

User manual

huka



AT series

CE

V2012-1



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Medical Devices Directive 93/42/EEC

Declaration of Conformity

For

Class 1 Medical Devices

Manufacturer's name: Huka B.V.
Manufacturer's address: Münsterstraat 13, 7575 ED
Oldenzaal, the Netherlands
Product: Tricycle
Device name: ATD

I, the undersigned, hereby declare that the equipment specified above, is in compliance with the Essential Requirements, Annex 1 of Medical Devices Directive 93/42/EEC. The product is signed with the CE-mark according the above Directive.

Date: 01-02-2012

Name: B. Kamp, Managing Director Huka B.V.


Signature:

Warranty

Huka BV gives two years of warranty on the product.
Your supplier will carry out this warranty.

The warranty does not apply to damage or faults of the tricycle caused by wrong or improper use. The evaluation of it is the privilege of Huka or a representative to be appointed by Huka.

N.B. This warranty does not apply to components susceptible to wear.

	Type/Type/Typ :		
	Datum/Date/Datum :	2004-06	
	SN :	406012	
Huka BV	Max gewicht/Max weight/Max Gewicht:		KG
Postbus 194, 7570 AD Oldenzaal The Netherlands . Tel: +31 (0) 541 572472			
 • lees de gebruiksaanwijzing/read the manual/Bedienungsanleitung lesen			

Huka BV

Huka is a Dutch company that manufactures appliances for the handicapped.

If you have any queries about our products or their applications please contact your dealer.

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Münsterstraat 13
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Modifications

Huka reserves the right to make modifications to the product described in this users manual without incurring liability.

1. INTRODUCTION

Cycling should be a pleasant activity. That is clear. Every day millions of Dutchmen mount their bicycles with pleasure. The bicycle is more than just of mean of transport. Cycling radiates freedom and adventure. By means of cycling we save our environment, we obtain somewhat more of the green feeling.

But not everybody can make use of the ordinary bicycle. Huka has developed a series of tricycles in order that everybody can enjoy all pleasant aspects of cycling. Aspects like ergonomics, sizes, quality and styling have all played an important role in the design.

In general

Your Huka tricycle is a quality product. Every component of your Huka tricycle has been tested and checked extensively. The finishing of the frame and the mounted components are of high quality. There for you are assured of an excellent product a careless cycle pleasure. When supplying your new Huka tricycle, in principle all described components are adjusted well and / or are turned to you wishes. But no matter how modern, even a Huka tricycle is not completely free of maintenance. There are some things that require attention from time to time. This small manual provides instructions for maintenance that you possible can do yourself and provides information about activities of your (Huka) dealer. To do a little maintenance can be quite fun, because it contributes to a greater cycle pleasure.



Please pay particular attention to texts printed bold and in italics.

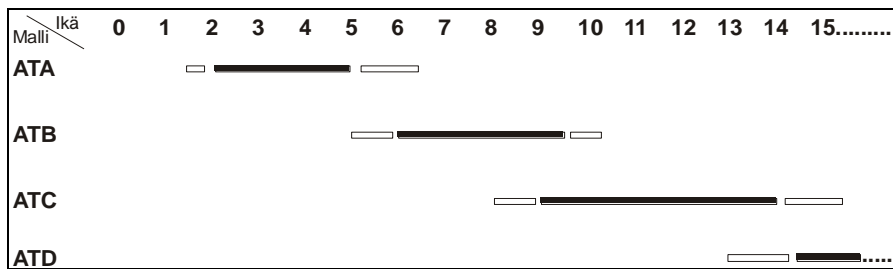


Figure 1: Table of sizes

2. PRODUCT DESCRIPTION

2.1 Purpose of use

The Huka-tricycle is a cycle for handicapped children and adults. The range of sizes of the Huka-AT tricycles includes a great overlapping area of successive sizes (see figure 1). In this way it is easier to choose a cycle with the right size for the user, which can be used for a maximum length of time in the case of growing children.

2.2 Safety and driving behaviour

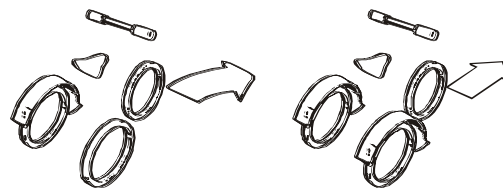
Before you take delivery of your new ready-to-drive tricycle your dealer will have checked all components himself and, if necessary, will have adjusted these in order that you can cycle. If it is the first time that you are sitting on a tricycle this will be somewhat uneasy.



No matter how sporty your tricycle is, never get tempted into too much enthusiastic behaviour on the roadway or riding on and off pavements. Your tricycle can sustain visible or invisible damage, which involves additional risks.



In order to use your tricycle safely we advise you to (let) replace worn components like inner tubes, outer tubes, and brake block immediately. These components are obtained from every cycle shop or from your dealer.



tricycle without differential

Huka tricycle , with differential

Figure 2: Drive of rear wheels

Both wheels are driven independently from each other by the differential. Therefore the tricycle rides straight-ahead (right-hand picture) and bends can be taken more easily.

2.3 Prevention of theft

A safety lock is mounted on most versions of the tricycle. If you want additional measures against theft than an additional cable lock is convenient to anchor your tricycle rock-solid. These locks are available in many cycle shops



Always lock your tricycle, also when you leave it just for a short moment.

2.4 Gear and driving

The tricycle is equipped with an own designed, specially made to size drive of the rear wheels. This drive (by means of a differential) take care that the tricycle does not pull obliquely and bends can be taken easily (see figure 2).

2.5 Accessories

A series of accessories can be supplied for the range of the Huka-tricycles. The possibilities are listed in the overview.

Almost all accessories can be provided for each type of tricycle.

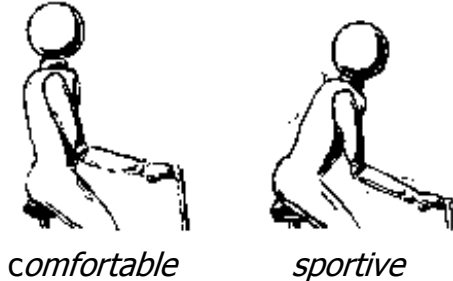
Ask your dealer if the respective accessory can also be supplied for your type of tricycle.

The accessories have colours matching the colours of the tricycle; thus the accessories and the tricycle form a unit.



3. COMMISSIONING

The HUKA-tricycles are designed in such a flexible manner that the user can choose between various positions of the body on the bike because of the adjustment possibilities of the handlebars and saddle, which varies from a sporty to a comfortable posture.



3.1 The height of the saddle

When the saddle is in the right position you are sitting almost as comfortable as in a good chair and effortlessly you pedal the kilometres away.

There is a good rule of thumb for the correct height of the saddle.

You take a seat on the tricycle without your shoes on and with the crank pointing in the extended direction of the seating tube.

When you have your heel on the pedal then you should just be able to stretch your leg. Then you have during a turning pedalling movement, with the ball of your foot (with shoe) on the pedal, the ideal working height. Start your try-out at this position, then after some time you can adjust to your personal liking.

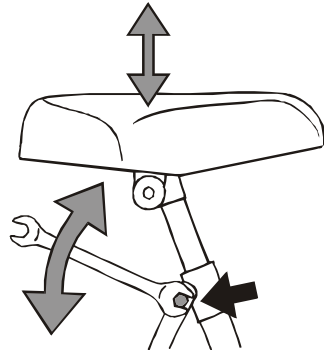


Figure 3: Adjusting the height of the saddle:

- 1) Unscrew the saddle pin bolt somewhat with an open-end or a ring spanner in order that the saddle pin can move easily.
- 2) Now, pull or push the saddle to the position wanted by you. But take care that the pin stays in the frame over a distance of at least 6 cm.
- 3) Now, retighten the saddle pin bolt.

The height of the saddle can be adjusted by unscrewing the saddle pin bolt a little bit and moving the pin upwards or downwards (see figure 3).





But make sure that the pin stays in the frame over a distance of at least 6 cm. Thus the safety marking should not be visible.

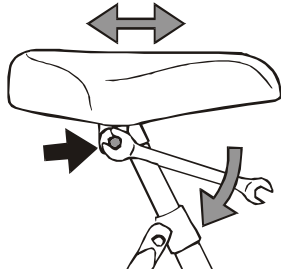


Figure 4:

Adjusting the saddle forwards and backwards and tilting:

- 1) *Unscrew both bolts of the saddle strap with an open-end or a ring spanner in order that you can move the saddle.*
- 2) *Move or turn the saddle into the position wanted by you.*
- 3) *Now, retighten the bolts.*

The adjusting forwards or backwards and also the tilting of the saddle can be made by unscrewing **both** bolts of the saddle strap (see figure 4).

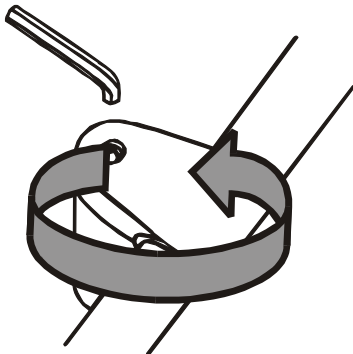


Figure 5: Adjusting the height of the handlebars

- 1) Unscrew the expansion bolt with an Allen key about 4 turns.
- 2) If necessary, tap the bolt downwards with a wooden or plastic hammer.
- 3) Adjust to the height that is suitable for you and retighten the bolt.

3.2 The position of the handlebars

The handlebars also play an important role for pleasant seating. You can also adjust your handlebars in several manners. By putting the handlebar shaft lower or higher you can adjust the position of your back and the pressure of your hands on the handlebars. You can adjust the height by unscrewing the expansion bolt about 4 turns (see figure 5) and if necessary tapping down the bolt with a wooden or plastic hammer. You can adjust the height when the bolt is loose.





However, make sure that the safety marking stays in the frame tube over a height of about 6 cm.

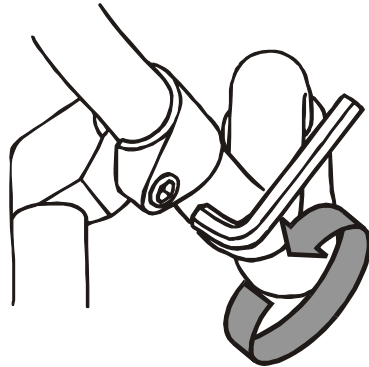


Figure 6: Adjusting the angel of the handlebars

- 1) Unscrew the clamping bolt in the front construction with an Allen key.*
- 2) Take the handlebars at the handles and turn the handlebars to the desired position.*
- 3) Retighten the bolt.*

When you want to adjust the position of your hands on the handlebars, you can do it by unscrewing the clamping bolt in the front construction and thereafter turning the curve of the handlebars in the desired position (see figure 6).

Although Huka take great care in mounting the handles it is possible that they can loosen in time because of the influence of sunlight, temperature variations or ageing. Therefore check regularly that they are still tight by trying to turn the handles.

3.3 The wheels

The wheel is the most important component of the cycle, which is responsible for a light ride and a high cycle comfort. Many matters are important thereby, like well-inflated tyres, tightly tensioned spokes and a light running with absence of play.

3.3.1 Pressure and valve

The correct tyre pressure is obtained for most tyres when you can still push the tyre in a little bit. When your tyres are too soft they will wear down faster. You will ride much more comfortable on quite hard tyres and your tricycle listens better to the brake and movements of the handlebars. The inner tubes of the tricycle are equipped with a common bicycle valve.



3.3.2 Spokes

The spokes take care of the stability of the wheel and thus of the tricycle. Therefore a correct pressure is important. Because new spokes always have to stabilise to some extent, the wheels of your tricycle have to be checked after a couple of weeks. Then your Huka-dealer adjusts the spokes to the correct tension. In case it happens that a spoke breaks or is sitting loose then your Huka- dealer will of course put this right.

3.3.3 Hubs

The hubs of the wheels should be adjusted accurately. Actually there should not be any noticeable play. If you notice an excessive play or the wheel is running heavily then ask your Huka-dealer to put this right.

3.4 The drive

The drive system takes care that your pedalling force is converted optimally into movement. The system consists of many moving components: the chain, the gear (option), the crankshaft, the crank and the pedals. Of these, many components are free of maintenance.

3.4.1 Crankshaft, crank and pedals

Most crankshaft bearings mounted by Huka are completely free of maintenance and cannot be re-adjusted. If it does happen that play develops in the bearing then it is necessary to contact you Huka- dealer immediately.

If play develops between the crank and the crankshafts then you can take off the dust cap and retighten the underlying bolt with a socket spanner. Most pedals are also free of maintenance. If the play is too large you can consult your Huka-dealer.

When you are mounting the pedals yourself watch for the indications L (left) and R (right) on the pedal axes. The left pedal is screwed in anti-clockwise, the right pedal clockwise. You can use an open-end spanner or a special (narrow) pedal spanner. Specially adapted pedals can also be provided as an option. See paragraph 2.5 Accessories for this purpose.



3.4.2 The chain

When the chain pressure is correct your tricycle pedals lightly and you will not hear the chain. When your tricycle is delivered the chain will be well adjusted by your Huka-dealer. There are even two chains when your tricycle is provided with a gear. If you notice that one or the other chain is too slack have it re-adjusted by your Huka-dealer.



This is very specialistic work that can be best left to your dealer. A plastic chain cover protects both the chain and the drive system.

3.4.3 Gear (option)

Gears are making things easier for the cyclist. The cyclist has at his disposal an optimal gear ratio for all weather conditions, with which it is possible to cycle in a pleasant manner without having to exert much force. Therefore it is not necessary to labour and to stamp on the pedals.

3.4.3.1 Adjustment of the gear

If you have chosen a tricycle with gear there will be an additional hub between the pedals and the drive axle. This is a standard gear hub from Sram, which is adapted for use on the Huka-tricycle. Your Huka-dealer has checked the gear on delivery and has adjusted it correctly. Therefore, in case of any problems, it is best to consult your dealer.



4. USAGE

4.1 Instructions for use

If you want to ride the tricycle, then first lock the parking brake. This way is easier to get on the tricycle.

Before getting on the tricycle you can use the footplate, in front of the pedal.

After you are sitting comfortable, you can unlock the parking brake and start to cycle.

When you cycle for the first time, find a quiet and safe place, so you can get use to the tricycle.

4.2 User environment

The Huka tricycles are suitable for use on roads with firm underground.

The tricycle can be used into all weather, but avoid when possible contact with salt water because of the influence of the metal parts.

4.3 Familiar user errors

The following user errors are possible and should be avoided.

These errors can cause personal injuries or damage to the product.



Respect the following situations:

- ***Always provide for the correct pressure of the tires.***
- ***Avoid persons near the tricycle, particularly with the wheels, dangerous situations can occur.***
- ***Check regularly the good functioning of the brakes and make sure the function perfect.***
- ***Check regularly the good functioning of the lights and make sure the function perfect.***
- ***Respect the traffic rules and regulations seriously and take caution in traffic.***





*Figure 7:
Tensioning of the drum brake cable*

- *Turn the little screw a few times clockwise if your brake lever (near the brakes) touches the handle.*
- *Then the cable will be tensioned.*

When you notice that the brake is already operating when you squeeze the lever only lightly you can slacken the cable somewhat by turning the little screw anti-clockwise.

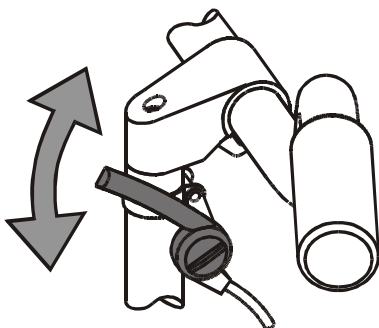
4.4 Brakes

4.4.1 Rollerbrakes

Your Huka-tricycle is equipped with a reliable brake system, which functions well if the brakes have been adjusted in the correct manner. As is standard, your tricycle is equipped with rollerbrakes. Rollerbrakes do not require much maintenance. The brake cable should be re-tensioned if the brake handles almost touch the handlebars. This can be accomplished with the use of the adjustment screw near the siphon on the rollerbrakes (see figure 7). But of course you can have this done by your dealer.

4.4.2 Parking brake

All tricycles are equipped with a parking brake. This brake takes care that the tricycle stays firmly at its position when mounting or dismounting the tricycle. The operation of the parking brake takes place by means of a lever that is present on the handlebar axle, closely underneath the handlebars themselves. You put your tricycle on the parking brake by turning this lever upwards as far as possible. To unlock the parking brake you can turn the lever downwards until the stop (see figure 8).



*Figure 8:
Operation of the parking brake.*

- *You can put the tricycle on the parking brake by turning the lever upwards as far as possible*
- *To unlock the parking brake, turn the lever downward again until the stop.*



4.5 The lighting

Your tricycle is provided with a safe and reliable lighting. Always check that all lights are working when you have the lighting on. It is highly dangerous when you ride in the dark, in the twilight or in the mist without lights. Check the following points if (part of) your lighting does not function:

- Check that the electric wires are connected to both lights and the dynamo and there is no formation of rust.
- follow the electric wires and check that the insulation layer of the wires is still intact everywhere (check that there is no short circuit because of naked wires),
- check that the lights in their fittings are free of oxidation, that contact is made and that the filaments are not broken,
- check that the dynamo is adjusted well and is running on the middle of the tyre.
- check that the electric wires are not broken and / or are not jammed anywhere,



Figure 9: Turning grasp Gear shift

4.6 Operation of the gear

It is easy to operate the gear lever of the three (or five) gears hub. The gearshift has three (or five) positions where in the lever clicks by itself. You can shift the gear to lighter or heavier pedalling by simply moving the lever to the wanted position (see figure 9). Thereby, one is the lightest position and three (or five) the heaviest.



Attention:
keep the pedals motionless when changing gear!

4.7 Safety lock

If you want to lock your tricycle you should first turn the key clockwise and hold it before you can push the handle downward.

If the lock is bolted the key jumps back and can be taken away.

4.8 Lifting

It is because of the weight, not possible to lift your tricycle alone.

Lifting with two persons is possible. Pay attention to lift the tricycle only at firmest parts and not for example the accessories.



5. MAINTENANCE

5.1 Cleaning

The metal parts, the plastic parts and the soft parts, like saddle, can be best cleaned with a soft, moisten cloth.

Here you can use soap. Use never aggressive or scratching cleaning agents.

The different mechanisms should regularly controlled on impurities such as grain of sand etc. and when necessary be clean-brushed



Cleaning regularly aids the preservation of your tricycle.

Never use a high-pressure sprayer for cleaning your cycle. This is because the pressure of the water is so forceful that you will spray the grease from the bearings.

It is advisable to regularly lubricate or to grease all moving parts or to have this done by somebody.

5.2 Protection against corrosion

Your Huka tricycle is well protected from corrosion.

It is sufficient enough to dry the tricycle, after it became wet. There are no necessary special protecting measures.

5.3 Repair

5.3.1 Authorized dealers for repair

The dealer, which sold or delivered you the tricycle, is authorized by Huka BV to execute necessary repairs.

If you desire another dealer, you can contact us:

Huka BV

Tel: +31 (0)541 572 472

Fax: +31 (0)541 520 415

e-mail: sales@huka.nl



5.3.2 Spare parts

Each spare part of the Huka tricycles is separately available by your authorized dealer. Huka BV can supply these parts on request of your dealer.

5.3.3 Self-execution of repairs

It is not allowed to execute repairs yourself. By doing so your warranty claim and the warranty at the product will expire. Repairs must be accomplished at any time by an authorized dealer.

5.3.4 Disposal of the product

At the end of the life span of the product, as well as the accessories and the packing, these can be disposed of as normal waste. You should separate the product to the disposal into the different materials and hand these over to a garbage waste disposal facility.



Technical specifications

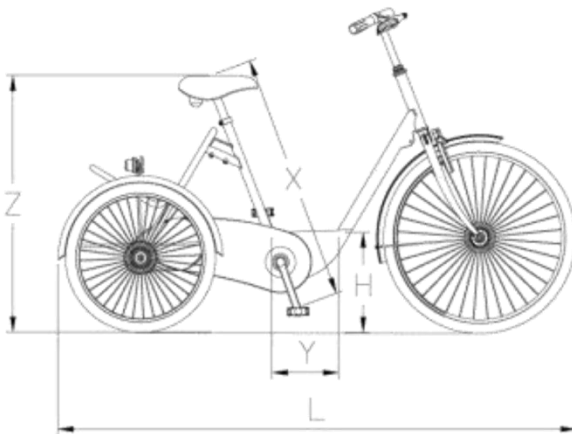


ATD



Details:

Material frame	Corrosion protected steel
Coating	Epoxy coating (outdoor quality)
Wheels	Aluminium rims with galvanised hubs and stainless steel spokes
Lighting	Head light and rear light (battery)
Bell	Easy to use bell
Mud guards	Impact proof plastic
Chain guard	Impact proof plastic
Handlebar and seat post	Steel
Handlebar grips	Rubber
Saddle	Standard saddle
Brakes (basic model)	Rollerbrake in front and rear, parking brake
Drive	Mid-axle freewheel gear and differential in rear axle
Options	Please, see order form
warranty	2 years (parts that will wear are not included)



Length in mm (L)	1680
Width in mm	750
Weight in kg.	27
Crank length in mm	150
Inner leg length in mm	720 – 920
Height saddle – floor in mm (Z)	min. 790
Step-in length frame in mm	560
Step-in height frame in mm (H)	320
Height adjust handlebar in mm	250
Width handlebar in mm	500
Maximum load in kg.	130
Wheel size front wheel in ETRTO	37-540
Wheel size front wheel (inch)	24 x 1 3/8
Wheel size rear wheels in ETRTO	35-406
Wheel size rear wheels (inch)	20 x 1.3

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Huka tries to develop and improve his products constantly. Because of this the delivered product can be different as the shown pictures. Shown accessories are not included. Print errors prohibited.

October 2011



Technical specifications

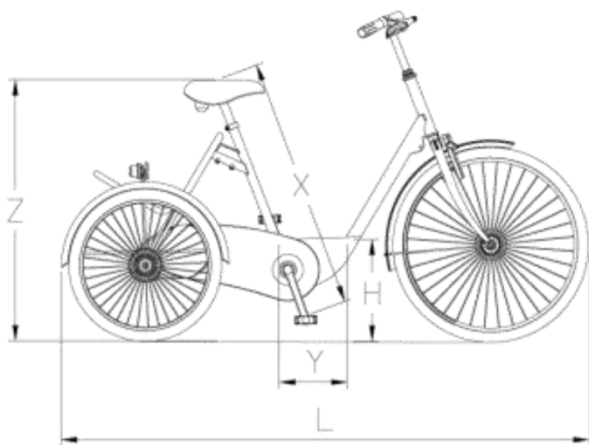


ATC



Details:

Material frame	Corrosion protected steel
Coating	Epoxy coating (outdoor quality)
Wheels	Aluminium rims with galvanised hubs and stainless steel spokes
Lighting	Head light and rear light
Bell	Easy to use bell
Mud guards	Impact proof plastic
Chain guard	Impact proof plastic
Handlebar and seat post	Steel
Handlebar grips	Rubber
Saddle	Standard saddle
Brakes (standard)	Rollerbrake in front and rear, parking brake
Drive	Mid-axle freewheel gear and differential in rear axle
Options	Please, see order form
warranty	2 years (parts that will wear are not included)



Length in mm (L)	1595
Width in mm	685
Weight in kg.	26
Crank length in mm	125
Inner leg length in mm	680 – 880
Height saddle – floor in mm (Z)	min. 750
Step-in length frame in mm	520
Step-in height frame in mm (H)	305
Height adjust handlebar in mm	250
Width handlebar in mm	500
Maximum load in kg.	90
Wheel size front wheel in ETRTO	37-489
Wheel size front wheel (inch)	22 x 1 ³ / ₈
Wheel size rear wheels in ETRTO	35-406
Wheel size rear wheels (inch)	20 x 1.3

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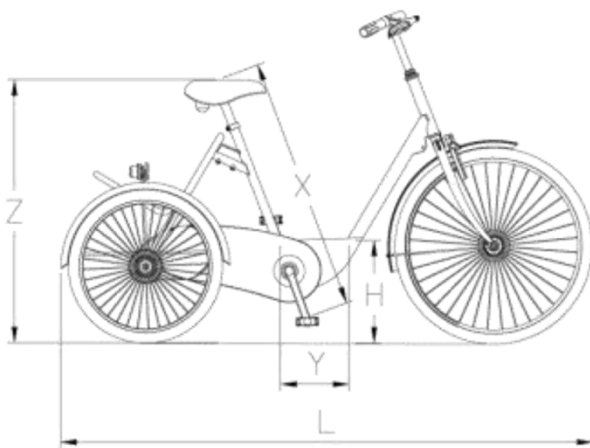


ATB



Details:

Material frame	Corrosion protected steel
Coating	Epoxy coating (outdoor quality)
Wheels	Aluminium rims with galvanised hubs and stainless steel spokes
Lighting	Head light and rear light (battery)
Bell	Easy to use bell
Mud guards	Impact proof plastic
Chain guard	Impact proof plastic
Handlebar and seat post	Steel
Handlebar grips	Rubber
Saddle	Child size saddle
Brakes (standard)	Rollerbrake front and rear, parking brake
Drive	Mid-axle freewheel gear and differential in rear axle
Options	Please, see order form
warranty	2 years (parts that will wear are not included)



Length in mm (L)	1350
Width in mm	625
Weight in kg.	24
Crank length in mm	110
Inner leg length in mm	470 – 650
Height saddle – floor in mm (Z)	min. 530
Step-in length frame in mm	340
Step-in height frame in mm (H)	255
Height adjust handlebar in mm	70
Width handlebar in mm	490
Maximum load in kg.	60
Wheel size front wheel in ETRTO	35-406
Wheel size front wheel (inch)	20 x 1.3
Wheel size rear wheels in ETRTO	47-305
Wheel size rear wheels (inch)	16 x 1.75

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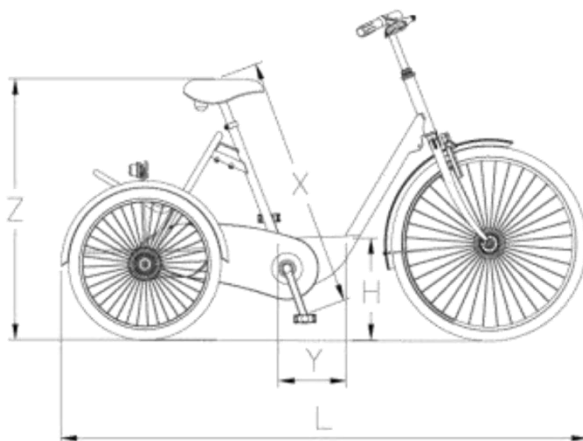


ATA



Details:

Material frame	Corrosion protected steel
Coating	Epoxy coating (outdoor quality)
Wheels	Aluminium rims with galvanised hubs and stainless steel spokes
Lighting	No lighting standard
Bell	Easy to use children bell
Mud guards	Impact proof plastic
Chain guard	Impact proof plastic
Handlebar and seat post	Steel
Handlebar grips	Rubber
Saddle	Child size saddle
Brakes	Rollerbrake and rim brake in the front and a parking brake
Drive (standard)	Mid-axle freewheel gear and differential in the rear axle
Options	Please, see order form
warranty	2 years (parts that will wear are not included)



Length in mm (L)	1120
Width in mm	490
Weight in kg.	17
Crank length in mm	100
Inner leg length in mm	380 – 490
Height saddle – floor in mm (Z)	min. 450
Step-in length frame in mm	300
Step-in height frame in mm (H)	145
Height adjust handlebar in mm	50
Width handle bar in mm	490
Maximum load in kg.	40
Wheel size front wheel in ETRTO	47-305
Wheel size front wheel (inch)	16 x 1.75
Wheel size rear wheels in ETRTO	54-203
Wheel size rear wheels (inch)	12 x 1.95

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Huka tries to develop and improve his products constantly. Because of this the delivered product can be different as the shown pictures. Shown accessories are not included. Print errors prohibited.



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