Technical Manual

BeNomic Star PRO 350

Berg Hortimotive

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Machine type plate

The BeNomic Star PRO 350 carries a machine type plate which contains the following data: Berg Hortimotive's address details, CE marking, type designation, serial number and the year of manufacture.

If you would like to contact the Berg Hortimotive dealer with respect to the BeNomic Star PRO 350, please ensure that this information is always readily available.

The machine is manufactured by:

Berg Hortimotive

Burg. Crezeelaan 42a
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The Netherlands

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1. Declarations

1.1 Copyright

Berg Hortimotive
De Lier, 2024

1.2 Liability

Berg Hortimotive is not liable for unsafe situations, accidents and damage resulting from the failure to observe warnings or regulations, as shown on BeNomic Star PRO 350 and/or in this documentation, for example:

- inexpert or improper use or maintenance;
- use for applications or under conditions other than those specified in this documentation;
- use of parts other than those specified;
- repairs without permission from Berg Hortimotive and/or a certified dealer;
- modifications to the BeNomic Star PRO 350. These include:
    - changes to the controls;
    - welding, mechanical operations, etc.;
    - additions to the BeNomic Star PRO 350 or the controls.

Berg Hortimotive is also not liable in the following cases:

- if the customer has not fulfilled all his obligations toward Berg Hortimotive (financial or otherwise);
- for consequential damage caused by faults or defects on the BeNomic Star PRO 350 (e.g. business interruption, delays, etc.).

1.3 Warranty

Berg Hortimotive's guarantee is valid for six (6) months after delivery, and offers the customer warranty on material and manufacturing defects, which arise during normal use. This guarantee shall not apply if the fault(s) is/are due to improper use or causes other than material and manufacture faults, or if Berg Hortimotive supplies materials or used goods after consultation with the client or if the cause of the fault(s) cannot be clearly demonstrated.
The guarantee conditions are described in the Dutch METAALUNIE CONDITIONS, as recorded in the most recently deposited text. The terms of delivery will be sent on request.
For all goods and materials that Berg Hortimotive does not manufacture itself, Berg Hortimotive does not, at any time, offer lengthier guarantee than that provided to it by its supplier. Guarantee is “ex-factory”; faulty machines and/or parts need to be delivered freight-paid.
If machines or installations cannot be delivered, the travel and accommodation costs incurred will be borne by the client.
Goods sold and delivered with factory, importer’s or wholesale guarantees shall be subject to the warranty provisions laid down by the suppliers.
The hydraulic pump is subject to manufacturer’s warranty only if it has an undamaged supplier’s safety seal.
Berg Hortimotive takes responsibility for the availability of replacement parts provided that they are available from its suppliers under reasonable conditions.

2. Foreword

This manual describes the BeNomic Star PRO 350.
This manual provides you with additional information on safety aspects, a description of the BeNomic Star PRO 350 and the working principle, as well as maintenance instructions for the BeNomic Star PRO 350.
It will draw attention to potential hazards and directions for avoiding them.

It is very important to read this manual carefully to learn how to operate and maintain the BeNomic Star PRO 350. By reading and following this manual when using the BeNomic Star PRO 350, you and others will be helped with proper use of the BeNomic Star PRO 350 and with preventing personal injury and damage to the machine.
Berg Hortimotive produces safe machines. These machines are designed to the latest standards, according to the CE marking. The user is responsible for the proper use and maintenance of the machine.

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3. Introduction

3.1 General:

You have made a good choice in purchasing the BeNomic Star PRO 350. You have an excellent tool, which has been carefully constructed and manufactured. This investment will benefit you most if you carefully follow the safety, use, and maintenance instructions detailed in this user manual.

Before commissioning the BeNomic Star PRO 350, please make yourself familiar with this user manual. The safety precautions, instructions and directions given should be observed at all times.

Berg Hortimotive is not liable for damage or indirect damage resulting from failure to follow the instructions and safety precautions set out in this user manual.

The liability of Berg Hortimotive shall also lapse as soon as you or third parties make any modifications to the pipe-rail trolley or accessories without our written permission.

The BeNomic Star PRO 350 has been delivered under the METAALUNIE (The Dutch METAL-ASSOCIATION) CONDITIONS, as filed at the court of Rotterdam, as they are in accordance with the last text set out there. The terms of delivery will be sent on request. You can also contact the Koninklijke Metaalunie, Postbus 2600, 3430 GA Nieuwegein, The Netherlands.

3.2 Supplier information

In the event of a fault and/or a defect on the BeNomic Star PRO 350, please contact the Berg Hortimotive dealer concerned.

4. Safety

4.1 Declaration of safety terms

Safety terms:

Danger:		Indicates serious injury or risk of fatality when ignoring the instructions set out in the user manual.
Warning:		Indicates risk of injury when ignoring the instructions set out in the user manual.
Caution:		Indicates risk of damage to the machine when ignoring the instructions set out in the user manual.
Attention:		Indicates risk of injury when ignoring the instructions set out in the user manual.

4.2 Safety precautions

Please read the following safety precautions carefully.
After reading the safety instructions, always follow them strictly.
Ignoring the safety instructions can give rise to hazardous situations and serious injury.

DANGER! 

- ***Read the user manual carefully. Follow the instructions, safety precautions, etc. at all times.***

- ***The BeNomic Star PRO 350 is intended for running on a stable pipe-rail system.***

- ***Use the BeNomic Star PRO 350 exclusively on the correct type of pipe-rail system. You must check whether the centre-to-centre pipe-rail gauge corresponds with the pipe-rail trolley, see the icon on the platform.***

- ***Never exceed the maximum load capacity of 250 kg* (for capacities and restrictions see 10.1!)***
  - *One person incl. load (e.g. tools); see the pictogram on the platform.*

- ***Use the BeNomic Star PRO 350 only for crop care work in a greenhouse.***

- ***Never exceed the sideways applied force of 90 N (towing capacity of 9 kg) when carrying out crop care work.***

- ***Using the BENOMIC S with a tilt exceeding 2° (linearly and/or crosswise) is strictly forbidden when carrying out crop care work.***

- ***Transporting loose loads with the BeNomic Star PRO 350 is prohibited! Make sure that any load is placed in the centre, does not extend more than 40 cm above the platform and is always properly secured.***

- ***It is prohibited for more than one person to enter the platform at the same time.***
- ***Persons are not permitted to ride on the chassis in any way.***

- ***It is forbidden to remove the safety fence.***

- ***The use of the safety rail height extender is mandatory if the user is taller than 1.80 metres. Only use the original Berg Hortimotive safety rail height extender (see 5.2)***

- ***It is strictly forbidden to increase the lifting height in whatever way.***
  - *Always stand on the platform.*

- ***Keep a safe distance from fixed and/or moving parts of the greenhouse structure, live electric wiring, and cables and ropes.***

- ***Pulling steel or other types of rope/cord/wire and installing protective canvas with the BeNomic Star PRO 350 is not permitted.***

- ***Using the BeNomic Star PRO 350 as a crane is not permitted.***

- ***Persons and/or pets are not permitted to enter the operational pathway of a BeNomic Star PRO 350. Never use more than one pipe-rail trolley on the same path!***

- ***All safety shields and protective caps must be fitted and closed during operation of the BeNomic Star PRO 350.***

- ***Additional options, accessories and parts must be manufactured and/or supplied by Berg Hortimotive.***

Warning! 

- ***The BeNomic Star PRO 350 may only be operated when there are no other persons, other than the operator, in the vicinity of the BeNomic Star PRO 350.***

- ***The BeNomic Star PRO 350 may only be operated by persons of at least 18 years of age who have received thorough instruction on the BeNomic Star PRO 350, are familiar with this user manual, fully understand it, and are aware of the hazards.***

- ***The BeNomic Star PRO 350 may only be operated once it has been correctly installed on the pipe-rail system.***

- ***All personnel working within the active radius of the BeNomic Star PRO 350 must be familiar with the relevant safety rules and precautions that apply to the pipe-rail trolley.***
  - *Instructions from the employer.*

- ***To work safely at height, Berg Hortimotive recommends the use of safety harnesses that are compliant with EN358; the BeNomic Star PRO 350 is equipped with four safety harness anchor points for attachment of the safety harnesses (see 5.2).***
  - *Instructions for the employer.*

- ***Repair of the BeNomic Star PRO 350 may only be carried out by personnel instructed by Berg Hortimotive.***

- ***When servicing the scissors, support it at all times using the scissor-lock (see 9.2).***

- ***Never carry out work on the BeNomic Star PRO 350 while someone else is operating it. Always switch it off using the main switch, and remove the charging plug from the trolley before carrying out maintenance.***

- ***Check the BeNomic Star PRO 350 every day for defects and give it regular maintenance, see chapter 9: Maintenance.***

- ***Clean the controls and safety pictograms regularly and in good time.***
  - *Operating functions and safety pictograms must be visible at all times.*

- ***The BeNomic Star PRO 350 must always be switched off after use using the main switch.***

- ***Never leave the BeNomic Star PRO 350 unattended.***
  - *Unless the key is removed from the main switch.*

- ***It is prohibited to make any modifications/alterations to the BeNomic Star PRO 350 without written permission from Berg Hortimotive***

- ***When leaving a path, first stop and check whether any one is standing in the direct vicinity before continuing onto the concrete path.***

- ***Before entering a path, ensure that there are no obstacles such as plant remains, etc. on the pipe-rail trolley.***

- ***Never clean the BeNomic Star PRO 350 with a water hose, high-pressure water gun or steam cleaner.***

- ***The platform must always be in the lowest position when moving the BeNomic Star PRO 350, except when on the pipe-rail system or when crossing the concrete path.***

- ***In addition to running on the pipe-rail system, the BeNomic Star PRO 350 is also suitable for use on flat, paved floors (concrete) that are rigid enough to allow it to move and stop safely. The surface condition must satisfy the requirements of NEN2743:2003 Concrete floors.***

- ***Never use the BeNomic Star PRO 350 outdoors or on the public road.***

- ***Leaving a platform that is not fully at its lowest position is not permitted.***

- ***Follow the battery safety instructions, see Appendix 3.***

- ***Beware of feet and toes when operating the lifter on the BeNomic Star PRO 350! The trolley moves a few centimetres forwards when setting down!***

- ***Wearing shoes with safety toecaps (minimum class S1) is mandatory.***

- ***Always remove the charging plug before using the BeNomic Star PRO 350.***

Note! 

- *Keep **the workplace tidy.***
  An untidy working area leads to hazardous situations.

- ***Be focused.***
  Always maintain the appropriate level of concentration when operating the pipe-rail trolley. Do not operate the BeNomic Star PRO 350 when unable to concentrate properly, or when using medication that could impair your reaction times when operating machinery or participating in traffic.

4.3 Safety icons

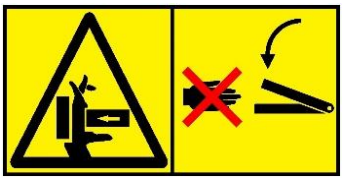
There are a number of safety icons on the BeNomic Star PRO 350. These icons should alert the user to potential hazards or hazardous situations. Observe the warnings at all times and contact your supplier if the hazard indicated by the icon seems unclear.
Always make sure that the pictograms remain visible and undamaged!
The operator of the BeNomic Star PRO 350 must have read and understood this manual before using it. If the user does not understand the warnings in the manual or on the machine (e.g. because he/she speaks a different language), all instructions, hazards, warnings and functions should be explained to the user by a responsible person so that the user can clearly understand them.

Use only indoors (in the greenhouse)
Mass of the machine* in kg
Suitable for the indicated pipe diameter* with minimum wall thickness
Suitable for the indicated centre-to-centre pipe-rail system size*
Maximum tilt 2°
Maximum lateral applied force in Newtons (kg x 10)
Maximum support distance*
Maximum load capacity * in kg (maximum one person + secured load)
The height of the railing depends on the height of the user

*** These values depend on the type of BeNomic Star PRO 350!**

New key switch
Note! Read the user manual before use!
Warning! During maintenance, first isolate the power (Switch off main switch) and consult the manual
Upwards = scissors up, Downwards = scissors down
Main switch (power): key vertical = ON, key horizontal = OFF
The key can be removed by continuing to turn in the off position.

Pay attention to the lowering platform!
Always use the scissors locking device when working under or on the scissors!



Warning; danger of entrapment!
Keep your hands away from the scissor parts!

Warning! Dangerous chemical battery: explosive gas and corrosive battery acid!

Maximum anchor point load in kilonewtons
(Stickers at the anchor points on the platform)

4.4 Residual risks

Despite the best possible design, the use of risk-reducing resources and warnings against the hazards on the machine and in the manual, hazardous situations may still occur.
Watch out for and avoid:

- The risk of crushing hands, fingers, arms and head between the scissor parts!
- The risk of crushing under the trolley when using the lifting mechanism for setting down or lifting!
- The risk that trolley may topple if used on an unsuitable pipe-rail system!
- The trolley can topple if the maximum laden weight or applied force limits are exceeded!
- Users taller than 1.80 metres can lose their balance if they do not use the obligatory safety rail height extender!

5. Intended use

5.1 Scope of application

The BeNomic Star PRO 350 is intended for professional use in the greenhouse horticulture sector.
The controls may only be operated by one person with a minimum age of 18 years who has received thorough instruction on operation of the BeNomic Star PRO 350 and who is familiar with the safety instructions and this manual, both of which they have fully understood.
The BeNomic Star PRO 350 is a pipe-rail trolley which runs on a pipe-rail system that meets the minimum requirements of paragraph 7.3 and is intended as an aid in caring for and/or maintaining the crops in a greenhouse. Use of the BeNomic Star PRO 350 for any other purposes is strictly prohibited. The maximum load capacity of the trolley may consist of one person plus a secured load, of which the combined weight should not exceed 250 kg*. The trolley may only be operated once it has been correctly installed on the pipe-rail system. Take extra care when the scissors drop so that no persons or objects are trapped under or between the scissor-unit. Always walk alongside the trolley, therefore not on the chassis when transporting it over the main path.

* Stability tests have shown that with unfavourable combinations of pipe-rail type and the support distance of the pipe-rail system, constraints must be applied for the maximum permissible load. See 10.1 Explanation of the technical specifications.

5.1.1 Physical operating conditions

Ambient temperature,	
Transport & Storage:	5 to +40 degrees Celsius
Working:	5 to +40 degrees Celsius
Rel. Humidity (RH):	0% to 90%, not condensing
Maximum operating height:	2500 metres above mean sea level
Lighting:	Normal ambient lighting.

The machine is not designed to be used outdoors.
The machine is not suitable for operating in explosive atmospheres.

5.2 Protective devices

The BeNomic Star PRO 350 is equipped with the following protective devices which will be described in chapter 7 (Commissioning) and paragraph 8.1 (Operation).

- Running and lifting restriction when tilted (see 7.5)
- Load limiter measurement system (see 7.6)
- Load-holding function (see 7.7)
- Scissor-locking device (see 7.8)
- Emergency lowering control (see 7.9)
- Pipe detection sensor (see 7.10)
- Speed limiter on the concrete path (see 7.11)
- Pipe-rail to concrete path transition (see 7.12)
- Emergency stop (see 8.1.2)
- Lowering the platform (see 8.1.2)
- Two-handed control (see 8.1.2)
- Inadvertent foot pedal operation (8.1.1)
- Safety harness anchor points* (see 5.4)
- Safety rail height extenders** (see 5.4)

* and **
The regulations governing the use of certain safety devices may vary by country, always consult the local safety bodies before use as these regulations are leading.

* The use of safety harnesses is generally compulsory in many countries when working at a height of 2.50 metres or above. There are four anchor points for attachment of a safety harness, which consist of the “T-connection” on the vertical and horizontal fence railing tubes. Always attach the safety harness so that it is firmly secured to both the vertical and horizontal fence railing tubes!

** The use of safety rail height extenders depends on the height of the user. Extending the standard railing is compulsory for employees who are taller than 1.80 metres!

- **Always work according to local regulations!**
- **Manipulation of protective devices is strictly prohibited!**
- **Additional options, accessories and parts must be manufactured and/or supplied by Berg Hortimotive.**

5.3 Signalling systems

In order to alert the user to a changing status of the BeNomic Star PRO 350 during use, a multi-colour indicator (11) and horn are used.

5.3.1 The multi-colour indicator (11)

The multi-colour indicator (11) is located on the platform control, for this refer to paragraph 8.1.2.

The visual signalling is divided into 6 indication levels:

1. Safe status	Green
2. Warning colour	Orange
3. Attention required	Red
4. Reset emergency stop	Blue
5. Disinfection	Purple
6. Function monitoring see paragraph 8.8	Red-Blue

Safe & alert status
The indicator displays a status or flash pattern in the colours Green, Orange or Blue

Green:	Safety status:	Limitation:	Solution:
Off	BeNomic PRO is powered off	Is off	
On	BeNomic PRO is in safe status	None	
On	Cruise control active (trolley moving)	Maximum speed limited 30 m/min.	Stops with: a short press on the foot pedal
Flashing	Cruise control on standby	Not moving	Press the foot pedal shortly

Orange:	Safety status:	Limitation:	Solution:
On & slow beeping	Skew attention when platform higher than 2 metres		Level the pipe-rail system
Flashing & rapid beeping	Skew critical when platform higher than 2 metres	Platform up Running stops	Platform down Level the pipe-rail system

Attention required
The indicator displays a status or red flashing pattern:

Red:	Safety status:	Limitation:	Solution:
On	Emergency stop used	Operation stopped	Unlock if danger has been averted
Flashing 5 seconds & 5x beep	Load limiter	Platform up	Reduce load Lower platform height

Emergency stop reset **Moved**
The indicator displays a blue flashing pattern:

Blue:	Action or Safety status:	Limitation:	Solution:
Flashing	Emergency stop released	BeNomic PRO stopped	Press reset button (10)
On	Button operated when switched on	Does not enter operating status	Continues to light up blue until operated button is deactivated

Disinfection
The indicator displays a status or purple flashing pattern:

Purple:	Action or Safety status:	Limitation:	Solution:
On	Disinfection * advance notice	None	Disinfect hands
Flashing slowly	Disinfection * time elapsed	Running stops	Disinfect hands

* A hand disinfection tray is available as an option for the BeNomic Star PRO 350, please ask your dealer.

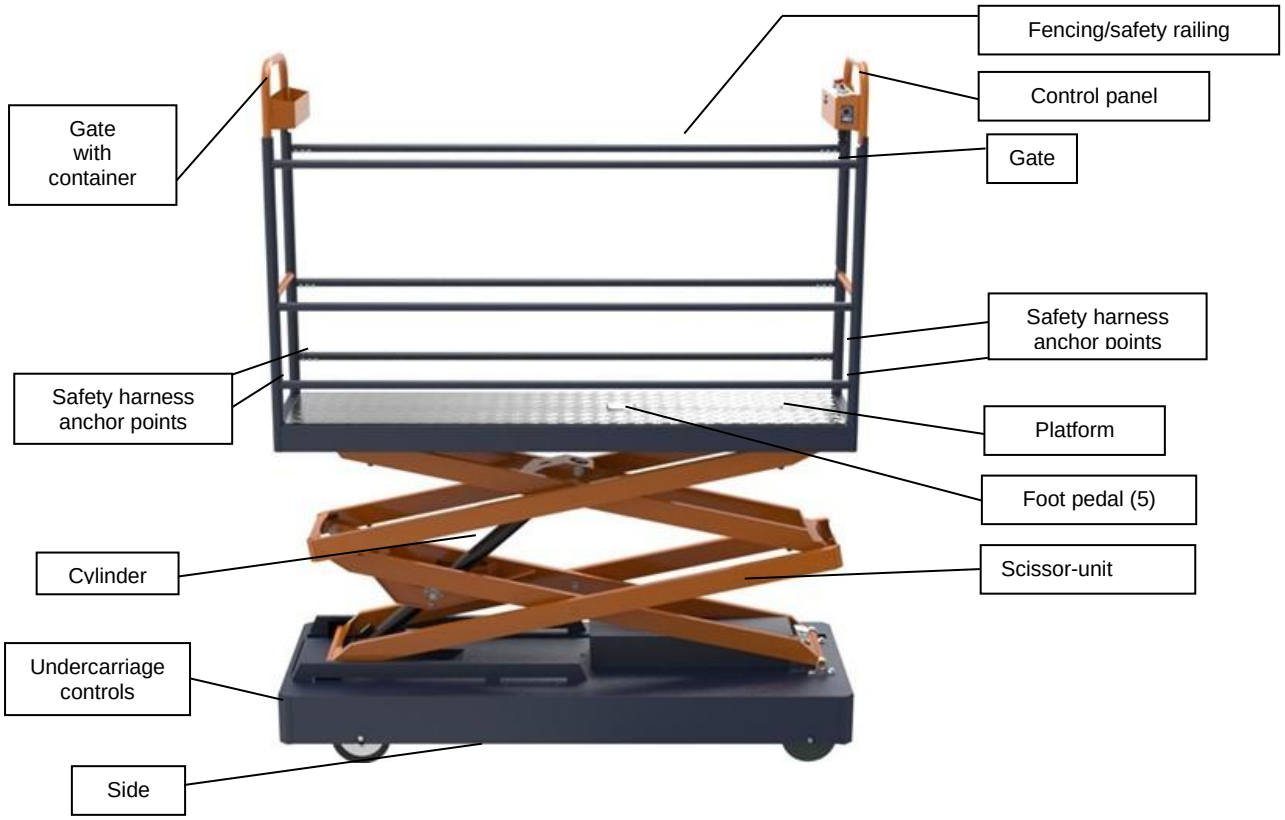
5.3.2 The horn

The acoustic warning gives the user feedback on the action that is being performed, or a changing safety status.

Horn signal:	Action or Safety status:	Limitation:	Status or Solution:
1x beep	Press horn/reset button (2 or 10)	None	The BeNomic PRO is on and ready for use
beep tone	Press horn/reset button (10)	None	Horn is active while being pressed
2x beep every 20 sec.	Batteries empty	No	Fully charge batteries
5x short beep	Incorrect operation, function not possible	The required action cannot be executed	Execute an operation that is possible (safe). (E.g. platform down)

	Button operated when switched on	Does not enter operating status	If it lights up blue, deactivate operated button
1x beep per 1.0 sec	At the start, platform down slowly in the bottom metre	Platform down only slowly	Platform is lower than 1 metre, Beware of entrapment
Slow bleeping	Skew attention when platform higher than 2 metres	No	Level the pipe-rail system
Fast beeping	Skew critical when platform higher than 2 metres	Platform up Running stops	Platform down, Level the pipe-rail system

5.4 Description of the BeNomic Star PRO 350



NOTE:
Safety rail height extenders are supplied/fitted as standard in the French market.

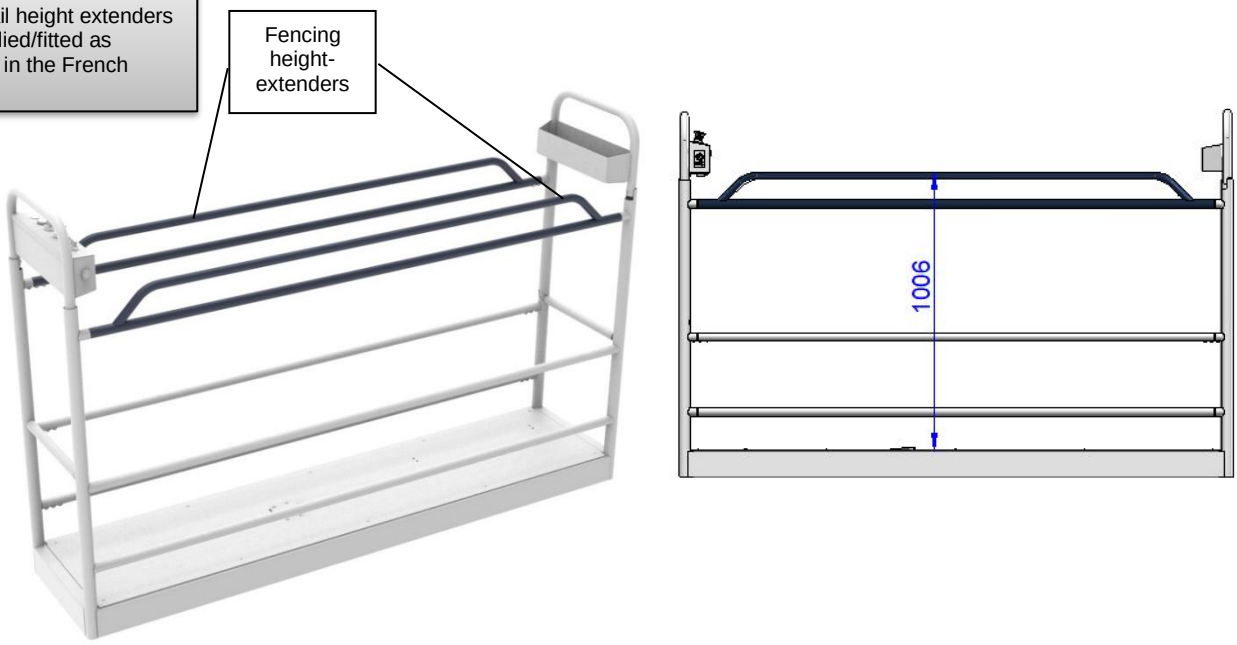


Figure 5.1; Names of the components on the upper side of the BeNomic Star PRO 350

Figure 5.2; Names of the components on the underside of the BeNomic Star PRO 350

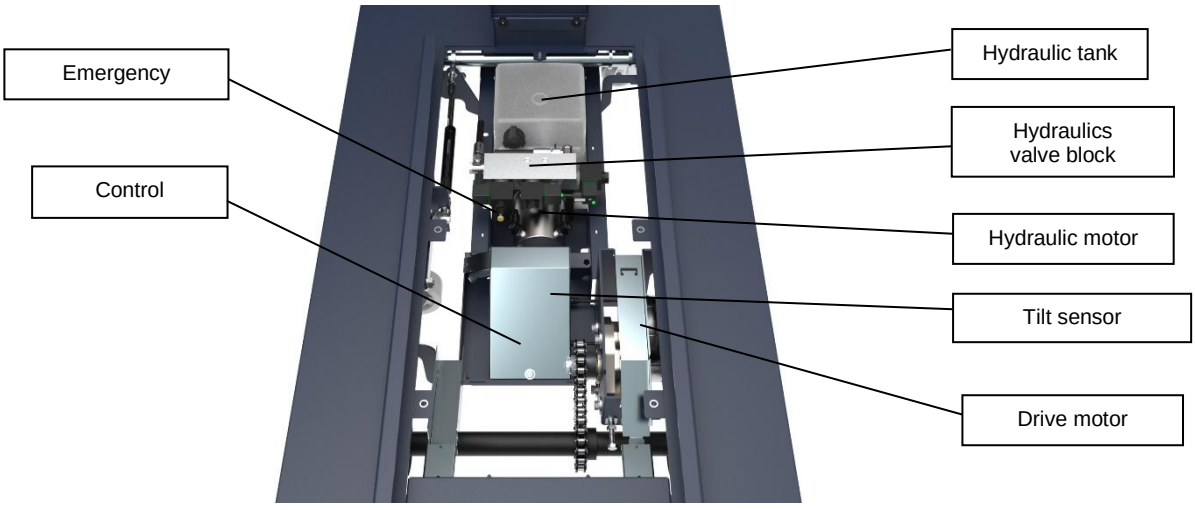


Figure 5.3; Names of the components on the inside of the BeNomic Star PRO 350

6. Transport

6.1 External transport

Please follow the procedure set out below if you need to transport the BeNomic Star PRO 350:

1. Lower the platform fully.
2. The lift wheels are retracted so that the trolley is resting on the flange rollers.
3. Set the direction and speed control to position 0.
4. Switch off the BeNomic Star PRO 350 with the main switch (turn the red key to the horizontal position).
5. Properly secure the BeNomic Star PRO 350 to prevent it from sliding, rolling or toppling over.
6. Ensure that the BeNomic Star PRO 350 remains dry and frost-free during transport.
7. After having arrived at its destination, the BeNomic Star PRO 350 must be started up in accordance with the points described in chapter 7.1.

6.2 Internal transport

The BeNomic Star PRO 350 may also be transported indoors (in the greenhouse). The preferred method here is to drive the trolley on its flange wheels or lift-wheels (see 8.2), but it can also be moved with a forklift. To move it with a forklift, proceed as follows:

1. Lower the platform fully.
2. The lift wheels are retracted so that the trolley is resting on the flange rollers.
3. Switch off the BeNomic Star PRO 350 with the main switch (turn the red key to the horizontal position).
4. Position the forklift forks as far apart as possible and insert them as far as possible under the trolley, keeping them centred.
5. On the other side, check that the forks protrude far enough and are positioned centrally under the BeNomic Star PRO 350.
6. Secure the BeNomic Star PRO 350 to the rack on the forklift truck forks so that the trolley cannot slide or tilt with respect to its position on the forks.
7. Lift the BeNomic Star PRO 350 from the ground carefully, and no higher than necessary.

Attention!
- Secure the BeNomic Star PRO 350 to the rack of the forklift truck with a suitable strap!
- Never lift higher than necessary!
- Make sure that the forklift truck is suitable for lifting at least 1500 kg!
- Remove loose parts from the platform before lifting!
- Drive slowly and carefully!

7. Commissioning

The BeNomic Star PRO 350 has been specially designed to run on a stable pipe-rail system (see 7.2 and 7.3). Berg Hortimotive checked the pipe-rail trolley for proper operation and safety before it left the factory. The items described in paragraph 7.1 must be inspected prior to putting the BeNomic Star PRO 350 into service.

7.1 Inspection before taking into service

The following points must be checked before putting the BeNomic Star PRO 350 into service:

- Fencing, door and control panel mounting (see 7.4).
- Operation of all buttons and functions.
- No damaged cables and/or hoses (leakage).
- The drive and trailing flange rollers and lift-wheels must be undamaged, and they should rotate smoothly;
- The battery should be charged (see Battery indication 8.1.2 No.13).
- Ensure there is no general mechanical damage (with special attention to the scissor components).
- No damage to or impaired visibility of the control components, pictograms and symbols.
- Presence of safety guards and covers.
- The scissor mounting on the undercarriage and the fence on the scissor-lift platform.
- Mounted safety rail height extender for users taller than 1.80 metres.
- Proper working of the lift-system.
- Proper operation of the parking brake.
- Indicator and horn operation as described in Signalling systems (see 5.3) and Controls (see 8.1).
- Special attention should be paid to the periodic checks stated in the following paragraphs of this chapter. These checks should be carried out at least monthly or yearly, according to the stipulation!

7.2 Pipe-rail system in horticulture

The BeNomic Star PRO 350 is intended to run on a stable pipe-rail system. This means that each path between the crops has a track that consists of two pipes of the same diameter with a fixed width between them (centre-to-centre/c to c size). The pipes are often used as heating pipes and are supported with fixed spacing between them.

7.3 Minimum requirements for the pipe-rail system

Stability tests have shown that with unfavourable combinations of pipe type and the support distance of the pipe-rail system, constraints must be applied for the maximum permissible load (see 10.1 Explanation of the technical specifications).

The BeNomic Star PRO 350 is based on a pipe-rail system as described in the Dutch ARBO catalogue. In short, the following key principles apply:

- A pipe-rail system means that each path between the crops has a track comprising two pipes of the same diameter and with a fixed width between them (centre-to-centre/c to c size).
- The pipes are often used as heating pipes and are supported with fixed spacing between them. These supports are subject to a minimum requirement of a 1.5 mm

thick steel base plate (with a stiffening profile), a minimum width of 115 mm and with enough length to ensure that the base plate protrudes at least 70 mm from the two upright supports that carry the pipes.

- The pipes must be of steel quality 37 (steel S235) with pipe diameter and wall thickness of 51/2.25 mm or 45/2 mm respectively.
- The pipes must be anchored into the concrete path. They must not be free-standing!
- Regardless of the pipe-rail system, the requirement is that a maximum support spacing of 1 metre is applied in the last 10 meters!
- At the end of the pipes (in front of the façade), there should be a welded stop with a height of at least 5 cm. The stoppers should be checked once for every change of season to ensure that they are not flattened, bent, skewed or cracked.
- The surface under the pipe-rail system should be sufficiently load-bearing. This is based on a top-layer cone penetration test value of more than 0.4 Mpa (62 psi). It is important to keep the surface dry, flat and therefore hard. Soft/wet spots must be repaired and any subsidence must be permanently resolved.
- The pipe-rail system must have a maximum tilt of 2 degrees, both lengthwise and laterally. This makes it important to check the pipe-rail periodically.

7.4 Mounting of the fencing, door and control panel

7.4.1 Making ready for use after transport

In order to reduce transport volumes, BeNomic Star PRO 350 pipe-rail trolleys are packed and supplied stacked in pairs where possible.
The transport straps and packaging materials are intended for one use only and should be taken to a local recycling firm for disposal.

Figure 7.1: Transport situation

Unstack the BeNomic Star PRO 350 pipe-rail trolley with great care, following the instruction below:

Figure 7.2: Unpacking and unstacking

1. Remove the plastic film and loosen the tension straps (A).
2. Using forklift forks at the marked locations (B), lift the upper BeNomic Star PRO 350 from the lower one.
3. Remove the loose fencing parts and assembly material (C) and fully assemble the BeNomic Star PRO 350 according to the instruction below.

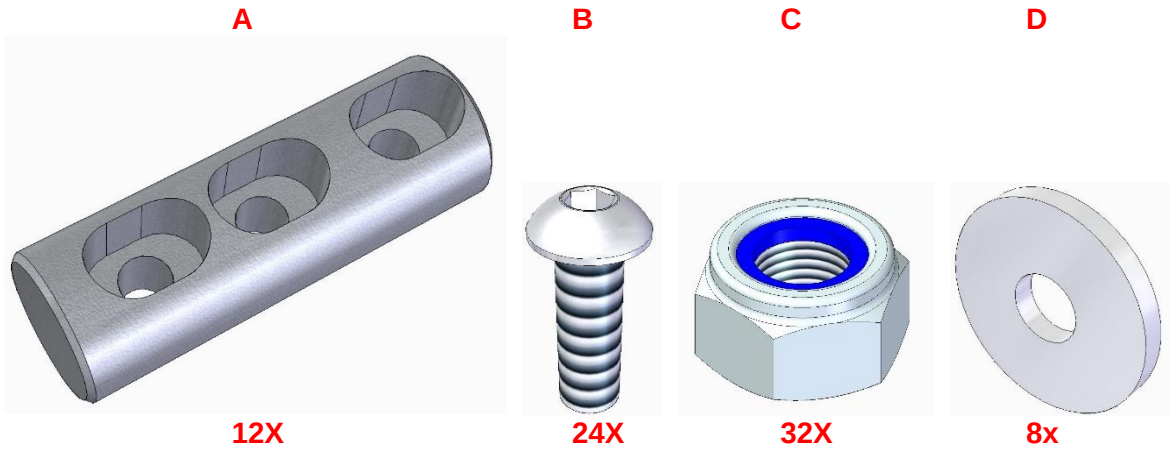
Attention!
- Unstack the BeNomic Star PRO 350 pipe-rail trolley with great care Secure the BeNomic Star PRO 350 to the rack of the forklift truck with a suitable strap!
- Never lift higher than necessary!
- Make sure that the forklift truck is suitable for lifting at least 1500 kg!
- Remove loose parts from the platform before lifting!
- Drive slowly and carefully!

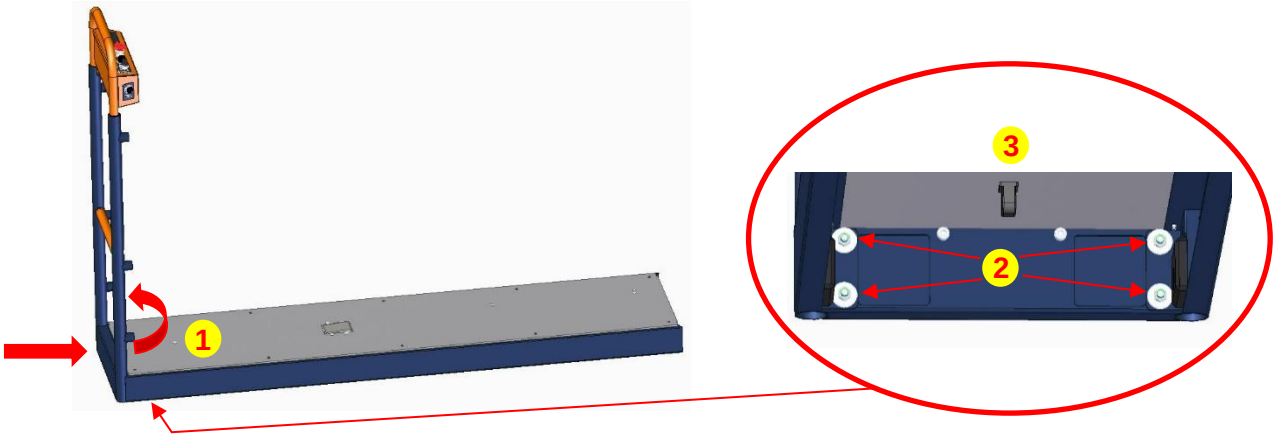
7.4.2 Assembly

The local Berg Hortimotive dealer or end user must mount the fencing, door and control panel before commissioning, following the instruction below:

Note!
- Commissioning the BeNomic Star 350 without the fencing, door and control panel being mounted is prohibited!
- To mount the fencing and fencing part with the control panel and door, use only the bolts, washers and locking nuts provided!

The following mounting material is supplied with each pipe-rail trolley:

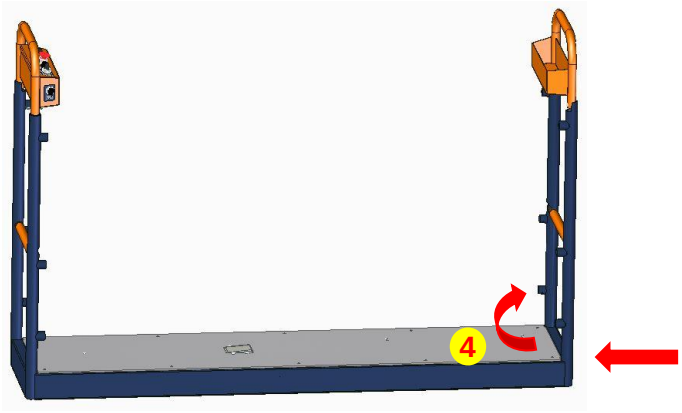




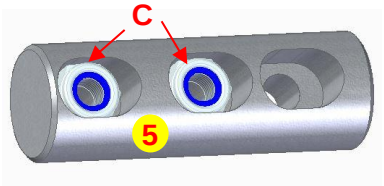
The control panel fencing part will, in most cases, be pre-mounted, depending on the transport method chosen.

If this is not the case, it should be mounted by following these steps:

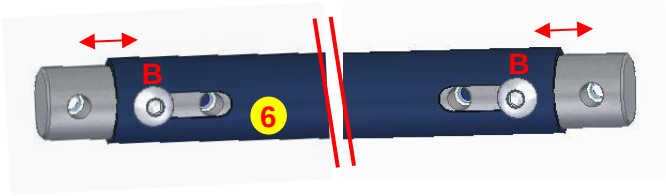
1. Fold the control panel fencing part upwards and slide the screw thread ends into the holes in the platform.
2. Fit the washers (D) and tighten the locking nuts (C) firmly under the platform.
3. Fit the control cable in the bracket under the platform.



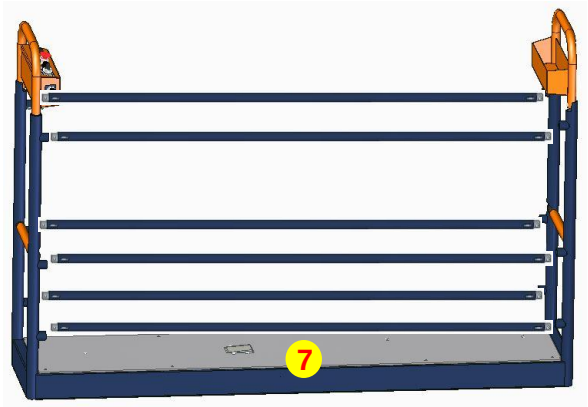
4. Slide the rear fencing part with the door into the platform, repeat step 2 but **do not fully tighten** the locking nuts (C) so that there is still some play to allow the fencing pipes to be mounted easily.



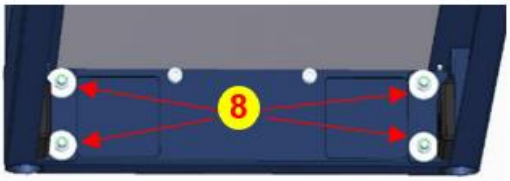
5. Fit the locking nuts (C) into the 12 coupling shafts (A) in accordance with the image above



6. Mount the 12 coupling shafts in the 6 fencing pipes in accordance with the image above, **do not fully tighten** the bolts (B) so that the coupling shafts can still slide into the fencing pipes.



7. Mount the 6 fencing pipes by sliding the coupling shafts (A) into the connecting bushings and fixing with the bolts (B). Then, tighten the bolts (B) in the fencing pipes fully.



8. Finally, tighten the locking nuts (C) on the final fencing part with the door under the platform.
9. After step 8, check that all joints are firmly tightened and that nothing has been overlooked!

7.5 Tilt indication

The BeNomic Star PRO 350 is equipped with a sensor/alarm for both the lengthwise and lateral tilt, with a visual warning signal, which may be supplemented with an acoustic warning signal.
For a complete overview of the visual and acoustic warning signals, refer to paragraph 5.3.

The operation of the tilt indication should be checked monthly.
Put the BeNomic Star PRO 350 on a flat concrete floor and operate the platform upwards to about 220 cm using the scissor-control service button (2 and 3) as described in 8.1.1. Then, place a pallet jack on one side under the side edge of the BeNomic Star PRO 350 and increase the tilt step by step. During this test, the following acoustic signals should be heard:

- Slow bleeping; there is a skew position; be extra alert!
- Rapid beeping; the tilt is critical; take action!

Establish whether the acoustic signals can be heard or not during this check; if so, the tilt indication is approved.

It is prohibited to work with the BeNomic Star PRO 350 if the tilt indication is not working!

Consult your dealer if the tilt indication does not pass the periodic inspection!

The BeNomic Star PRO 350 will respond in the following order if the pipe-rail system is not properly level:

If the platform is higher than 200 cm:
If skewed, the orange indicator (11) will flash and the horn will beep slowly.
Driving with a raised platform is possible, but be extra careful!

In the event of critical alignment, the indicator (11) will flash orange, the horn will beep quickly and driving and climbing will be stopped immediately.
Proceed as follows:

- Lower the platform to below 2 metres
- The horn will stop beeping.
- The orange lamp (11) lights up green again
- Drive back until the BeNomic Star PRO 350 is less skewed
- Follow the recommendations below immediately

Follow-up action after exceeding skew:
The pipe-rail system should be levelled to horizontal before work may be resumed. First test out the prepared section of rail by running over it with the platform in the lowest position at low speed. If this does not pose a problem, test a second time with the platform raised at a minimal speed. If there are no problems, normal activities can be resumed.
Use a sound and sustainable solution to resolve the misalignment of the rails!

Note!
This preventive action will help to prevent future unsafe situations!

7.6 Load limiter measurement system

The BeNomic Star PRO 350 is equipped with a load limiting system that prevents the platform from being used when too heavily loaded. If the load exceeds that indicated on the safety sticker (4.3), the platform will not go up. The indicator (11) flashes red for 5 seconds and beeps 5x. Driving is still possible.

The operation of the load limiting system should be checked monthly.
Put the BeNomic Star PRO 350 on a flat concrete floor and operate the platform upwards with the scissor-control service button (3) as described in 8.1.1. The platform will move upwards. Lower the platform again and put a weight of >75 kg on the platform. Then, operate the platform upwards with the scissor-control service button (3) and establish that the platform stops rising within 50 cm, after which the indicator (11) will flash red for 5 seconds and the horn will emit a brief beep 5x. The load limiting system is thus approved.

It is prohibited to work with the BeNomic Star PRO 350 if the platform does not stop as described above!

Consult your dealer if the load limiting system does not pass this periodic inspection!

7.7 Load-holding function

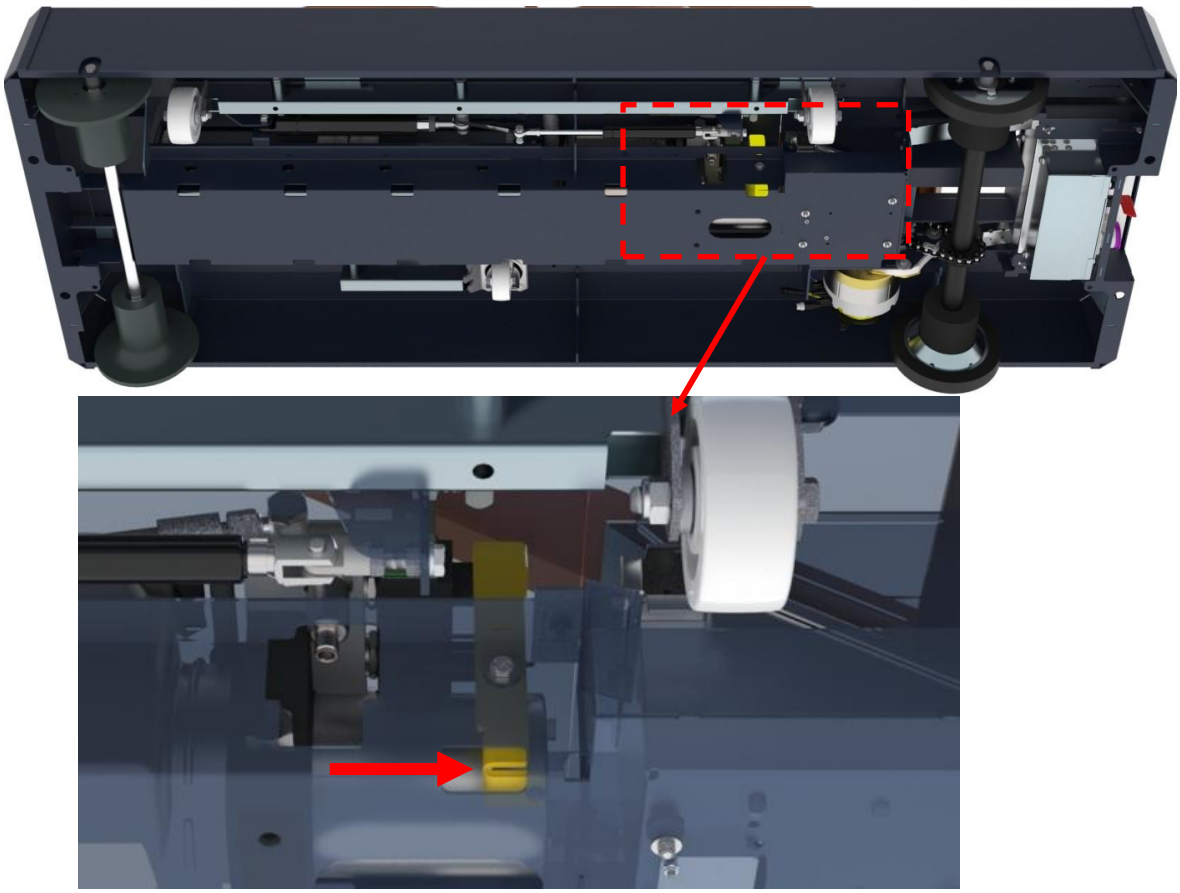
If the hydraulic hose is punctured when using the platform in the raised position, the “load-holding function” will immediately operate. The platform stops lowering, after which the operator has to drive it back to the main path slowly. Stay calm, get help, and contact your dealer.

7.8 Scissors-blocking device

In order to be able to perform work and maintenance safely when the platform is raised, the scissor-locking device safety sleeve must always be fitted
(for this, see paragraph 9.2).

7.9 Emergency lowering valve

The emergency lowering valve is located under the frame and can be operated by hand



If the scissors no longer go down with the controls on the platform (9) nor with the controls on the leading edge of the BeNomic Star PRO 350 (2 and 3), the yellow emergency lowering valve lever must be moved forwards in the direction of the arrow.

Attention!
Beware of trapping your hands, arms and head between the scissors parts or under the platform! Use this function only in an emergency!

7.10 Pipe detection sensor

To protect the user against incorrect use, the BeNomic Star PRO 350 is fitted with a pipe-rail detection sensor. Depending on where the BeNomic Star PRO 350 is located, functions are automatically limited on the pipes in a harvesting path or on the concrete path (see 7.11, 7.12 and 8.3.1 and 8.3.2).

The operation of the pipe-rail detection sensor is automatically tested when the BeNomic Star PRO 350 is turned on.

7.11 Speed limiter on the concrete path

The speed on the concrete path is limited to 83 m/min., it is, however, advisable to set a lower speed with the speed control knob (7).

The speed on the concrete path is limited to a maximum of 30 m/min. if the platform is higher than 80 cm; this situation occurs when crossing the main path (central path) or in crop work along a façade path.

7.12 Pipe - concrete path transition

With the pipe-rail (harvesting path) to concrete path transition, the BeNomic Star PRO 350 automatically stops running when the pipe-rail sensor (in the middle of the trolley) no longer detects any pipe-rail. However, it is recommended that the user knows when the concrete path is approached in order to reduce the speed and stop in time. (see also 8.3.2).

Note!
Moderate the speed when approaching the concrete path, look out for bystanders!

8. Use

Make sure that you are familiar with the BeNomic Star PRO 350 and its controls. Make sure that the person operating the BeNomic Star PRO 350 has received instructions regarding the pipe-rail trolley and its safety precautions, and has read and understood this manual.

- The BeNomic Star PRO 350 may only be operated if you are certain that no one is in the immediate vicinity of the pipe-rail trolley.

Before use, remove crop remains and other waste or obstacles from the pipe-rail system.

- Keep the BeNomic Star PRO 350 clean and remove dirt accumulations at regular intervals. To clean the vehicle, turn it off by removing the key from the ignition.
- After using the BeNomic Star PRO 350, remove the key from the ignition switch.
- Maintain the BeNomic Star PRO 350 regularly and place it in a dry, frost-free place if it is not going to be used for a longer period.

Charge the batteries when only 1-2 orange LEDs light up on the the battery status indicator. If this is reached during work, it is usually possible for work to continue until the end of the day. If an acoustic signal repeatedly gives two beeps, the BeNomic Star PRO 350 should immediately be recharged. Charging must not be interrupted until the charge indicator shows that it is fully charged, after approximately 12 hours. (See the battery charger manual for this). Brief charging during coffee and lunch breaks must be avoided as this can cause serious damage to the batteries. Charging too soon (when the battery status indicator has more than three orange LEDs) will result in a shorter battery lifespan because the batteries wear with each charging cycle. Avoid unnecessary charging!
Explosive gas is released when the batteries are being charged. Keep sparks, naked flames or cigarettes away from batteries. Ensure that the place where batteries are charged and/or stored is well ventilated. Ensure that no metal objects can fall on the battery as this could cause short circuits or sparks which in turn could lead to an explosion.

8.1 Operation

8.1.1 Undercarriage controls

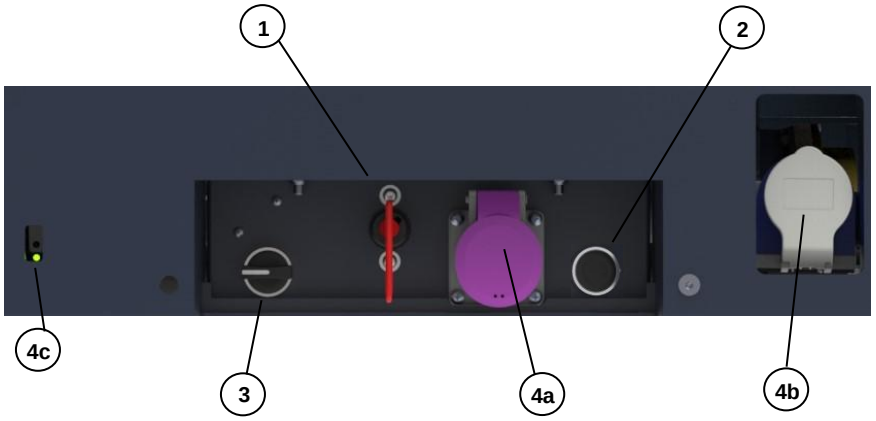


Figure 8.1; Controls on the BeNomic Star PRO 350 undercarriage

1. MAIN SWITCH/EMERGENCY STOP
The BeNomic Star PRO 350 can be switched on and off with the main switch. If the red key is in the running direction (vertical), then the trolley is ON, if the red key is perpendicular to the running direction (horizontal), then the trolley is OFF. The BeNomic Star PRO 350 is activated after a reset button (2/10) is operated. When the BeNomic Star PRO 350 is switched on, a beep will sound and the indicator will light up green, the battery status indicator will also start up (see 8.1.2 Platform controls). When the BeNomic Star PRO 350 is not being used or charged, the red key should be taken out of the ignition. The main switch also serves as an emergency stop. If the key is positioned horizontally, the trolley is completely switched off.

2. SCISSOR UNLOCK SWITCH KNOB/RESET
The release button (2) releases the service button (3) for use, this button must be pressed continuously during the upward or downward movement.

In addition, the unlock/reset button (2) activates the BeNomic Star PRO 350 after the main switch (1) is moved to the vertical position.

3. SCISSOR-CONTROL SERVICE BUTTON
The scissor-control selector switch allows the platform to be raised or lowered without standing on it. The BeNomic Star PRO 350 should not be on the pipe-rails for this operation! Keep the unlock button (2) pressed and turn the service button (3), white stripe up, and the platform will rise as long as the buttons are operated. Keep the unlock button (2) pressed and turn the service button (3), white stripe down, and the platform will lower as long as the button is operated.

Attention!
- ***Ensure that no persons or objects can get under or between the scissors construction while lowering!***
- ***An acoustic signal will sound while the platform slowly lowers during the final stage of lowering!***
- ***Provide adequate space above the BeNomic Star PRO 350 to allow the scissors to rise!***
- ***Do not use the buttons if anyone is on the platform!***

4a. CHARGING PLUG SOCKET
You can use this socket to charge the batteries. Make sure that the plug is removed before the BeNomic Star PRO 350 is put into operation! Always remove the charging plug during maintenance. Only a suitable charger should be used - see the specifications on the charger.

4b. CHARGING PLUG SOCKET (option!)
This charging plug socket is mounted only when the BeNomic Star PRO 350 features an internal battery charger. A 230 V extension cable should be connected to this if the batteries need charging.

4c. INTERNAL BATTERY CHARGER INDICATOR (optional!)
If the BeNomic Star PRO 350 has an internal battery charger, the status indication of the battery charger can be read off at position (4c).

5. FOOT PEDAL
A foot pedal (5) is mounted in the platform (page 20), the BeNomic Star PRO 350 will run in the desired direction for as long as the foot pedal is operated.
You will hear 5 short beeps if a safety system engages and signals that the trolley may not be driven.

8.1.2 Controls on the platform

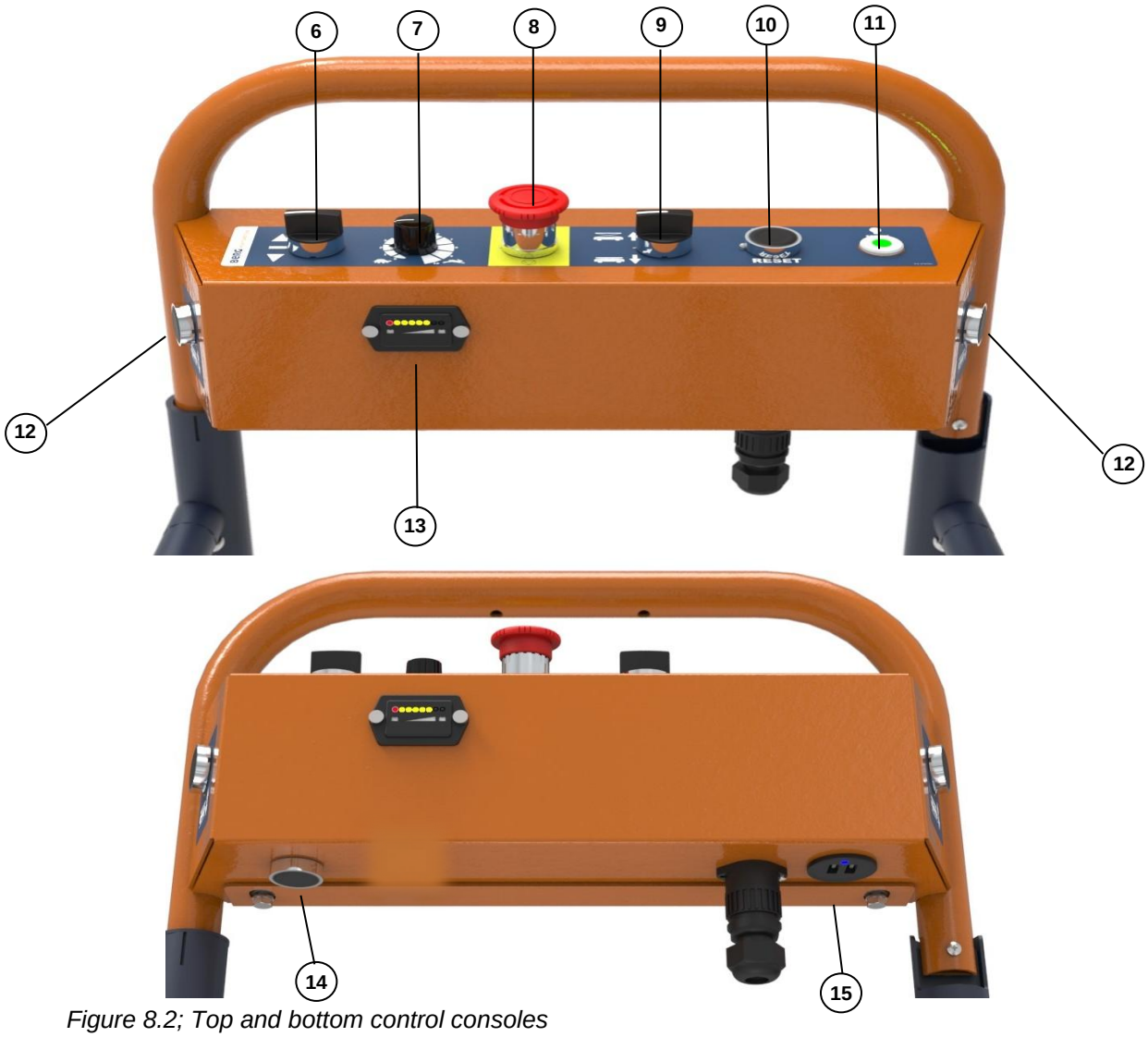


Figure 8.2; Top and bottom control consoles

6. DIRECTION OF TRAVEL REVERSE SWITCH
The direction of travel selected is determined by setting the selector to the desired direction.

7. SPEED CONTROL KNOB
0 = idle 10 = maximum speed

8. EMERGENCY STOP
Only use in case of emergency! The main switch (1) must be used for switching off.
- Press = stop
- Turn-pull out = release

When an emergency stop is activated, the red indicator will light up.
After 2 minutes, the BeNomic Star PRO 350 goes into “sleep mode”, the indicator (11) and the battery status indicator (13) are no longer lit up.
This sleep mode is only activated if the platform is lower than 80 cm.

If the emergency stop is released within two minutes, the indicator will flash blue, then press HORN/RESET button (10) briefly to re-activate the BeNomic Star PRO 350 for operation.

Starting up after engaging the emergency stop or “sleep mode” active

Never release an emergency stop (reset) if you do not know who engaged the emergency stop and why.

Release the emergency stop only when the dangerous situation has been averted!

Then, press the HORN/RESET button (10) to activate the BeNomic Star PRO 350 for use. (also see 1. MAIN SWITCH/EMERGENCY STOP)

Attention! After an emergency stop, always check the parking brake!
Start up the BeNomic Star PRO 350 in accordance with the procedure described above and try to push the trolley away manually. If this fails, the parking brake is cleared.

9. PLATFORM DOWN/UP, ROTARY SWITCH
The rotary switch can be used to lower or raise the platform when the pipe-rail trolley is completely installed on the rails. The platform will lower as long as the knob is turned counter-clockwise.

Beware of people or objects in the vicinity of the scissors while lowering!
An acoustic signal will sound while the platform slowly lowers during the final stage of lowering!

The scissors will rise to a maximum platform height as long as the button is turned up clockwise. The maximum height is 3.5 metres.
Release the button as soon as the platform has reached the maximum height!

10. HORN/RESET
Use the horn if you want to warn someone, an acoustic signal is audible as long as the push-button is pressed.

Use the horn/reset button (10) to activate the BeNomic Star PRO 350, “reset” after using the main switch (1) or the emergency stop (8). After this operation, the indicator (11) will light up green continuously when the BeNomic Star PRO 350 is in a safe status, it is then ready for use.
The horn “beeper” also gives feedback to the user if the safety status of the BeNomic Star PRO 350 changes (for this, see 5.3.2).
The horn/reset button (10) can also be used to reset certain alarms, see paragraph 8.7 Problems, causes and solutions.

11. THE MULTI-COLOUR INDICATOR
The indicator indicates the current status of the BeNomic Star PRO 350 and is also feedback to the user if the safety status of the BeNomic Star PRO 350 changes. (for this, see 5.3.1).

12. HYDRAULIC LIFTING OF THE TROLLEY
Pressing this button (once) will result in complete lifting or setting down of the BeNomic Star PRO 350, after which it can be manually rotated and moved.

Note!
- ***Only lift the machine on a flat surface (on the concrete floor or on the main path), never lift it on the pipe-rail system or on a concrete floor with a slope!***
- ***Fully lower the platform before lifting the BeNomic Star PRO 350!***
- ***Beware of toes and feet when lowering the BeNomic Star PRO 350!***

13. BATTERY STATUS INDICATOR

You can read off the status of the batteries on the battery status indicator. If all LEDs light up, then the battery is fully charged, the battery charge is proportional to the number of LEDs that light up. The LEDS are coloured Orange and Red. When all the orange LEDs are on, the batteries are charged 90 to 100%, for each orange LED that goes out, approx. 10% battery power has been consumed. Charge the batteries when only 1-2 orange LEDs light up on the the battery status indicator. If this is reached during work it is usually possible for work to continue until the end of the day. If the last orange LED starts to flash, the battery empty status is about to become effective. Finish work in the harvest path and following the recommendations below to charge the battery. If an acoustic signal repeatedly gives two beeps and the red LED is lit up, the BeNomic Star PRO 350 should be recharged immediately. Switch the BeNomic Star PRO 350 off with the main switch and charge the battery without interruption for at least 12 hours until the battery charger indicates full (consult the battery charger’s user manual).
Avoid charging before the battery status indicator indicates 50% discharge (3-4 orange LEDs). Always try to equalize the approx. 20% discharge status (1–2 Orange LEDs). This has the following advantages:

- Reduced number of charging cycles, improves the service life
- Less water use
- Less energy use

If the battery status indicator LEDs flash, then the BeNomic Star PRO 350 is being recharged without it being switched off using the main switch. Switch off the BeNomic Star PRO 350 and wait until the battery charger stops charging automatically, the batteries are then fully charged!

Regardless of the level of usage, charge the batteries at least once a month using a suitable charger! Avoid deep discharge of the batteries, this causes severe damage and shortens the life!
(see also the instructions contained in Appendix 3 battery safety sheet).

14. CRUISE CONTROL IN THE HARVESTING PATH
The cruise control function can be activated in the harvest paths by pressing the push button (14); you will then hear a beep and the indicator will flash green. Then, briefly press and release the foot pedal, the BeNomic Star PRO 350 will move at the set speed. The indicator will light up green continuously. Adjust the ground speed to your working speed with speed control knob (7).
The BeNomic Star PRO 350 will stop if the foot pedal is pressed briefly (indicator flashes green), you do not need to hold the foot pedal down! Pressing the foot pedal a second time will restart driving with the cruise control function.

After reversing the direction of travel, you must reactivate the cruise control system by pressing and releasing the foot pedal.

On returning to the concrete path, the BeNomic Star PRO 350 automatically stops running when the pipe-rail sensor (in the middle of the trolley) no longer detects a pipe. The cruise control function will automatically switch off here!

The cruise control function can be deactivated by pressing the push button (14) again, the indicator will then light up green continuously.

15. USB CONNECTION (optional)
The USB power connector serves to charge and/or power original USB accessories with a maximum consumption of 2.1 A per connection.

8.2 Moving the BeNomic Star PRO 350 on the main path

There are two methods for moving the BeNomic Star PRO 350 along the main path. Always walk next to the trolley, never in front of it!
The first option on the flange rollers. Select a direction of travel and speed (up to position 4). Press the foot pedal and the BeNomic Star PRO 350 will move in the selected direction.
The second option is to put the trolley on its lift wheels. Press button (12); the BeNomic Star PRO 350 will now be supported on its lift wheels. The BeNomic Star PRO 350 is easy to turn and move sideways.

Attention!
- ***Never leave the BeNomic Star PRO 350 unattended on its lift wheels.***
- ***Always walk next to/behind the trolley!***
- ***Take care with ramps and trenches, reduce the speed!***

8.2.1 Crop work on a row of plants along a façade path

It is possible to drive at height on the concrete path, in which case the speed will be limited to 30 m/min. above 80 cm.

Note!
- ***The BeNomic Star PRO 350 is lacking continuity of pipe-rail and might gradually depart from its original track.***
- ***Correct the position of the BeNomic Star PRO 350 promptly, and do not hang over the safety railing!***
- ***Take care with ramps and trenches, and reduce speed!***
- ***The speed on the concrete path is limited!***
- ***Always use the correct, recommended personal protective equipment (PPE) (see 5.2 Protective devices)***

8.3 Moving the BeNomic Star PRO 350 on the harvest path

The speed selected on the harvesting path is one that best suits the work. (see Appendix 3 *Efficient use of the pipe-rail trolley and batteries).*
The BeNomic Star PRO 350 will move in the desired direction as long as the foot pedal is operated.
While running, keep an eye on the position relative to the beginning and end of the harvesting path, moderate the speed and stop in time!

8.3.1 Driving into the harvesting path

Position the BeNomic Star PRO 350 straight in front of a harvesting path and drive it fully onto the pipe rails.
When necessary, raise the platform to working height using rotary knob (9) afterwards.

Attention!
- ***Always use the correct, recommended personal protective equipment (PPE) (See 5.2 Protective devices)***

8.3.2 Driving out of the harvesting path

On returning to the concrete path, the BeNomic Star PRO 350 automatically stops running when the pipe-rail sensor (in the middle of the trolley) no longer detects a pipe. Lower the platform completely and activate the foot pedal again, as described for foot pedal (5) in paragraph 8.1.1.
The safest way to cross the main path is in the lowest position.
If crossing occurs with the platform in a high position, the speed on the concrete path is automatically limited!
Cross over or move the BeNomic Star PRO 350 to another harvesting path as described in paragraph 8.2.

8.4 Automatic switch-off “sleep mode"

The BeNomic Star PRO 350 is equipped with an automatic switch-off function to save energy when you forget to switch off the trolley at the main switch (1).
After one hour of no operation, the BeNomic Star PRO 350 will automatically enter “sleep mode”, the indicator (11) and the battery status indicator (13) will no longer be lit up.
Remove the BeNomic Star PRO 350 from this function by briefly pressing the HORN/RESET button (2 or 10) (see also 1. MAIN SWITCH/EMERGENCY STOP)

Note!
- ***In “sleep mode”, the BeNomic Star PRO 350 is not switched off!***
- ***Never leave the BeNomic Star PRO 350 unattended when the key is still in the main switch!***

8.5 Out of service

If the BeNomic Star PRO 350 is out of use, make sure that the platform is in the lowest position and that the lift wheels are retracted so that the trolley stands on its flange rollers. Always switch off the machine, using main switch and remove the key. Store it **with charged batteries** in a moisture-free and frost-free room. It is recommended to connect the batteries on the BeNomic Star PRO 350 to a trickle charger. Otherwise, the batteries should always be charged at least monthly (even if the BeNomic Star PRO 350 remains stationary for a long period of time). Provide a level surface and protect the trolley from direct sunlight. If the BeNomic Star PRO 350 is put back into operation after a longer period in storage, it must firstly be inspected as described in section 7.1 (Inspection before starting operations).

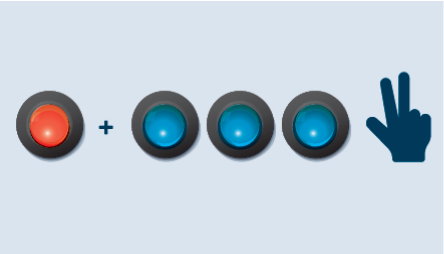
8.6 Cleaning

Regularly remove any remains of plant residue and sharp material such as sand and dust. Clean the pipe-rail trolley with a dry/damp cloth and soft brush. If it is dry, you may clean the BeNomic Star PRO 350 with compressed air. Never pour water over the BeNomic Star PRO 350 and/or clean the machine using a steam or high-pressure water cleaner, as this can cause serious damage to the electrical circuits
Every week, remove sand and dirt from the frame at the level of the scissor-slide blocks. (see also Appendix 4. Cleaning the powder coat finish).

8.7 Problems, causes and solutions

The BeNomic Star PRO 350 is equipped with various protective devices that can temporarily block intended functions.
A multi-colour indicator (11) and horn are used to alert the user to a changed status or incorrect operation during use of the BeNomic Star PRO 350. Always start by referring to the table below for the following situations.

If the multi-colour indicator (11) lights up red followed by a number of short blue flashes, the short blue flashes must be counted. The system has detected an alarm that requires the follow-up below.



Alarm code red Blue:	Cause:	Limitation:	Solution/user action:
Flashing 1x	Lifter in centre position or sensor malfunction	Running stops Platform up	Press the reset button or lifter button Consult your dealer
Flashing 2x	Tilt sensor signal is absent with platform lower than 2 m.	Drive with platform higher than 2 m.	Everything continues to operate with the platform lower than 2 m. Consult your dealer
Flashing 3x	Height sensor signal absent	Platform up Platform down only slowly Lifter off	Lower platform completely and return to main path Consult your dealer
Flashing 4x	Pipe sensor signal absent	Platform up Running stops	Press the reset button, the indicator lights up green again (temporarily), limited operation is possible Consult your dealer
Flashing 5x	Drive impulses absent (encoder malfunction) The BeNomic is blocked	Running stops	Press the reset button, the indicator lights up green again (temporarily), driving is possible again Consult your dealer
Flashing 6x	Speed exceeded or motor drive alarm	Running stops	Press the reset button, the indicator lights up green again If this did not rectify the problem, press the cruise control button, count the red impulses and report this to your dealer

Alarm code red Blue:	Cause:	Limitation:	Solution/user action:
Flashing 7x	Pressure sensor signal absent	Platform up no longer operational	Press the reset button, the indicator lights up green again If after up 5x beep and alarm code displayed again Consult your dealer
Flashing 8x	Faulty pump relay K1	Hydraulic system no longer operational	Switch the main switch off immediately Consult your dealer

Problem A : **The BeNomic Star PRO 350 does not drive.**

Cause: ***Key switch is off (*indicator off*)***
Solution: *Enable key switch (vertical)*
Emergency stop locked (*indicator red*)
Release emergency stop (turn/pull out) and reset button)
Speed potentiometer at 0
Set a speed
Motor controller fault (alarm code 6)
Press reset button/switch off and on again at the main switch
Consult your dealer
Battery terminals make poor contact
Clean the battery terminals, remount the clamps
Defective foot pedal
Replace foot pedal, consult your dealer
Lifter not withdrawn far enough or sensor malfunction (alarm code 1)
Press reset button/withdraw lifter (system) fully (12) or check sensor
25A circuit breaker in 0-position
Consult your dealer
6.3 A control circuit fuse defective.
Consult your dealer

Problem B : **Speed can be poorly adjusted.**

Cause B: ***Speed control button is defective.***
Solution: *Consult your dealer*
Pipe sensor is defective (only runs slowly)
Consult your dealer
Drive motor control is defective
Consult your dealer

Problem C: **The work platform will not raise/lower.**

Cause C: ***Lifter system sensor not activated/malfunction(5x beep or alarm code 1)***

Solution: *Press reset button/withdraw lifter system fully or check sensor*
Batteries empty *(red LEDs on battery status indicator and 2x cyclic beeps)*
Charge batteries
Battery terminals make poor contact
Clean the battery terminals, remount the clamps
Key switch is off (*indicator off*)
Enable key switch (set vertical)
Emergency stop pressed (*indicator red*)
Release emergency stop (turn/pull out) and reset button)
Overload (*indicator flashes red for 5 sec*)
Reduce load. (see 10. Specifications)
Insufficient hydraulic fluid
Replenish hydraulic fluid (scissors up, supplier information)
Switch/button faulty
Try the scissor-control service button next to the main switch
80 A fuse defective.
Consult your dealer
6.3 A control circuit fuse defective.
Consult your dealer

Problem D: **The lifter system won't go off/come on.**

Cause D: ***Platform too high (5x beep)***

Solution: *Lower the platform to the lowest position*
The BeNomic Star PRO 350 is on the pipe-rail system (5x beep)
Drive the trolley off of the pipes
Batteries empty *(red LEDs on battery status indicator and 2x cyclic beeps)*
Charge batteries
Battery terminals make poor contact
Clean the battery terminals, remount the clamps
Key switch is off (*indicator off*)
Enable key switch (set vertical)
Emergency stop pressed (*indicator red*)
Release emergency stop (turn/pull out) and reset button)
Insufficient hydraulic fluid
Replenish hydraulic fluid (scissors up, supplier information)
Switch/button faulty
Try the scissor-control service button next to the main switch
80 A fuse defective.
Consult your dealer
6.3 A control circuit fuse defective.
Consult your dealer

Problem E: **BeNomic Star PRO 350 has toppled over.**

Cause E:
- ***Carelessness with the forklift truck***
- ***Unstable pipe-rail system***
- ***Excessive applied sideways force***
- ***Overloaded***
- ***Tilt detector ignored***
- ***Have run into a path next to the pipes***
- ***Lifting on uneven surface***

Solution:
1. *Switch the trolley off*
2. *Set the trolley upright*
3. *Remove covers*
4. *Disconnect the batteries*
5. *Clean the trolley*
6. *Observe the damage*
7. *Find the cause and provide a sustainable solution*
8. *Check according to chapter 7*

!!!BEWARE of liquids, battery acid is very corrosive!!!

8.8 Disassembly

If your BeNomic Star PRO 350 has become so worn and defective that it must be dismantled, you must take it to your supplier or another company that specialises in dismantling vehicles. Never take your BeNomic Star PRO 350 to a scrap metal merchant or tip. The BeNomic Star PRO 350 must be dismantled and chemical parts (hydraulic fluid and batteries) must be disposed of correctly.

Deposit defective batteries at your municipal dump or your supplier.
Dispose of oil/fluid as chemical waste.

9. Maintenance and repairs

The BeNomic Star PRO 350 is a high-quality product. The following maintenance instructions must be strictly followed to safeguard its quality. Repair and maintenance work must be recorded in the maintenance logbook (see Appendix 1). The employer is also responsible for periodically checking and/or testing tools and equipment (or having these checked and/or tested) according to the current Working Equipment Guidelines. To carry out maintenance, switch the BeNomic Star 350 off using the main switch and remove the key from the ignition:

Maintenance - Checks	Tools	Daily	Weekly	Monthly	Yearly
Sufficiently charged battery (see 8.1.2 (13))	Battery status indicator	X			
Damage to control components	Visually	X			
Damage to/visibility of pictograms and stickers	Visually	X			
Cleaning the foot pedals + platform	Brush/damp cloth		X		
Clean the operator panel	Brush/damp cloth		X		
Clean the frame and scissor-slide blocks	Brush/damp cloth		X		
Check for leakage, and damaged cables and hoses	Visually		X		
Check for ingrained dirt or string wrapped around wheels and chain	Visually		X		
General mechanical damage	Visually		X		
Lifting and lowering movement – check for jerkiness (low hydraulic fluid level)	Hydraulic fluid ISO Viscosity Grade 46		X		
Charge batteries when necessary, and at least once per month (see 8.1.2 (13))	Battery charger			X	
Check battery fluid levels (plates should be 1 cm below the fluid level, see Appendix 3)	Distilled water, gloves and glasses			X	
Check that the tilt signal is operating correctly	Test > 2 degrees			X	
Check parking brake operation	Push-away attempt fails			X	
Check for leaks on hydraulic components (pump/valves) under the cover	Tool to remove bolt from the cover			X	
Check pipe-rail wheel wear (see 9.5)	Visually			X	
Grease the hoist wheels, drive chain and ball bearings	Ball-bearing grease, chain lubricant or another universal lubricant			X	
Check chain tension (see 9.4)	Open-ended spanner			X	
Cap mountings on the scissor-shafts	Visually			X	
Grease the hinged parts of scissor-unit (see 9.2)	Grease gun and grease				X
Grease the hinged parts on the lift-system	Spray grease/lubricating grease				X
Check welds on the scissor-unit for cracks (hairline) and rust	Visually				X
Check welds of platform structure for (hairline) cracks and rust around harness anchor points.	Visually				X

If the above checks indicate that there is a fault with the BeNomic Star PRO 350, contact your BeNomic Star PRO 350 dealer immediately. It is extremely dangerous, and prohibited, to put the trolley into operation if there are known faults. The regulations governing maintenance and repair may vary by country, always consult the local safety bodies before use as these regulations are leading. After maintenance and/or repair, the steps in section 7 Commissioning of this manual must be carried out before commissioning.

9.1 Specialist maintenance

Maintenance and repairs to the items listed below may only be carried out by approved Berg Hortimotive dealers:

- Work on electrical components/wiring (excluding replacing the foot pedal)
- All work on the hydraulic system.
- All work concerning the drive motor and the reducer unit (excluding cleaning, readjustment or replacement of the chain and chain-sprockets).

9.2 Maintenance on, in or under the scissor-unit

For maintenance work on, below or between the scissor construction, the separate scissor-locking device should be fitted.
To do this, proceed as follows:

1. Set the platform to the required height with the service buttons (2 and 3).
2. Secure and fix the scissor-locking device around the shaft under the platform (A).
3. Lower the platform (B) with the service buttons (2 and 3) until it is in a fixed position around the scissor structure axis (C)
4. Switch off the BeNomic Star PRO 350 by means of the main switch (1).

After maintenance, the aforementioned operations are carried out in reverse order; operate the BeNomic Star PRO 350 as follows.

After maintenance, switch on the BeNomic Star PRO 350 with the main switch.
By then pressing and holding the release button (2) for 5 seconds (beep audible), the service button (3) is released for use, the indicator (11) now flashes blue. Remove the fixed bolt (C) and move the platform up a little, after which the scissor-locking device can be removed. Then, operate the platform completely down. Then, operate the horn/reset button (10) to activate the BeNomic Star PRO 350 for normal use. After this operation, the indicator (11) will light up green continuously when the BeNomic Star PRO 350 is in a safe status, it is then ready for use.

Figure 9.1: Use of the scissor-locking device

The scissor shafts run on bearing bushes. The inner-parts of the scissors are connected to the outer ones with a shaft. To prevent rust on the shafts, lubricate them with a

universal lubricant, using a grease gun at least once annually. Raise the scissors and block the unit using the scissor-lock (see figure 9.1). Put the grease gun on the nipples (see figure 9.2) and pump in grease until it comes out at the ends at the bearing bushes.

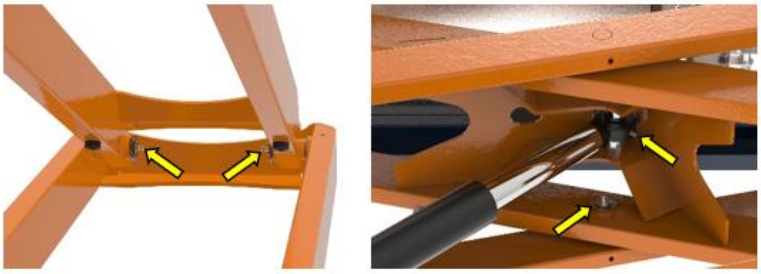


Figure 9.2; Position of the scissor shafts and cylinder rod head grease nipples

9.3 Pipe-rail system maintenance

The pipe-rail system on which the BeNomic Star PRO 350 runs should be checked on a regular basis. The BeNomic Star PRO 350 is intended to run on a stable pipe-rail system. This means that each path between the crops has a track that consists of two pipes of the same diameter with a fixed width between them (centre-to-centre/c to c size). The pipes are often used as heating pipes and are supported with fixed spacing between them. Stability tests have shown that with unfavourable combinations of pipe-rail type and support spacing on the pipe-rail system, constraints must be applied for the maximum permissible load. (see 10.1 Explanation of the technical specifications).

Moreover, the pipes on the concrete path should be secured and must not be loose. Regardless of the pipe-rail system, our requirement is that a maximum support distance of 1 metre is adhered to in the last 10 metres! At the end of the pipes (in front of the façade), there should be a welded stop with a height of at least 5 cm. Check once for every change of season to ensure that the stoppers are not flattened, bent, skewed or cracked. The ground under the pipe-rail system should be dry, flat and hard. Soft or damp spots must be repaired and surface indentations permanently repaired.

Additional information can be found in paragraph 7.3 Minimum requirements for the pipe-rail system.

9.4 Chain tensioning

The chain tension should be approximately 1 cm. If it is not, proceed as follows:

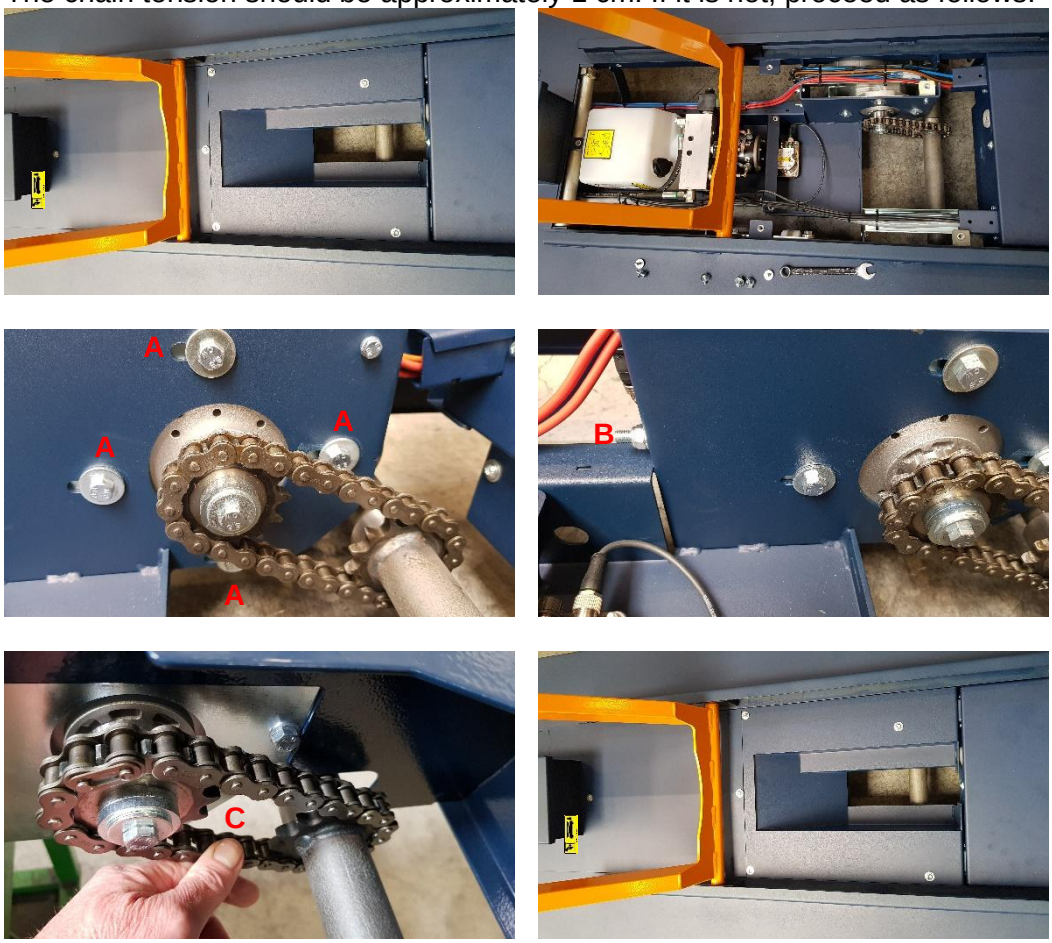


Figure 9.3: Chain tension

1. Switch off the BeNomic Star PRO 350 with the main switch and remove the key from the ignition to prevent the BeNomic Star PRO 350 from being enabled.
2. Remove the cover caps.
3. Loosen the four screws (A) a little.
4. Tension the chain by tightening the adjustable lock nut (B).
5. The slack in the chain should be around 1 cm (C).
6. Tighten three motor mounting bolts (A) again firmly.
7. After tensioning, lubricate the chain with chain grease or another universal lubricant.
8. Fit the cover caps.

9.5 Check pipe-rail wheel wear

Every running surface of any material is subject to wear.
The material of the flange rollers has the following favourable characteristics:

- Flange rollers are silent
- Rolling resistance is low
- Lower load for the heating pipes
- Acceptable durability

With this information we want to indicate when it is time to proceed with replacing the flange rollers.

Wear is approx. 1 mm, the rollers have been in use for some time.
Normal maintenance, inspection for run-in string.

Wear is 2-3 mm, the rollers are still fine.
Normal maintenance, inspection for run-in string.
Roller replacement not yet necessary.

Wear is 5 mm or more. The roller has flat sides and has been blocked.

Replacement is now necessary!
Consult your dealer.

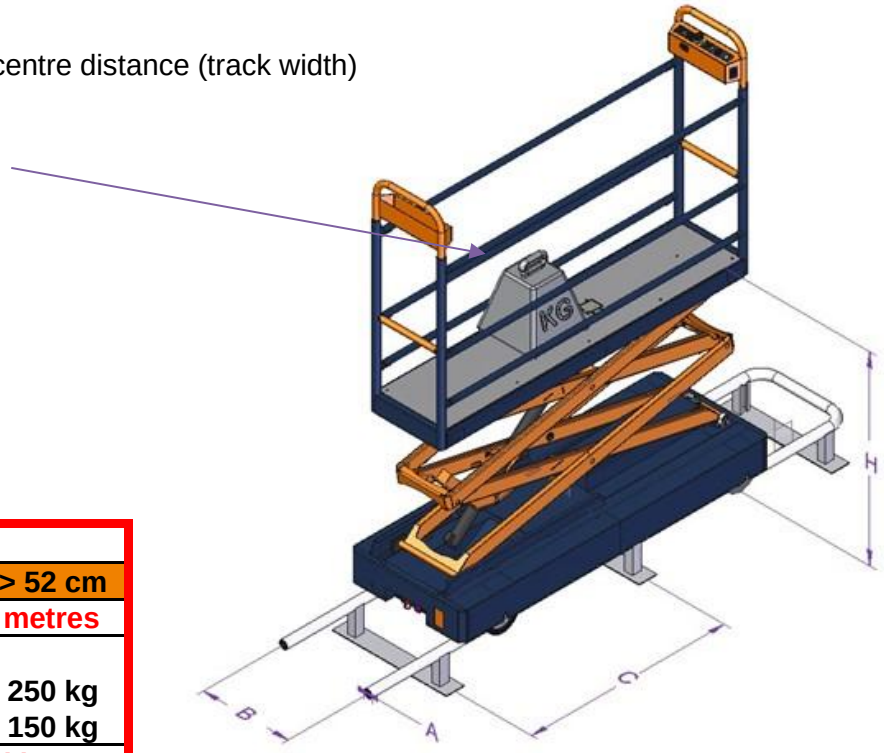
10. Technical Specifications

Type: Dimensions [mm]:	xxxx.xx.xxxx BeNomic Star PRO 350
C to C dimension*	520 - xxx
Length	2000
Width/centre-to-centre 425-450 520-550 575-600 650-700 750-800	 636 736 786 886 986
Wheelbase [mm]	1565
Undercarriage step-up height from a concrete path	263
Step-up height to platform in lowest position of chassis step	287
Height of control console from platform	1112
Platform length	2000
Platform width	460
Max. platform height*	3500
Max. Load capacity [kg]	250
Max. lateral pressure [N]	90
Weight [kg] (c-to-c 550)	400
Motor power [kW]	0.25
Motor power [kW]	1.2
Hydraulic system pressure [bar]	200
Hydraulic fluid, viscosity 46 [L]	2.2
Max. speed on rails [m/min]	60
Max. speed on concrete [m/min]	83
Max. lifting speed [m/sec.] No.	0.15
Max. lowering speed [m/sec] # (# at 80 kg load)	0.20
Voltage [Volt DC]	24
Battery capacity [Ah] (5h/20h)	120/159
USB connection 2x [Volt/Amps]	5V/ 2.1A
Vibration level [m/sec²]	<0.5
Noise level [dB]	<70

*10.1 * Explanation of the technical specifications*

Stability tests have shown that the following restrictions must be applied with unfavourable combinations of: pipe-rail type and support spacing on the pipe-rail system.

A: Pipe diameter
B: Pipe rail centre-to-centre distance (track width)
C: Support distance
H: Platform height
M: Mass on platform



A = 45 mm			
B =		≤ 52 cm	> 52 cm
C =		Max. 1.25 metres	
H =	2.5	X	
	3.0	X	250 kg
	3.5	X	150 kg
Not recommended by Berg Hortimotive			

A = 45 mm			
B =		≤ 52 cm	> 52 cm
C =		Max. 1 metres	
H =	2.9	150 kg	
	3.0	X	250 kg
	3.5	X	150 kg

A = 51 mm			
B =		<52 cm	≥ 52 cm
C =		Max. 1.25 metres	
H =	2.9	250 kg	
	3.0	150 kg	250 kg
	3.5	X	150 kg

Regardless of the pipe-rail system above, our requirement is that a maximum support spacing (C) of 1 metre is adhered to in the last 10 metres!

11. EC type examination certificate

(in accordance with Appendix IX of the Machinery Directive 2006/42/EC)

Berg Hortimotive
Burg. Crezéelaan 42a
2678 KZ De Lier - The Netherlands
T: +31 (0)174 – 517700
www.berghortimotive.com

While taking full responsibility, hereby declares that the product:

- ***Pipe-rail trolley type BeNomic Star PRO 350 with double hydraulic scissors and hydraulic lift wheels to 3.5 metres height***

Article number: ……
Serial number: ……

- Satisfies type approval criteria in accordance with Appendix Annex IX of the Machinery Directive **2006/42/EC**

Applied European standards:

- NEN-EN-ISO 12100:2010; - Safety of machinery - General principles for design - Risk assessment and reduction
- EN 280-1:2022 - Mobile elevating work platforms - Part 1: Design calculations - Stability criteria - Construction - Safety - Examinations and tests

As the latest published version to replace the harmonised standard:
EN280:2013+A1:2015 [1]

[1] Any non-conformities and risks that are not included in this standard are included in the risk assessment and risk reduction.

Certificate number: **1869/1/SB/2023/MR/NL/BERG/523023/v1.0**

CERTIFER HHC/DRS BV Kokkel 4A 1723 HX Noord-Scharwoude NL Tel: +31 226 321 229

Mr. B.H.C. Brinkman, General Manager Berg Hortimotive
Burg. Crezeelaan 42a
2678 KZ DE LIER – The Netherlands
T: +31 (0)174 – 517700
www.berghortimotive.com

The Netherlands*, De Lier, date ……-……..-……*

Signature of managing board or authorised signatory .....

Appendix 1: Maintenance logbook

Describe repairs and/or maintenance operations on the form below.

Date	Description of repair/maintenance Type no.:…….. Series no.:……	Name of company/technician

Appendix 2: TECHNICAL DRAWINGS

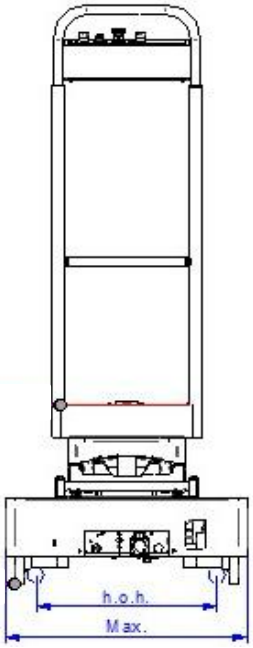


Fig. 2.1; Width dimensions in mm, 2 scissors

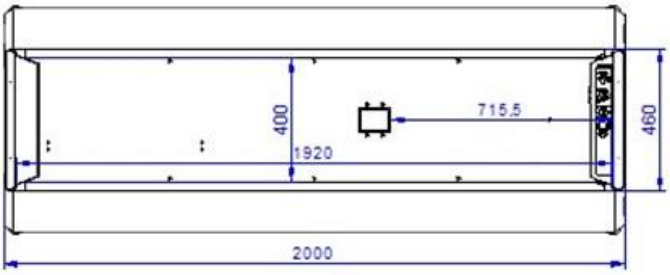


Fig. 2.4; Platform dimensions in mm, 2 scissors

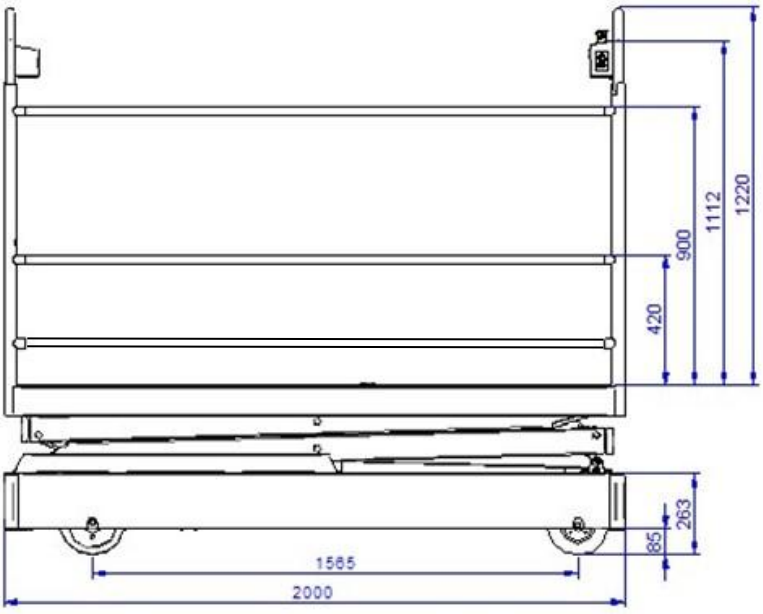


Fig. 2.5; Length and 2 scissor dimensions in mm

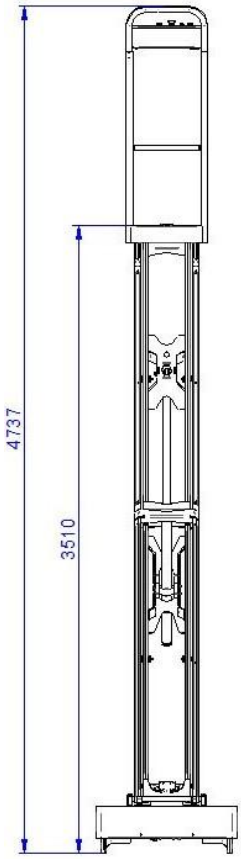


Fig. 2.2; Maximum height dimensions in mm, 2 scissors

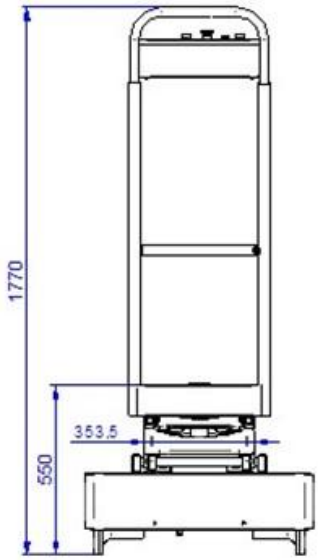


Fig. 2.3; Minimum height dimensions in mm, 2 scissors

Appendix 3: Battery safety sheet

Battery advice
The following chapter gives advice on efficient use, safety and maintenance.

Efficient *use of the pipe-rail trolley and batteries*
The following recommendations are aimed at facilitating the efficient use of the pipe-rail trolley and to improve the life-cycle of the batteries.

Basic principles:

- The battery goes flat sooner when running at higher speeds.
- High levels of starting and stopping also increase electrical energy consumption.
- Through using the pipe-rail trolley, the remaining capacity and battery voltage gradually reduce, while simultaneously the current consumption increases. This results in increasing heat generation from the motor and speed regulator as the batteries gradually lose their charge.
- Worn rollers, or rollers with wound string, and rusty chains (poor maintenance) all result in higher energy consumption. (for maintenance instructions, visit our website: http://www.berghortimotive.com/service/bsa-film)
- Allowing batteries to go (completely) flat also reduces the life-span.
- Charging when required and good maintenance help to increase the life-cycle of the batteries.
- Charging when required also lowers the generation of heat in the motor and speed regulator, as well as the battery charger.

Efficient usage:

- Adjust the driving speed as much as possible to the working speed (potentiometer)
- By following the above recommendations, the productivity of the workers will increase too.

Safe use of the batteries

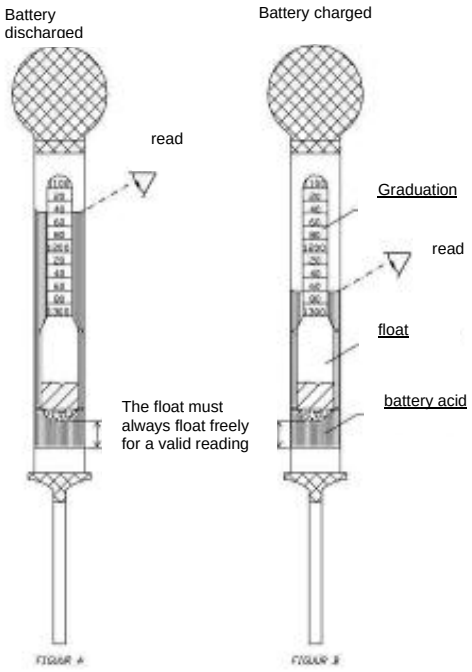
Below are some recommendations for use and maintenance.

WARNING!
- **When charging the batteries, an explosive gas is formed: fire, naked flame and smoking is prohibited!**
- **Only charge in properly ventilated spaces using a suitable charger!**
- **The fluid level must be checked every month! The battery fluid must be at least 1 cm higher than the plates.**
- **Only replenish using distilled (demineralised) water (use gloves)!**
- **Always replenish the batteries AFTER charging and never fill above the level mark at the battery cell filler hole (also see the traction battery instruction sheet).**

Discharging for more than 20% adversely affects the lifespan of the batteries and charger. Charge the batteries when the battery status indicator shows 1-2 illuminated LEDs, this will benefit the lifespan of the batteries, the motor and the drive control! Always charge an empty battery immediately, this will significantly benefit the lifespan. So, preferably check the acid concentration every week, but check at least every month with a hydrometer (fig. A+B and table below).

With fully charged batteries, the specific mass (SM) should be 1280 g/l:

100%	Density 1280	g/l	=	12.7 volt
80%	1240			12.5
60%	1210			12.3
40%	1170			12.1
20%	1140			11.9



Switch off the *pipe-rail trolley*, at the main switch, before charging. When about to charge, always first connect the batteries to the charger, and afterwards switch on the charger. When charging is complete, first switch off the charger, then disconnect the battery.

Charging the batteries 'too much' can cause damage to the batteries because the battery fluid will boil for a longer period of time.
The use of a modern battery charger with automatic cut-off is recommended. This can be obtained from Berg Hortimotive. **Only use a charger that is suitable for the batteries used! (see charger instructions)**

Never interrupt charging, completely finish charging, see indication on charger.

WARNING! Danger of injury with the batteries:
Avoid the battery fluid (electrolyte) coming into contact with skin, wear safety goggles and gloves as battery acid is highly corrosive. Wash with soap and water if contact is made. If it comes into contact with the eyes, immediately rinse in running water for a period of at least five minutes and call for medical assistance. Always ensure there is sufficient soap and water in the vicinity and that assistance is within calling distance when people have to work near batteries. Avoid short circuits (sparks), and ensure that there is no electrical connection between the battery poles. The battery cover must be free of damage. Bare patches or dents can cause short circuits!
Explosive gas is released when the batteries are being charged. Keep sparks, naked flames or cigarettes away from batteries.
Do not repair, clean or carry out other activities on the pipe-rail trolley while charging.
Before removing the batteries, always switch off all current consumers to prevent sparks.

Ensure that the place where batteries are charged and/or stored is well ventilated. Ensure that no metal objects can fall on the batteries as this could cause short circuits or sparks which in their turn could lead to an explosion.
Remove all personal objects including rings, bracelets, necklaces and wristwatches when working in the vicinity of batteries. A short circuit could melt a ring resulting in serious burns.

When dismounting the battery, first disconnect the ground cable (-). When mounting, connect the ground cable (black) last of all.
WARNING!
Always connect the plus (+ = red) to the plus terminal and minus (- = blue) to the negative terminal.

Remark
*Check how many battery chargers you can connect to one circuit. You can check this by multiplying the number of amperes of the fuse with the voltage. E.g.: 16 A*230 V =3680 W*

Subsequently check the battery charger power rating. Divide the total power by the battery charger's power. E.g.: 3680/500=7.36. In this case, seven battery chargers can be connected.

Also check that the voltage at the charging location corresponds with the voltage indicated on the battery charger. There may be voltage loss with long cables. If this is the case, you should consult your installer.

Verify that it is the correct charger for your machine. The battery specifications that can be used with the charger are indicated on the charger or in the user manual!

MIDAC accumulatori ENERGECO	TREM-CARD	UN 2794

Substance **Batteries wet, filled with acid, electrical storage**
UN Number 27
HIN 80
ADR Label **8**
ADR Class **8**
Packing group -

Emergency Response Information

CORROSIVE SUBSTANCE

1. Characteristics
- Corrosive, causing damage to skin, eyes and air passages
- Not flammable

2. Hazards
- Heating of container(s) will cause pressure rise with risk of bursting and subsequent explosion (BLEVE).
- Gives off corrosive and irritant fumes, also when burning
- May attack metals and produce hydrogen gas which may form explosive mixture with air
- The vapour may be invisible and is heavier than air. It spreads along the ground and may enter sewers and basements

3. Personal protection
- Chemical protection suit.
- Respiratory mask equipped with ABEKP1 filter

4. Intervention actions

4.1 General
• Keep upwind. Put on protective equipment before entering danger area.

4.2 Spillage
• Stop leaks if possible.
• Dilute spillage with water spray as far as necessary to reduce hazard. Contain run off by any means available.
• If substance has entered a water course or sewer, inform the responsible authority.
• Ventilate sewers and basements where there is no risk to personnel or public

4.3 Fire (involving the substance)
• Keep container(s) cool with water
• Extinguish with water fog (spray)
• Do not use water jet to extinguish
• Use water spray to knock down fire fumes if possible
• Avoid unnecessary run-off of extinguishing media which may cause pollution.

5. First aid
• If substance has got into eyes, wash out with water for at least 15 minutes and seek immediate medical attention.
• Remove contaminated clothing immediately and drench affected skin with plenty of water.
• Persons who have been in contact with the substance or have inhaled fumes should get immediate medical attention. Pass on all available product information.
• Mouth to mouth resuscitation should be avoided. Use alternative methods, preferably with oxygen or compressed air driven apparatus

6. Essential precautions for product recovery
• Use acid resistant equipment
• Recover spilled product in vented container fitted with absorption filter

7. Precautions after intervention

7.1 Undressing
• Drench contaminated suit and breathing apparatus with water before removing facemask and suit.
• Use chemical protection suit and self-contained breathing apparatus while undressing contaminated co- workers or handling contaminated equipment.

7.2 Equipment clean up
• Drench with water before transporting from incident.

INSTRUCTIEBLAD TRAKTIEBLOCKS

Dagelijks onderhoud EW159T:

Batterij maximaal 80% ontladen (zuur 1130).

Batterij aansluiten op de lader en lader inschakelen indien dit niet automatisch gaat.

Altijd ladingen volledig afmaken!

Na het beëindigen van de lading, de lader uitschakelen en de batterij loskoppelen.

Indien de batterij 50% of meer ontladen is (zuur 1.21) batterij onder lading zetten.

Wekelijks onderhoud EW159T:

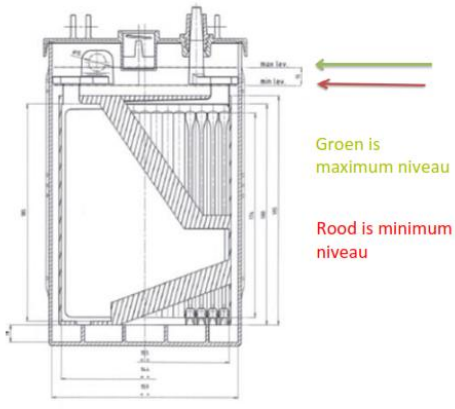
Check het zuurniveau van de batterij (zie onderstaande mogelijkheden).

Batterij bijvullen met demi-water
-Bijvullen kort na het laden bij een warme batterij.
-Iedere 2 weken waterniveau controleren en indien nodig corrigeren.
-Water niet na het weekend bijvullen.

Corrosie aan de batterijpolen controleren en indien vervuild reinigen.

Batterij schoon en droog houden.

Batterij bijvullen alleen met een volledig geladen batterij, altijd kort na de lading!



Volg de aanwijzingen voor gebruik en veiligheid

Roken en open vuur verboden

verbinders onder spanning Contact vermijden

Explosiegevaar Kortsluiting vermijden

Draag een veiligheidsbril en beschermende kleding

Elektrolyt is sterk bijtend Contact vermijden

Batterijen goed ventileren

Pb

Defecte batterijen moeten worden gerecycled

Berg Hortimotive BV
Burg. Crezeelaan 42a 2678 KZ DE LIER
T :0174-517700
F :0174-516958
E :info@berghortimotive.nl
I : www.berghortimotive.nl

Appendix 4: Cleaning the powder coat finish

The importance of cleaning and maintenance:

- The product's appearance and finish are maintained for longer.
- Its service life is extended.
- Helps to resist corrosion.
- It has a positive effect on preventing spread of plant diseases.
- Encourages employees to handle machines carefully.

By periodically removing the contamination, the chemicals present in and on the machine prevents them from working into the powder coat finish. Protective layers are sensitive to acids, salts and other aggressive substances and age faster if contaminated. In addition, thick layers of dirt can absorb and hold more moisture, which can increase the aggressive impact on the protective layer.

The cleaning frequency depends on:

- The level of contamination is cultivation related.
- Product type, used between crop or, for example, only on concrete paths.
- Exposure to chemical liquids (spraying equipment).
- Exposure to chemical vapours (space treatments in greenhouses).
- Exposure to sun and UV radiation.
- Humidity and condensation.

The above items give a load factor that is dependent on usage. If applicable, the following cleaning schedule should be followed.

When to clean:

• Plant and product residues.	Daily
• Soil and sand.	Twice per week
• Glass, rope, plastic, elastic, clips, wire hooks, etc.	Twice per week
• Chemical exposure.	Clean immediately after use
• Dull and contaminated surface finish.	Periodically, after detection

How to clean:

- Remove contamination on the paint surface or with tool (soft brush or cloth) or compressed air (<6 bar!).
- After chemical exposure, remove contamination with a coarse sponge or soft cloth soaked in tap water.
- Clean dull and contaminated paint with neutral detergent with pH between 5 and 8 (see cleaning agent label) and sponge or soft cloth.
- **Tip** – If a cleaning agent is used for the first time, we recommend testing it on a sample piece before cleaning the entire machine.

What you should definitely <u>not</u> do:

- Never clean powder coatings with abrasive or polishing cleaning agents.
- Do not use a tool with abrasive surface (steel wool, scouring pads, etc.).
- Hard pushing, brushing, scrubbing etc. is not permitted.
- Do not use organic solvents to clean or preserve the powder coat paint.
- Pouring water, using a water hose or high-pressure washer can cause damage.

After cleaning:

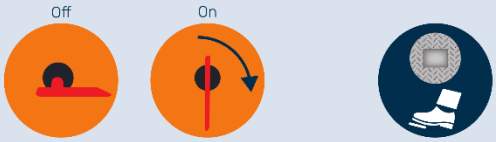
- Ensure that all the cleaned surfaces are able to dry properly, temporarily loosen overlapping shield covers.
- Lubricate pivot points that have come into contact with cleaning agents, doing so according to the recommendations in the maintenance schedule of the User Manual.
- Repair any damage to the powder coat with a suitable paint.

Attention!
The **recommendations** above are the responsibilities of the party responsible for carrying out the cleaning. If you have any questions regarding the cleaning product to be used, please consult the manufacturer.

Appendix 5: Quick Start

Quick start BeNomic Star PRO 350

Buttons and switches



1 Main switch

2 Foot pedal

3 Lift wheels

4 Cruise control

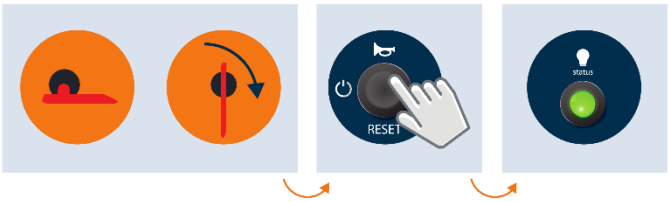
5 Door
(push to open)

Control panel

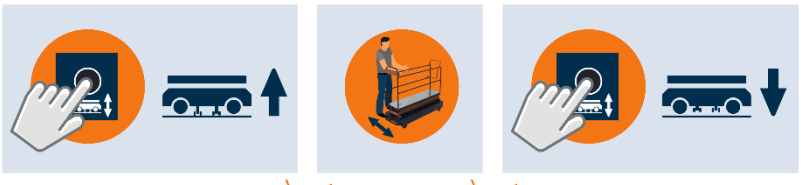
6 Direction button | 7 Speed button | 8 Emergency button | 9 Platform button | 10 On/claxon / reset | 11 Status light

Start here

Switch on



Move



Lift wheels | Now you can move the machine | Lower wheels

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Drive

Step on the BeNomic

Cruise control

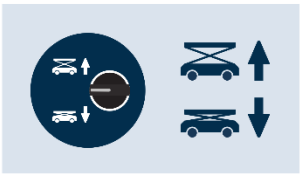
First drive onto the pipe rail

Push this button for cruise control on/off

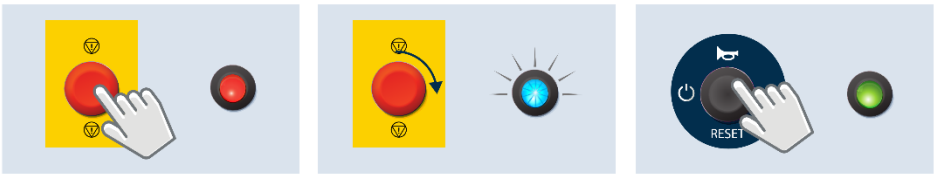
Start driving

Standby

Platform up and down



Emercency stop

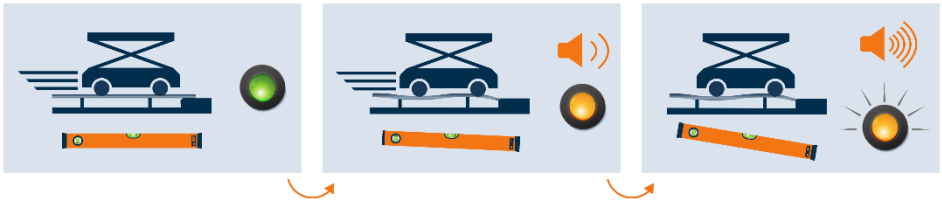


Push the emergency button

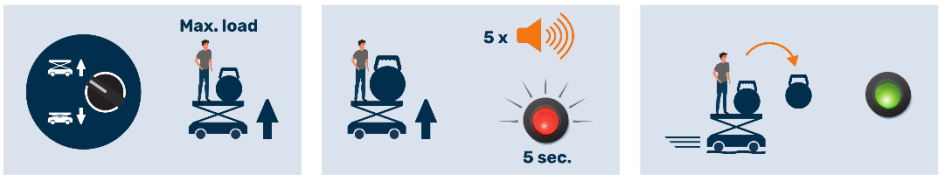
Unlock

Push the reset button

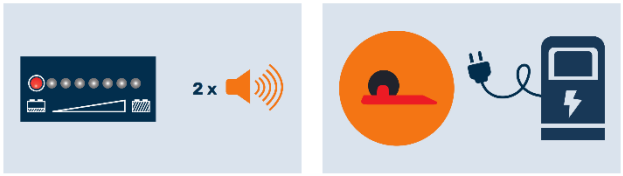
Tilt indication



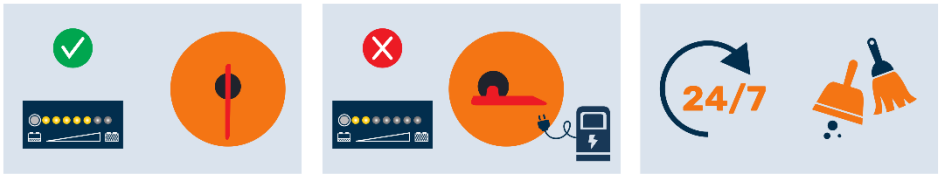
Overload indication



Battery empty



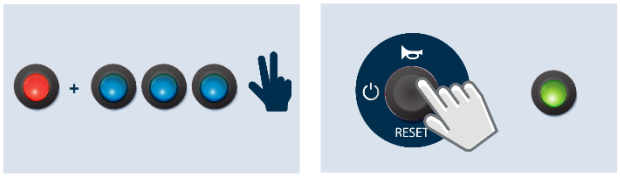
Daily maintenance (end of the day)



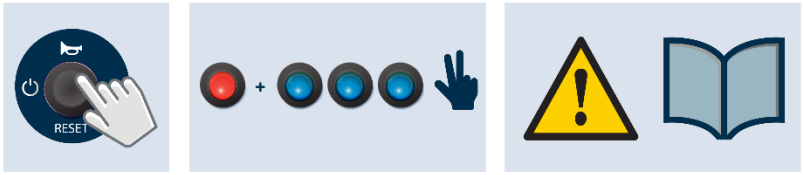
Battery check | Battery empty | Cleaning

Wrong operation

Alarm



Push the reset button



Consult dealer or manual