

SERVICE MANUAL VARIA



Pegasus Zorg

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Pegasus Zorg bv
Melkwegstraat 16, 2516 AJ Den Haag, The Netherlands
www.pegasuszorg.com
info@pegasuszorg.com

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1 This manual 1.1 This manual

This manual contains the basic instructions for repairs and general maintenance of the Varia manually operated wheelchair.

Mechanics who do repairs on this wheelchair must be well trained and familiar with the repair methods and the maintenance of the Varia wheelchair.

Always make sure that the work is carried out safely, particularly with respect to procedures requiring the wheelchair to be lifted up.

We advise that you contact our service department before doing repair work on a wheelchair that has been involved in an accident.

The following specifications are important when ordering parts:

- Model
- Year of manufacture
- Color
- Identification number
- Part number
- Name of the part concerned

This information is provided on the identification plate. See 'Identification of the product'.

1.2 Available documentation

The following technical documentation is available / required to service this wheelchair:

- User manual
- Service manual

1.3 Service and technical support

For information concerning specific settings, maintenance or repair works please contact your dealer. He is always prepared to help you. Ensure you have at hand:

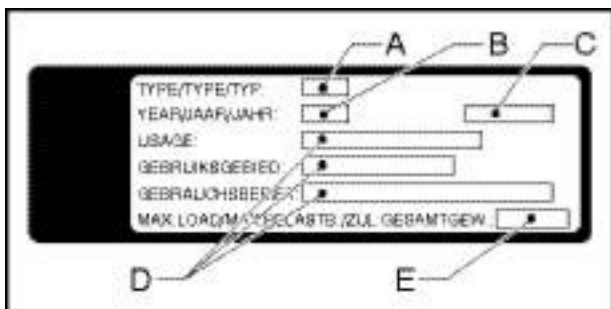
- Model
- Year of manufacture
- Identification number

This information is provided on the identification plate.

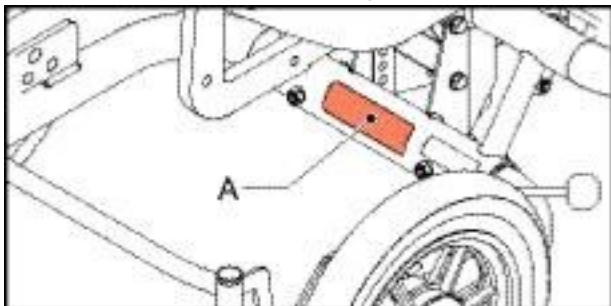
1.4 Identification of the product

The identification plate contains the following data:

- A. Model
- B. Year of manufacture
- C. Identification number
- D. Use area indoors or outdoors
- E. Maximum load in kg



The location of the identification plate is indicated with A



1.5 Warranty stipulations concerning the wheelchair

In the following warranty and liability stipulations the terms and definitions as summed up hereafter must be explained as follows:

- Product: The manually operated wheelchair manufactured and delivered by Pegasus Zorg.
- Customer: The person who directly obtains a Product from Pegasus Zorg or an authorized representative.
- Dealer: The person who delivers a Product obtained from Pegasus Zorg to customers or third parties.
- User: The person who uses a Product manufactured by Pegasus Zorg.

Irrespective of what is determined concerning warranty conditions applicable to the Product, in any case the following applies with regard to the warranty:

1. Except insofar as described otherwise Pegasus Zorg guarantees the Product for its suitability for the purpose for which the Product is intended - all of these points as described in this manual - and for the quality of the material of which the Product is made and the manner in which the Product is manufactured.
2. Repairs or replacement of parts of the Product that may be necessary as a result of faults that are based on qualitatively faulty material or manufacturing errors will be executed free of charge, as long as such faults occurred within one (1) year after the date of delivery of the Product to the Customer. The parts to be replaced must be shipped postage-paid to Pegasus Zorg. Installation or removal of these parts is for the Customer's account. Therefore, the following cases are not eligible for free repair or replacement as meant above:
 - The repair or replacement that is necessary in connection with faults that arise after one (1) year after the date of delivery of the Product to the Customer;
 - The repair or replacement that is required in connection with faults due to improper or careless use of the Product or that are based on the Product being used for another purpose than the one for which it is intended, in which regard it applies that if the Customer is a Dealer, this Dealer will indemnify Pegasus Zorg against possible claims from Users or other third parties for faults based on an incorrect or careless use of the Product;
 - Parts that are subject to wear and the need for repair or replacement of the parts are the actual consequence of normal wear. These can include, but are not limited to, tyres, shrouds, arm-pads, seating etc.
3. Irrespective of that stipulated under 2, it applies as far as an electric Product is concerned that with regard to the battery that forms part of the Product warranty is only given in case of faults or non-functioning of the battery that are demonstrably the direct consequence of material or manufacturing errors. A fault or nonfunctioning of the battery as a result of normal wear is not covered by the warranty as meant in these warranty stipulations. Similarly not covered by the warranty are faults or non-functioning that are the consequence of improper or unprofessional use of the Product or the battery that is part of the Product, including the incorrect charging of the battery and the failure to carry out timely and good maintenance, in which context it also applies that if the Customer is a Dealer, this Dealer will indemnify Pegasus Zorg against possible claims from Users or other third parties that are based on the above mentioned improper or unprofessional use of the Product or the battery that is part of the Product. Pegasus Zorg does not guarantee batteries provided by dealers or purchased by the customer.
4. The warranty conditions as mentioned in above stipulations in any case become null and void if:
 - The guidelines of Pegasus Zorg for the maintenance of the Product are not, or insufficiently, followed;
 - A necessary repair or replacement of parts is based on neglect, damage or abuse of the Product or a use of the Product for another purpose than the one for which it was intended;
 - Parts of the Product are replaced by parts of another origin than those used by Pegasus Zorg and/or parts of the Product are replaced without the permission of Pegasus Zorg.
5. The warranties as mentioned in stipulations 1 through 3 also become null and void if what is involved is reused by a new user within the warranty period and that such re-use necessitates adaptations to the wheelchair and those adaptations are carried out without the instructions and/or at the order of Pegasus Zorg.
6. To retain rights under the warranties delineated above, the Customer must, in case of damage or other calamities, as rapidly as possible contact Pegasus Zorg and inform them as fully as possible. The possibility of taking recourse to the above-mentioned warranty conditions becomes null and void for the Customer in any case after 20 workdays after the claim situation or the calamity arises that was the reason for the recourse to the warranty.
7. The replacement of a part or the repair or the reconditioning of the Product within a current warranty period does not extend the warranty period.
8. Pegasus Zorg gives no warranty on repair to or reconditioning of the Product carried out other than under order of and/or at the instructions of Pegasus Zorg. If repairs and/or reconditioning are executed by or on behalf of a Customer, the Customer indemnifies Pegasus Zorg with respect to the claims of third parties that result, in the broadest sense of the word, from such repairs or reconditioning.

1.6 Liability stipulations concerning the Product

Irrespective of what is determined regarding liability in the general conditions applicable to the Product, with regard to liability in any case the following applies:

1. Taking into consideration the following stipulations, Pegasus Zorg only accepts liability for loss due to death or physical injury that is the result of a defect in the Product for which Pegasus Zorg is responsible and for damage to another object that is the private property of the user of the Product, as long as said loss is the direct result of a fault in the Product.
2. Pegasus Zorg accepts no other or further liability than delineated under 1. In particular Pegasus Zorg accepts no liability for consequential damage, in any form whatsoever.

1.7 Wheelchairs and the environment

If the wheelchair needs to be replaced, it can usually be taken back by your dealer. If this is not possible, please contact your local authorities for the possibilities of recycling or an environmentally friendly way of disposing of the used materials.

For the production of the wheelchair various plastics and metals have been used.

2 Maintenance 2.1 Maintenance table

Everything that is used should be maintained. This is also true for your wheelchair.

Below, we have indicated what needs to be checked, how often this should be done, and by whom.

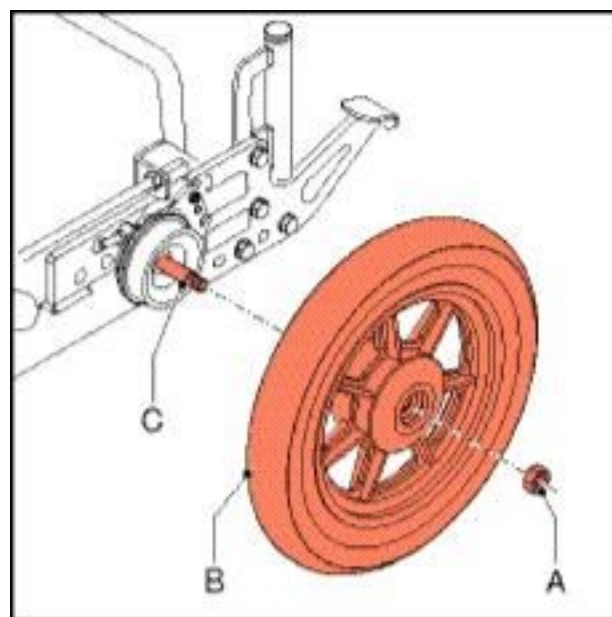
| Time | Description | To be carried out by | |
|-------------------------|---|----------------------|--------|
| | | User | Dealer |
| Weekly | • Checking the tyre pressure | X | - |
| Monthly | • Cleaning of the frame. | X | - |
| | • Cleaning of the upholstery (if necessary) | X | - |
| Annually (if necessary) | • General overhaul | - | X |
| | • Checking the bearings | - | X |
| | • Checking all fastenings and bolts: tighten if necessary | - | X |
| | • Checking and cleaning of the brakes. | - | X |

It is recommended to have your wheelchair serviced by your dealer at least once a year, or, in case of intensive use, once every six months.

2.2 Replacing the 12" rear wheel

When replacing a rear wheel, the wheel may not be braked. Replace the rear wheel as follows:

- Support the wheelchair in such a way that the wheel is elevated.
 - Remove locking nut (A) with a 12 mm box spanner.
 - Pull wheel (B) off the axle (C).
 - Remove the tyres; see 'Repairing the tyre of the drive wheel' or 'Replacing the tyre of the drive wheel'.
- Fit the new wheel in the reverse order.



2.3 Repairing the tyre of the rear wheel

When repairing the inner tube of a rear wheel, the wheel should be braked, so that it does not rotate at the same time.

Repair a flat tyre as follows:

- Support the wheelchair in such a way that the wheel is elevated.
- Pull out the valve to completely deflate the tyre.
- Using tyre levers pull the front of the tyre across the edge of the rim.
- Carefully pull the inner tube across the edge of the rim.
- Push the valve from the opening in the rim.
- Pull the inner tube from the tyre for repair or replacement.
- Repair the inner tube or replace it.

Now, the repaired or new inner tube should be placed as follows:

- Put the valve of the inner tube through the opening in the rim.
- Press the inner tube into the tyre.
- Place the tyre around the rim.
- Use tyre levers to place the tyre around the rim: be careful not to damage the inner tube with the tyre levers.

The inner tube must not become jammed between the rim and the tyre.

2.4 Adjusting the brake of the Varia with 12" rear wheels

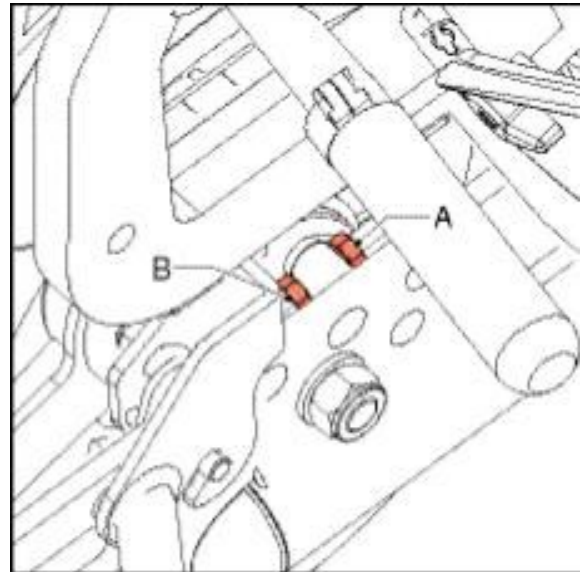
The wheelchair is equipped with drum brakes on the rear wheels, which can be operated with the foot by the person pushing the wheelchair.

Proper functioning of the brakes is essential. That's why the brakes have to be:

- Properly adjusted
- Replaced in time.

Adjust the brakes as follows:

- Loosen nut (A).
- Remove nut (B) with a 10 mm open-ended spanner.
 - Clockwise: brake tighter.
 - Anti-clockwise: brake looser.



2.5 Replacing the swivel castor

For the proper functioning of the wheelchair, it is very important that the wheels are kept in order.

The following parts can be replaced:

Wheel (A), see 'Replacing a wheel'.

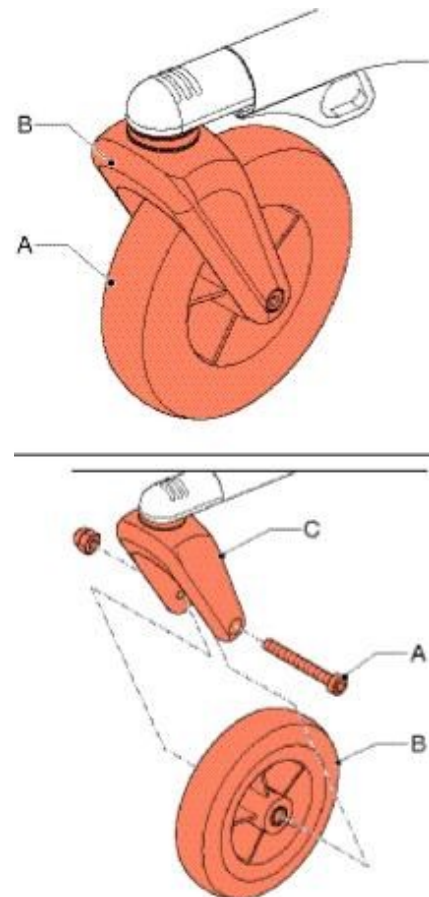
Fork (B), see 'Replacing a fork'.

2.6 Replacing a wheel

Replace a wheel as follows:

- Loosen the Allen bolt (A) with an Allen key with a key width of 5 mm.
- Slide wheel (B) out of the fork (C).

Fit a new wheel in the reverse order.



2.7 Replacing a fork

Replace the fork as follows:

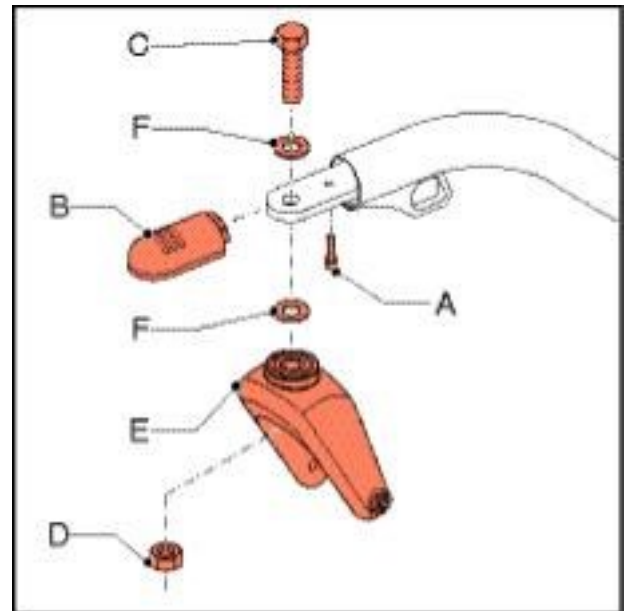
- Remove the wheel from the fork; see 'Replacing a wheel'.
- Remove screw (A) with a Phillips screwdriver.
- Remove cap (B).
- Loosen bolt (C) using a 19 mm box spanner and prevent nut (D) from moving with a 19 mm ring spanner.
- Take fork (E) out of the frame.
Take care not to lose the washers (F).

Mount the fork in the reverse order.

Use a locknut M12 Precote 80. The small height of the locknut allows to insert the hex bolt top to bottom and fasten the locknut from the bottom side. Use a torque of 70 to 80 Nm to fix the nut.

Attention:

The locknut may not be used again - use a new one when replacing.



2.8 Seat adjustment precautions

Optimizing the different functions in the wheelchair can lead to some limitations in the tilt range. In this case the tilt in combination with the lowest seat height can limit the possible degree of tilt. This depends on the Centre of Gravity position of the seating system and the seat depth.

The bigger the seat depth and/or the center of gravity position going to the rear, the bigger the limit of the tilt angle. If an interference should appear then this can be solved by:

- Decreasing the seat depth
- Positioning the center of gravity forward
- Increase the seat height

2.9 Cleaning Removing dry dirt

Upholstery, metal parts and frame parts can usually be cleaned easily with a dry soft cloth.

Removing mud and/or other wet dirt

Parts that are soiled with wet dirt can best be cleaned by first wiping the dirty parts with a wet sponge and then wiping them dry with a dry soft cloth.

Upholstery

Cleaning with a damp cloth and household soap. After removing the dirt the cleaned parts should be wiped dry with a soft dry cloth.

Never use abrasive or aggressive cleansers. They may damage the wheelchair.

Also do not use organic solvents such as thinner, dry-cleaning naphtha, or white spirit. Upholstery: do not dry clean, iron or spin dry.

3 Technical specification

| Description | |
|-----------------------------------|----------------------|
| Diameter rear wheels | 12" pneumatic tyre |
| Diameter front wheels | 8" 200x30 pu tyre |
| Tyre pressure rear wheels | 2,2 bar |
| Max. user weight | 120 kg |
| Total length | 840 mm |
| Total width | 685 mm |
| Total weight | 25.1 kg |
| Total weight of the heaviest part | 16.2 kg (base frame) |
| Static stability downward | 15° |
| Static stability upward | 15° |
| Static stability sideways | 15° |
| Effective seat depth | 450 mm |
| Effective seat width | 570 mm |
| Seat height front | 475 - 580 mm |
| Backrest angle | 58 - 89° |
| Backrest height | 885 mm |
| Lower leg length | N.A. |
| Armrest height | 240 - 410 mm |
| Front to backrest | 445 mm |
| Minimum turning radius | 1285 mm |
| Ground clearance | 94 mm |
| Push bracket height | 1060 - 1120 mm |

4 Spare parts Use of the parts

lists

This document is meant as a reference book to be used to order parts for the Varia wheelchair that is shown on the front cover. Please be aware Pegasus Zorg will deliver the wheelchair only to dealers and without the upholstery. When ordering the Varia wheelchair you will receive only the base frame without armrests.

4.1 How to order

When ordering parts, please specify:

- Serial number (see the identification plate)
- Group (to which the relevant part belongs)
- Article number
- Number of parts required
- Description (in the relevant language)
- Dimensions (if applicable)

Remark

- If a part does not have a position number, it means that the part concerned cannot be purchased separately. The part concerned is part of the assembly shown. This assembly must be ordered as one piece. It has to be replaced in its entirety.
- Boxed position numbers refer to the relevant drawing.

Order address

Please mail or fax your orders to your supplier.

Service technicians

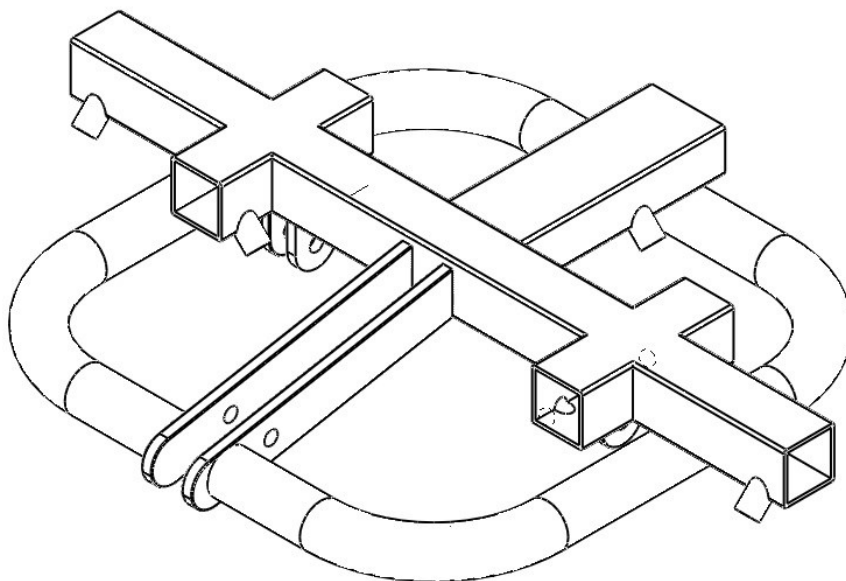
Repairs may only be carried out by trained and authorized service technicians.

During the execution of their work they are at all times fully responsible for the fulfilment of locally applicable safety guidelines and standards.

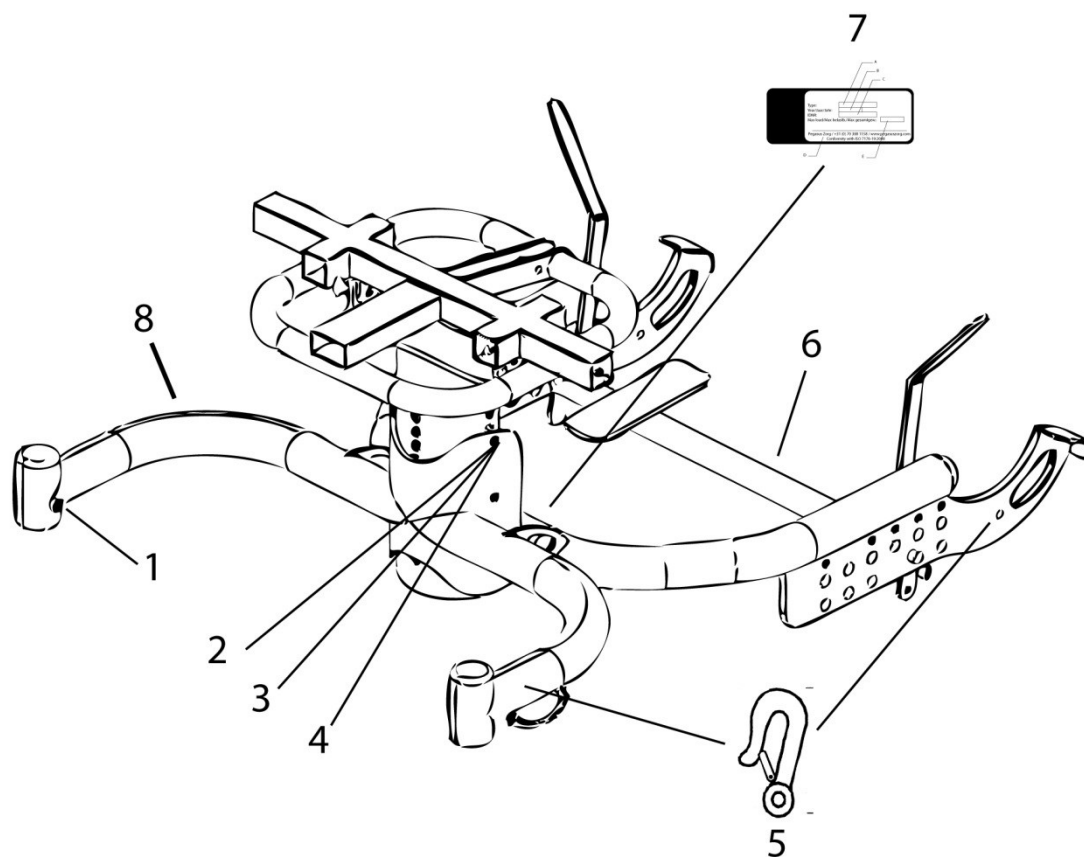
Temporary employees and persons in training may only carry out repair and replacement work under the supervision of an authorized service technician.

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4.3 Seating frame

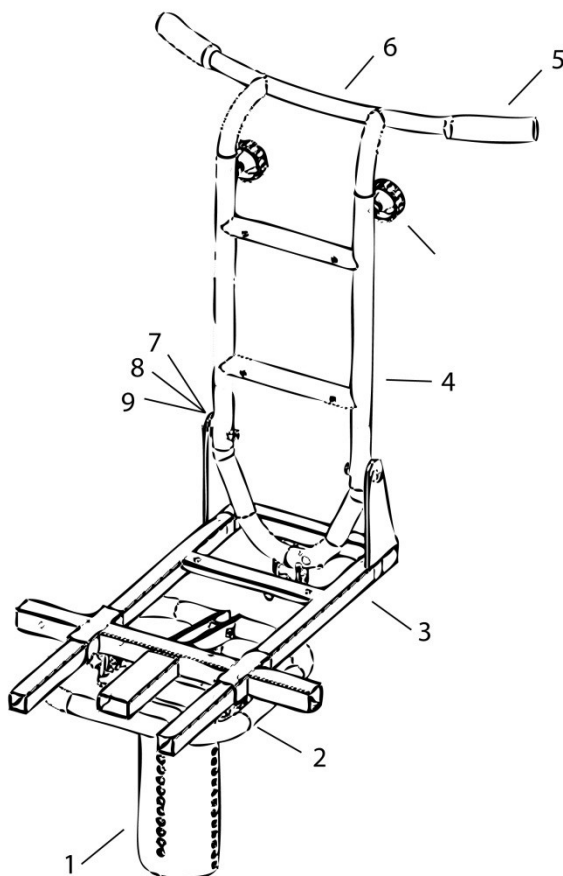


| Pos | Article number | Units | Description | |
|-----|----------------|-------|---------------|--|
| 1 | 82011-3 | 1 | Seating frame | |



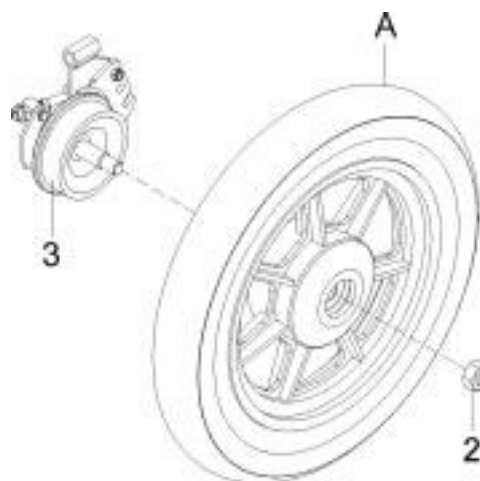
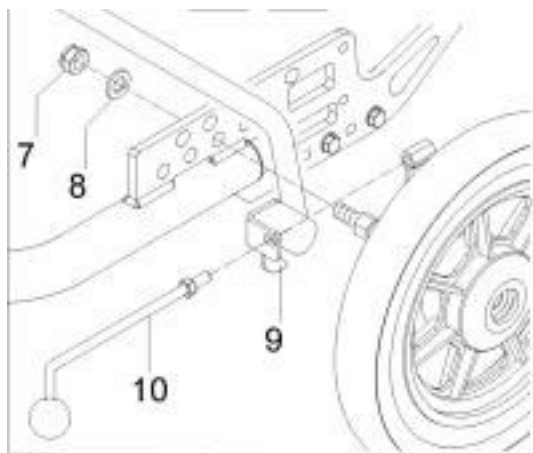
| Pos | Article number | Units | Description | |
|-----|----------------|-------|----------------------------------|--|
| 1 | 95455812 | 2 | Bolt M8x12 | |
| 2 | 95455081815 | 4 | Washer M8x18x1.5 | |
| 3 | 9545508 | 4 | Locknut M8 | |
| 4 | 954550825 | 4 | Hex Bolt M8x25 | |
| 5 | 870023 | 4 | Label taxi mounting point symbol | |
| 6 | 82011-6.1 | 1 | Brakepedal complete | |
| 6 | 82011-7 | 1 | Brakepedal part 2 inner tube | |
| 8 | 870015 | 1 | Label Varia, CE sticker | |
| 9 | 82011-1 | 1 | Main frame / Base frame | |

4.5 Upper frame



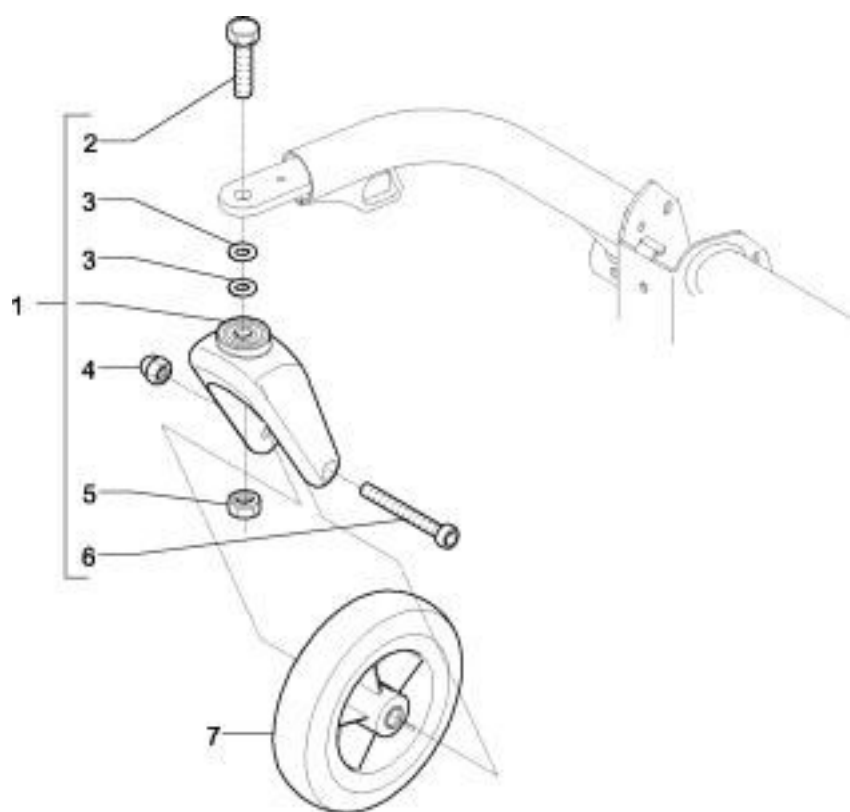
| Pos | Article number | Units | Description | |
|-----|----------------|-------|--------------------------------------|--|
| 1 | 82011-8 | 1 | Height adjuster frame part | |
| 2 | 82011-3 | 1 | Seating frame / Upper frame | |
| 3 | 82011-1 | 1 | Seating depth adjusting frame | |
| 4 | 82011-2 | 1 | Back frame | |
| 5 | 7202 | 2 | Handgrip ergonomic, 120x22mm (a pcs) | |
| 6 | 82011-4 | 1 | Pushbar handle | |
| 7 | 95455081815 | 2 | Washer M8x18x1.5 | |
| 8 | 954550845 | 2 | Hex Bolt M8x45 | |
| 9 | 9545508 | 2 | Locknut M8 | |

4.6 Brake system 12" rear wheel



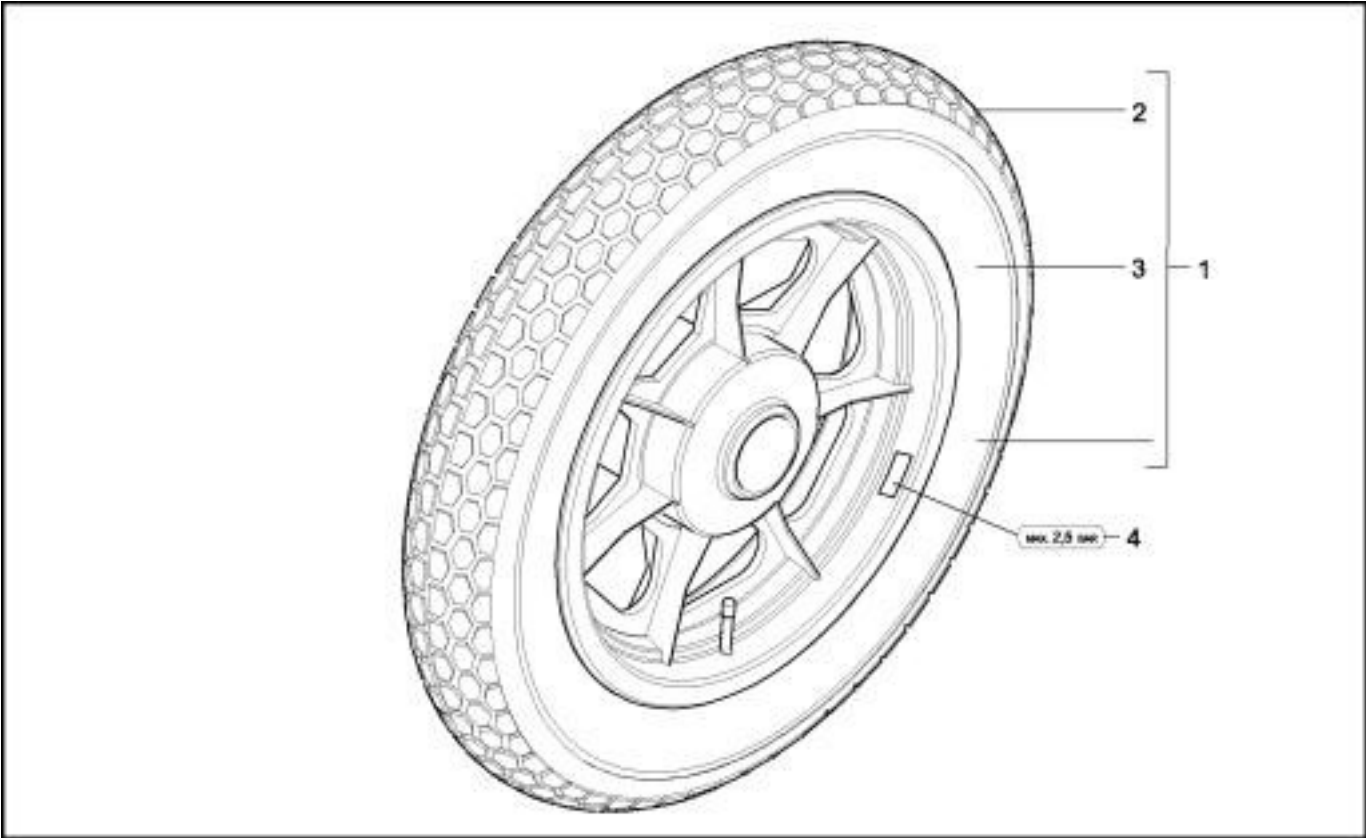
| Pos | Article number | Units | Description |
|-----|----------------|-------|--|
| 1 | 899512 | 1 | Wheel, 12", air, with brake, assy, left |
| | 902112 | 1 | Wheel, 12", PU, with brake, assy, left |
| | 899513 | 1 | Wheel, 12", air, with brake, assy, right |
| | 902113 | 1 | Wheel, 12", PU, with brake, assy, right |
| 2 | 9545512 | 2 | Locknut M12 D985/8/vz |
| 3 | 8324 | 1 | Brake complete left |
| | 8325 | 1 | Brake complete right |
| 7 | 9545512 | 2 | Lock nut M12 |
| 8 | 954551201 | 2 | Washer flat M12 |
| 9 | 82011-6.1 | 1 | Footlever |
| 10 | 82011-6.3 | 2 | Brake lever |
| A | | | See 008: Rear wheel 12" |

4.7 Swivel Castor



| Pos | Article number | Units | Description | |
|-----|----------------|-------|-----------------------------|--|
| 1 | 9209 | 2 | Front fork | |
| 2 | 954551290 | 2 | Hex bolt M12X90 | |
| 3 | 9545512181 | 2 | Washer 12X18X1 | |
| 4 | 9545508 | 2 | Cap lock nut M8 | |
| 5 | 9545512 | 2 | Lock nut M12 | |
| 6 | 954550875 | 2 | Cyl cap screw M8X75 | |
| 7 | 9003 | 2 | Wheel,castor,8",PU,assembly | |

4.8 Rear wheel 12"



| Pos | Article number | Units | Description | |
|-----|----------------|-------|-------------------------------------|----------|
| 1 | 8995 | 2 | Wheel 12" air | |
| | 9021 | 2 | Wheel 12" PU | |
| 2 | 8900 | 2 | Tyre 12" | |
| 3 | 8901 | 2 | Tube 12" | |
| 4 | 00001.1461 | 2 | Label tyre pressure (sticker sheet) | optional |