

SM270 TWO POST HOIST

7.0 tonne Electro-Hydraulic Two Post Hoist

Installation Manual

**M
O
L
N
A
R**



PART OF THE
STENHØJ GROUP



Updated 14/11/2019



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.



MOLNAR
PART OF THE STENHØJ GROUP

Address:	3 Graham Street Export Park South Australia 5950
Ph:	+61 (08) 8234 3611
Fax:	+61 (08) 8234 4322
Email:	sales@molnarhoists.com.au
Web:	www.molnarhoists.com.au

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 according to EN206-1:	Depth:
SM270	C25/30 ($F_{cyl} = 25 \text{ N/mm}^2$ / $F_{cube} = 30 \text{ N/mm}^2$) (B25 = 25 N/mm^2)	200mm. (HILTI HST3)

For further information - please see the foundation instructions:

Model	Foundations instructions
SM270	T82326

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	Order no.:
SM270	Hilti HST3-M20x170/30 *	777255

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

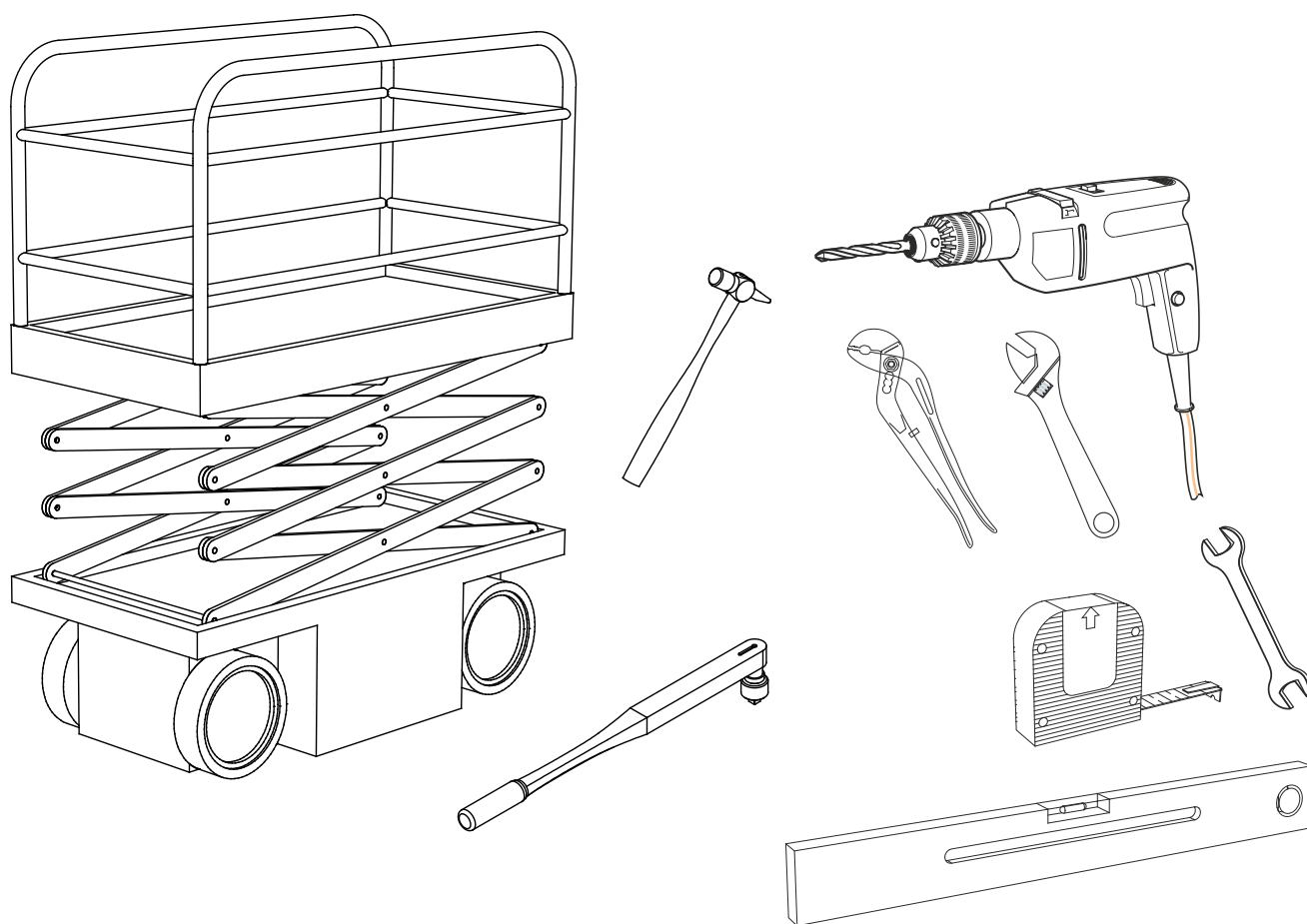
(The expansion bolts are **not** included in the delivery).

For concrete depth between 150 - 200mm,
optional base plates are available to order.
Part Number **SM270-BF**

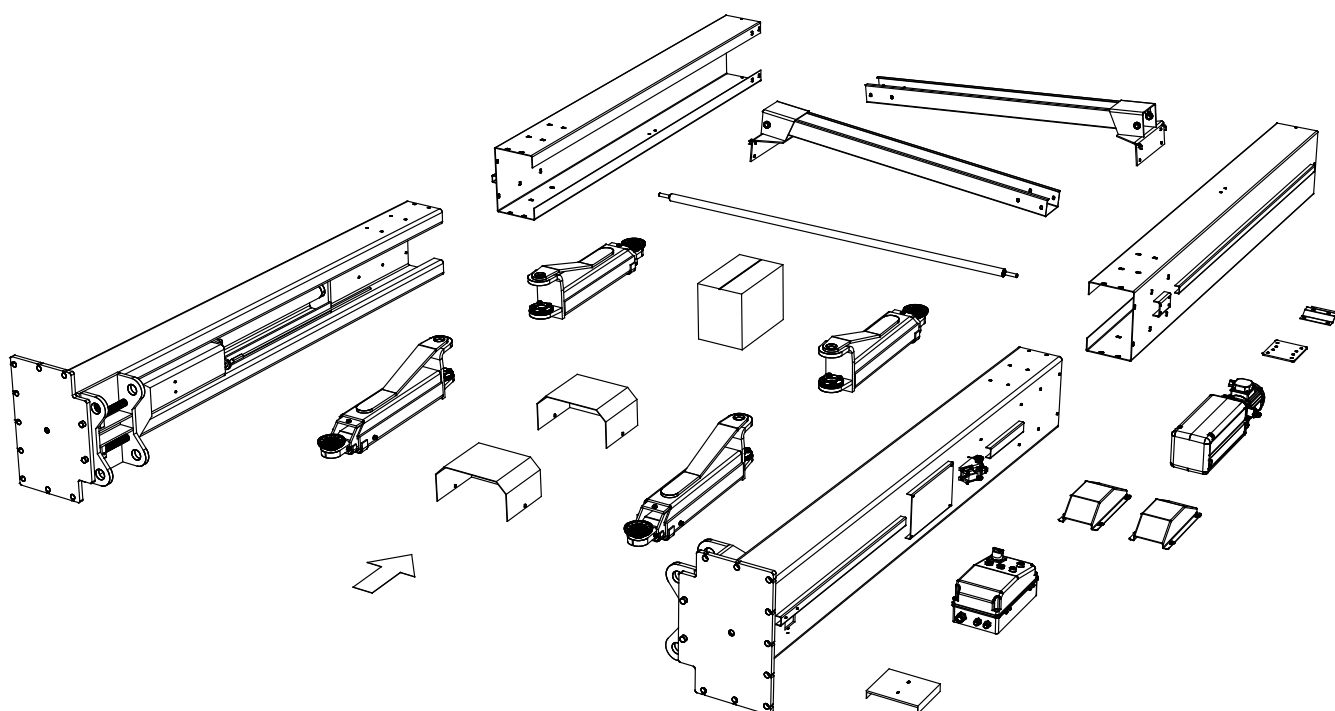


1. Tools requested.
2. Place all components as shown.

1



2



3. Fit post extensions on posts while posts are lying down.

Torque for cylinder screw M10x16 is 46 Nm.

NOTE! Take care to fit the post extension shown (with bracket - item 1) on control post.

4. Raise posts by means of straps.

Position posts as shown.

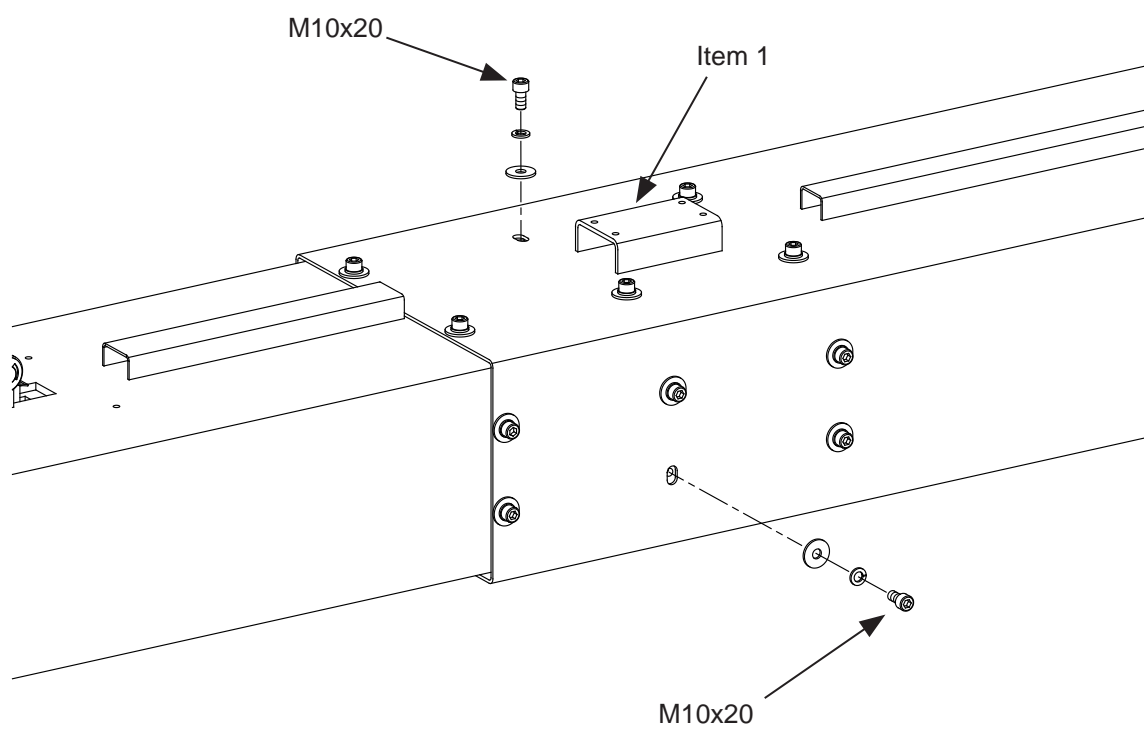
Note: The requirements of the local authorities concerning installation of hoists must always be respected.

AS/NZS 1418.9 Section 3.4 Location of Vehicle Hoists

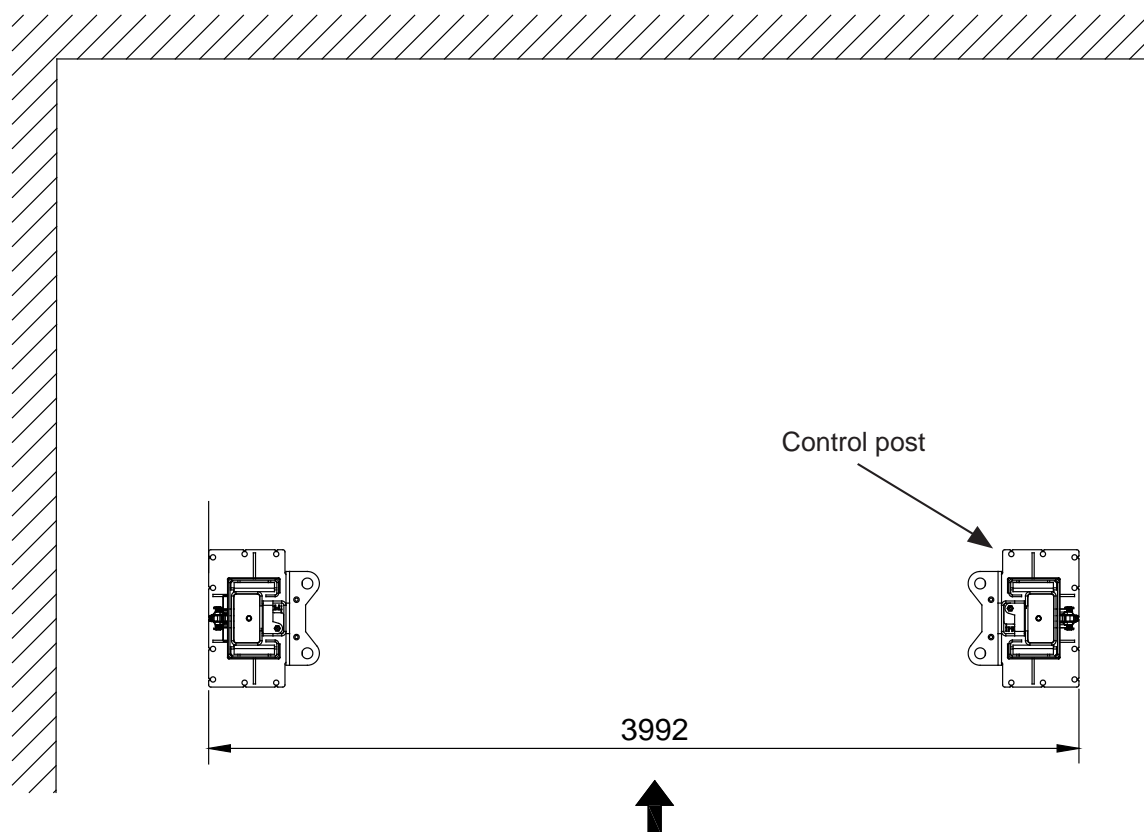
Vehicle hoists should be positioned so that any moving part of the hoist or the load is not less than 600mm away from the nearest fixed structure. Where a vehicle hoist is installed adjacent to any other equipment which moves, the minimum clearance between any part of the hoist or the load and that equipment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

Mark floor with chalk lines in order to respect correct distance measurements.

3

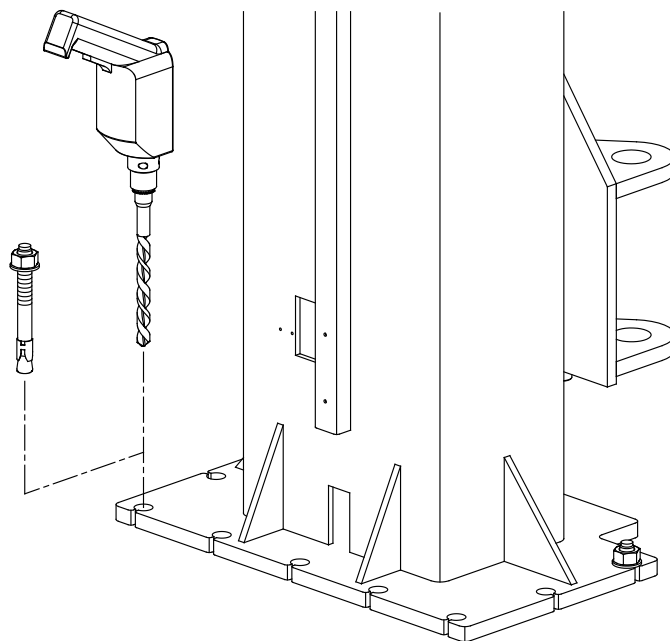


4

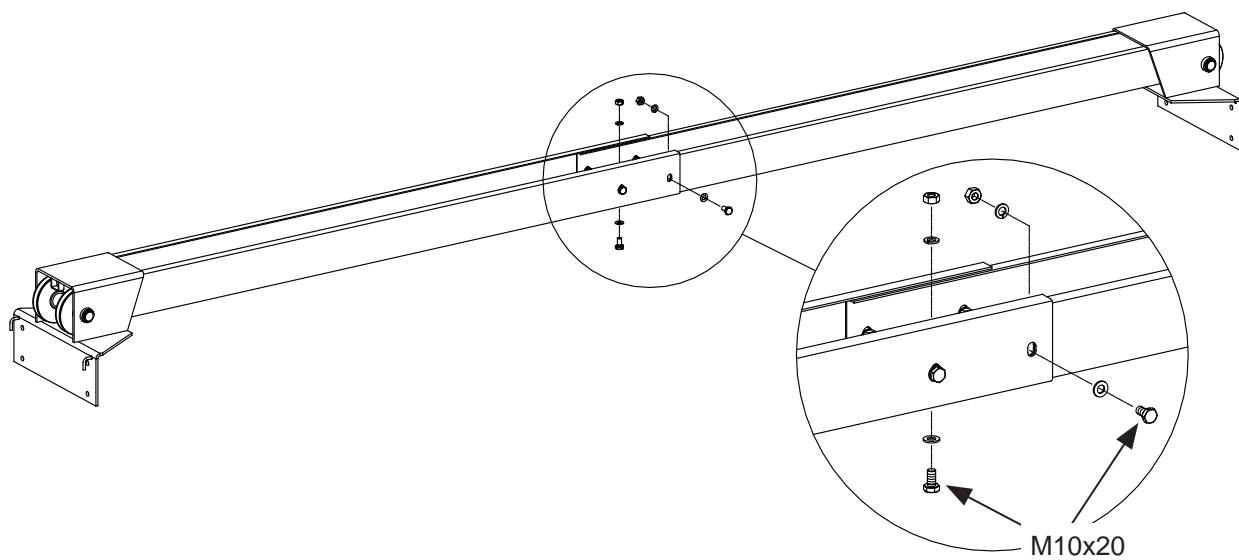


5. Drill holes for 2 expansion bolts in each post (to ensure that posts do not tilt during installation). Drill holes through base plate. Fasten posts by means of expansion bolts - do not tighten bolts yet as definitive adjustment of post position will take place later on (see step 8).
6. Assemble portal.
7. Fit rod for top limit switch. **NOTE !** take care that bracket with holes for top limit switch (item 1) is placed at control post as shown.

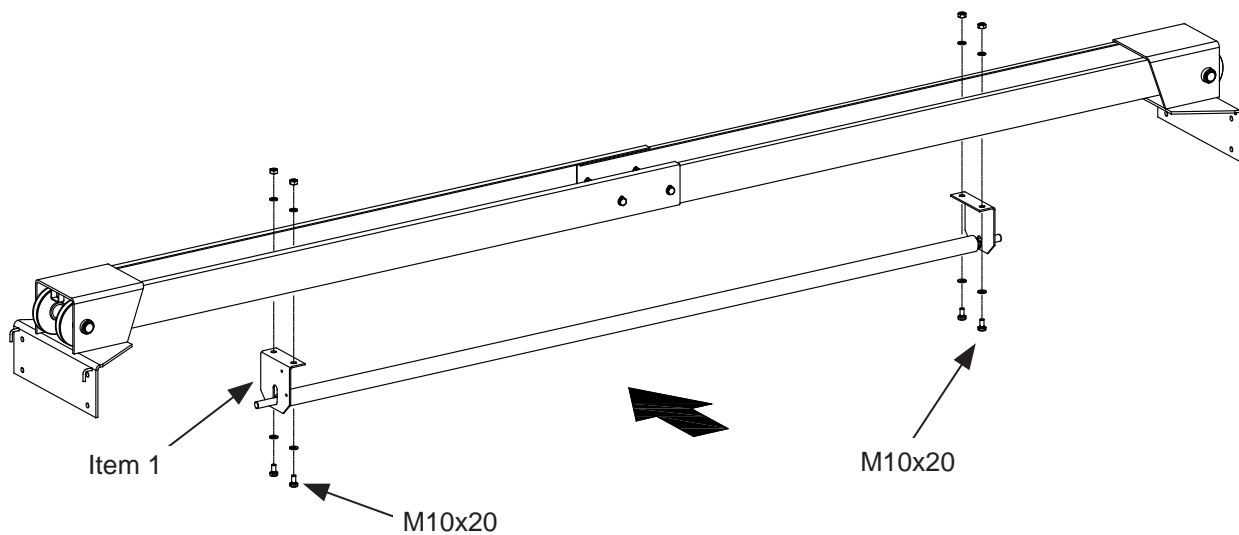
5



6



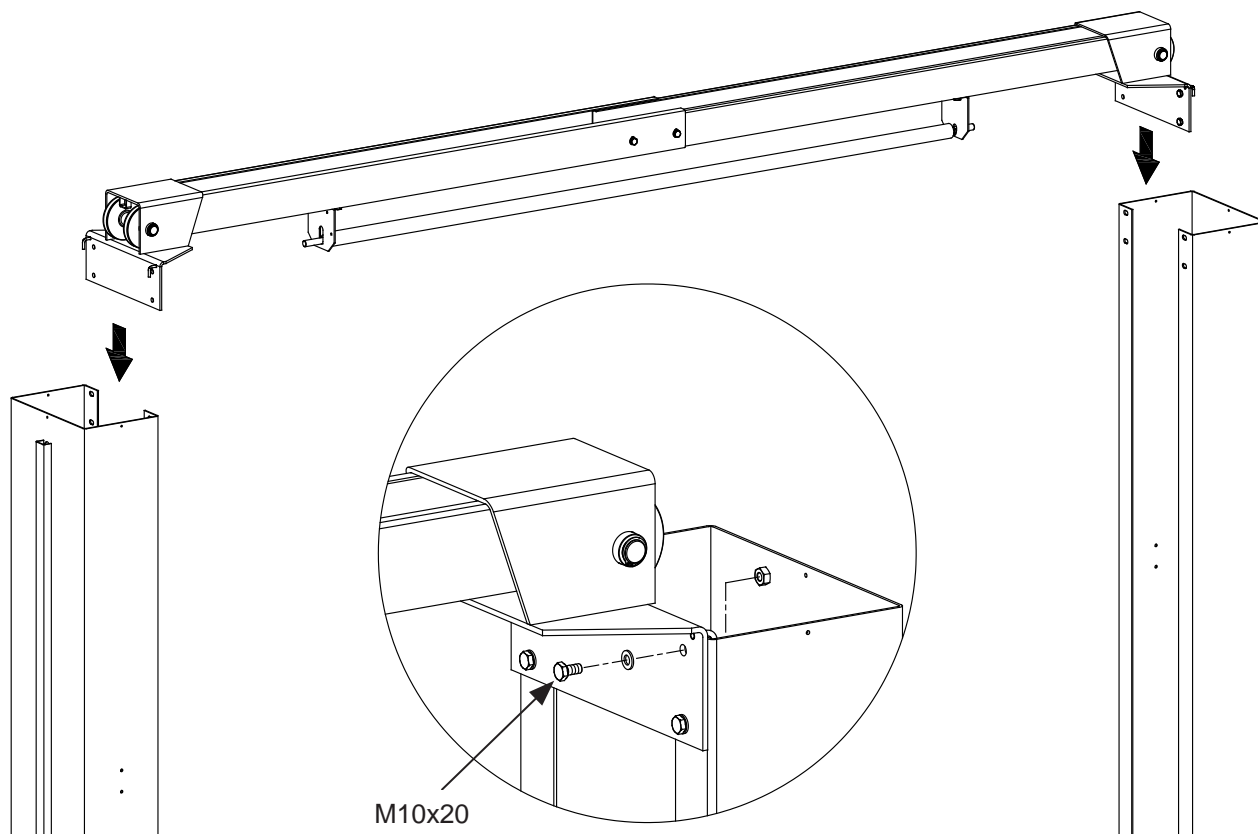
7



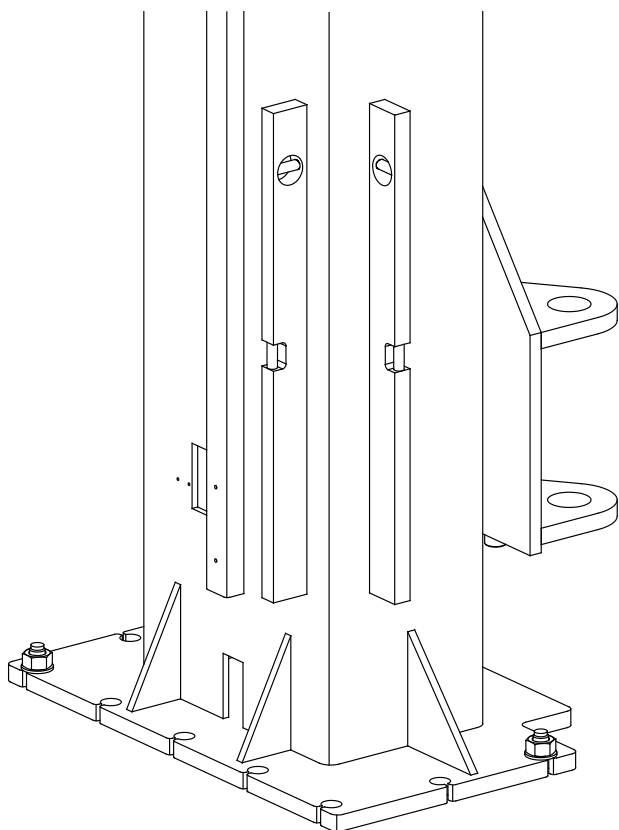
8. Raise portal and place on posts.
Adjust distance between posts if necessary. Fasten portal - tighten bolts.
9. Check distance between posts and that posts are plumb - shim up if necessary.
10. Drill holes through base plate for remaining expansion bolts. Tighten all expansion bolts.
Torque for expansion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

Hoist	Torque
SM270	240Nm

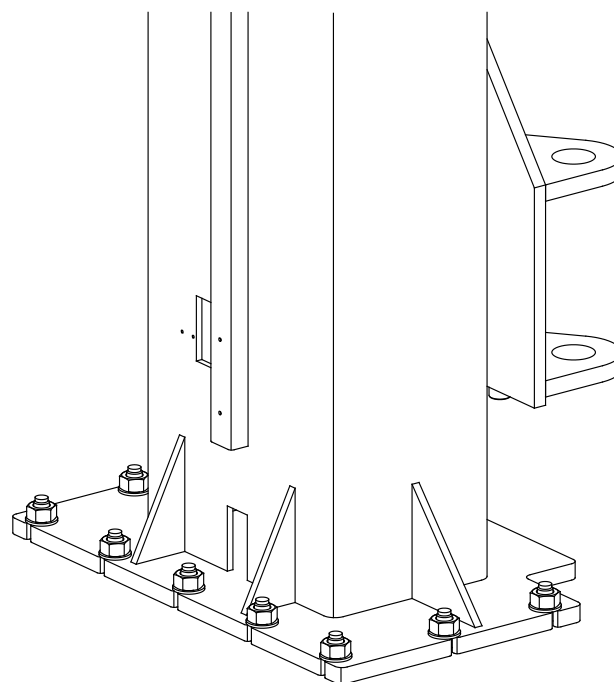
8



9

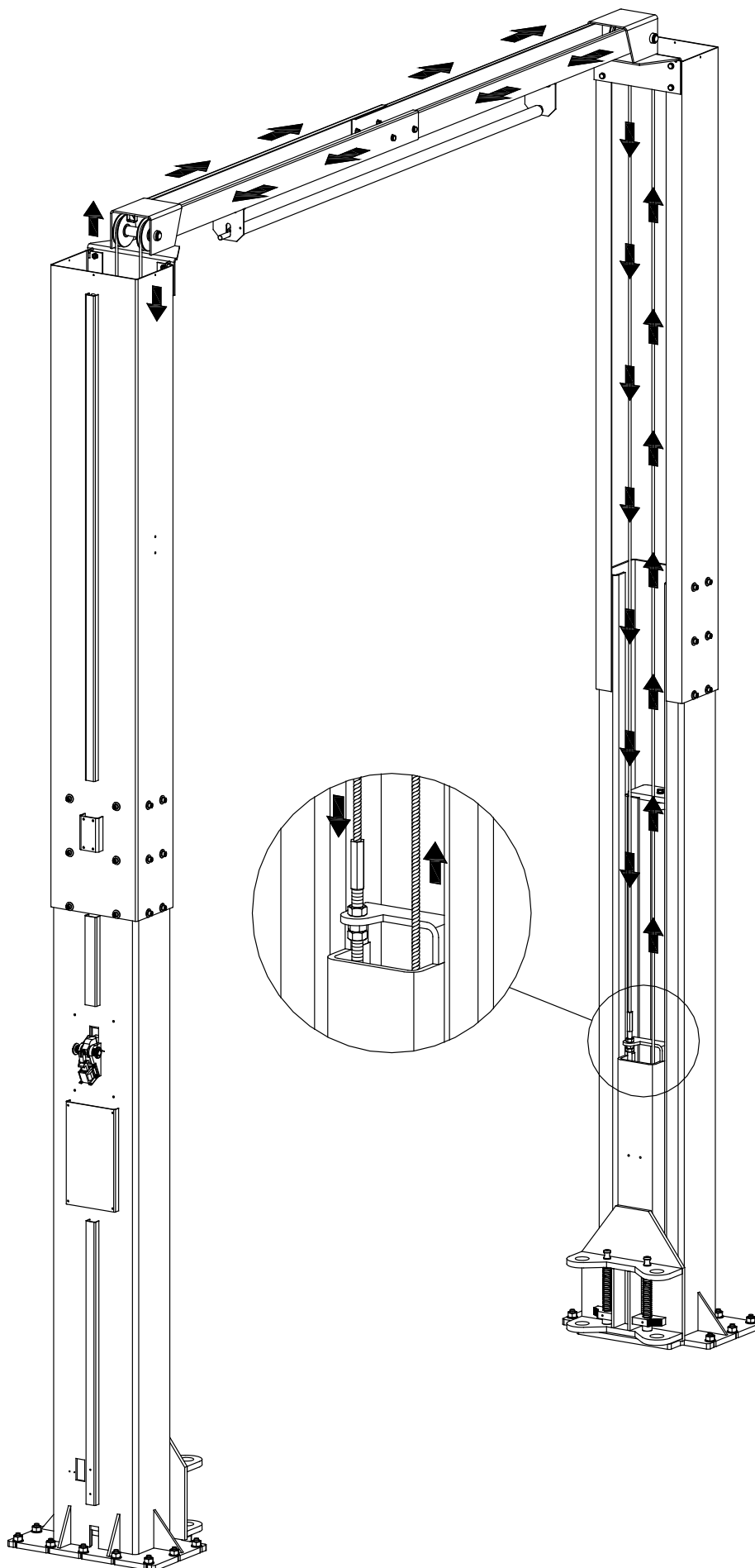


10



11. Pull pre-fitted cables up through posts - above cable pulleys in portal and fasten them in carriage on opposite post.

11

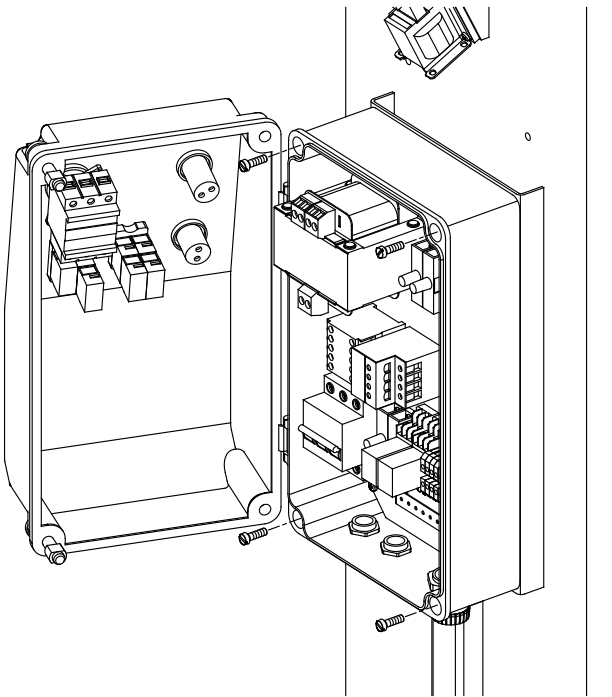


12. Fit control unit on control post.
13. Pull cables from control unit as shown on figure.

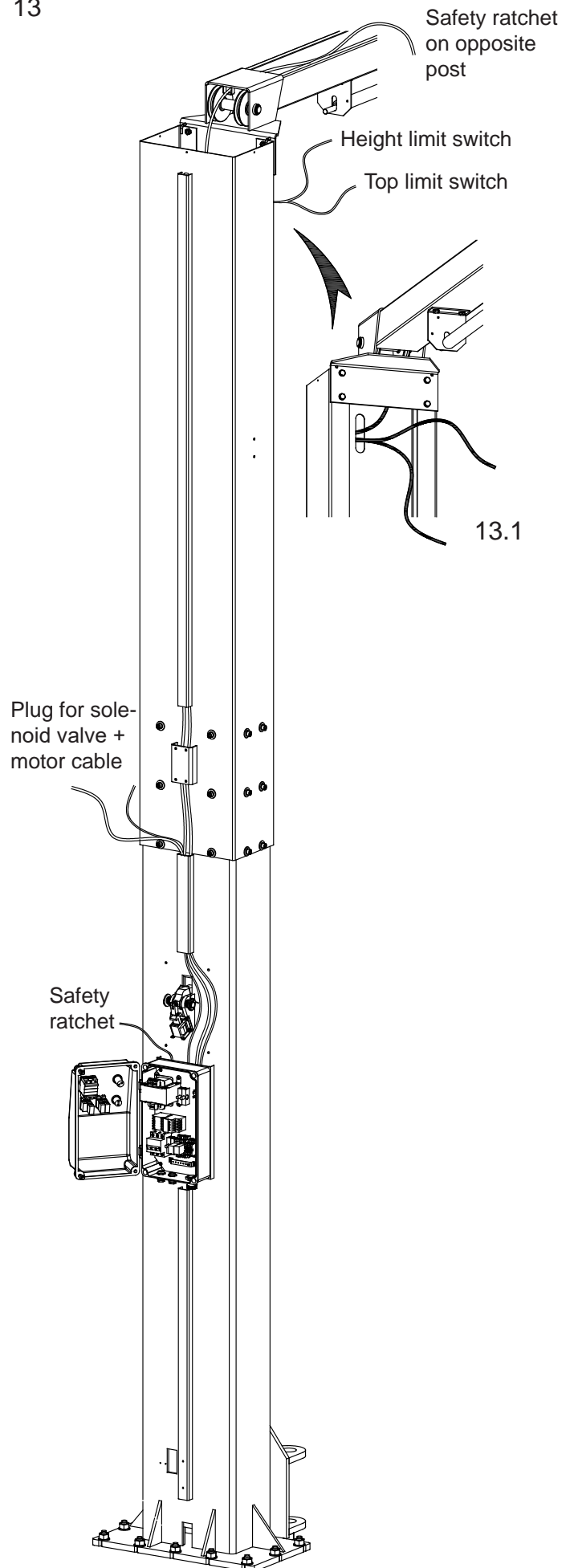
NOTE ! It is important that cables are pulled in and out through the oblong hole in top of post extensions (behind cable cover - see figure 13.1).

14. Fit safety ratchets on both post by means of 2-core cable.

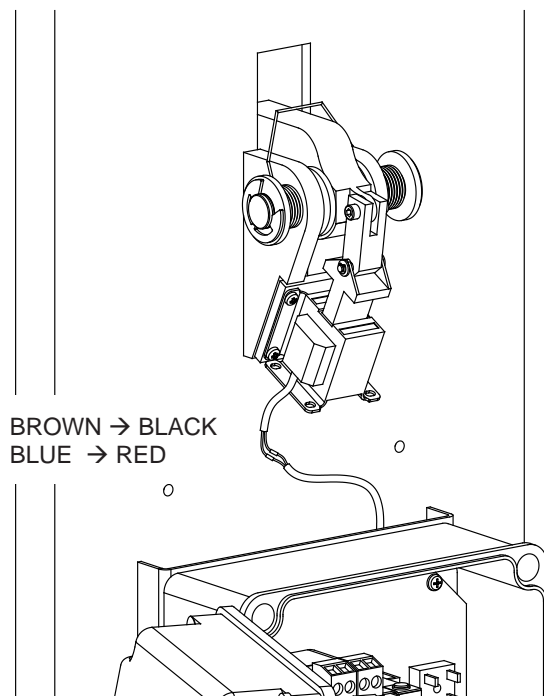
12



13

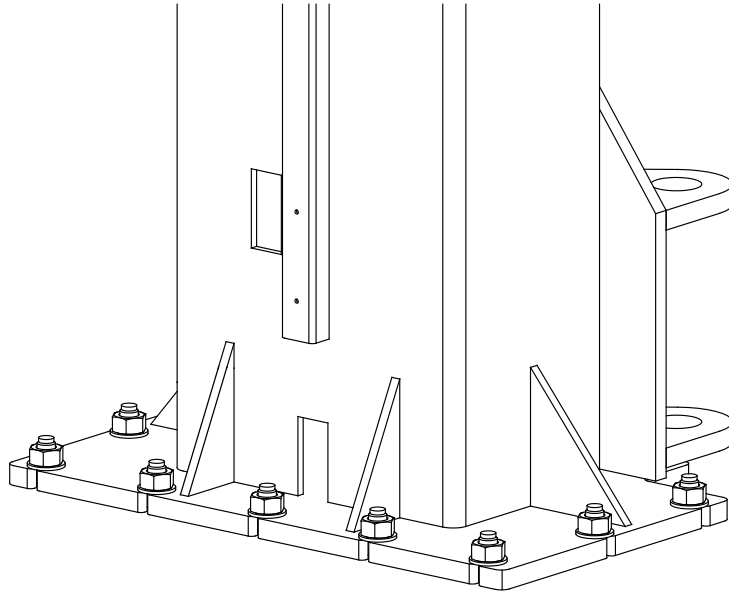


14

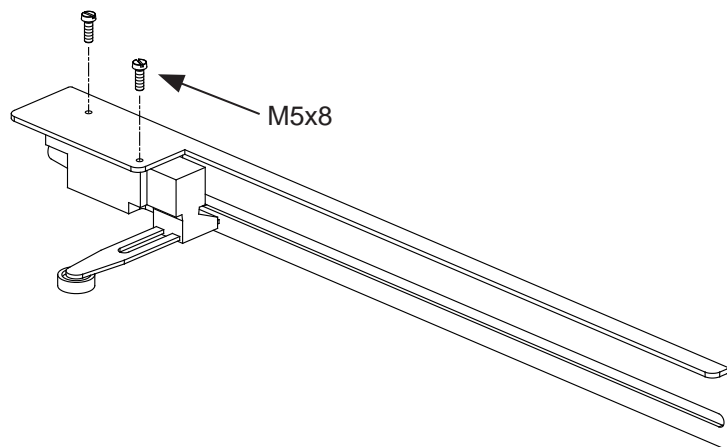


15. N/A
16. Fit top limit switch on bracket.
17. Fit bracket for top limit switch in control post.

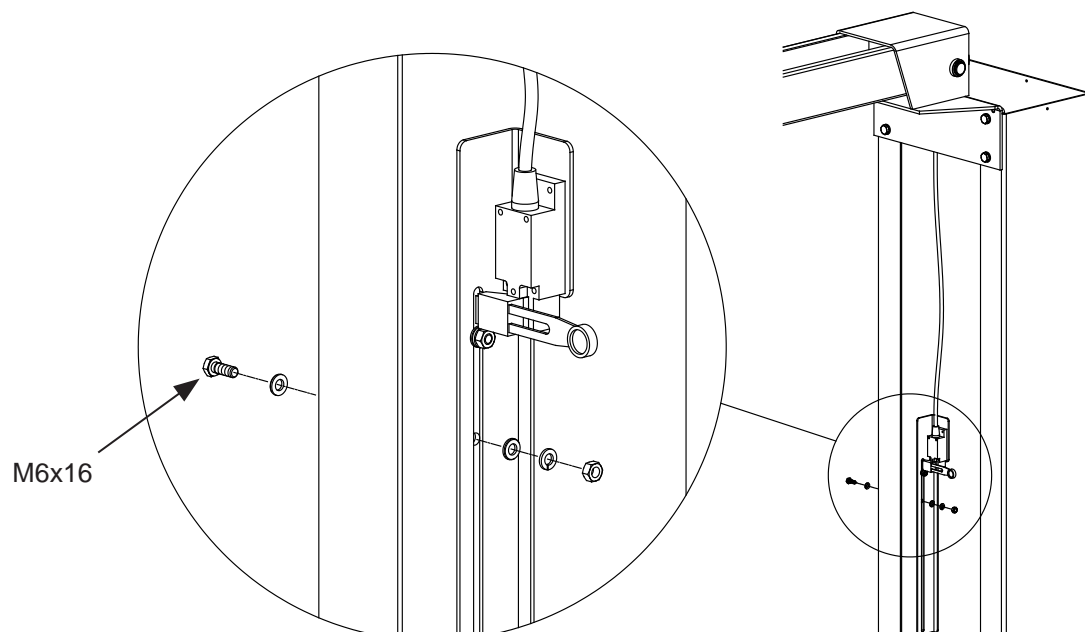
15



16

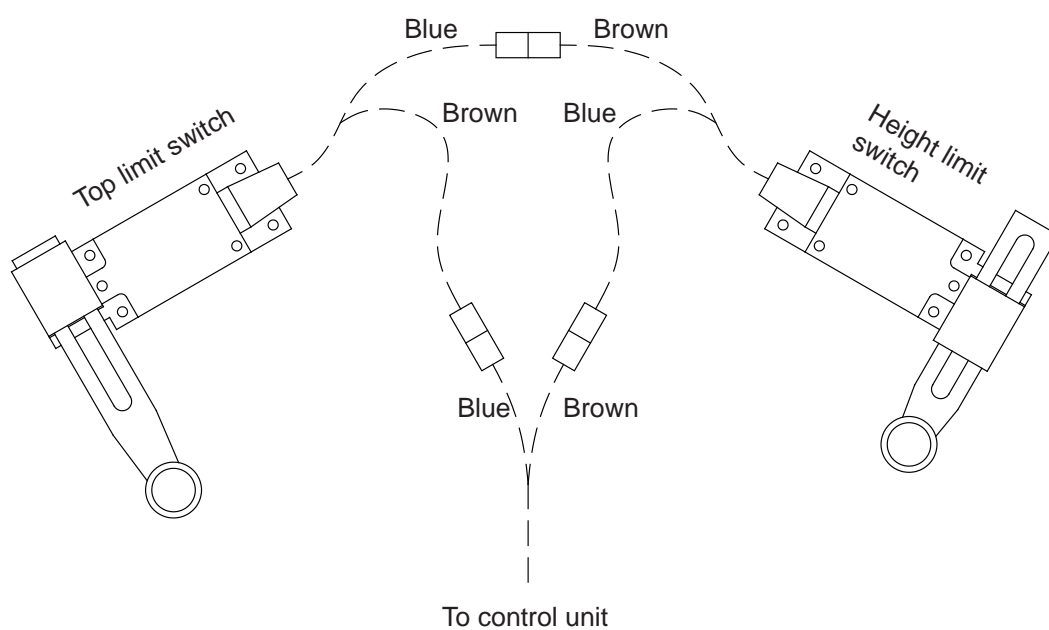
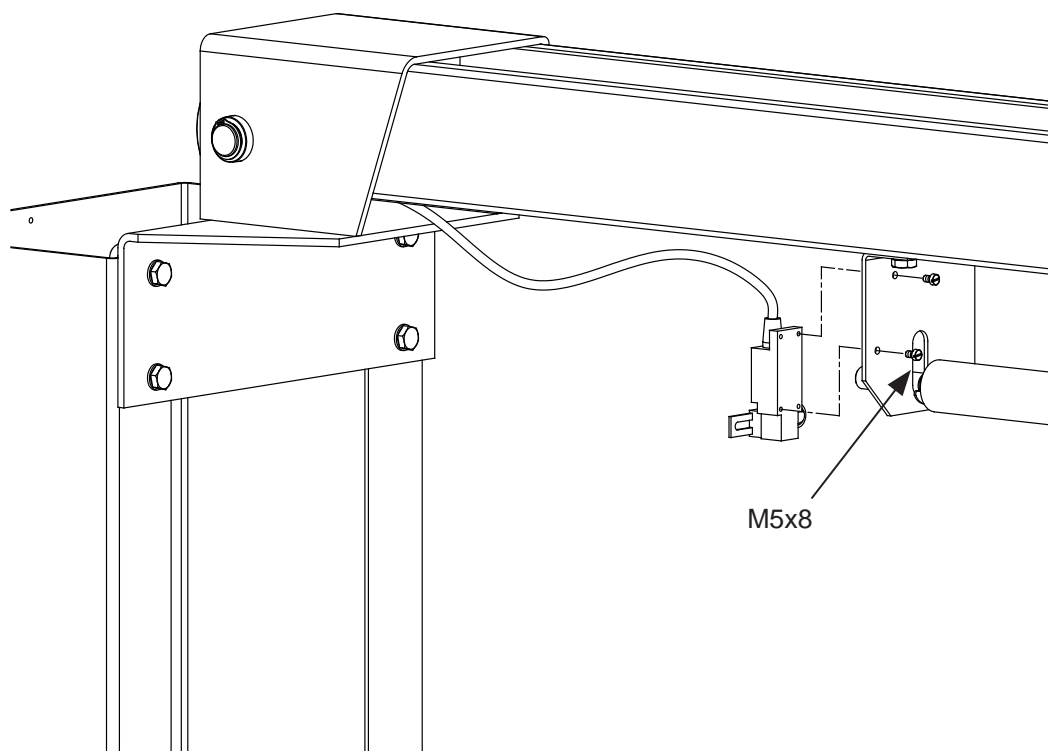


17



18. Fit height limit switch on bracket and connect this and top limit switch by means of 2-core cables from control unit.

18

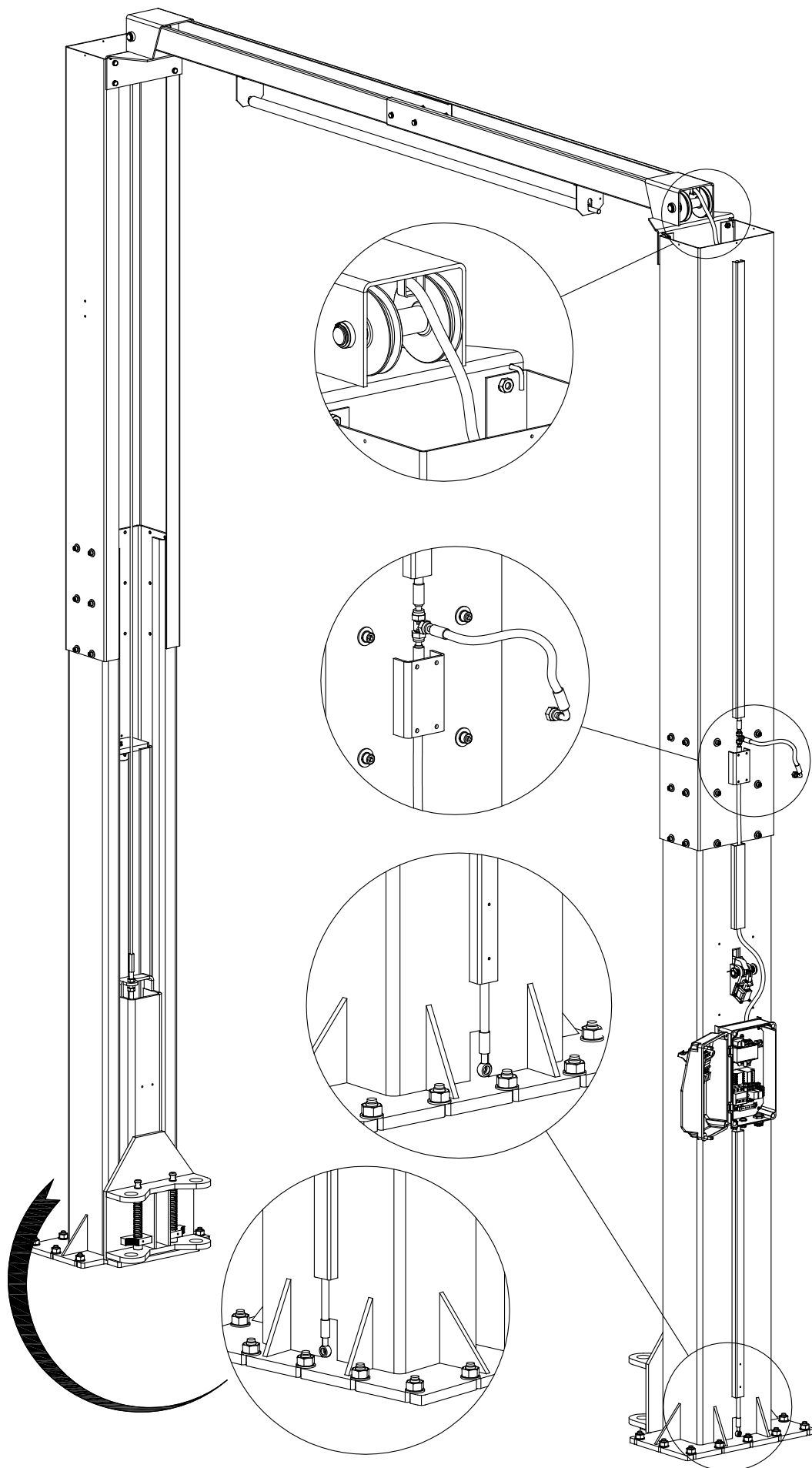


19. Pull hydraulic hoses as shown on control unit.

NOTE ! It is important that the hydraulic hoses are pulled in and out through the oblong hole in top of post extensions (behind cable cover) in the same way as show for the cables on figure 13.1.

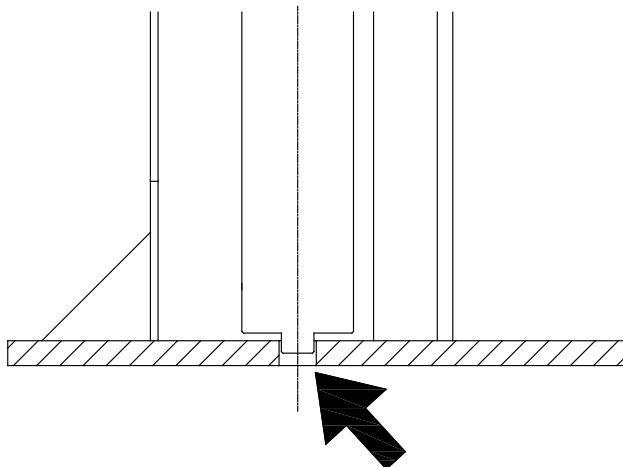
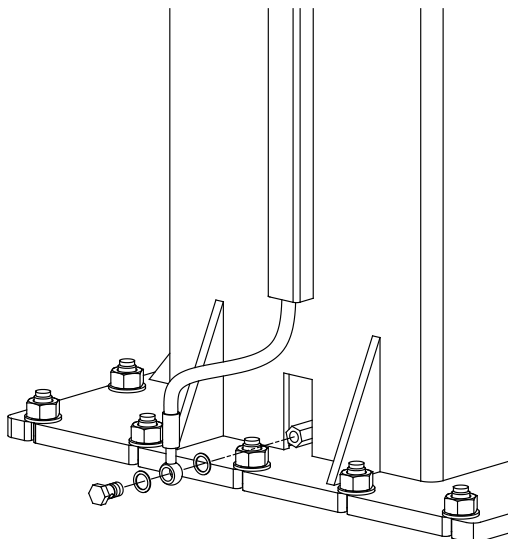
Long hydraulic hose is to be pulled over portal and down through cable covers on opposite post.

19

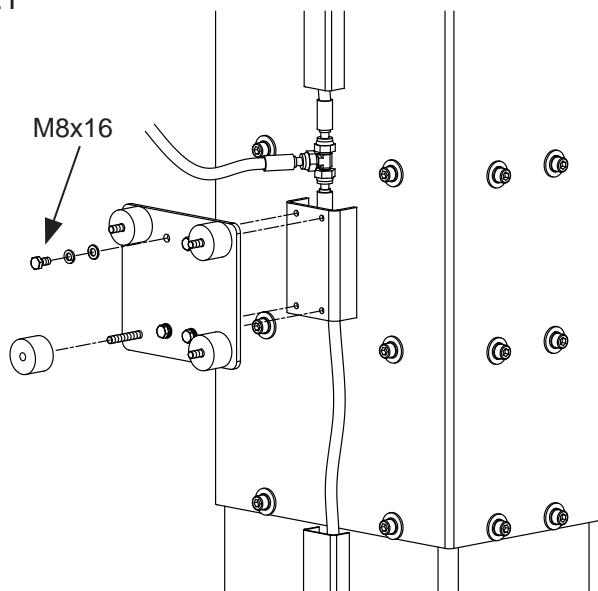


20. Fasten both hydraulic hoses on bottom of cylinder by means of banjo screw connection.
NOTE ! Check at the same time that cylinder is centered in hole on base plate.
21. Fit bracket for pump unit with vibration absorbers and fasten on post.
22. Fit bent bracket on pump unit.
23. Fit pump unit on post.
24. Fit short hydraulic hose on pump unit with fittings as shown.

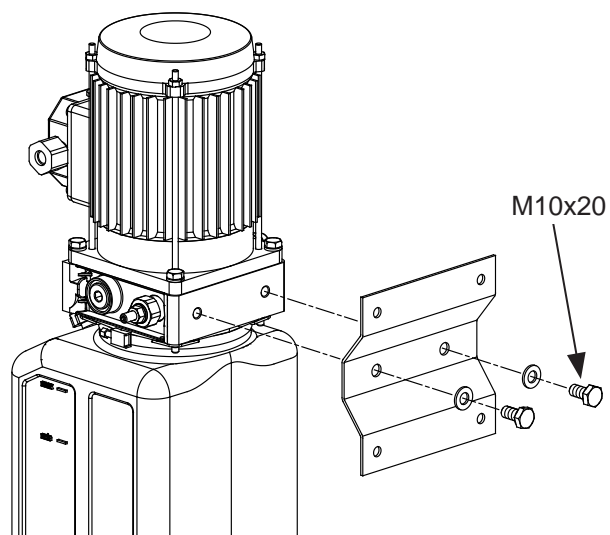
20



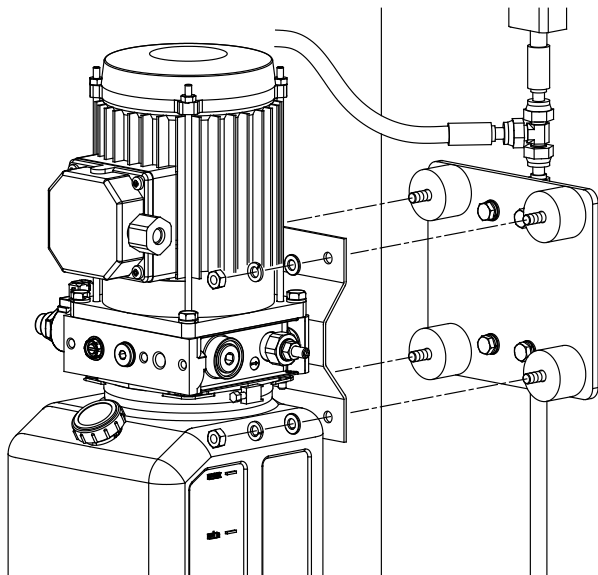
21



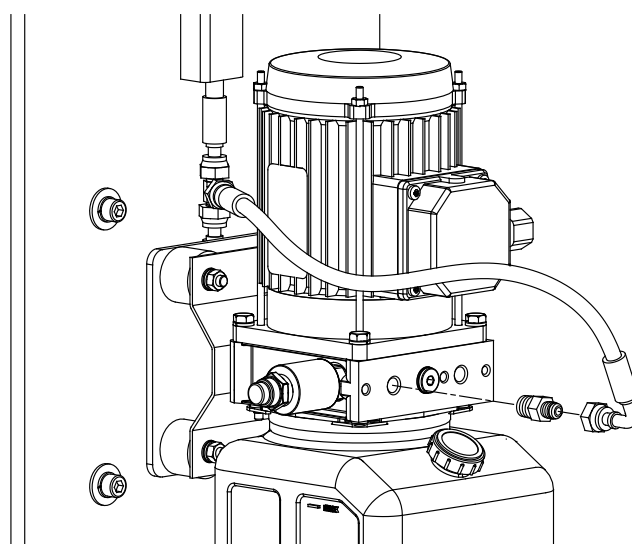
22



23

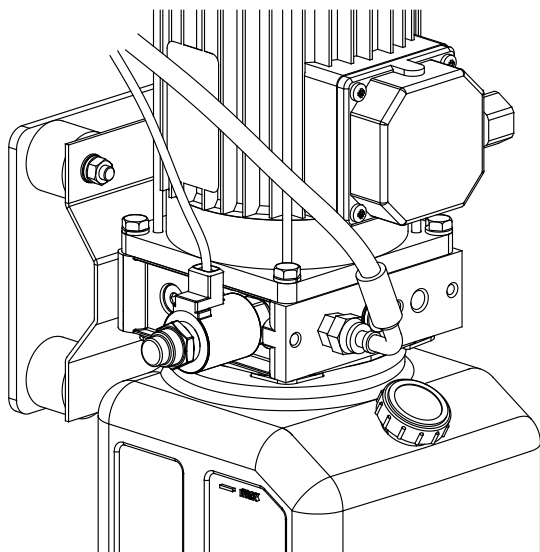


24

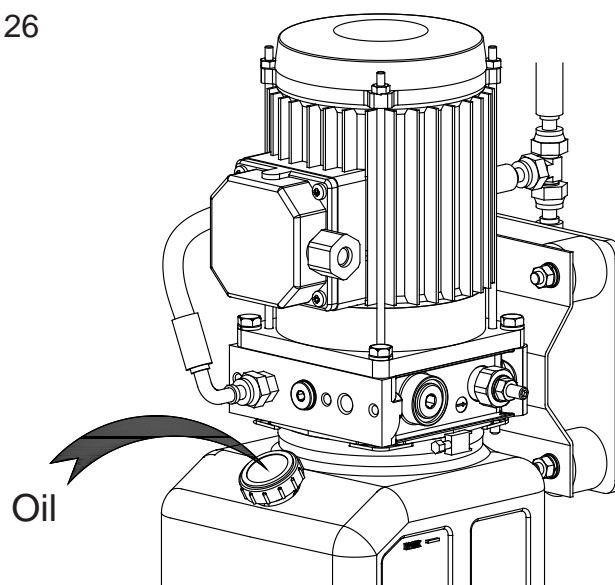


25. Fit plug to solenoid valve.
26. Fill in oil (see operation and maintenance instructions).
27. Fit motor cable on pump unit. For correct cable connection according to mains supply, see sketch.
28. Connection to mains must be made by authorized electrician.
Wiring diagram is part of the operation and 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.
29. Bleed the hydraulic system:
Lower hoist to bottom position. When bottom position has been reached, keep DOWN button activated for about 20 sec. (venting).
Fill up with oil (14L).

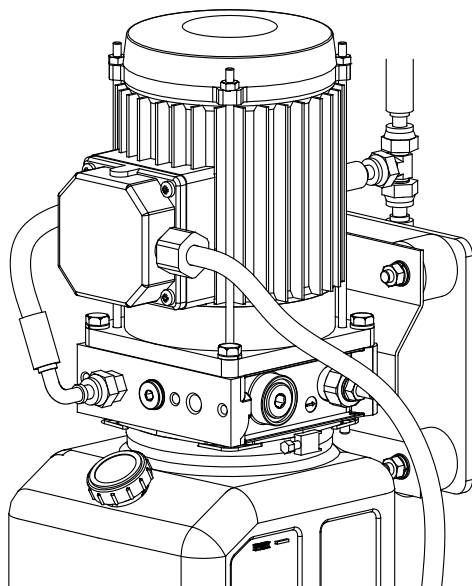
25



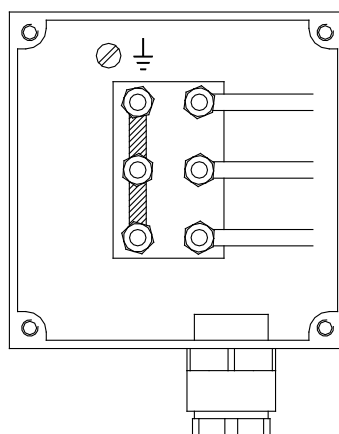
26



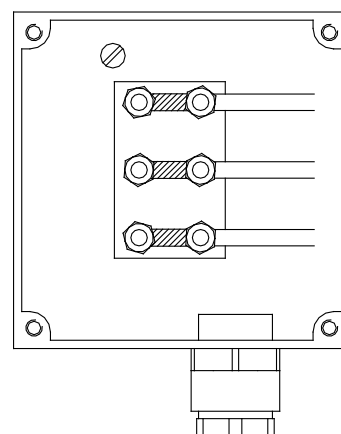
27



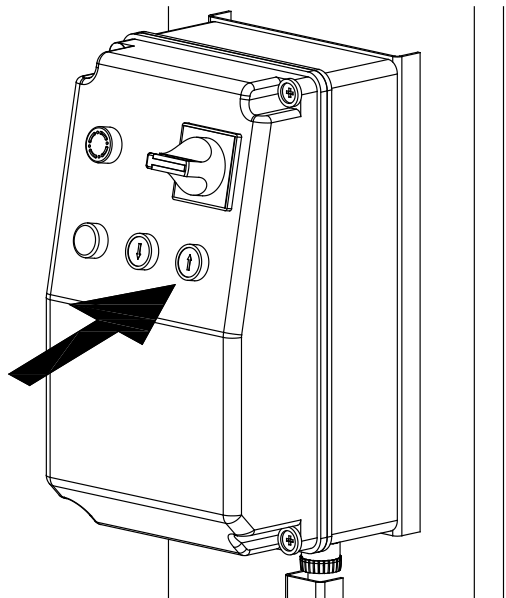
(Y) 3x400V



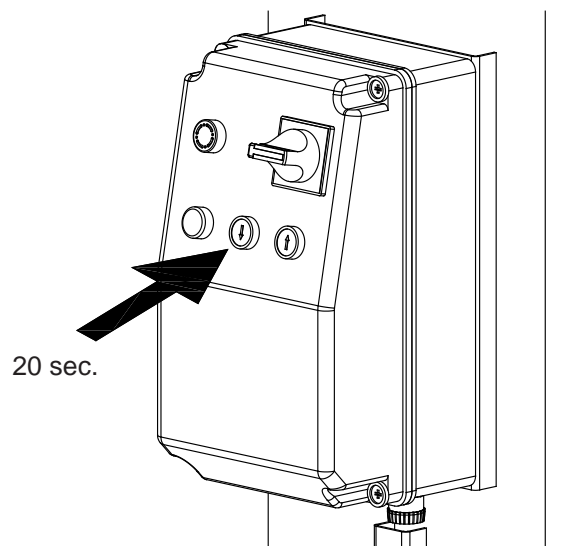
(Δ) 3x230V



28

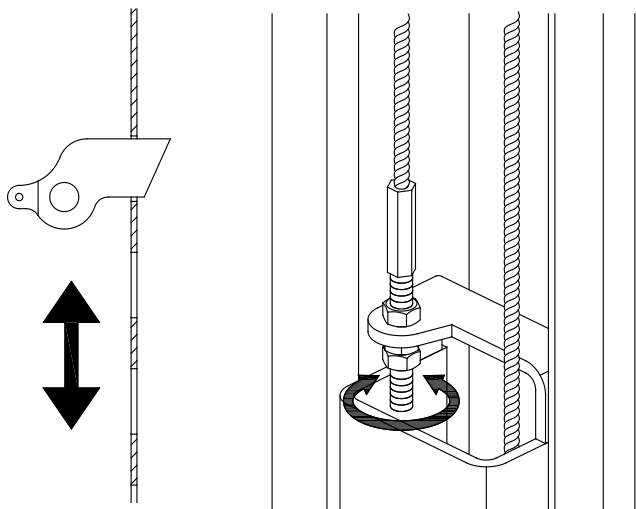


29

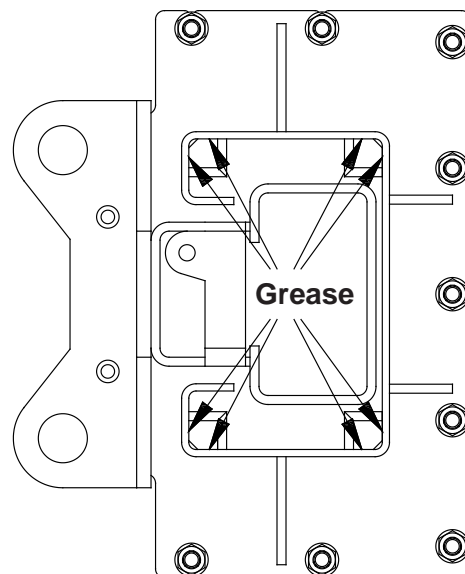


30. Raise hoist until safety lock clicks. Adjust cable to same distance in ratchet rails and re-tighten with a torque of 5 Nm.
31. Apply grease to guiding edges on inner side of posts.
32. N/A
33. Fit arms and washers as shown. **NOTE !** Grease holes in carriages and washers before fitting.
34. Fit clamping pins in axles.
35. 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 4 screws on each arm.
36. Check function of top limit switch and height limit stop. Adjust top limit switch to stroke = 1800 mm.

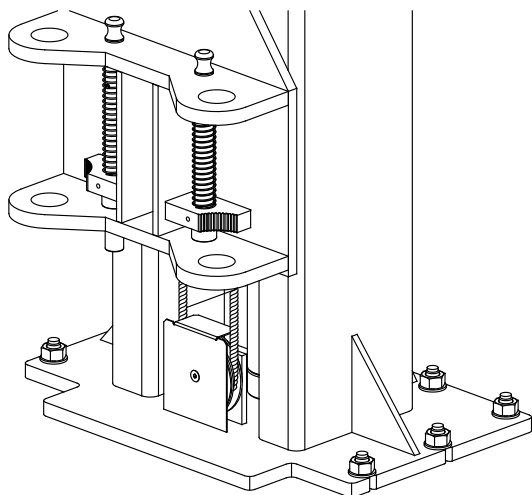
30



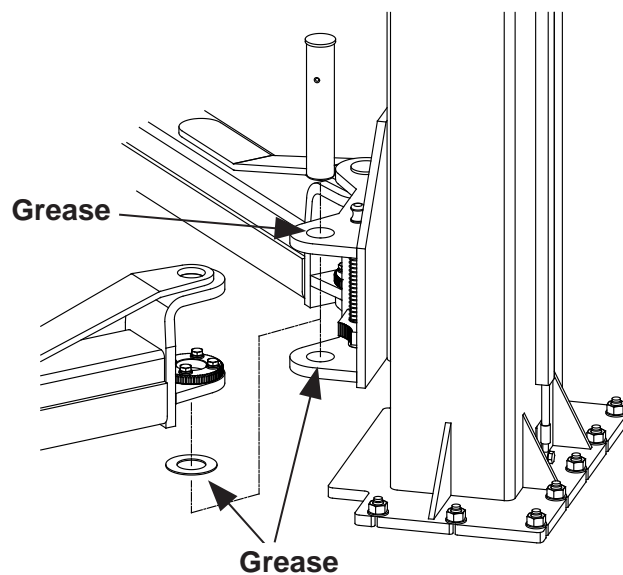
31



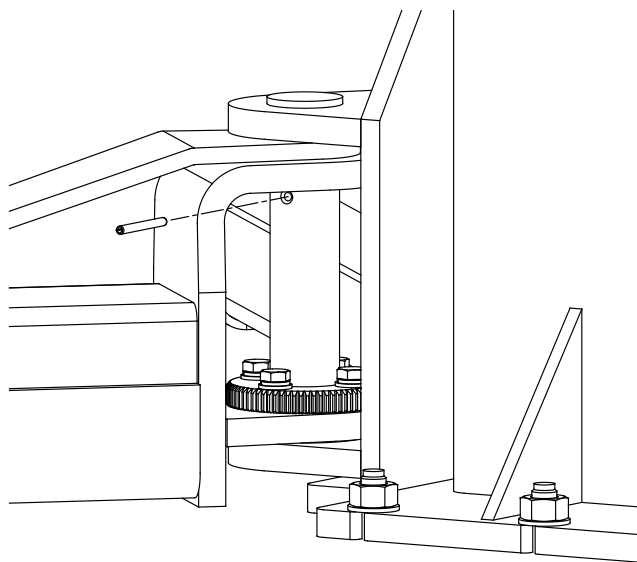
32



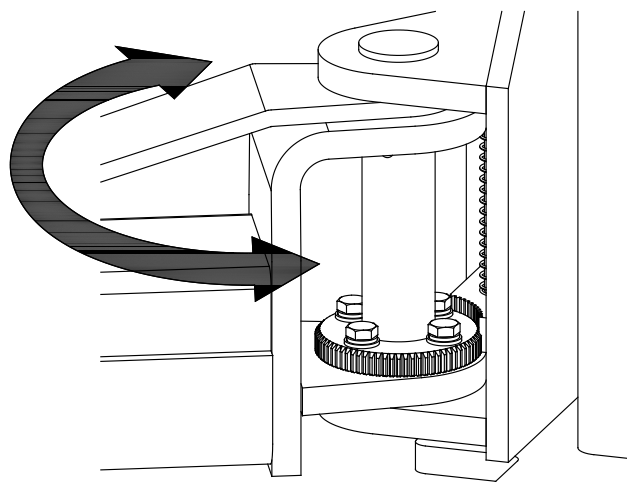
33



34

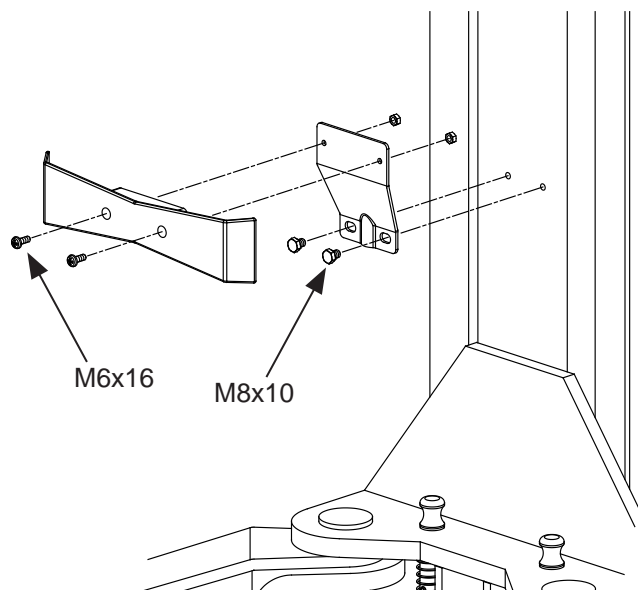


35

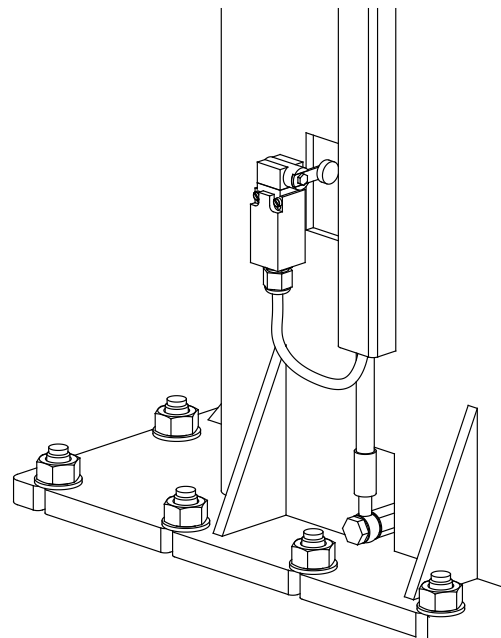


- 37. Fit door stop.
- 38. N/A
- 39. Fit covers for safety ratchets.
- 40. Fit angle covers.

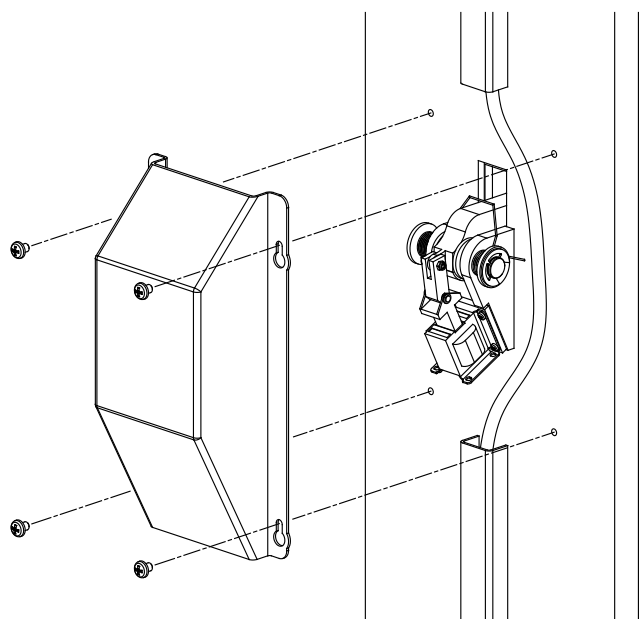
37



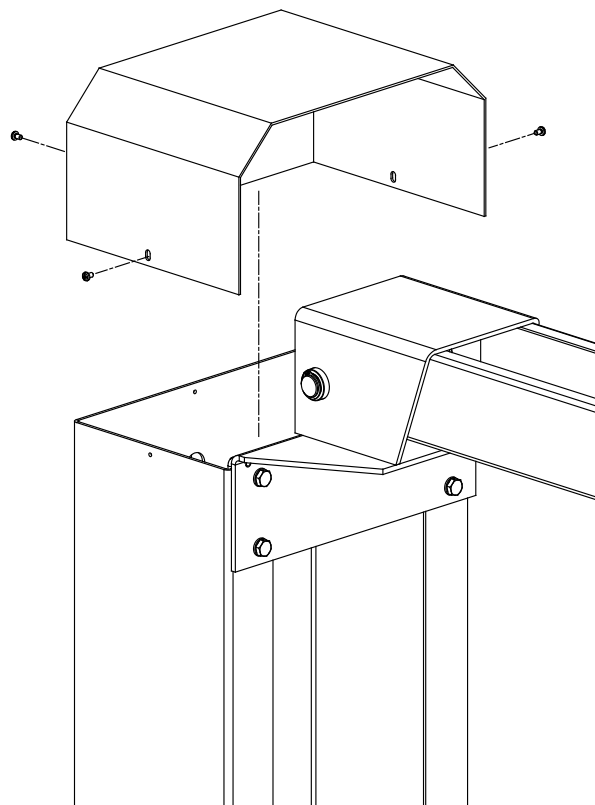
38



39

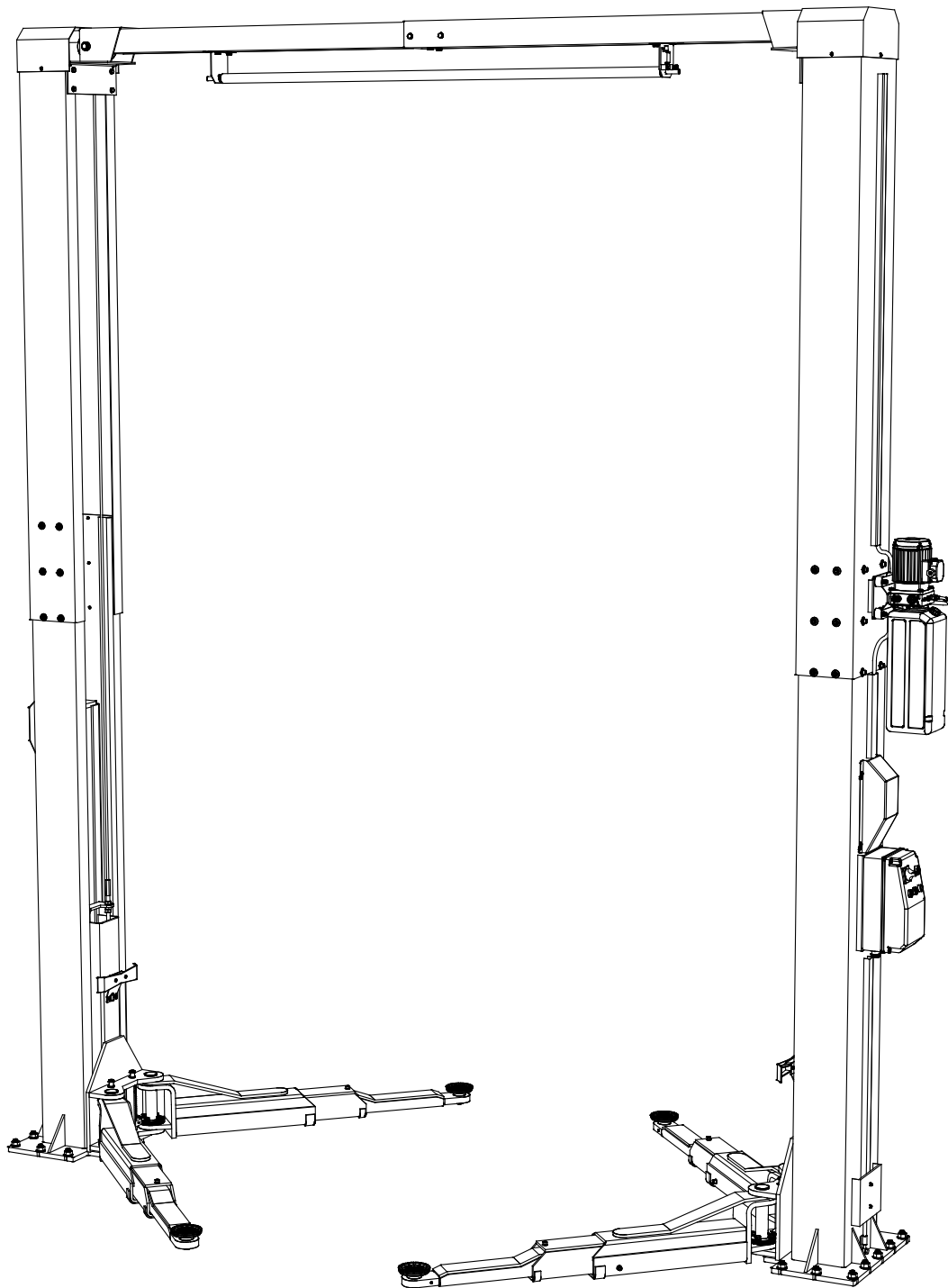


40



41. Fasten cables and hydraulic hoses with clamps.
42. Bleed hoist one more time if necessary.
43. Clean hoist and test with vehicle.
Give user thorough instructions.
Lubricate Flex Pad Assembly threads for smooth operation.

43



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**



Address:	3 Graham Street Export Park South Australia 5950
Ph:	+61 (08) 8234 3611
Fax:	+61 (08) 8234 4322
Email:	sales@molnarhoists.com.au
Web:	www.molnarhoists.com.au