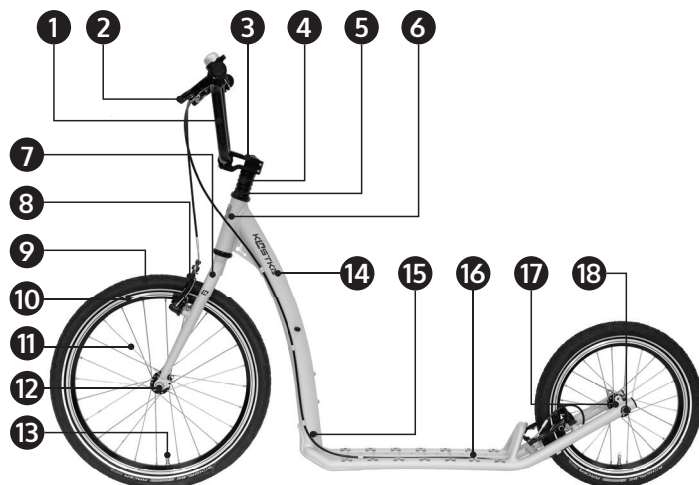


KOSTKA®



Manual for KOSTKA footbike service

POPIS KOLOBĚŽKY S V-BRZDOU
DESCRIPTION OF FOOTBIKE WITH V - BRAKE
BESCHREIBUNG DES ROLLERS MIT DER V - BREMSE



POPIS KOLOBĚŽKY:

- | | | |
|----------------------|----------------------|---------------------------------|
| 1. Řídítka | 7. Vidlice | 13. Ventilek |
| 2. Brzdová páka | 8. Brzda | 14. Rám |
| 3. Představec | 9. Plášť | 15. Držák pro umístění stojánku |
| 4. Distanční kroužky | 10. Ráfek | 16. Nášlapná plocha |
| 5. Hlavové složení | 11. Paprsky kola | 17. Náboj kola |
| 6. Hlavová trubka | 12. Koncovka vidlice | 18. Pevná osa nebo rychloupínák |

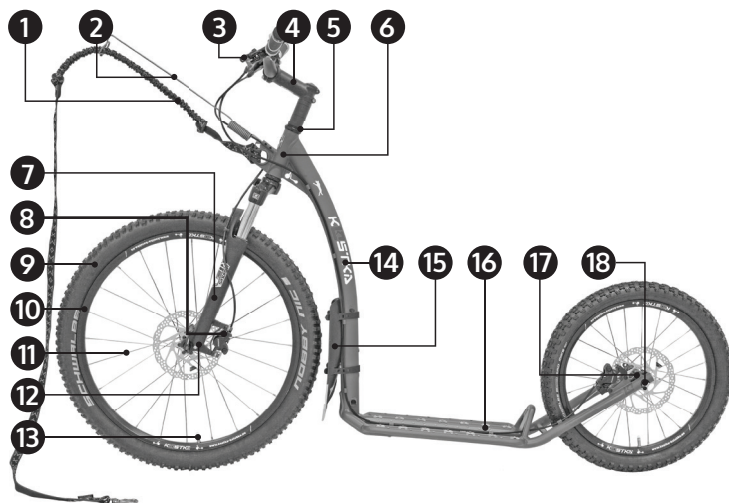
BESCHREIBUNG DES TRETROLLERS:

- | | | |
|------------------|------------------------|----------------------------------------|
| 1. Lenker | 7. Gabel | 13. Ventile |
| 2. Bremshebel | 8. Bremse | 14. Rahmen |
| 3. Vorbau | 9. Bereifung | 15. Halter für Platzierung der Ständer |
| 4. Distanzringe | 10. Felge | 16. Trittbrett |
| 5. Steuereinsatz | 11. Speichen | 17. Naben |
| 6. Gabelrohre | 12. Endkappe der Gabel | 18. Achse oder Schnellspanner |

FOOTBIKE DESCRIPITON:

- | | | |
|------------------|------------------|--------------------------|
| 1. Handlebars | 7. Fork | 13. Valve |
| 2. Brake lever | 8. Brake | 14. Frame |
| 3. Stem | 9. Tire | 15. Stand socket |
| 4. Spacing rings | 10. Rim | 16. Footboard |
| 5. Headset | 11. Wheel spokes | 17. Hub |
| 6. Fork tube | 12. Fork end | 18. Axle or quickrelease |

POPIS KOLOBĚŽKY S KOTOUČOVOU BRZDOU
DESCRIPTION OF FOOTBIKE WITH DISC BRAKE
BESCHREIBUNG DES ROLLERS MIT DER SCHEIBENBREMSE



POPIS KOLOBĚŽKY:

- | | | |
|-----------------------|----------------------|------------------------|
| 1. Vodítko na psa | 7. Vidlice | 13. Ventilek |
| 2. Adaptér na vodítko | 8. Kotoučová brzda | 14. Rám |
| 3. Brzdová páka | 9. Plášť | 15. Blatník Mudcatcher |
| 4. Představec | 10. Ráfek | 16. Nášlapná plocha |
| 5. Hlavové složení | 11. Paprsky kola | 17. Náboj kola |
| 6. Hlavová trubka | 12. Koncovka vidlice | 18. Osa kola |

BESCHREIBUNG DES TRETROLLERS:

- | | | |
|----------------------|------------------------|----------------------------|
| 1. Hundeleine | 7. Gabel | 13. Ventile |
| 2. Adapter für Leine | 8. Bremse | 14. Rahmen |
| 3. Bremshebel | 9. Bereifung | 15. Mudcatcher Schutzblech |
| 4. Vorbau | 10. Felge | 16. Trittbrett |
| 5. Steuereinsatz | 11. Speichen | 17. Naben |
| 6. Gabelrohre | 12. Endkappe der Gabel | 18. Radachse |

FOOTBIKE DESCRIPITON:

- | | | |
|----------------------|------------------|-----------------------|
| 1. Dog leash | 7. Fork | 13. Valve |
| 2. Adapter for leash | 8. Disc brake | 14. Frame |
| 3. Brake lever | 9. Tire | 15. Mudcatcher Fender |
| 4. Stem | 10. Rim | 16. Footboard |
| 5. Headset | 11. Wheel spokes | 17. Hub |
| 6. Fork tube | 12. Fork end | 18. Wheel axis |

Footbike operating and maintenance manual, basic footbike informations

- | | |
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1 Before your first ride

Always ride with correctly adjusted helmet and in suitable clothing. Always ride carefully and follow the traffic rules of your state. Respect environment and nature while riding in terrain. Use your footbike on sealed roads only. At first, we would like to introduce you parts and components of your footbike. For your safety, do not repair or adjust the footbike by yourself. If you are not sure about the proper functioning, repair or adjustment, please contact your nearest Kostka seller or service shop. Check the brakes! Make sure that the lever of the front brake is located on the left side of the handlebar (the other side than in UK and Australia) and try those brakes. Using only front brake and incorrectly may result in a fall. For more information on brakes go to chapter "Brakes" and also read the instructions of the brake manufacturer.

2 Basic footbike classification

- Road footbike
- Offroad or Mountain footbike
- City footbike
- Freestyle footbike
- Dog footbike
- Racing footbike - footbike
- Footbikes for adults
- Footbikes for children

Footbike is designated for riding by a single person. Children can be carried in a specifically designed seat and their age and weight must be within the limits of the seat.

It is prohibited to:

- Load more on the footbike than it is specified.
- Ride with another person on the footbike.
- Jump from walls or kerbs.
- Adjust the frame construction.

3 Before each ride

Before each ride, check the following:

- wheel axels or quick releases are tightly secured on both the front and rear wheel. For more information go to chapter "Wheels axis and quick releases"
- tires are in good condition and are inflated to the prescribed pressure. For more information go to chapter "Wheels and tires"
- rims are centred when spinning wheels. For more information go to chapter "Wheels and tires"
- brakes: use both brakes at the same time. The brake pads entire contact surface must touch the rim and at the same time the brake pads must not touch the tire. Brake levers must not touch the handles. When using disc brakes make sure they start to work in the same position on both levers. If you have to press brake levers a couple of times to slow down the wheels is better to contact your closest KOSTKA seller or service. For more information go to the chapter "Brakes"

If you ride on public roads, your Kostka footbike must be equipped with lights as required by rules of traffic. Your Kostka footbike carries reflective stickers. For more information go to the chapter "Requirements for riding on public roads". If a stand is a part of your Kostka footbike equipment, make sure it is correctly and tightly secured to the frame.

4 After the accident

After an accident, immediately check the wheels. They must be firmly attached to the fork ends and rims must be centred. Spin the wheels and watch gap between the rim and brake pads. If the distance changes significantly and the rims can't be centred, loosen the brake so the moving rim doesn't touch the brake pads (DO NOT DISCONNECT THE BRAKE! IF YOU DO, DON'T RIDE THE FOOTBIKE). Don't forget that the loosen brake is less effective during braking! For more information go to the chapter "Brakes" and "Wheels and tires". Check handlebars and the stem. They must point forward, be straight and undamaged. Check the stem which needs to be firmly attached to the fork tube. Block the front wheel so it doesn't turn around and try to rotate the handlebars. If the handlebars move, it's necessary to tighten them up or repair. In addition you can check that the handlebars are correctly attached to the stem by pushing the levers. For more information go to the chapter "Headstem". At last, carefully check the whole footbike. Pay attention to any kind of damage (cracks, scratches, etc.). If the footbike doesn't appear as damaged, ride carefully home using the shortest way. Once you are at home, check the footbike closely again and repair every damage. If you are not sure, visit an authorised repair service or contact your seller.

5 Road riding requirements

Follow your state's traffic rules. If you are not sure, contact your Kostka dealer or relevant state/country traffic authority.

6 Wheel axles and quick releases

Wheels axles are either attached by socket head cap screw or quick release, which are simple to use. However, their incorrect use might cause accidents. Therefore it is necessary to double check correct tightening and position of all tightening screws and quick releases before each ride.

A quick release contains of two parts:

- a lever on one side of quick release bolt
- a tightening nut

7 How to attach a wheel safely using a quick release

At first, check that the wheel is placed symmetrically in fork ends. Washers of the front wheel must be correctly placed in the right position (see picture in Assembly instruction). Insert the quick release through washers, fork ends and a hub. Start tightening the quick release and try to push its levers towards the fork until it is align with the wheel. If it goes too easily and it feels loose, you will need to tighten it up a bit more. On the other hand, if the lever is hard to push towards the fork, you will need to loosen the quick release and try to close the lever again. A correctly tight quick release should not turn.

7.1 Safe attachment of wheels with a fixed axle

Before tightening the wheel make sure that the wheel is correctly and symmetrically placed in drop outs. Use a suitable allen key, most often size 4 or 5 (torque max 8Nm).

8 Footbike adjustments to the riders needs

We set the handlebar height between 84cm to 110cm. Handlebar height determines how rider upper body is bend forward. Lowering the position of handlebars means more aerodynamic postural, which brings more weight on the front wheel. That means you ride the footbike in the right way. Place one foot on the footboard and hold the brakes. Both arms should be almost straight and it should be easy for you to reach the brake levers.

9 Important information about function and maintenance

9.1 Adjusting handlebars into the right position

Loose the bolts on front and rear side of the stem about 2 to 3 turns. Move the handlebars into the right position. Make sure the stem is in the middle of the handlebars. Carefully tight up all bolts max 8 - 9 Nm. Try to move with the handlebars and if they are still a bit loose tight it up again. For information about max tightening torque see chapter "Recommended tightening torque for fasteners". After adjusting the handlebars you will also need to adjust the brake levers and handlebar ends.

9.2 Handlebar ends adjustment and fitting

Handlebar ends gives you another option to hold the handlebars. They are usually adjusted into the position for the greatest riding comfort. They are usually aligned with the ground or slightly turned up. You will appreciate another holding option especially during long rides on flat roads.

Handlebar ends are attached at the end of the handlebars. Therefore grips and brake levers need to be moved to the centre of the handlebars.

To adjust the angle of the handlebar ends loosen a screw up (it is usually placed at the bottom side of the handlebar ends), change the angle and tighten the screw up with the right torque. Use caution when adjusting carbon handlebar ends or handlebars.

9.3 Stem fitting and adjusting

A standard stem enables only limited height setting as it moves on a fork tube. The stem adjustment is very easy and all instructions are described in the following chapters.

9.4 Classic stem

This stem is mainly used in KID models. Loose a strut bolt on top of the fork for about 2 to 3 turns in order to be able to easily turn the stem. If you struggle to turn the stem, tap gently on the bolt with a hammer. Because the head of the socket head cap screw is recessed in the stem, it is necessary to put an allen key on the head and gently tap on it with a hammer. Now you can move the handlebars together with the stem. Do not lift the stem above the mark on the fork tube! Minimum length of the stem, which needs to stay inside, equals to 2.5 times the fork tube diameter. Adjust the handlebars with the front wheel. Tight up the strut bolt and be careful not to exceed maximal tightening torque. Lastly, tight up the bolts on the stem of the vertical tube.

9.5 Adjustable stem

Adjusting of the stem can be done by mechanism which is placed at the bottom of the stem. Loosen the bolt to release the mechanism. Pay attention and do not unscrew the bolt completely otherwise the whole mechanism can fall apart. Adjust the stem as per your requirements. Gently tight up the bolt of the safety mechanism. If all parts of the gear mechanism fit properly, you can tight up the bolt. (the right tightening torque is usually written on each stem).

9.6 Stem "A-head"

This is the most typical stem which is used on majority of our footbikes. Stem A-head is also used to set headset clearance. If you change stem clearance, you also need to adjust headset clearance. For more information go to the chapter "Headset". The range of the vertical adjusting is based on the number of spacer rings which are on the fork tube. Loose the bolt on top of the stem and remove the cap. Loose bolts on the side of the stem and lift up the stem from the fork tube. Now you can lift up the spacers and put the stem back in your required position and put other spacers back on top of the stem. If you decide to remove the spacers, you will need to reduce the length of the fork tube. We recommend leaving this adjustment up to an authorised service. Set stem clearance, adjust headset and tight the stem up as it is written in the chapter "Headset". After finishing this assembly, check whether it is possible to turn the handlebars towards the fork. Check the right position of the stem as follows: Stand with the front wheel between your legs and try to turn the handlebars. If you are able to move the handlebars, you will need to tight up the bolts a bit more but do not exceed the max. tightening torque. Be aware that if you use higher tightening torque the handlebars or stem may crack.

9.7 Brakes

Brakes are used to adjust the speed to the traffic circumstances. In urgent situations it is necessary for the brakes to stop the footbike really quickly. During the braking process, the weight of the rider shifts forward, which leads to the decreased load of the rear wheel. The time period of stopping the footbike is limited by the possibility of falling over the handlebars, followed by footbike tires grip. When braking down the hill it is important to shift the centre of gravity to the rear of the footbike. Do not forget that the more weight shifts closer to the front wheel, the more load is put on the front brakes.

9.8 Adjusting the distance between brake levers and grips

Majority of brake systems on KOSTKA footbikes have adjustable distance between grips and brake levers. The function enables riders with smaller palms to move the levers closer to the handlebars. Also the length of the rider's fingers determines the position of the lever. Majority of footbikes have a small screw on the brake lever. By turning the screw you change the position of the lever. After adjusting the distance, it is necessary to adjust brakes again because brake pads could possibly touch the rim. For more information about adjusting brakes see the chapter "Brakes".

Function and brakes wear:

During braking, brake pads are pushed to a rim and slow down the speed of a wheel. If there is some water, dirt or oil on the brake pads surface and/or on the rims surface, the function and effectiveness of the brakes decreases. That's why is braking during wet weather less effective and delayed. This rule applies mainly for V brakes. To keep the good functionality of the brakes it is important to regularly check and adjust the brakes as needed.

9.9 V-brakes

The friction between brake pads and rim creates wear of those parts. Often riding in rain or dirt accelerates the wear down on both surfaces of the rim. Once the wear down reaches its critical point, the rim might crack. When replacing the brake pads, make sure they are suitable for the rim. Keep brakes contact surfaces clean of dirt and oil. Most of rims have an indication groove, this groove must always be visible.

Checking, adjusting and synchronising V-brakes:

- Check that both wheels are securely fitted in the drop outs and that both rims are centred.
- Spin a wheel and check if the clearance between the brake pads and the rims remains the same. If the distance keeps changing and you are not able to centre the wheel, ease the brakes and make the distance between the brake pads and the rim big enough to enable free wheel spinning. Be aware that an eased brake has lower efficiency. (DO NOT DISCONNECT THE BRAKE! IF YOU DO, DON'T RIDE THE FOOTBIKE). For more information read the chapters "Brakes" and "Wheels and tires". Common structure of the V-brakes consists of two brake callipers mounted independently on each side of the rim. Pressing a brake lever pulls a brake cable which then pulls both brake callipers against each other until they touch a rim.

Proper function control:

- Check that both brake pads are accurately aligned with rims and that their thickness is still sufficient. You will find it out on the grooves on brake pads. If the brake pads are worn down to the bottom of the groove, you will need to replace them. Firstly, the front part of the brake pads must touch the rim first and both brake pads should touch the rim at the same time.
- Check that the bolt, which holds the brake, is firmly tightened up. For brake adjusting turn the knurled nut or bolt (through which goes the brake cable) until you achieve the best braking parameters. Do the brake pads touch the rims uniformly and is there still some space between a tire and the brake pads? Is the brake reaction immediate? If you reply "yes" to the above questions, then the brakes are adjusted correctly.

Vertical adjusting of the brake pads:

Loosen a brake pad bolt for about one or two turns. Push the brake pad into the required position and keep some clearance between the brake pad and a tire. Tighten the bolt.

The rim heats up during braking. Do not touch it. Try to brake intermittently, so the rims can cool down. If the rim is overheated, tube damage and wheel defect can occur.

9.10 Disc brakes

Disc brakes have excellent braking efficiency and great resistance in adverse weather. They react much more quicker than the V-brakes on wet surface. They have low maintenance and do not wear rims. Their only disadvantage is little noisiness in wet weather. Brake levers are adjustable to suit your hands. In most cases adjusting is done with a little screw which is located on the brake lever. Hydraulic brakes have a mechanism which compensates the wear automatically. Brake discs get very hot during braking. Do not touch the discs and brake shoes especially after a longer downhill ride.

Checking and setting hydraulic disc brakes:

Regularly check for leakages. When you press levers there should not be any leakages in connections. In case of leakage contact your KOSTKA dealer or the nearest authorised service. Check any wear down of brake plates – check metal protrusions on the back of the brake. Once these metal protrusions wear down and show only 1 mm clearance, then the brake plates should be replaced as per manufacture instructions. Regularly check that the braking response starts before the levers touch the handlebars. Plates and disc must be clean only with spirit or recommended cleaning chemicals. Check brake function: make sure that the brake contact surface does not touch the disc when you release the brake lever and that wheel can spin freely.

10 Wheels and tires

A wheel consists of a hub, spokes and a rim. The tire is fitted in the rim and wraps a tube. The rim has a protective strap inside which protects the tube against spoke nuts puncture. The wheels are exposed to enormous stress caused by the rider weight and riding on uneven terrain. Wheels are assembled centred but it is impossible to prevent slight loosening of spoke nuts after first few kilometres. That is why the wheels should be centred again after about 100km. Do not forget to check the wheels regularly.

10.1 Tires, tubes, rim straps, valves and tires inflating

To be able to replace the tire you will need to know dimensions of the old tire. These parameters are on the side of each tire and they might be in metric or in imperial systems.

A) Metric – for example number 37-622 means that the fully inflated tire is 37mm wide with internal diameter 622mm.

B) Imperial – for example 28 x 1 5/8 x 1 3/8

Correctly inflated tires are more resistant against defects. Manufacture recommended pressure is on the side of the tire. Lower pressure figure refers to better shock absorption and is therefore suitable for riding off-road. With increasing pressure the rolling resistance decreases as well as decreases the riding comfort. The higher pressure is therefore suitable for fast riding on asphalt surfaces. For inflating tubes use a gas valve.

Inflating pressure is usually in psi or bars units.

Valve types:

A) High pressure PRESTA (SV) valves

B) "Motor vehicle" SCHRADE (AV) valves – the most common.

Both types of valves are protected against dirt by plastic protective cap. Inflating tubes with Schrader valves can be done with a suitable pump after unscrewing the protective cap. With Presta (SV) valves it is necessary to loosen a knurled nut and press it delicately inside until the air leaks. The common issue with this valve is that the nut is not properly tightened up and the air leaks when riding. The advantage of Schrader valve is that it can be inflated at petrol station. A small hand pump is usually not suitable for inflating at high pressure. It is better to use a foot pump with a pressure gauge.

Tires with worn down pattern or with damaged sides must be replaced immediately. Dirt and water could get inside the tire through the damaged part and might damage the rim, the rim strap and the inside of the tire. The same damage can be caused by damaged rim straps. Replace them if necessary. Always ride with recommended tire pressure.

10.2 Centering rims and right spokes tension

Spokes tension needs to be the same uniformly around the rim circumference and centred during the ride. The spokes tension can change as a result of fast crossing of uneven terrain or a damaged /broken spoke and this changed spokes tension can cause rim deformation. When using calliper brakes and V-brakes, the rim sides function as braking surfaces. None centred wheels decrease braking efficiency. Therefore we recommend inspecting the spoke tension from time to time. Lift the wheel above the ground, spin it and check the clearance between the brake pads and the rim. If the clearance is greater than 1mm, take to wheel into an authorised service to get it centred.

10.3 Fitting the wheel with nuts or quick releases

Wheels are fitted in drop outs by hexagon nuts or quick releases. For tightening or loosening the nuts use a 15 mm spanner or an allen key number 5 or 6. Quick releases don't need any tools, only the lever. The wheel can be removed from the drop outs by opening the lever and turning the quick release a couple of times. The front wheel is also secured against coming off by washers with a little safety lip. The lip sits inside the drop out hole.

10.4 Defect repair

Defects can happen to everyone. If you carry a tool kit, repair kit, pump, spare tubes and tires with you, a defect won't mean the end of your journey and you can easily repair damages within few minutes.

10.5 Wheels disassembly

If your footbike is equipped with V-brakes, firstly you will need to disconnect the brake cable from the brake hook unit. Hold the wheel and press the brake callipers against each other using one hand. In this position you should be able to disconnect (unhook) the cable end cap from the brake hook unit easily. Some road calliper brakes have a little lever (quick release) which opens the brake callipers and the wheel can be easily and quickly removed. Never press the brake lever after you take out the wheel with disc brakes! With disc brakes you should check the position of the brake plates and wear indicator. After that you will be able to find out if the brake plates are in the right position. Turn the wheel nut to the left or open the quick release as per the above description. If you still can't remove the front wheel, it is possible that the safety washer lip is still inside the hole.

10.6 Tire removing

Unscrew both the cap and the fixing nut from the valve and deflate the tube. Press the tire from the side. It is easier to remove the tire if you do this evenly around the whole circumference. Take a lever which is used for replacing the tires and put it under the tire edge near the valve and push the tire away from the rim. Hold the lever firmly in this position. Place the second lever (following the same instructions) about 10cm next to the first one and pull off the tire from the area over the rim. Move one lever around the wheel and pull off the rest of the tire edge over the rim. Now you can remove a tube. However, make sure the valve is not in the rim hole otherwise you could damage the tube. Once you remove the tube, you should also check the rim strap condition. The rim strap should be fitted inside the rim and should cover all spokes nuts (nipples) and should not be damaged. Rim straps should be made only from textile or permanent plastic material. For a double wall rim the strap must cover the whole bottom of the rim but should not be on the side of the rim. Repair the tube defect with glue or replace the whole tube. You can also remove the whole tire by pulling off both tire edges over the rim.

10.7 Tire fitting

When fitting a new tire make sure that the tire is clean and be careful not to damage a tube. Put the tire edge on the rim edge. Using your thumb push the tire edge inside the rim around the whole circumference. Inflate the tube a little bit. Insert the tube valve through a rim hole and carefully push the tube inside the tire. Make sure the tube does not have any folds. To complete the tire fitting push the second edge of the tire inside, starting on the opposite side from the valve. Using both thumbs push the tire edge inside the rim and do it as far as possible. Be careful not to pinch the tube between the tire and the rim. Push the tire symmetrically inside the rim on both sides from the valve. Try to push the tire edge to the bottom of the rim for an easier finish of the fitting. To push the last section of the tire edge inside, you will need to use significant force. If you struggle, you might use levers but be careful not to damage the tube. Check that the valve is straightened up. If not, pull off one side of the tire edge and fix the tube and adjust the valve position. Then you need to place the tire edge back again as described above. Inflate the tire as per recommended pressure which is shown on the side of each tire. Check that the tire is fitted correctly. The tire should have the same thickness and gap on both sides.

10.8 Rims

Rim is an important part of the wheel. It forms the supporting part of the wheel, which provides the energy transfer created by the rider and direct contact of the tire with the terrain. The rim behavior is affected by: profile construction, material quality, holes reinforcement with rivets and surface finish.

10.9 Instructions

During brakes usage, the rim is most worn on the braking area. Radius depression in the braking area is a signal of wear. It is necessary to check the rim wall thickness. Minimal thickness: 1,1 mm.

1. Rims must be entangled, spokes must be equally tightened to a force of 700 - 1000 N and centered.
2. Spoke tension (overstrain, traction) must not exceed the value of yield strength in the spoke material pull. Exceeding this value may lead to damaging the spoke and rim. The wheel may then become unstable.
3. Rim tape must be taped into the rim and must perfectly cover the washer heads. Mounting holes for spokes must be covered with tape. The tape is dimensioned to double of the tube pressure.
4. Mounted and seated tires must be inflated to the recommended pressure. The recommended pressure is written on the tire. Exceedance of the recommended pressure may result in rim damage.
5. Do not repair worn and damaged rims. Welding, straightening and gluing the rims is not allowed.
6. When any cracks occur at the sides or ridge of the rim, stop using it immediately.
7. Wheels with broken spokes needs to be repaired immediately. Usage with broken spokes is not allowed.

Rims, which serve as a brake disc must be subject of frequent inspection:

1. Flat braking area is a sign of rim in a good condition.
2. The rim is worn by braking. Deformation by wearing weakens the tire hook and must be checked. Minimum rim hook side thickness is 1,1 mm. If the measured value is lower, stop using the rim immediately



WEAR OUT DEFORMATION IS VISIBLE AND YOU CAN EVALUATE IT WITH TOUCH.

If you notice braking area deformation from braking or tube pressure, do a control measurement of the real rim conditions or check your wheel at the nearest service. The wear out is same on every rim with V-brake.

11 Wheels assembly

Make sure the wheel sits properly in the end of drop out and is in the middle between a front fork or a rear fork. Make sure that a quick releases or an axle bolt are fitted correctly. With V-brakes check that you have attached the brake cable cap into the brake hook unit. If you have road calliper brakes, close the brake quick release.

If you have disc brakes, check that the brake plates sit tightly in brake shoes. Before assembling, remove the protective plastic cover (which protects the brake against clutch during transport) from inside of the brake shoe. The clearance distance between brake plates must be parallel. Check a wear indicator and press the levers to see if the brakes work correctly. After the wheel is assembled, tighten up axle bolts, nuts or quick release. The wheel should spin freely.

12 Headset

Headset connects a fork, a stem, handlebars and a front fork with the frame and enables turning. When riding the vibration goes into the headset and might caused loosening.

12.1 Headset checking and setting

Check headset clearance. Put fingers on top of the stem cover; press the front brake using your other hand and quickly move the footbike forward and backward. If there is a bearing clearance, you will feel movement of the stem top cover against the stem bottom cover. Check that the bearing runs easily by lifting the frame and the wheel above the ground. Turn the handlebars right and left. It should go very easily. If you test your new footbike, turning the handlebars will be a bit tight due to the factory setting. Don't worry, the tightness will settle down after a couple of kilometres.

12.2 Common Headset

To adjust a common headset you will need two flat fork spanners. Hold the front wheel firmly between your legs and use both spanners to loosen a locknut. Screw the bottom cover plate down a little bit. Do not tighten the cover plate too much otherwise you might damage the headset. Hold the cover plate by one spanner and use the second one to tighten the locknut. Check the clearance again. If the fork does not move easily, the bearing is probably tightened up too much and you will need to adjust it again.

12.3 Headset "A-head"

An extraordinary function of this system is that the stem is not encapsulated but it is attached to the fork tube which does not have a thread. The stem is important part of the headset. Its clamping force keeps the whole system in certain position. Unscrew the clamping screws, which are on the side of the stem, for about one or two turns. Tighten the main headset bolt and make sure there is no clearance. Straighten the stem with the frame. If the wheel is straight and parallel with the frame, the handlebars should be parallel with the wheel axle. Tighten up all clamping screws to the maximum torque. For more information see the chapter "Tightening torque". Once you tightened up all these bolts, you should not be able to turn the stem against the fork. For more information on headset clearance, go to the chapter "Headset checking and setting". Do not tighten the headset too much otherwise you might damage it.

13 Front fork suspension

Some footbikes models, mainly mushing ones are either equipped with a suspension front fork or a lockable front fork suspension which enables safer scooting on uneven off road surfaces. Suspension reduces stress of the footbike which is caused by mechanical shock when riding. Once the front wheel hits something on the surface, bottom fork tubes are pushed up. The bottom fork parts are moving on thinner inner top tubes which are fixedly connected with the fork crown. Pressing the spring inside draws the fork. The spring enables the fork extension to its original length. Suspension has a built in shock absorber which allows smooth extending. Suspension flexibility is achieved by a steel spring or a special plastic material called "elastomers".

13.1 Setting and maintenance of suspension:

The right function of the suspension is only achieved by adjusting according to a rider weight and riding purpose. Generally speaking, when the rider stands on the footbike the suspension should move downwards for about 10-25% of the max. suspension stroke. If this does not happen, you must change the original spring setting.

The suspension fork is a very complicated equipment which requires some maintenance:

- keep sliding surface of the suspension tubes clean
- wipe the suspension with a soft damp sponge after each ride
- After washing your footbike, spray top tubes of the suspension with silicon oil or lubricate them with hydraulic oil

Some manufactures provide special lubricates for the suspension maintenance.

14 Lights

Every person riding on public roads is required by law to carry functional lights. Ask your dealer which lights are the best for your needs and your Kostka footbike. We do not recommend to use footbike at dusk.

15 Footbike stand

A universal stand for Kostka footbikes (for models 2011 and higher) is available for all types of our footbikes. A stand for Kostka Mushing and Kostka Mushing Pro varies in length and frame attachment. We do not recommend to use a different type of a stand. Make sure that the stand is securely attached to the frame before each ride. The groove of the stand must be hooked to the frame in its highest point. Please verify this visually and also by pulling the stand axial of the locking pin.

16 Mudguards

Front and rear wheel of the footbike can be equipped by mudguards.

Types of mudguards:

- Mudcatcher can be fitted to the front part of the frame and stop flying dirt from the front wheel
- Front mudguard can be fitted above the front wheel
- Rear mudguard can be fitted above the rear wheel

17 Helmets

Take your time to select a helmet. Try it on before buying. The right helmet must be snug. Ensure your selected helmet has been tested and certified. For more information please contact a relevant traffic authority in your state/country.

18 Accessories

The most important accessory is a pump and a small tool kit. The tool kit should contain two assembly levers for replacing the tubes, allen keys and a spare tube. Do not forget a lock to prevent stealing. Apart from maintenance accessories, you can also purchase a computer to measure your actual and average speed, distance, altitude etc.

Special accessories are developed for KOSTKA footbikes. For example carrying bags, light holders, etc. Do not forget to fit yourself with a good bike lock, footbikes may be a subject of theft. Our resellers will help you with choosing the best accessory for your footbike.

19 Riding with a dog – Dog footbiking (Dry Land mushing)

Specifically adjusted footbike can be used for footbiking with dogs. Your footbike will need a special adaptor and other accessories. Please visit our web site for more information.

20 Luggage carrying

There are not many types of baggage carrying on a footbike. The type of carrier depends mainly on weight and volume of your luggage and on a type of a footbike. Some people prefer a backpack; others use handlebar bags or baskets and rear holders. Always follow instructions in user manuals and do not overload carriers.

21 Carrying children on a footbike

Children should only be transported in a special child seat or trailer carriage. The child seat is attached to the footbike frame. Make sure that the child seat is safe enough and has been tested and certified. Read user manual carefully before assembling and riding. Use the child seat as intended and described in the user manual. A child must always wear a helmet while in a child seat or a trailer carriage.

A child seat attached to the footbike influences riding significantly. Extra weight of a child and a child seat changes centre of gravity and the footbike is harder to control. We recommend practicing the ride with a child before setting off. The greatest risk of the footbike overturn is during putting/taking off a child to/from a child seat.

22 Transporting footbike on car

A roof mount rack or a rear mount rack can be used to transport the footbike on car safely. The roof mount rack must be tightly attached to the frame. Rear mount racks become more and more popular mainly due to the fact that the footbike doesn't need to be lifted up. Ensure that car lights and a licence plate are visible before setting off. Whatever rack you use, always make sure it has a safety certificate for road transport and complies with safety regulations.

23 Footbike maintenance and cleaning

Dried mud or salt caught on the footbike for months can cause damage. We recommend regular cleaning of all components and storage in dry place to avoid corrosion. Do not use a high pressure hose to clean your footbike as water penetrates sealing and dilutes oil in bearings. This leads to higher friction, corrosion and worsened function of the bearings. The water can also penetrate the frame of your footbike. Ensure there is no water in the frame after cleaning or a bucket with water and a cleaning solution, a sponge or a soft brush. You can also spot any damage or wear during regular hand cleaning.

24 Protection and storage

If you service your footbike regularly, you do not have to make any special precautions during short storage. We recommend storing your footbike in a burglar proof, dry and well ventilated space. If you store the footbike over a long period of time, keep in mind the following: pumped wheels gradually lose air pressure, eventually ends up with empty wheels and consequently with pressure marks on tires which significantly shortens their lifetime.

25 Tightening torques

All screws up to M4 diameter (unless specified otherwise) tighten with max torque 5Nm. All crews over M5 diameter with max. 8Nm (all Stems with torque 8-9 Nm).

26 Protective equipments

We strictly recommend using the helmet and other protective equipment while driving, such as protective pads for hands, wrist, knees, head, elbows etc. Always use closed and sturdy shoes while driving.

KŁSTKA®



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USE THE PROTECTIVE EQUIPMENT



PŘEČTĚTE SI NÁVOD
LESEN SIE DIE ANWEISUNG
READ THE INSTRUCTIONS