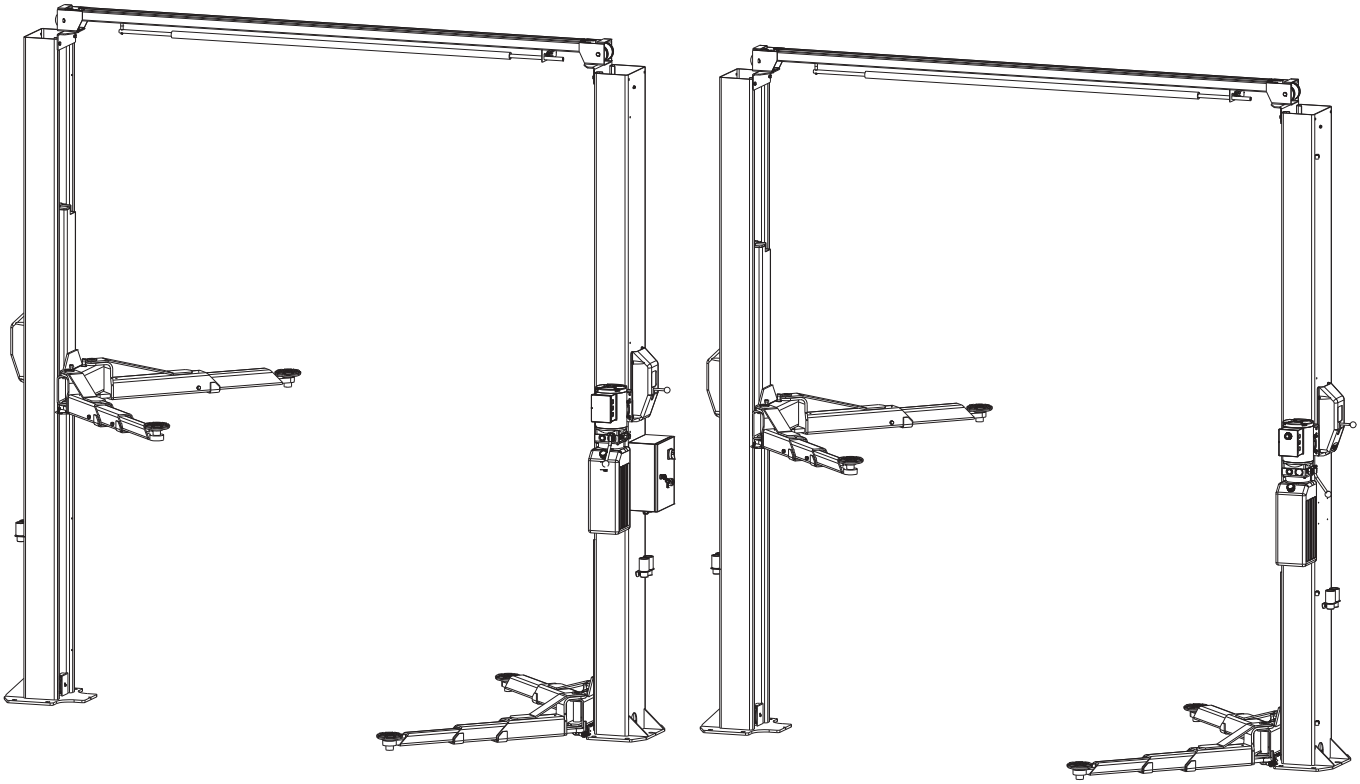
Installation Manual

HT40 Two-Post Lift
4,000kg Capacity



OPERATING CONDITIONS

Lift is not intended for outdoor use and has an operating ambient temperature range of 41°-104°F (5°-40°C)

IN-HT40-01
Rev.B 10/11/2025

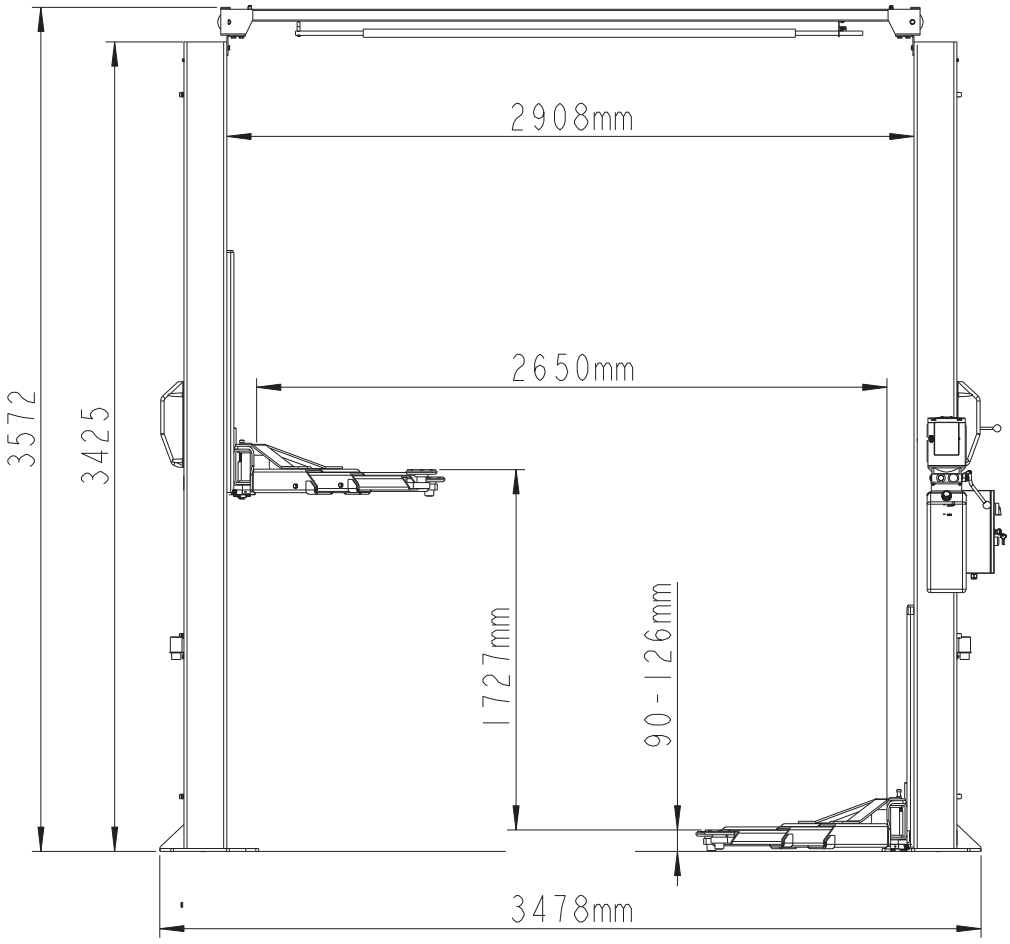


Fig.1a

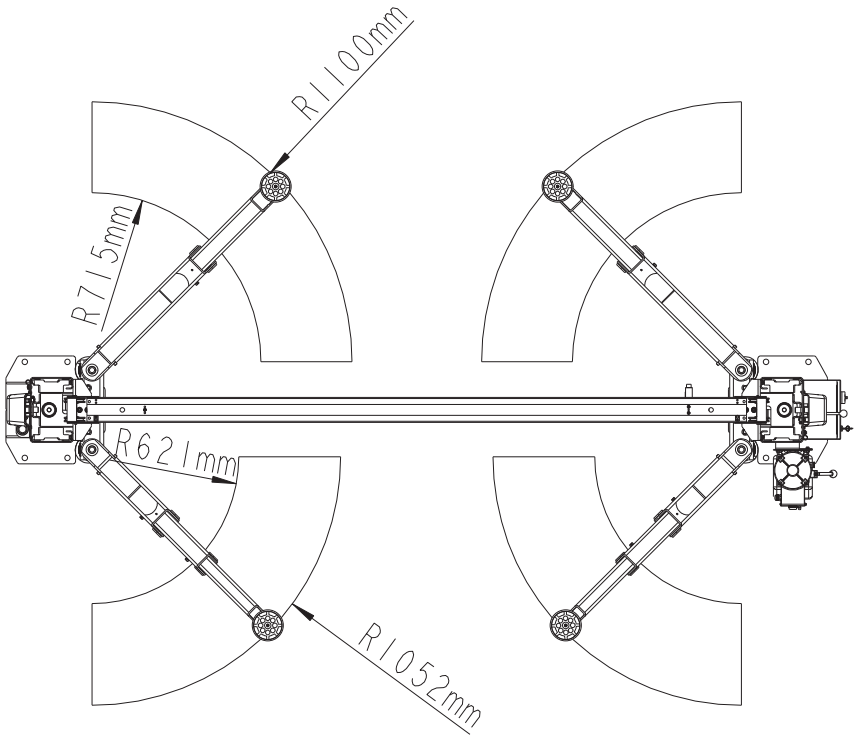


Fig.1b

The front side of the vehicle

1. Lift Location: Use architects plan when available to locate lift. Fig. 1a & Fig. 1b shows dimensions of a typical bay layout.

⚠WARNING DO NOT install this lift in a pit or depression due to fire or explosion risks.

Specification

Lifting Capacity	4000KG
Rise(adapter in highest position)	1853mm
Height Overall	3572mm
Width Overall	3478mm
Drive-Through Clearance	2650mm
Inside Columns	2908mm
Long Arm	715-1100mm
Short Arm	621-1052mm
Adapter Height	90-126mm
Floor To Overhead Switch	3445mm

NOTES:
1.) ALL HEIGHT DIMENSIONS ARE WITHOUT LEVELING SHIMS.

LIFT CAPACITY	4000 kg
LIFTING SPEED (RISE TIME)	APPROXIMATELY 50 SECONDS AT RATED CAPACITY
MOTOR RATING OPTIONS	3 PHASE 380V 50 Hz
WEIGHT	560 Kg
MECHANICAL SAFETY LOCKS	AUTOMATIC ALL POSITIONS
MECHANICAL SAFETY RELEASE	SINGLE SIDE
SWING ARM LOCKS	AUTOMATIC LOCKING ABOVE 64mm
HYDRAULIC SAFETY SYSTEM	AUTOMATIC ALL POSITIONS
CYLINDERS	TWO, ONE PER COLUMN
CARRIAGE BEARINGS	EIGHT PER CARRIAGE, UHMW
SYNCHRONIZATION	EQUALIZATION CABLES
MIN. BAY SIZE	7315mm X 3658mm VERIFY WITH SITE PLAN & SERVICE VEHICLES

2. Hose: Clean adapters and hose. Inspect all threads for damage and hose ends to be sure they are crimped.

3. Latch Cable Guides: Install the latch cable conduit guide brackets to column with (1) 1/4"-20NC x 1" HHCS and 1/4"-20NC Flanged Locknuts, HHCS should go through hole nearest the edge as shown, Fig.2.

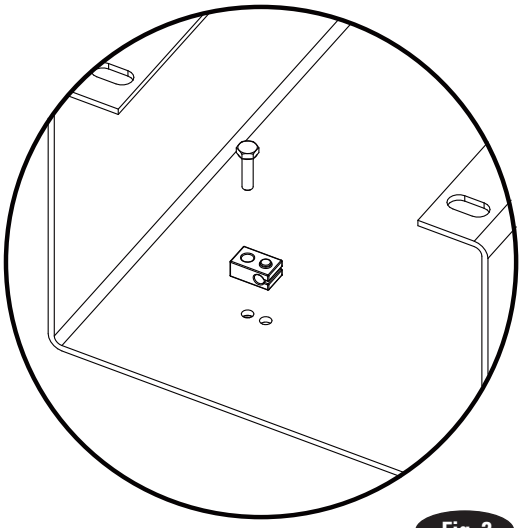


Fig. 2

4. Lift Setting: Position columns in bay using dimensions shown in Fig. 1a & Fig. 1b. Place column with power unit mounting bracket on vehicle passenger side of lift. Both column base plate backs must be square on center line of lift. Notches are cut into each base plate to indicate center line of lift. Use appropriate equipment to raise carriage to first latch position. Be sure locking latch is securely engaged.

5. Cylinder Fitting: Push the carriage to the first lock and then install the fitting to the cylinder through the small opening on the bottom of the column. Fig.3.

⚠CAUTION Overtightening will damage fitting resulting in fluid leakage.

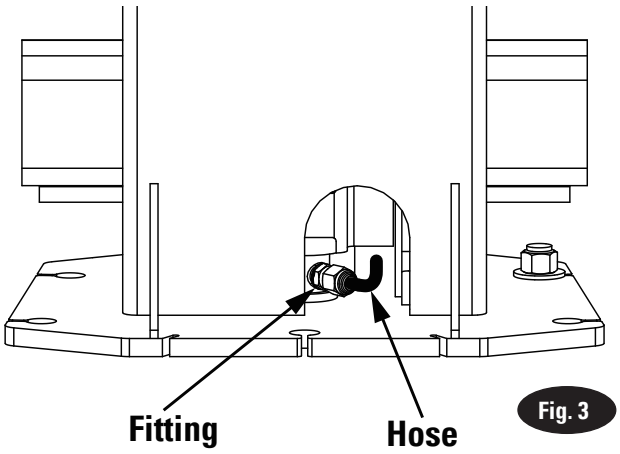
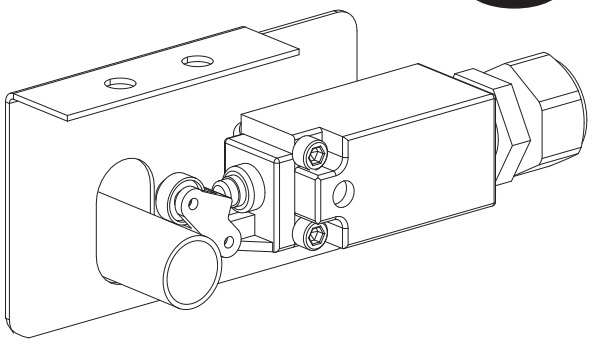


Fig. 3

6. Limit switch assembly:

Install the limit switch onto the limit switch bracket, using the internal hexagonal cap screw #10-24NCx1-1/2" and the flange locking nut #10-24NC Fig.4

Fig. 4

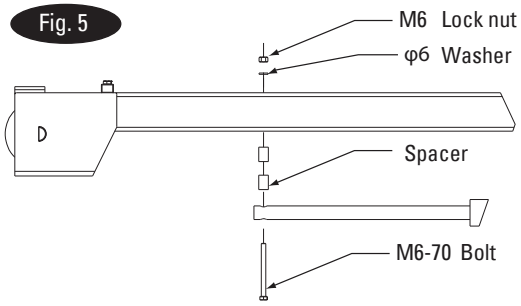


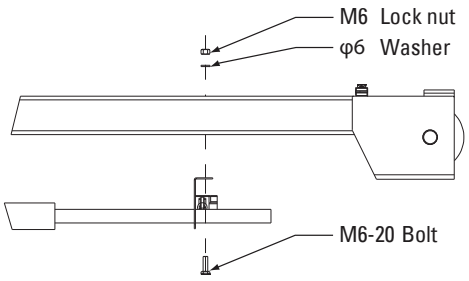
7. Overhead Assembly:

Slide Switch Box over switch bar ensuring knock out holes face the power unit column. Use (2) M6-20 hexagonal bolts, φ6 washer, and M6 lock Nuts to mount switch box to overhead, see Fig. 5

Pass the M6-70 hexagonal bolts through the small holes at one e nd of the limit rod, ensuring that the other end passes through the long waist hole of the limit rod. Then, install the limit rod on the crossbeam using (2) spacers, φ6 washer and M6 locking nuts. Refer to Fig. 5. Tighten the hexagonal bolts until there is a gap of about 1.6mm between the spacer ring and the crossbeam.

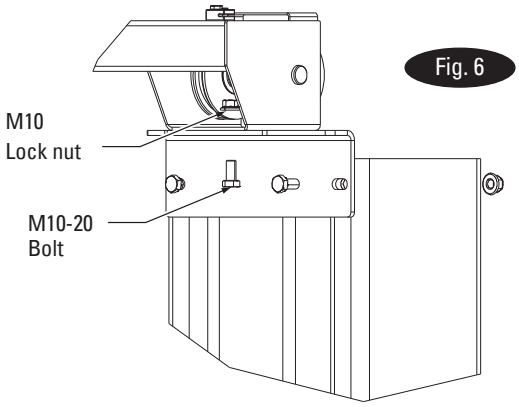
Fig. 5





8. Continued Overhead Assembly: Install the crossbeam bracket onto the column with (2) M10-1.5 x 20mm boltsand (2) M10-1.5 lock nuts. Install the crossbeam onto the crossbeam bracket with (2) M10-1.5 x 20mm bolt and (2) M10-1.5 lock nut. See Fig. 6.

Fig. 6



9. Power Unit Assembly: First, install a φ8 washer onto all (4) M8-20 bolts. Pass (4) M8-20 hex bolts through the holes on the power unit bracket seat, then hang the power unit and lock it with φ8 washers and M8 hex nuts. See Fig. 7.

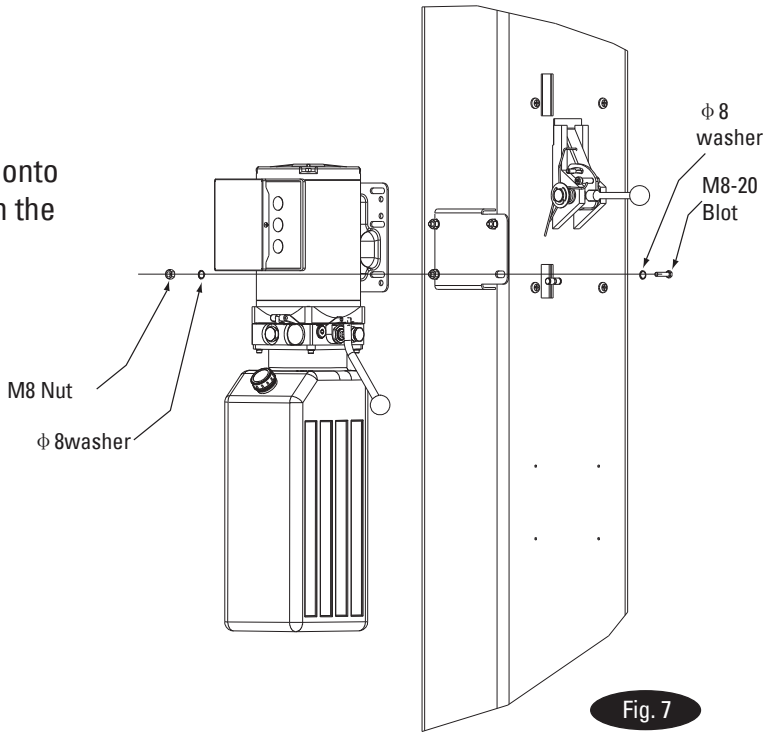


Fig. 7

10. Hose and fitting (Fig. 8)

1.Connect the fitting (No. 4) directly to the two side oil cylinders. Connect the branch tee (No. 5) to the power unit.

2.Connect the short hose (No. 2) from the mian column side cylinder to the power unit.

3.Connect the long hose (No. 3) from the slave column side cylinder to the power unit.

Note: The slave column side hose passes above the crossbeam during assembly. At the top two positions, the hose needs to be fixed with cable ties. On each of the two side columns, three hose clips are used to secure the hose.

Fig. 8 & Fig. 9a&Fig. 9b.

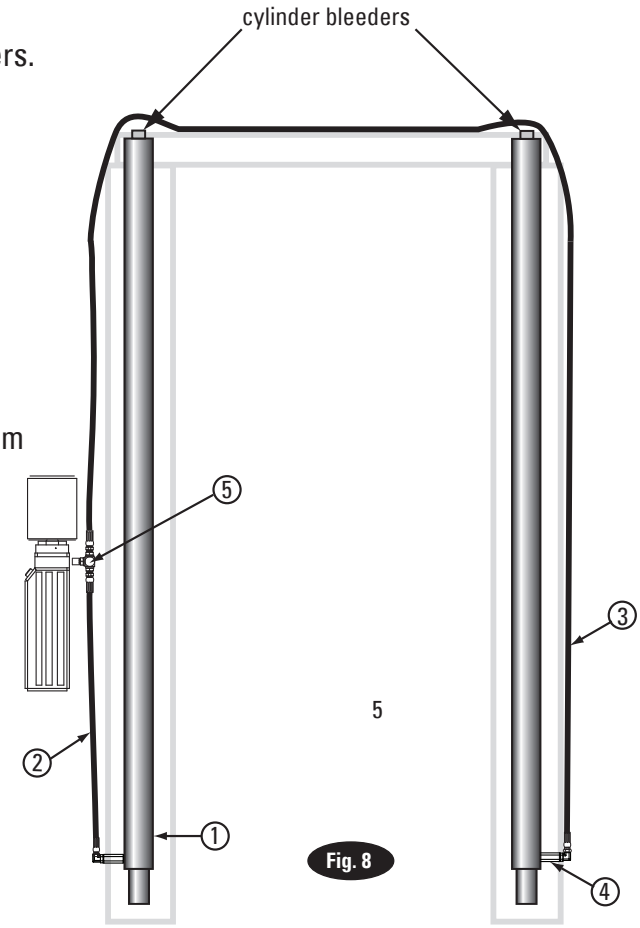


Fig. 8

Fig. 9a

ITEM	QTY.	DESCRIPTION
1	2	Hydraulic Cylinder
2	1	Main Side Hose
3	1	Slave Side Hose
4	2	Fitting
5	1	Branch Tee
6	6	Hose Clips
	6	5/16" Bolt
	6	φ8 washer
7	4	cable ties

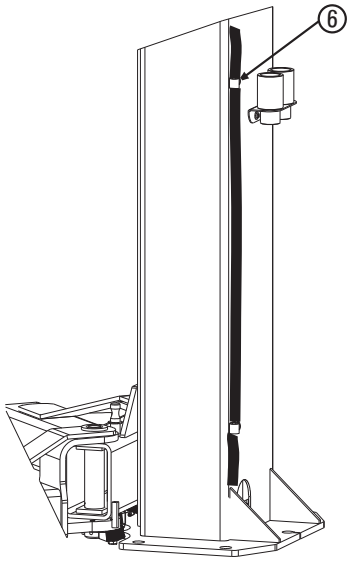


Fig. 9b

11. Equalizing Cables

A) Refer to Fig. 10 for the general cable arrangement.
B) First, run a cable end up through the small hole in the tie-off plate, Fig. 12.
C) Push the cable up until the stud is out of the carriage top opening.
D) Run a nylon insert locknut onto the cable stud so 1/2" (13mm) of the stud extends out of the locknut.
E) Pull the cable back down, Fig. 12.
F) Run cable around the lower sheave, then up and out of the top of the column.
G) Run cable around overhead sheave and across and down to the opposite carriage. Install sheave cover, Fig. 11.
H) Fasten the cable end to the carriage upper tie-off bracket, Fig. 12. Tighten the locknut enough to
I) Adjust the tension of both cables during the final adjustments in Paragraph 22.

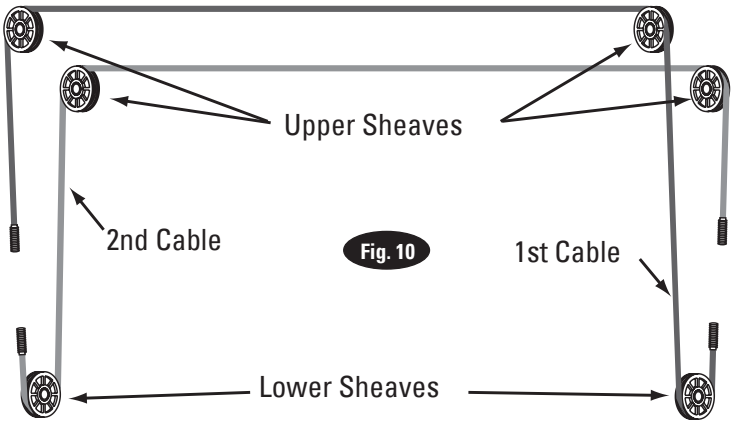


Fig. 10

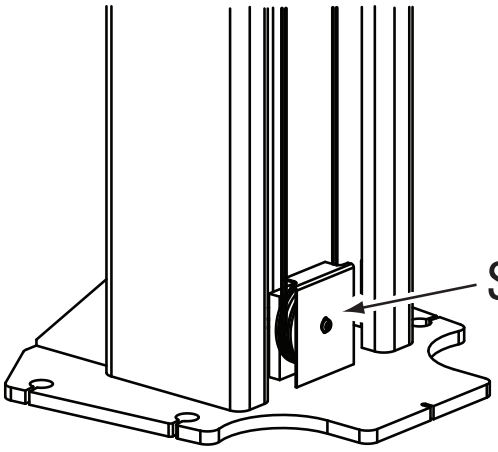


Fig. 11

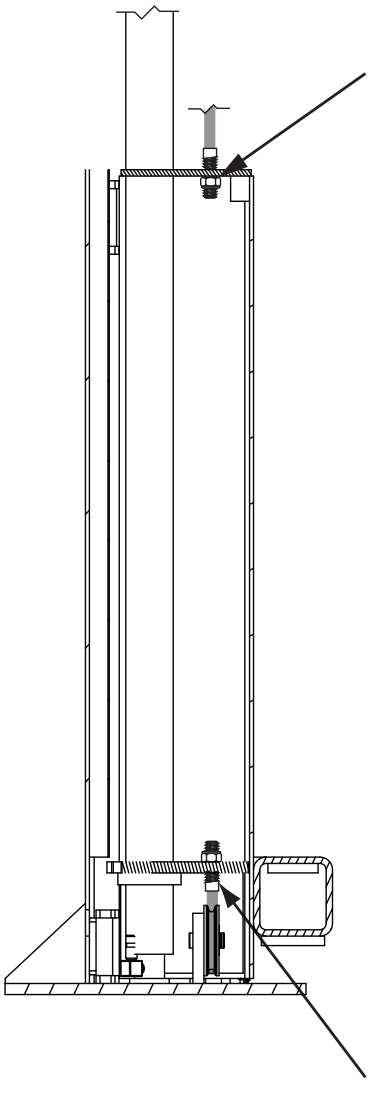


Fig. 12

12. Locking Latch Cable

A) Install latch cable sheave and retainging rings in upper slot of power unit column as shown, Fig. 14.

B) Slip loop end of cable over end of shoulder screw on right side latch control plate, Fig. 14.

C) Feed the other end of the cable through the latch cable sheave slot making sure that the cable is running under the bottom side of the latch cable sheave and inside the right column, Fig. 13.

D) Attach latch cable conduit guide brackets to overhead as shown, Fig. 13.

IMPORTANT Using cable ties provided, tie off hydraulic hose snug to cylinders to keep hose away from equalizing cable, Fig. 13.

E) Route cable up inside column and through the latch cable guide.

F) Continue routing cable to the left column latch cable guide, routing the cable through the left column latch cable guide, Fig. 16.

G) Bring the cable down inside the left column and feed the end of the cable through the lower latch cable sheave slot so that the cable is now back outside the column, Fig. 16.

H) Route cable under the bottom side of the latch cable sheave, Fig. 16.

I) At this point you MUST install the latch handle, jam nut, and right column latch cover Fig. 14 & Fig. 17. Install latch handle ball, Fig. 17.

J) Next, pull the control plate down, Fig. 15 & Fig. 16, to eliminate any clearance between the control plate slot and the latch dog pin, Fig. 15.

K) Using Pliers, pull cable tight and secure the clamp close to the shoulder screw. Tighten clamp.

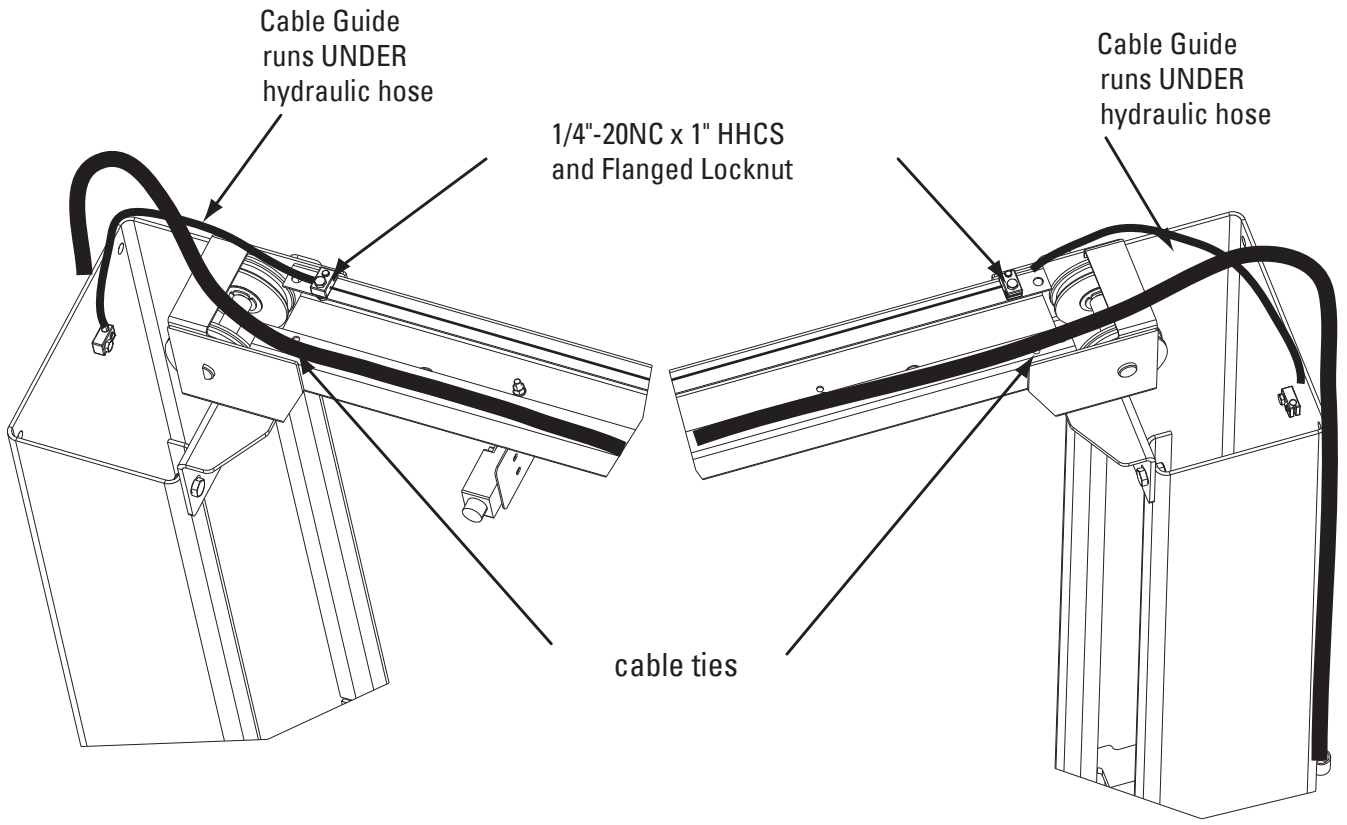


Fig. 13

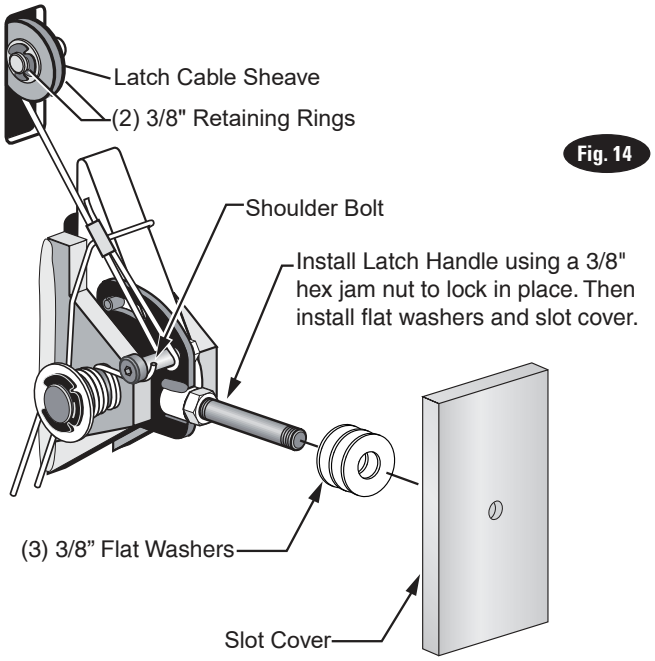


Fig. 14

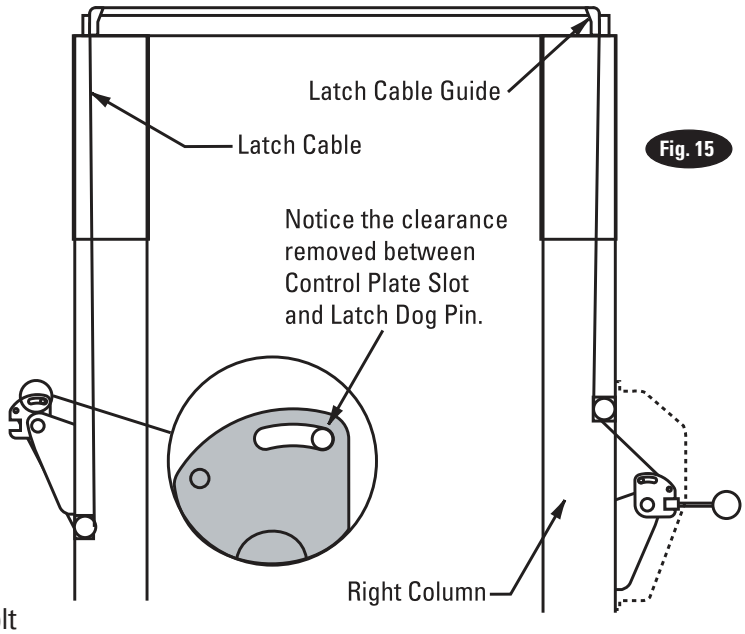


Fig. 15

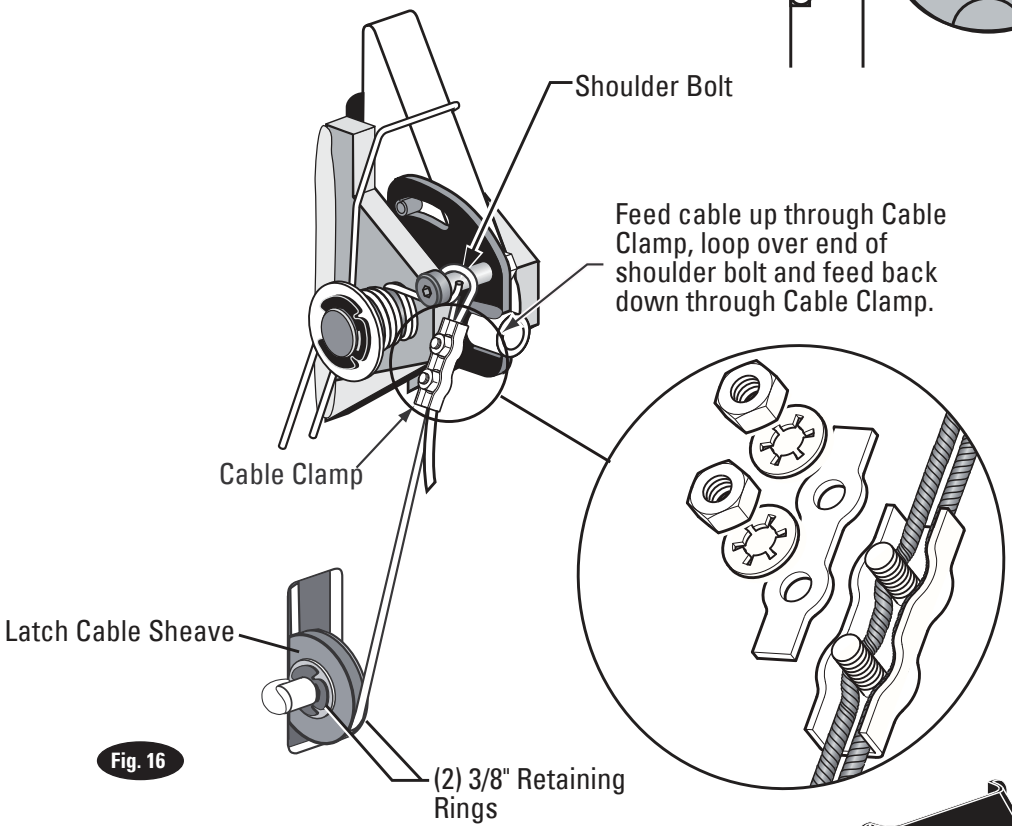


Fig. 16

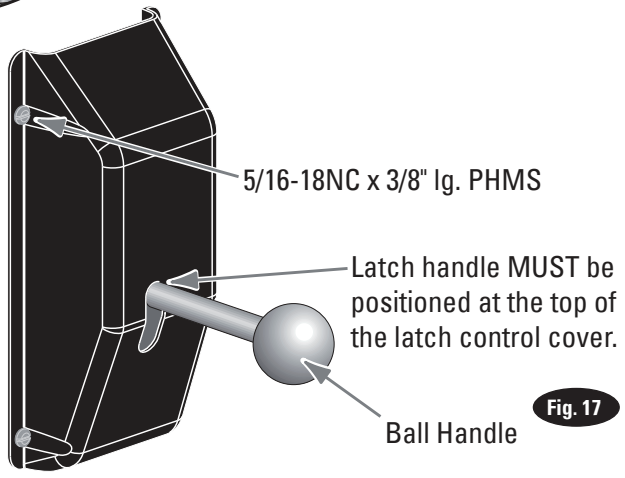


Fig. 17

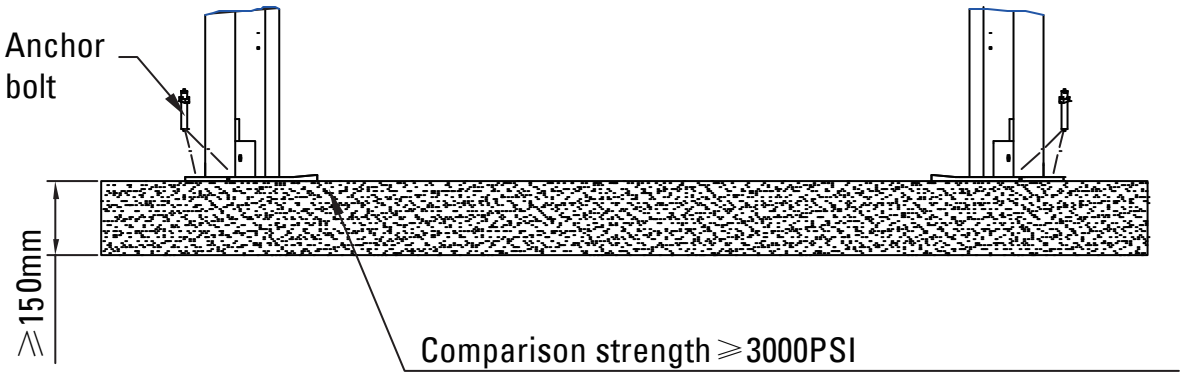
13. Concrete and Anchoring:
Drill (10) 18 dia. holes in concrete floor using holes in column base plate as a guide. See Fig. 18 for hole depth, hole spacing, and edge distance requirements.

⚠CAUTION DO NOT install on asphalt or other similar unstable surfaces. Columns are supported only by anchors in floor.

IMPORTANT Using the horse shoe shims provided, shim each column base until each column is plumb.

Recheck columns for plumb. Tighten anchor bolts to an installation torque of 150Nm. Shim thickness MUST NOT exceed 13mm when using the 180mm long anchors provided with the lift. Fig. 19.
Adjust the column extensions plumb.

If anchors do not tighten to 150Nm installation torque, replace concrete under each column base with a 1219 x 1219 x 152mm thick 3000 PSI (20684 kPa) minimum concrete pad keyed under and flush with the top of existing floor.
Let concrete cure before installing lifts and anchors.



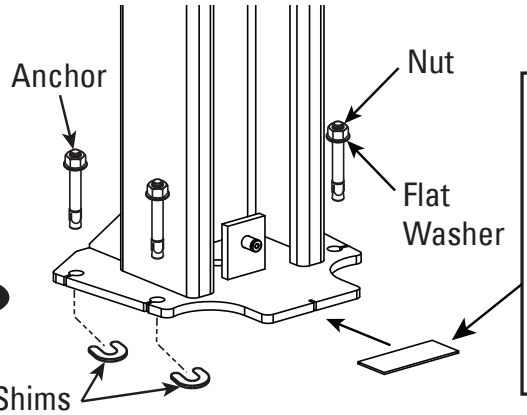
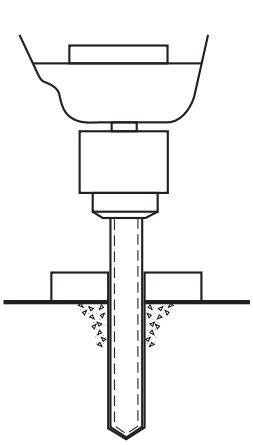


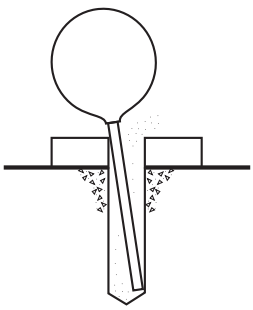
Fig. 18

NOTE: Use rectangular shims at inside edge of baseplate. Use constructions adhesive or silicon cement to hold shim in place. INSURE shims are held tightly between base plate and floor after torquing anchors.

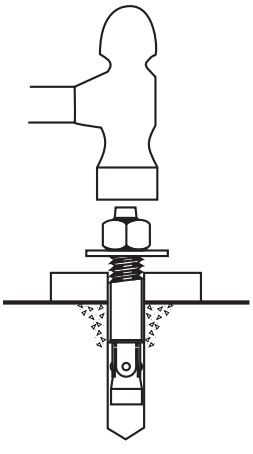
NOTE:
If more than 2 horse shoe shims are used at any of the column anchor bolts, pack non-shrink grout under the unsupported area of the column base. Insure shims are held tightly between the baseplate and floor after torquing anchors.



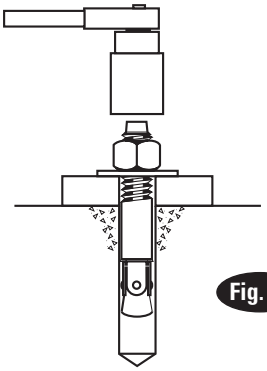
Drill holes using a 18mm drill bit.



Clean hole.



Run nut down just below impact section of bolt. Drive anchor into hole until nut and washer contact base.



Tighten nut with Torque wrench to 150Nm.

Fig. 19

14 Electrical: Have a certified electrician run appropriate power supply to motor, Size wire for 20 amp circuit. See Motor Operating Date Table.

⚠CAUTION Never operate the motor on phase voltage less than 208V. Motor damage may occur.

IMPORTANT: Use separate circuit for each power unit. Protect each circuit with time delay fuse or circuit breaker.
For three phase 380V, use 8 amp fuse.
All wiring must comply with NEC and all local electrical codes.

3 Phase: Please see the detail in the manual in the control box package.

3 Phase 380V 50Hz(With Control Box)

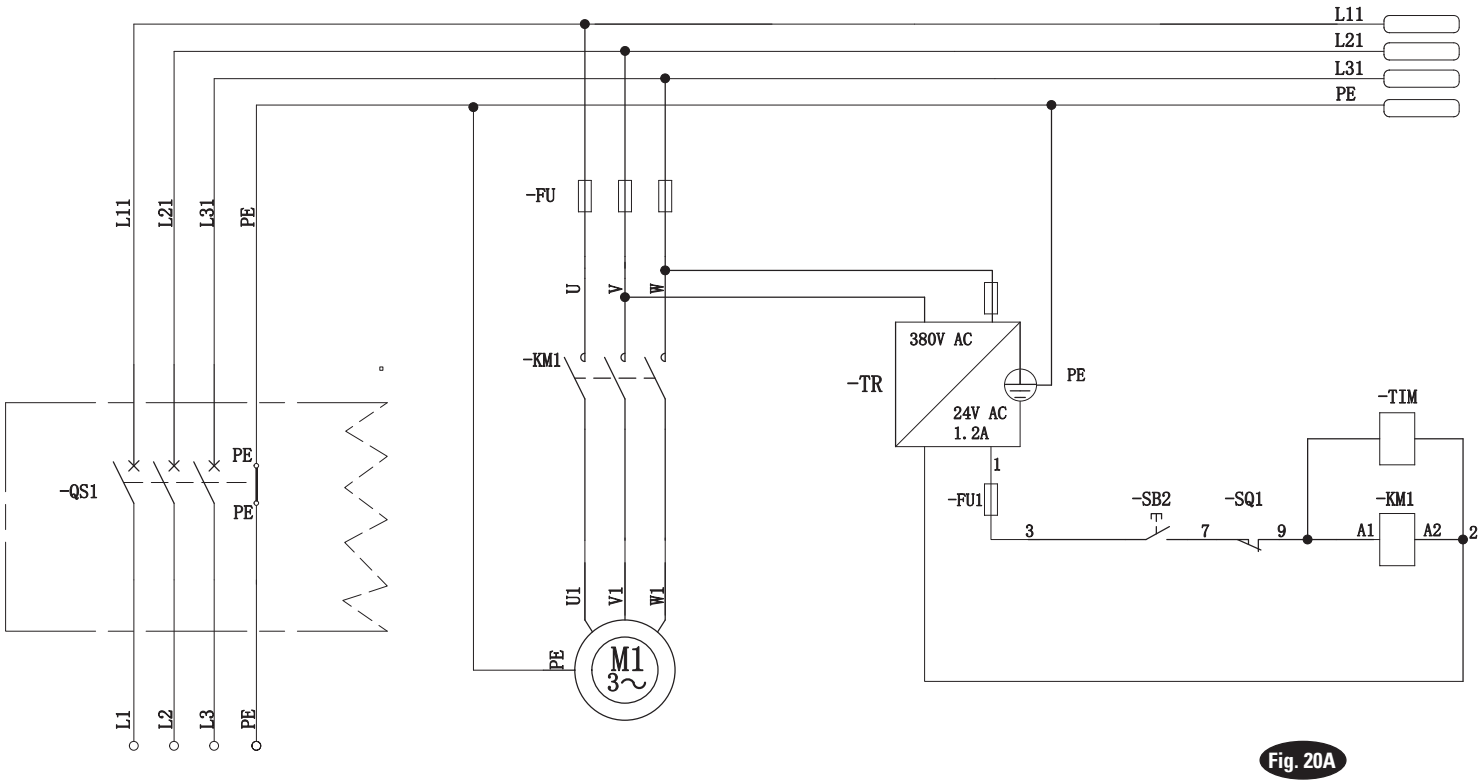
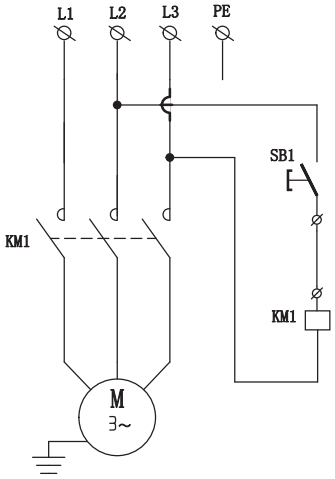


Fig. 20A

QS1 Power switch
FU Fuse
KM1 Contator
TR1 transformer
SB2 Lift button
FU1 Fuse
SQ1 Limit switch
TIM Time counter(Optional)

3 Phase 380V 50Hz(Without Control Box)



SB1---------Button on the Power Unit
KM1--------Contactor in the Power Unit

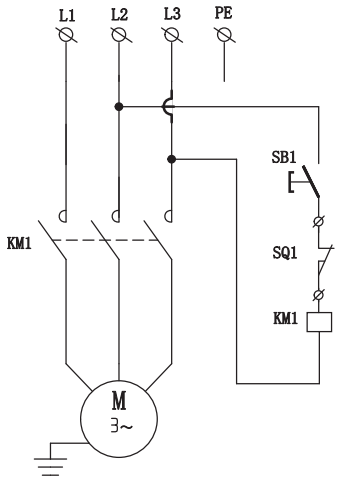


Fig. 20B

SB1---------Button on the Power Unit
SQ1---------Overhead Switch
KM1--------Contactor in the Power Unit

15. Oil Filling & Bleeding: Use Dexron III ATF, or Hydraulic Fluid that meets ISO 32 specifications. Remove fill-breather cap. Pour in (8) quarts of fluid. Start unit, raise lift about 2 ft. Open cylinder bleeders approximately 2 turns, Fig. 8.

Close bleeders when fluid streams. Torque values for the bleeders are 15 ft. lb. (20 Nm) minimum and 20 ft lb. (27 Nm) maximum. Fully lower lift. Add more fluid until it reaches the MIN_____ mark on the tank. Replace fill-breather cap.

⚠CAUTION If fill-breather cap is lost or broken, order replacement. Reservoir must be vented.

16. Overhead switch:

With control box, Check overhead switch assembly to assure that switch bar is depressing switch plunger sufficiently to actuate the switch. Theoverhead switch is wired normally open.Lift will not operate until weight of switch bar is depressing switch plunger.Verify that Power Unit stops working when switch bar is raised, and restarts when the bar is released.Fig20B. Without control box, the overhead switch is wired normally close. Verify power unit stops working when the switch bar touchs the switch, and restarts when the bar leaves the switch. Fig20A

17. Arms & Restraints: Before installing arms, raise carriages to a convenient height. Grease swivel arm pins and holes with Lithium grease. Slide arm into yoke. Install arm pin and string pin. Fig.21

18. Continue Arms & Restraint:

After installing arms and pins, install arm restraint as follows: Install arm restraint onto arm clevis, as shown, Fig. 22. Ensure side of gear marked **TOP** is facing upward, Fig. 22.

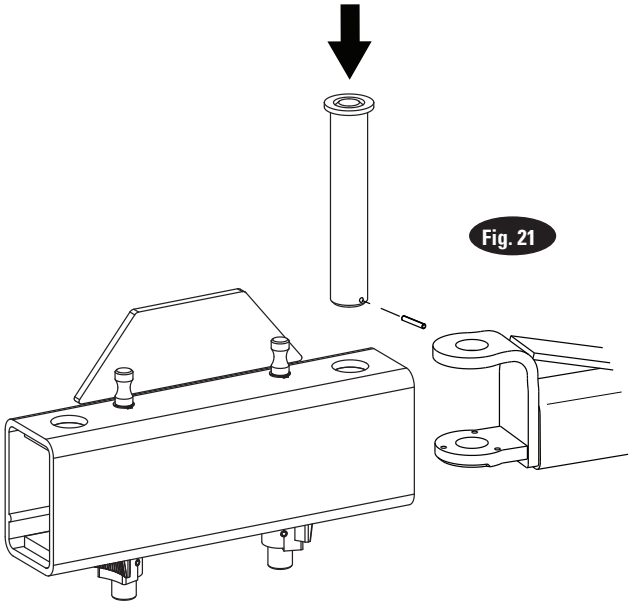
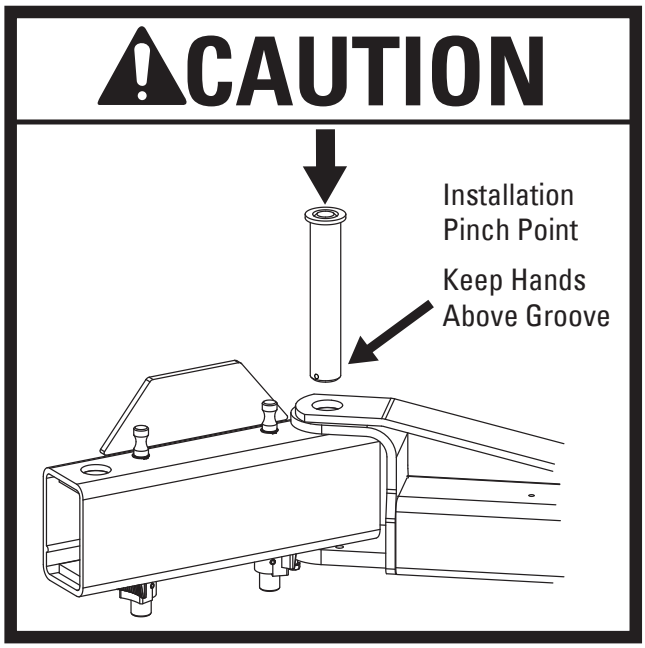


Fig. 21



NOTE: TOP is stamped on top side of gear. You may need to pull up on the pin to allow enough room to install Restraint Gear.

Torque the restraint Gear bolts to 30-34 ft.-lbs. (41-46 Nm).

NOTE: To check operation of arm restraint, raise carriage 1" (25mm) min. from full down position. Pull up on pin and adjust arms to desired position. To engage restraint, let pin-ring down allowing gear teeth to mesh together. It may be necessary to rotate arm slightly to engage gear teeth.

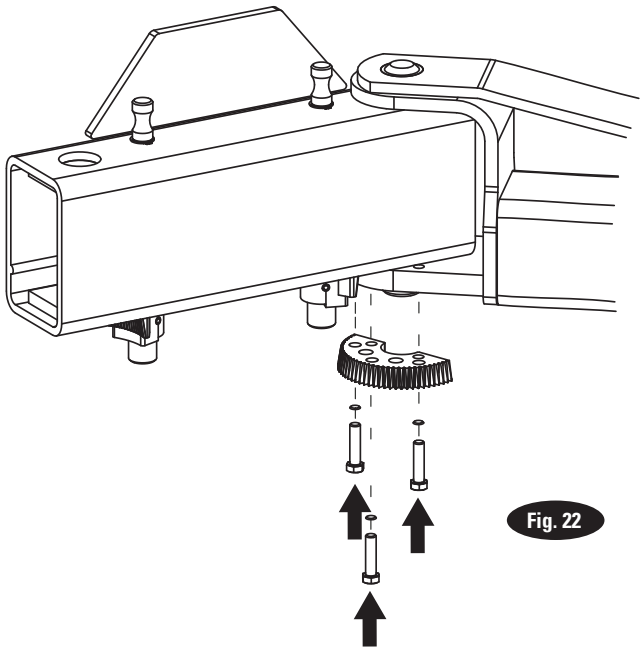


Fig. 22

19. Exterior Adapters: Install adapter bracket to outside of each column using (2) 5/16"-18NC x 3/8" PHMS. Then, add adapters to the bracket as shown, Fig. 23.

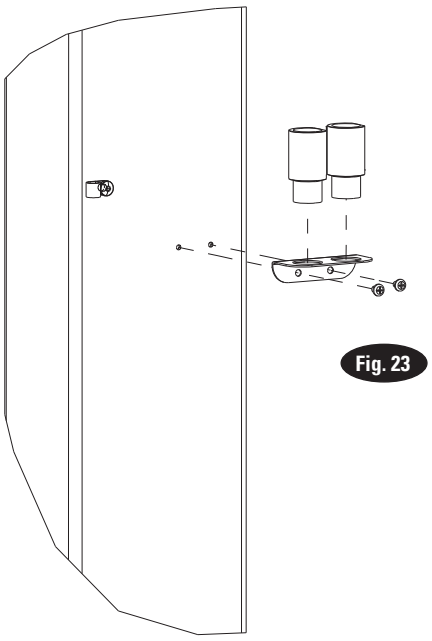


Fig. 23

20. Latch Cable Adjustment:

A) Check to make sure the latch will properly engage and disengage. Slowly release the latch handle. A 1/8" gap between the top of the latch dog and the column is allowable.

B) When raising, listen to latches to be sure that both latch dogs fall into latch slots. If they do not, loosen clamp and adjust tension as necessary.

C) Install left latch cover using 5/16-18NC x 3/8" lg PHMS.

21. Pressure Test: Run lift to full rise and keep motor running for 5 seconds. Stop and check all hose connections. Tighten or reseal if required. Repeat air bleeding of cylinders.

22. Equalizer Cable Adjustment: Raise lift to check equalizer cable tension. Below carriage, grasp adjacent cables between thumb and forefjnger, with about 15 lbs. effort you should just pull the cables together, Fig. 24. Adjust at upper tie-offs Fig. 12.

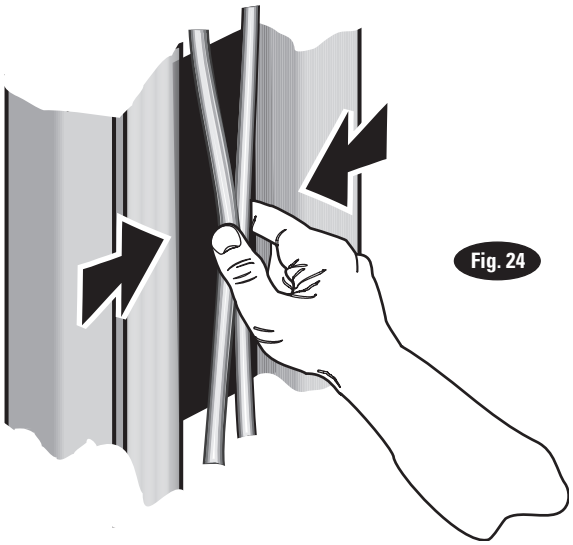


Fig. 24

23. Latch Release Decal: Install latch release decal on cover above latch release handle, Fig. 25.

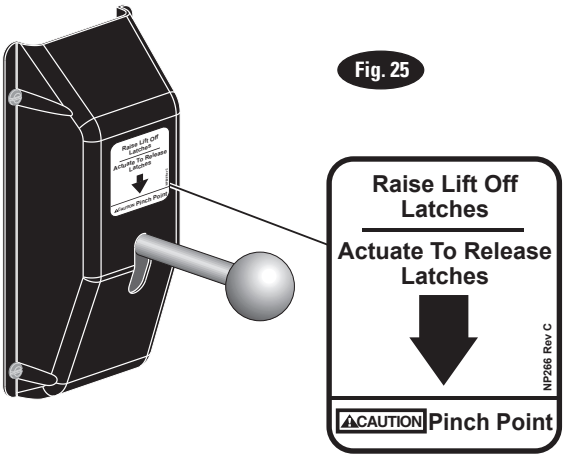
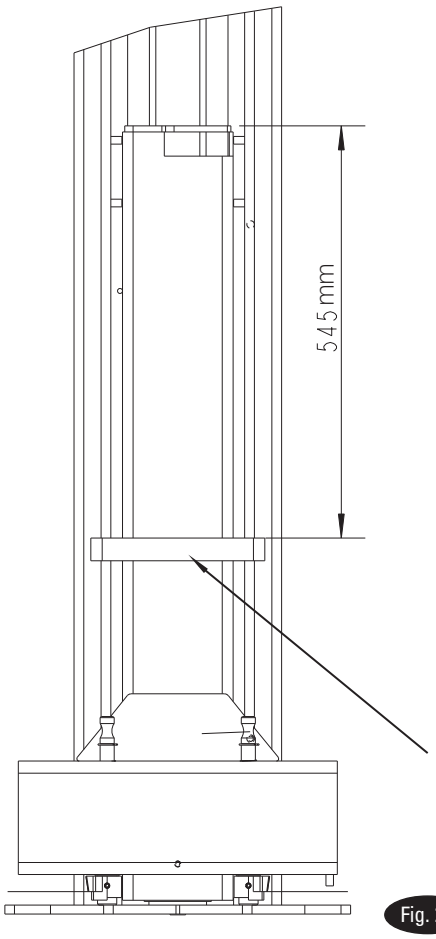
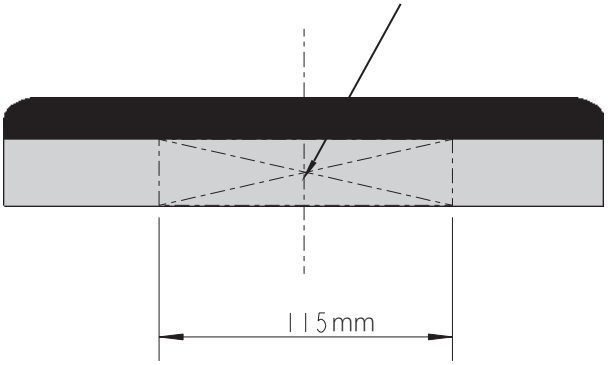


Fig. 25

24. EVA Bumper: Glue the bumper on the carriage. Fig.26



It is suggested to cut off the back adhesive film of the bumper in the middle to cover the marking area, and keep the ends intact.



The installation position of the bumper should be in accordance with the dimensions shown in the diagram, and they should be pasted centrally.
Before pasting, please clean the surface of the carriage. The area where the carriage is to be pasted should be free of oil stains and dust.

Fig. 26

IMPORTANT

Before use, please check whether lubricating grease has been pre-applied to the four corners of the column, the latch shafts and the sheave shafts. If not, please lubricate with heavy duty bearing grease.

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