



SERVICE MANUAL for Telescopic pole, Gripo Alu



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HEPRO – aid manufacturer

HEPRO is a Norwegian industrial company that develops, manufactures and sells technical aids for adults and children with mobility impairment. The company was established in 1987 and has to day about 50 employees. The company`s headquarter and factory is located in Rognan, Nordland:

Hepro AS
Øvermoan 9
8250 Rognan

Technical Service

Services are performed in the factory at Rognan, but also by partners in many parts of the country. Our sales personnel are also trained in technical maintenance. If errors on products or other queries, please contact your supplier or importer.

Adaptations and Special Adaptations

Hepro is a manufacturer and can therefore offer user customized solutions when required. Customizations and custom solutions to meet individual needs is part of the daily tasks of the plant.

Warranty

When used in accordance with the supplied assembly guide and the user reference manual, Hepro provides a two year warranty against defects in material and workmanship. Please address warranty complaints or other inquiries about the product to your supplier or importer. Always state the product`s serial number as a reference.

The product is designed, tested and produced in conformity to following regulations and requirements:

NS-EN 12182 "Technical aids for disabled persons."
93/42/EØF "Equipment class 1, marked

CE



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1. Short product description

Gripo Alu is classified in NS-EN ISO 9999 as a medical device and within the product group 180806, and is defined as a TELESKOPIC POLE to carry support devices.

The pole is tested according to EN 12182 and approved for a horizontal load of 100 kg on the middle of the pole with maximum length 3,0 meter.

It is produced in the materials of aluminum and plastic and intended for clamping between the floor and ceiling of any room where the ceiling and floor have enough strength to withstand a point load of 100 kg.

In each end of the pole there is a plate-shaped end plate with a friction ring installed. The force between the plates is maintained by a gas spring with an average pressure of 100 kg. This makes the pole possible to be installed without use of any form of screw or nail connection, causing perforation of floor or ceiling, and the dismantling of the bar leaves no marks.

With support of different accessories the pole can be adapted to many different pole use situations.

The pole can be used in rooms with headroom from 2,1 meter to 3,0 meter, and it is delivered in only one model in which the aluminum tubes are in the colour nature aluminum, and all plastic parts in black colour.

1.1 Main Product

1.1.1 Type / designation

Product information covers the following model:

GRIPO ALU

1.1.2 Structure

- Generally, the product is structured by the following main components, which will also appear in how the product is broken down in section 3.Part catalog
- Base plate
- Outer tube w/lifting mechanism
- Inner tube w/tighten bushing with conus and screw
- Between these a Quick Release clamp
- Top plate w/ gas spring

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1.2 Technical specifications

Gripo Alu

DIMENSIONS

Description	Unit	Dimension
Headroom	m	2,1 - 3,0
Inner tube	mm	Ø31 x 6,0
Outer tube	mm	Ø40 x 3,0
Average gas spring pressure	N	900
Top plate	mm	Ø290
Base plate	mm	Ø200
Max horizontal loa don the middle of pole	kg	100
Product weight without accessories	kg	4,7
Max user weight	kg	150

MATERIALS AND COMPONENTS

Inner and outer tube	Aluminium 6063 T6
Surface protection tube	Elox.
Gas spring	Stabilus LiftOMat
Top plate	Plastic PA6 GF15
Base plate	Plastic PA6 GF15
Tubes for accessories	Aluminium 6063 T6 Elox.

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1.3 Safety provisions

The installation of the pole has to be done by a trained person or by one who has set himself thoroughly in the assembly instruction.

1.3.1 Warning

- The product should not be adopted without prior training and before the user reference manual has been carefully read and understood.
- All kinds of support devices may involve danger if incorrectly assembled or wrongly used.
- If the pole indicates any sign for loosening, it shall not be used and help be called.
- The pole must not be installed in rooms with headroom exceeding the approved or be placed where there can be any risk for pinching.
- When used in showers friction mat has to be used under the base plate.
- If the red warning sign is visible, the assembly is wrong and the pole **must not be used**.

1.3.2 Installation and assembly

Test before installation

Beforehand the ceiling should be examined with regard to strength and opportunity for placement of the pole at the desired location. At plate-covered ceiling the pole should preferably be placed directly under the beams or nailing strip to prevent plate damage. If the ceiling is made of concrete, the pole can be placed anywhere. If the wallboard is made of gypsum or other weak material, The Top plate Big has to be used, or the ceiling has to be reinforced by for instance using a more solid wallboard between the pole`s top plate and the ceiling.

1.3.3 Installation

The pole is delivered with a loose base- and top plate.

1. Place the pole on the base plate and set the top plate in place.
2. Position the pole in a suitable place with the base plate flat against the floor.
3. Pull out the foot pedal and open the Quick Release clamp.
4. Rotate the inner tube clockwise so it will slide down by its own weight. Extend the pole till the top plate reaches the ceiling by pulling the inner tube out of the outer tube.
5. Close the Quick Release clamp.
6. Press down the foot pedal.
7. Check that the red mark is no longer visible. If not, go back to point 4
8. If the pole is tilted, pull out the foot pedal and adjust it vertical and press down the foot pedal again.
9. Installation of accessories by using the Universal link can now be done.
10. If the red mark still is visible, this may be the reason:
 - It is too big distance between the ceiling and the top plate when the rotation of the inner tube started.
 - The quick release could have been too loose. Tighten the nut a few millimeters.

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- The ceiling is too weak and is lifted by the force in the pole`s gas spring.
- The pole was ice-cold during assembly.

See also the Assembly guide illustrated with pictures.

1.3.4 Function Verification and testing of product and accessories

- After the installation is completed, it must be checked that the red mark in the upper part of the inner tube just below the top plate is not visible. This should also be checked regularly by the use of the pole. If the red marking is apparent the cause may be:
 - Too weak ceiling structure that causes the power of the pole pushing the ceiling up. Then use the Top plate Big or the ceiling must be reinforced, or the pole must be moved to an area where construction is strong enough.
 - The tightening screw on the quick release may have loosened. Tighten the nut on the quick release till it sits tight.
- When recycling the pole, all surfaces must be inspected for damage. Take special care of the list in the top- and base plate which make the friction ring. If this shows sign of darkening, it should be replaced.
- After this control, the pole must be installed in a room where the ceiling is solid, and the Quick Release must be checked so that the red marking is not visible after installation.

1.3.5 Disassembly

Pull out the foot pedal and open the quick release. The inner tube can now be pushed down into the outer tube.

1.3.6. How to use

Gripo Alu can be used in many situations where there is a need for support. Use of equipment and methods will in cooperation with the user, the therapist and the supplier`s qualified person be best taken care of.

See also the illustrated brochure.

1.3.7 Error Indications and check out of these

If the pole seems loose, out of plumb or there are marks on the floor or the ceiling that indicates that the pole has displaced, the assembly must be checked by a competent person.

If the red mark on the top of the inner tube appears, the pole must not be used before new installation is done and checked. This may indicate that the pole is either not installed correctly or the ceiling is not strong enough.

1.3.8 Inquiry by mistake

If an error occurs, using problems or suspected wrongly installation, please contact your supplier. By request, always give the serial number affixed to the pole

2. Work Descriptions

General

It must never be changed to other parts than those stated in the split images in the "3. PART CATALOG" with article numbers. It can in worst case cause the product not to satisfy its acceptance criteria, and be changed from being an aid to become a dangerous tool for the user or the environment.

If for some reason it is desirable to deviate from this rule, Hepro has to be contacted for review and possible approval.

2.1 Cleaning performed by user

METHODE

- Normal dusting and cleaning with wet cloth and soap is sufficient.

2.2 Maintenance

2.2.1 Periodic inspection

GENERAL

It is basically sufficient with inspection when recycling. For poles older than 5 years, the producer recommend inspection as for recycling once a year.

PRODUCTS WITH SPECIAL LOADS

The product has no particular need for periodic inspection if it is a standard product used by a person who in any way exposes the product for special or extreme loads.

If the product is exposed to special loads, it would be an advantage for all that each case will be considered and necessary maintenance is established.

Hepro can of course be of help with advice and guidance if contacted.

2.2.2 Preparation for reuse

To ensure that the user gets a secure aid when recycling, it is important that the aid undergo a thorough technical control and is properly cleaned before it comes to a new user. As a manufacturer and supplier we believe that the control described in section 2.3.2 is sufficient. Worn parts must be checked and replaced if they are considered to lead to reduced safety for the user.

2.2.3 Troubleshooting

The product is built quite simple, and by using the Service Manual, any error could easily be detected.

- Hepro`s Service Organization is of course also available for advice and guidance.

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3. Part Catalog

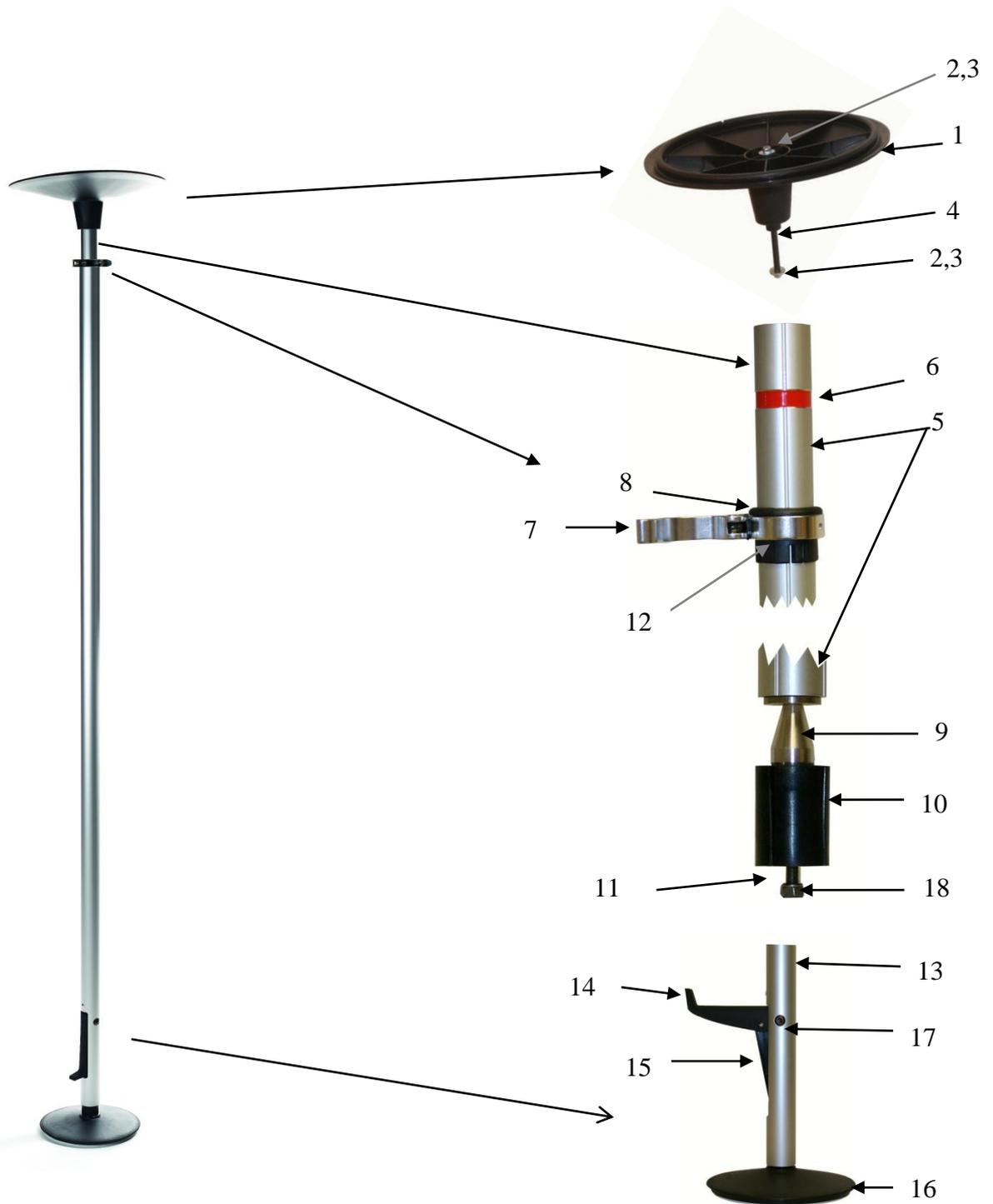
In the following sections the article name and article number included in the standard product will be stated.

Prices are stated in an own spare parts price list.

3.1 Main parts, replace modules and components

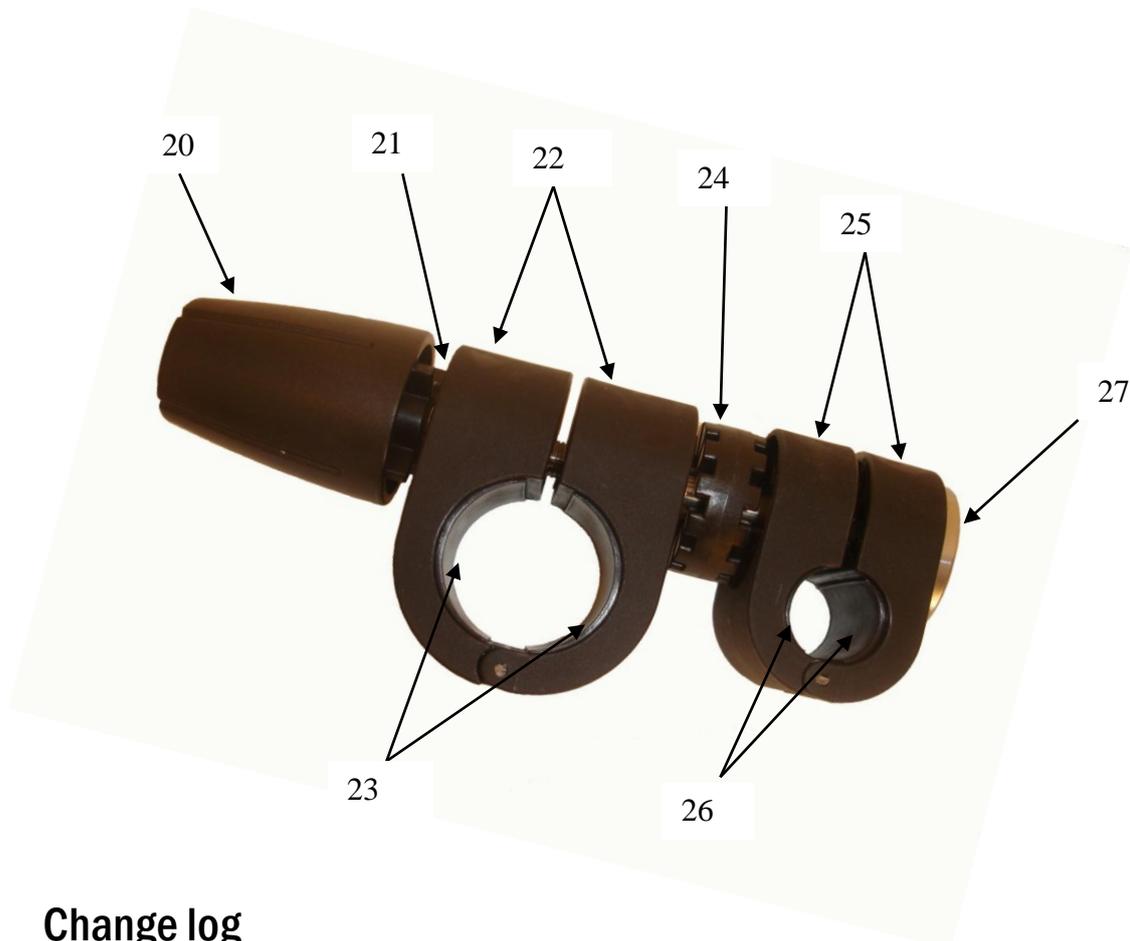
Pos.	Description	No.	Hepro Item no
-	Gripo Alu complete	1	35100
1	Top plate	1	35110
2	Washer, 6,4x20x1,25	3	70277
3	Lock nut, Nylock ELZ M6	2	70054
4	Gas spring Stabilus LiftOMat, 900N	1	35137
5	Inner tube	1	35111
6	Brand foil, red	1	35143
7	Quick release	1	35195
8	Upper bushing	2	35194
9	Cone, aluminium	1	35126
10	Tighten bushing w/thread adapter	1	35118
11	Tighten screw, stainless steel, M6x0,75, compl.	1	35144
12	Set screw, stainless steel, thread stift M5	1	70198
13	Outer tube	1	35115
14	Foot pedal	1	35113
15	Lifting arm	1	35114
16	Base plate	1	35112
17	Furniture button, K-15 9x15 M6	2	70276
18	Lock nut, Nylock M6	1	70054

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Pos.	Description	No.	Hepro Item no
-	Universal conection, complete	1	35130
20	Hand wheel	1	35123
21	Washer 10,2x40x2	1	70250
22	Bend 40mm	2	35122
23	Adapter bend 40mm	2	35128
24	Tooth washer	1	35121
25	Bend 22mm	2	35120
26	Adapter bend 22mm	2	35129
27	Tighten screw M10	1	35119



4. Change log

Edt.. 01	31.01.2012	Adapted new provisions
Edt. 02	10.09.2012	Updated 1.3.1.