



CM245-AS

Installation Instructions

ALWAYS KEEP
operating instructions
ready to hand on the
unit

Read the operating
instructions before
working with the
unit

Date:

30/11/2023

**Before
taking into operation
check system compo-
nents, control, emer-
gency stop and safety
equipment for condi-
tion, damage and
correct function!**

Please read this manual before you get started.

You must read and understand the precautions for safety purposes and any damages that may occur to your property.

If these installation instructions are not followed strictly, the hoist is not covered by warranty.



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Specifications/images subject to change without prior notice, Images and sketches are for illustration purposes only.

These 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 hoist will not function effectively and you will not benefit fully from your purchase of the hoist.

NB: Note this arrow → .The hoist will throughout these instructions be shown from the drive-on direction.

NB: If these installation instructions are not followed strictly, the hoist is not covered by warranty.

Information for construction engineer or architect:

Model	Quality of concrete:	Depth:
CM245-AS	32 MPa	140mm

For further information - please see the foundation instructions:

Model	Foundation instructions
CM245-AS	

Information for fitter:

The hoist has to be installed on an even floor and must not be installed in or close to construction joints (min. distance = 200 mm). The thickness of the wearing surface on the raw concrete and clinkers, if any, must be added to the length of the expansion bolts.

Expansion bolts used for the installation of the hoist in not-cracked concrete:

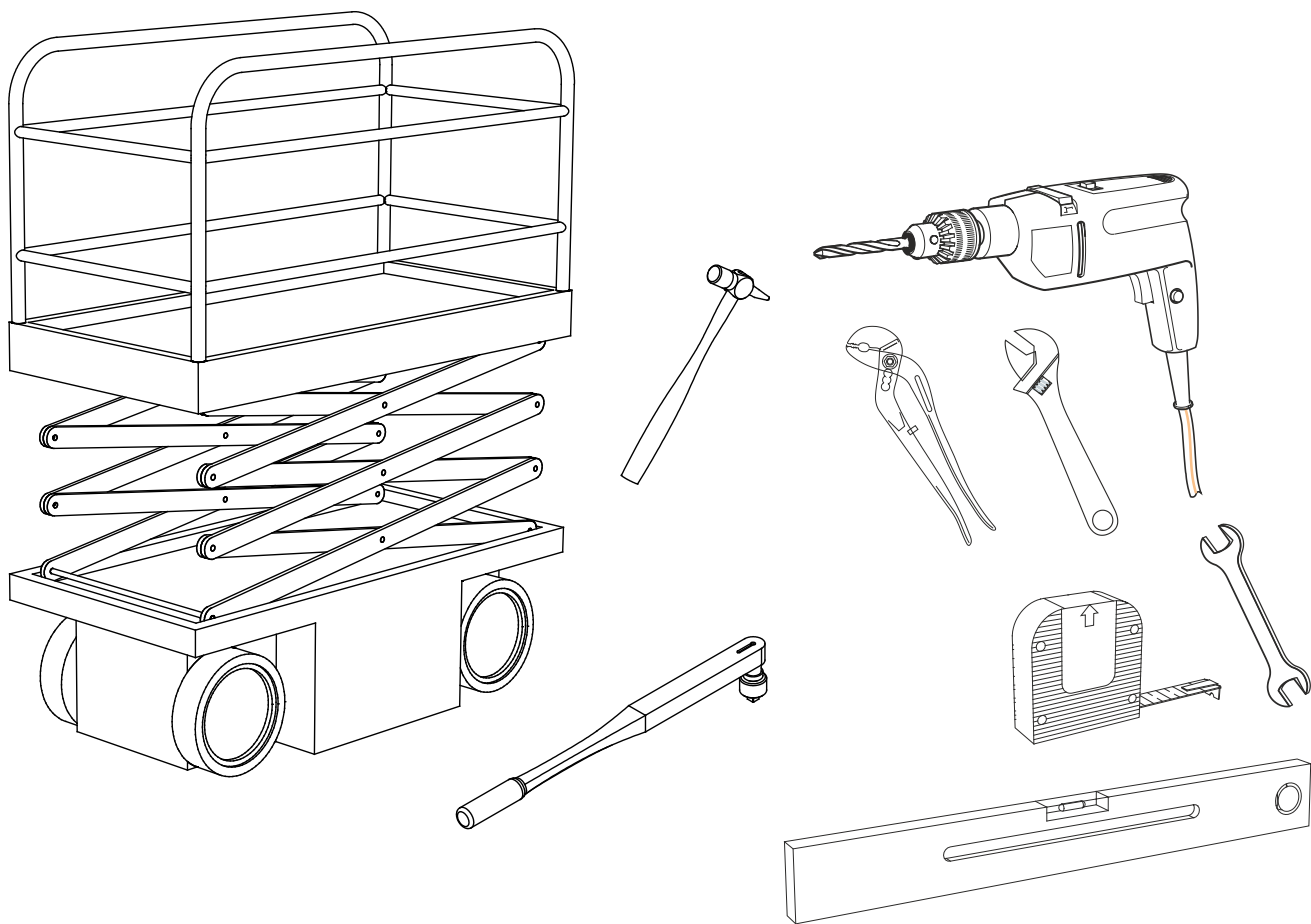
Model	Expansion bolt	Torque
CM245-AS	HST3-M20x160	Bolt Man. Spec

*If alternative attachment is used the properties of this attachment must correspond to the Hilti bolt mentioned.

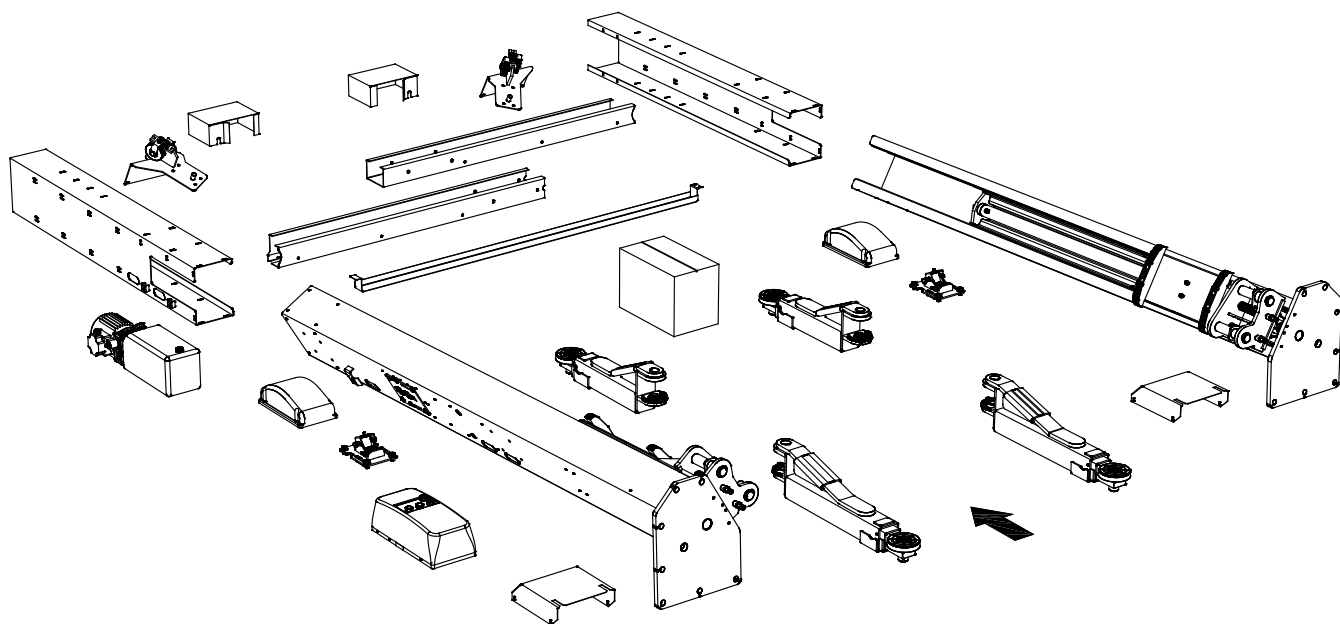
(The expansion bolts are **not** included in the delivery).

1. Tools requested.
2. Place all components as shown.
Remove transport plates from each column.

1



2



3. Fit post extensions on posts in the appropriate height while posts are lying down.
Torque for screws is 50 Nm.

4. Remove cover from the control unit and fit it on the control post.

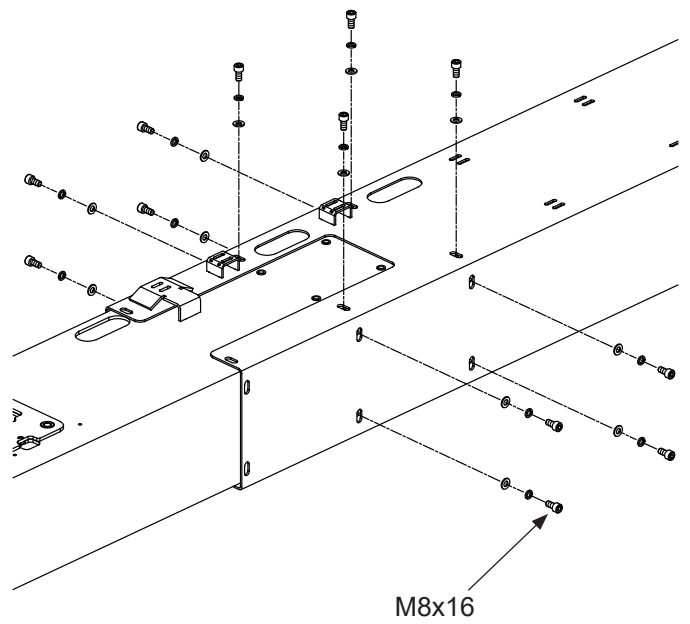
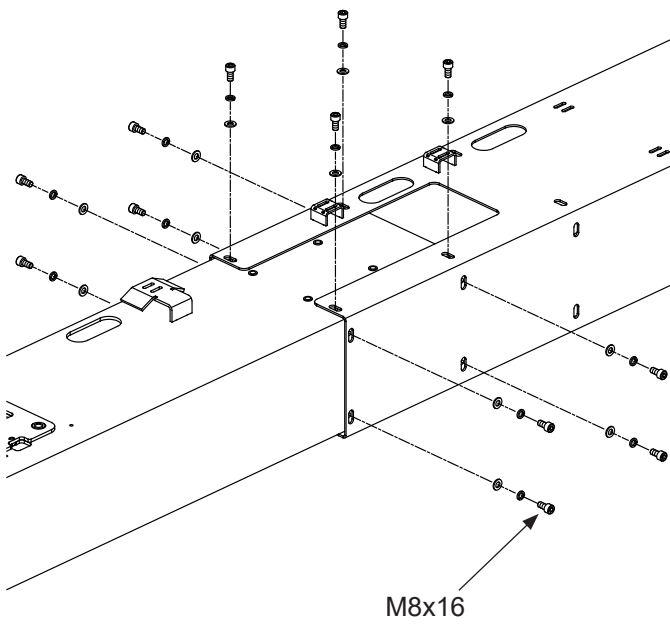
NOTE ! If post extensions are placed in min. height (\div 225 mm), the pre-fitted cables must be moved upwards in carriage as shown on figure 23.1. This has to be done before post is raised. Pull the pre-fitted cables out through the top of the extensions.

*****Hoist install standard is 3420mm x 3995mm (wide & high)*****

3

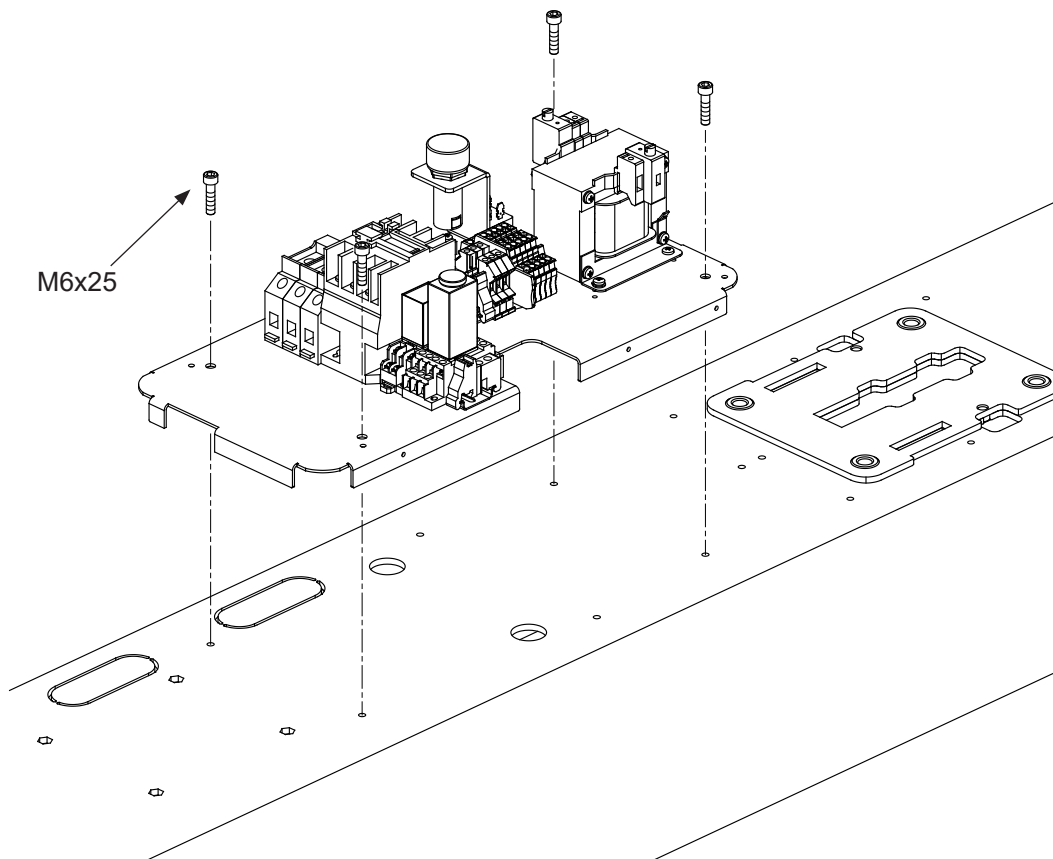
Max. portal height

Min. portal height



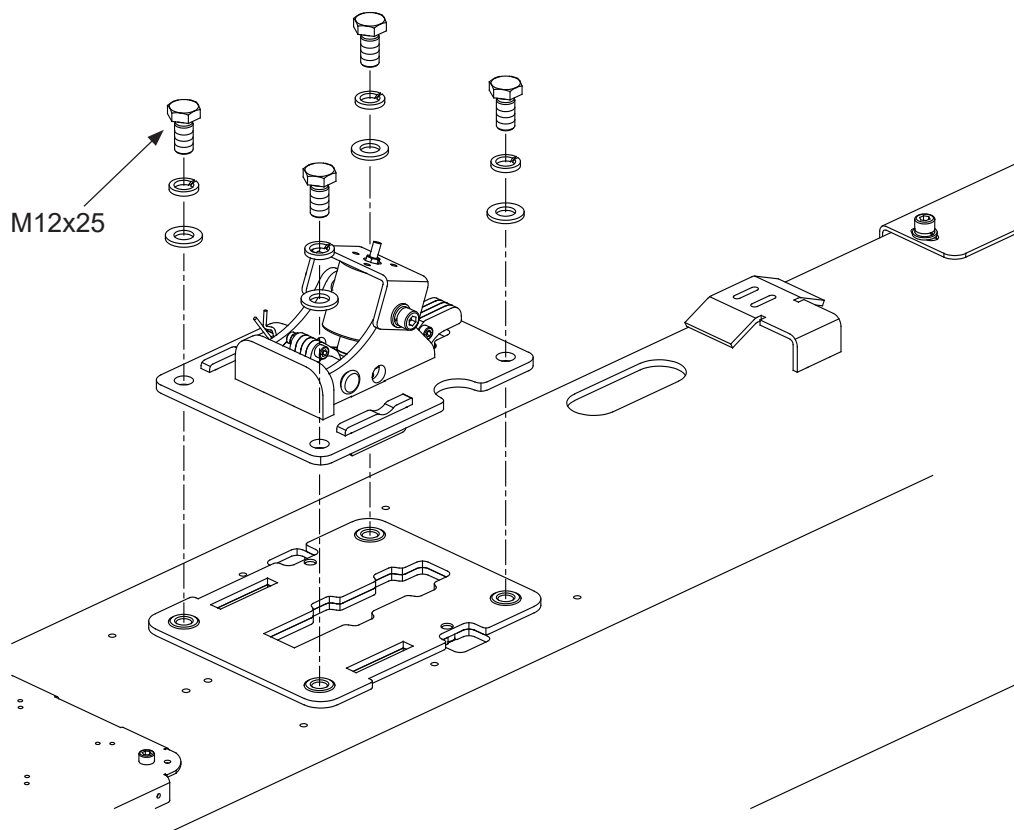
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M6x25

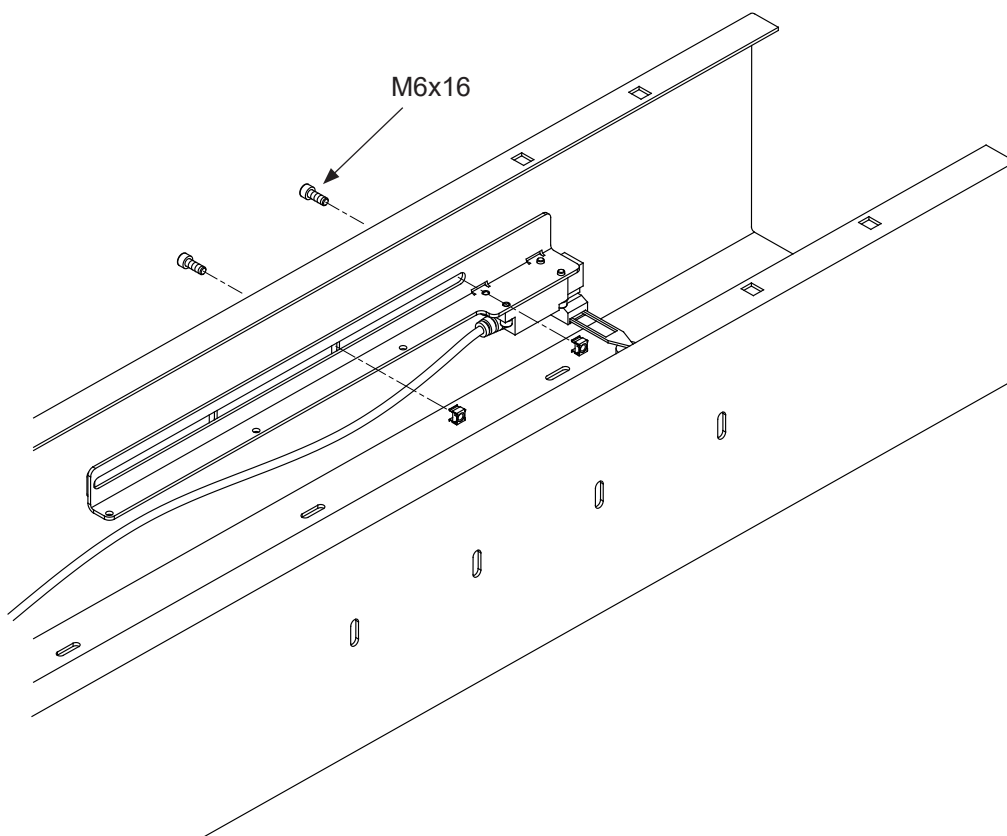


5. Fit the prefitted safety ratchets on both posts.
6. Fit bracket with top limit switch in control post.
Re-tightening and adjustment of top limit switch is made at step 41.

5

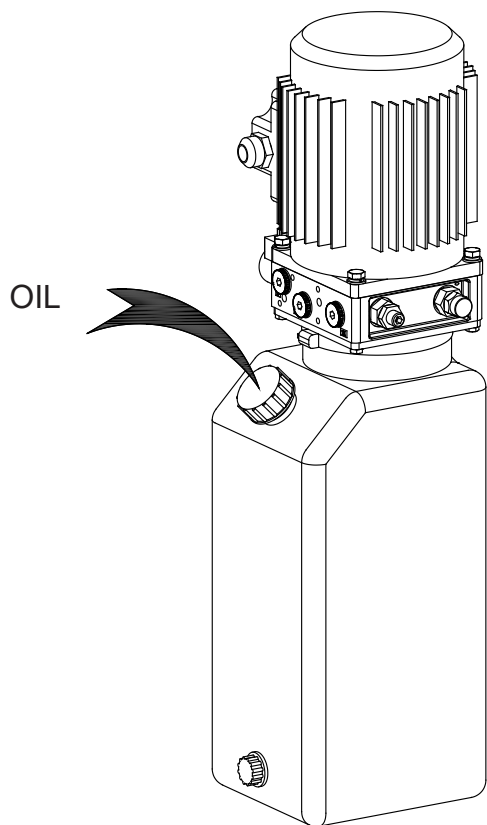


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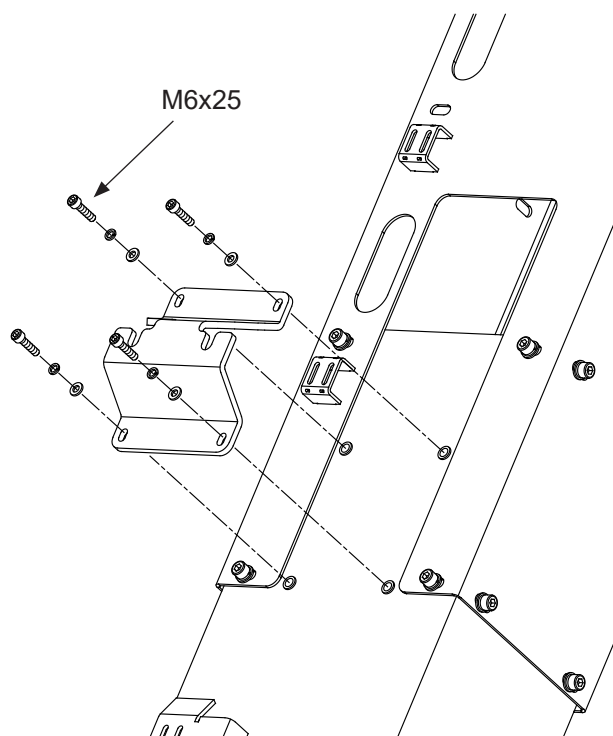


7. Fill in oil on pump unit (see operation and maintenance instructions).
8. Fit bent bracket for pump unit on control post.
9. Fit pump unit on bracket.
10. The short hydraulic hose is fitted on pump and connected to the hydraulic hose on control post.

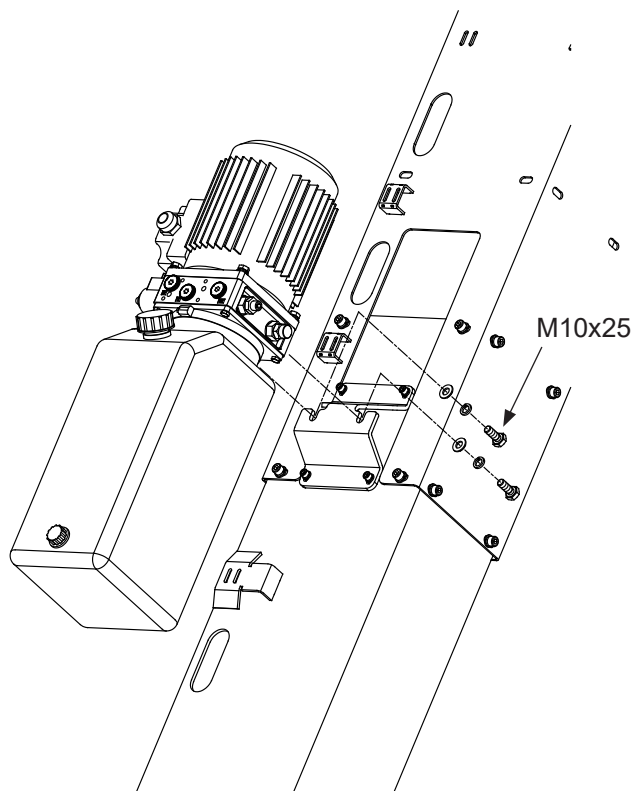
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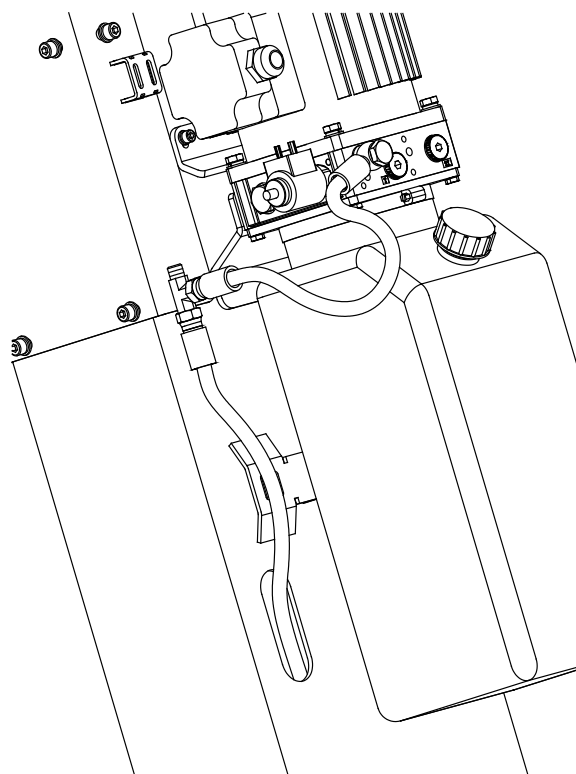
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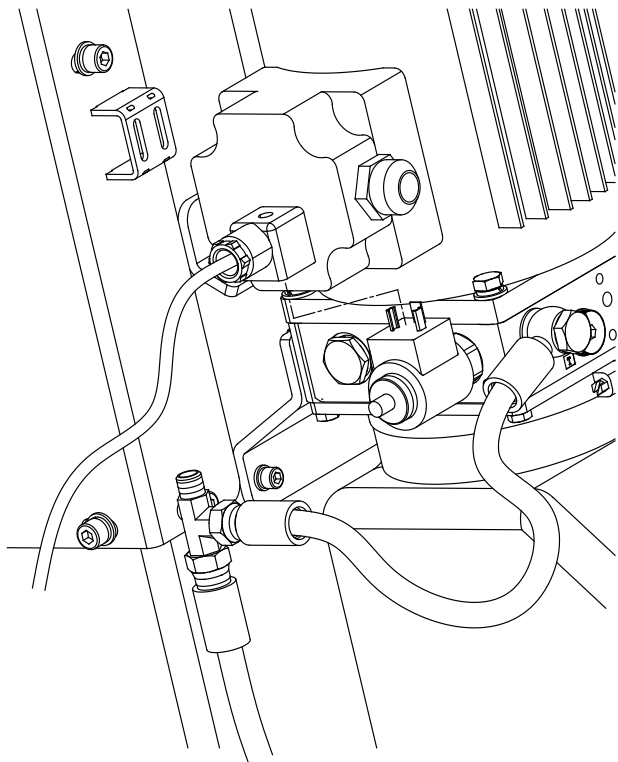


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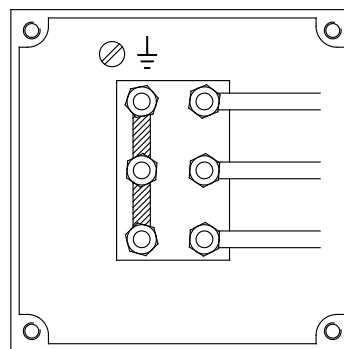
11. Fit plug for solenoid valve. (You will find the pre-wired plug tucked inside the post)
12. Fit motor cable on pump unit. For correct cable connection according to mains supply, see sketch.
13. Fit portal corners on posts as shown.
NOTE ! Pull the pre-fitted cables and hydraulic hoses out through the top of the extensions before raising the posts.

11

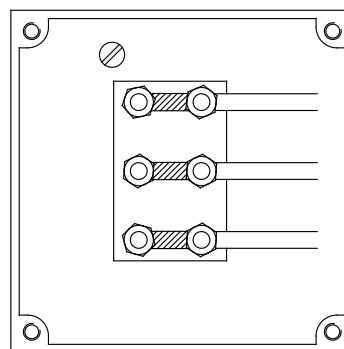


12

(Y) 3x400V



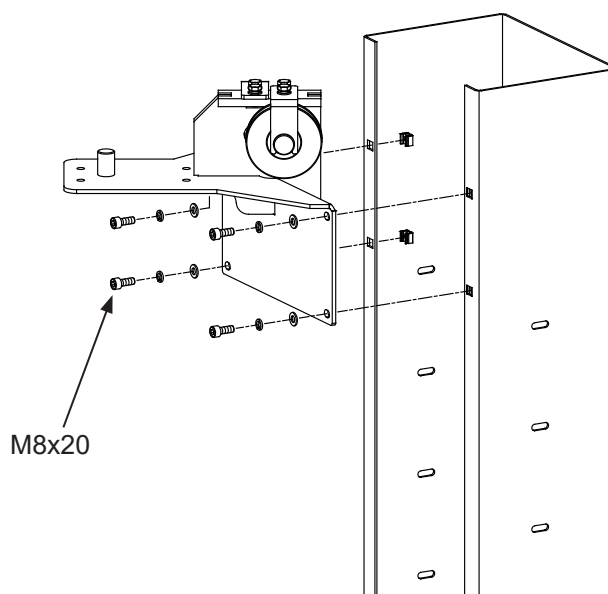
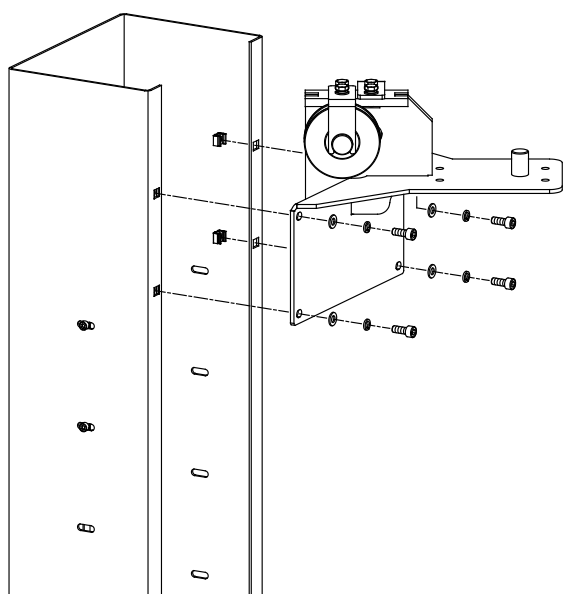
(Δ) 3x230V



13

Control post

Opposite post



M8x20

14. Raise posts by means of straps.
Place posts as shown.

There is a choice of installation width: 3250 or 3500mm. Please be mindful of the arm/lift pad reach when making this decision. Hoist dimension drawing is provided at the back page of this manual.

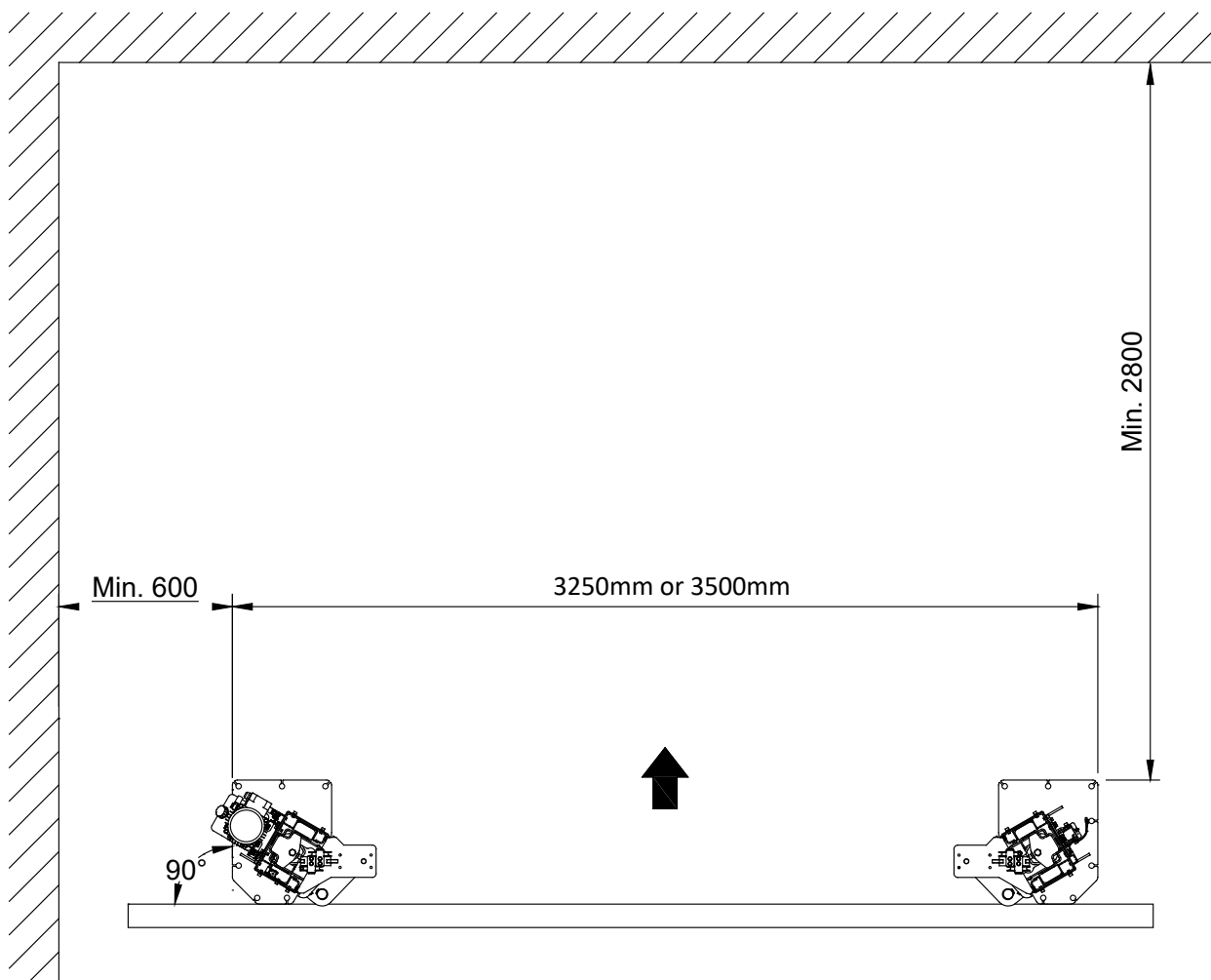
NOTE: The requirements of the local authorities concerning installation of hoists must always be respected.

AS/NZS 1418.9 Section 3.4 Location of Vehicle Hoists

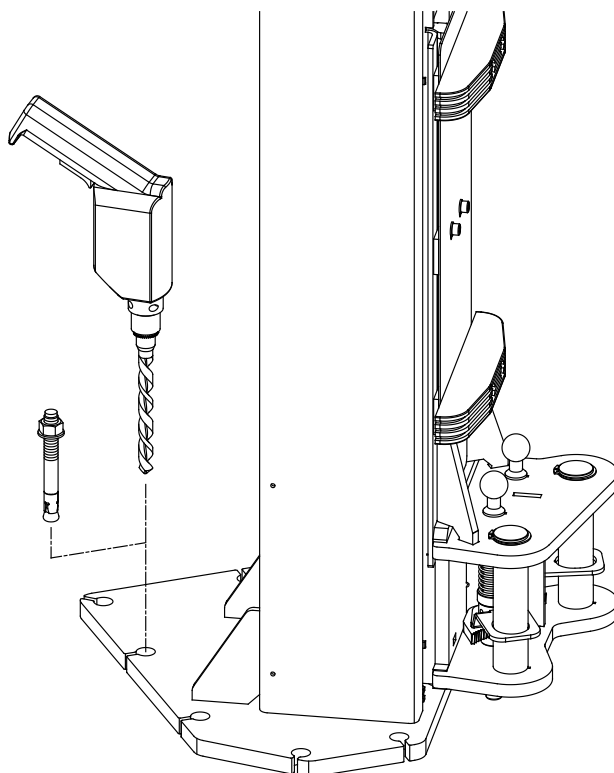
Vehicle hoists should be positioned so that any moving part of the hoist or the load is not less than 600mm away from the nearest fixed structure. Where a vehicle hoist is installed adjacent to any other equipment which moves, the minimum clearance between any part of the hoist or the load and that equipment shall be 600mm.

15. Drill holes for 2 expansion bolts in each post (to ensure that posts do not tilt during installation). Drill holes through base plate. Fasten posts by means of expansion bolts - do not tighten bolts yet as definitive adjustment of post position will take place later on (see step 20).

14

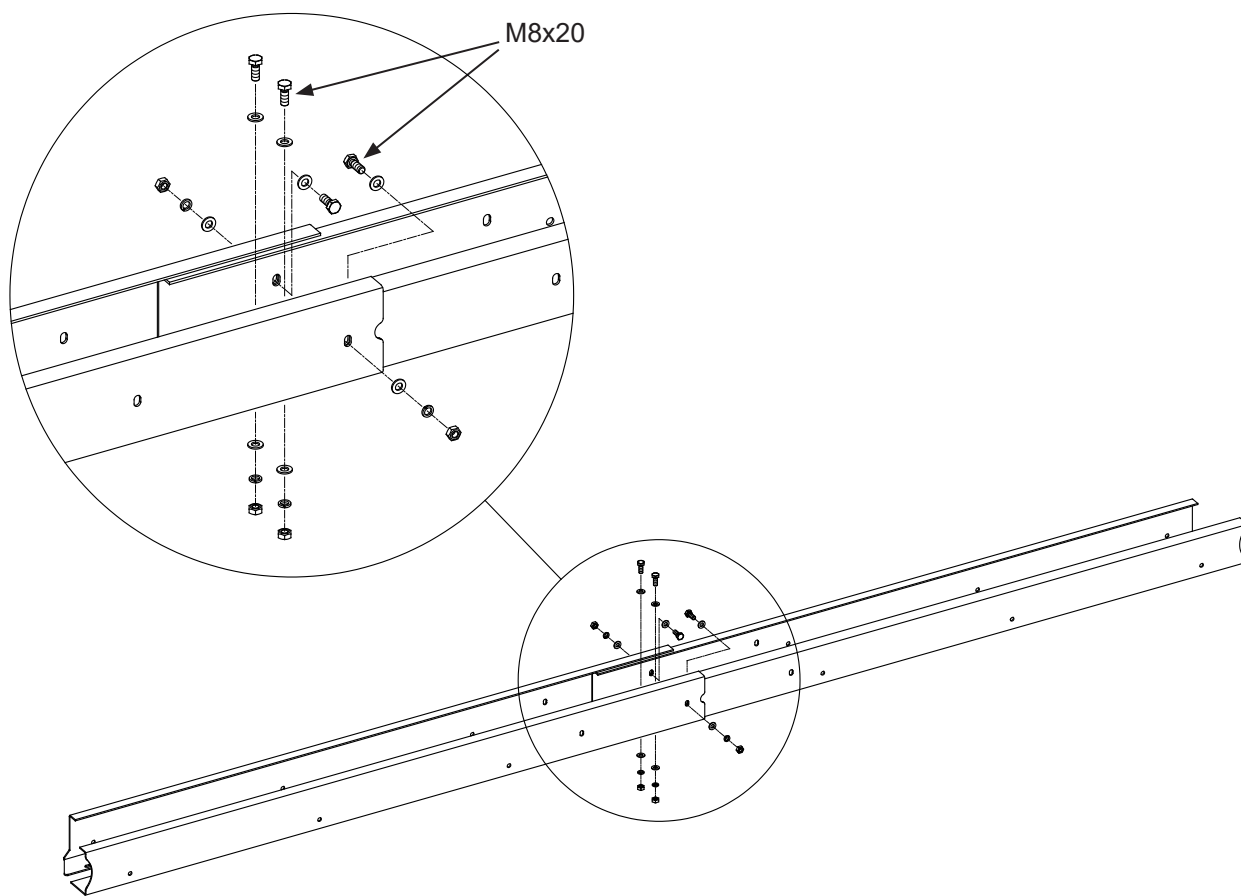


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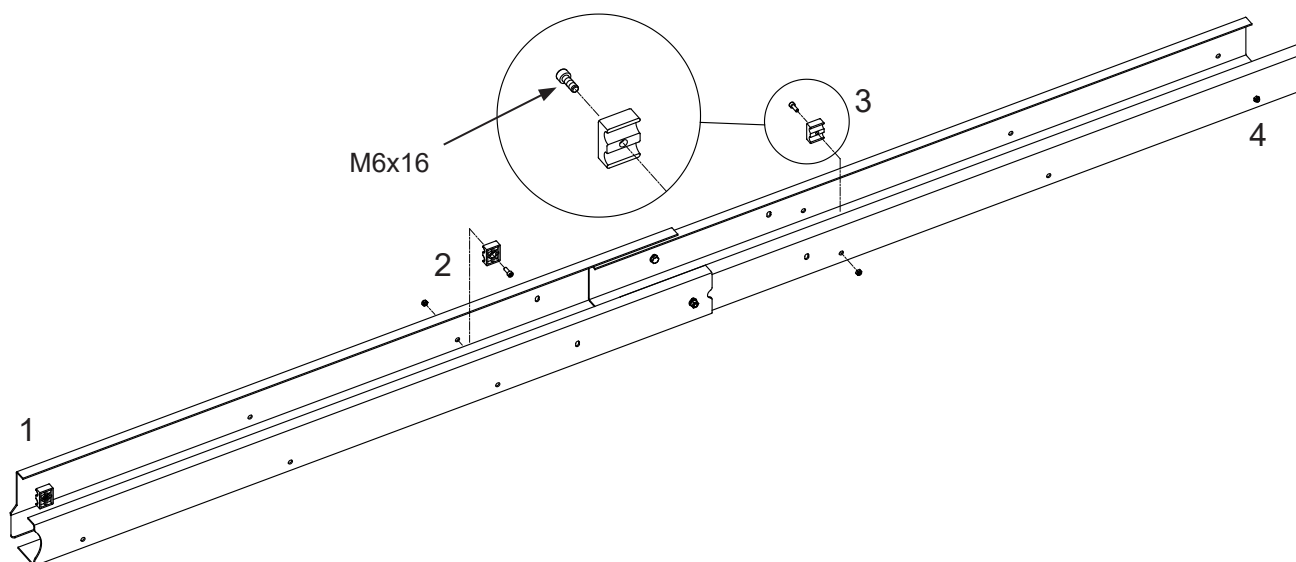


16. Assemble portal.
Note ! Screws are not tightened before step 20.
17. Fit 4 pipe clamps loosely along the portal.

16

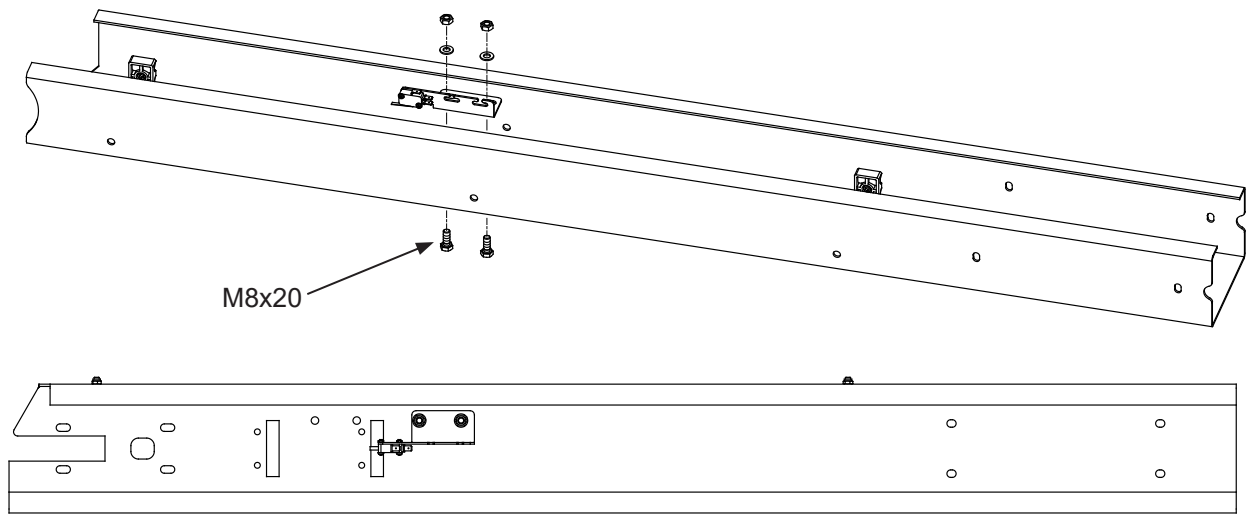


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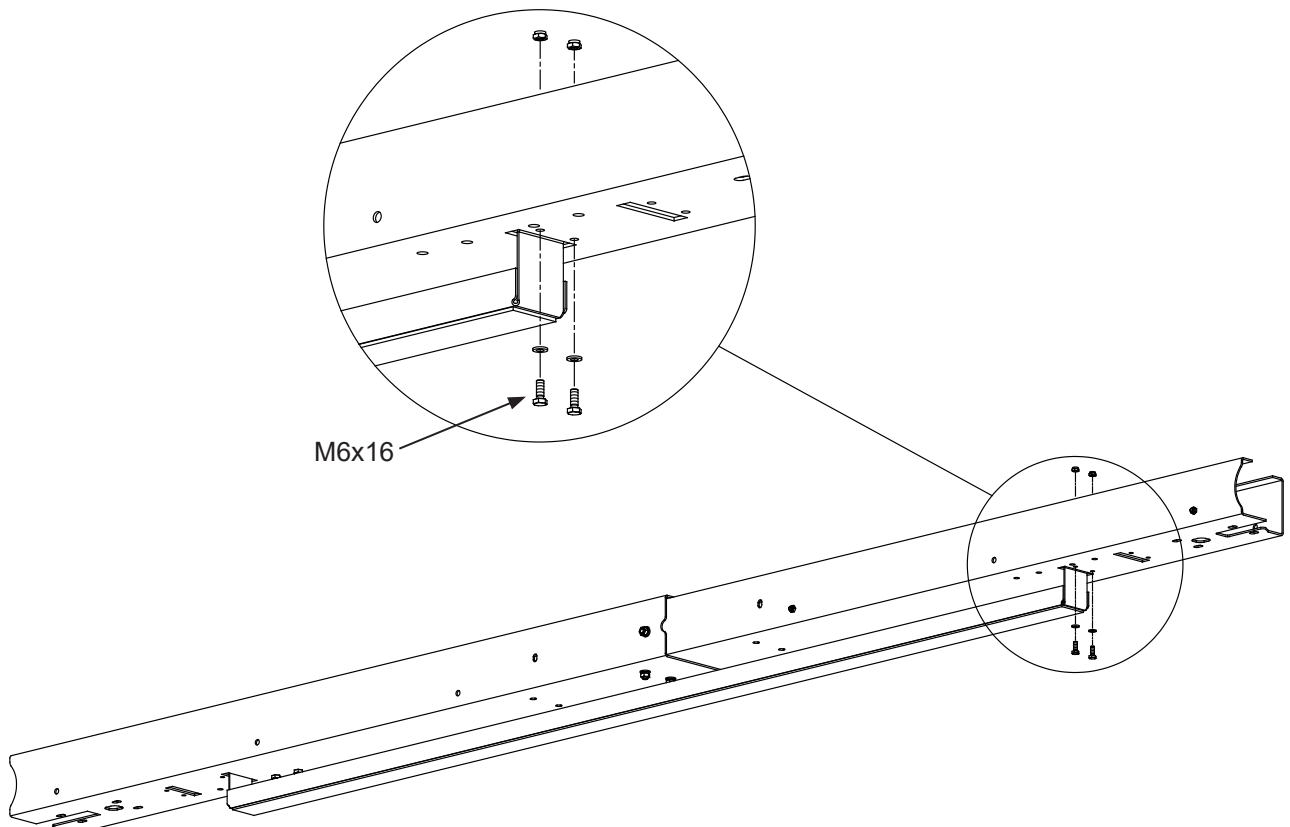


18. Fit bracket with height limit switch on left portal member.
19. Push rod for height limit switch into left portal member and fasten it on right portal member.

18



19

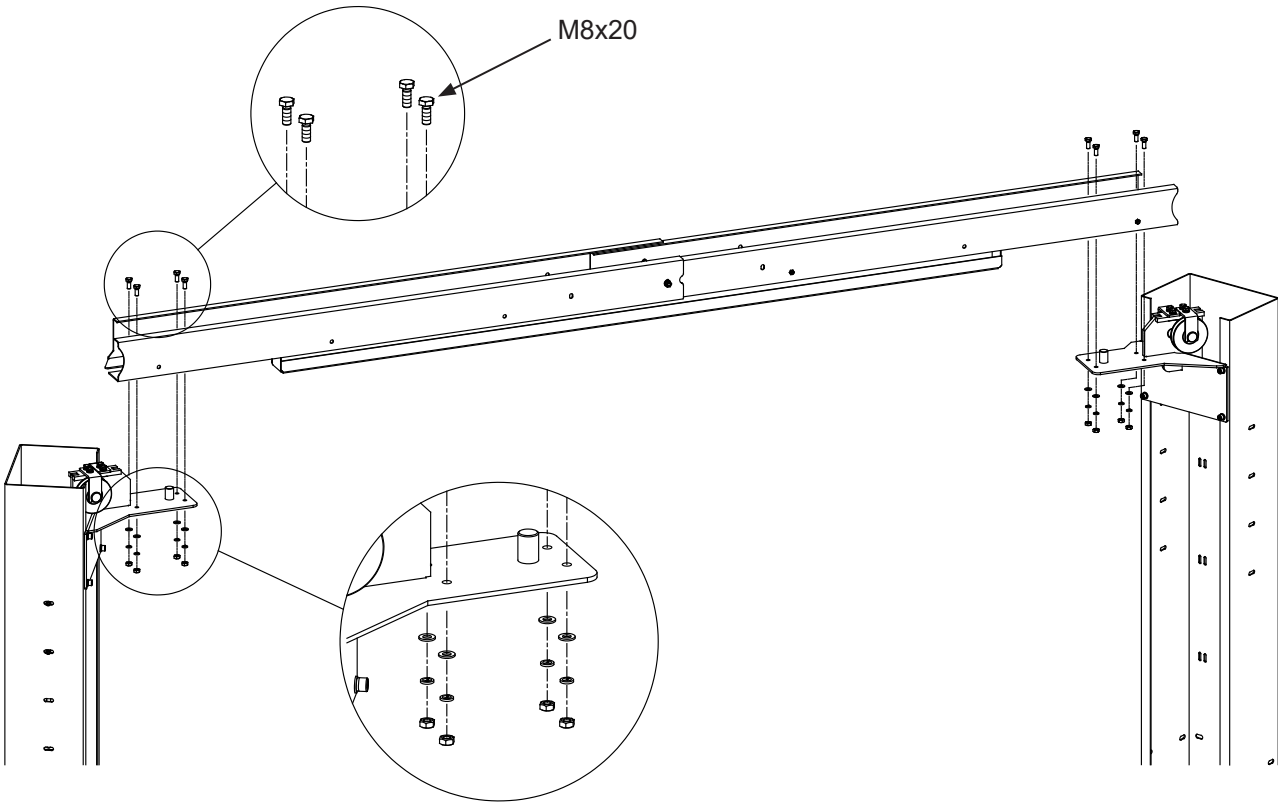


20. Raise portal and place on posts.
Adjust distance between posts if necessary.
Fasten portal - adjust distance between portal members if necessary - tighten bolts.
21. Check distance between posts and that posts are plumb - shim up if necessary.
22. Drill holes through base plate for remaining expansion bolts. Tighten all expansion bolts.
Torque for expansion bolts:

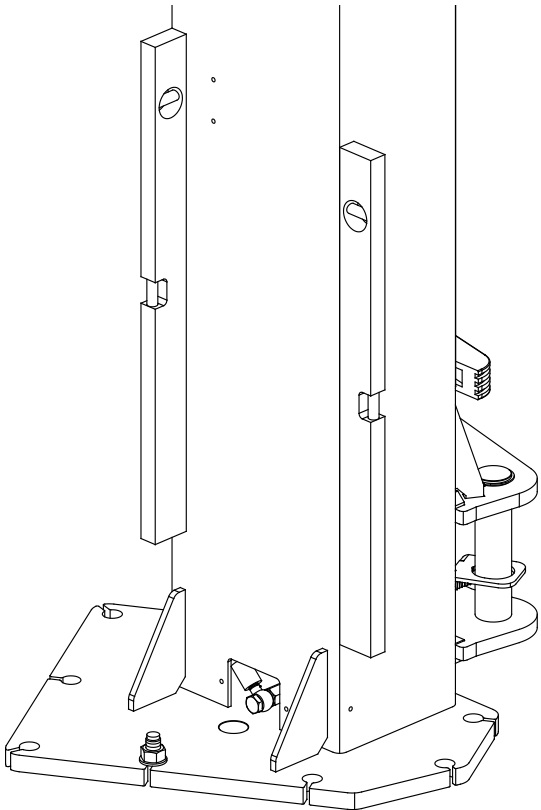
NOTE!

Shim up base plates so that posts are vertical. As much base plate surface should be in contact with the floor as possible. Molnar recommends at least 75% surface/shim to floor contact, specifically in the middle of the base plate which must be in contact with the floor or shimmed.

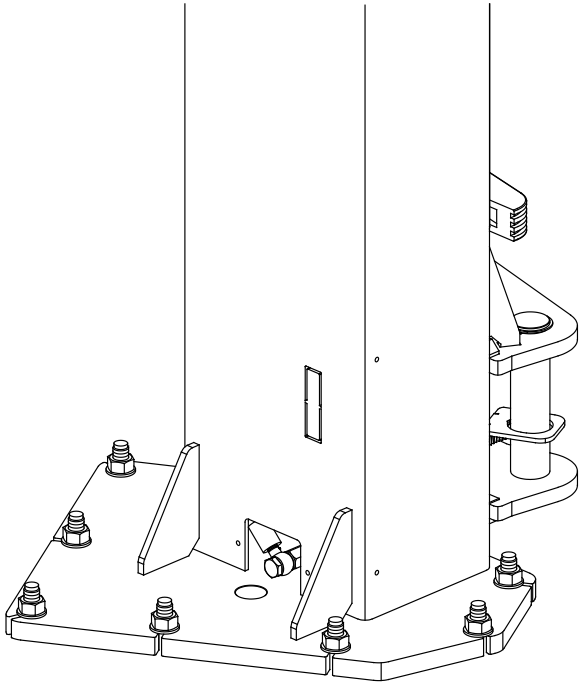
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21



22



23. Remove cover plates with door stops.

Pull pre-fitted cables from posts through portal and down through opposite post.

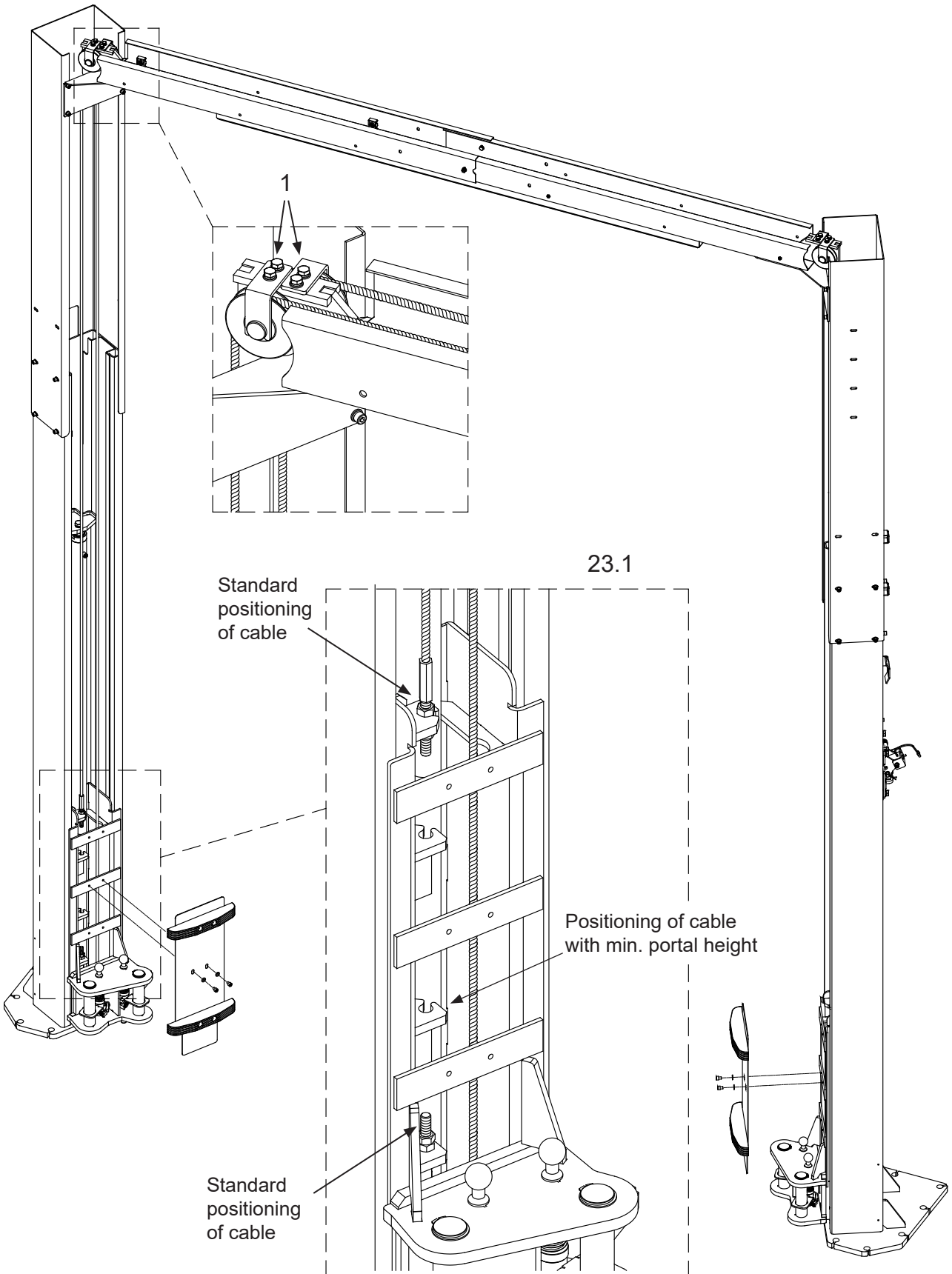
Fasten the screws for the brackets (item 1) for each cable pulley.

Fit cables in carriages as shown on picture 23.1.

NOTE ! Cables are pre-fitted in carriages on the assumption that post extensions will be placed in max. height (as shown on figure 23).

If post extensions are to be placed in min. height (\pm 225 mm), cables must be moved upwards in carriage as shown on figure 23.1.

23

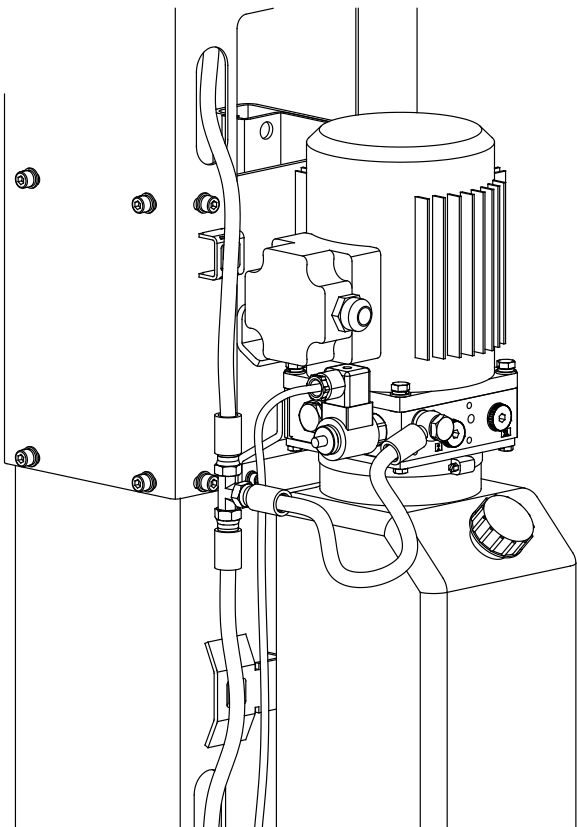


24. Pull the prefitted long hydraulic hose from the slave post through the pipe clamps in the portal and down through the post extension on the control post.

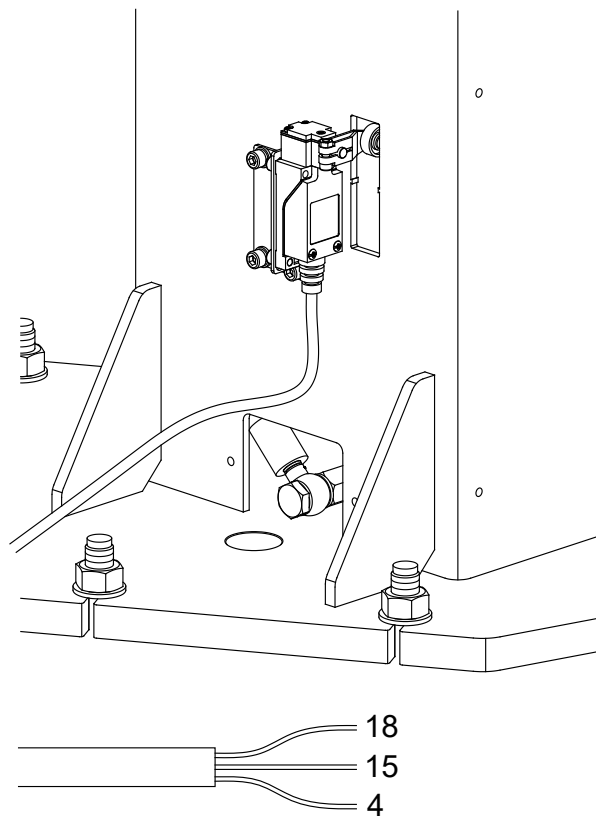
Connect the hydraulic hoses.

25. Connect the prefitted CE-stop to the control unit.
26. Connect the top limit switch to the control unit.
27. Connect the height limit switch to the control unit.

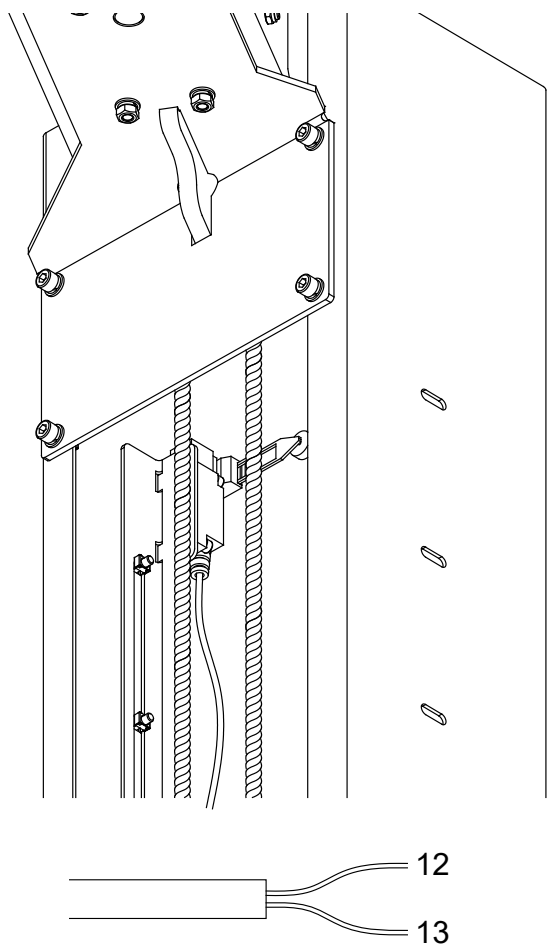
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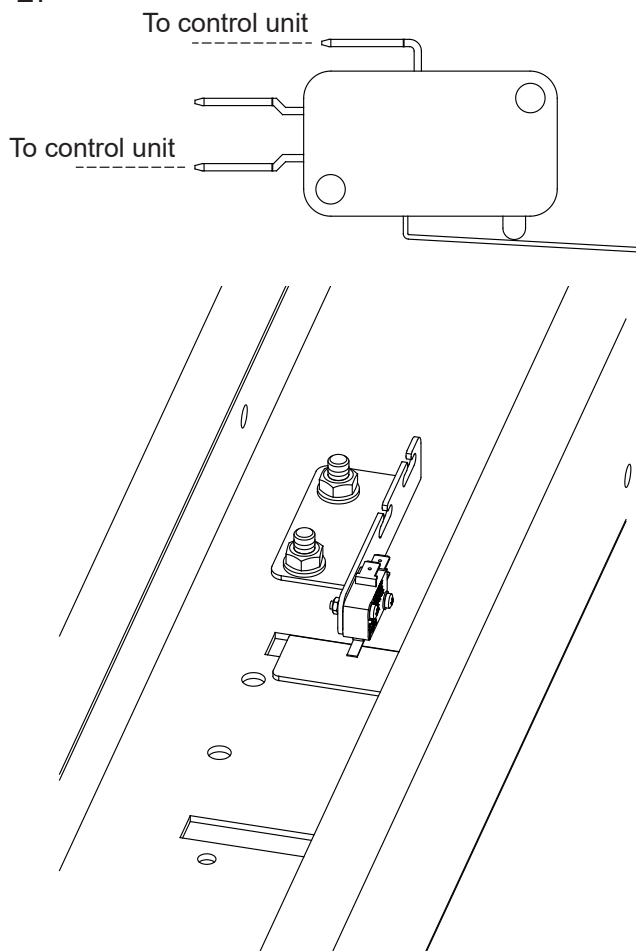
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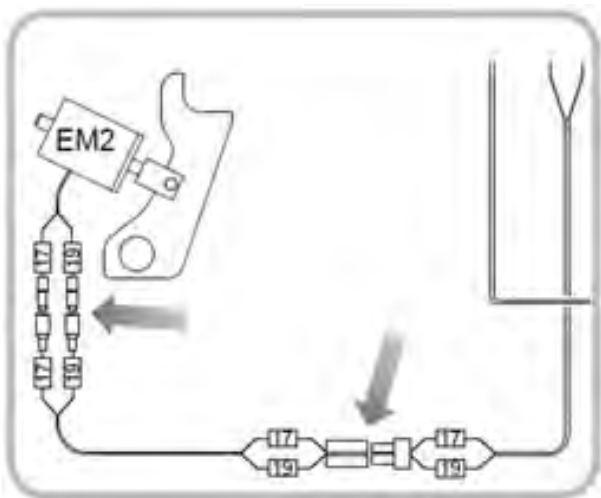
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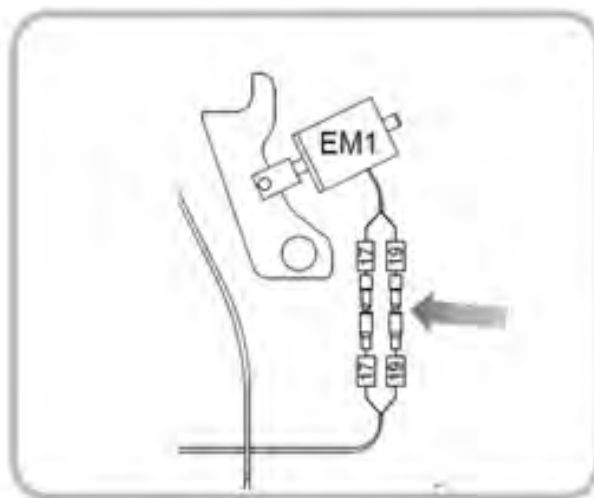
28. Connect safety ratchets on both posts by means of 2-core cable.
It is important that the cables are lead through the pipe clamps in the portal.
Tighten the screws for the pipe clamps.
29. Connection to mains must be made by authorized electrician.
Wiring diagram is part of the operation and maintenance instructions.
Check that electric motor is connected for correct voltage.
Turn main switch to "ON". Push UP-button. After a few seconds pump should start taking oil from oil tank;
if not, pump is not running the right way and 2 phases have to be interchanged in the mains connection.
30. Bleed hydraulic system:
Loosen bleeding screws in top of both cylinders.
Push UP-button until both cylinders are bled. Re-tighten bleeding screws. Lower again hoist to bottom
position and fill up with oil (to max. mark on oil tank).

28

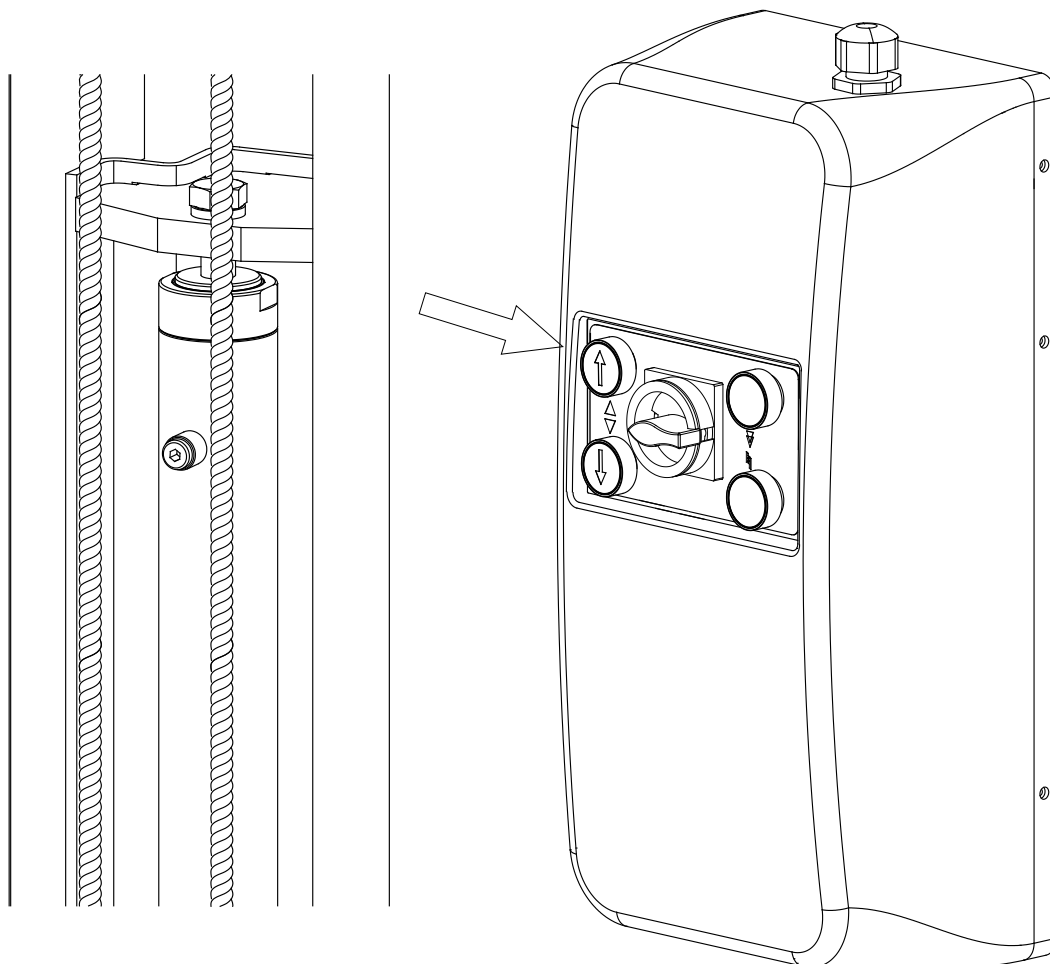
Opposite post



Control post

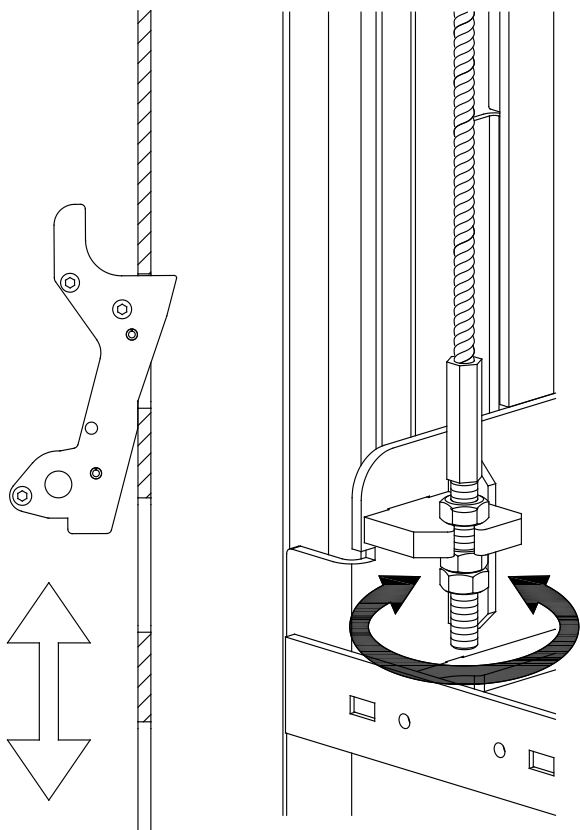


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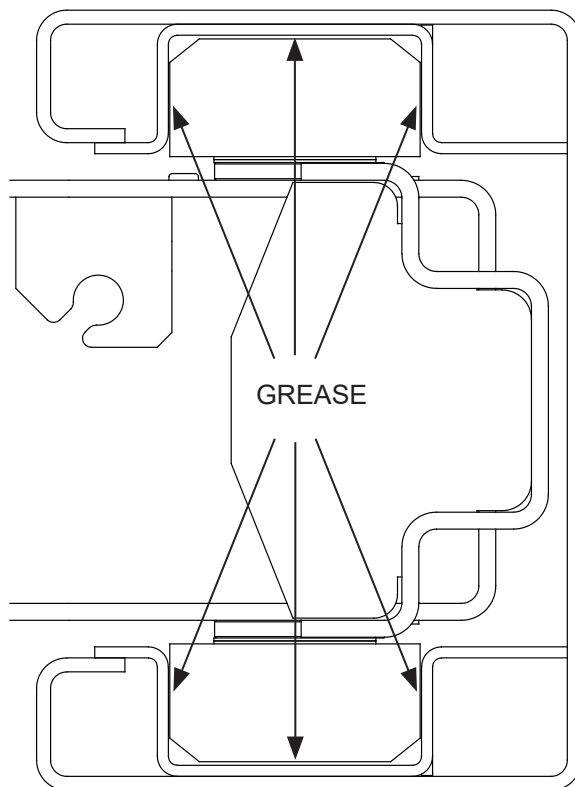


31. Raise hoist until safety lock clicks. Adjust cables to same distance in ratchet rails and re-tighten with a torque of 5 Nm.
32. Apply grease to guiding edges on inner side of posts.
33. Check of CE-stop:
Raise and lower hoist a couple of times. During lowering: check that buzzer is activated and that hoist stops approx. 300 mm from bottom position. Push DOWN-button for CE-stop. The hoist can now be lowered to bottom position. The buzzer must be heard until bottom position is reached.
If needed, adjust the limit switch for the CE-stop.

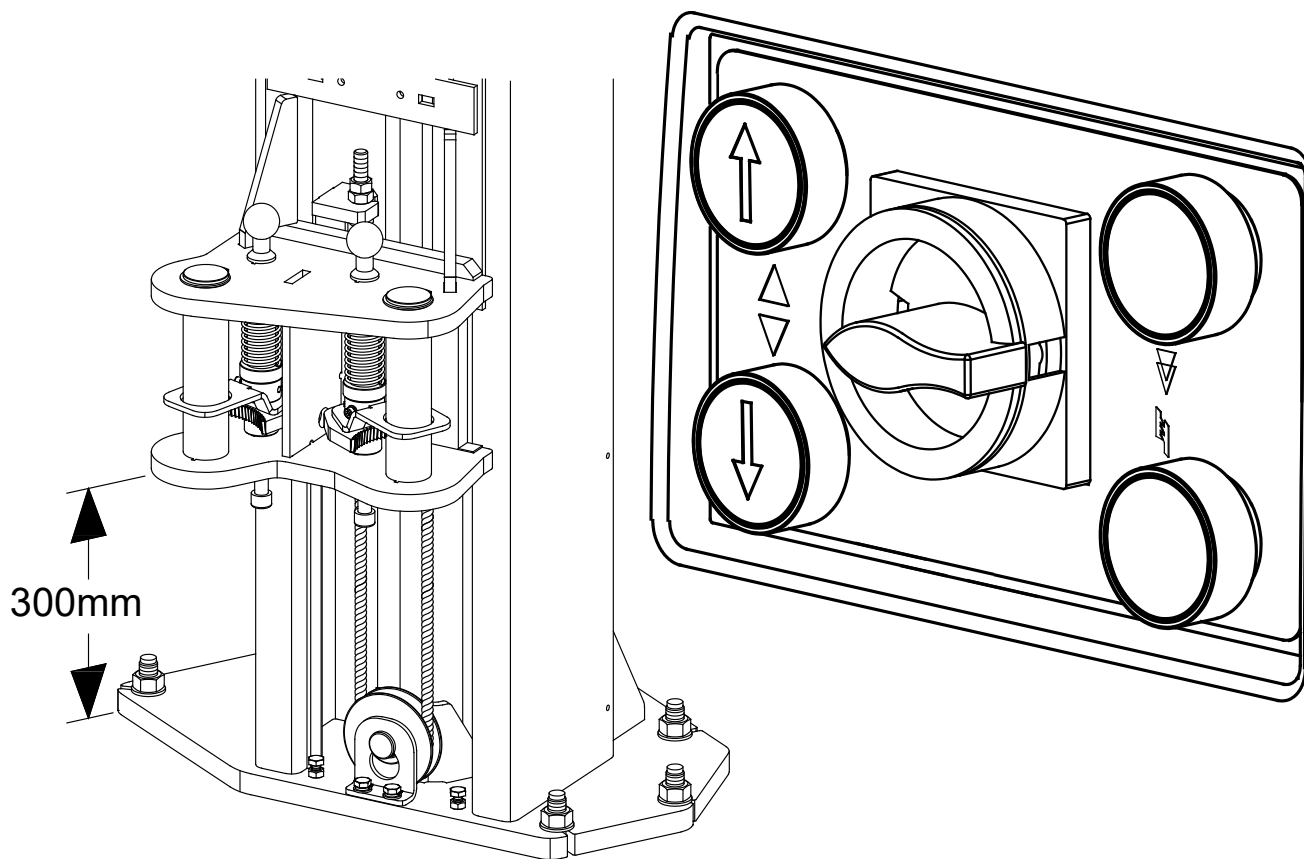
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32

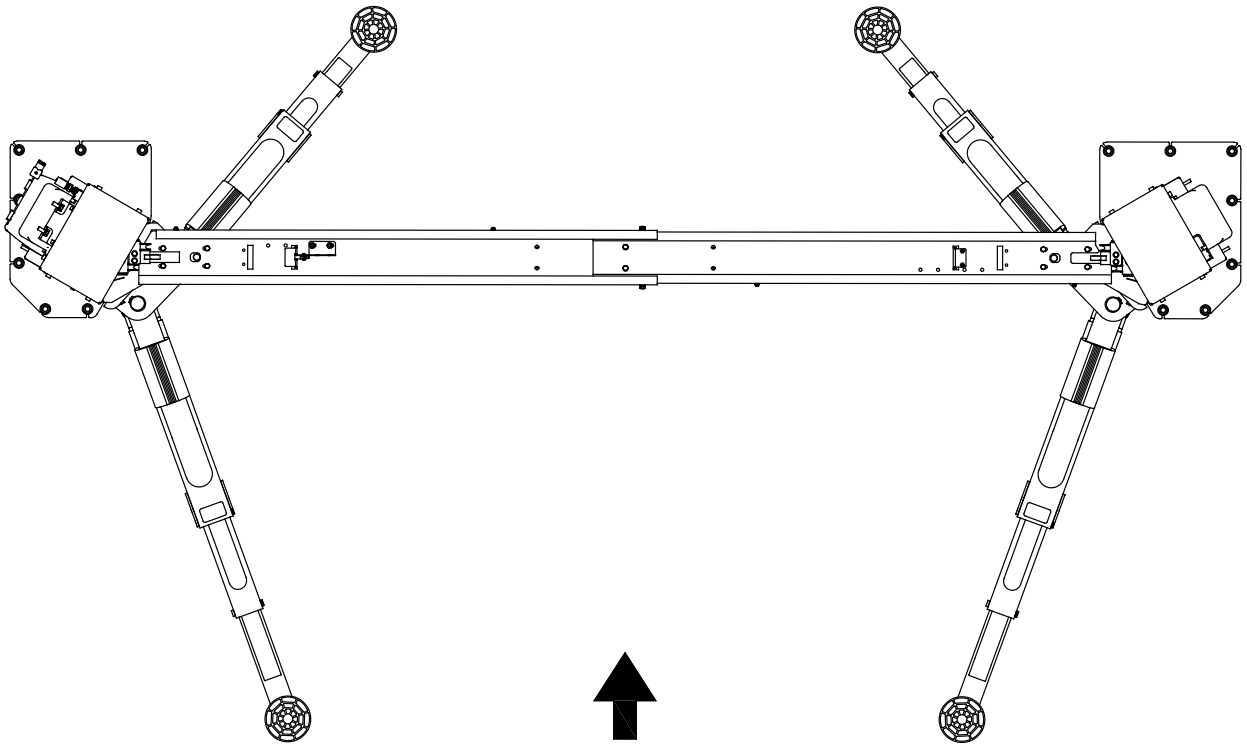


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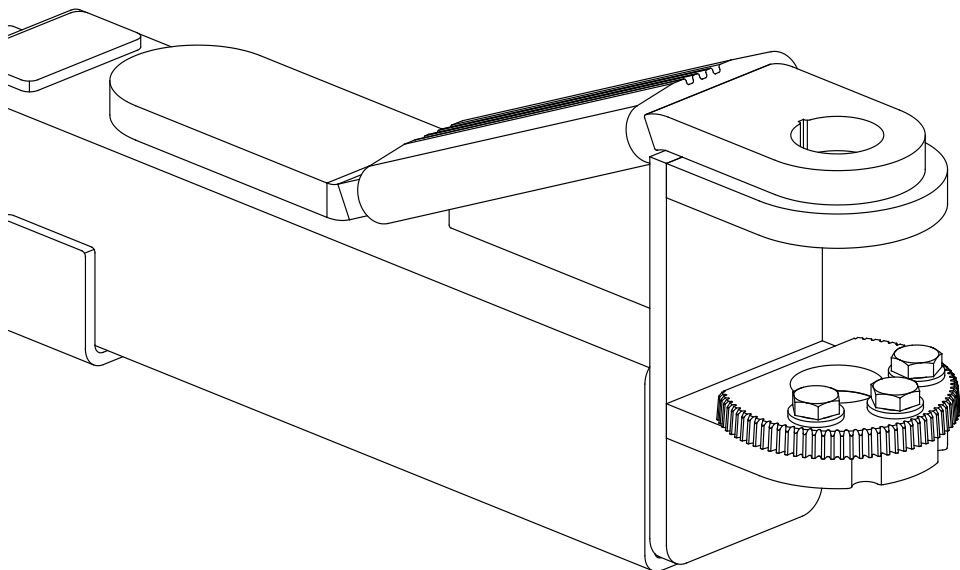


34. Correct placement of arms - see sketch.
35. Arms are loosely pre-fitted with toothed washer.
The screws must be re-tightened lateron - see step 38.

34



35



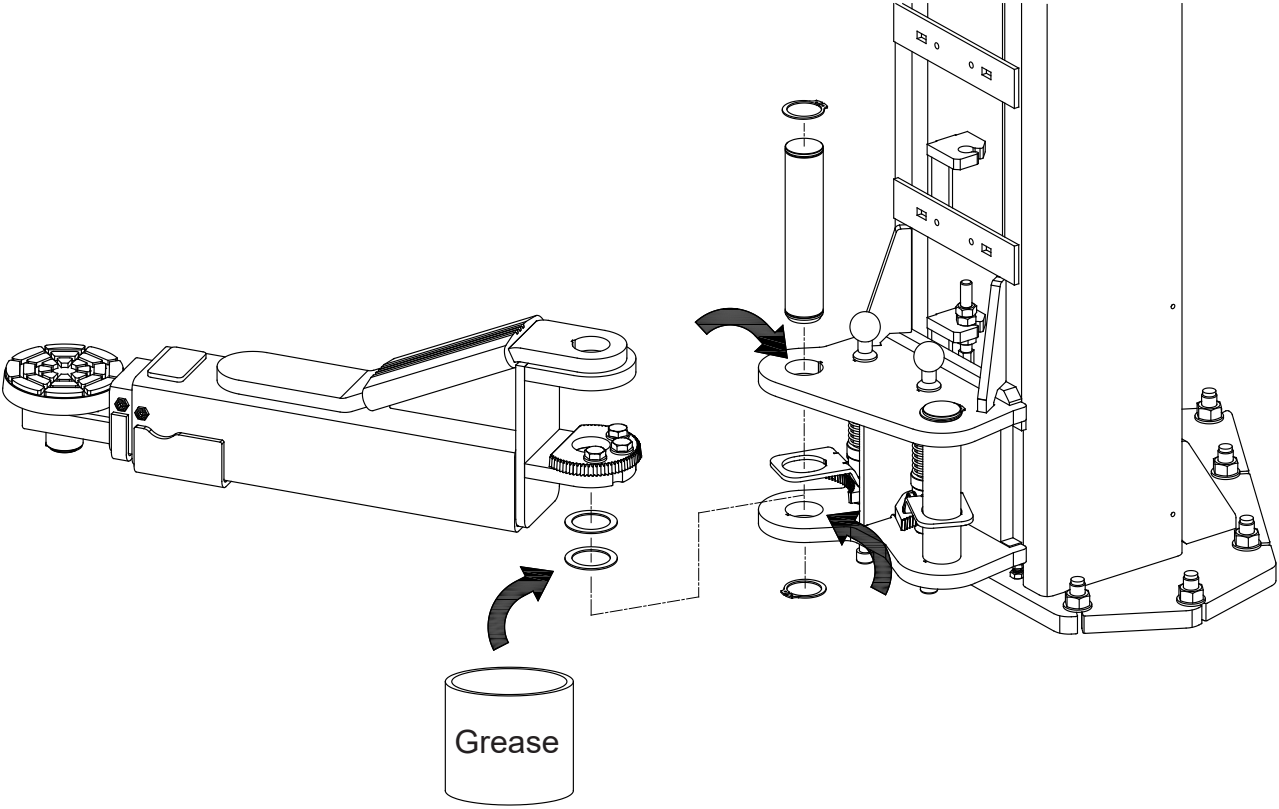
36. Push the arm into the suspension and place nylon washers under arm.

NOTE ! Grease holes in arm suspension and washers before assembly.

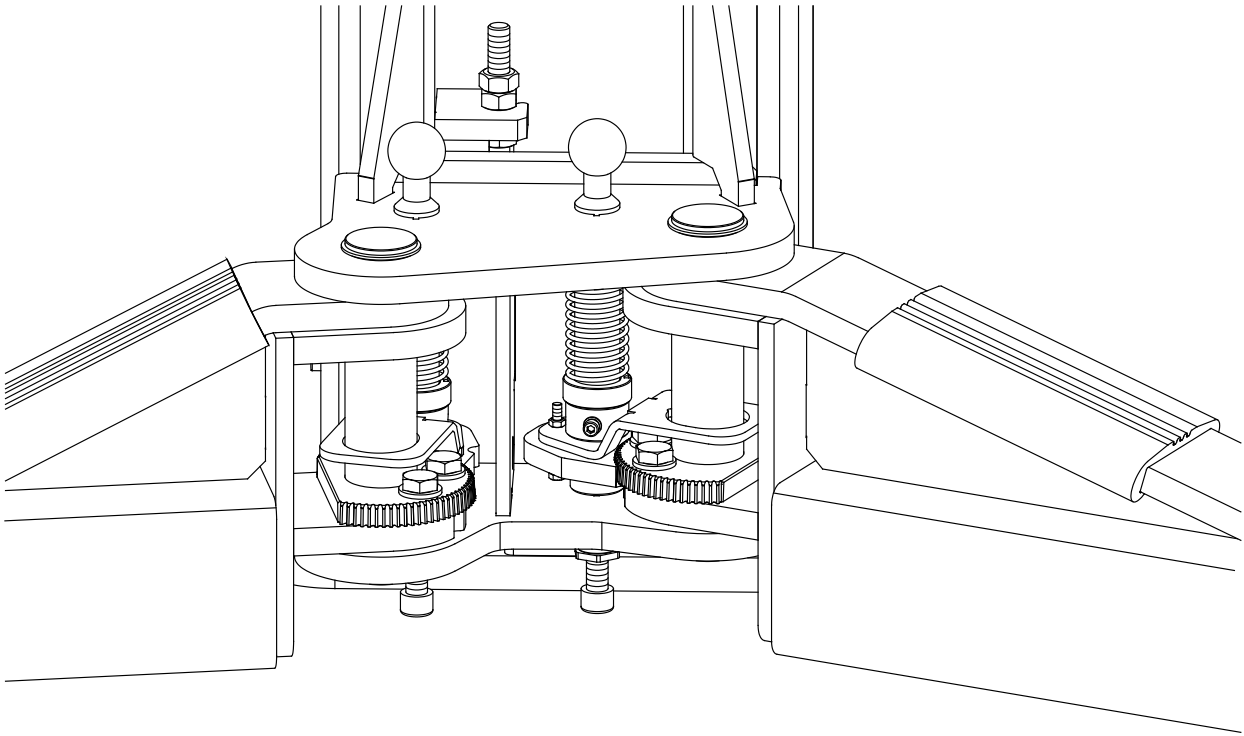
Fit axle through suspension and arm.

37. Check that arms are fitted as shown.

36

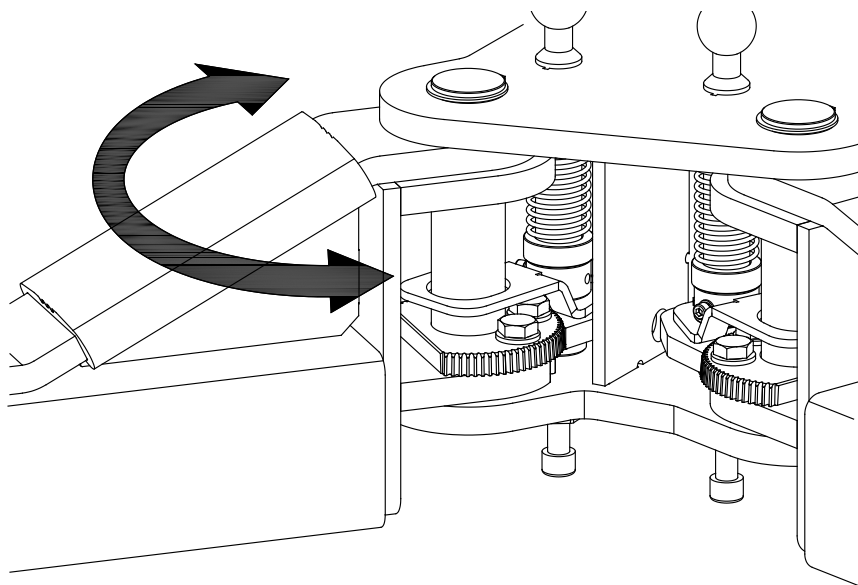


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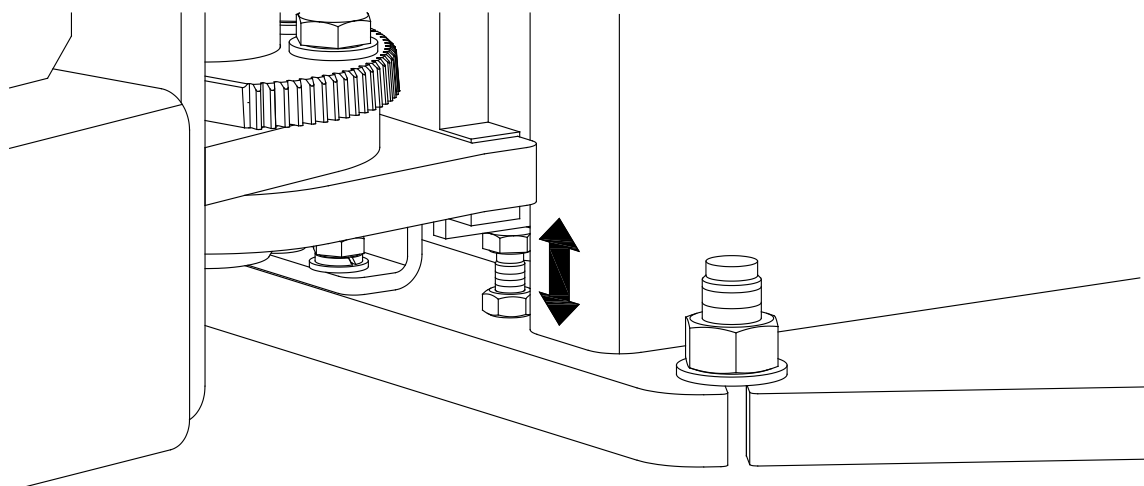


38. Raise hoist to adequate height and adjust arm locking device on all 4 arms. This can be done by turning each arm in an interval of 0 to 90° and check the engagement of the locking device 3 to 5 times on each arm.
Re-tighten the 3 screws on each arm.
39. Lower hoist to bottom position.
Pull out all arms to extreme position. Adjust screws at the bottom of each post, so that arms can just be moved in bottom position.
40. Adjust screws in carriage so that arm lock is released by 2mm (for both posts).
41. Check function of top limit switch and height limit switch. Adjust top limit switch to stroke = 1900 mm.
Re-tighten screws for both top limit and height limit switches.

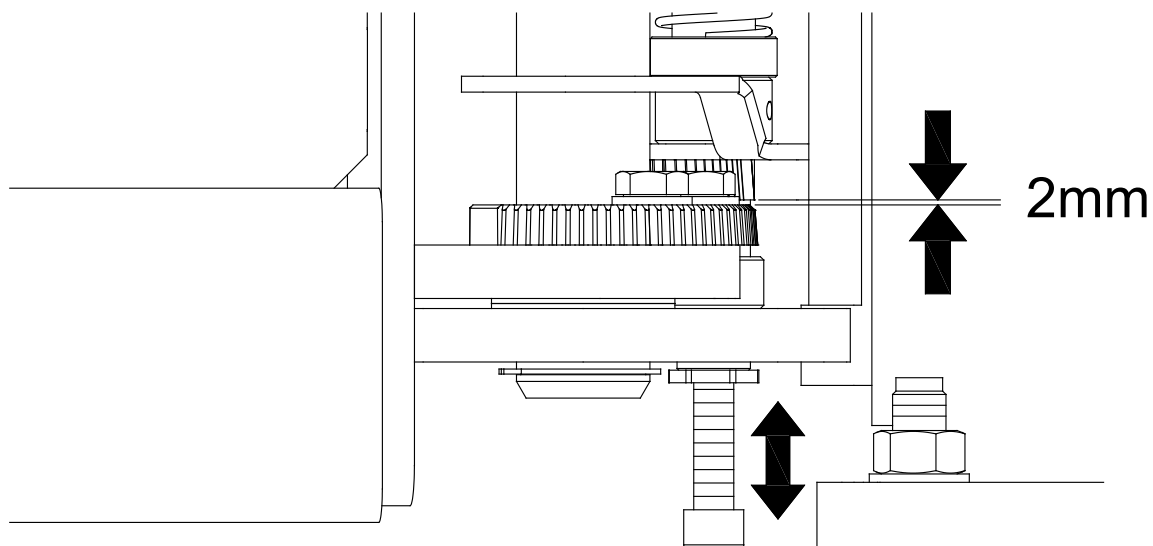
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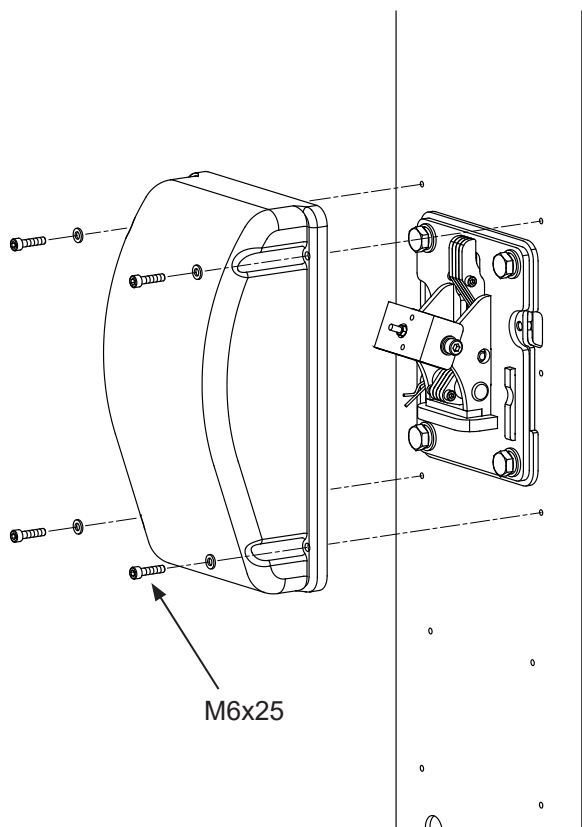


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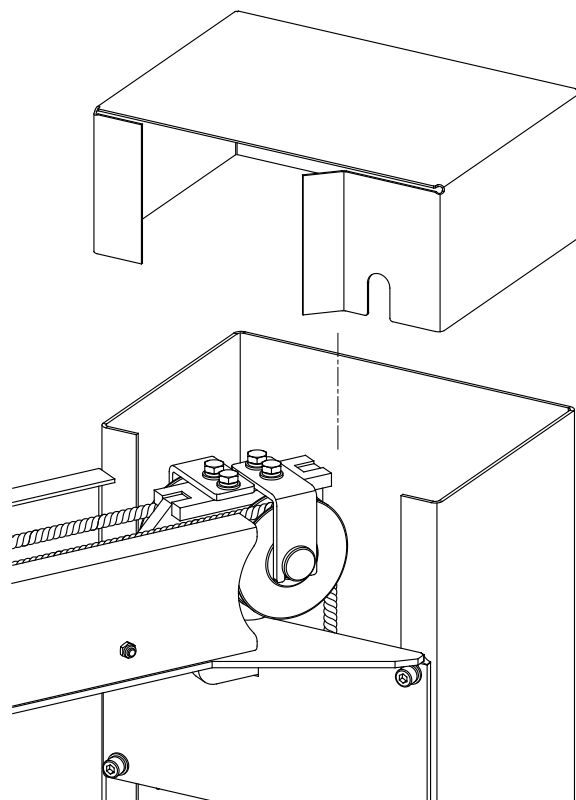


42. Fit covers for safety ratchets.
43. Fit corner covers.
44. Fit bottom covers.
45. Re-fit covers with door stops.

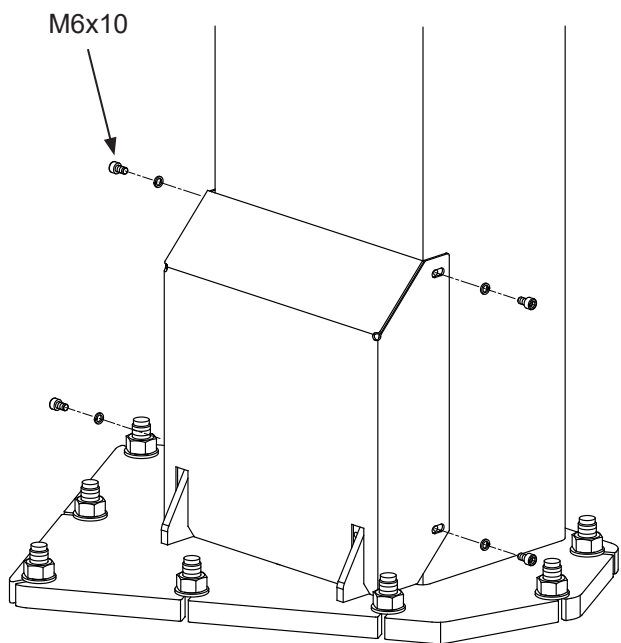
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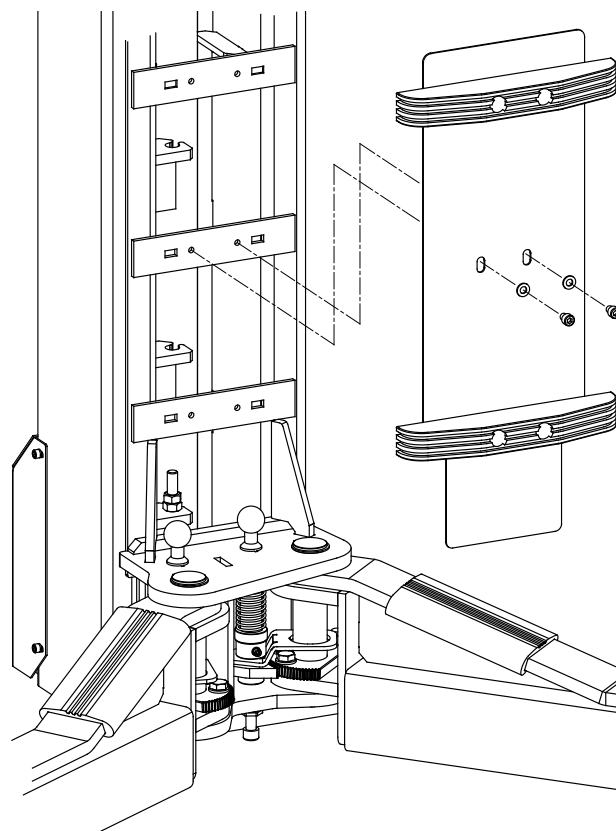
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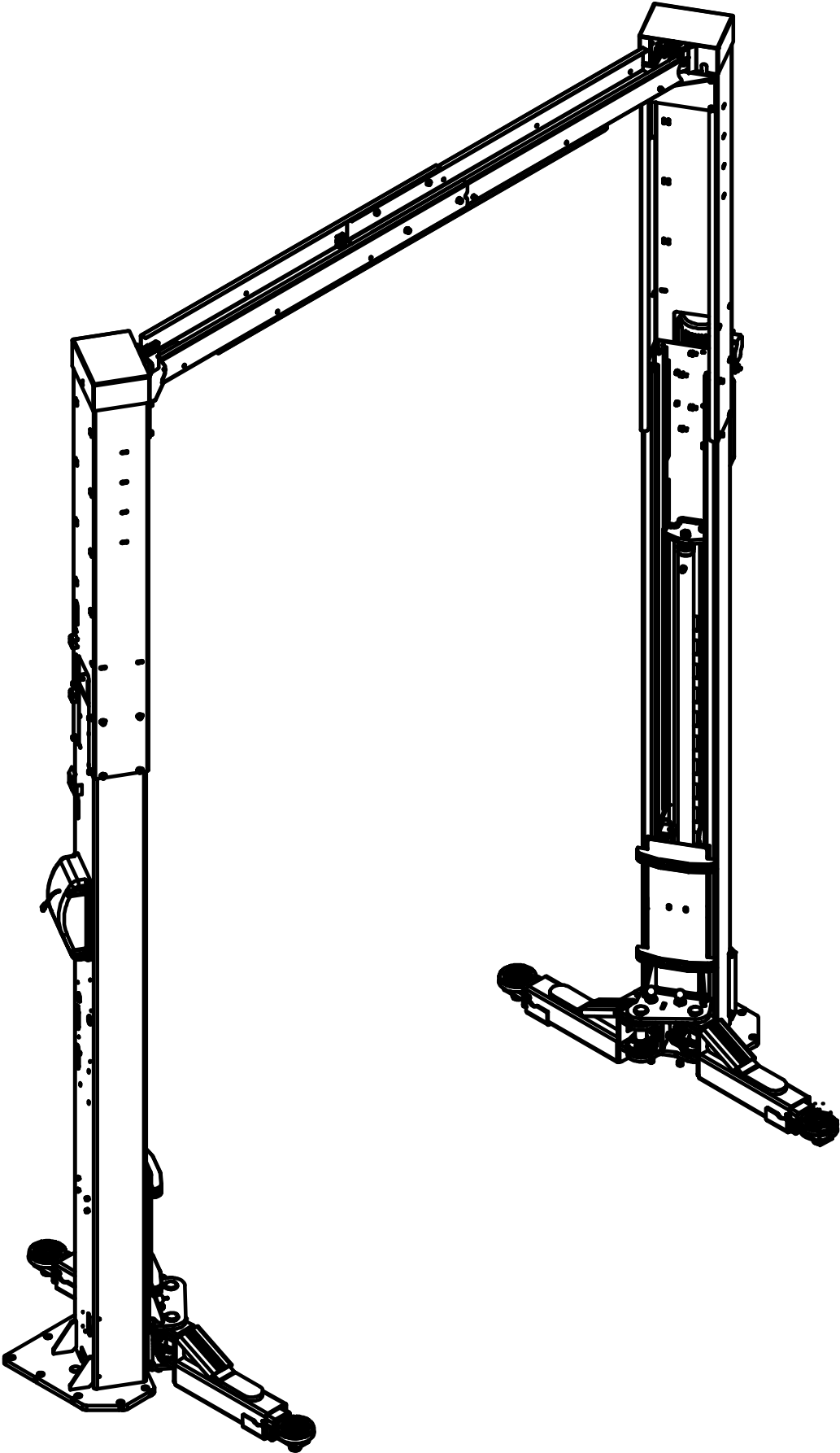


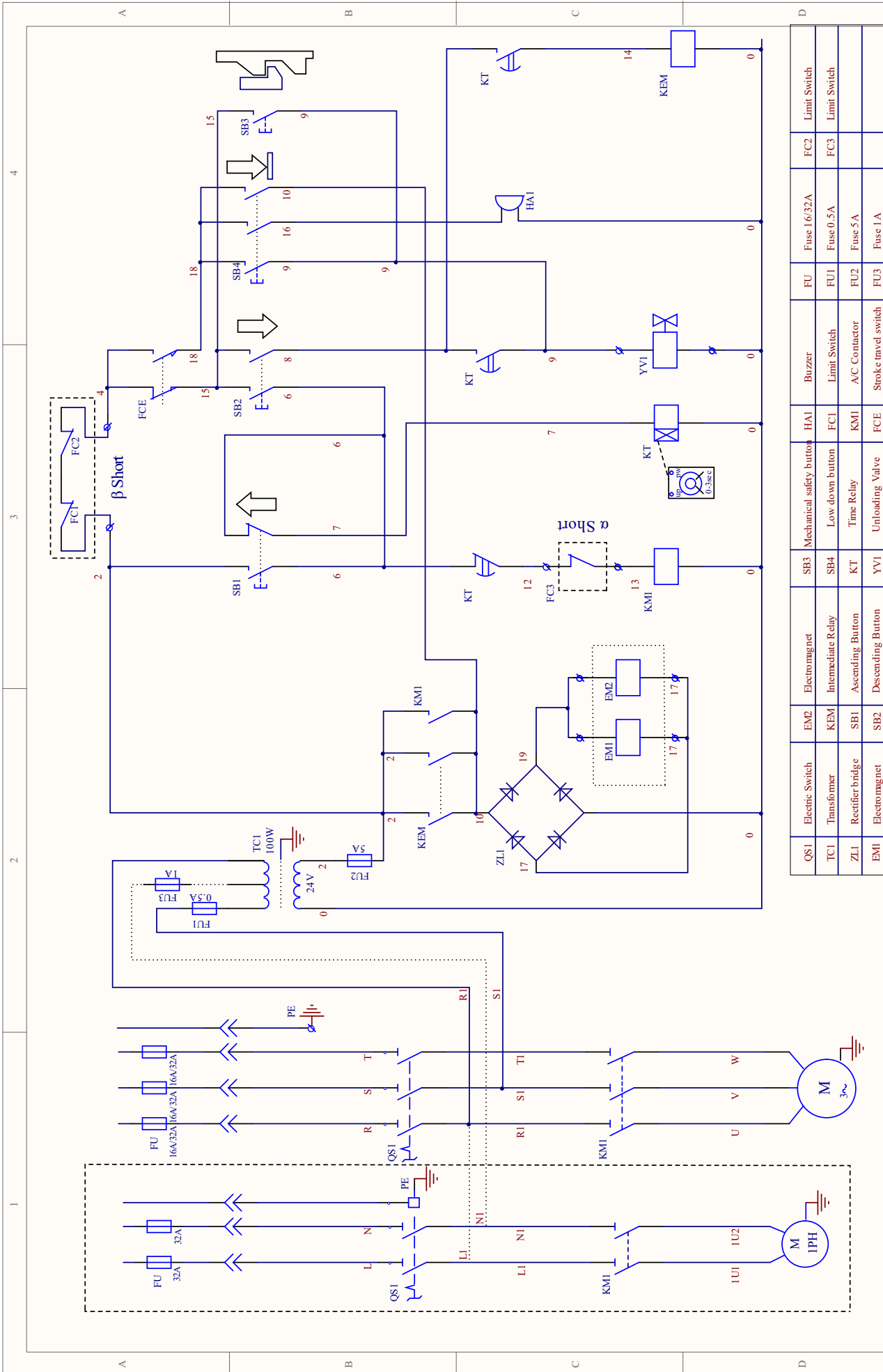
45



46. Re-fit cover for control unit.
47. Final bleeding is carried out if necessary.
48. Clean the hoist and test with vehicle.
Give user thorough instructions.

48





OS1	Electric Switch	EM2	Electromagnet	SB3	Mechanical safety button	HA1	Buzzer	FU	Fuse 16/32A	FC2	Limit Switch
TC1	Transformer	KEM	Intermediate Relay	SB4	Low down button	FC1	Limit Switch	FU1	Fuse 0.5A	FC3	Limit Switch
ZL1	Rectifier bridge	SB1	Ascending Button	KT	Time Relay	KM1	A/C Contactor	FU2	Fuse 5 A		
EM1	Electromagnet	SB2	Descending Button	YV1	Unloading Valve	FCE	Stroke travel switch	FU3	Fuse 1A		

Installer Checklist

Installer must complete (tick) the following list after installing this Molnar hoist:

- Legal clearances around hoist
- Floor is suitable and within manufactures specifications
- Wire ropes, pulleys and/or hoses are free of any damage
- Safety devices, limit switches and controls have been checked for correct operation
- Check the side and top arm stop bolts are installed, tightened and functioning by extending and testing both stages of all arms
- Hydraulic system checked and leak free at time of installation
- Hoist tested without and with load as per manufactures specifications
- Hoist has been lubricated and adjusted as per manufactures specifications
- Log book use has been explained to owner/operator and initial details completed
- The client representative has been shown and instructed in the correct operation and maintenance of the hoist

Distributor (vendor)

Company _____

Branch _____

Hoist

Installation Date _____

Model Number _____

Serial Number _____

Hoist Owner

Business _____

Name _____

Position _____

Signature _____

Installer Details

Name _____

Company _____

Signature _____

These records should be retained for administrative and warranty assistance.

Log books are available from Molnar Services or Molnar Hoists distributors.

Part Number: **8209001 - Hoist Log Book Kit**

Hoist Maintenance & Usage Rating

Based on Usage Rating (as determined over), use this chart to ascertain how often you need to professionally service your hoist (Servicing Intervals) and when your hoist requires major servicing.

USAGE DEPENDENT MAINTENANCE REQUIREMENTS

USAGE RATING	SERVICING INTERVALS	MAJOR INSPECTIONS					ENGINEERING ASSESSMENT
		1ST	2ND	3RD	4TH	5TH	
MEDIUM	12 months	Year 10	Year 20	Year 25	/	/	Year 25
HEAVY	6-12 months	Year 10	Year 15	Year 20	Year 25	/	Year 25
VERY HEAVY	6 months	Year 5	Year 10	Year 15	Year 20	Year 25	Year 25
EXTREME	3 months	Year 5	Year 10	Year 15	Year 20	/	Year 20

Local Call **1300 MOLNAR** = 1300 665 627

service@molnarhoists.com.au

www.molnarhoists.com.au

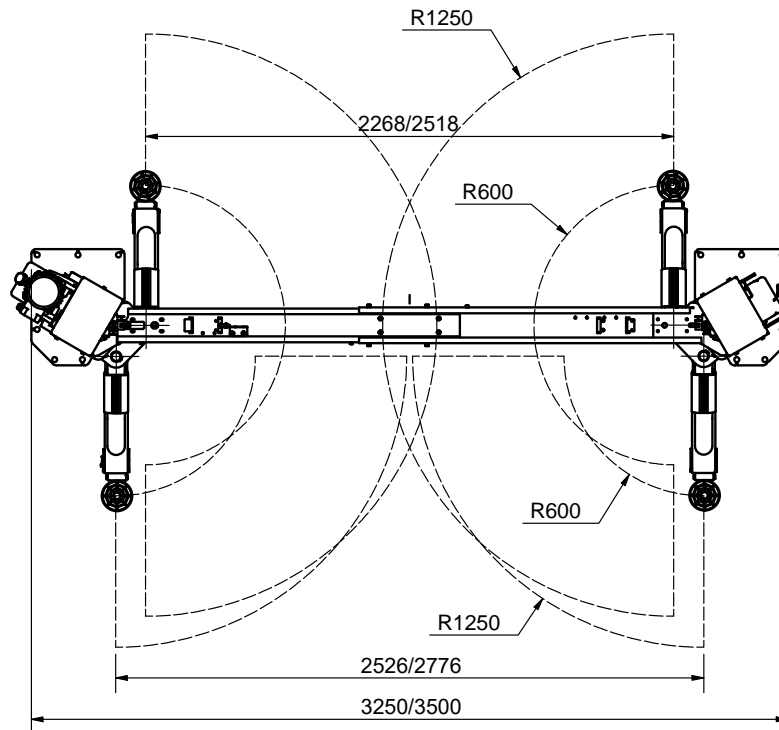
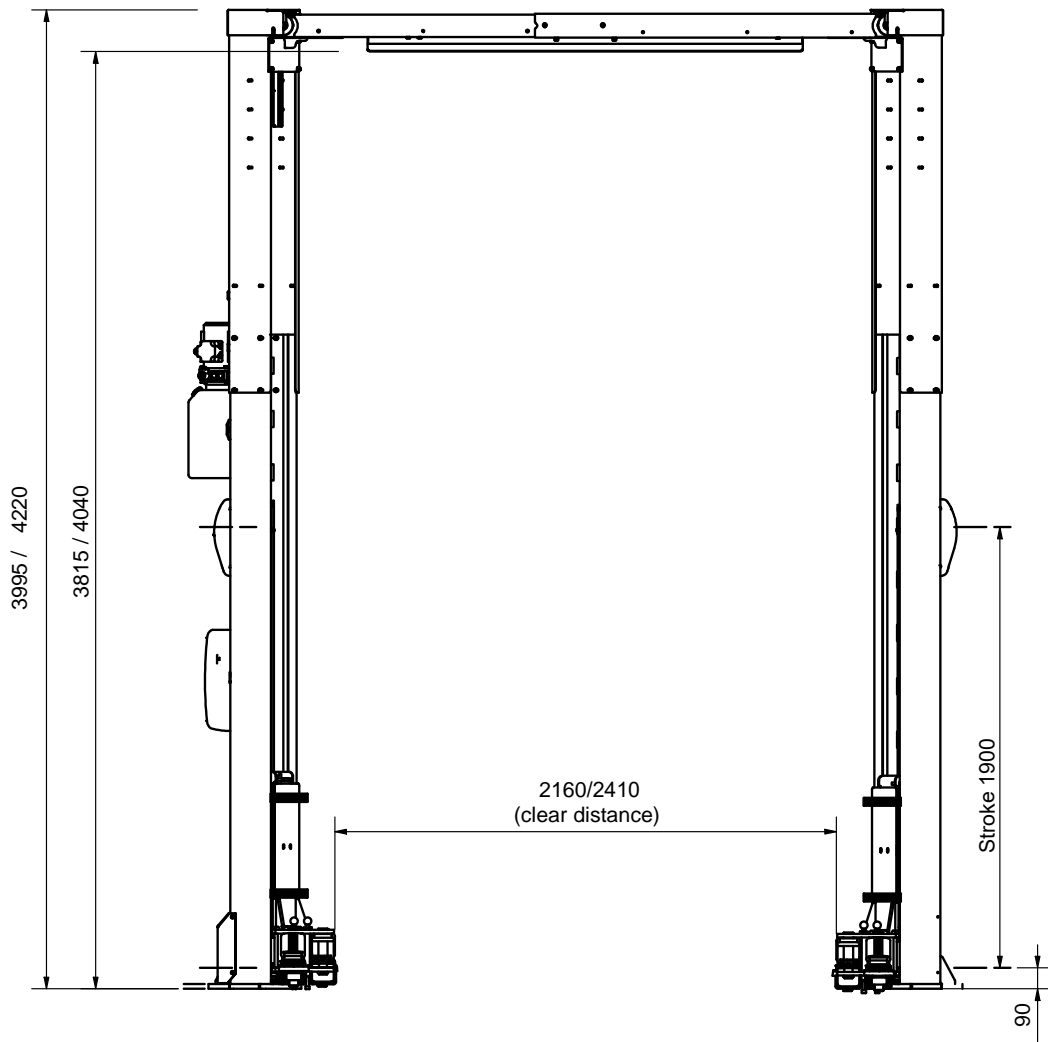


Managed Hoist Maintenance

USAGE RATING

LIFTS PER DAY	AVERAGE LOADING ON HOIST AS PERCENTAGE OF CAPACITY					
	50%	60%	70%	80%	90%	100%
40	VERY HEAVY	EXTREME	EXTREME	EXTREME	EXTREME	EXTREME
38	VERY HEAVY	EXTREME	EXTREME	EXTREME	EXTREME	EXTREME
36	VERY HEAVY	EXTREME	EXTREME	EXTREME	EXTREME	EXTREME
34	VERY HEAVY	EXTREME	EXTREME	EXTREME	EXTREME	EXTREME
32	VERY HEAVY	EXTREME	EXTREME	EXTREME	EXTREME	EXTREME
30	VERY HEAVY	EXTREME	EXTREME	EXTREME	EXTREME	EXTREME
28	VERY HEAVY	VERY HEAVY	EXTREME	EXTREME	EXTREME	EXTREME
26	VERY HEAVY	VERY HEAVY	EXTREME	EXTREME	EXTREME	EXTREME
24	VERY HEAVY	VERY HEAVY	EXTREME	EXTREME	EXTREME	EXTREME
22	VERY HEAVY	VERY HEAVY	EXTREME	EXTREME	EXTREME	EXTREME
20	HEAVY	VERY HEAVY	VERY HEAVY	EXTREME	EXTREME	EXTREME
18	HEAVY	VERY HEAVY	VERY HEAVY	EXTREME	EXTREME	EXTREME
16	HEAVY	VERY HEAVY	VERY HEAVY	EXTREME	EXTREME	EXTREME
14	HEAVY	HEAVY	VERY HEAVY	EXTREME	EXTREME	EXTREME
12	HEAVY	HEAVY	VERY HEAVY	VERY HEAVY	EXTREME	EXTREME
10	MEDIUM	HEAVY	HEAVY	VERY HEAVY	VERY HEAVY	VERY HEAVY
8	MEDIUM	HEAVY	HEAVY	VERY HEAVY	VERY HEAVY	VERY HEAVY
6	MEDIUM	MEDIUM	HEAVY	HEAVY	HEAVY	HEAVY
4	MEDIUM	MEDIUM	MEDIUM	HEAVY	HEAVY	HEAVY
2	MEDIUM	MEDIUM	MEDIUM	MEDIUM	MEDIUM	MEDIUM

LIFTS PER DAY = Average number of hoist lifts, based on 5 day a week, 50 weeks a year for design life of 25 years
 Average Loading = e.g. A three tonne hoist lifting an average weight of 2.1 tonnes is operating at 70% or
 A four tonne hoist lifting an average weight of 3.6 tonnes is operating at 90%



Specifications/Images subject to change without prior notice. To validate warranty, proof of a valid maintenance contract will be required. Images and Illustrations are indicative and may be modified without notice

**Lifting
the Level**

For more information,
please contact MOLNAR or your
local MOLNAR representative

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