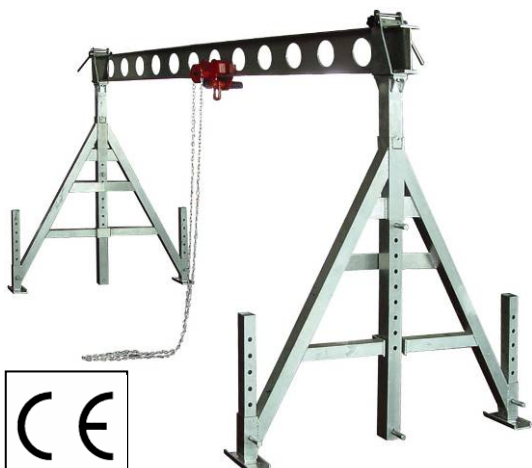


# Operation and Service Instructions

## Gantry Crane



Picture 1 Overall View Gantry Crane

Description	Gantry Crane / Gantry Split
Machine/Serial Number	
Manufacturing Year	
Carrying Capacity	1.500 kg with Rail 4 m
Length of Supporting Rail	4.000 mm
Total Construction Height	2.295 – 3.520 mm
Total Width	1.715 mm
Height of Lift max.	3.100 mm
Total Weight	90 kg
Support Rail 5 m (optional)	
Adjustable support leg (optional)	
Folding down support legs (with Design Split)	
Folding down aluminum rail , 2 x 2 m (with Design Split)	

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## **1 Contact**

For any further questions and/or individual orders, please contact us:

# Operation and Service Instructions

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## 2 Symbols and Warning Instructions

The following explanations of the symbols appearing on the machine or in the operating instructions should help you to understand them.

### 2.1 Warning Instructions on the Gantry Crane

The following warning symbols can appear on the machine respectively unit:



This symbol points out the availability of the related operating instructions and warns the operator to read these instructions prior to the installation or the commissioning of the machine.



This warning symbol appearing on the machine points out to the operator the existence of electrical current, which is strong enough to cause an electric shock to the operator upon contact with the danger point. In such a location, health or life are at risk.



This warning symbol denotes the need of the operator to wear ear-protection and eye goggles.



Warning as to suspended load! This warning symbol appearing on the machine warns the operator that he is forbidden to walk under suspended loads.



Danger of bodily harm! This warning symbol appearing on the machine warns the operator that during use of the machine, utmost attention must be used otherwise negligence could cause an accident.



This warning symbol located on the unit or machine instructs the operator that the supported load must be equally distributed. Slanted and unevenly distributed loads may not be raised or transported.



Warning of contact with high tension lines. This warning symbol on the unit or machine warns the operator that danger may be caused by the operator in the event of negligent contact with high tension lines.



This mandatory sign obligates the operator of the machine to use and wear safety shoes, protective gloves and protection helmet.

### 2.2 Symbols in the Operation Instructions

The following symbols can appear in the operation instructions:



This exclamation mark, framed in an equilateral triangle, draws the operator's attention to the fact that very important directions are available and the operator should read and follow the information with particular interest.



Obligation to recycle waste materials into the production process and to safeguard the natural resources and protect the environment.

## 3 Regulations for use of the Gantry Crane

Please pay particular attention to the information concerning the use of the machine.



**Attention: danger of injury!!**  
**Inappropriate use leads to personal injuries and damages to materials!!**



This machine is especially conceived for one or several application fields.  
The following Chapter explains the possible applications and the possible dangers during the operation.

### 3.1 Field of Application of the Gantry Crane

The Gantry Crane is a helping device, to facilitate the easy transposing of objects, e.g. monument stones, and assist you in your work.

Please note the following special characteristics:

- Aluminum light-weight construction

## Operation and Service Instructions

- Erection on uneven foundation by means of leveling adjustment
- The Gantry Crane can be varied in height and width
- Support pieces and alu-rail are collapsible with the Design "Split"

### 3.2 Inappropriate Application

The Gantry Crane is to be used for lifting and transposing from objects, with a maximum total weight of totally 1,500 kg with the 4 m Alu-rails and from totally 1,000 kg with the 5 m Alu-rail design.

Utilize the Gantry Crane exclusively for the proposed purpose and avoid materials which could damage individual components of the machine.

- The Gantry Crane is complete and specifically designed for the proposed application.
- The Gantry Crane may not be erected in a slanted position.
- The permissible carrying capacity from 1,500 kg with the 4 m Alu-Rail and from 1,000 kg with the 5 m Alu-Rail design may not be exceeded.
- The Gantry Crane may not be erected on a soft foundation.
- The Gantry Crane may not be erected on an incline, slope.
- The Gantry Crane may not be pulled on a slant.
- The Gantry Crane may not be used with a wind speed of 10 m/s.
- **Never stand under a suspended load!!**

### 3.3 Safety Regulations

- **Please read completely these operating instructions before using the Gantry Crane!**
- **Keep the operating instructions carefully in the proximity of the Gantry Crane, for future reference when in doubt!**
- **Unconventional changes or installing of additional devices will lead to the cancellation of any liability by the dealer or manufacturer!**
- **Remove all articles from the work area, which can be a possible source of danger!**
- **Only authorized persons may use the Gantry Crane. Each user must have read and understood this documentation.**
- **Before each use, check the basic parts and welding seams for damages! In case of defects do not use the Crane. The use by an unauthorized third party must be prevented by suitable measures!**
- **Make certain that the location where the Crane is to be assembled offers suitable foundation carrying capacity!**
- **The supporting foundation must provide a carrying capacity of from 18.000 kg/m<sup>2</sup> with the 4 m Alu-rail and a carrying capacity of from 12.000 kg/m<sup>2</sup> with the 5 m Alu-rail design, provided no support plates are laid beneath the legs of the crane!!**
- **The maximum permissible carrying capacity for the 4 m Alu-Rail is 1,500 kg and 1,000 for the 5 m Alu-Rail design.**
- **Standing under a suspended load is absolutely forbidden!!**
- **Carrying capacities may not be pulled on a slant.**
- **The bolt for the height adjustment must be inserted at the peak of the side piece (A-Form)! It is FORBIDDEN to permit the bolt for the height adjustment on the cross bridge of the side piece (A-Form) to be used for supporting purposes!**
- **The Gantry Crane may not be used with a wind speed of 10 m/s.**
- **All bolts must be safely secured to prevent unintentional loosening.**
- **Maintain a clean working area and provide for adequate lighting!**
- **Protective work clothing in accordance with prevailing instructions are to be used when operating the Crane!**
- **Among other items belong the following:**
  - **Protective Work Gloves in accordance with current safety measures to prevent accidents!**
  - **Protective Work Safety Shoes in accordance with the current safety measures to prevent accidents!**
- **Use only suitable work pieces exclusively suitable for this Crane. Do not lift slabs liable to crack or break during work! ("Sound stone plates").**
- **Check to ensure during use that no one is in the proximity of the Crane, in order to avoid danger to a third party!!**
- **Check and make certain that all parts are correctly installed!**
- **In case damages or malfunctions of the machine arise, please contact the dealer or manufacturer immediately!**
- **Protect the machine against environmental factors, e.g. rain, sunrays, humidity, etc.!**
- **In case of irreparable damage or other reasons which prevent the further use of the Crane for a long term, Stop operation by making the machine unusable thus making certain there is no danger to other persons!**
- **If disposing of the machine or parts thereof; dismantle and separate the different materials which can then be disposed of in accordance with recycling regulations!**



### 3.4 Machine Identification Plate

The identification plate indicates the origin, identity as well as year of manufacture and, if necessary the maximum carrying capacity

Upon receipt of the goods, please compare the identification plate with the data on the first page of the operation instructions. If the data differs from each other, please contact immediately the dealer or the manufacturer.

## 4 Assembly

# Operation and Service Instructions

Please read carefully the information in the chapter "Assembly" and follow it precisely. The manufacturer or SELS will not be held liable for any damage due to incorrect assembly.

On receipt of the goods, check the supplied commodity for any damages incurred during transportation and packing! Advise the Manufacturer/Agent respectively the Transport Company immediately of any damages!



**Any defects, caused by incorrect transport, incorrect assembly and operation are not covered under the Warranty by the dealer respectively the manufacturer!!**



Pay attention that the protective covering of the metal parts will not be damaged by sharp edge articles!

**Absolute attention must be devoted to the Safety Regulations in Chapter 4.4!**

## 4.1 Removing the transportation packaging

The Gantry Crane is usually delivered in cardboard packaging.

**Prior to unpacking, please compare the attached delivery note with the supplied articles!**

**Remove the transportation packing:**

- Release the adhesive strips and/or strapping bands and unpack the contents very carefully!
- Be careful when unpacking the Gantry Crane in order to prevent damages to the contents!
- Strong blows to the building parts of the Gantry Crane on sharp edges can damage the surface and other sections!
- Dispose of the packing waste for recycling in accordance with the local guidelines!

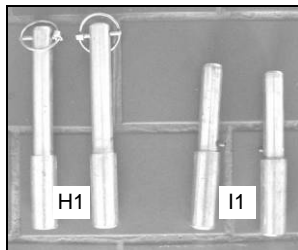
## 4.2 Scope of Supply

Prior to beginning the assembly, please check precisely to see whether all necessary parts are available. If the scope of supply is not complete, contact the dealer or the manufacturer immediately.

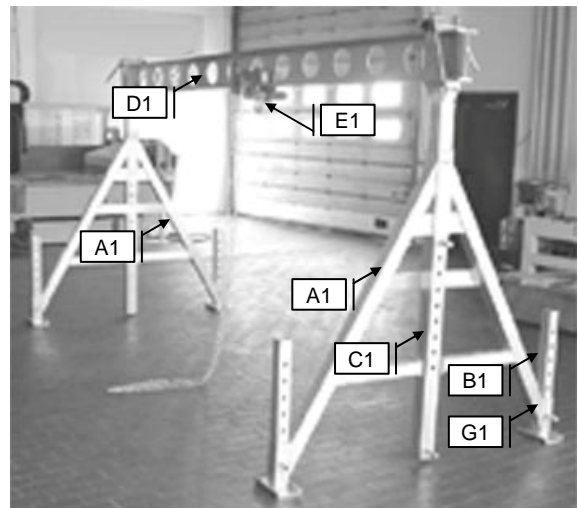
Scope of Supply consists of:

- 1 x Operation and Service Instructions
- 1 x Gantry Crane consisting of:

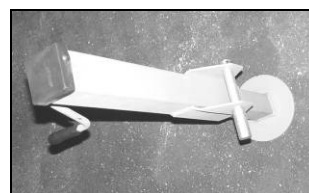
- 2 x Side pieces [A1]
- 4 x legs for side pieces [B1]
- 2 x supports for Alu-rail [C1]
- 1 x Alu-rail [D1]
- 1 x chained geared trolley [E1]
- 4 x bolts for leg adjustment 160 mm long [G1]
- 2 x bolts for height adjustment 170 mm long [H1]
- 2 x grips for height adjustment w/ crosshead pin 155 mm long [I 1]
- 1 x chained geared trolley (optional)



Picture 5.2 – Overall view hardware



Picture 5.1 – Overall view Gantry Crane



Picture 5.1b – adjustable leg with crank (optional)

## 4.3 Assembly and Mounting Instructions

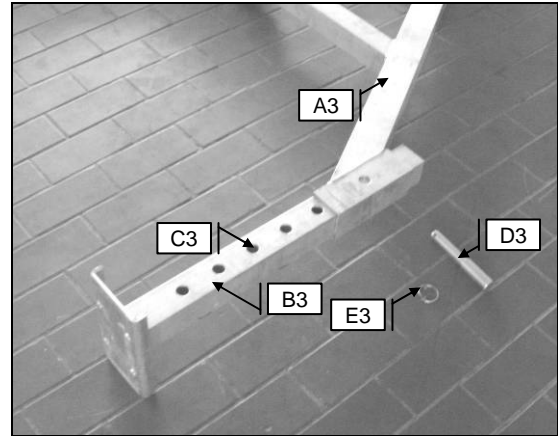
The Gantry Crane is delivered in an unassembled condition..

For the assembly it will be necessary to have:

- At least two competent workers

## Operation and Service Instructions

- The floor space need not be horizontal, („on the level“) and not flat.
- In the first Step, the both side pieces (A3) are to be mounted to the legs for side (B3).
- Two legs for side piece (B3) will now be inserted into the laying side piece (A3) up to the middle position (C3) and each locked with a bolt for leg (D3, 160 mm long) . Thereto the bolt for the leg adjustment (D3) be completely inserted therein. With the safety clip (E3) the bolt (D3) is therefore prevented from intentionally slipping out.
- The adjacent side piece will then in accordance with the previous description also be pre-arranged.

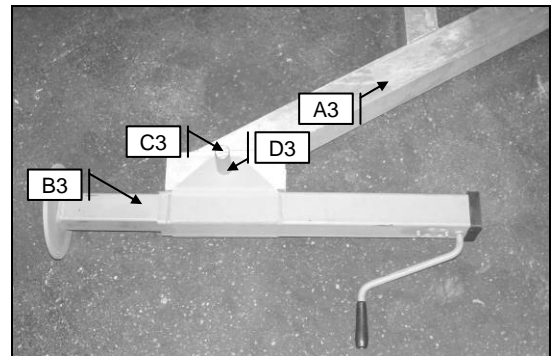


Picture 5.3 Leg in the side piece



**Following description to this Picture 5.3b – leg with crank in the side piece is only required when the subject leg with crank (optional, see parts list) has also been purchased!**

- The Gantry Crane must be aligned upon completion of the assembly. Hereto, the leg with the crank can be used also as an option. Which would be additional equipment you can buy for your Gantry Crane (See parts list).
- The leg with the crank for side piece (B3) would then as a substitute be inserted into the laying side piece (A3) until the bolt for the leg (C3, 160 mm long) can be placed into the Bore (D3). Thereto, the bolt for the leg adjustment (C3) should be completely inserted. With the safety clip the bolt will be prevented from slipping out unintentionally.
- According to the number of legs with cranks have been bought, one can replace the legs on the end points accordingly.



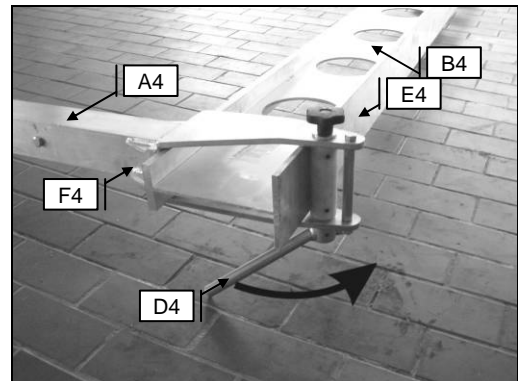
Picture 5.3b Leg with crank in side piece

- Now the two supports for the Alu-rail (A4) and the Alu-rail (B4) pre-assembled.
- In the first Step, the chained trolley (B4) should be pushed into about the middle of the rail. The two driving rollers of the trolley may eventually be burdensome in initial rolling.
- Now the rail, (B4) must be mounted. Thereto the clamping mechanism (D4) must be opened.
- Hereto the lever (D4) must be rotated in arrow direction up to the limit Stop. Be careful that the locking screw (E4) of the clamping mechanism (D4) is in opened position.
- Now the rail (B4) is to be shoved in so far in that the rail extends through the both clamping mechanisms (D4), as illustrated in Picture 5.4



**The rail must project somewhat out of the clamping elements!**

- By turning the clamping mechanism (D4) against the arrow direction the rail will be clamped. Now the clamping mechanism (D4) is to be secured with the locking screw (E4).



Picture 5.4 Support with rail and chained trolley

- **In the next Step the two pre-assembled side pieces (A5) with the legs (B5) onto the pre-assembled supports (C5) of the Alu-rail.**
- With a bolt for the height adjustment [Picture. 5.5; H1] The supports (C5) must now be raised to the same level of the side base structures (A5) and locked accordingly.

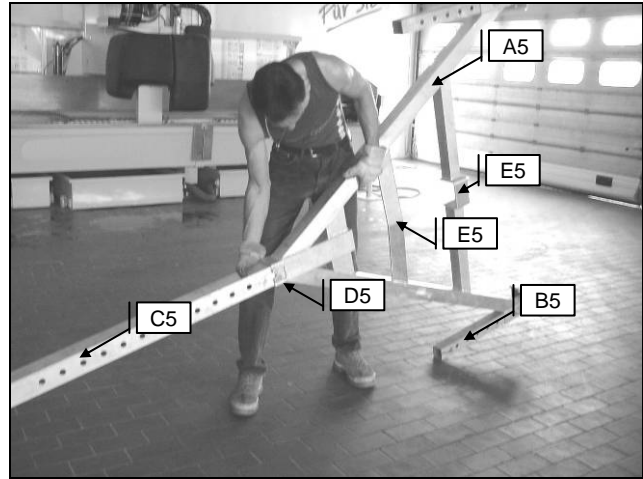


- **The height adjustment bolt MUST be used specifically for the top of the side pieces (D5) and completely inserted accordingly. The using of the bolt for**

## Operation and Service Instructions

### height adjustments on the cross struts (E5) is FORBIDDEN!

- There to the bolt for the height adjustment (Picture. 5.6.; H1) at the top of the side pieces (D5) must be inserted completely. Use the safety clip (Picture. 5.6; H1) with the bolt to prevent unintentionally slipping out.
- Now the lifting unit e.g. chain pulley block can be hung on to the chained geared trolley.



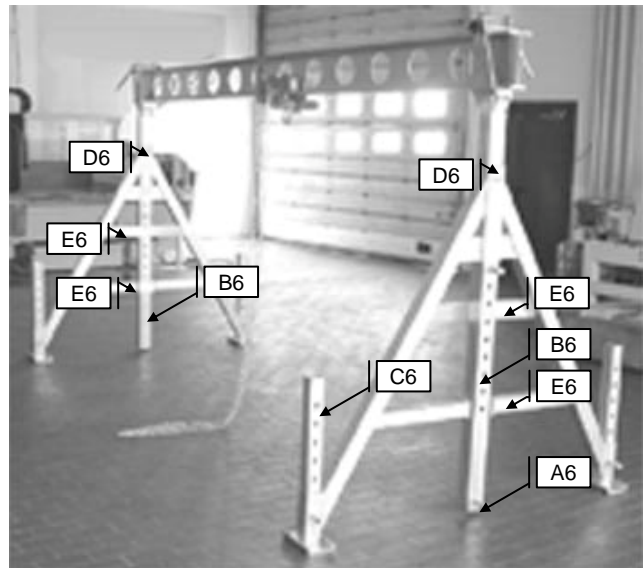
Picture 5.5 - Gantry crane

- The Gantry Crane can now be placed in upright position and moved to the desired work area.
- The two grips for the height adjustment (A6, 155 mm long) are to be inserted completely into the two supports (B6). Attention must be made to the direction of the cross key bolt, thereby the same is completely inserted into the profile and the bolt is consequently completely inserted.
- The cross beam can now be changed in the height, which should be accomplished **WITHOUT** being under load.



- **The height adjustment bolt MUST be used specifically for the top of the side pieces (D5) and completely inserted accordingly. The using of the bolt for height adjustments on the cross struts (E5) is FORBIDDEN!**

- The identical height must be present on both pieces.
- Adjustment of the adjusting legs of the Gantry Crane can be accomplished in the height; thereby the tracks of the Gantry Crane are laying level.



Picture 5.6 - Gantry Crane in Assembled condition



**Caution! Danger! Without use of supporting ground plates at the adjusting legs; the foundation must accommodate a carrying capacity of from 18.000 kg/m<sup>2</sup> with the 4 m Alu-rail design and accommodate a supporting capacity of from 12.000 kg/m<sup>2</sup> with the 5 m Alu-rail design!**



- WITHOUT using supporting ground plates at the adjusting legs the foundation must accommodate a carrying capacity of from 18.000 kg/m<sup>2</sup> with the 4 m Alu-rail design and accommodate a supporting capacity of from 12.000 kg/m<sup>2</sup> with the 5 m Alu-rail design, when the permissible carrying load is hung on the Gantry Crane.
- When the ground foundation does not accommodate the required carrying capacity, then strong plates must be placed under the four supporting legs. The four plates must be adequately stabile and large enough so that the plates under load do not become deformed.



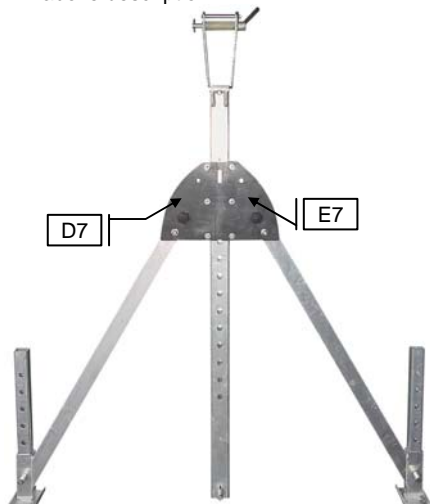
**Caution! Danger!  
The cross beam must be aligned horizontally, therefore "on the level!"**



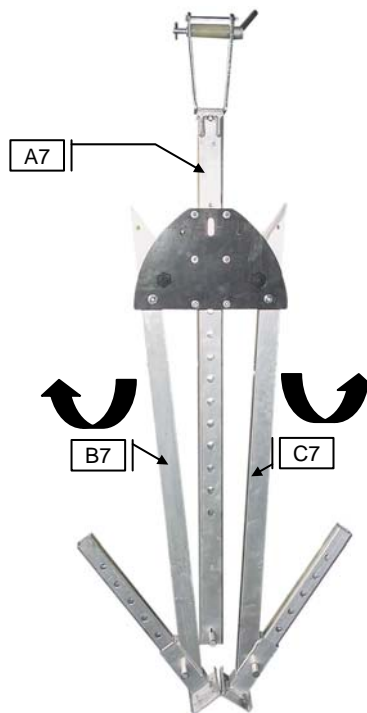
- The cross beam of the Gantry Crane must be horizontally aligned, therefore „on the level“, not only in the cross direction as well as the length direction. The supporting legs are to be adjusted to the small differences in the floor surface. When greater differences in the floor surface are present, then the Gantry Crane may not be placed into use!
- In the event supporting legs with crank have been purchased, then the simple up and down cranking of the legs with crank will level off the Gantry Crane.
- The un-assembly of the Gantry Crane is accomplished in the reverse procedure.

## 4.4 Exceptional Features with the Design Gantry Crane „Split“

- Lay down the collapsed together side pieces..
- The first Step is to mount the both supports (B7) and (C7) to the side pieces.
- Open Hereto the both supports (B7) and (C7) in direction of arrow to the Side piece (A7)
- Now the bolt (D7) (E7) (Picture 5.7;H1) of the supports (B7) and (C7) are to be locked into the side base structures (A7).
- Thereto the bolt (D7) (E7) (Picture 5.7;H1) must be completely inserted into the side base structures (A7). With the safety ring (Picture 4.2;H1), the bolt is then secured against unintentional removal.
- The second adjacent side part is to be assembled in accordance with the above description.



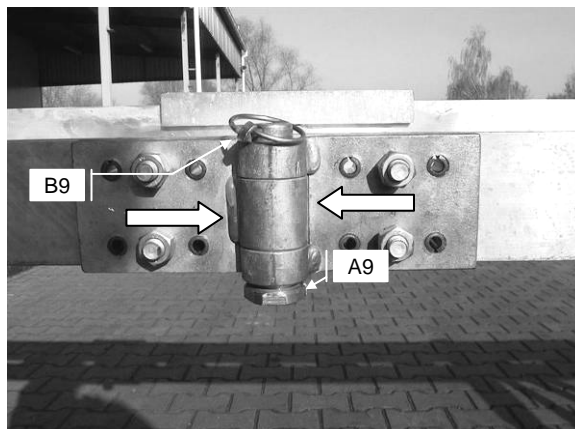
**Picture 5.8** Leg with side part folded out



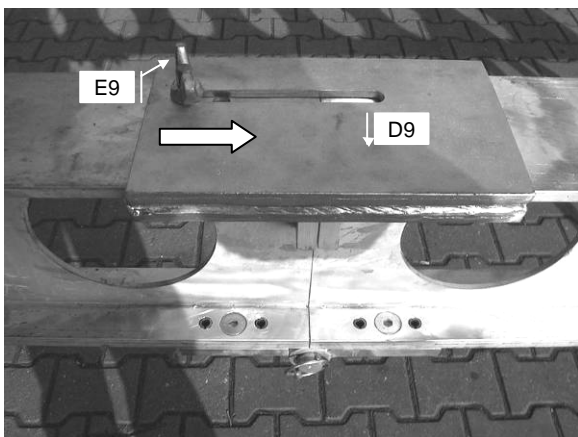
**Picture 5.7** Leg with side part folded in

Lay out the two track parts (C9).

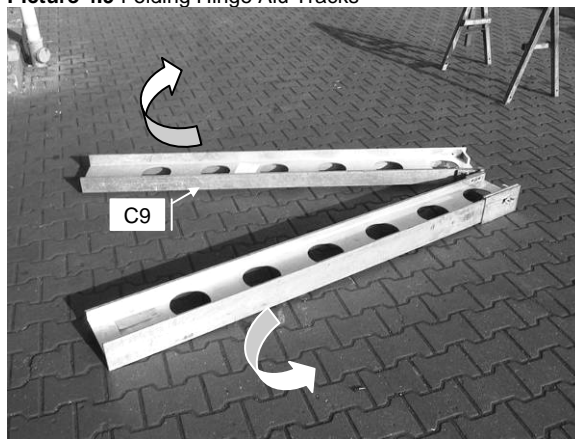
- In the first Step the both side parts (C9) are to be mounted.
- Hereto the both side parts (C9) are to be inserted together into the Turning hinge in direction of arrow.
- Now connect with the bolt (A9) and secure with the safety ring (B9).
- The two track pieces (C9) are to be folded out in the direction of arrow (Picture 4.10)
- Now the safety plate (D9) in the direction of the arrow be shoved over the two tracks to prevent unintentional opening and to secure with the clamping bold (E9) (Picture 4.11)



**Picture 4.9** Folding Hinge Alu Tracks



**Picture 4.11** Locking in of Alu Tracks



**Picture 4.10** Alu Tracks folded

## 5 Operation Instructions

This Chapter should provide you with information to better understand the Gantry Crane. Please read carefully the operating instructions to obtain optimal service!

Please pay attention that the protective cover of the metal parts will not be damaged by sharp edges!



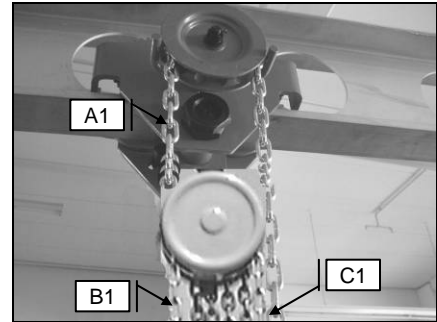
Any defects, caused by incorrect assembly and operation are not covered under the Warranty by the dealer respectively the manufacturer!!



**Strict attention should be given to the safety regulations stipulated in Chapter 4.3!!**

### 5.1 Lifting of Monument Plates with the Gantry Crane

- The chained geared beam trolley is to be moved above the centre of gravity of the stone plate. With the aid of the travel chain (A1) located on the left side is to be pulled upon and thereby causing the trolley to move in the right hand direction.
- Now the load chain located on the left side (B1) is to be pulled down. The load hook is then lowered. This is to be repeated so long as the required lift is achieved.
- Now the stone plate with the carrying lashing straps is to be hung on the load hook. The use of the lashing straps is in accordance with related operating instructions.
- Now the load chain located on the right side (C1) is to be pulled down. The stone plate is then raised. This is to be repeated so long as the required lift is achieved. If possible, the load should only be raised a short distance from the ground level.



**Picture 6.1** – Beam Trolley with chained gear drive



**Attention! Caution! Never stand under a suspended load!**



### 5.2 Transporting and Lowering of Monument Plates

- If the suspended load is to be moved with the Trolley, then the cross beam must be checked to establish that it is “on the level”. Thereby the suspended load on the Trolley will not sway independently. The lifted load should only be raised until it is free from the ground level.
- The Trolley with chain geared drive and Crane can then be moved to the required work place. It is important that the Trolley should be moved cautiously. Any unnecessary abrupt starting and stopping can cause the load to become out of control and the possible blows to the side parts of the Gantry Crane could thereby lead to the destruction of the Crane.



**Attention Danger!**  
**The chained geared trolley under load should be moved with extreme caution!**



Now with the pulling down of the load chain on the left side of the pulley block; the load hook and suspended load will then be lowered. This procedure to be repeated on the load chain until the suspended load is completely lowered to the ground.

# Operation and Service Instructions

## 6 Maintenance and Inspection

### 6.1 Maintenance

The Gantry Crane needs no regular maintenance. Nonetheless the Crane must be inspected at least once yearly.

### 6.2 Inspection

**The Gantry Crane is a load suspension device. The Employer, who uses this device is obligated to arrange to have the Gantry Crane inspected within one years period by an authorized, competent person in accordance with § 40, section 1, VBG 9a prescriptions.**

**The next date for the inspection of the Gantry Crane is indicated in the Yellow Label "next inspection date", for example April 2002.**

**Repairs and welding (poisoning danger) may only be carried out by authorized personnel who possess the knowledge and abilities to perform the same.**

- You can have your Gantry Crane inspected by SELS. Please ask us!

You should handle your Gantry Crane very carefully. Excessive demands on your Crane could lead to a shorter work life span.



**Picture 7.1**  
yellow control label

## 7 Technical Drawings and Parts Listing

In the following chapter the spare parts for the Gantry Crane are outlined. Please note when ordering your replacement parts. Only a complete indication of the required spare parts can guarantee a smooth processing of your spare parts order. Always indicate with your orders the required quantities, the description of the parts, article number and if available the standard indication.

### 7.1 Parts List Gantry Crane

Pos.	Quant.	Description	Standard Indication	Material
1	2	Side pieces		Alu
2	4	Leg for side pieces		Alu
3	1-4	Leg with crank for side piece (optional)	Art. Nr. VD080221	
4	2	Supports for the Alu-rail		Alu
5	1	Additional support for the Alu-rail (optional)	Art. Nr. 8020648	Alu
6	1	Alu-rail with 4 meters length		Alu
7	1	Alu-rail with 5 meters length (optional)		Alu
8	1	Chained geared beam trolley		
9	1	Chained geared pulley block (optional)		
10	4	Bolt for leg adjustment		
11	2	Bolts for height adjustment		
12	2	Grips to height adjustment		
13	2	Clamping arrangement for height adjustment		
14	1	Alu-tracks collapsible (with Design „Split“)	Art. Nr. VD080320	Alu
15	2	Side pieces collapsible (with Design „Split“)	Art. Nr. 8020655	Alu
16	1	Chained geared beam trolley for collapsible Alu-tracks (with Design „Split“)	Art. Nr. 8020633	