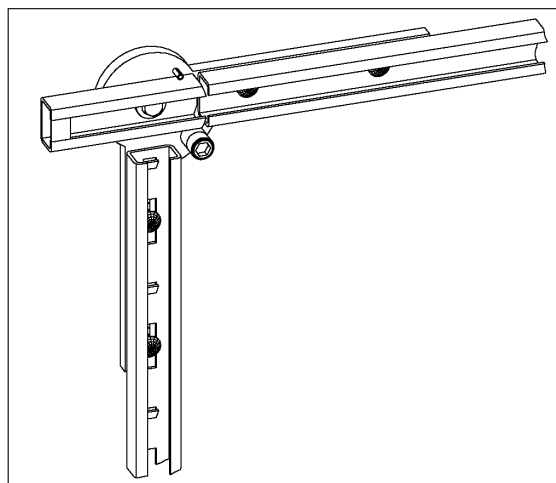


**Manual for the  
Installation  
Use and Maintenance  
"GlideLoc" fall arrest system  
of  
Ho-Ver turn table**

Part. No. 22322

**in conjunction with  
Söll - ladders/vertical guide rails  
tested in accordance with EN 353, Part 1**



Date: 23.01.2002  
SE 44



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## A General

- A 1. Anyone working with or on SÖLL fall protection systems in accordance with EN 353/part 1 must be familiarized with these instructions prior to using the system. Use which is not in accordance with these instructions constitutes a risk to human life!
- A 2. The operator of the fall protection system must ensure that these instructions are stored in a safe, dry place on site and that the user may have access to them at any time.
- A 3. If requested, the plant operator must present these instructions to the manufacturer of the fall protection system (Christian Dalloz Holding Deutschland GmbH & Co. KG or a dealer authorized by the same).
- A 4. The SÖLL fall protection system must be used in accordance with the instructions for the relevant SÖLL fall arrester.
- A 5. The fitment and use of SÖLL accessories to such fall protection systems must strictly adhere to the relevant instructions for the fitment and use thereof.
- A 6. In case of the use of further personal protective equipment, relevant instructions must be followed.
- A 7. National regulations on accident prevention and use of safety equipment for construction work must be adhered to.
- A 8. Söll fall protection systems may only be fitted and used with original Söll components/elements. The combination with non-original components/elements may influence the safety of SÖLL fall protection systems. In such cases, Christian Dalloz Holding Deutschland GmbH & Co. KG and a dealer authorized by the same refuse to accept product liability. In addition, such systems are not properly approved and authorized since SÖLL fall protection systems are tested, approved and authorized as complete systems. Full liability will therefore rest with the operator.
- A 9. Söll fall protection components, made of stainless steel grade 1.4571 are pickled. They should be stored and further processed in an appropriate way.
- A 10. Before and during the use of the installed fall protection system, the system must be visibly inspected to ensure that it is operating properly.
- A 11. The system has been tested and approved by "Stelle 0158/DMT-Gesellschaft für Forschung und Prüfung mbH, Zertifizierungsstelle, Franz-Fischer-Weg 61, 45307 Essen".

## B Assembly

### B 1. An installation kit consists of:

- Ho-Ver turn table
- 4 each Söll special screws M 12 x 40 incl. flat washers and nuts

#### **Important!**

Mounting clamps or brackets have to be installed not further than 560mm on each side of the center of the turn table.

Should a clamp/bracket be installed directly under the base plate, due to the thickness of the base plate the projection of such clamps/brackets need to be 15mm shorter than other brackets. Use Söll special screws M12x60 or longer to secure those clamps/brackets.

Always ensure that the structure supporting a system including turn table be properly dimensioned for the brackets selected and loads occurring during use of the system and in case of a fall. When in doubt – consult a qualified engineer.

Always use supplied screw connection securing components. Refer to section D „Screw connections and screw securing“.

### B 2. Equipment required for easy fitting:

- 2- ring spanners, sizes 19 mm
- 1- open end spanner for brackets-to-wall screws, size as needed
- 2- fall arresters for Söll systems
- 2- full body harnesses EN 361 approved
- 1- tool bag

**At least one separate, additional safety rope in accordance with EN 354/355 with fitted energy absorber to provide additional protection against falls from a height during the assembly of the equipment.**

### B 3. Personnel required for assembly:

At least two persons.

B 4. Components must be handled carefully and never thrown.

B 5. Prior to assembly, all parts must be cleaned of dirt - in particular on the connecting surfaces. The parts should not come into contact with cement, mortar or similar substances. Remnants of mortar must be wiped off immediately. In particular, the sliding surfaces for the guided-type fall arrester on both the inside and outside of the rotary-section must be free of dirt.

B 6. Damaged parts may neither be used nor repaired but must be replaced by brand-new ones.

**Important!**

***When using Ho-Ver turn tables in curved horizontal/vertical systems observe that the rail sections to be connected to the Ho-Ver turn table need to be straight and without curves a within a minimum distance of 300mm from the turn table.***

**B 7. Minimum dimensions of mountings for the turn table:**

Use screws M12 as included in the shipment to connect rail sections to the base plate of the turntable. Any screws used to mount the system to a support structure have to be minimum size M12. Certain structures may require larger diameter screws, e.g. brick and mortar structures. For screw dimensioning and appropriate distances between mounting points consult a qualified engineer.

Select mounting brackets with due attention to chosen screw dimensions.

**Important:**

Mounting brackets/clamps shall be installed no further than 560mm on each side of the center of the turntable. Select screw lengths depending on location of mounting bracket/clamp.

**B 8. When installing a system always use appropriate anchorage elements!**

When installing on a concrete structure we recommend the use of undercut anchors or injection anchors (e.g. Hilti or Fisher). Follow the respective manufacturer's instructions!

When installing systems on a brick/mortar construction or a chimney, consult a qualified engineer for proper dimensioning.

**B 9. Attention:**

The equipment may be fitted directly from the ladder/step irons without any scaffolding. The person assembling the equipment uses a full-body harness and a guided-type fall arrester. In order to be protected against a fall from a height where the guided type fall arrester slips out of the guide rail or the guide rail bends backwards, the person assembling the equipment must **in accordance Figure 1.**

**The function of the fall arrester is only guaranteed within the area of the guide rail which has been made safe through the use of gated end stops and when used in accordance with the regulations.**

The introduction of the fall arrester into, or its removal from, the guide rail, as well as the passing of the end stops, has to be carried out in a secured position (e.g. on solid ground, a secured platform, secured insertable ladder and safety rope in accordance with EN 354/355).

**Fig. 1**

- B 10. The attachment point for a fall protection lanyard should preferably be above its user. It must never be below dorsal D-ring of his full body harness.

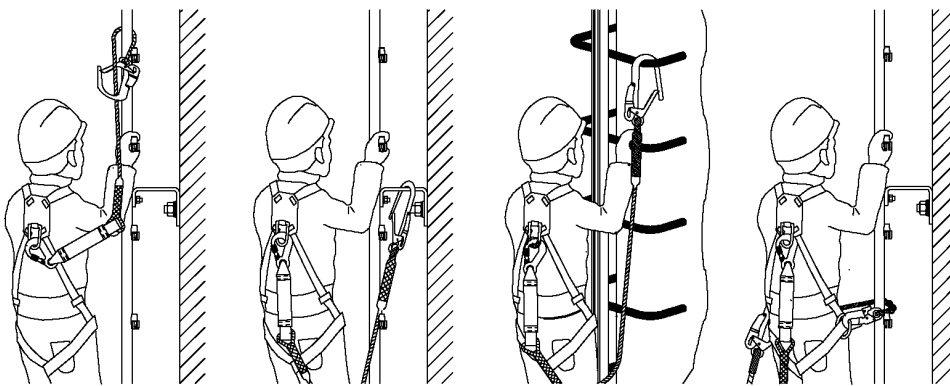
Suitable ways to secure a rigger during installation of a Söll ladder:

- Connect a safety lanyard as to EN 354/355 around the central rail of the ladder below the highest properly attached mounting bracket
- Connect the carabiner of a safety lanyard as to EN 354/355 around a properly secured mounting bracket
- Connect the carabiner of a safety lanyard as to EN 354/355 around a step iron

**Attention!**

**Check, if the step iron is stabil enough !!!**

- Route a positioning lanyard as to EN 358 around the central rail of the Söll ladder
- Use a properly dimensioned and secured anchor point on the building structure

**Fig. 1**

**EN 354/355**

**EN 358**

## B 11. Following the below instructions during installation:

**Vertical systems:**

- Every ladder/rail section should be secured by at least one mounting bracket
- Any rail section attached to a Ho-Ver turn table needs to be attached by at least two mounting clamps/brackets
- If a Ho-Ver turn table is installed onto an existing ladder that ladder should be installed using at least two mounting brackets. In some cases two rungs of that ladder need to be removed to give sufficient room to install the turn table.

**Horizontal systems:**

- Distances between mounting brackets for a horizontal system must never exceed 1.000 mm.

**Ho-Ver turn table:**

- Mounting brackets need to be installed on each connection side of the turn table not further away from the center of the turn table than 560 mm.
- We recommend that the Ho-Ver turn table be installed 800 - 1.100 mm above floor level.

 B 12. **Torque range:**

When tightening mounting screws in **steel quality 8.8** used in combination with tooth lock washers the following tightening torque range is recommended:

Screw size:	M 10	M 12	M 16	M 20
	20 Nm	25 Nm	60 Nm	120 Nm

When tightening mounting screws in **stainless steel quality 1.4571** in combination with Söll supplied auto-locking nuts (DIN 985) the following torque range is recommended:

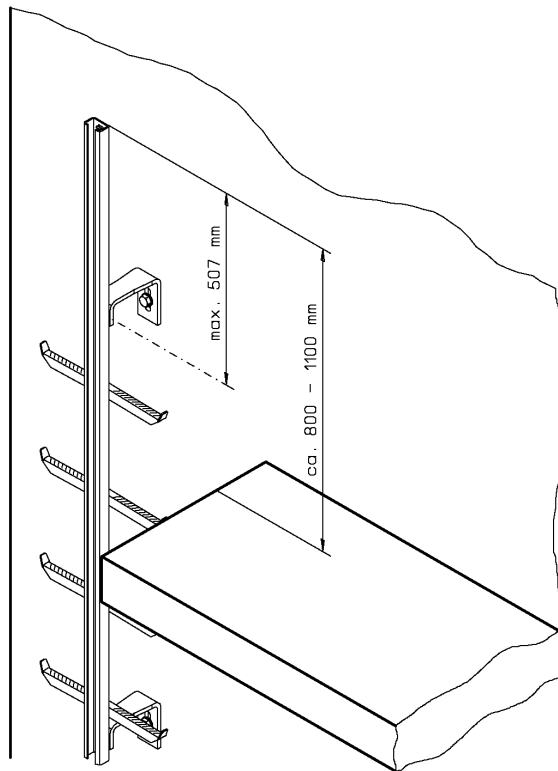
Screw size:	M 10	M 12	M 16	M 20
	40 Nm	45 Nm	85 Nm	150 Nm

**Fig. 2**

B 13. Install the vertical ladder/guide rail so that it ends some 800 - 1.100 mm above exit floor level.

Read and follow the below instructions during the installation of the turn table:

- For Söll ladders: **S 4** „Y-spar ladder steel/stainless steel“
- For Söll guide rails: **S 6** „vertical GlideLoc rails“

**Fig. 2****Note!**

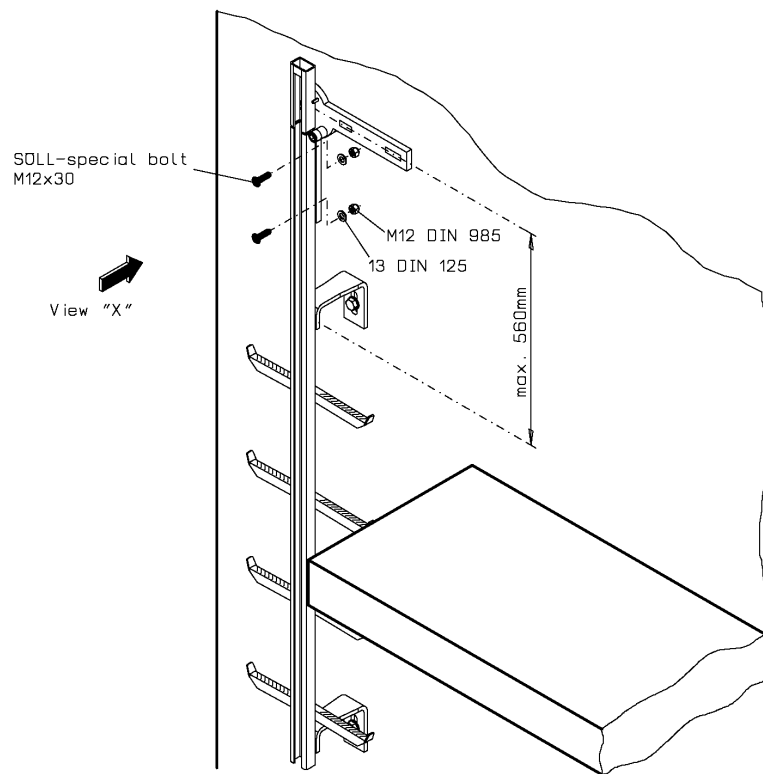
**Never** let the Compact fall arrester pass the highest properly attached and secured mounting bracket! (Refer to Pos. B9/B10).

When systems are installed on reinforced concrete or steel structures there is no need to maintain an air gap between rail/ladder sections.

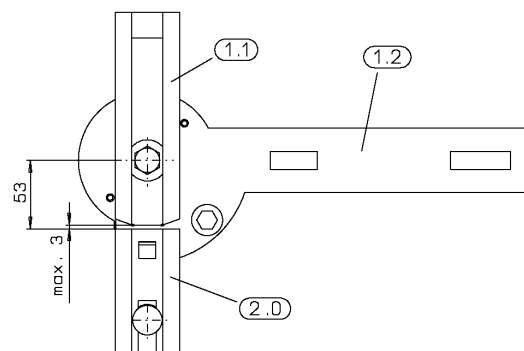
**Fig. 3a/3b**

B 14. When a Ho-Ver turn table (1.0) is installed to a Soll ladder/rail (2.0) please notice that:

- a maximum 3mm air gap should exist between ladder/rail and rotary rail section in turn table
- the rail (2.0) and turn table (1.1) sections need to be properly aligned and in level with each other
- mounting brackets need to be installed within maximum 560 mm from center of turn table (1.1)

**Fig. 3a**

**Fig. 3b**

View "X"



**Fig. 4a/4b**

- B 15. The horizontal rail (3.0) connected to the turn table should be installed in such a way that
- an air gap of maximum 3mm exists between rail and rotary rail section of the turn table when the rotary rail is directed towards the stationary rail
  - rail (3.0) and turn table (1.1) are in line and at the same level
  - a mounting bracket for the horizontal rail is installed no further that 560 mm from the center of the turn table (1.1)

Follow mounting instructions for Horizontal Guide Rail (steel/stainless steel) **S23!**

Fig. 4a

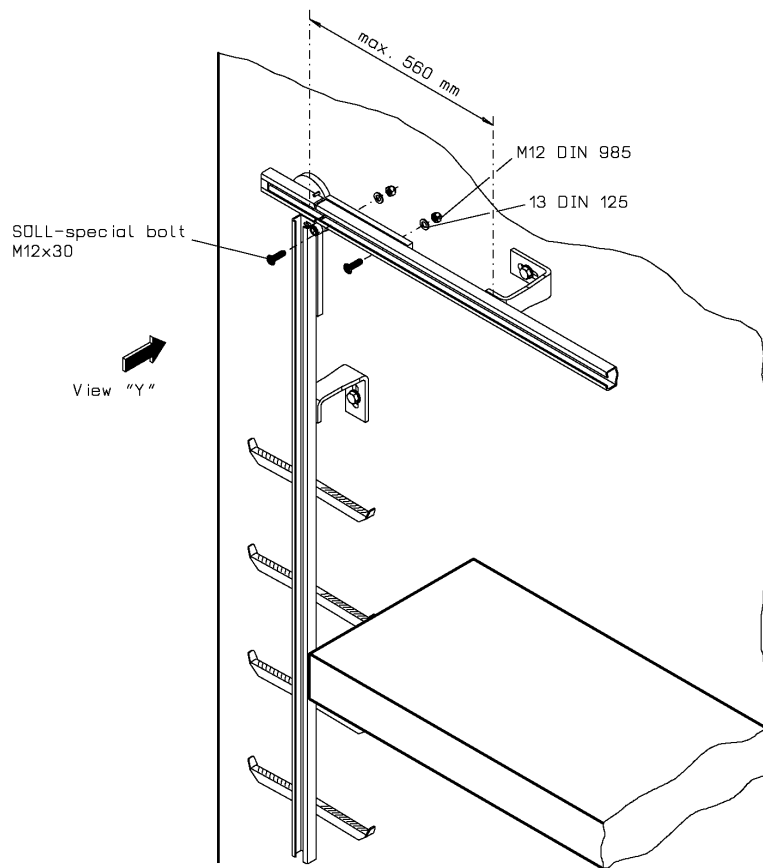
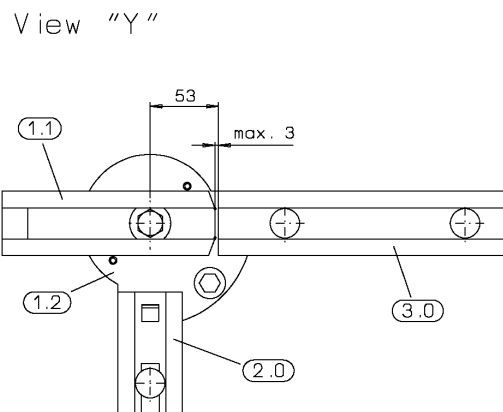


Fig. 4b

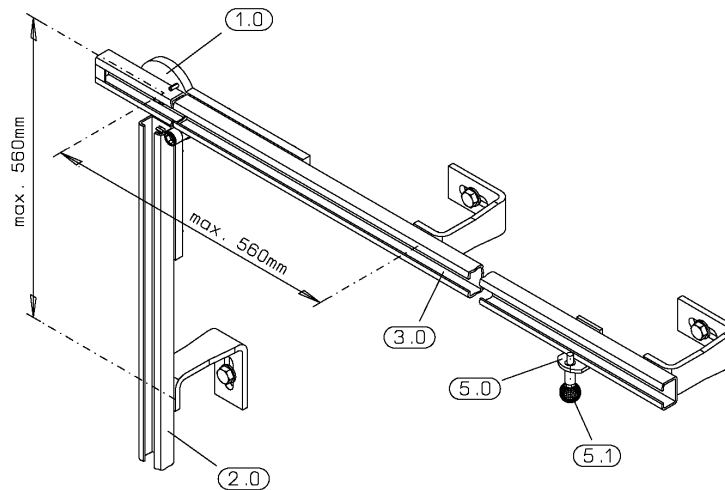


**Fig. 5/6**

B 16. Ladders/vertical rails (2.0) must only be connected to horizontal guide rails (3.0) via a Ho-Ver turn table (1.0) as follows:

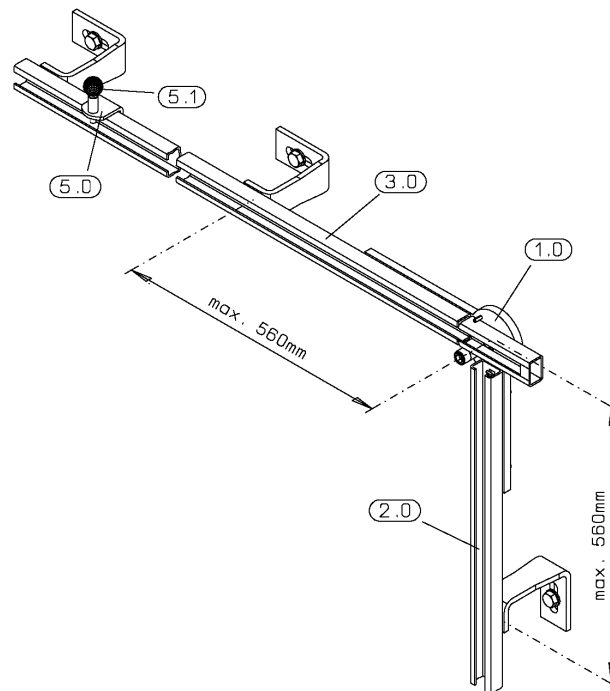
**Horizontal guide rail directed to the right**

**Fig. 5**



**Note!**

***In this application the stop bolt (5.1) in the horizontal end stop (5,0) always has to point downwards. Only in this location the end stop ensures a correct insertion of the fall arrester into the guide rail.***

**Horizontal guide rail directed to the left****Fig. 6****Note!**

***In this application the stop bolt (5.1) in the horizontal end stop (5,0) always has to point upwards. Only in this location the end stop ensures a correct insertion of the fall arrester into the guide rail.***

**Fig. 7/8**

B 17. Other possible combinations:

Fig. 7

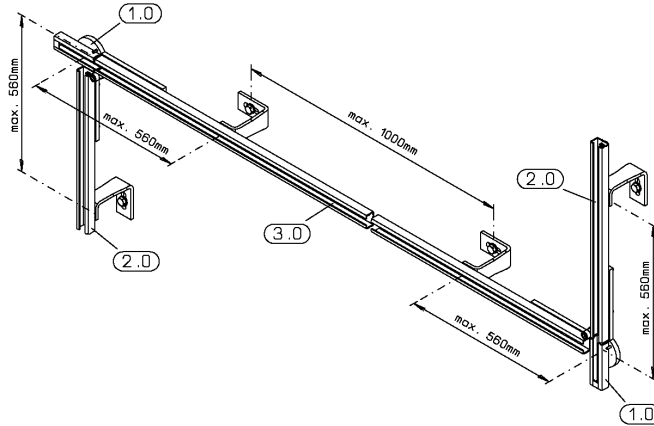
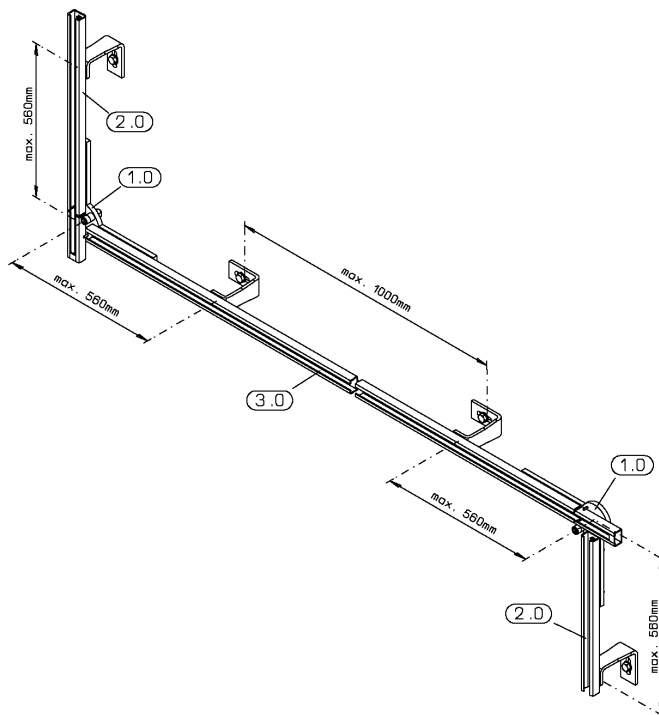


Fig. 8



**Attention!**

***Only installations as shown in pictures Fig.5,6,7,8 are allowed!!!***

**Special acceptance!**

***After consultation with the manufacturer and following his written approval. The above described systems may be connected a standard turntable (P/N 11607/20349) or a twisted rail exit (P/N 16315/16292). In such cases always verify the proper location of the end stop and its stop bolt with the manufacturer.***

## C Inspection and Acceptance

At the „safe-to-climb“ inspection always check and verify the below points:

- air gap between vertical rail/horizontal rail and rotary rail section in Ho-Ver turn table must never exceed 3 mm
- guide rails must always be properly aligned and in level with rotary rail section in turn table
- the rotary rail section in the turn table should rotate without excessive use of force
- there should be mounting brackets installed on each side of Ho-Ver turn table no further than 560 mm away from the center of the turn table
- only installations as described in this instruction are allowed
- end stops on horizontal rails are installed as described in this instruction at position B16
- with the fall arrester in a vertical system the engraved direction arrow on the fall arrester housing always points upwards
- all bolt connections have been checked and secured against unintended loosening (refer to section „D“)
- instructions as given in instructions S4, resp. S6 and S23 are adhered to

## D Bolt Connections, Locking of Bolts

When stainless steel screws are included with the shipment of a system, these screws come with autolocking special nuts.

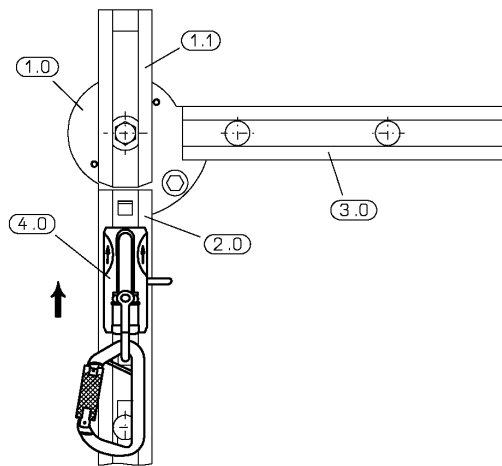
Always follow the instructions as given in mounting instructions for vertical guide rails/ladders, resp. horizontal guide rails when installing such components!

# E Use of Ho-Ver turn table

**Fig. 9**

- E 1. Bring the fall arrester (4.0) from the ladder or the vertical rail (2.0) into the rotary rail section (1.1) of the Ho-Ver turn table (1.0). The rotary rail should be vertically positioned.

Fig. 9

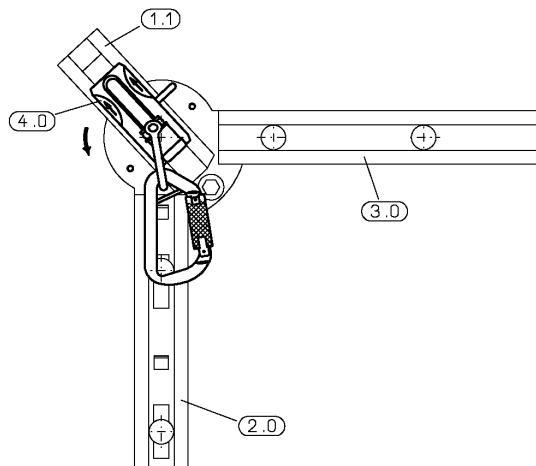


**Horizontal guide rail to left**

**Fig. 10**

- E 2. By means of the fall arrester (4.0) turn the rotary section 90° to the side.

Fig. 10

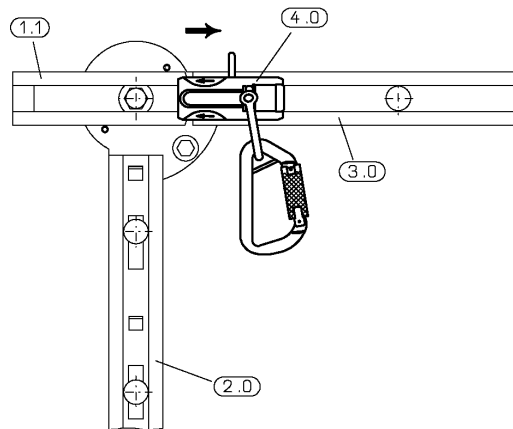


**Note:**

**The rotary section can only be turned and passed in one direction.**

**Fig. 11**

- E 3. Bring the fall arrester (4.0) out of the rotary rail section (1.1) into the horizontal rail (3.0).

**Fig. 11**

- E 4. The transfer of the fall arrester from a horizontal rail (3.0) over a Ho-Ver turn table to a vertical ladder/rail (2.0) follows the opposite procedure as when going from a vertical to a horizontal system.

## F Maintenance

### **Warning !**

Never use the Ho-Ver turn table should it appear to have a faulty function or otherwise give doubts as to its safe operation. When in doubt, close the system from use! Do not use the system until a „competent person“ has inspected and approved of the system.

A Ho-Ver turn table that has been exposed to the forces of a fall must not be used! It has to be replaced!

- F1. The turn table shall, as need arises, or at least one time per year be inspected and approved by a „competent person“.

### **Competent person is a:**

person who thanks to his education and experience in the field of personal protective equipment against falls from height has sufficient knowledge about applicable state and local safety regulations, applicable standards (e.g. EN-standards) and is thus capable and thus authorized by Söll of judging the correct status and use of systems and products against falls from height.

- F 2. Guiderails/ladders must enter the Ho-Ver turn table without off-sets and must be properly aligned!
- F 3. Air gaps between rails/ladder and connected to the turn table and the rotary rail section of the turn table must not be larger than 3 mm.
- F 4. The turn table must only be installed as per examples illustrated in these instructions.
- F 5. End stops on horizontal systems are installed as shown in section B16 in this instruction.
- F 6. When the fall arrester is located in any vertical section of a system, its direction arrow shall always points upwards.
- F 7. Ensure that all screw connections are properly tightened and secured against unintended opening. (Please refer to Section D).
- F 8. The rotary rail section of the turn table should allow rotation without the use of excessive force.
- F 9. The fall arrester must enter and exit the turn table smoothly.
- F 10. The Ho-Ver turn table, rail(s) and ladder sections shall be kept free from dirt.
- F 11. Before and during each use of the system and its components check and ensure that all components of the fall arrest system be in perfect condition.



# G Check list for the inspection and approval of Söll-GlideLoc fall arrest systems

Ho-Ver turn table Part No. 22322

The check list on pages 19 and 20 must be fully and correctly compiled by the chief engineer of the installing company by means of an indelible pen. He is responsible for the correctness of all the information provided therein. Check points which are characterized by defects or deviate from the description must be described in the list on page 20.

## Control Activity

## Remarks

(please cross)

yes no

- |  |                          |                          |
|--|--------------------------|--------------------------|
| • All screw connections are properly tightened.  | <input type="checkbox"/> | <input type="checkbox"/> |
| • All bolt connections are secured against loosening in accordance with section D.   | <input type="checkbox"/> | <input type="checkbox"/> |
| • Only anticorrosive bolt connections have been used.  | <input type="checkbox"/> | <input type="checkbox"/> |
| • The Ho-Ver turn table is free from dirt.   | <input type="checkbox"/> | <input type="checkbox"/> |
| • The air gaps between rails and ladders connected to the turn table and the rotary rail section of the turn table do not exceed 3 mm. | <input type="checkbox"/> | <input type="checkbox"/> |
| • The rotary rail section of the turn table can be rotated without use of excessive force.   | <input type="checkbox"/> | <input type="checkbox"/> |
| • The system does only have turn tables installed in manners as shown in this instruction.   | <input type="checkbox"/> | <input type="checkbox"/> |
| • Horizontal end stops are installed as shown in Section B16.  | <input type="checkbox"/> | <input type="checkbox"/> |
| • Test climbing has taken place.   | <input type="checkbox"/> | <input type="checkbox"/> |
| • The directional arrow of the fall arrester is always pointing upwards on fall arresters located in vertical sections of the system.  | <input type="checkbox"/> | <input type="checkbox"/> |
| • No defects or shortcomings found.  | <input type="checkbox"/> | <input type="checkbox"/> |
| • This manual was handed over to the operator.   | <input type="checkbox"/> | <input type="checkbox"/> |
| • Only original components from Christian Dalloz Holding Deutschland GmbH & Co. KG were used.  | <input type="checkbox"/> | <input type="checkbox"/> |

Please turn over!

