15.6.2 Operating the stand

→ Hold the cargo bike and guide the stand upwards, e.g. with your foot, if you want to use the cargo bike.

→ Hold the cargo bike and guide the stand down to park the cargo bike.

→ Move the weight of the cargo bike so that it is held by the stand.

→ Release the cargo bike when it is safe to move without tipping over.

15.6.3 Adjusting the stand

→ Some stand models can be adjusted.

→ Adjust the stand if the stand function is impaired.

→ Contact a bicycle dealer if you have problems adjusting the stand or are unsure.

16 Storage and disposal

This section contains information on how to safely store and dispose of your battery and cargo bike.

16.1 Storing the battery

WARNING

A damaged or improperly used battery can irritate and injure the respiratory tract, eyes or skin.

Risk of injury!

- ► In case of complaints seek medical help immediately.
- ► If the batteries are defective, provide fresh air.
- ► Avoid contact with battery fluid.
- ► If battery fluid gets into the eyes, flush eyes with plenty of water. Get medical attention immediately.

If you do not use the battery for a long time, proceed as follows when storing it:

→ Charge the battery to approximately 60% of its capacity.

→ After each charge, disconnect the battery from the charger and unplug the mains plug from the wall socket.

→ Remove the battery from the battery holder.

→ Store the battery frost-free and protected from large temperature differences in a dry room, ideally at +10 to +15 °C, e.g. in a basement room.

→ Store the battery so that it is

- protected from falling,
- protected from moisture and
- is not accessible to children and animals.

→ If you store the battery for more than 3 months, charge the battery to approximately 60% of its capacity every 3 to 6 months.

16.2 Storing the cargo bike

If you do not use the cargo bike for a long time, proceed as follows when storing it:

→ Store the cargo bike frost-free and protected from large temperature differences in a dry room.

→ Store the cargo bike suspended on the frame to prevent deformation of the tires.

→ Clean the cargo bike before storing it.

→ In the case of a cargo bike with a chain gear, shift to the small chain wheel at the front and the smallest sprocket at the rear in order to relieve the cable hoists as much as possible.

16.3 Cleaning the cargo bike

In the interest of your safety, also observe the following safety instructions:

CAUTION

Moving parts of the cargo bike can pinch or crush body parts.

Risk of injury!

► Secure moving parts if possible.

► Wear protective gloves.

NOTE

Use of incorrect cleaning agents can result in property damage.

Risk of damage!

► Do not use aggressive cleaning agents.

► Do not use sharp, edged or metallic cleaning objects.

► Do not use a hard jet of water or a high-pressure cleaner.

→ For cleaning, you need:
- Clean cleaning cloths
- Mild, lukewarm soapy water
- Sponge or soft brush
- Detergents and preservatives

→ If necessary, contact your bicycle dealer for advice on suitable cleaning detergents and preservatives.

→ Clean the cargo bike regularly, even if there is little dirt.

→ Wipe all surfaces and components with a sponge moistened with mild soapy water.

→ After cleaning, wipe all surfaces and components dry.

→ Preserve painted surfaces and metallic surfaces on the frame at least every six months.

→ Colours may fade under UV radiation and other environmental conditions.

→ Do not preserve the rims for rim brakes or brake discs for disc brakes.

→ Observe and follow the manufacturer's instructions for cleaning individual components.

16.4 Disposal

Familiarize yourself with the disposal symbols that are visible on the packaging, the battery and the charger (see section "Symbols and icons" on page 21).

16.4.1 Disposing of the packaging

→ Dispose of the packaging in a single type. Add carton and cardboard to the waste paper and foils to the recyclable material collection.

16.4.2 Discarding the cargo bike

The crossed-out wheeled bin symbol means that electrical and electronic equipment must not be disposed of together with household waste. Consumers are legally obliged to separate electrical and electronic equipment from unsorted municipal waste at the end of its service life. In this way, an environmentally and resource-friendly recycling is ensured.

Batteries and accumulators which are not tightly enclosed by the electrical or electronic equipment and which can be removed non-destructively must be separated from the equipment and disposed of in a planned manner prior to disposal of the equipment at a collection point. The same applies to lamps that can be removed from the device without damage.

Owners of electrical and electronic equipment from private households can hand them over to the collection points of the public waste disposal carriers or to the collection points set up by the manufacturers or distributors in accordance with the ElektroG (The German Electrical and Electronic Equipment Act). The disposal of old devices is free of charge.

Dealers with a sales area of at least 400 m^2 for electrical and electronic equipment are subject to take-back. The same applies to food retailers with a total sales area of at least 800 m^2, provided that they supply electrical and electronic equipment permanently or at least several times a year. Remote dealers with a storage area of at least 400 m^2 for electrical and electronic equipment or a total storage area of at least 800 m^2 are also subject to take-back. In general, distributors have the obligation to ensure the free return of old devices by means of suitable return options at a reasonable distance.

Consumers have the possibility to hand over an old appliance free of charge to a distributor liable to take it back if they purchase an equivalent new appliance with a substantially identical function. This option also exists for deliveries to a private household. In the case of remote sales, the possibility of free pick-up when purchasing a new appliance is limited to heat exchangers, display units and large appliances that have at least one outer edge with a length of more than 50 cm. The distributor shall consult the consumer on the conclusion of the purchase contract regarding the appropriate intention to return the goods. In addition, consumers can hand over up to three old devices of one type to a distributor's collection point free of charge, without this being linked to the purchase of a new device. However, the edge lengths of the respective devices must not exceed 25 cm.

Electrical and electronic equipment used in information and communication technology, such as computers or smartphones, often contain personal data. Consumers are themselves responsible for deleting personal data before handing over the devices.

Consumers are encouraged to take waste prevention measures. With regard to electrical and electronic equipment, this means extending their service life by repairing defective equipment and selling functional used equipment instead of returning it for disposal.

16.4.3 Disposing of the rechargeable batteries and batteries

The adjacent symbol indicates that batteries and rechargeable batteries/ accumulators must not be disposed of with household waste.

Consumers are legally obliged to hand over all batteries and rechargeable batteries, whether they contain harmful substances*) or not, to a collection point in their municipality/district or in trade, so that they can be disposed of in an environmentally friendly manner and for the recovery of valuable raw materials such as cobalt, nickel or copper.

The return of batteries and rechargeable batteries is free of charge.

Some of the possible ingredients, such as mercury, cadmium and lead, are toxic and pose a threat to the environment if disposed of improperly. Heavy metals, for example, can have harmful effects on humans, animals and plants and accumulate in the environment and in the food chain, to then indirectly enter the body via food.

Lithium-containing waste batteries present a high fire hazard. Particular attention must therefore be paid to the proper disposal of lithium-containing waste batteries and rechargeable batteries. If disposed of incorrectly, internal and external short circuits can also occur due to thermal effects (heat) or mechanical damage. A short circuit can lead to a fire or explosion and have serious consequences for people and the environment. For lithium-containing batteries and rechargeable batteries, tape the terminals before disposal to avoid an external short circuit.

Batteries and rechargeable batteries that are not firmly installed in the device must be removed and disposed of separately before disposal.

Only return batteries and rechargeable batteries when discharged!

If possible, use rechargeable batteries instead of disposable batteries.

Charge your batteries properly and fully to maximize their life.

If necessary, fully discharge them with a suitable charger before recharging them.

Always use the right type of batteries for your devices. Incorrect use can shorten the life of the batteries and may have harmful effects.

*labelled with:

Cd = Cadmium

Hg = Mercury

Pb = lead

16.4.4 Disposing of lubricants, cleaning agents and care products

Lubricants, cleaning agents and care products must not be disposed of with household waste, in sewage systems or nature.

→ Read the instructions on the packaging.

→ Dispose of lubricants, cleaning agents and care products at a recycling centre or collection point in your city or municipality.

16.4.5 Disposing of tires and hoses

Tires and hoses are not residual or household waste.

→ Dispose of hoses and tires at a recycling centre or collection point in your city or municipality.

17 Vibration

Total vibration to which the upper limbs are exposed:	2.5 m/s²
Maximum RMS of weighted acceleration to which the entire body is exposed:	0.5 m/s²
Measurement uncertainty:	0.5 m/s²

The actual vibration emission value may vary by the type of application as described below:

- The condition of the cargo bike or proper maintenance;
- The nature of the material and the use of the cargo bike;
- Use of the correct accessories and their proper condition;
- The cargo bike is held securely by the user;
- Road characteristics and surface;
- Use of the cargo bike as intended as described in this user manual.

Inappropriate use of the cargo bike can cause vibration-related diseases.

17.1 Emissions sound pressure level

The A-weighted emission sound pressure level on the driver's ears is less than 70 db(A).

18 Warranty and warranty terms

18.1 General information

The legal warranty regulations of the country in which the cargo bike was purchased apply. Warranty claims must be made to the bicycle dealer from whom the cargo bike was purchased.

In order to assert warranty and warranty claims, the proof of purchase for the cargo bike in question must be presented. In addition, the completed handover protocol and the completed bicycle pass must be presented.

18.2 Warranty terms

OMNIUM ApS provides a warranty on the frame over and above the statutory warranty. The warranty is limited to the original purchaser and is not transferable.

The warranty is:

- for steel frames: 5 years

During the warranty period, product defects will be corrected by replacement or free repair. All warranty services are only provided by a bicycle dealer appointed by OMNIUM ApS.

The warranty only applies to cargo bikes that have been assembled and made ready to ride by a bicycle dealer authorised by OMNIUM ApS.

There are no warranty or guarantee claims

- for damage caused by the use of the cargo bike contrary to the instructions in the user manual.
- for damage caused by the use of improper spare parts when replacing parts.
- for damage caused by force majeure, accident, improper use, improper repairs, lack of maintenance, lack of care, or wear and tear.
- for damage caused by the use of the cargo bike in racing or competition use.

If the frame is replaced under warranty, you will receive a renewed 5-year warranty starting from the date the original frame breaks.

OR

If a frame is replaced during the warranty period, the remaining warranty period will continue to apply for the new frame. However, the warranty period for the entire cargo bike is not extended.

Claims arising from warranty regulations such as reduction, withdrawal or compensation are not affected by the warranty regulations.

19 Declaration of conformity

EU Declaration of Conformity

We
Omnium ApS
Valhøjs Alle 176
2610 Rødovre
DK36018887

Hereby declare that the products described below, designed, developed, imported, assembled, and supplied by Omnium ApS, comply with the Machinery Directive (2006/42/EU) and 2014/30/EU for electrical power assisted bicycles, as well as they have been tested and approved according to EU standards EN 15194.

Omnium E-Mini-Max V3 & Omnium E-Cargo V3
Batch: 2024

Omnium Aps
CEO - Jimmi Bargisen
May 30th - Copenhagen

20 Bicycle pass

Models	E-Cargo E-Mini-Max
Type and design	Cargo bike
Frame size	XS 155–165 cm S 165–175 cm M 175–185 cm L 185–195 cm XL 195–205 cm
Frame shape	Diamond frame design
Frame number	_____
Circuit (manufacturer, type)	Shimano motor unit (Di2 spec.) EN600 11-/8-/5-speed
Brake (front, manufacturer, type)	SRAM G2 RE 4 hydraulic disc brake
Brake (rear, manufacturer, type)	SRAM G2 RE 4 hydraulic disc brake
Drive (manufacturer, type)	Shimano EP801 Cargo
Battery (manufacturer, type)	Shimano STEPS BT-EN605 - 36V, 14Ah (504Wh)
Display (manufacturer, type)	Shimano SC-EN600
Weight cargo bike E-Cargo E-Mini-Max	 approx. 28 kg approx. 28 kg
Permissible rider weight	max. 100 kg
Permissible load luggage carrier	max. 27 kg
Permissible load on load carrier/front carrier E-Cargo E-Mini-Max	 max. 75 kg max. 50 kg
Permissible total weight E-Cargo E-Mini-Max	 max. 178 kg max. 150 kg

Brake lever assignment

For the EU and beyond:

Right brake lever	Rear brake
Left brake lever	Front brake

For UK sales (in accordance with UK law):

Right brake lever	Front brake
Left brake lever	Rear brake
Luggage carrier	Can be retrofitted
Child seat	Installation permitted
Trailer coupling	Installation permitted

Other _____

Stamp

Signature of the bicycle dealer

21 Transfer protocol

We wish you a good ride with your new cargo bike at all times!

Confirmation

☐ I have received an oral instruction on care, maintenance and product. The original operating instructions were handed to me in printed form.

☐ I am aware that the seller only has a warranty obligation for product defects. There is no warranty for wear damage resulting from the normal use of the product.

☐ I have thoroughly reviewed the entire product. The delivery was complete and without any apparent damage.

☐ I hereby confirm that the cargo bike has been completely checked for safety by the bicycle dealer and all necessary adjustments have been made before handing over.

Comments

Place, date

Signature of the buyer

22 Inspection log

1. Inspection

After approximately 500 km or 2 months

Date

Stamp and
Signature of the bicycle dealer

2. Inspection

After about 1,000 km or 6 months

Date

Stamp and
Signature of the bicycle dealer

3. Inspection

After about 2,000 km or 12 months

Date

Stamp and
Signature of the bicycle dealer

4. Inspection

After about 3,000 km or 18 months

Date

Stamp and
Signature of the bicycle dealer

5. Inspection

After about 4,000 km or 24 months

Date

Stamp and
Signature of the bicycle dealer

6. Inspection

After about 5,000 km or 30 months

Date

Stamp and
Signature of the bicycle dealer

23 Imprint

Manufacturer
OMNIUM ApS

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Tel. +45 30 20 44 84
Email: info@omniumcargo.com
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This original operating manual for your cargo bike meets the requirements and the scope of the standards DIN EN 15194, DIN EN 17860, DIN EN 4210 and DIN EN 82079-1.

Version 00_Omnium_E-Cargo & E-Mini-Max_2025_EN