

**T70729**

# **H441 / H4443 / H4541 / H4543**

**Wheel-free**

## **Installation instructions**

(TRANSLATED VERSION)

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Date: 070921	Serial No:
Ref.: LJE	Pages: 29



The below instructions indicate step by step how you ensure a trouble-free installation and a satisfactory operation. It is therefore of **VITAL IMPORTANCE** that you take the necessary time and care in order to ensure that the installation tolerances are not exceeded, otherwise the lift will not function effectively, and you will not benefit fully from your purchase of the lift.

**NB: IF THESE INSTALLATION INSTRUCTIONS ARE NOT FOLLOWED STRICTLY, THE LIFT IS NOT COVERED BY WARRANTY.**

#### INFORMATION FOR CONSTRUCTION ENGINEER OG ARCHITECT

To allow full use of the lift capacity, the strength of the concrete floor or foundation should fulfill the following specifications:

- Load capacity: min. 550 kp/m<sup>2</sup> - 5500 N/m<sup>2</sup>
- Surface spot load: 3.5 kp/cm<sup>2</sup> - 350 kN/m<sup>2</sup>
- Extraction load for expansion bolts: 1330 kp/bolt – 13,3 kN

#### INFORMATION FOR FITTER

The accessory kit consists of a number of small plastic bags with a number printed on each of them. This number will be pictured by a small numbered bag. Do not, therefore, mix the contents of the different bags.

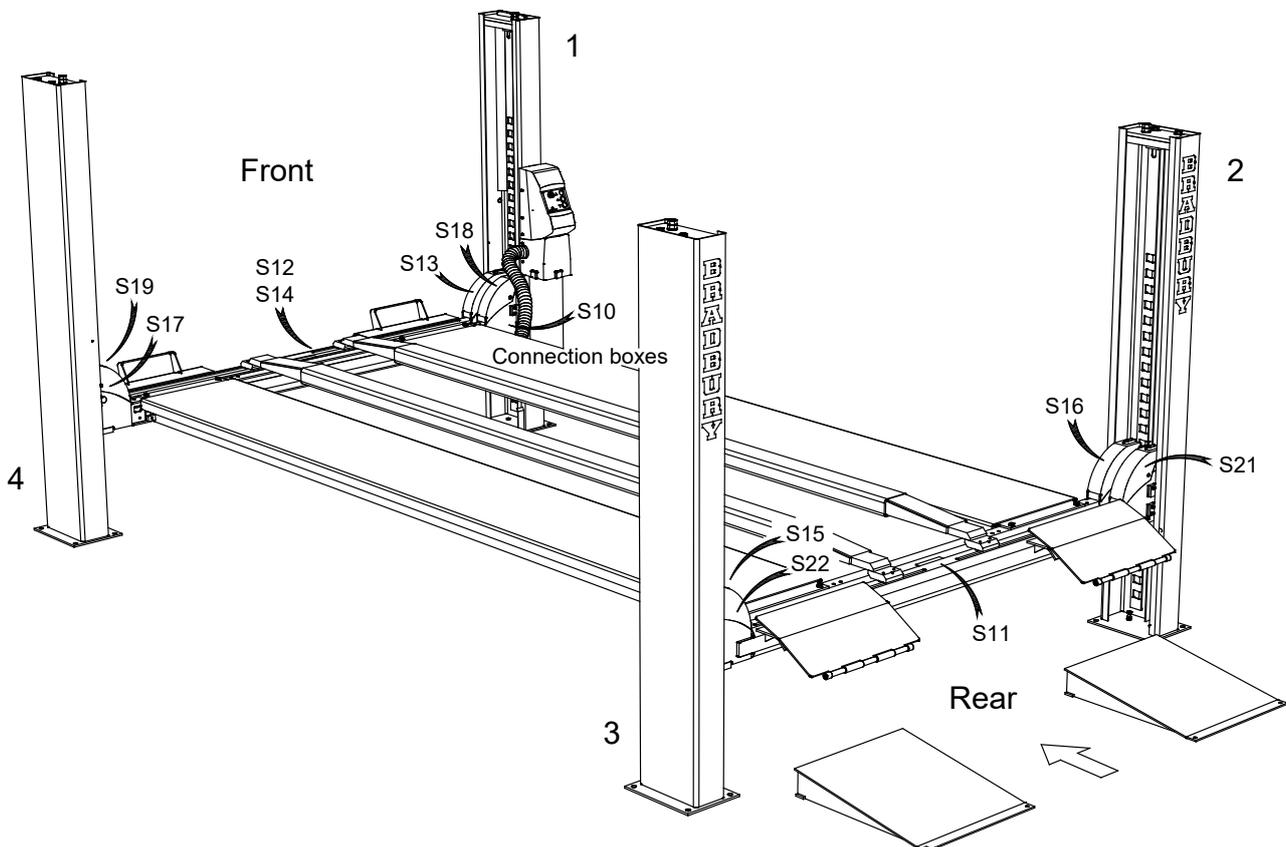
**EXPANSION BOLTS:** order No. for set 776898 (not included in the delivery).

Levelling plates (see page 10-11) are to be ordered in the necessary quantity on part number 502199.

NB: Note this arrow →. The lift will throughout these instructions be shown from the drive-on direction (see picture 1)

Please note the designations “front” and “back” compared to the drive-on direction, and the numbering of the posts – these designations will be referred to in the installation manual.

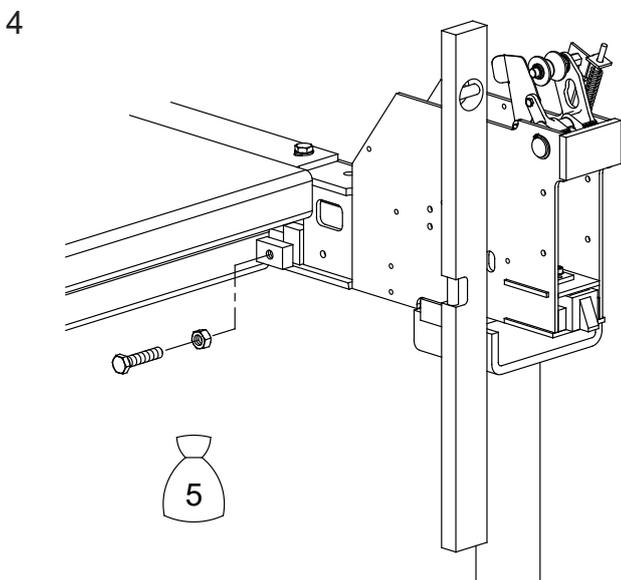
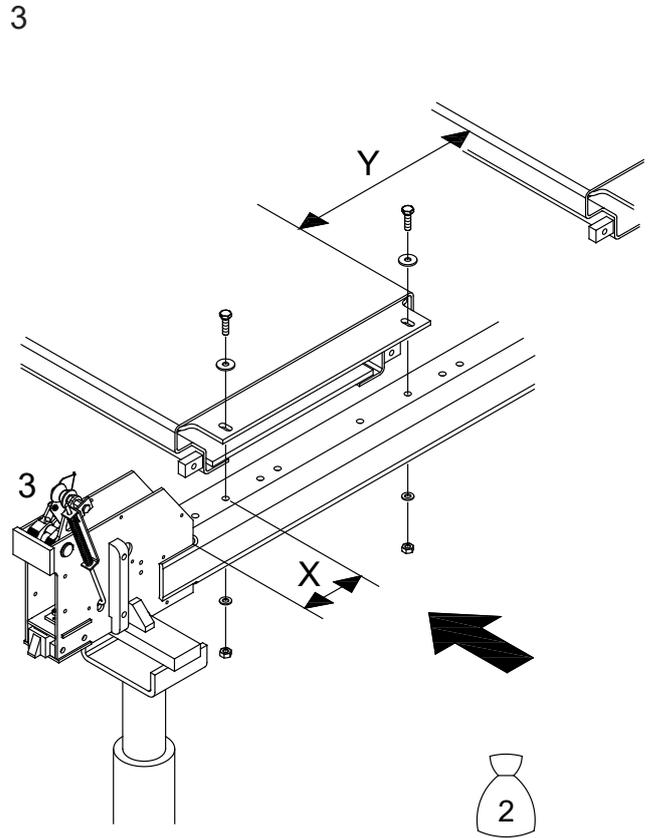
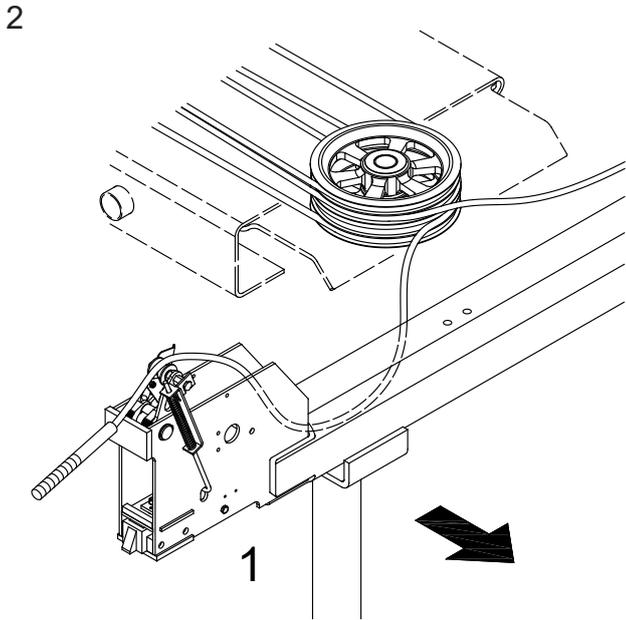
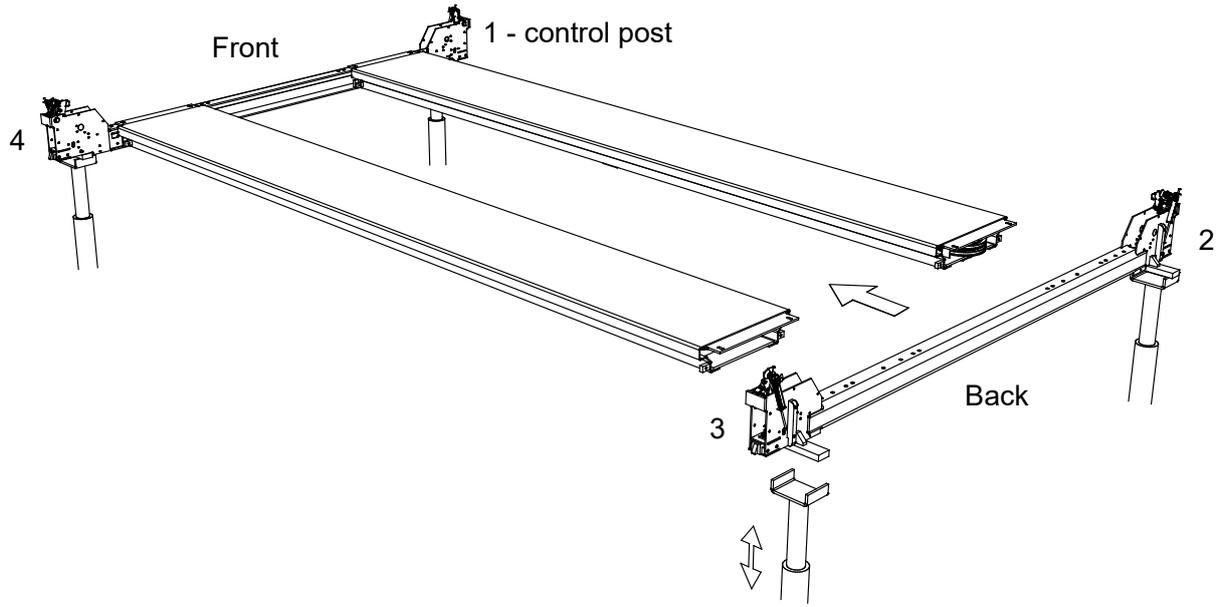
The below picture shows where each switch is to be fitted on the lift. There will therefore be referred to this picture all along the manual.



**NOTE !** Find the highest of the 4 corners - maximum permissible difference in height between highest and lowest corner is 10 mm. The difference should be taken into account when installing the posts so that the lower posts can be shimmed up underneath the base plate to ensure that the lift is horizontal.

Remove transportation device around platforms.

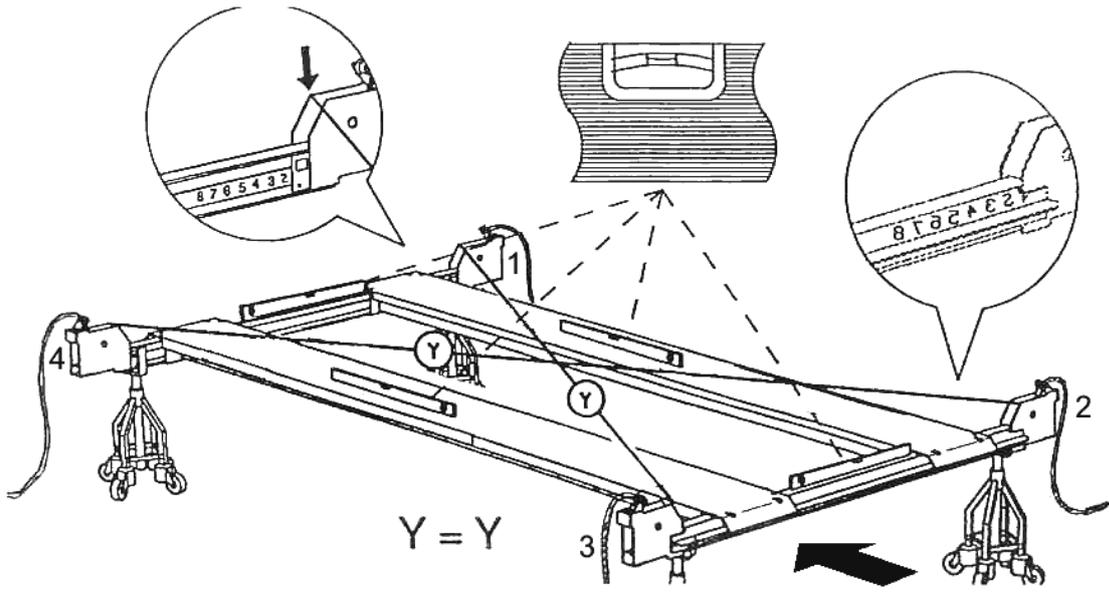
2. Pull cables and push cross beams in position under platform.
3. Fit platforms on cross beams by means of screws, washers and nuts (bag 2).
4. Fit adjustment screws M12x55 (bag 5). Check that cross beams are plumb. If not, adjust cross beams.



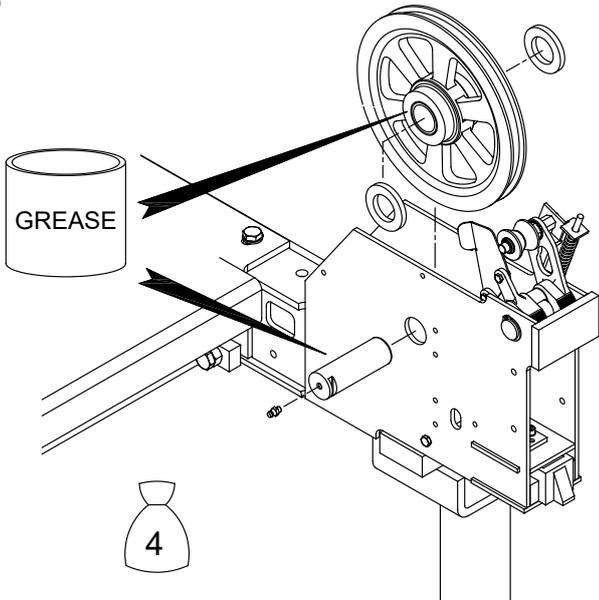
Model	X	Distance between platforms (Y)
H4443	112	1015
H4543	322	915

5. Level platforms and cross beams and measure the diagonals.  
**Note:** The requirements of the local authorities concerning installation of lifts must always be respected. (Rules valid in Scandinavia: distance to walls: min. 0.7 m, distance between lifts and other machines: min. 1.1 m).
6. Place cable pulleys, distance washers, axles and grease nipples. **NOTE:** Lubricate the bearing bush in the cable pulley before fitting the axle.
7. The switches S11, S12 and S14 are to be placed loosely at the two wheel-free cross beams as shown. **See picture page 3 for correct positioning of the switches.** Fixation /adjustment of the switches is made at step 39.  
Lead cables through cross beams (use nipples – bag 16) and through the Ø30 hole on the outer side of cross beam.
8. Place the 2 wheel-free cross beams on the main cross beams. Make sure that the outer sides of the main cross beams and the wheel-free cross beams flush.

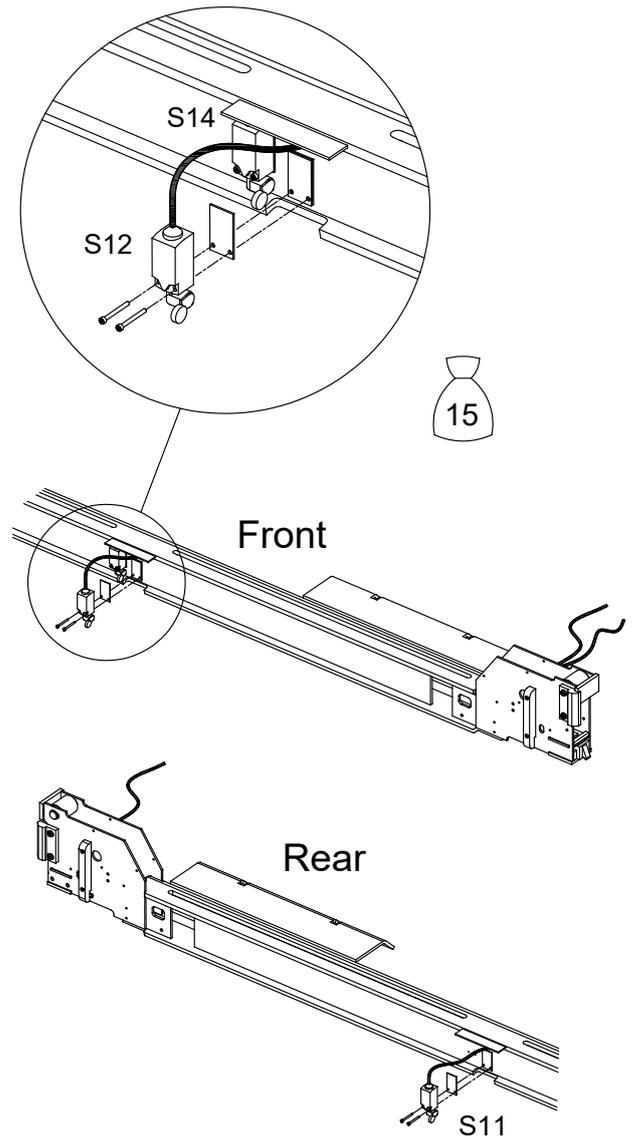
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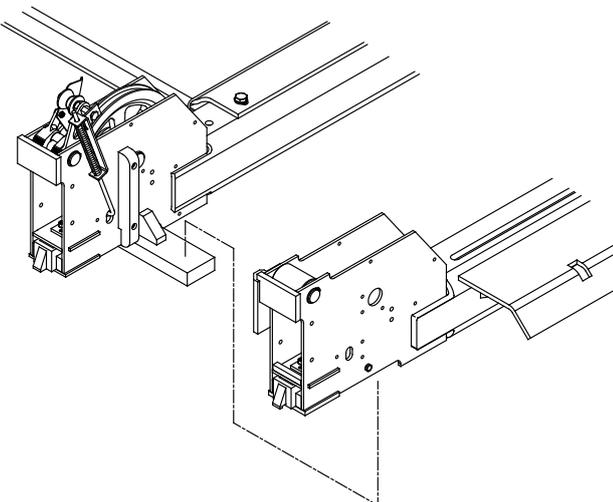
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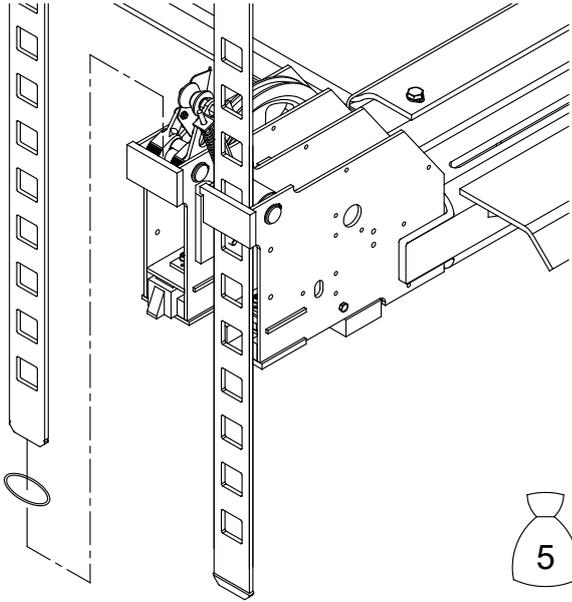


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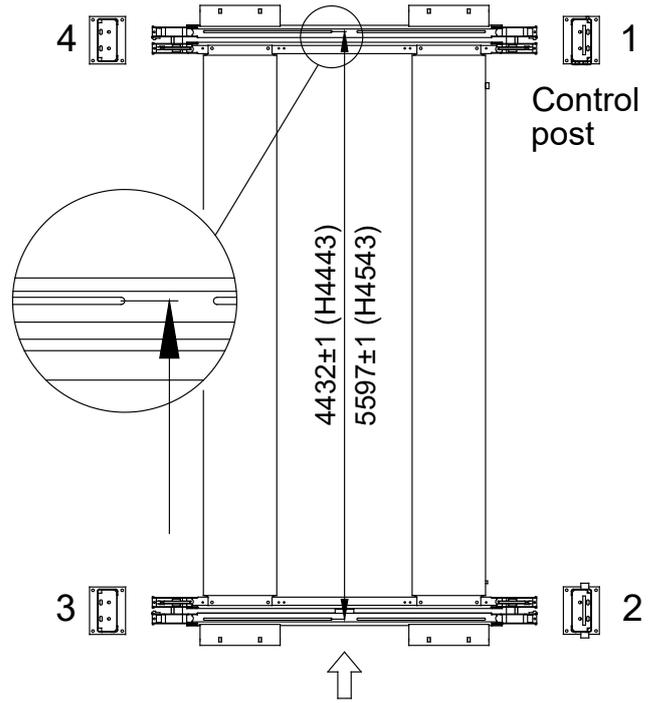


9. Fit o-ring (bag 5) at the bottom of the ratchet rails. Fit ratchet rails.
10. Check the distance between the centre of the guides in the wheel-free cross beam. These guides must be as shown on fig. 10. Adjust if necessary.  
Place posts in each corner of the lift. **Note!** the post with 2 connection pieces **must** be placed at pos. 2.
11. Activate the excentric brake, adjust height of ratchet rail. Push post in position and lower ratchet rail.
12. Fit nylon guides with taptite (bag 5). Fit one nylon guide on inner side of lift. Fit 2 nylon guides on outer side of lift. Keep the measures indicated.
- 12A. Check the distance between the guides mounted between the cross-beams. Adjust if necessary with distance plates (bag 17).

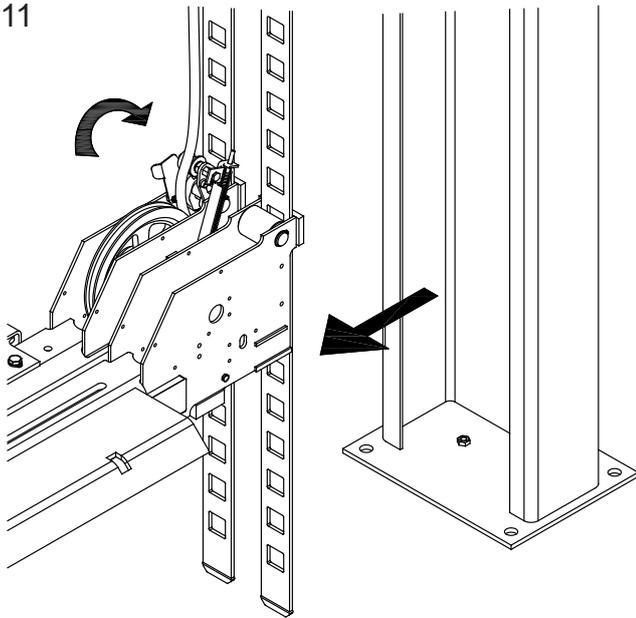
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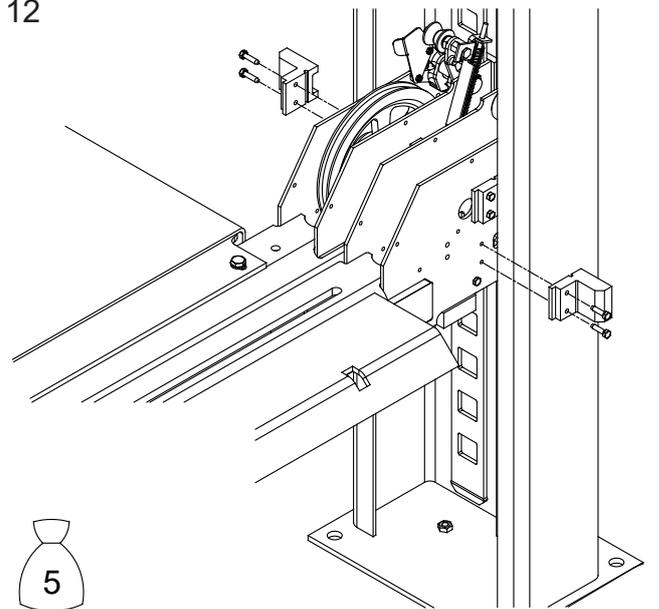
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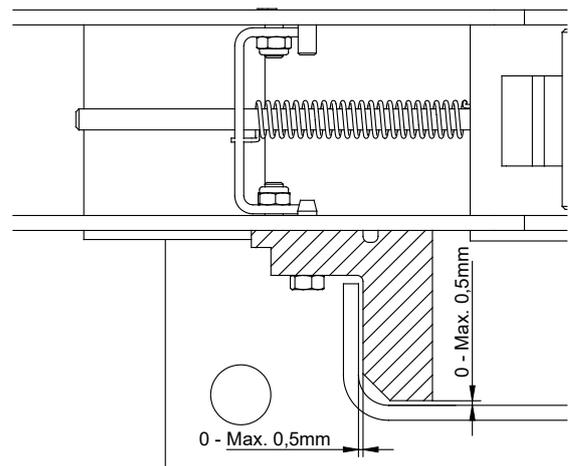
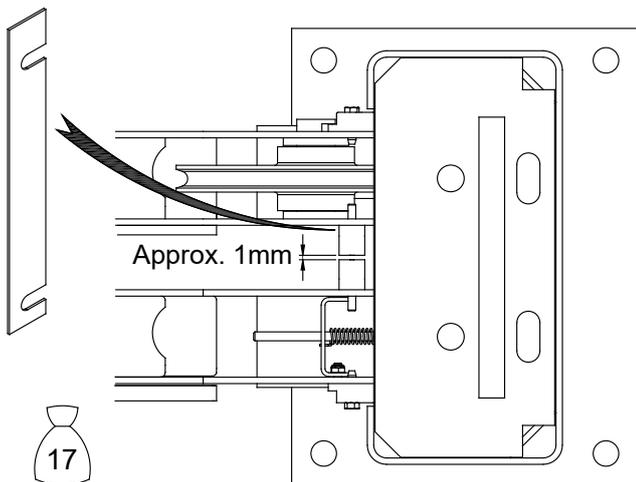
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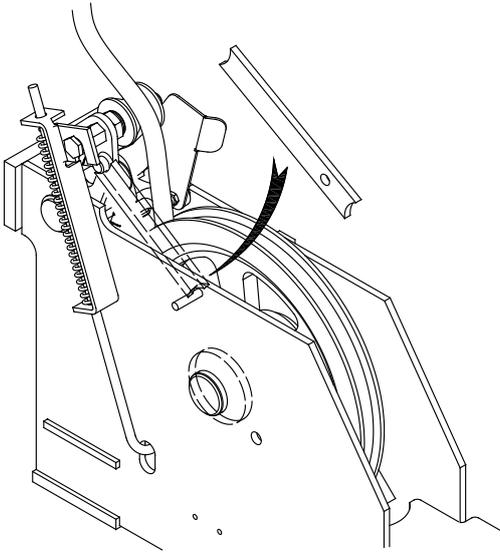


12A

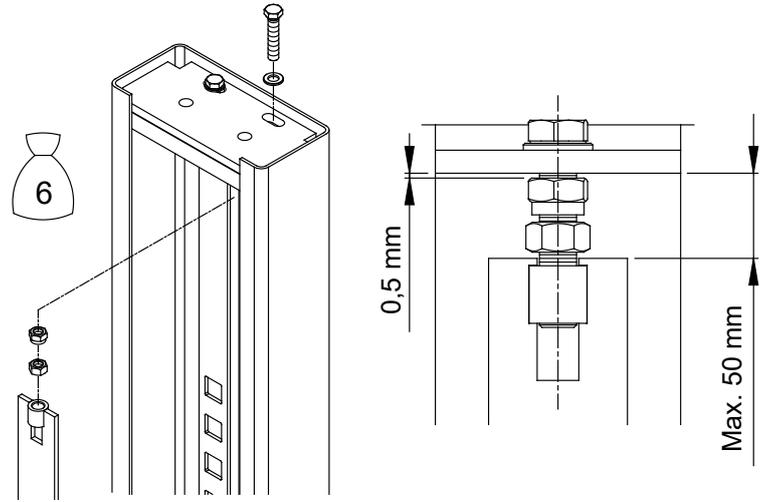


13. Fit auxiliary tool.
14. Fit ratchet rails in top of posts (bag 6).
15. Adjust posts vertically, using bits of steel packing band if necessary, check the measures indicated at the nylon guides.  
Check, that the main cross beam and the wheel-free cross beam still flush.  
When the lift is level, measure the distance from upper edge bearing plate on cross beam to floor (X) at all 4 corners. If these two measurements differ by more than 20 mm levelling plates (see page 3) have to be used.

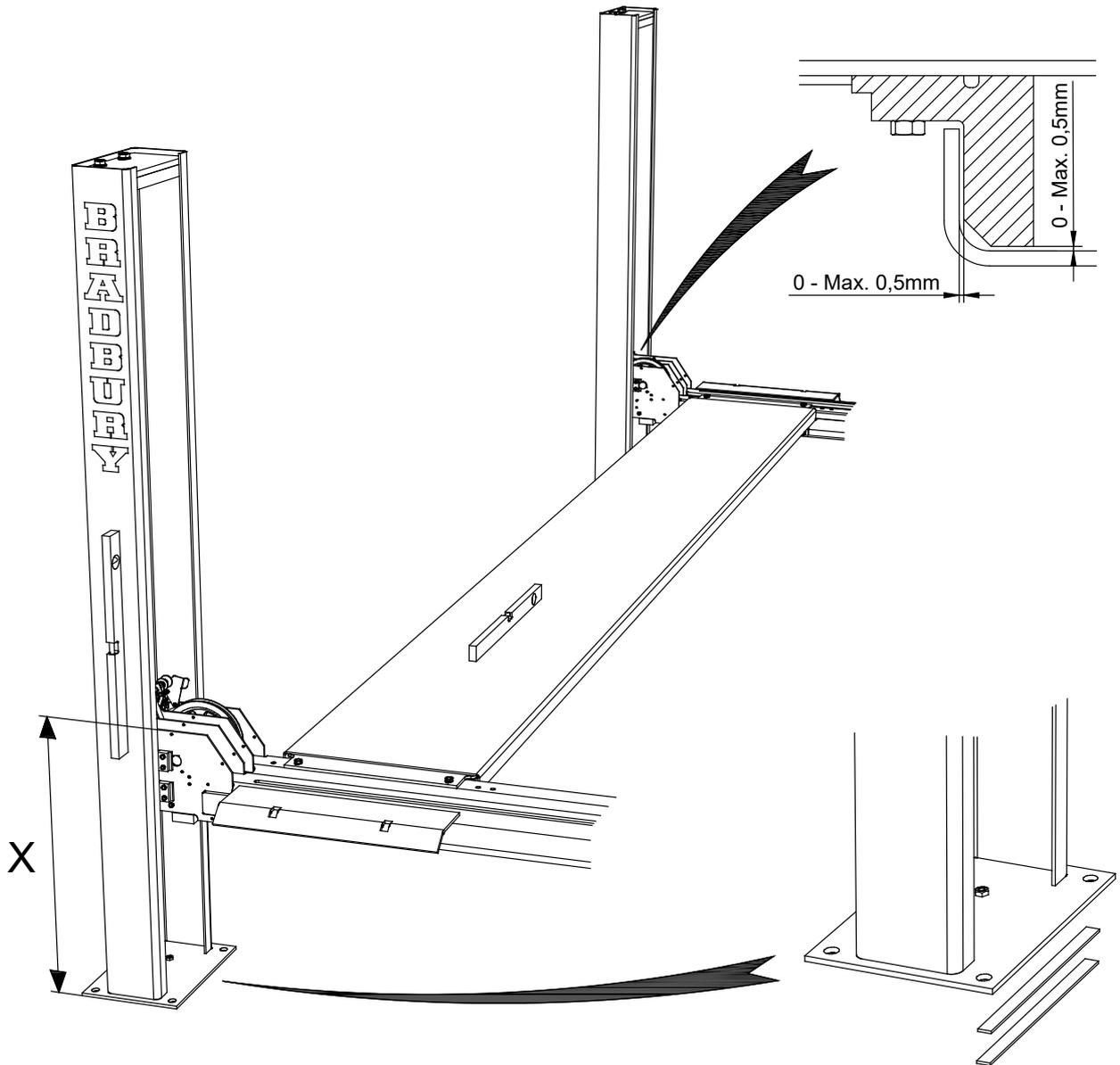
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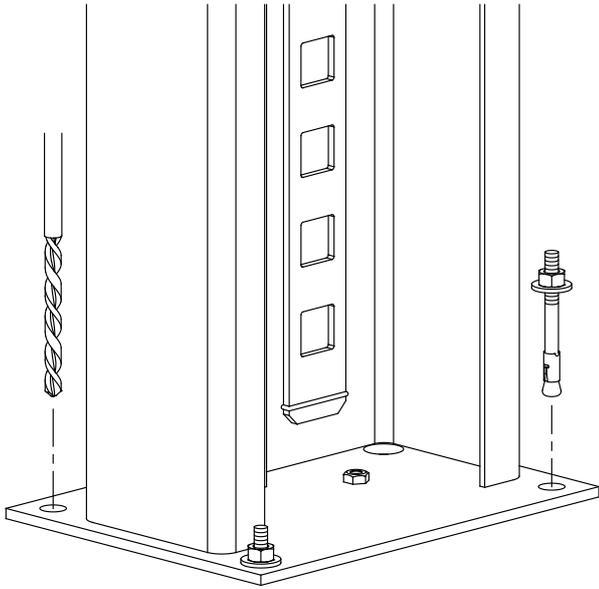


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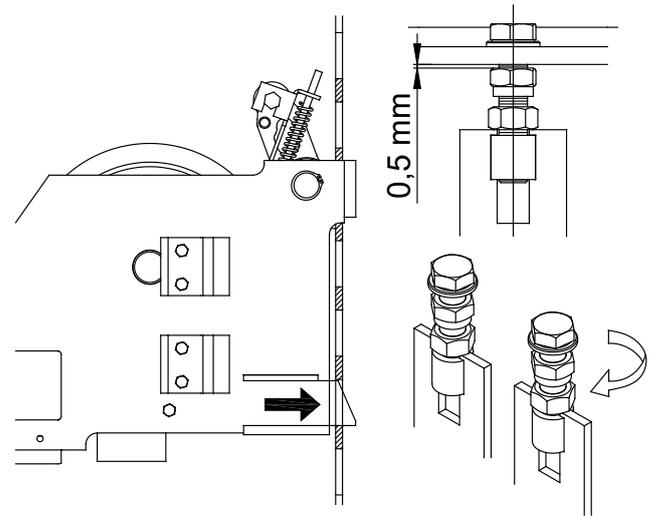


16. Use the base plate holes as templates and drill holes for expansions bolts. Tighten expansion bolts at 60Nm.
17. Fit auxiliary tool (see picture 13) in the first corner and alternately in the 3 other corners. Lift alternately the 4 corners to make ratchet engage in ratchet rails at the same level.  
  
Adjust the ratchets rails so that cross beams and platforms are completely level. Tighten counter nuts on ratchet rails.
18. Fit cable ends in top of the 4 posts.
19. Attach pump unit with M10x20 screws and washers (bag 8).
20. Remove cover for control box. Attach control box with M6x12 taptite (bag 8).
21. Fit brackets for obstruction system with M5x10 taptite (bag 15)

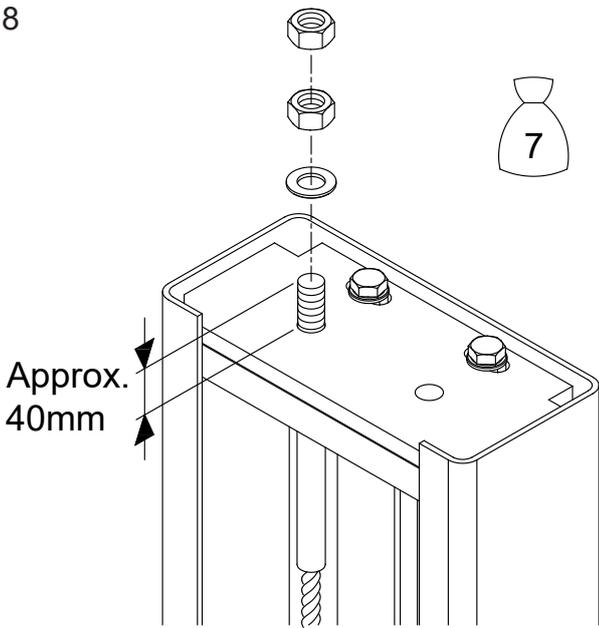
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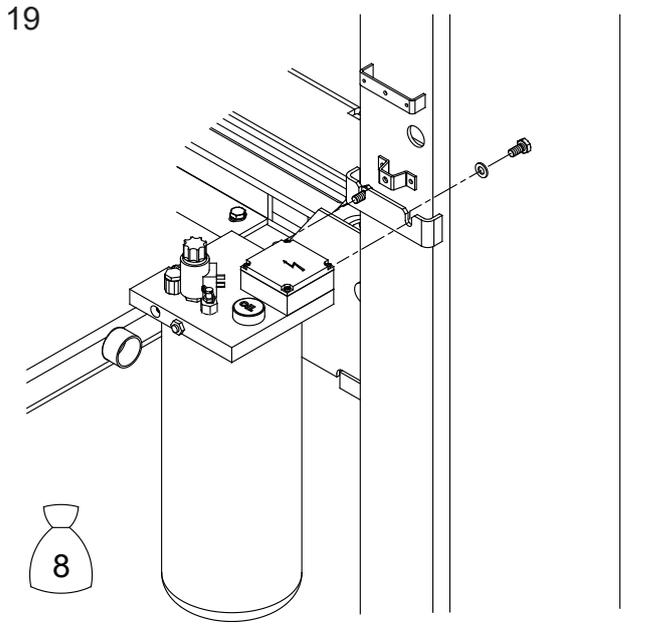
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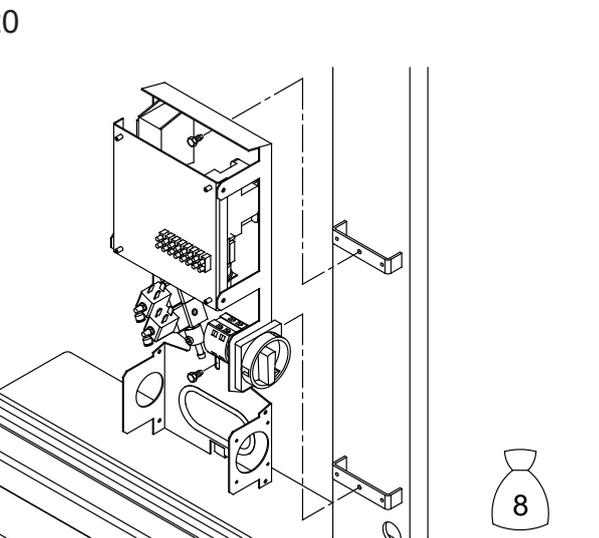
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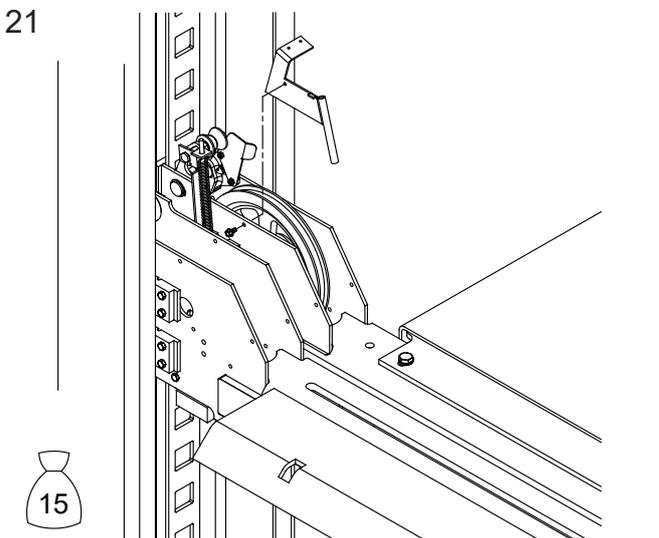
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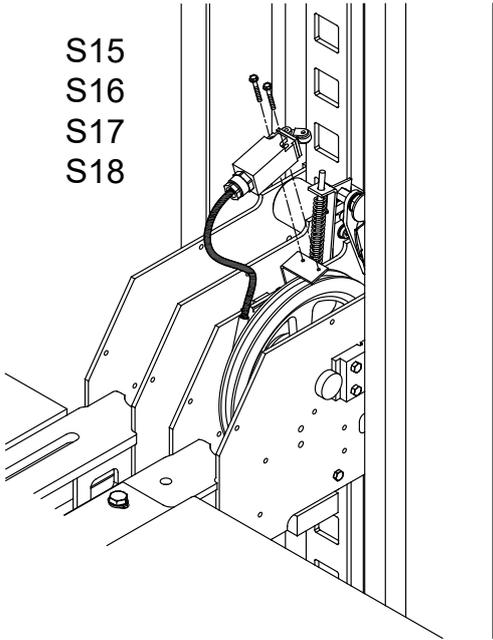
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22. Fit switches for obstruction system (S15, S16, S17, S18) with M4x30 taptite (bag 15). **See picture page 3 for correct positioning of switches.**
23. Fit switches (S13, S19, S21, S22) on brackets as shown with washers and M4x30 taptite.
24. Fit brackets (S13, S19, S21, S22) on outer cross beams. **See picture page 3 for correct positioning of switches.**  
Adjust the switches to the point where the contact arm is not activated when ratchet is fully engaged in the ratchet rail.
25. Fit bottom limit switch (S10) with M4x30 taptite (bag 15). **See picture page 3 for correct positioning of switch.**
26. Fit bracket for bottom limit switch on the control post.

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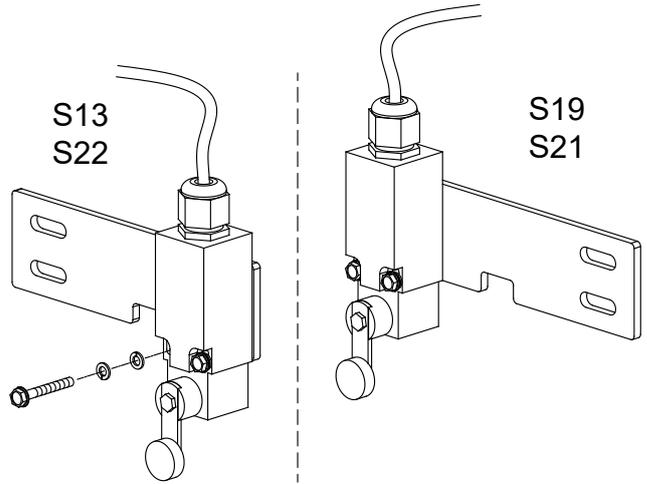
S15  
S16  
S17  
S18



23

S13  
S22

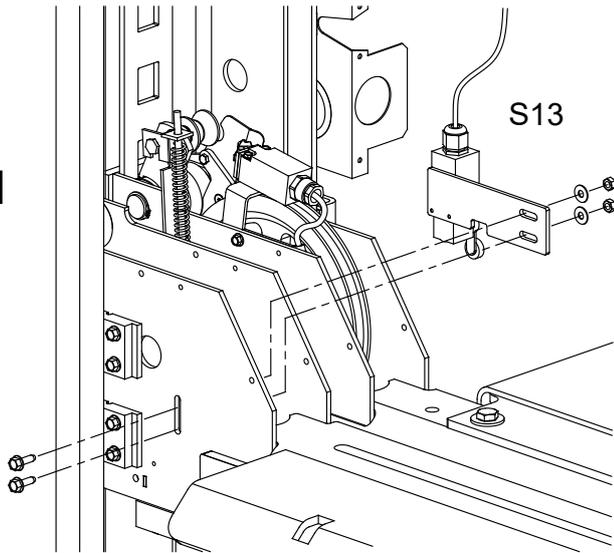
S19  
S21



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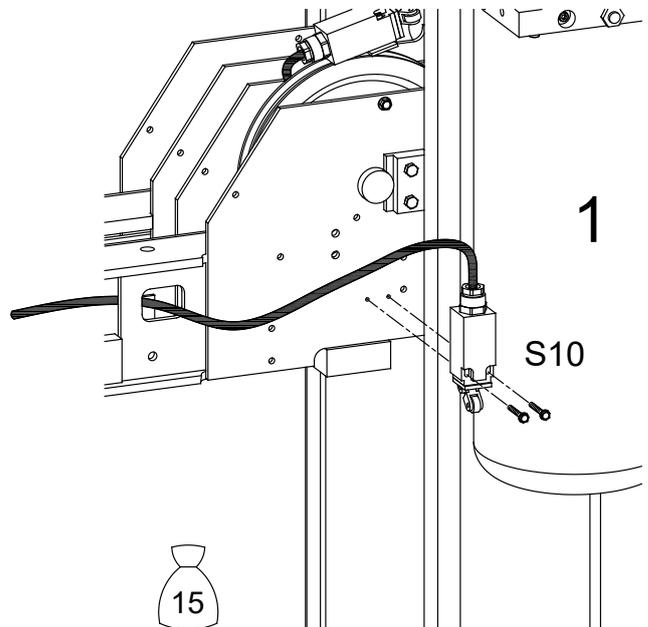
S13



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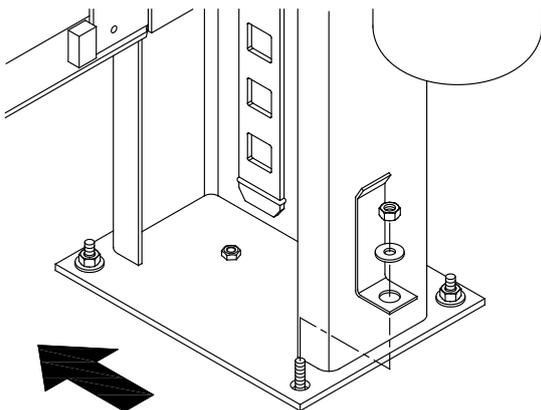
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S10



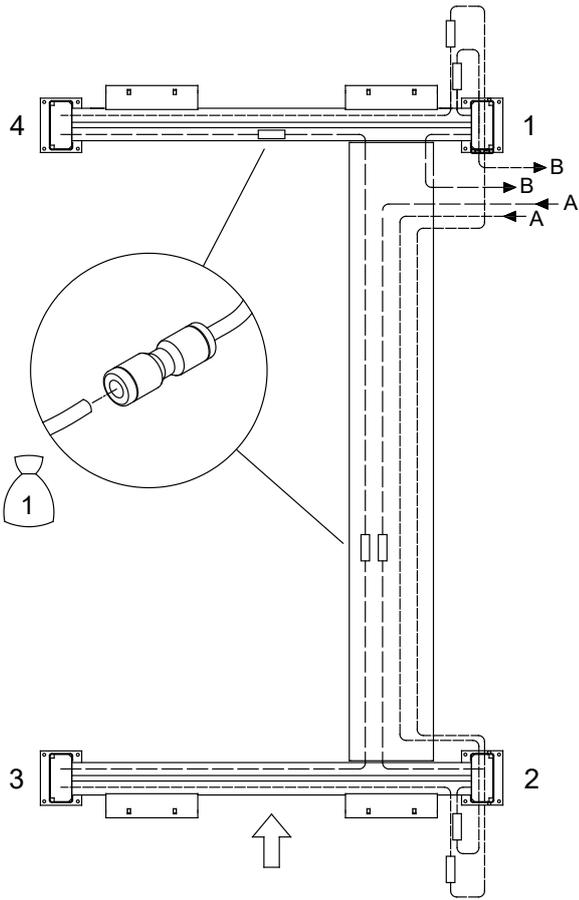
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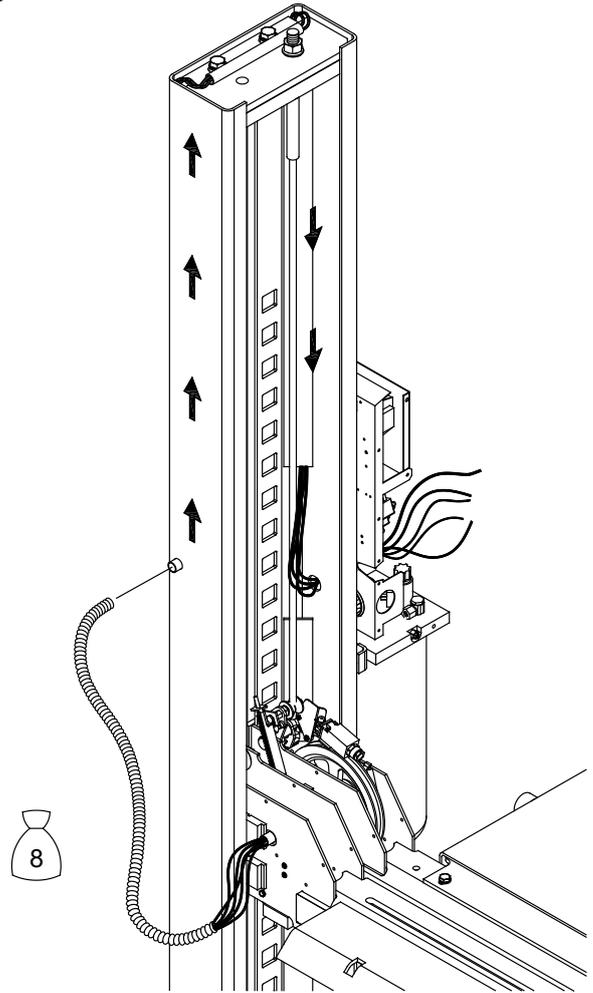


27. Connect nylon hoses as shown.  
**Note!** Red hoses = main lift  
Yellow hoses = wheel-free device
28. Lead cables from S12, S13, S14, S19 and the 2 yellow air hoses out through the cross beam – use washer and pipe socket as shown (bag 8). Lead the cables and air hoses through the armoured hose - through control post as shown – and out through the control unit.  
S14 is to be fitted in the terminal strip X5 of the control unit – terminal points 3 and 4.  
Fasten armoured hose to post and pipe socket with strips (bag 8).
29. Lead cables from S11, S21, S22 and the 2 yellow air hoses out the cross beam – use washer and pipe socket (bag 8). Lead cables and air hoses through armoured hose and into rear post as shown. Cables and hoses are lead out through a second armoured hose and through the connection piece in the platform.  
Fasten armoured hoses to post, pipe socket and platform with strips (bag 8).
30. Assemble connection box 1 with M3x16 taptite (bag 16) inside platform.  
Fit connection box 2 with strips.

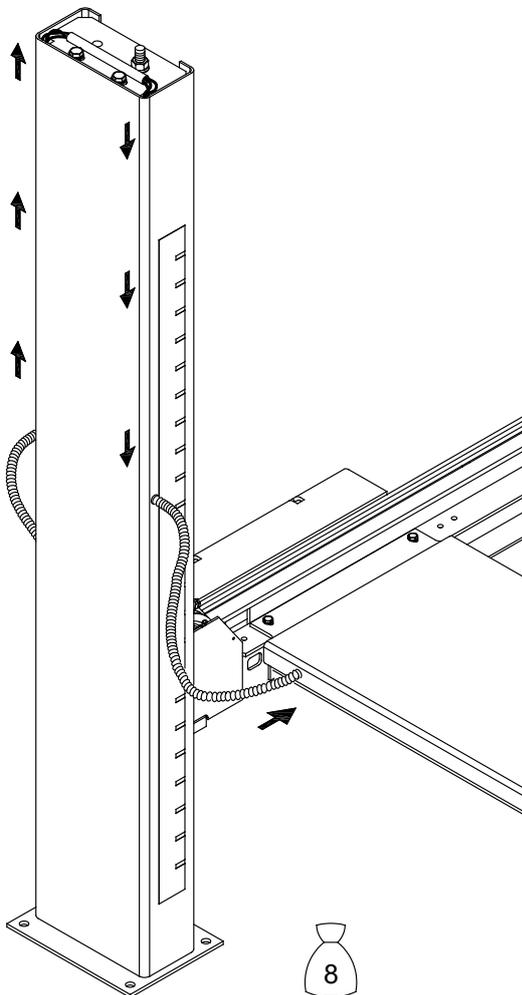
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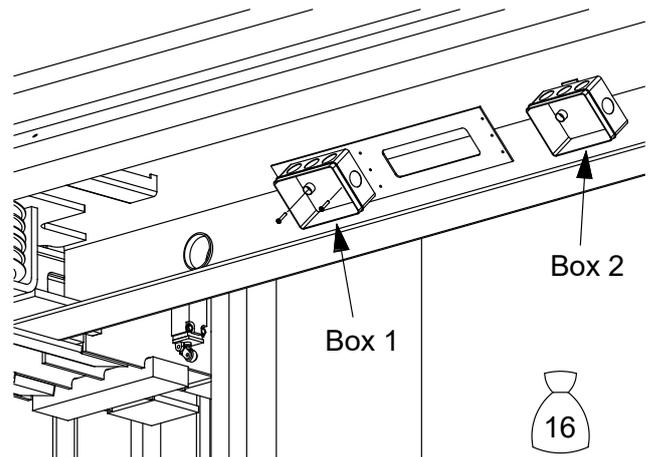
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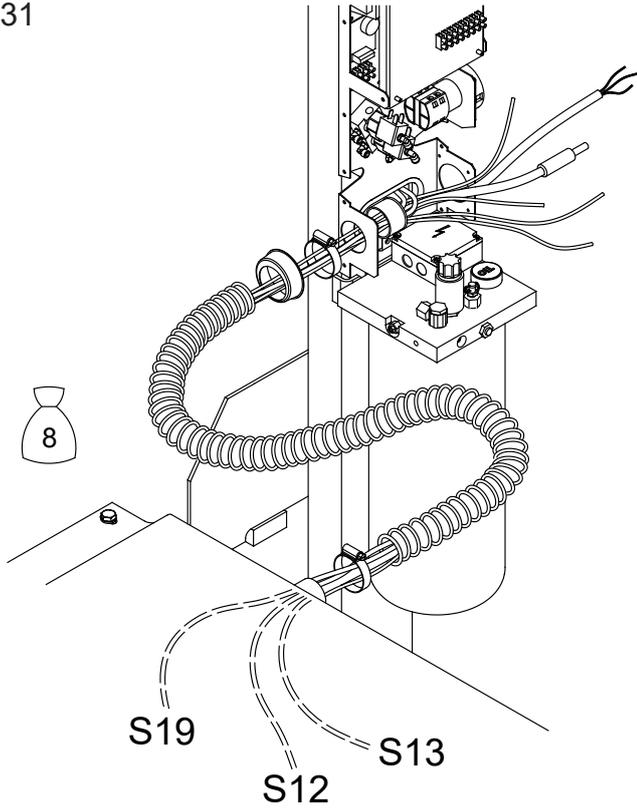


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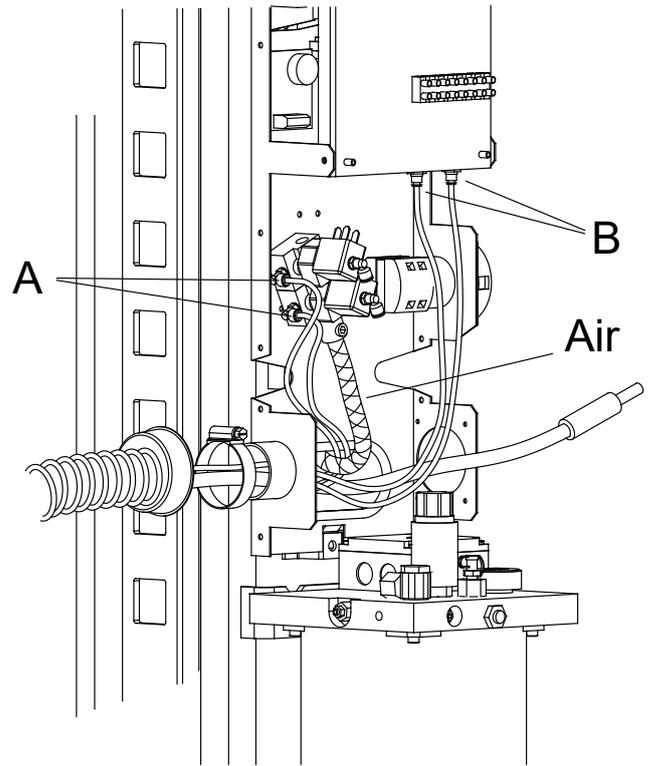


31. Pull hydraulic hose, cable from the connection box and air-hoses (2 yellow and 2 red) from platform through armoured hose and into the control unit.  
Pull cables for S12, S13 and S19 through armoured hose and into platform  
Fit the cables for obstruction and bottom limit switch into the connection boxes – see electrical diagram.  
Fasten armoured hose to platform with clamp.
32. Establish the air supply (7-10 bar) through top of control post.  
Connect nylon hoses to solenoid valves and pressure switches (A/B will perhaps have to be interchanged later on – see item 37)  
Main lift (red hoses) = Y2/S4  
Wheel free device (yellow hoses) = Y3/S5
33. Fit hydraulic hose as shown. Fasten armoured hose to control unit.
34. Fit oil return hose (bag 1) on connecting piece on cylinder.  
Pull hose along left platform, out through armoured hose and fit on connecting piece on pump unit.
35. Fill oil tank with hydraulic oil – see operation and maintenance instruction.

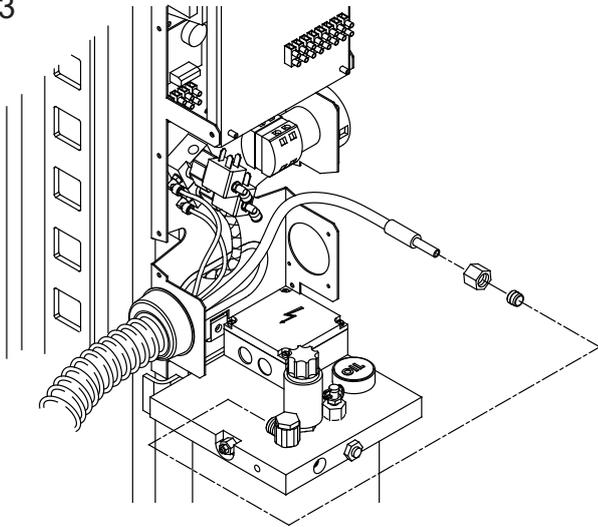
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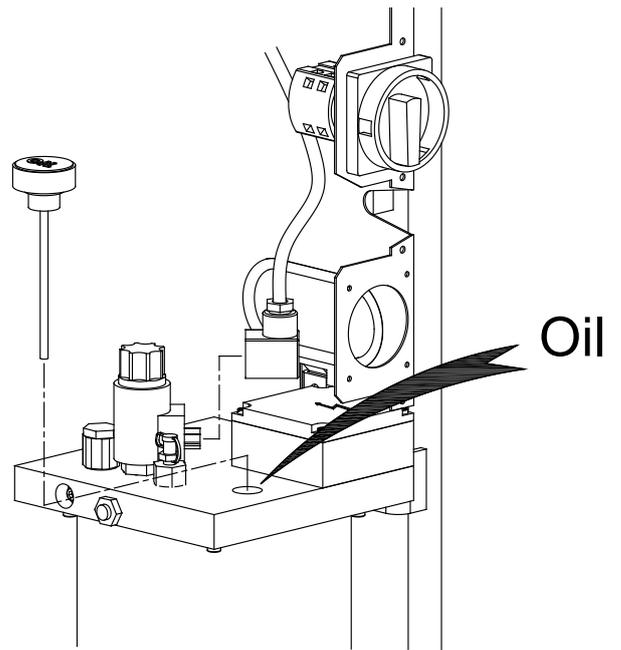
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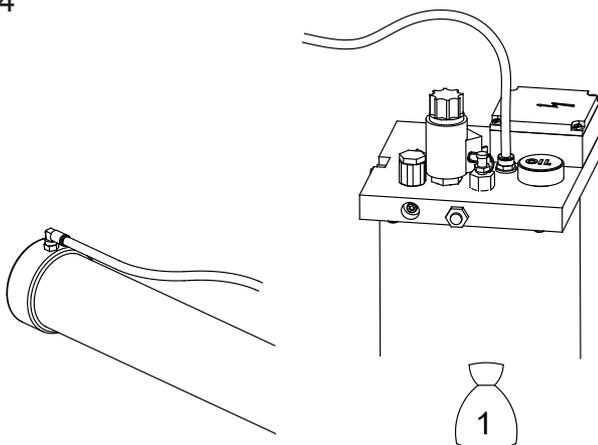
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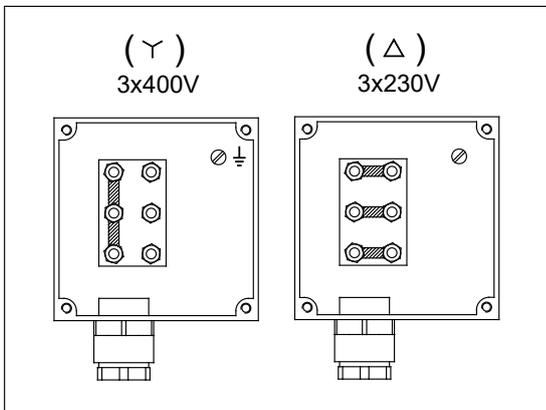
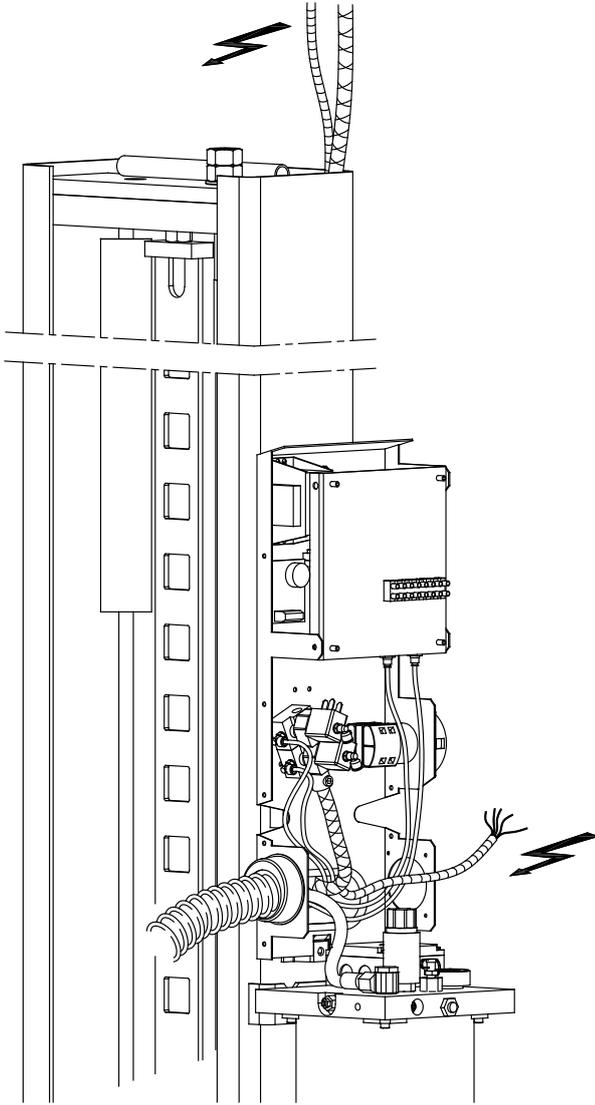


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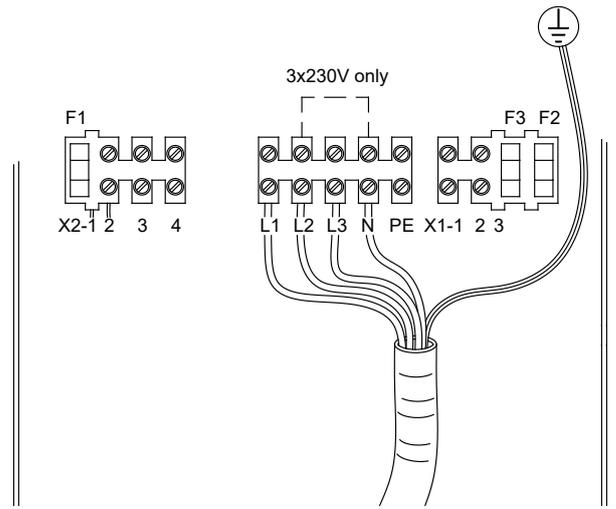


36. Pull the five-core electric cable with earth from top of post (or bottom) and out of post. Connect electric motor in terminal box as shown.  
**Important !** Connect to correct voltage.
37. Electric connection of the lift as shown must only be performed by an authorized electrician (electrical diagram in the control box).  
Activate main switch and push UP-button; if pump does not deliver oil (lift does not rise), interchange two phase wires in control unit (see above).  
If air is also blowing out at the ratchet in control post, interchange hoses A and B (see item 33).
38. Adjust the pre-fitted black sliding guides by pushing them as far towards the post as possible. Fasten the sliding guides.
39. Fit switches S11, S12 and S14 on wheel-free cross beams as shown with M4x40 taptite (bag 15).  
Use the distance pieces provided with the lift to adjust each switch in the following way:  
S11 and S12 are to be adjusted so that they are activated when the wheel-free cross beam lowers, but deactivated when the wheel-free cross beam and the main cross beam are at the same height.  
S14 is to be adjusted so that it is constantly activated (closed) when the free-wheel cross beam and the main cross beam are at the same height.

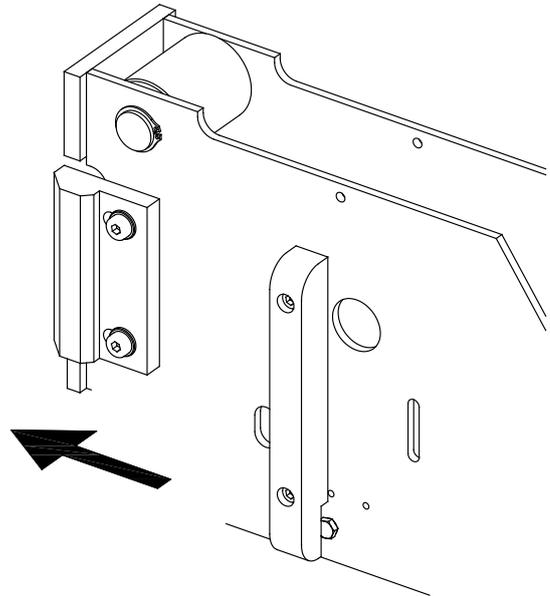
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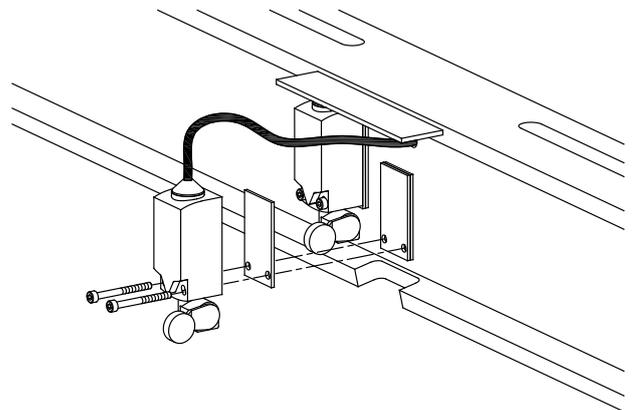
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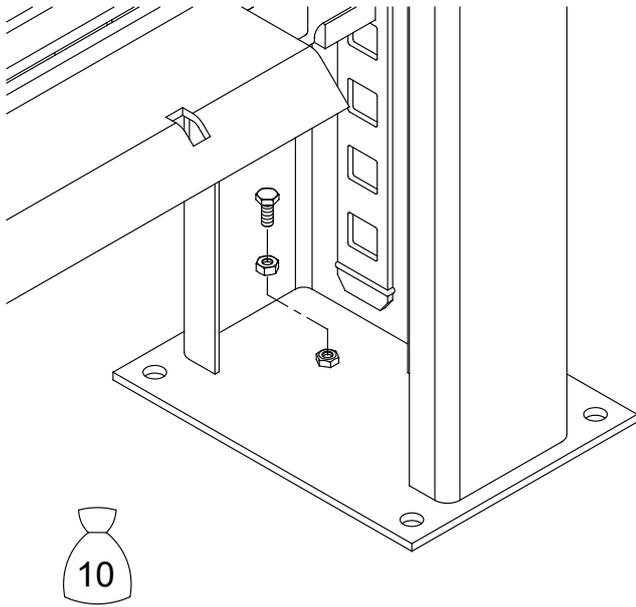
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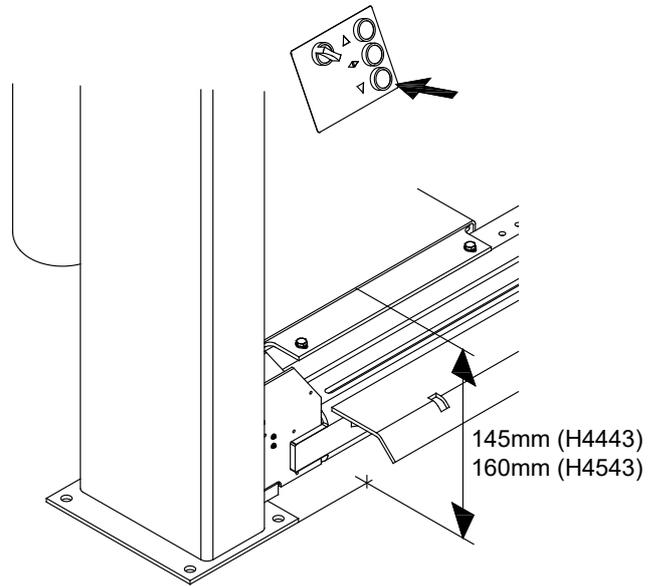
40. Fit bolt and nut in bottom of posts – fit the bolt underneath the main cross beam. Fasten the bolt.
41. When bottom position has been reached, keep DOWN button activated for about 20 sec. (venting). Adjust bolts in bottom of posts so that cross beams and platforms are completely level.
42. Switch off air supply. Adjust wires to make the 4 ratchets engage simultaneously when UP-button is activated.
43. Fit pulley covers (bag 20).  
Fit height indicator arrow as shown (bag 1).

Before mounting this arrow, the lift must be parked at approx. 1.2 m above floor. Place the arrow, so that the tip of the arrow points at a number.

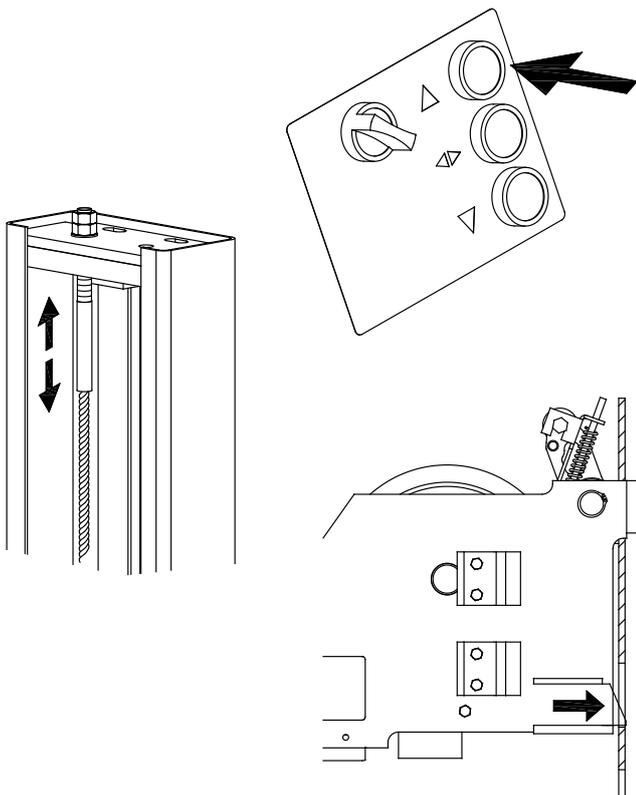
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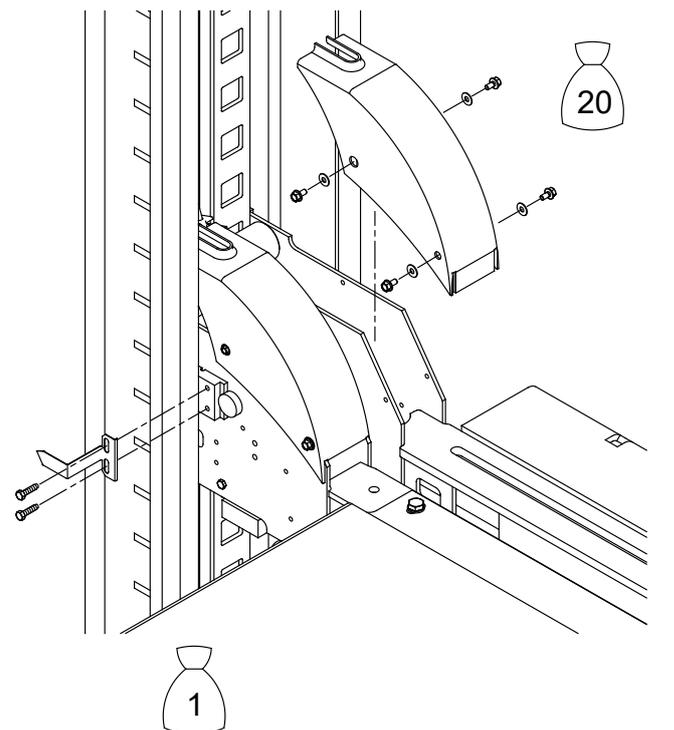
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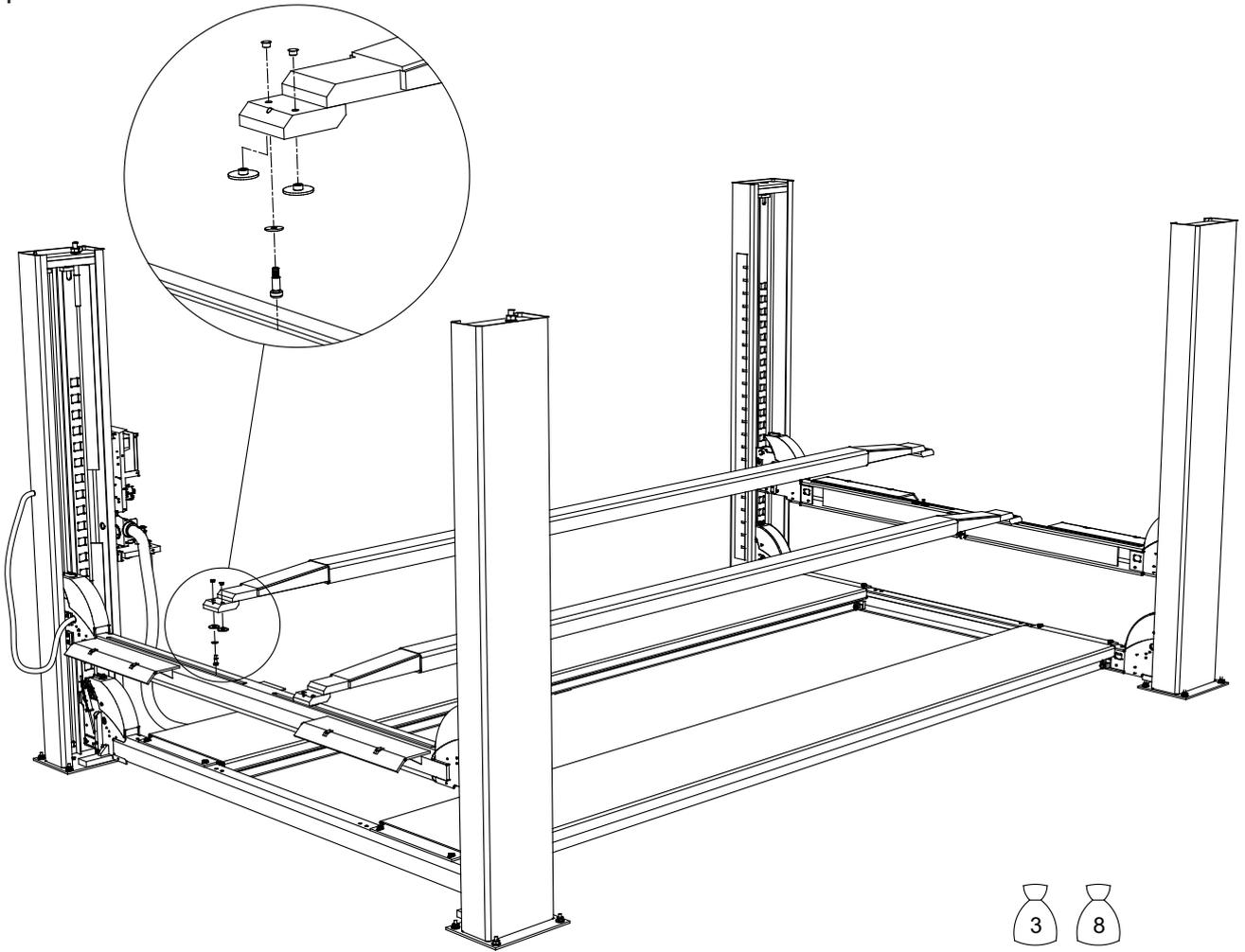


44. Raise the lift to approx. 0.5m above floor. Park the wheel-free device. Lower main lift to bottom position. Fit sliding shoes (bag 3) underneath the rails. Place rails on the wheel-free cross beam.

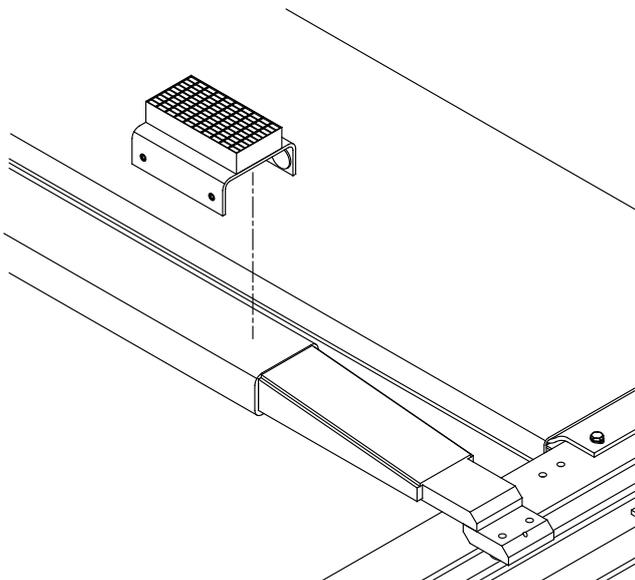
**Note!** Rails must be placed in outer position on the cross beam. Fit rails on the cross beam with stud bolt and washer (bag 3). Push rails into the position wanted.  
Fit plugs (bag 8) to rails.

45. Place 2 adaptors on each rail.
46. Fit front wheel stop.

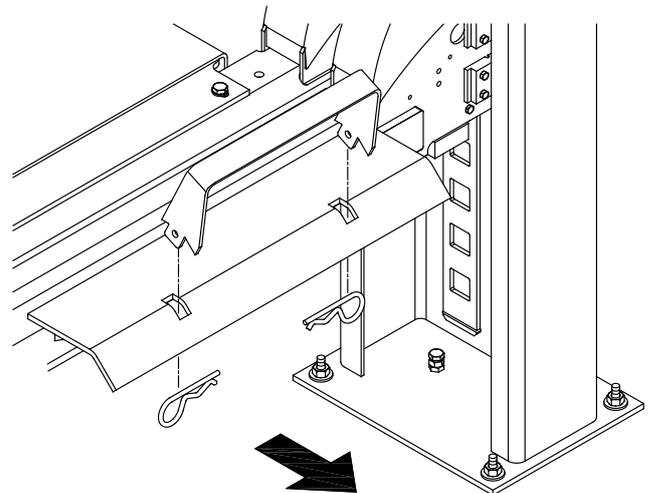
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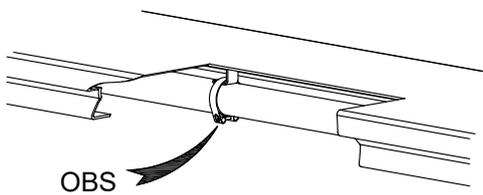
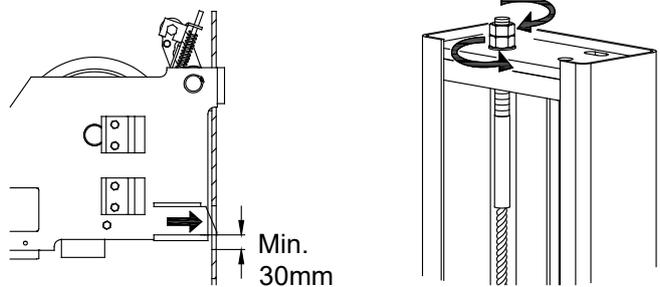
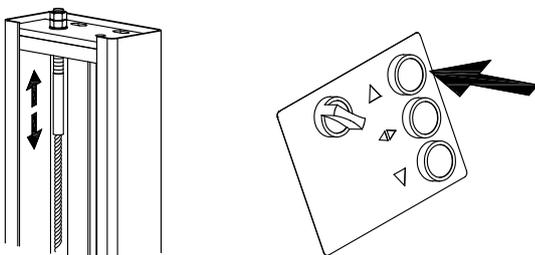
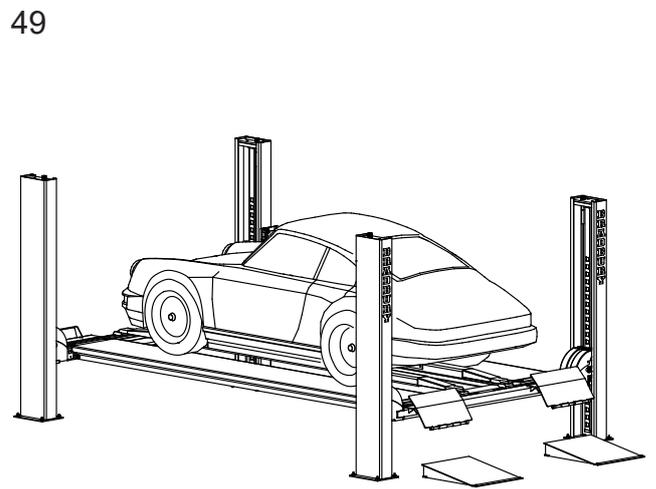
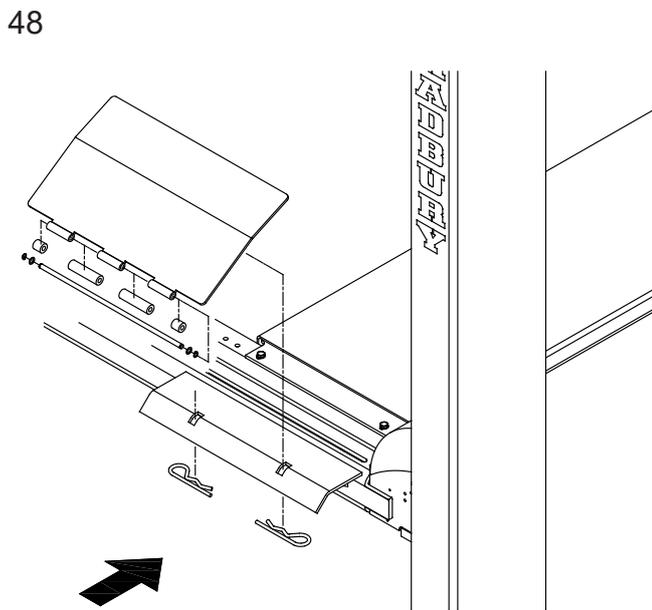
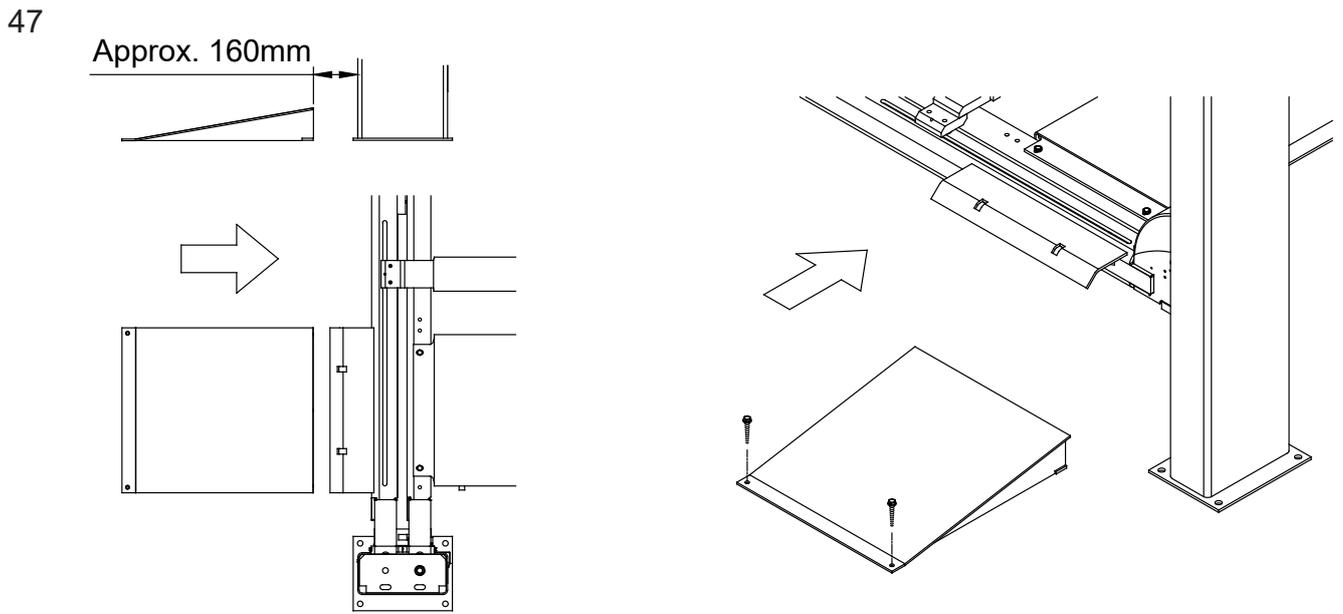
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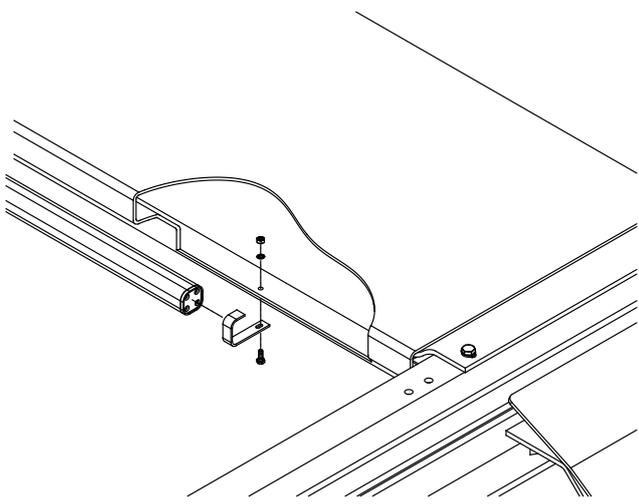
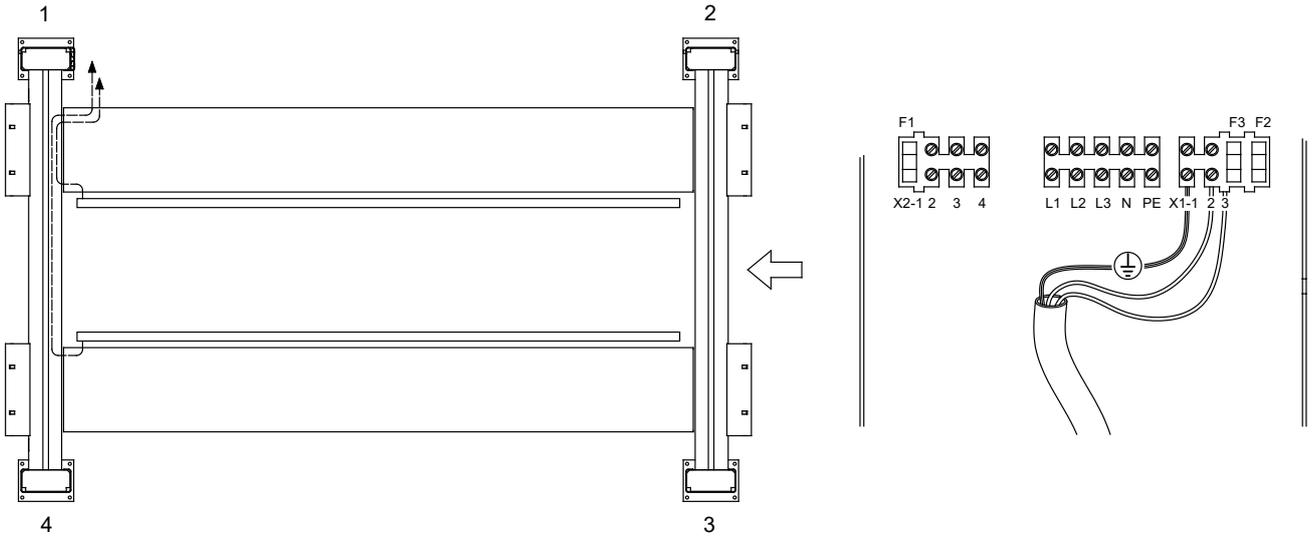


47. Place the floor ramps as shown. Use the ramp holes as templates, and drill holes for expansions bolts.  
Fit floor ramps.
48. Fit drive-on ramps.
49. Place a car on lift (approx. 2000 kg). Re-adjust cables according to step 42.  
Raise lift to top position. Check distance from underside of ratchet to underside of hole in ratchet rail; this distance must be min. 30 mm.  
**Important !** Tighten the counter nuts of the cable.  
Loosen clamp for cylinder in order to make it centre; re-tighten clamp.

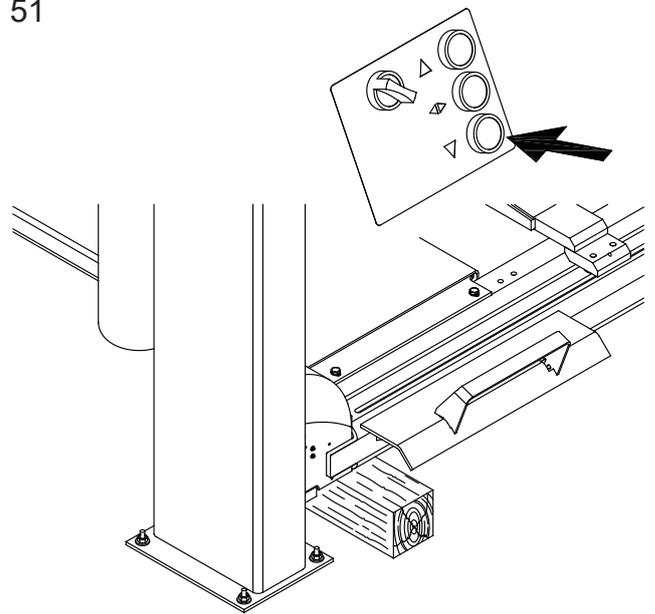


50. Fit lighting set.  
Pull 3-core cable through armoured hose into control unit.  
Connect lighting cable.
51. Lower lift on to a piece of wood to check the obstruction system, repeat the same procedure in all 4 corners.  
The main lift is to be tested first – then the wheel-free device.  
Note! If the lift does not stop within 100 mm – stop lowering the lift!  
To raise lift from an obstruction – push UP-button.
52. Lower the lift to bottom position and fill up with hydraulic oil if necessary.  
Fit cover on pump unit and cover for control unit.
53. Clean lift and give user thorough instructions.

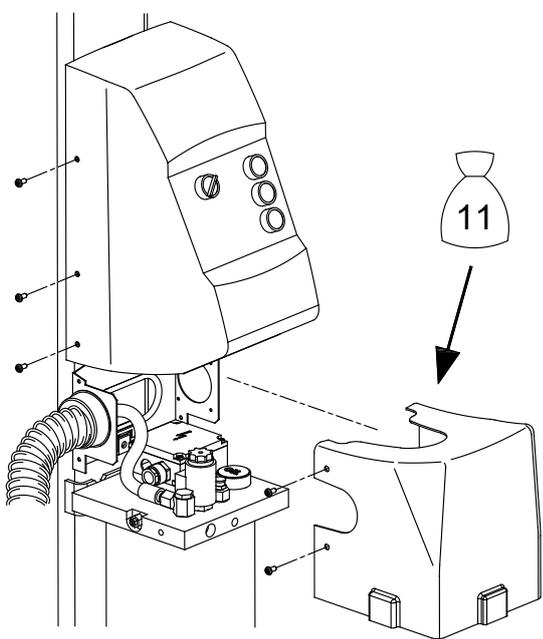
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