Read this entire manual before operation begins.

Record below the following information which is located on the serial number data plate.

Serial No. _____
Model No. _____
Date of Installation _____

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Operations and Maintenance Manual: 2-Post Lifts

Please read this manual in its entirety before installing or operating your lift. By proceeding, you agree that you fully understand the contents of this manual and the installation, operation, and maintenance instructions contained within. Please deliver this manual to the lift owner and/or operator along with all other documentation provided with the lift. Failure to operate this equipment as intended may cause injury or death.

Check for any freight damages. The shipment should be thoroughly inspected as soon as it is received. The signed bill of lading is acknowledgement by the carrier of receipt in good condition of shipment covered by your invoice. If any of the goods called for on your bill of lading are shorted or damaged, do not accept to unload until the carrier makes a notation on the freight bill of the missing or damaged goods. Do this for your own protection. Check the contents of the accessory and hardware boxes to make sure no parts are missing.

Important notice and operating conditions

- This lift is not intended for outdoor use. It is intended for indoor installation only, with an operating temperature range of 41 – 104 °F (5 – 40 °C);
- Concrete flooring must be 4 ¼" minimum thicknesses with 3,000 psi. Do not install on asphalt or other similar unstable surface type;
- Check ceiling height and electrical requirements as described in this manual;
- Reference ANSI/ALI ALIS, Safety Requirements for Installation and Service of Automotive Lifts;
- Consult a qualified expert to address all seismic load concerns and other local or state requirements;
- Atlas Automotive Equipment and its distributors will assume no liability for loss or damage of any kind, express or implied, resulting from improper installation, operation or maintenance of this lift.

Owner, Operator, & Employer Responsibilities:

- Shall ensure that lift operators are qualified and that they are trained in the safe use and operation of the lift using the manufacturer's operating instructions; ALI/SM 93-1, ALI Lifting it Right safety manual; ALI/ST-90 ALI Safety Tips card; ANSI/ALI ALOIM-2008, American National Standard for Automotive Lifts - Safety Requirements for Operation, Inspection and Maintenance; ALI/WL Series, ALI Uniform Warning Label Decals/Placards; and in the case of frame engaging lifts, ALI/LP-GUIDE, Vehicle Lifting Points/Quick Reference Guide for Frame Engaging Lifts;
- Shall establish procedures to periodically inspect the lift in accordance with the lift manufacturer's instructions or ANSI/ALI ALOIM-2008, American National Standard for Automotive Lifts - Safety Requirements for Operation, Inspection and Maintenance; and the Employer shall ensure that the lift inspectors are qualified and that they are adequately trained in the inspection of the lift;
- Shall establish procedures to periodically maintain the lift in accordance with the lift manufacturer's instructions or ANSI/ALI ALOIM-2008, American National Standard for Automotive Lifts - Safety Requirements for Operation, Inspection and Maintenance; and the Employer shall ensure that the lift maintenance personnel are qualified and that they are adequately trained in the maintenance of the lift;
- Shall maintain the periodic inspection and maintenance records recommended by the lift manufacturer's instructions or ANSI/ALI ALOIM-2008, American National Standard for Automotive Lifts - Safety Requirements for Operation, Inspection and Maintenance;
- Shall display the lift manufacturer's operating instructions; ALI/SM 93-1, ALI Lifting it Right safety manual; ALI/ST-90 ALI Safety Tips card; ANSI/ALI ALOIM-2008, American National Standard for Automotive Lifts - Safety Requirements for Operation, Inspection and Maintenance; ALI/WL Series, ALI Uniform Warning Label Decals/Placards; and in the case of frame engaging lifts, ALI/LP- GUIDE, Vehicle Lifting Points/Quick Reference Guide for Frame Engaging Lifts in a conspicuous location in the lift area convenient to the operator;
- Shall provide necessary lockout/tagout means for energy sources per ANSI Z244.1-1982 (R1993), Safety Requirements for the Lockout/Tagout of Energy Sources, before beginning any lift repairs and maintenance;
- Shall not modify the lift without the prior written consent of the manufacturer.

Important Safety Instructions

Please read carefully

- Read all instructions and warnings thoroughly before servicing, or maintaining the lift;
- Inspect the lift daily. Never operate if there are broken or damaged parts or if the lift is malfunctioning;
- Do not operate if there are damaged cords or if any piece of the equipment has been dropped or damaged until it has been examined by a qualified professional;
- Do not touch hot parts as burns can occur;
- Keep area well lit at all times and do not use in damp or wet locations;
- Do not let any cords come in contact with hot manifolds or moving blades;
- A cord with a current rating equal to or more than that of the equipment should be used if an extension cord is necessary. Cords rated for less current than the equipment may overhead. Be careful to avoid putting in an area where it could be tripped over or interfered with;
- Always unplug equipment when not in use. Do not attempt to grab the cord, grasp plug to disconnect;
- Allow equipment to cool completely before storing away. Loop cord loosely around the equipment when storing;
- To reduce the risk of fire, never operate near open containers of flammable liquids (for example, gasoline);
- Adequate ventilation should be provided when working on or operating internal combustion engines;
- Always keep loose clothing, hair, fingers, and all parts of the body away from any moving parts;
- To reduce the risk of electric shock, never use on wet surfaces or expose to rain;
- Always wear safety glasses. Everyday glasses are not safety glasses and do not provide adequate protection;
- Use only as described in this manual – use only Atlas Automotive Equipment optional accessories and attachments;
- Never attempt to overload the lift. The rated capacity is shown on the identification label;

- Never modify the lift or attempt to override the operating controls;
- Do not attempt to raise a vehicle until installation is completed per instructions in this manual;
- Only trained and qualified personnel are to operate, maintain, service or repair the lift;
- Keep hands and feet clear of any moving parts and avoid pinch points;
- Always use all four arms to raise and support the vehicle;
- Never work under or near the lift unless the mechanical safety locks are securely engaged;
- Always keep the work area free of spills and debris;
- Never permit anyone in a vehicle or on the lift when it is either being raised or lowered;
- Always check for obstructions before lowering the lift;
- Never remove hydraulic fittings while the lift is under pressure;
- Clear the work area immediately if a vehicle is in danger of falling;
- Do not hit or drive over arms or adapters. Always provide an unobstructed entrance between columns prior to loading vehicle onto the lift;
- Always ensure that the lift is grounded while in use to protect the operator from electric shock;
- Disconnect power unit before performing any electrical repairs;
- Avoid rocking a vehicle while it is on the lift;
- Always use safety and/or support stands when removing or installing heavy vehicle components;
- Never remove or tamper with safety components;
- Use common sense and always stay alert;
- **SAVE THESE INSTRUCTIONS**

Record the following information which can be located on the serial number data plate: Serial No, Model No, and Date of Installation.

The following are included with your lift:

- ALI/SM Lifting it Right
- ALI/ALOIM
- Attachment/accessory Notice labels
- ALI/ST Safety Tips
- ALI/LPG Lifting Point Guide

Printing Characters And Symbols

Throughout this manual, the following symbols and printing characters are used to facilitate reading:

	Indicates the operations which need proper care
	Indicates prohibited
	Indicates a possibility of danger to the operators
BOLD TYPE	Important information

	WARNING: before operating the lift and carrying out any adjustments, read carefully chapter 7 “Installation” where all operations for a properly functioning lift are shown.

General Information

This chapter contains warning instructions to operate the lift properly and prevent injury to operators or objects. This manual has been written to be used by shop technicians in charge of the lift (operator) and routine maintenance technician (maintenance operator). The operating instructions are considered to be an integral part of the machine and must remain with it for its whole useful life. Read every section of this manual carefully before operating the lift and unpacking. It provides helpful information about:

- **Safety Of People**
- **Safety Of The Lift**
- **Safety Of Lifted Vehicles**

The company is not liable for possible problems, damage, accidents, installation, etc. resulting from failure to follow the instructions contained in this manual. Only skilled technicians of AUTHORIZED DEALERS or SERVICE CENTERS AUTHORIZED by the manufacturer shall be allowed to carry out lifting, transport, assembling, installation, adjustment, calibration, settings, extraordinary maintenance, repairs, overhauling and dismantling of the lift.

The manufacturer is not responsible for possible damage to people, vehicles or objects if said operations are carried out by unauthorized personnel or the lift is improperly used.

Any use of the lift by operators who are not familiar with the instructions and procedures contained herein is unauthorized.

1.1 Manual Keeping

This manual is an integral part of the lift. It shall be given to the new owner if and when the lift is resold. For the proper use of this manual, the following is recommended:

- Keep the manual near the lift, in an easily accessible place;
- Keep the manual in an area protected from the moisture;
- Use this manual properly without damaging it;
- Any use of the lift made by operators who are not familiar with the instructions and procedures contained herein is unauthorized.

1.2 Obligation In Case Of Malfunction

	In case of a lift malfunction, follow the instructions contained in the following chapters. Call Atlas @ 1-866-898-2604

1.3 Cautions For Operator Safety

Operators must not be under the influence of sedatives, drugs or alcohol when operating the lift.

	Before operating the lift, operators must be familiar with the position and function of all controls, as well as the machine features shown in the chapter “Operation and use”

1.4 Warnings

	Unauthorized changes and / or modifications to the lift relieve the manufacturer of liability for possible damages to objects or people. Do not remove or make inoperative the safety devices, this would cause a violation of safety at work laws and regulations.

	Any unauthorized use which differs from that provided for by the manufacturer of the machine is strictly prohibited.

	The use of non genuine parts may cause damage to people or objects

1.5 Scrapping

When the lift's working life is over and it can no longer be used, it must be made inoperative by removing any connection to power sources. These units are considered as special waste material, and should be broken down into uniform parts and disposed of in compliance with current laws and regulations. If the packing are not biodegradable, deliver them to appropriate handling station.

Declaration Of Warranty And Limitation Of Liability

The manufacturer has paid proper attention to the preparation of this manual. However, nothing contained herein modifies or alters, in any way, the terms and conditions of manufacturer agreement by which this lift was acquired, nor increase, in any way, manufacturer's liability to the customer.

To The Reader

Every effort has been made to ensure that the information contained in this manual is correct, complete and up-to date. The manufacturer is not liable for any mistakes made when drawing up this manual and reserves the right to make any changes due to the development of the product at any time.

Product Identification

The identification data of the lift is shown in the serial plate placed on the power side column.

LOGO	
Type:	_____
Model:	_____
Serial Number:	_____
Year of manufacturing:	_____
Capacity:	_____
Voltage:	_____
Power:	_____

	Use the above data both to order spare parts and when getting in touch with the manufacturer (inquiry). The removal of this label is strictly prohibited.

Machines may be updated or slightly modified from an aesthetic point of view and, as a consequence, they may present different features from these shown, without contradicting what has been described herein.

2.1 Warranty Certificate

The warranty is valid for a period of 2 years on structural components, 2 years on hydraulic components and 90 days on wear parts starting from the date of purchase. This warranty does not include labor or shipping. The warranty consists of parts only.

The warranty will come immediately to an end when unauthorized modifications, faulty assembly and improper use to the lift or parts of it are carried out.

The presence of defects in workmanship must be verified by the Manufacturer's personnel in charge.

2.2 Technical servicing

For all servicing and maintenance operations not specified or shown in these instructions, contact your dealer where the lift has been purchased or the Manufacturer's Commercial Department.

Packing, Transport, Storage

Only skilled personnel who are familiar with the lift and this manual shall be allowed to carry out packing, lifting, handling, transport and unpacking operations.

3.1 Packing

The packing of the lift is shown in the figure 1: N. 1 base unit packed in a steel frame, wrapped up in non-scratch material, including the accessory box, and the power unit.

The package weight is about ***1750 lbs***.

If requested, optional accessories are available to satisfy each customer's requirements.

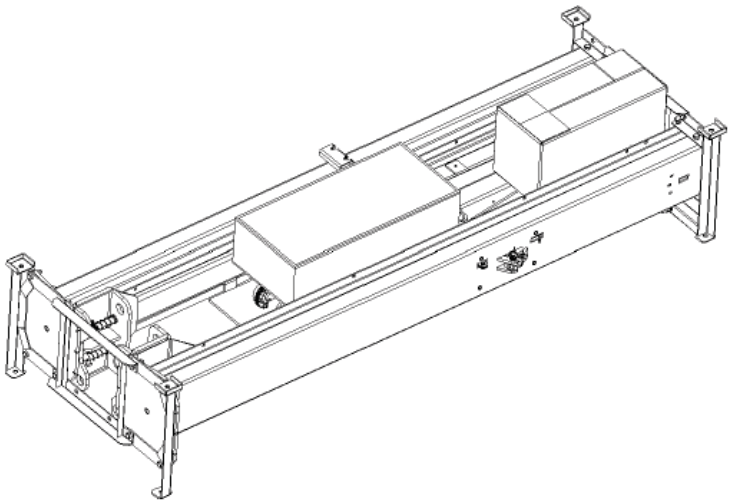


Figure 1

3.2 Lifting and handling

When loading/unloading or transporting the lift to the site, be sure to use suitable loading (e.g. cranes, trucks) and hoisting methods. Be sure to hoist and transport the components securely so that they do not drop, taking into consideration the package's size, weight and center of gravity and it's fragile parts.

3.3 Storage and stacking of packages

Packages must be stored in a covered place, out of direct sunlight and in low humidity, at a temperature between +14°F and +104°F.

3.4 Delivery and check of packages

When the lift is delivered, check for possible damages due to transport and storage; verify that what is specified in the manufacturer's confirmation of order is included. In case of damage in transit, the customer must immediately inform the carrier of the problem.

Packages must be opened paying attention not to cause damage to people (keep a safe distance when opening straps) and parts of the lift (be careful the objects do not drop from the package when opening).

Lift Description

The lift is suitable for lifting motor vehicles having maximum weight as described in the nameplate on the power side column of the lift. Providing that the vehicle's weight is ***EVENLY*** distributed.

All mechanical parts such as columns, carriages and lift arms have been built of steel plate to make the frame stiff and strong while keeping a low weight.

The electro hydraulic operation is described in detail in chapter 8.

This chapter describes the lift's principal elements, allowing the user to be familiar with the lift.

As shown in figure 2, the lift is composed of two columns: power-side column (1) and off-side column (2) with the extension (3) on each, each equipped with a carriage (4) and a pair of lifting arms (5) with the adaptor (6) anchored to the ground by means of the base plates.

The overhead beam (7) is equipped with the anti-crush safety bar and an overhead cut-off switch for protection of the vehicle roof.

Raising motion is carried out by pushing the lifting button on the power unit (8), which delivers the hydraulic fluid to cylinders inside the columns.

The mechanical safety release is carried out by pushing the safety release lever (9) on the power-side column.

Lowering motion is controlled by pushing the lowering lever on the power unit and carried out under the weight of the load lifted.

The synchronization is controlled by the equalizer cables.

The arm safety is engaged automatically when the lift is raised.

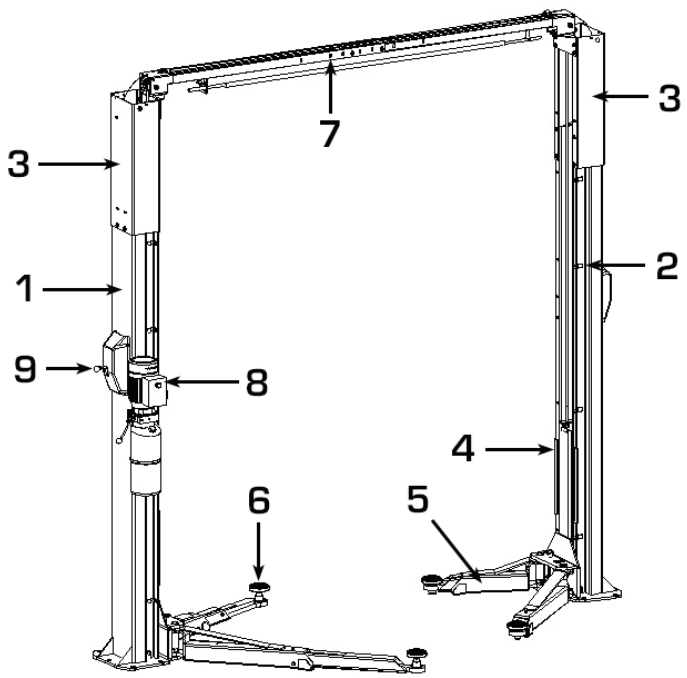


Figure 2

Technical Specification

5.1 Size And Main Features

CAPACITY	10,000lbs (4600kg)
Max. stroke	70 5/8in
Max. lifting height (with no pad extension)	76 in
Min. height	3 1/2in
Overall height (with max. stroke of cylinder)	142 1/2in
Overall width	137 7/8in
Lifting time	52-58 S
Noise level	75 dB(A)/1m
Working temperature	14 °F - 104 °F
Average weight of package	1750lbs

5.2 Electric motor

Type	ML90L2
Voltage	220V/60Hz/1Ph
Power	1.5 KW
N° Poles	2
Speed	1700 rpm
Motor enclosure type	B14
Insulation class	IP 54

Motor connection must be carried out referring to the attached wiring diagrams (figure 6). The motor direction of rotation is shown on the label attached to the motor. Before using the lift, verify if the motor specification shown in the nameplate of the motor conforms to the local electric supply. If there is over 10% fluctuation on the electrical power supply, it is suggested to use the voltage stabilizer to protect the electrical components and system from overloading.

5.3 Pump

Type	Gear
Flow rate	42.ml/r
Continuous working pressure	2250psi
Peak pressure	2700psi

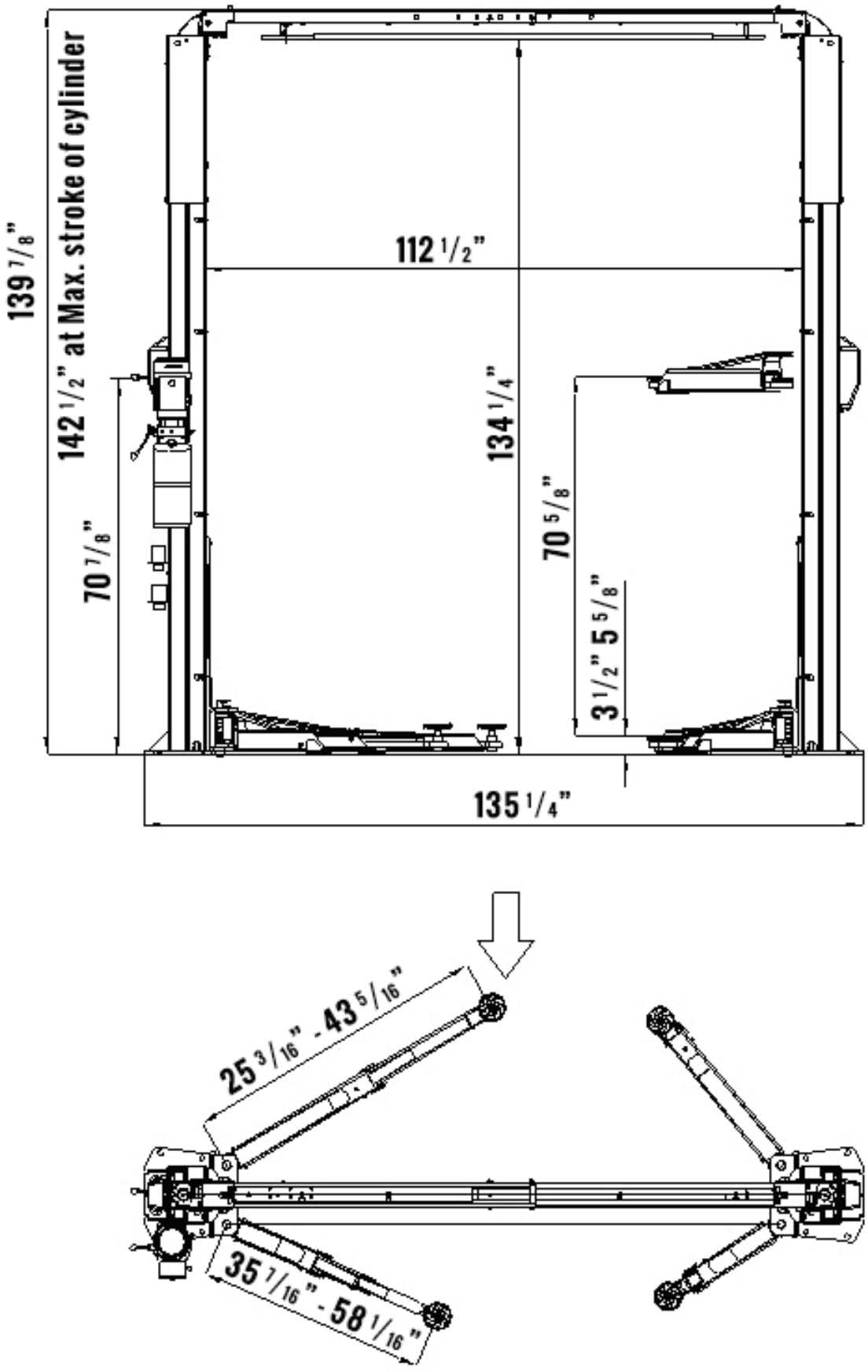


Figure 3a – Standard Version

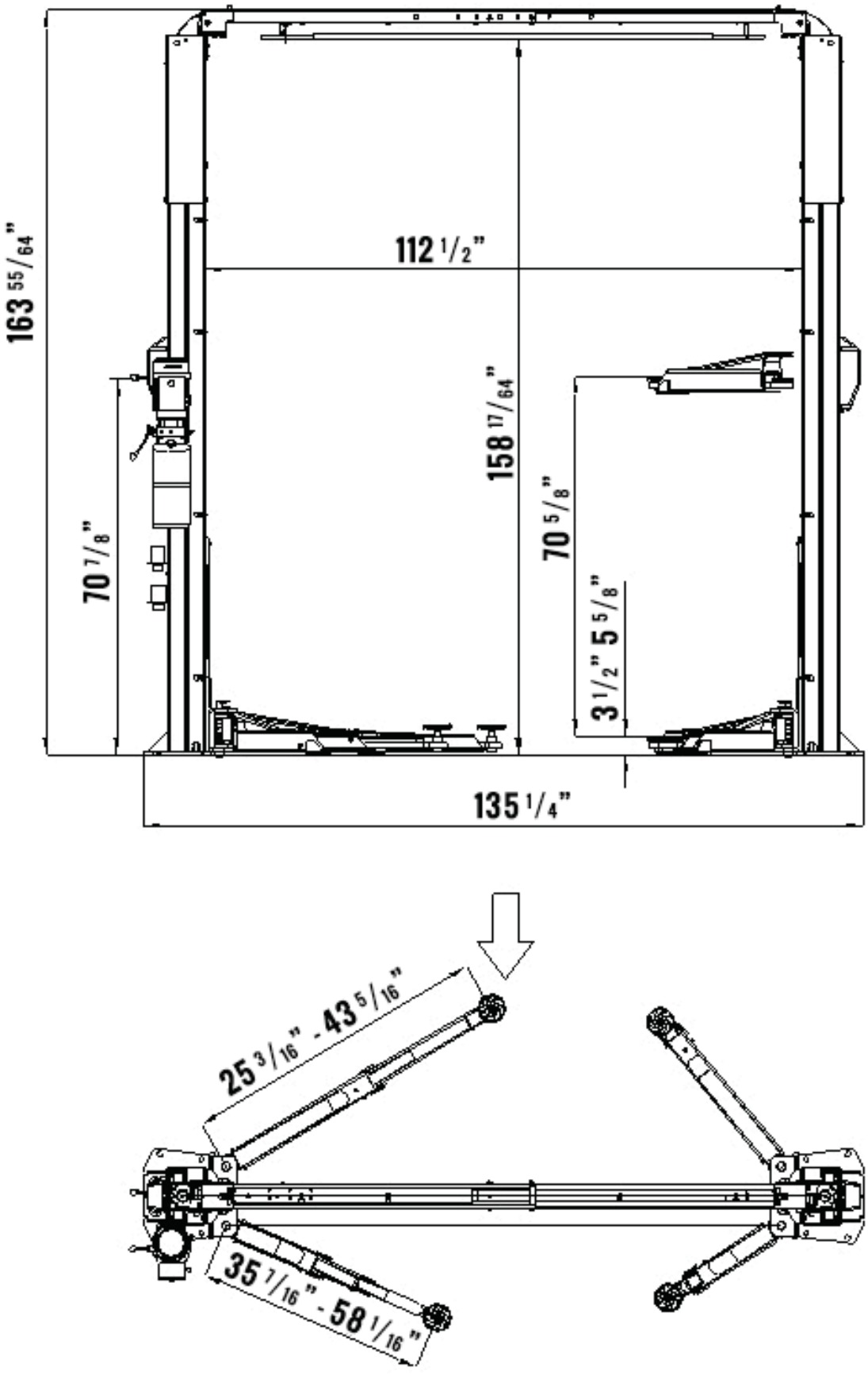


Figure 3b – Taller Version

5.4 Hydraulic Power Unit

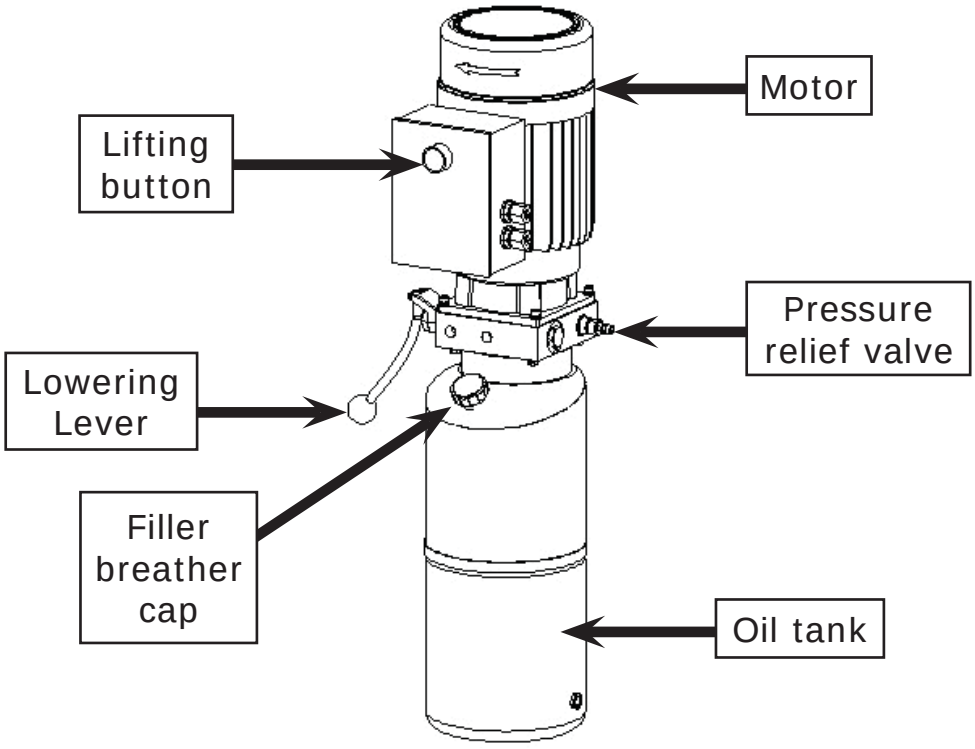


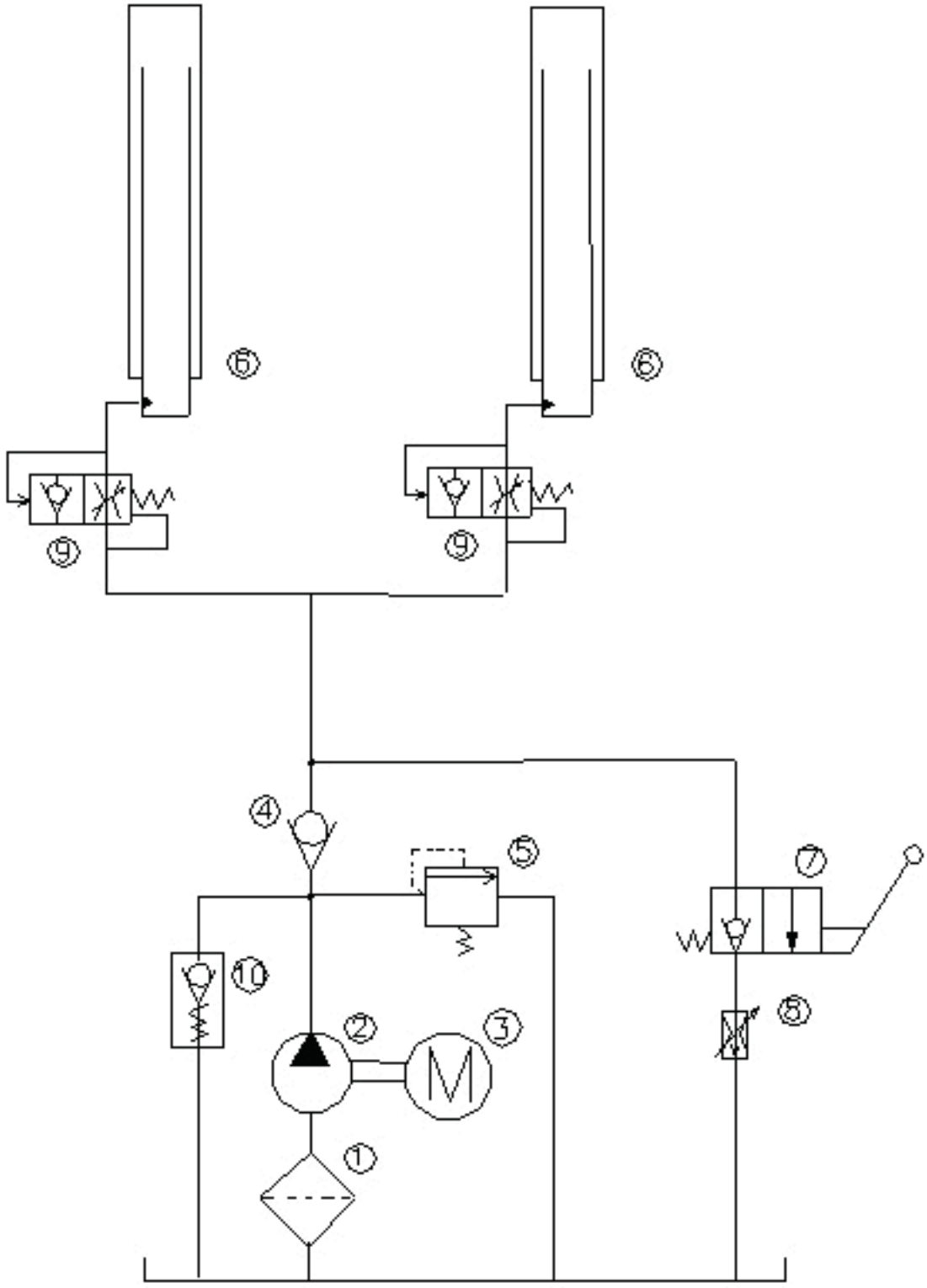
Figure 4

5.5 Oil

Use wear proof oil for hydraulic drive, in conformity with *ISO 6743/4* rules (HM class). The oil with features similar to those shown in the table is recommended.

Test standards	Features	Value
ASTM D 1298	Density 20°C	0.8 kg/l
ASTM D 445	Viscosity 40°C	32 cSt
ASTM D 445	Viscosity 100°C	5.43 cSt
ASTM D 2270	Viscosity index	104 N°
ASTM D 97	Pour point	~ 30 °C
ASTM D 92	Flash point	215 °C
ASTM D 644	Neutralization number	0.5 mg KOH/g

Change Hydraulic Oil At 1 Year Intervals



1	Oil filter	6	Hydraulic cylinder
2	Gear pump	7	Manual lowering valve
3	Motor	8	Flow restrictor
4	Non return valve	9	Parachute valve
5	Pressure relief valve	10	Startup valve

Figure 5 - Hydraulic Plan

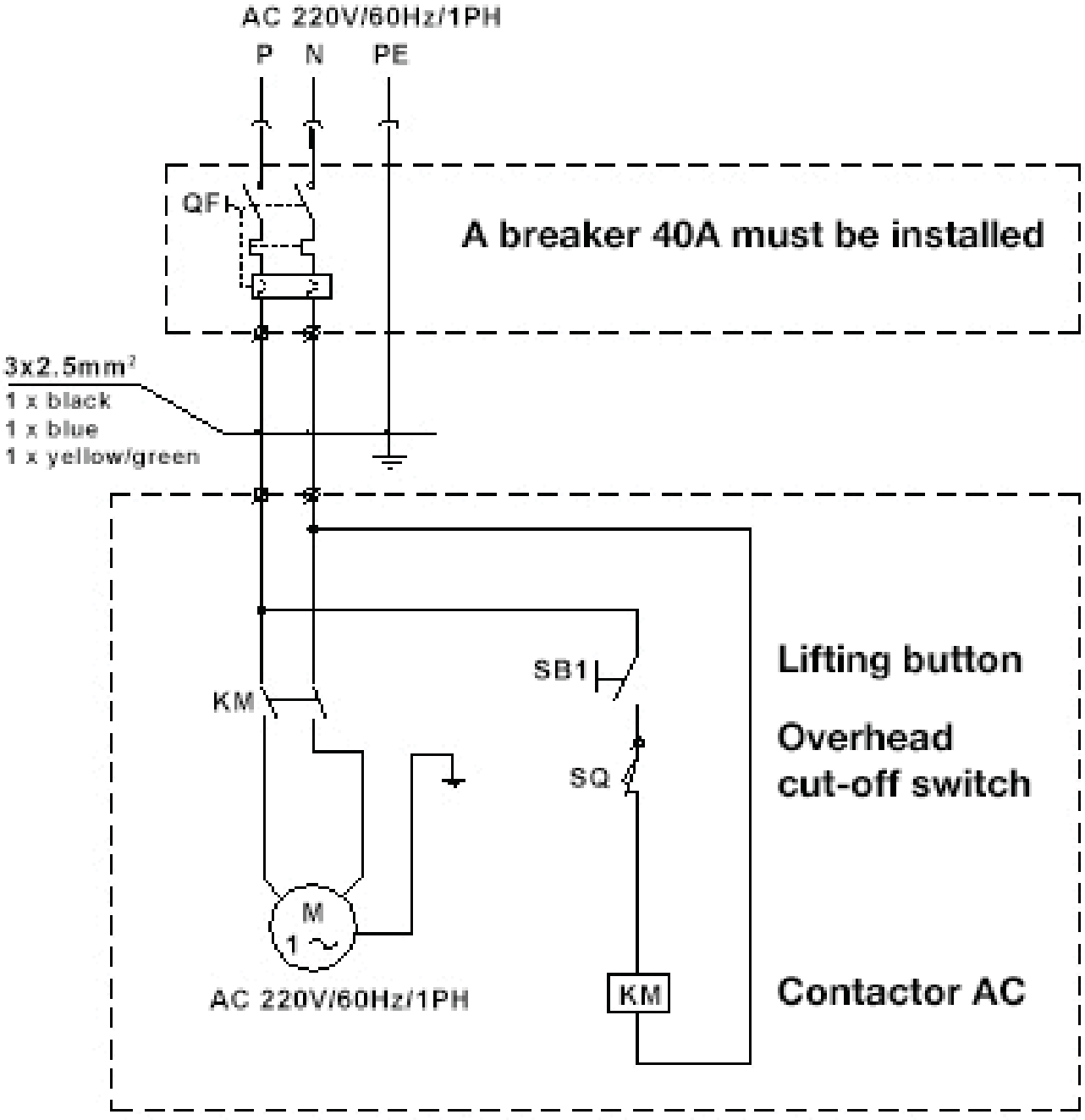


Figure 6 – Electrical Diagram (220V/60Hz/1PH)

Safety

Read this chapter carefully and completely because it contains important information for the safety of the operator and the person in charge of maintenance.

⊗	**The lift has been designed and built for lifting vehicles and making them stand above level in a closed area. Any other use is prohibited.** **The manufacturer is not liable for possible damages to people, vehicles or objects resulting from an improper or unauthorized use of the lift.**

For operator and personnel safety, a square space for a safety area at least 3ft free away from the lift must be vacated during lifting and lowering. The lift must be operated only from the operator's control site in this safety area.

⊗	**Never use the lift when safety devices are not locked. People; the lift and the vehicles lifted can be seriously injured or damaged if the following instructions are not followed.**

Operator's presence under the vehicle, during working, is only admitted when the vehicle is lifted and the safety lock is engaged.

6.1 General Warnings

The operator and the person in charge of maintenance must follow OSHA requirements.

They also must carry out the following:

- Neither remove nor disconnect hydraulic, electric or other safety devices;
- Carefully follow the safety indications applied on the machine and included in the manual;
- Observe the safety area during lifting;
- Be sure the motor of the vehicle is off, the gear engaged and the parking brake put on;
- Be sure only authorized vehicles are lifted without exceeding the maximum lifting capacity;
- Verify that no one is on the arms during lifting or standing.

6.2 Safety Device

To avoid overloading and possible breakage, the following safety devices have been used:

- A pressure overload valve built inside the hydraulic power unit to prevent excessive weight;

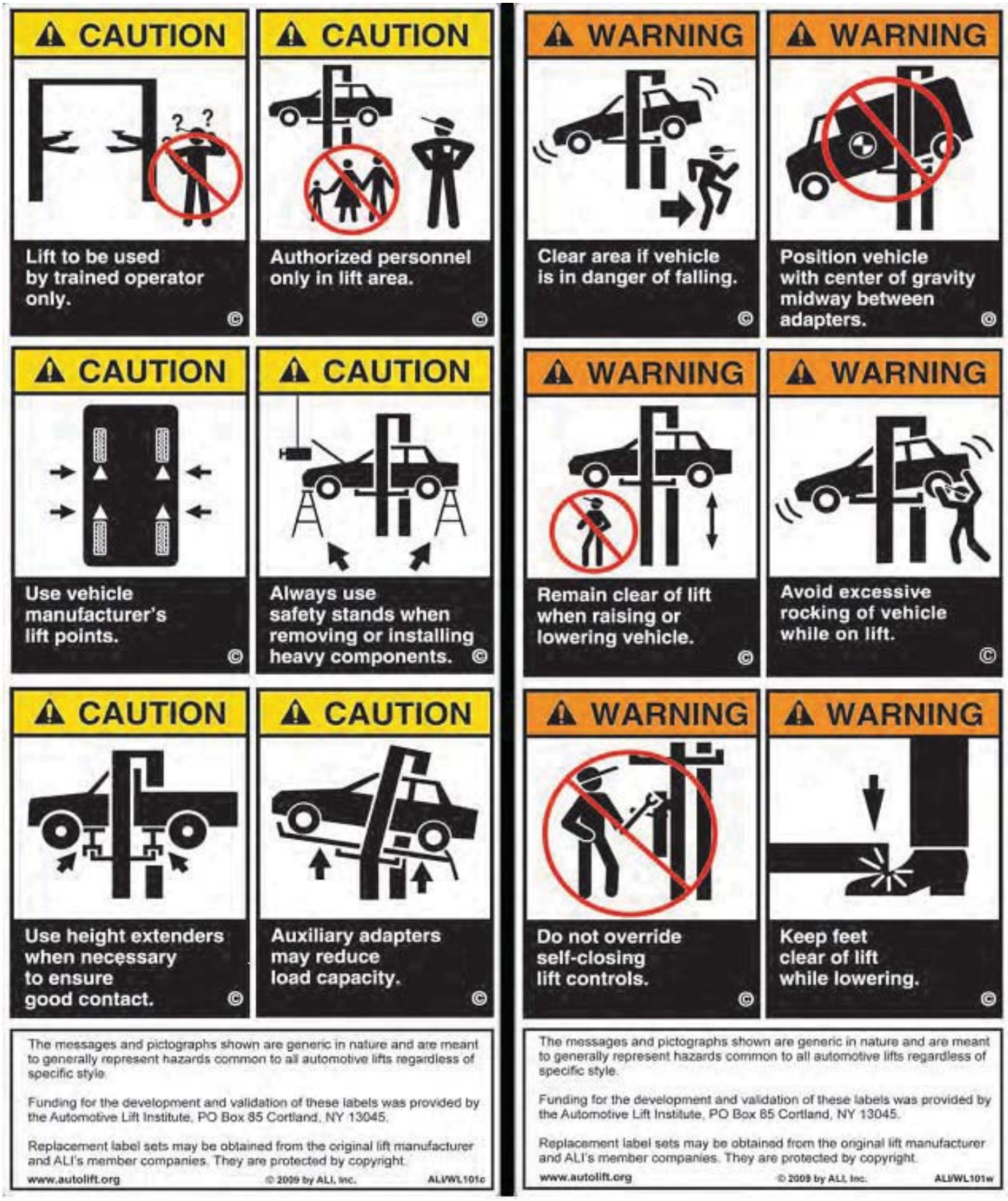
	The pressure overload valve has been preset by the manufacturer. DO NOT try to adjust it to overrun the rated lifting capacity.

- Mechanical safeties built in each carriage with automatic engagement for lifting safety.

	It is strictly prohibited to modify any safety device. Always check the safety device for proper operation during the use of the lift.

6.3 Safety Signs

All safety warning signs displayed on the lift are with the purpose to draw the operator's attention to dangerous or unsafe situations. The labels must be kept clean and they have to be replaced if detached or damaged. Read the meaning of the labels carefully and memorize it.


⚠ CAUTION
Lift to be used by trained operator only. ©
⚠ CAUTION
Authorized personnel only in lift area. ©
⚠ WARNING
Clear area if vehicle is in danger of falling. ©
⚠ WARNING
Position vehicle with center of gravity midway between adapters. ©
⚠ CAUTION
Use vehicle manufacturer's lift points. ©
⚠ CAUTION
Always use safety stands when removing or installing heavy components. ©
⚠ WARNING
Remain clear of lift when raising or lowering vehicle. ©
⚠ WARNING
Avoid excessive rocking of vehicle while on lift. ©
⚠ CAUTION
Use height extenders when necessary to ensure good contact. ©
⚠ CAUTION
Auxiliary adapters may reduce load capacity. ©
⚠ WARNING
Do not override self-closing lift controls. ©
⚠ WARNING
Keep feet clear of lift while lowering. ©
The messages and pictographs shown are generic in nature and are meant to generally represent hazards common to all automotive lifts regardless of specific style.
Funding for the development and validation of these labels was provided by the Automotive Lift Institute, PO Box 85 Cortland, NY 13045.
Replacement label sets may be obtained from the original lift manufacturer and ALI's member companies. They are protected by copyright.
www.autolift.org
© 2009 by ALI, Inc.
ALI/WL101c
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www.autolift.org
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ALI/WL101w

NOTICE

Read operating and safety manuals before using lift.

©

NOTICE

Proper maintenance and inspection is necessary for safe operation.

©

NOTICE

Do not operate a damaged lift.

©

The messages and pictographs shown are generic in nature and are meant to generally represent hazards common to all automotive lifts regardless of specific style.

Funding for the development and validation of these labels was provided by the Automotive Lift Institute, PO Box 85 Cortland, NY 13045.

Replacement label sets may be obtained from the original lift manufacturer and ALI's member companies. They are protected by copyright.

www.autolift.org

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Installation

	Only skilled technicians, appointed by the manufacturer, or by authorized dealers, must be allowed to carry out installation. Serious damage to people and to the lift can be caused if installations are made by unskilled personnel. **Always refer to the exploded views attached during installation.**

7.1 Tool Required

Rotary Hammer Drill (3/4in)	Hex-Key/Allen Wrench Set
Masonry Bit (3/4in)	Crow Bar For Shim Installation
Hammer	Chalk Line
3ft to 4ft Level	Medium Phillips Screwdriver
Open-End Wrench Set	Medium Flat Screwdriver
Medium Crescent Wrench	Tape Measure

7.2 Checking For Room Suitability

The lift has been designed to be used in covered and sheltered places free of overhead obstructions.

The place of installation must not be next to washing areas, painting workbenches, solvent or varnish deposits. The installation near to rooms, where a dangerous situation of explosion can occur, is strictly prohibited. The relevant standards of the local Health and Safety at Work regulations, for instance, with respect to minimum distance to wall or other equipment, escapes and the like, must be observed.

7.3 Lighting

Lighting must be carried out according to the effective regulations in the place of installation. All areas next to the lift must be adequately lit.

7.4 Floor Requirement

The lift MUST be installed on 3000 PSI concrete with the minimum thickness of 4 inches (*please reference anchor bolt manufacturer website*) and a concrete extension of at least 1.5m from anchoring points. New concrete must be adequately cured by at least 20 days minimum.

	Specifications of concrete must be adhered to. Failure to do so could cause lift failure resulting in personal injury or death.

	A level floor is suggested for proper installation. Small differences in floor slope may be compensated by proper shimming. Any major slope change will affect the level lifting performance. If a floor is of questionable slope, consider pouring a new concrete slab.

7.5 Site Layout

- Now locate the lift according to the floor plan in figure 8, use a carpenters chalk line to layout a grid for the column locations;
- After the column locations are properly marked, use a chalk or crayon to make an outline of the columns on the floor at each location using the column base plates as a template;
- Double check all dimensions and make sure that the bases of each column are square and aligned with the chalk line.

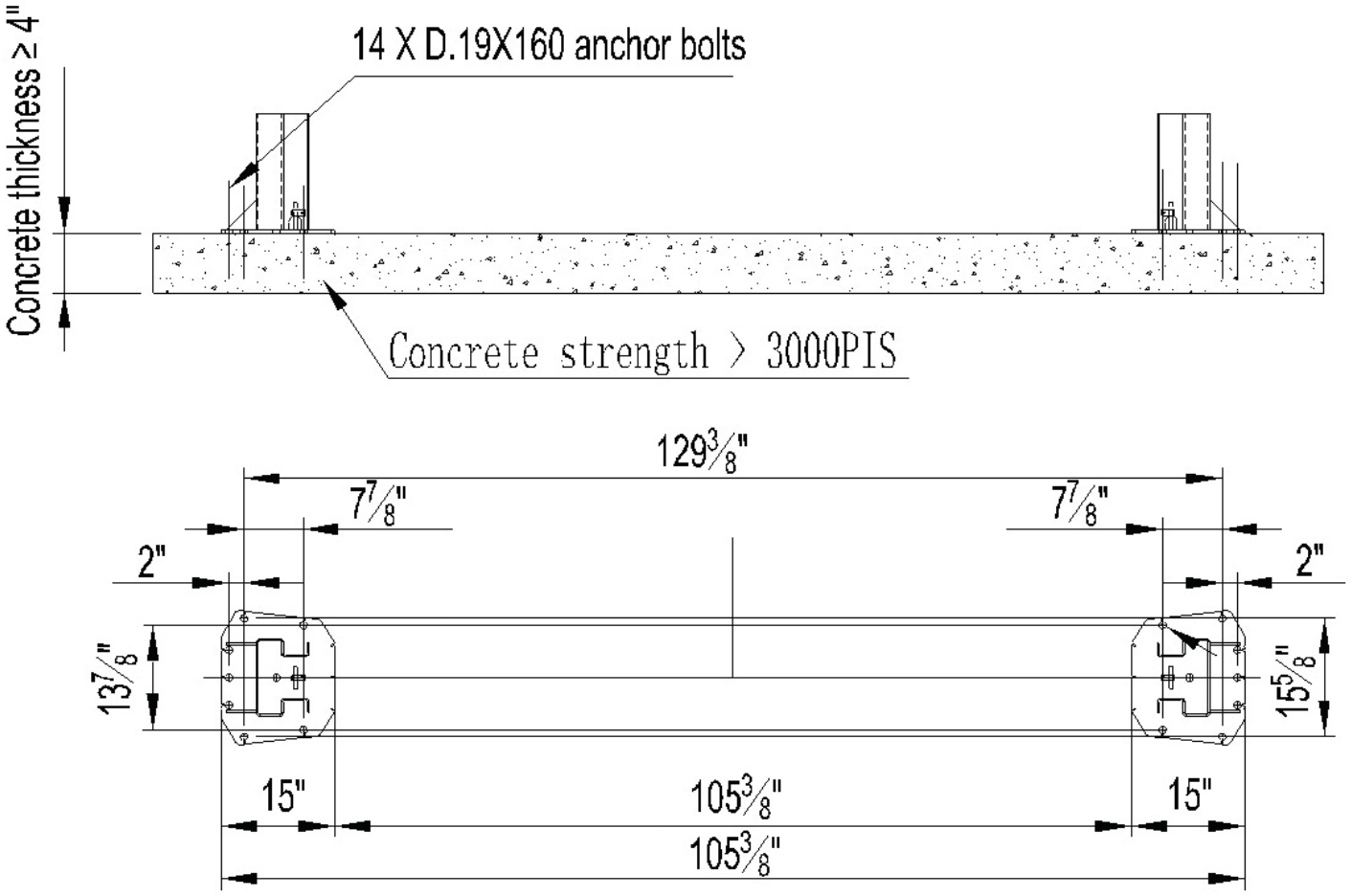


Figure 8a – Floor Plan

7.6 Installation Of Column Extension (Ref. Fig. 9)

- Remove the column extension from the package. Make sure to be careful to avoid damaging the paint;
- Align the holes between the column and the extension with carriage bolts M10X20 and flange nuts M10;
- Tighten the bolts and nuts thoroughly.

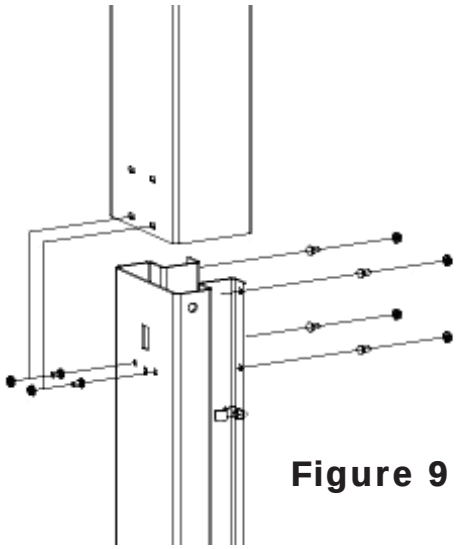


Figure 9

7.7 Anchoring Columns

- Use the base plate on the column as a guide and drill each hole in the concrete with the rotary hammer drill 3/4in bit. *Please refer to the anchor bolt manufacture website for recommended values.* To assure full holding power, do not ream the hole or allow drill to wobble;
- After drilling, remove dust thoroughly from each hole using compressed air and/or wire brush. Make certain that the column remains aligned with the chalk line during this process;
- Assemble the washers and nuts on the anchors then tap into each hole with a hammer until the washer rests against the base plate. Be sure that if shimming is required that enough threads are left exposed;
- If shimming is required, insert the shims as necessary under the base plate so that when the anchor bolts are tightened, the columns will be plumb;

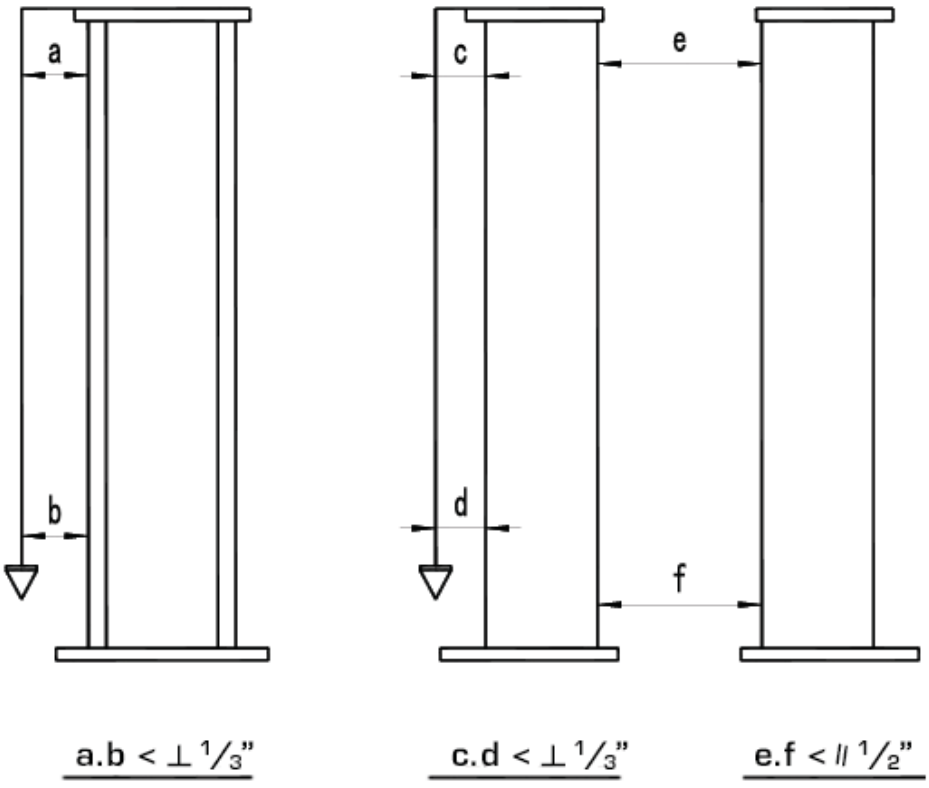


Figure 10

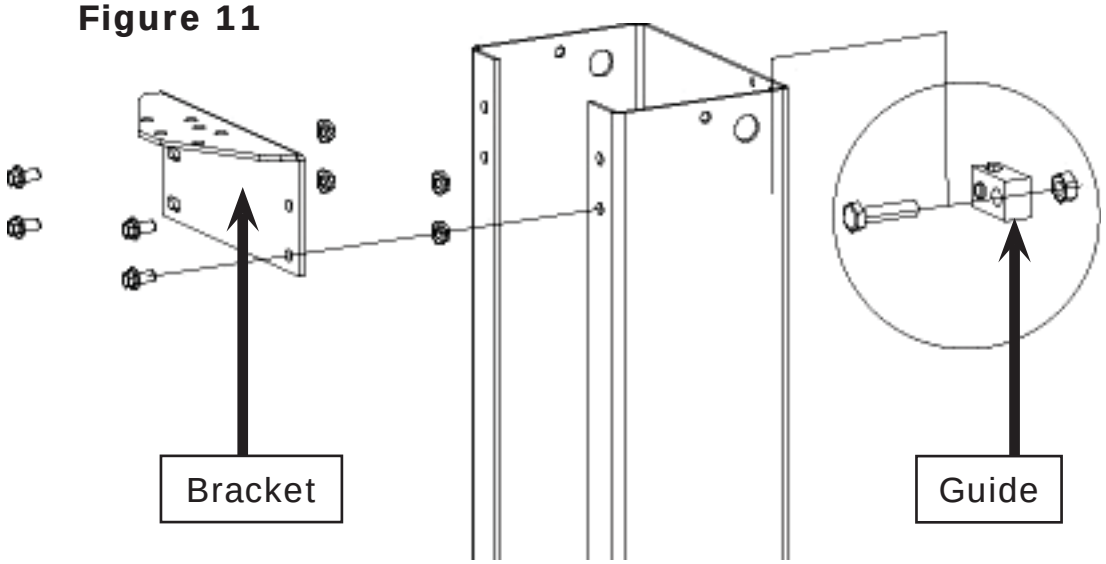
- With the shims and anchor bolts in place, tighten by securing the nut to the base. DO NOT use an impact wrench for this procedure;
- Anchor another column as outlined in above steps;
- Make sure the columns are square and plumb as shown in the figure 10.

⚠	**The requirements for column's square and plumb must be adhered to. Failure to do so could cause lift failure resulting in personal injury or death.**

7.8 Installation Of Mounting Bracket On The Overhead Beam

- Install the mounting brackets to the column extensions using the flange bolts M10X20 and the flange nuts M10 supplied (ref. fig. 11);
- Tighten the bolts and nuts thoroughly;
- Install the safety release wire guides using the bolts M6X25 and the hex nuts M6 (ref. fig. 11).

Figure 11



7.9 Installation Of The Overhead Beam

- Assemble the left and the right overhead beams using the using the flange bolts M10X20 and the flange nuts M10 supplied (ref. fig. 12). Do not tighten the bolts and nuts at this moment;

Figure 12

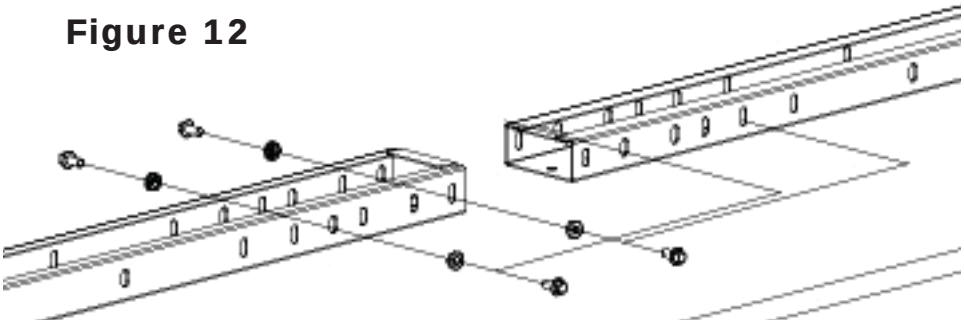


Figure 13

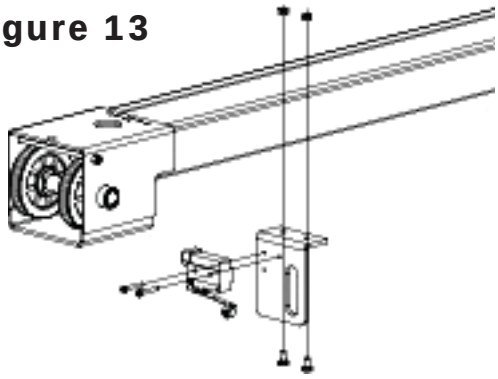
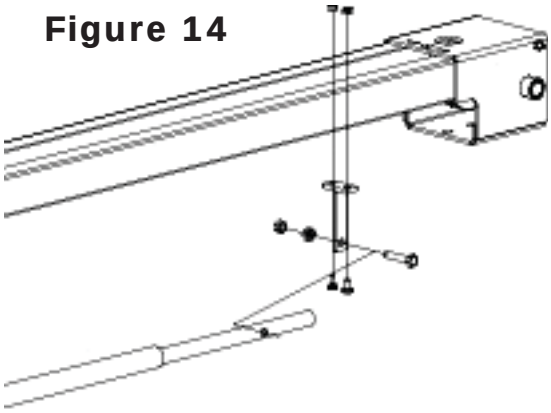


Figure 14



- Install the left safety bar bracket on the left overhead beam using the cross recess head screw M6X12 and the hex nuts M6 (ref. fig. 13). Make sure to position the bracket adjacent the power-side column;
- Install the overhead switch on the switch bracket using the bolt M8X55 and two nuts M8;
- Install the right safety bar bracket on the right overhead beam using the cross recess head screw M6X12 and the hex nuts M6 (ref. fig. 14);
- Place one end of anti-crush safety bar on the right bracket and fix it to the right bracket using the bolt M8X40 and the hex nuts M8 (ref. fig. 14), and place another end of anti-crush bar onto the overhead switch through the left safety bar bracket;
- Use a lifting device to raise the assembled beam on the mounting brackets;
- Adjust the beam to appropriate dimensions. Tighten the flange bolts M10X20 and the flange nuts M10 after adjustments (ref. fig. 15);
- Install the safety release wire guides using the bolts M6X25 and the hex nuts M6 (ref. fig. 15).

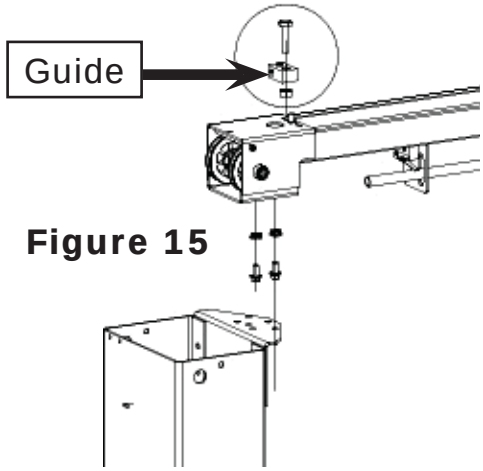


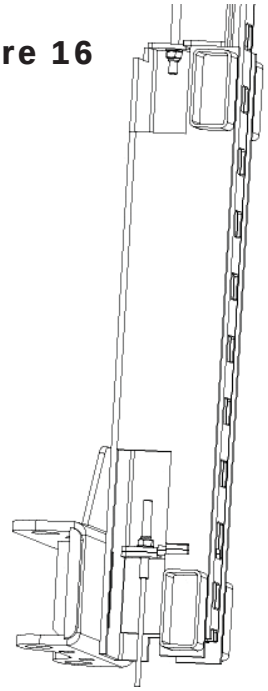
Figure 15

7.10 Routing The Equalizer Cables

	The equalizer cables should be checked weekly for equal tension. Failure to do this will cause uneven lifting. The cables should always be adjusted so that they are equal tension when resting on the safety locks.

- Use appropriate lifting equipment to raise the carriage to the first latch position. Be sure the carriage is engaged securely before attempting to route the equalizer cables. Carriages must be equal height from the floor before proceeding;
- With the carriages in equal height, fit the cable end-ups through the small holes of the carriages (ref. fig. 16);
- Route the equalizer cables referring to the diagram (fig. 17). Make sure the cables are on the pulleys. Make sure the cables are routed properly;
- After the equalizer cables have been routed, adjust the nuts M14 to make each cable in equal tension;
- Install the pulley cover (ref. fig. 18) using a cross recess head screw M6X10 on each column.

Figure 16



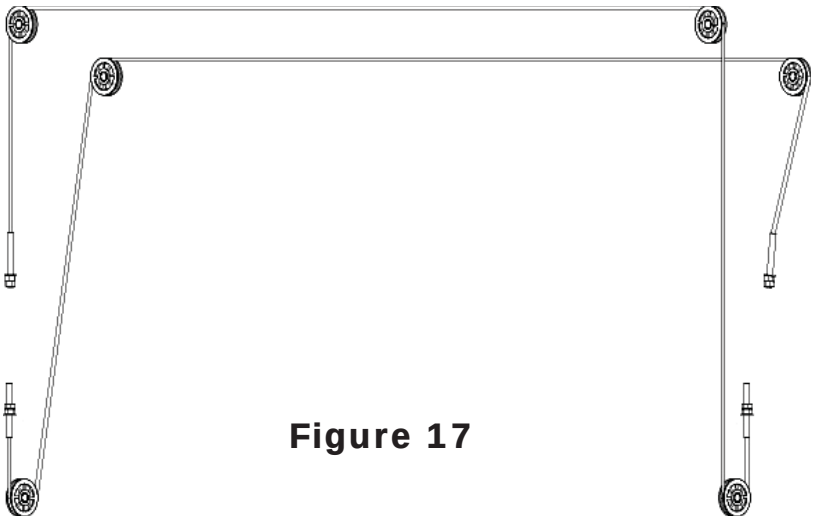
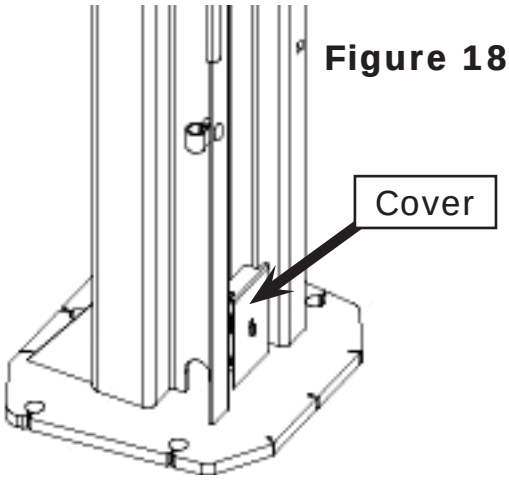


Figure 17

Figure 18



7.11 Routing The Safety Release Cable

- Install the cable pulley and the retaining rings in upper slot of the ***power-side column*** (ref. fig. 19);
- Slip the loop end of the cable over the shoulder bolt (ref. fig, 19);
- Feed another end of the cable through the upper slot and make sure cable is routed under the bottom of the pulley and inside the column (ref. fig, 19);

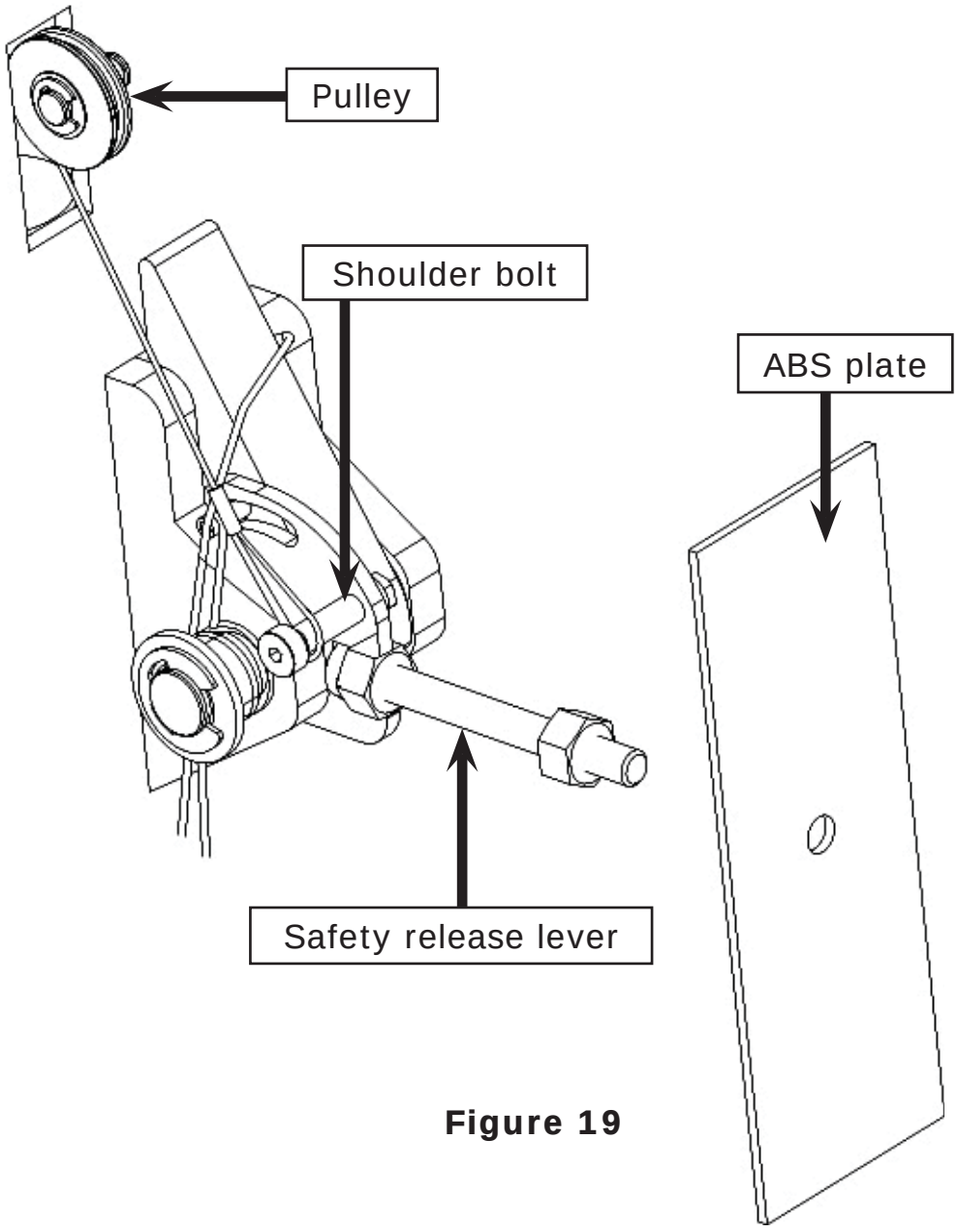


Figure 19

- Continue routing the cable to the off-side column referring to the diagram (fig. 20). Make sure the cables route on the guides mounted previously on the columns and the column extensions and tie it using a strap if necessary (ref. fig. 21);

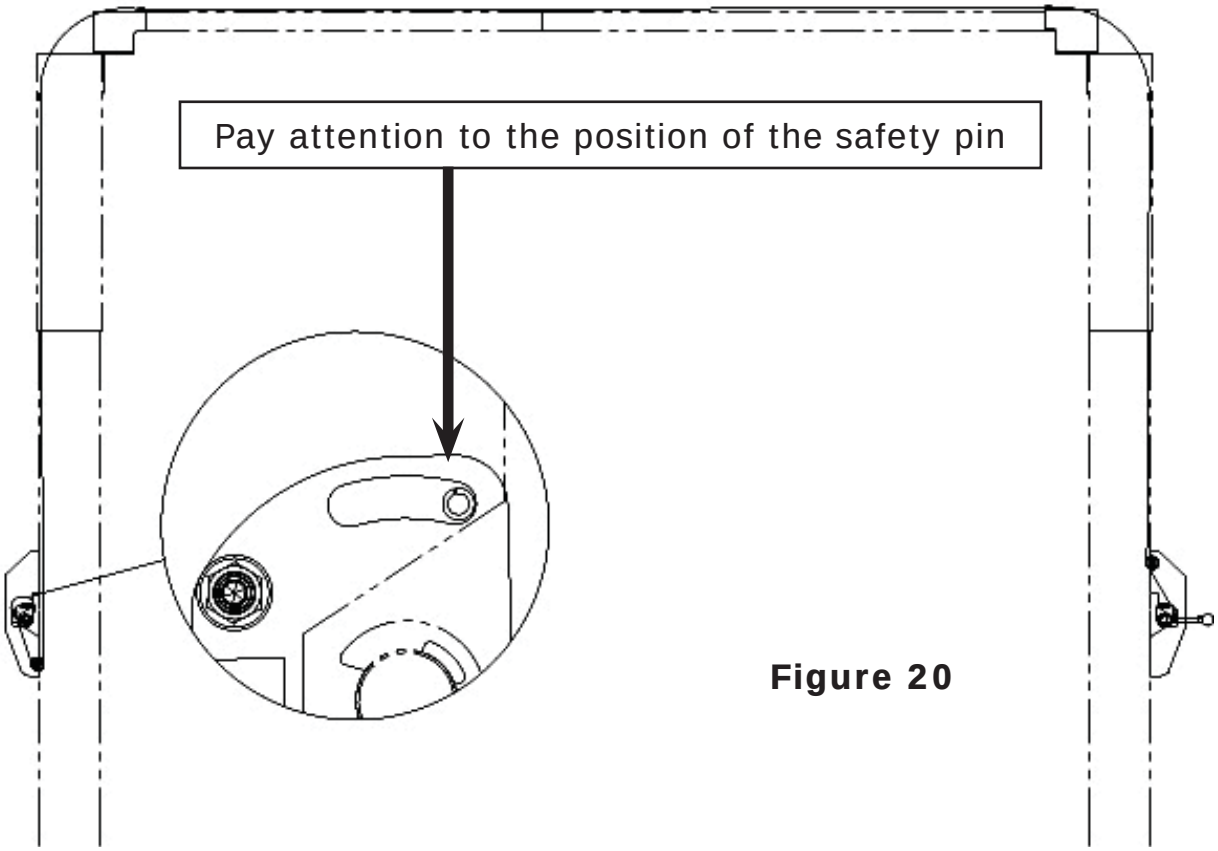


Figure 20

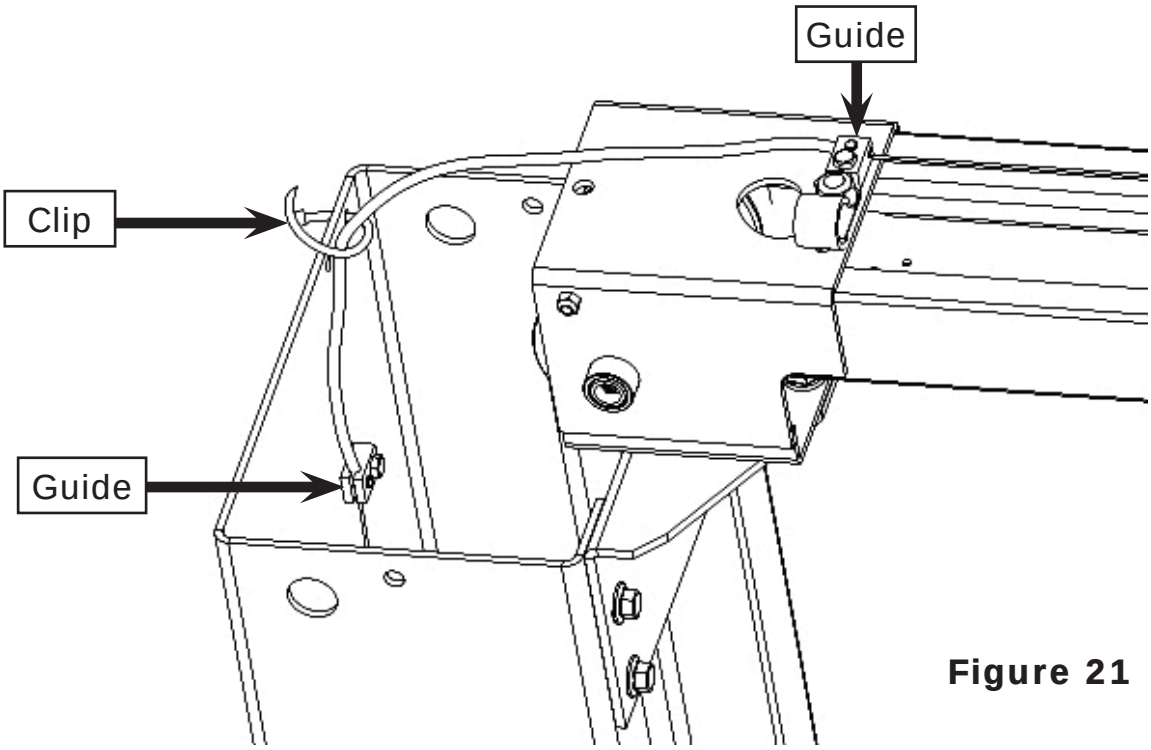


Figure 21

- Bring the cable down inside the off-side column and feed the end of the cable through the lower slot (ref. fig. 22);
- Install the cable pulley in the lower slot of the off-side column (ref. fig. 22);
- Route the cable under the bottom side of the pulley (ref. fig. 22);
- Insert the cable in the cable clamp along one side, loop around the shoulder bolt and back down and insert the cable along another side of the cable clamp (ref. fig. 22). Slightly tighten the clamp;
- Press the safety release lever down to eliminate any clearance between the slots and pins;
- Using the pliers, pull the cable tight and secure the clamp close to the shoulder bolt. Tighten the clamp;
- Install the safety release lever and ABS plate using the nuts M22 (ref. fig, 19). Install the ABS cover using the cross recess head screw M8X10 and the washers D.10 and then install the lever ball on the lever (ref. fig. 23).

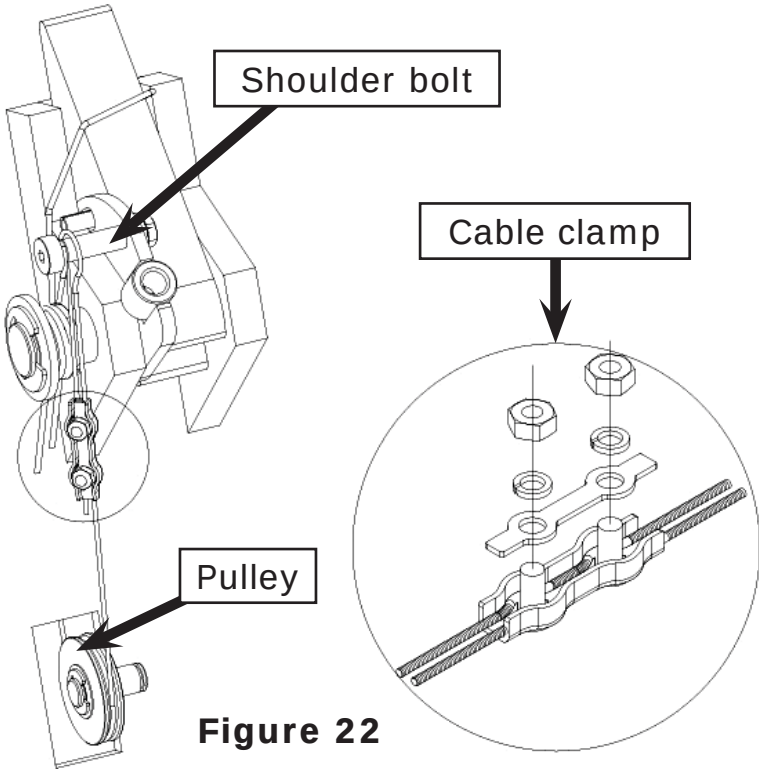


Figure 22

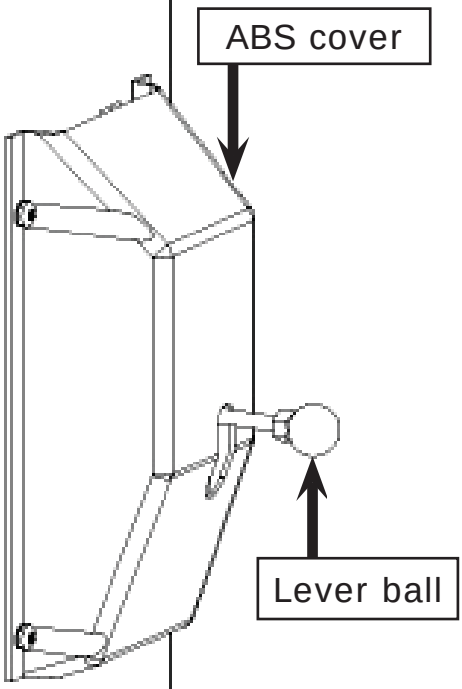


Figure 23

7.12 Installation Of Power Unit (Ref. Fig. 24)

- Attach the power unit on the bracket on the power side column;
- Secure it using nuts M10X20, the locking washers D.10 and washers D. 10.

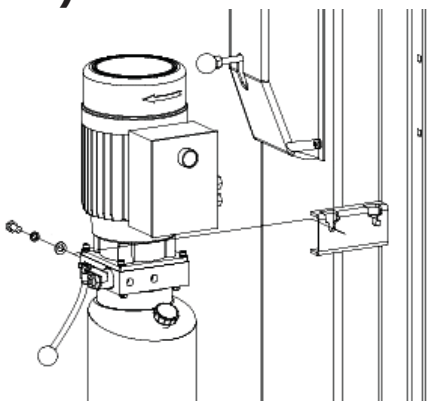


Figure 24

7.13 Connection Of Hydraulic Hoses

⚠	**When routing the hydraulic hose, make sure that the hose is clear of any moving part. Make sure to keep the hose inlets clean from dust. Make sure not to over-tighten the hose fittings. This may result in oil leakage.**

- Clean the hoses and fittings;
- Inspect all threads for damage and make sure that all hose fittings are in good condition;
- Install hose clamps and route the hoses referring to figure 25;
- Tighten the hose fittings thoroughly.

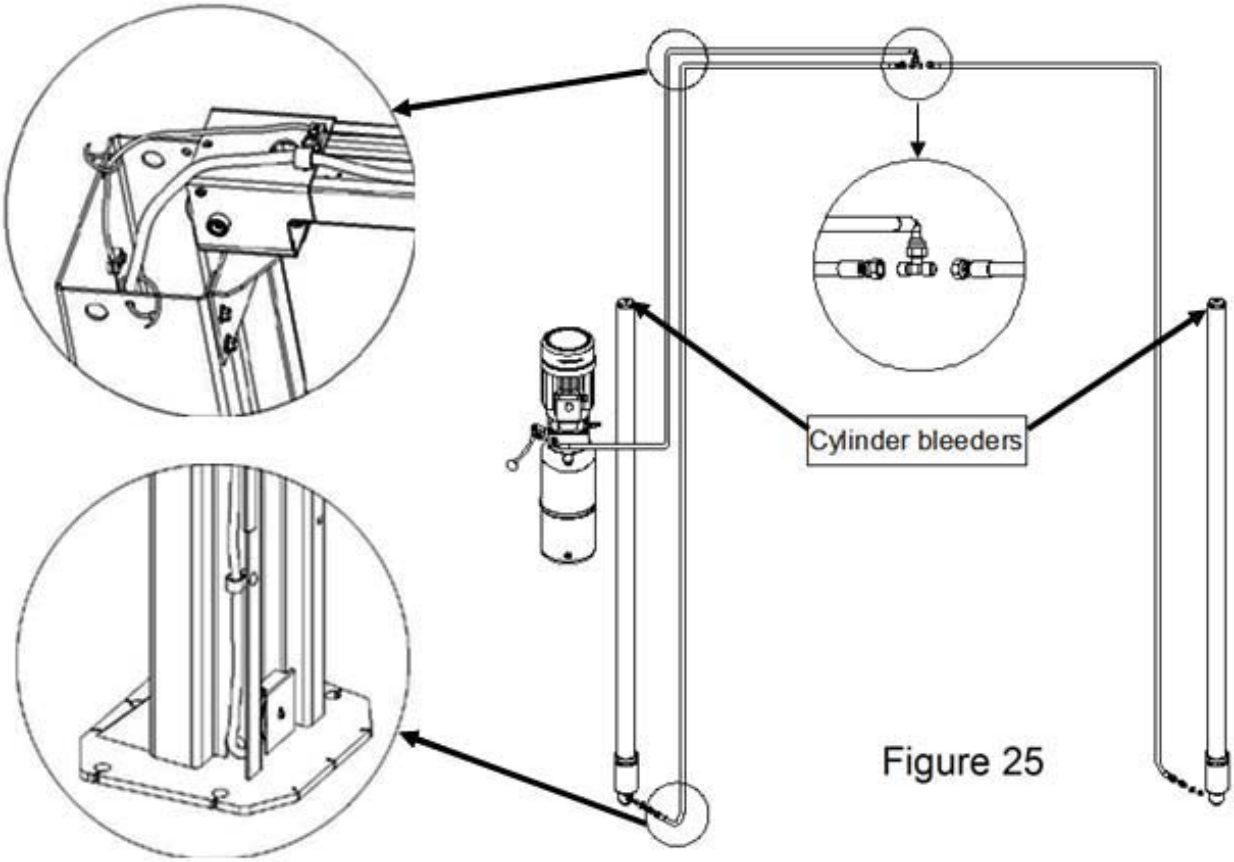


Figure 25

7.14 Make The Electrical Connection

⚠	**The electrical hookup work must be carried out by a *qualified electrician*.** **Make sure that the power supply is correct.** **Make sure the phase connection is correct. Improper electrical hookup can damage the electric motor. This will automatically void warranty.** **Make sure the lift is well grounded.** **The power unit must be kept dry. *NOT FOR OUTDOOR USE***

⊗	**Do not use a 60Hz motor on a 50Hz power supply.**

- Make the electric hookup to the hydraulic power unit referring to the wiring diagram (fig. 6) using the included electric cable;
- When routing the electric cable for the overhead switch, make sure to keep it clear of any moving parts and route it through the hose clamps on the power-side column;
- Make sure to install a circuit breaker on the circuit: 40A for 220V/60Hz/1Ph.

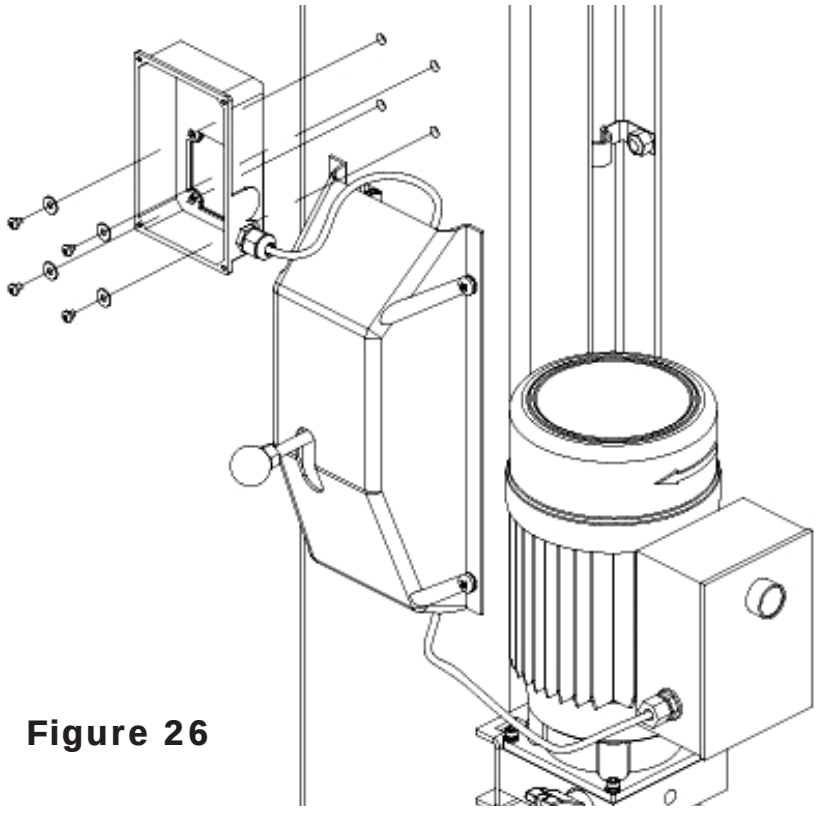


Figure 26

7.15 Oil Filling And Bleeding

⚠	**DO NOT run power unit without oil. Damage to pump may occur. If motor gets hot or sounds peculiar, stop immediately and recheck the electric connection, amperage and incoming voltage.**

- Use the hydraulic fluid recommended in the chapter 5.5;
- Remove the oil level plug on the oil tank and pour oil in the tank about 2 3/4 gallons;
- Raise the lift about 2 feet;
- Open the bleeder of each cylinder approximate two turns (ref. fig. 25);
- Close the bleeders when the fluid flows out;
- Lower the lift completely;
- Fill with more fluid if necessary until the tank is full.

☞	**If the oil level plug is lost or broken, order the replacement. The oil tank must be vented well.**

7.16 Installation Of The Arms

⚠	**Make sure the arm safety is adjusted properly. Make sure to check the arm safety regularly.**

- Raise the carriages to a convenient height;
- Grease the holes and all pivot pins prior to installation;
- Slide the arm into the carriage yoke (ref. fig. 27);
- Install the arm pin into the yoke hole and arm hole (ref. fig. 27);
- After installing the arm and the pin, place the anti-rotation gear into the arm clevis. Make sure that the beveled gear orientation is correct. To allow the enough room to install the gear, it is advised to pull up the arm pin during installation (ref. fig. 28);
- Install the arm using the bolts M10X35 (ref. fig. 29). Do not tighten the bolts at this moment;

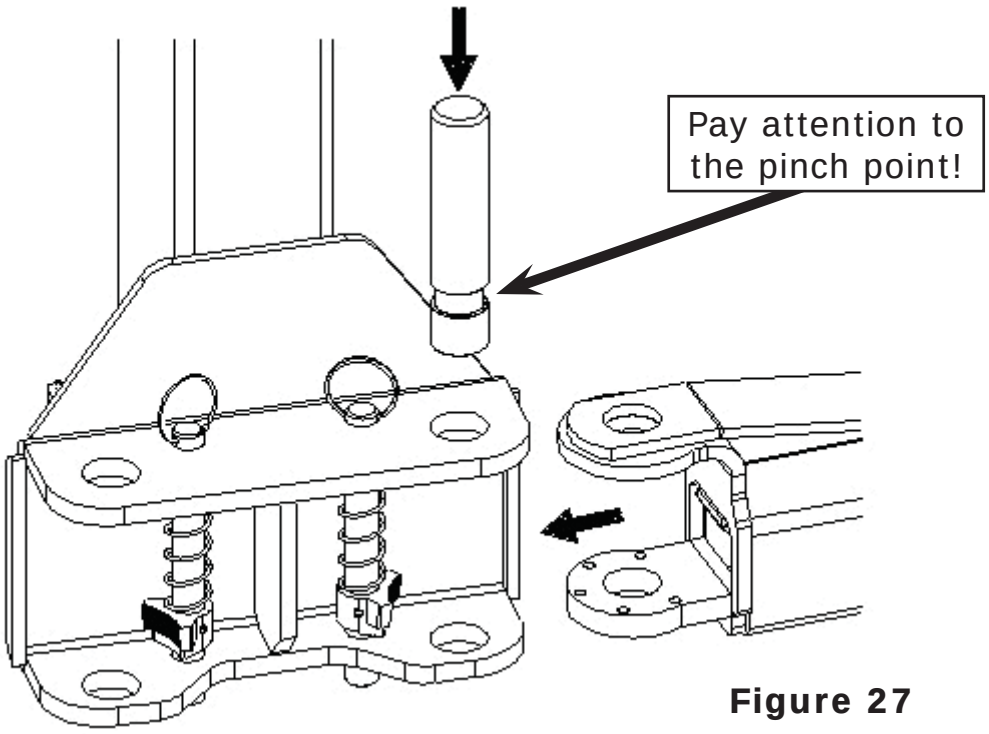


Figure 27

- Once an arm is installed, make sure to check that each anti-rotation gear meshes and stays aligned very well. If not, remove the anti-rotation gear and install it in the opposite position;
- After checking that each anti-rotation gear and the toothed gear are aligned well, tighten the bolts;
- Repeat the above procedure to install other arms.

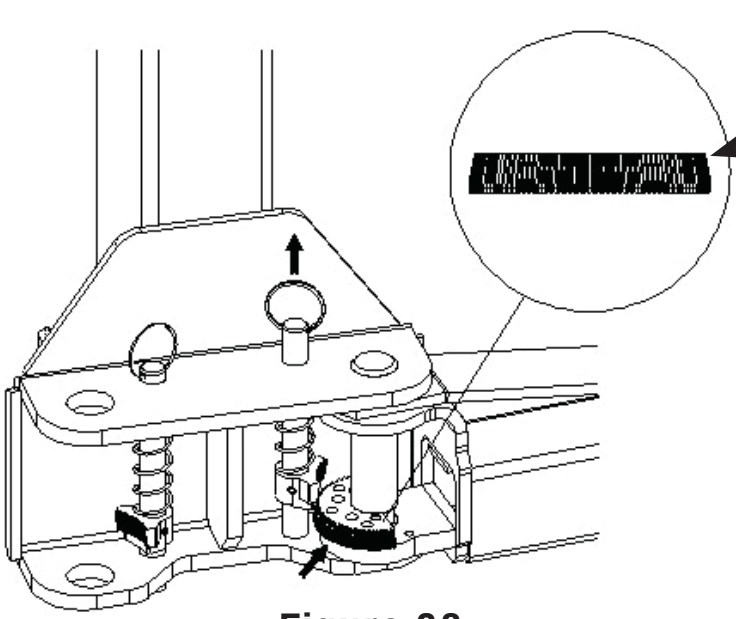


Figure 28

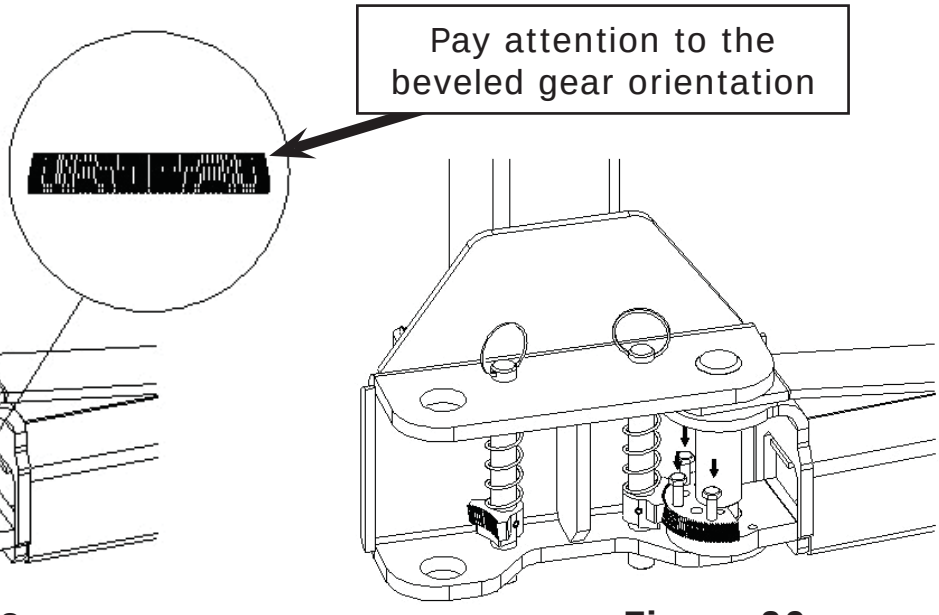


Figure 29

7.17 Installation Of The Rubber Door Protectors (Ref. Fig. 30)

- Press the long rubber protectors on each column edge;
- Press the short rubber protectors on the top edge of the carriage.

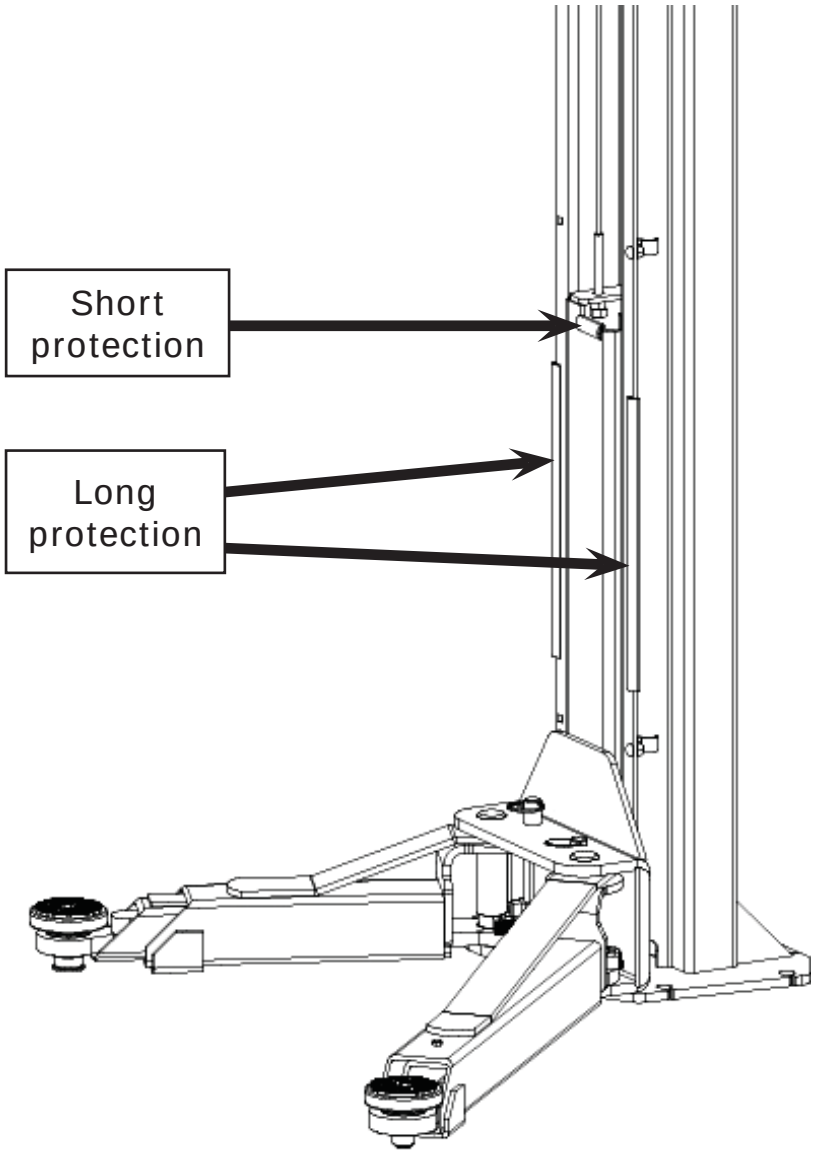


Figure 30

7.18 Check Before Start-Up

7.18.1 General Checks

- Make sure that the columns are plumb;
- Make sure the lift anchored to the ground and all anchor bolts tightened. *Please refer to the anchor bolt manufacture website for recommended torque values;*
- Make sure the electrical system feeding voltage is equal to that specified on the nameplate on the motor;
- Make sure the electrical system connection conforms to the electric plan shown on the electric diagram (fig. 6) and for proper grounding;
- Particularly, below checks must be followed:

7.18.2 Mechanical Safeties For Proper Installation

- Check to make sure that safeties will properly engage and disengage by releasing and pushing the safety release lever slowly;
- When raising the carriages, listen to the safety pawls fall into the safety racks. If not, loosen the cable clamp (ref. fig. 22) and adjust tensions as necessary.

7.18.3 Equalizer Cable For Proper Installation

- Raise the carriages to check the equalizer cable tension by grasping the adjacent cables between the thumb and the forefinger so that you can just pull the cables together (ref. fig. 31);
- Adjust the nuts on the carriage (ref. 16) if necessary.

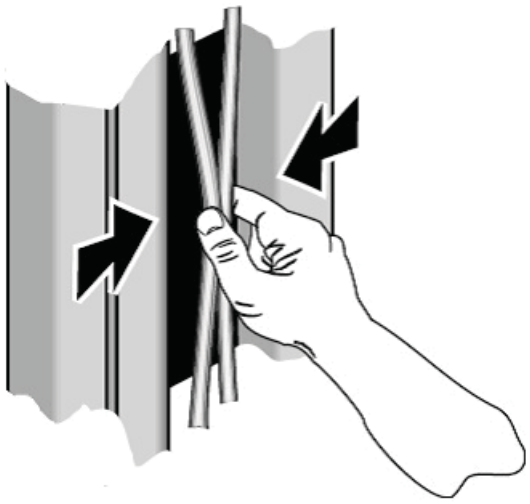
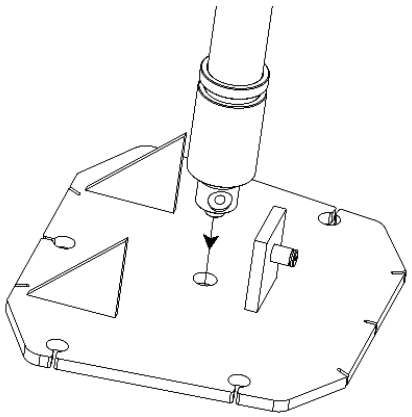


Figure 31

7.18.4 Hydraulic System For Proper Operation

- Proper oil level in the tank, refill if needed;
- Raise the lift to the full height and keep the motor running for 5 seconds;
- Check all hoses connections to make sure there is no leakage. Tighten the connections or reseal if necessary;
- Check the lift for reaching its maximum height;
- Repeat the air bleeding of cylinders if necessary;
- Make sure the cylinder peg rests into the hole on the base plate.



7.18.5 Overhead Switch For Proper Operation

- Check the overhead switch. Verify that it cuts off electrical supply when the crush proof bar is raised;
- If the overhead switch does not interrupt the electrical supply, check the angle of the actuator or recheck wiring to the A/C contactor.

7.19 Check With Load

	WARNING: please carefully follow the instructions in the coming paragraph to avoid damages to the lift.

Carried out two or three complete cycles of lowering with the vehicle loaded:

- Repeat the checks provided for by 7.18;
- Listen for strange noises during lifting and lowering;
- Visually inspect cables, hydraulic lines and bolt connections.

Operation And Use

	Never operate the lift with any person or equipment below. **Never exceed the rate lifting capacity.** **Always ensure that the mechanical safeties are engaged before lifting a vehicle.** **Always lift a vehicle on the lifting pads.** **Never leave the lift in an elevated position unless the safeties are engaged.** **If an anchor bolt becomes loose or any component of the lift is found to be defective, DO NOT USE THE LIFT until repairs are made.**

8.1 Controls

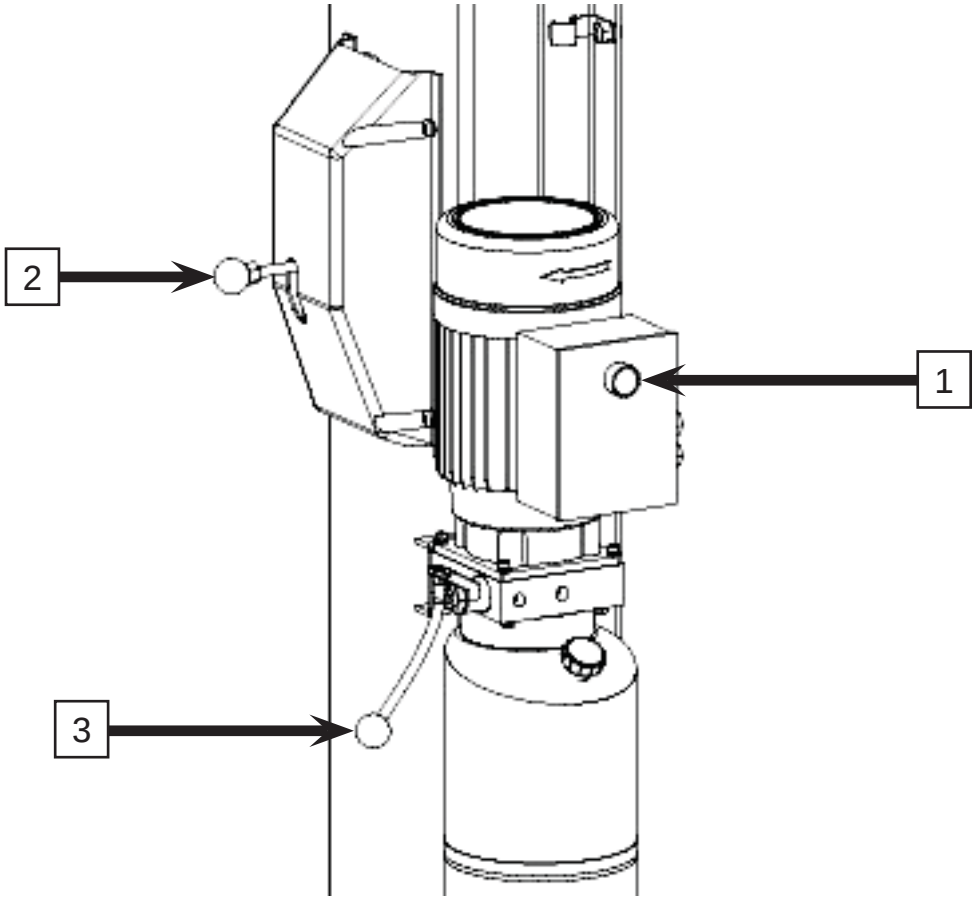


Figure 32

Controls for operating the lift are:

LIFTING BUTTON (1)

- When pressed, the power unit is running and the lift can be raised to a desired height until the button is released;

SAFETY RELEASE LEVER (2)

- When pulled, the mechanical safeties will be released so that the lift can lower to desired height;

LOWERING LEVER (3)

- If the safety release lever is not pressed, press the lower lever, the lift will lower to engage the nearest safety lock;
- If the safety release lever is pressed (the mechanical safeties are released), press the lower lever, the lift will lower to the desired height under its weight and the load lifted until the lever is released.

Lift operation can be summarized into four steps:

8.2 Vehicle positioning

- Positioning the vehicle between columns;
- Adjust lift arms so that the vehicle is positioned with the centre gravity between the pads. Make sure the arm safeties are engaged;
- Raise the lift by pressing the lifting button until the lifting adaptors contact underside of the vehicle;
- Make sure the vehicle is secured.

NEVER LIFT ANY VEHICLE IN ANY MANNER WITH LESS THAN FOUR (4) ARMS. RATED CAPACITY OF EACH LIFT ARM IS NO GREATER THAN ONE FOURTH (1/4) OF THE OVERALL LIFTING CAPACITY.

8.3 Lifting

- Raise the lift by pushing the lifting button until reaching the desire height.

8.4 Standing

- Press the lowering lever to engage the nearest mechanical safety;
- Always ensure that the safety in each column is engaged before any attempt is made to work on or near the vehicle.

8.5 Lowering

- Raise the lift a little bit by pushing the lifting button to clear off the mechanical safeties;
- Lower the lift by pulling the safety release lever and in the meantime pressing the lowering lever;
- Before removing vehicle from the lift area, position the lift arms to and pads to provide an unobstructed exit;
- Never drive over the lift arms.

Maintenance

	Only trained personnel, who know how the lift works, may perform maintenance service to the lift.

To service the lift properly, the following must be carried out:

- use only genuine spare parts as well as equipment suitable for the work required;
- follow the scheduled maintenance and check periods shown in the manual;
- diagnose the reason for possible failures such as too much noise, overheating, oil blow-by, etc.;
- refer to documents supplied by the manufacture or dealer to carry out maintenance.

	Before carrying out any maintenance or repair on the lift, disconnect the power supply.

9.1 Ordinary maintenance

The lift has to be properly cleaned and wiped down with mild cleaners every week.

	The use of water or flammable liquid is strictly prohibited

Be sure the ram on the hydraulic cylinders are always clean and not damaged since this may result in leakage from seals and, as a consequence, in possible malfunctions.

9.2 Periodic Maintenance

Daily pre-operation

- Check hydraulic connections and hoses for leaks;
- Check safety lock audibly and visually while in operation;
- Check arm locks;
- Check bolts, nuts and screws are tight.

Every 1 month

- Check all cable connections, pins and bolts to insure proper mounting;
- Inspect all anchor bolts and retighten if necessary;
- Check columns for square and plumb;
- Check equalizer cable tension, adjust if necessary;
- Check safety cable, adjust it if necessary;
- Check all arm pivot pins. Make sure they are properly secured;
- Check all lifting pads, replace if necessary;
- Lubricant columns with grease;
- Check the hydraulic oil, fill or replace if necessary;
- Check hydraulic systems for proper operation.

Every 12 months

- Verify that all components and mechanisms are not damaged;
- Verify the equalizer cables are not worn up to 5%, change if necessary;
- Verify the safety cable is not worn, change if necessary;
- Check the electrical system to verify that the motor and overhead limit switch operate properly (this work must be carried out by certified electricians);
- Empty the oil tank and change the hydraulic oil.

Troubleshooting

A list of possible troubles and solutions is given below:

Trouble:	Possible Cause:	Solution:
The lift does not work	There is no power	Check Power on to restore if necessary
	The electrical wires are disconnected	Reconnect
	The circuit breaker is tripped/ blown	Check for correct voltage
		Replace
The lift does not raise	The lift is overloaded	Check the vehicle weight
	The motor direction of rotation is not correct.	Interchange the two phases on the main switch
	The oil in the power unit is not sufficient.	Add some hydraulic oil
	The UP button is faulty.	Check UP button and connection for proper operation. Replace if needed
	The pressure relief valve clogged or leaks	Check and clean if dirty or replace if faulty
	The lowering valve does not close.	Check and clean, if dirty or replace if faulty
	The suction tube or pump filter is dirty.	Check and clean if needed.
	Presence of air in the hydraulic system	Bleed the hydraulic system
The lifting capacity is not sufficient	The pump is faulty	Check the pump and replace if needed.
	Oil leakages in hydraulic circuit	Check the circuit for any leakage
The lift does not lower when the lowering lever and the safety release lever are pressed	The lowering valve does not work properly	Check the valve and replace if needed.
	The safety cable is broken	Check, replace if faulty
	The equalizer cables are not in the same tension.	Readjust the equalizer cables.
The lift does not lower smoothly	Presence of air in the hydraulic system	Bleed the hydraulic system
	Lubrication of sliders is not enough.	Grease
	Sliders are damaged	Replace

* If the problem(s) remain unsolved, call for technical support. **1-866-898-2604**

Additional Information

Final Check of Assembled Lift

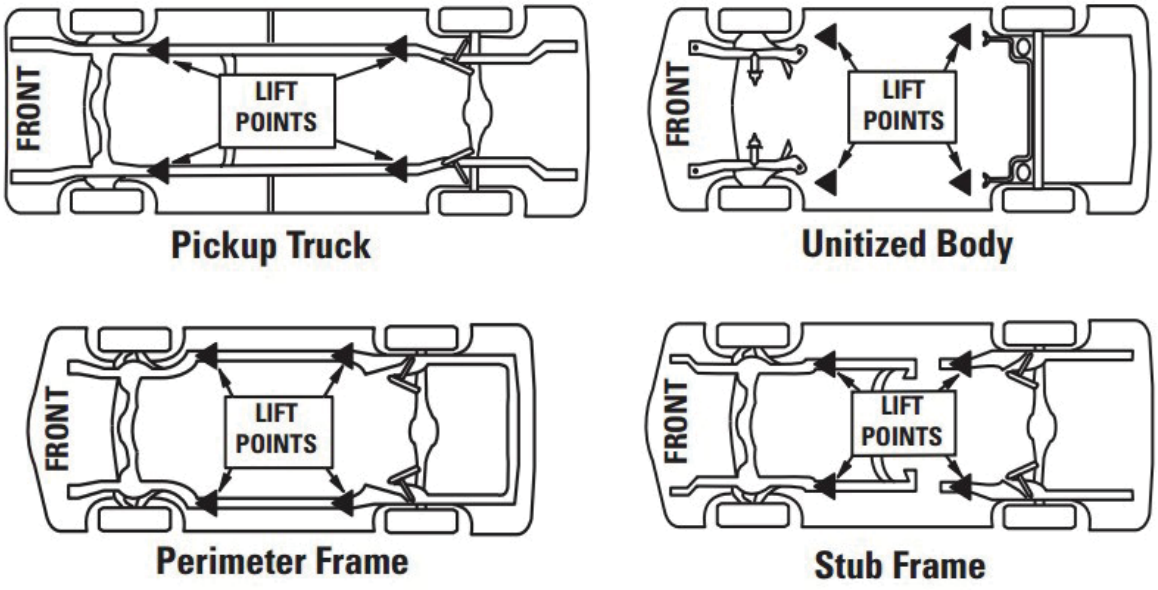
	Final dimension check after anchoring.
	Base and columns properly shimmed and stable.
	Anchor bolts tightened.
	Runways properly attached, secured, and level.
	Check for hydraulic leaks.
	Ensure cables are properly routed and free from obstructions.
	Check jam nuts on cables are tightened.
	Check oil level and look for leaks.
	Check adjustment of safety release cable to ensure both sides are working properly.
	Re-check level of towers.
	Check torque of anchor bolts.
	Check all fasteners, tighten if necessary.
	Electric power supply confirmed.
	Check for overhead obstructions.
	Check shut off at top of stroke to ensure lift shuts off.
	Check proper operation of arm restraints.
	Operate lift to full stroke then lower to ground while checking for proper functionality.
	Check proper operation of arm restraints.
	Operation and Safety Manual at site.
	Ensure all documents listed below are given to the owner.
	ANSI / ALI Lift It Right Manual.
	ANSI / ALI Safety Tip Card.
	ANSI / ALI ALIS Safety Requirements for Installation.
	ALI/LP Lifting Points Quick Reference Guide.
	Train end user on operation of lift.

Vehicle Lifting Points

Some vehicles may have the manufacturer's Service Garage Lift Point locations identified by triangle shape marks on its undercarriage (reference SAE J2184). Also, there may be a label located on the right front door lock face showing specific vehicle lift points. If the specific vehicle lift points are not identified, refer to the "Typical Lift Points" figure below or the ALI/LP Guide - Vehicle Lifting Points/ Quick Reference Guide included with your lift. Consider center of gravity, contents of vehicle and weight shifting before operating.

Make sure vehicle is neither front nor rear heavy. If the specific vehicle lift points are not identified, or if the vehicle has additional or uniquely positioned payload, have a qualified person calculate the vehicle center of gravity or have the vehicle center of gravity determined at a vehicle scale. Load the vehicle with the center of gravity midway between adapters.

Unusual vehicles, such as limousines, RV's, and long wheelbase vehicles, may not be suitable for lifting on this equipment. If necessary, consult with your Atlas Automotive Equipment representative or contact the vehicle manufacturer.



Operation Test with Vehicle

Prior to starting this section, please refer to the important safety instructions at the beginning of this manual. Reference Automotive Lift-Safety Requirements for Operation, Inspection, and Maintenance (ANSI/ALI ALOIM)

After finishing the above assembly instructions and adjustments, perform an operation test of the lift using a typical vehicle.

1. Lower lift to ground.
2. Drive vehicle on to lift and position the arms as per the “Lift it Right” manual and “Lifting Points Quick Reference” guide.
3. Raise lift to and lower onto 3-4 lock positions during full rise to ensure all locks are working correctly.
4. Re-adjust cables if necessary while vehicle is on.
5. Check lowering speed and smooth decent rate.
6. Lower lift to ground and drive vehicle off lift.

Run the lift in the low position several times, and then run the lift to the top completely.

If any problems occur during the final checkout or operation test of the lift with a vehicle, please contact your lift distributor, sales representative or manufacturer immediately.

Operating Instructions

Please reference enclosed ANSI/ALI ALOIM – Current Edition and ALI/LP Guide before proceeding.

1. Ensure lift is fully lowered and service bay is clear.
2. Move swing arms to full drive thru position.
3. Center the vehicle between the lift posts and position the arms in accordance with the supplied “Lifting it Right” and “Lifting Point” guides. Be sure you are using the proper adapters.
4. Push the raise switch on the power unit and ensure that the arm restraint pins for engagement.
5. Raise the vehicle until the suspension and tires clear the floor.
6. Stop and check the adapters for secure contact in accordance with the vehicle manufacturer recommended lifting points and “Lifting Point” guide.
7. Moderately shake vehicle by pushing on the front or rear bumper to ensure that vehicle is safely positioned on the lift.
8. After confirmation that vehicle is securely positioned, continue to raise the lift to the desired lift height.
9. Lower the lift onto the mechanical locking latches.
10. Avoid excessive rocking of the vehicle while it on the lift.
11. Always use safety support stands when removing or installing heavy vehicle components.
12. To lower the lift, first be sure that all objects and all personnel are free from lift area. Observe pinch point and other warning decals.
13. Raise the lift off the locking latches.
14. Pull down and hold the safety release while pressing the hydraulic lowering valve handle until the lift has fully lowered to the ground and the arm restraints have disengaged.
15. Remove adapters and position arms in full drive thru position before removing vehicle from the service bay.

Inspection and Maintenance

Please refer to the ANSI/ALI ALOIM – Current Edition “AMERICAN NATIONAL STANDARD for Automotive Lifts – Safety Requirements for Operation, Inspection and Maintenance”.

Periodic inspections and maintenance shall be performed only by trained lift service personnel. Never operate a lift that is damaged or in disrepair. Proper inspection and maintenance is necessary for the safe operation of the lift. Contact a local service or factory representative immediately if any issues arise or if you are not completely familiar with automotive lift maintenance procedures.

Daily Procedures

- Check to ensure bolts are tightened;
- Check lift components and keep clean and free of debris;
- Check for oil leakage;
- Check all electrical components and wiring;
- Check cables and sheaves;
- Check all hydraulic lines and fittings;
- Repair or replace all damaged, defective, worn, frayed or broken components immediately. Only use parts approved by the original equipment manufacturer or parts meeting original manufacturer specifications.

Monthly Procedures

- Check equalizer cable tension and adjust accordingly;
- Check lubrication points and lubricate accordingly;
- Check anchor bolts for tightness and appropriate torque;
- Check fluid levels;
- Repair or replace all damaged, defective, worn, frayed or broken components immediately. Only use parts approved by the original equipment manufacturer or parts meeting original manufacturer specifications.

Lockout and Tagout Procedures

Please refer to ANSI Z244.1

Purpose: This procedure establishes the minimum requirements for lockout of energy sources that could cause injury to personnel by the operation of the lift. All employees and/or operators shall comply with the procedure.

Responsibility: The responsibility for seeing that this procedure is followed is binding upon all owners, employees and lift operators. All owners, employees and operators shall be instructed in the safety significance of the lockout procedure by the owner, supervisor or appropriate personnel. Each new or transferred affected employee or operator shall be instructed by appropriate personnel in the purpose and use of the lockout procedure.

Preparation for Lockout: Employees authorized to perform lockout shall be certain as to which switch, valve, or other energy isolating devices applies to the lift. More than one energy source (electrical, mechanical, or others) may be involved. Any questionable identification of sources shall be cleared by the employees, their supervisors, or appropriate personnel. Assure that job authorization has been obtained before lockout commences.

Sequence of Lockout Procedure

- Notify all affected employees and operators that a lockout is required and the reason therefore;
- If the lift is operating, shut it down by the normal stopping procedure (such as assuring the disconnect switch is off);
- Operate the switch, valve, or other energy isolating devices so that the energy source(s) (electrical, mechanical, hydraulic, and other) are disconnected or isolated from the lift;
- If it is a lockable device, lockout with an assigned individual lock. If it is not a lockable device, replace with a dummy device and tag accordingly. If more than one individual is required to lock out the lift, each shall place their own personal lock on the energy isolating device(s);
- Adequately label or tag the lift stating not to operate or tamper with the tag or label;

- Stored energy (such as that in capacitors and hydraulic systems) must also be addressed;
- After ensuring that no personnel are exposed and as a check to ensure the lockout is working, operate the push button or other normal operating controls to make certain the lift will not operate. Return the lift operating controls to neutral position after the test;
- The equipment is now locked out.

Restoring Equipment to Service

- When the job is complete and equipment is ready for testing or normal service, check the lift area to see that no one is exposed;
- When lift is clear, remove all locks. The energy isolating devices may be operated to restore energy to lift.

Rules for Using Lockout Procedure: The lift shall be locked out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. Never attempt to operate any switch, valve, or other energy isolating device bearing a lock.

Wire Ropes

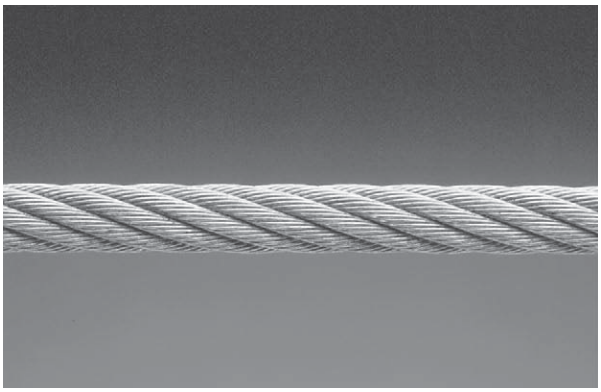
WARNING

- Wire ropes are critical to the safe and reliable performance of your lift.
- Cables are expendable items and should be replaced as a set.

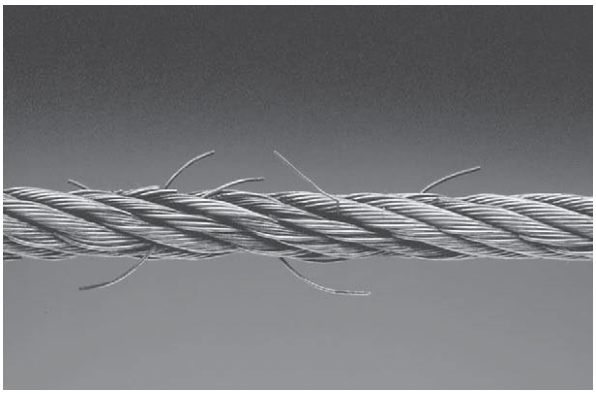
CABLE CONDITION GUIDE

Maximum Allowable Cable Necking

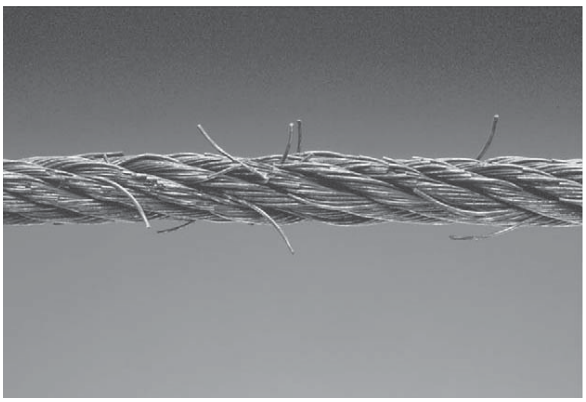
Nom. Cable Diameters	Max. Reduction in Diameter
Up to 5/16”	1/64”
3/8” to 1/2”	1/32”
9/16” to 3/4”	3/64”
7/8” to 1-1/8”	1/16”
1-1/4” to 1-1/2”	3/32”



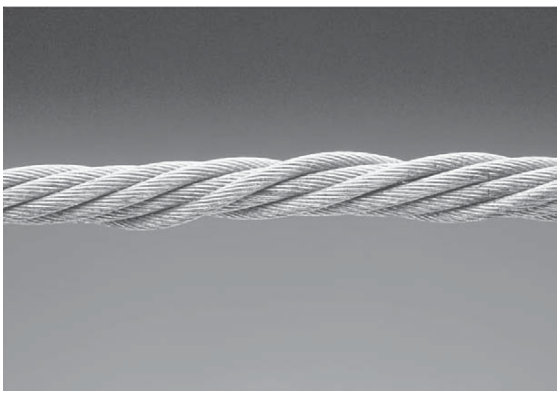
Typical Good Cable



Cable with Broken Wires



Cable with Severe Corrosion



Cable with Necking

Wire Rope Replacement Criteria

⚠ WARNING If any cable is found to be in need of replacement, the entire cable set, pulleys and safety rollers, must be replaced immediately. See *Cable Condition Guide*.

The Wire Rope MUST be Replaced if One or More of the Following Criteria Are Met:

- More than six (6) randomly distributed broken wires in one rope lay or 6xd length;
- More than three (3) broken wires in one strand in one rope lay or 6xd length;
- Three (3) or more broken wires at rope terminations;
- One outer wire broken at the point or contact with the core of the rope whish has worked its way out of the rope structure and protrudes or loops out from the rope structure;
- Heavy rusting, corrosion, or pitting. A light surface corrosion on outer wires is normal;
- Wear or scraping of one-third (1/3) of the original diameter of outside individual wires;
- Excessive stretch. It is normal for new cable to require adjustment during "break-in," after which small periodic adjustments may be required. However, if a cable that has been in service for 6 months should suddenly require frequent adjustments or has used all the cable adjustments available, all cables must be replaced immediately;
- Deformed strands, kinking, crushing, bird-caging, or any other damage or distortion of wire rope structure;
- Variations in diameter (necking) or any change from normal appearance;
- Reductions from nominal diameter of more than 1/32" (for cables 3/8" to 1/2" diameter inclusive.);
- End attachments cracked, deformed or worn.

* Lay is the distance measured, parallel to the rope axis, in which a single strand makes one complete turn around the rope axis, or the wires make a complete turn around the axis of the strand.

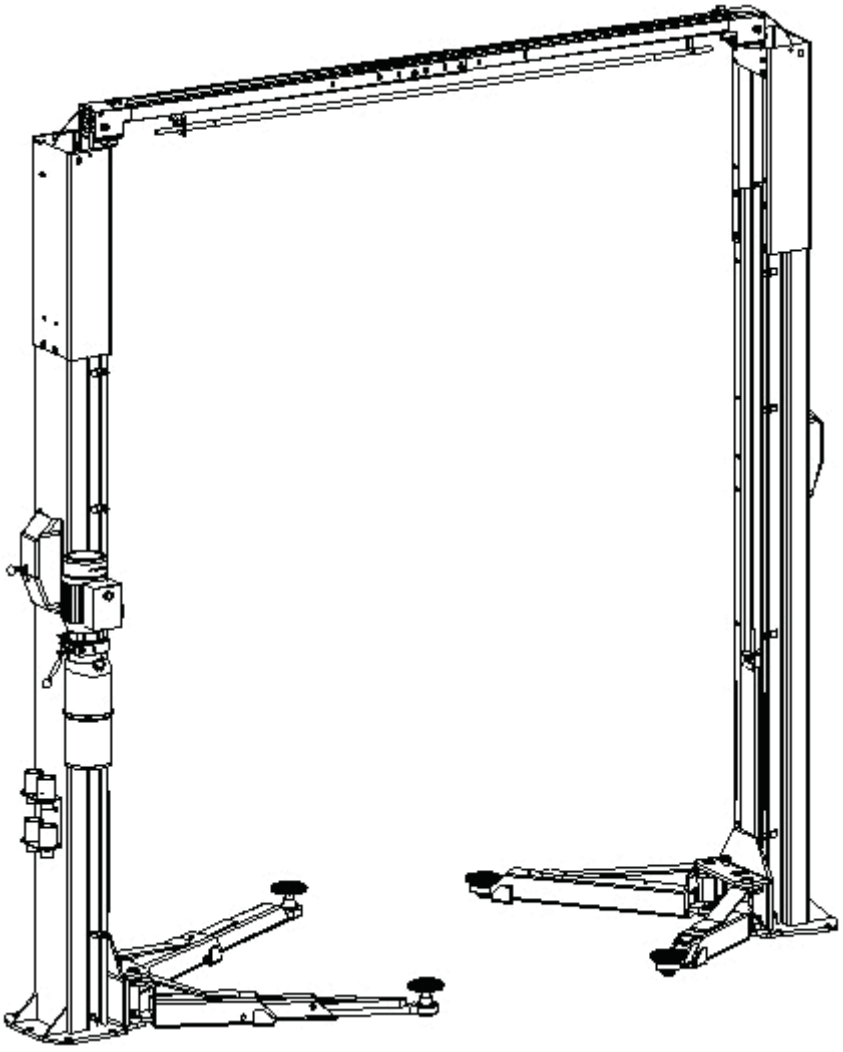
Please reference ANSI / ALI ALOIM standard for more information on wire rope cable inspection.

Emergency Operation If Lift Becomes Inoperable In Raised Position

If the lift becomes inoperable in the raised position, wait until electrical power is restored to the lift before attempting to lower the vehicle. If it is crucial for reasons of safety that the vehicle be lowered, please **DO NOT** attempt to do so on your own without first contacting your local authorized service representative or distributor, who can verbally walk you through the process or assist, in person, where necessary.

WARNING: DO NOT LOOSEN OR REMOVE HYDRAULIC CONNECTIONS OR FITTINGS UNDER PRESSURE. SERIOUS INJURY OR DEATH COULD OCCUR.

Parts Catalogue



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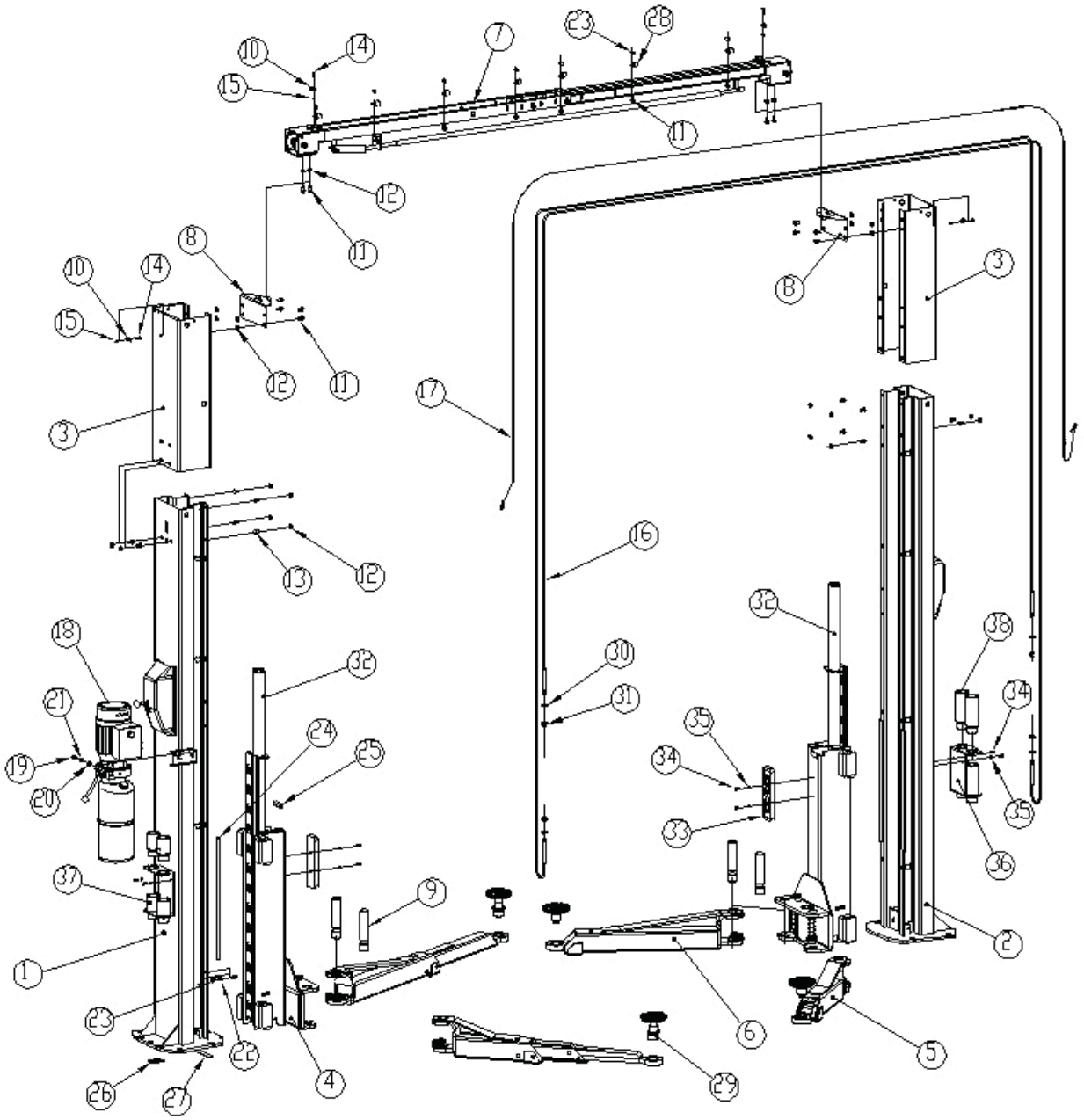
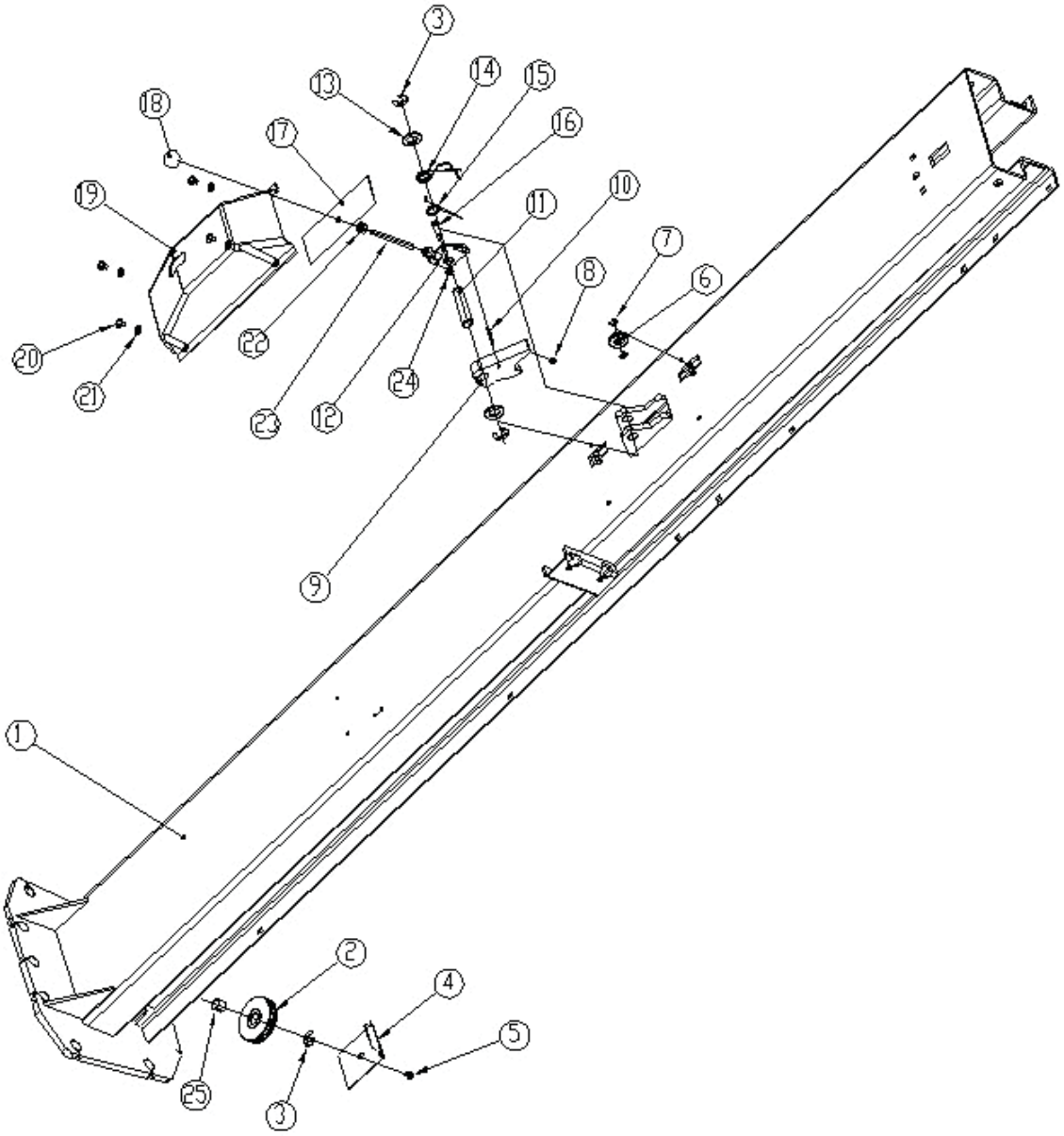
LIFT



ITEM	PART NO.	DESCRIPTION	QTY
1	Z23A110000AM	Power-side column assembly	1
2	Z23A120000AM	Off-side column assembly	1
3a	Z23A130001	Column extension L=800 (standard version)	2
3b	Z23A130001-H1	Column extension L=1410 (H version)	2
4	Z23A200000	Carriage assembly	2
5	Z23A320000AM	Short arm assembly	2

ITEM	PART NO.	DESCRIPTION	QTY
6	Z23A310000AM	Long arm assembly	2
7	Z23A400000AM	Overhead beam assembly	1
8	Z23A500101	Overhead beam support	2
9	Z23A500102	Arm shaft	4
10	Z23A502201	Safety release wire guide	4
11	0201136	Screw M10X20	18
12	0204030	Flange nut M10	24
13	0201137	Round head screw M10X20	22
14	0201144	Screw M6X25	4
15	0203004	Nut M6	4
16a	Z23A501100	Equalizer cable D.8 L=9170 (standard version)	2
16b	Z23A501100-H1	Equalizer cable D.8 L=10390 (H version)	2
17a	Z23A502100	Safety release wire D.1.5 L=8000 (standard version)	1
17b	Z23A502100-H1	Safety release wire D.1.5 L=9200 (H version)	1
18		Hydraulic power unit 220V/60Hz/1PH 1.5KW	1
19	0201046	Screw M10X20	2
20	0205011	Washer D.10	2
21	0208007	Locking washer D.10	2
22	Z23A503200	Pipe U bolt	8
23	0203032	Nut M10	16
24	Z23A510101AM	Long rubber protection	4
25	Z23A510102	Short rubber protection	2
26	Z23A510201	Nylon shim 1	20
27	Z23A510202	Nylon shim 2	20
28	Z23A503100	Hose clamp	8
29	Z23A313000AM	Arm adaptor	4
30	0205017	Washer D.14	4
31	0204006	Self-locking nut M14	4
32	Z23AY20000	Hydraulic cylinder	2
33	XSZ-8-802-2	Square rubber protection	2
34	0202032	Screw M6X16	8
35	0205006	Washer D.6	8
36	Z23A601102	Pad extension holder	2
37	Z23A601200	Pad extension H.80	4
38	Z23A601300	Pad extension H.155	4

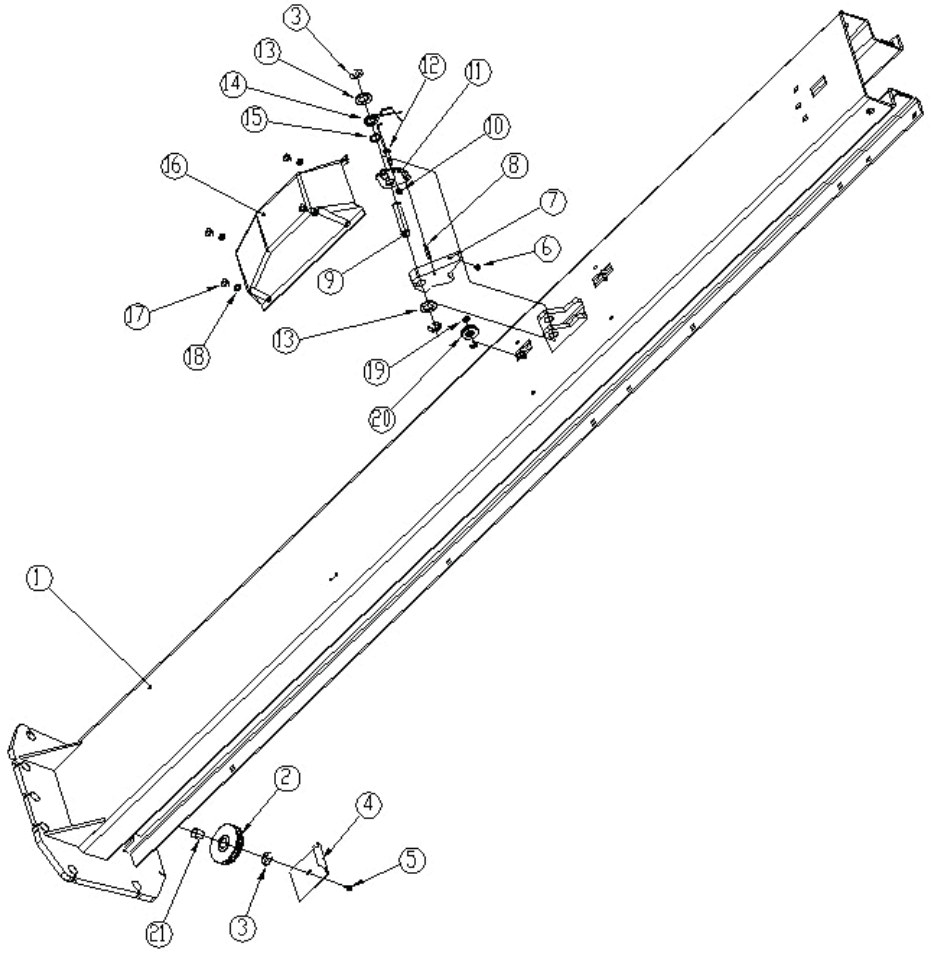
POWER-SIDE COLUMN



ITEM	PART NO.	DESCRIPTION	QTY
1	Z23A110100AM	Column	1
2	Z23A110001T	Cable pulley	1
3	0211014	Seeger D.15	3
4	Z23A110002	Anti-derailment safety plate	1
5	0206031	Screw M6X10	1
6	Z23A110005	Nylon wire pulley	1
7	0211015	Seeger D.8	2

ITEM	PART NO.	DESCRIPTION	QTY
8	Z23A110007	Shock absorber	1
9	Z23A110006	Safety hook	1
10	0213052	Elastic pin 6X40	1
11	Z23A110004	Hook pin	1
12	Z23A110200	Cam	1
13	0205023	Washer D.24	2
14	Z23A110009	Return spring 2	1
15	Z23A110008	Return spring 1	1
16	0201174	Shoulder bolt 8X25	1
17	Z23A110010	ABS plate	1
18	0215017	Lever knob M10X33	1
19	Z23A504101	ABS cover	1
20	0206034	Screw M8X10	4
21	0205008	Washer D.8	4
22	0203032	Nut M10	2
23	Z23A110003	Safety release lever	1
24	0204024	Flange Nut M6	1
25	0210079	Bush SF-1/1920	1

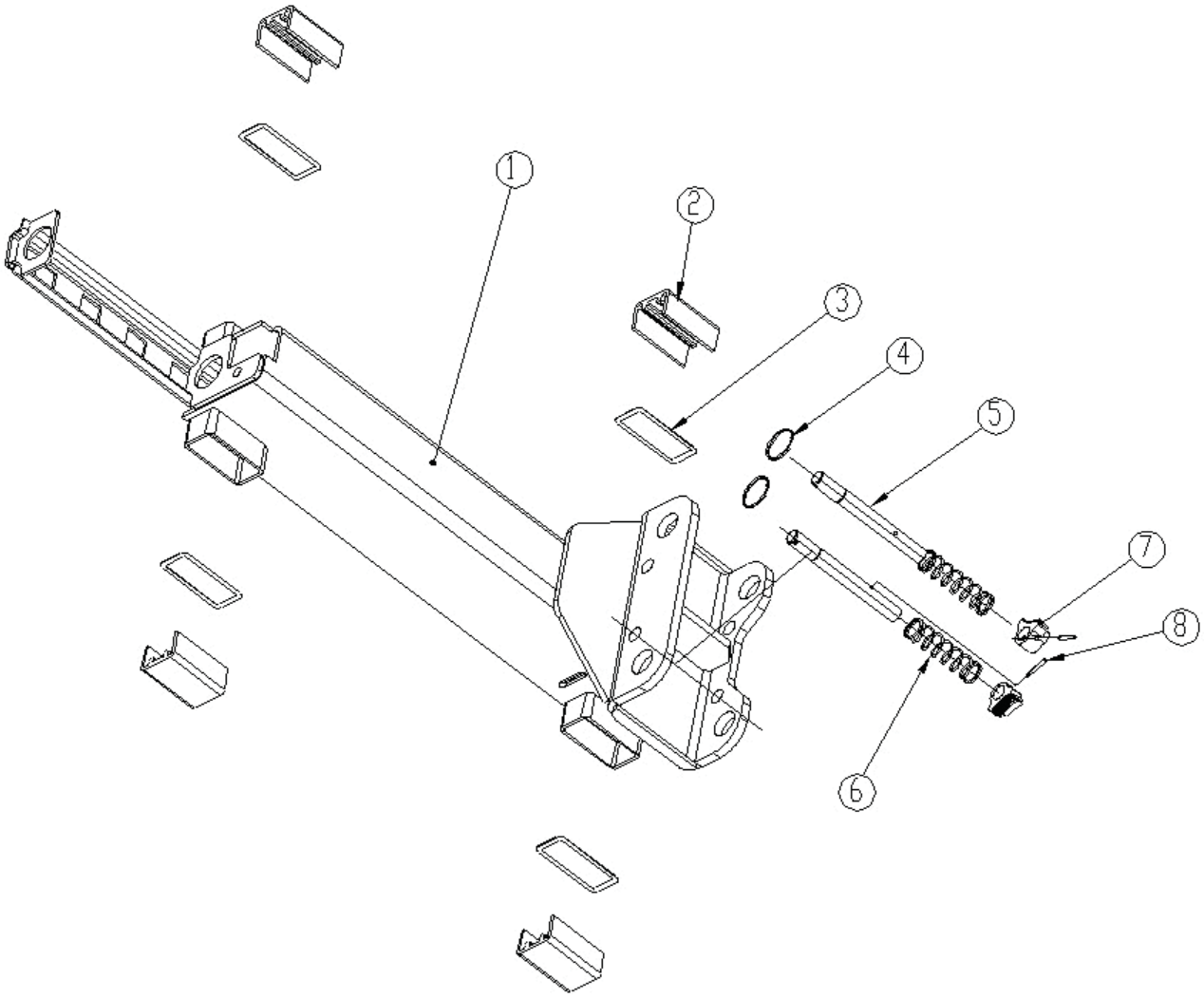
OFF-SIDE COLUMN



ITEM	PART NO.	DESCRIPTION	QTY
1	Z23A110100AM	Column	1
2	Z23A110001T	Cable pulley	1
3	0211014	Seeger D.15	3
4	Z23A110002	Anti-derailment safety plate	1
5	0206031	Screw M6X10	1
6	Z23A110007	Shock absorber	1
7	Z23A110006	Safety hook	1
8	0213052	Elastic pin 6X40	1
9	Z23A110004	Safety pin	1
10	0204024	Flange Nut M6	1
11	Z23A110200	Cam	1

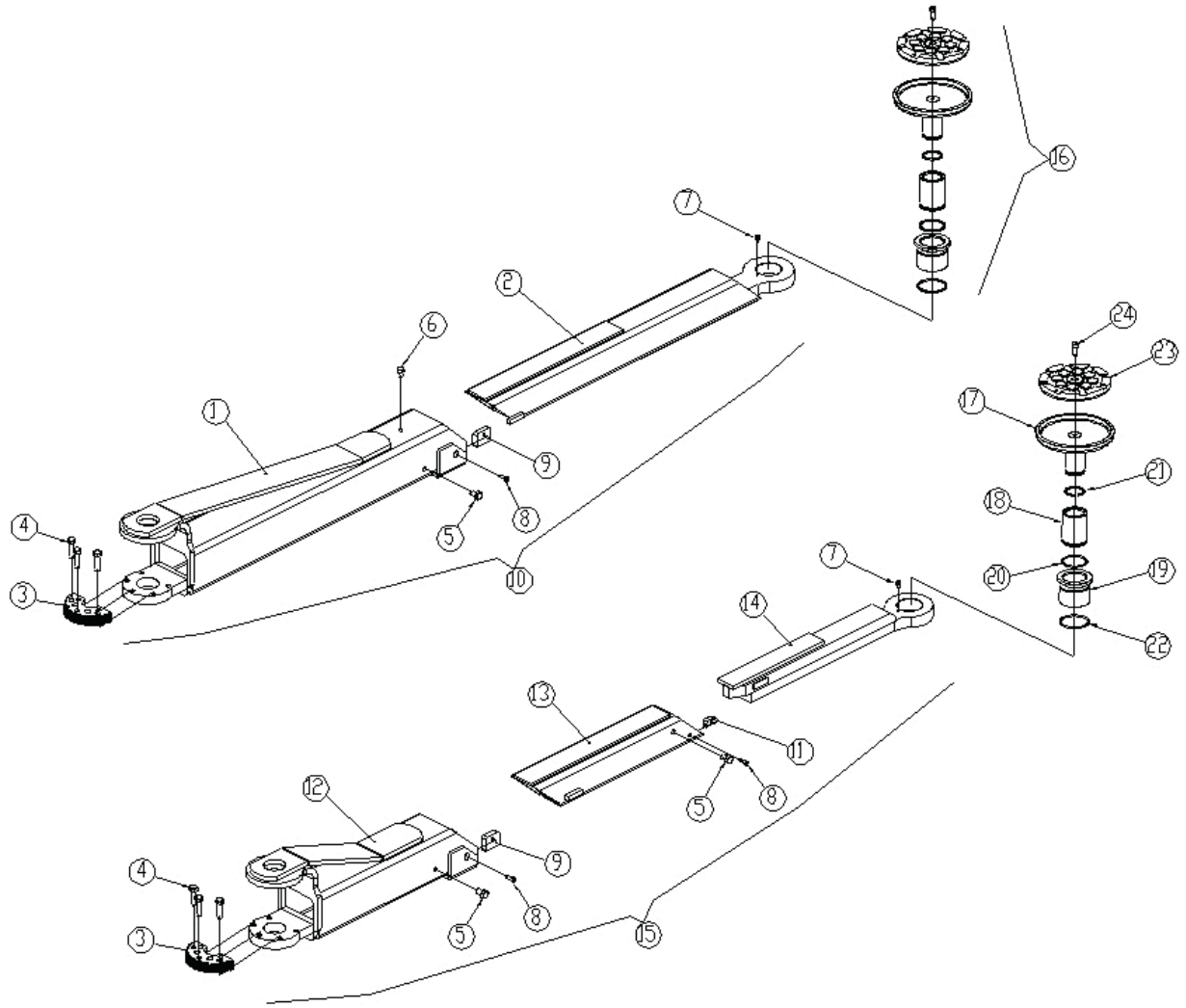
ITEM	PART NO.	DESCRIPTION	QTY
12	0201174	Shoulder bolt 8X25	1
13	0205023	Washer D.24	1
14	Z23A110009	Return spring 2	1
15	Z23A110008	Return spring 1	1
16	Z23A504101	ABS cover	1
17	0206034	Screw M8X10	4
18	0205008	Washer D.8	4
19	0211015	Seeger D.8	2
20	Z23A110005	Nylon wire pulley	1
21	0210079	Bush SF-1/1920	1

CARRIAGE



ITEM	PART NO.	DESCRIPTION	QTY
1	Z23A210000	Carriage	1
2	Z23A200001	Nylon slider	4
3	Z23A200002	Slider shim	4
4	Z23A200006	Safety release ring	2
5	Z23A200004	Safety release pin	2
6	Z23A200005	Spring	2
7	Z23A200003	Toothed block	2
8	0213052	Elastic pin 6X40	2

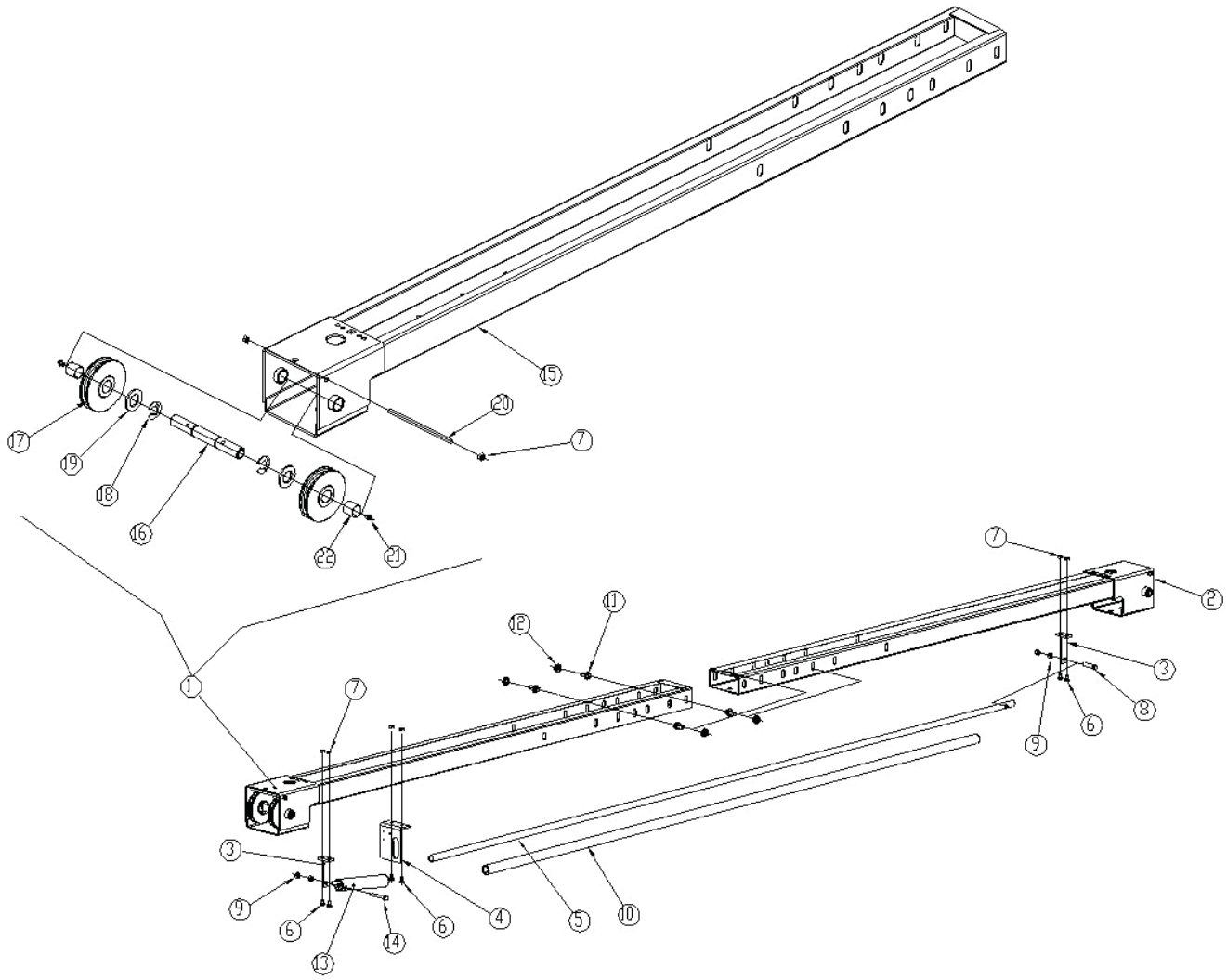
ARMS + ADAPTOR



ITEM	PART NO.	DESCRIPTION	QTY
1	Z23A311000AM	Long arm frame	1
2	Z23A312000AM	Long arm extension	1
3	Z23A310001	Anti-rotation gear	2
4	0201050	Screw M10X35	6
5	0201060	Screw M10X16	3
6	0201022	Screw M8X12	1
7	0202020	Screw M5X8	2
8	0202032	Screw M6X16	3
9	Z23A324001	Shim	2
10	Z23A310000AM	Long arm assembly	1

ITEM	PART NO.	DESCRIPTION	QTY
11	Z23A324001	Shim	1
12	Z23A321000AM	Short arm frame	1
13	Z23A322000	Short arm middle extension	1
14	Z23A323000AM	Short arm outer extension	1
15	Z23A320000AM	Short arm assembly	1
16	Z23A313000AM	Arm adaptor	2
17	Z23A313100AM	Pad support	2
18	Z23A313001	Inner thread bush	2
19	Z23A313002	Outer thread bush	2
20	0212034	Seeger D.42	2
21	0212035	Seeger D.32	2
22	0309091	O-ring 45X2.65	2
23	Z23A313202	Round rubber pad	2
24	0202032	Screw M6X16	2

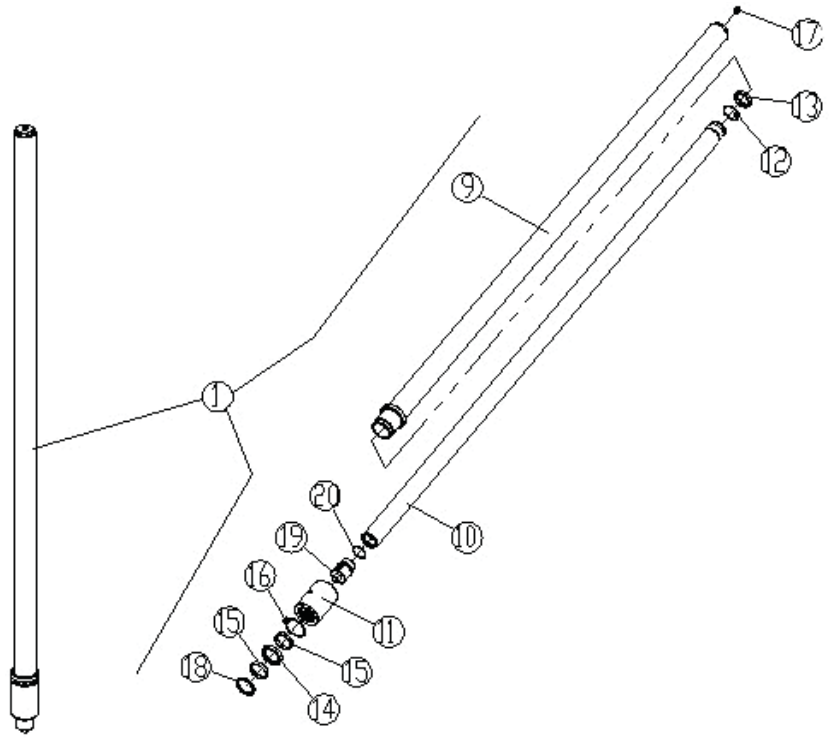
OVERHEAD BEAM



ITEM	PART NO.	DESCRIPTION	QTY
1	Z23A410000AM	Left beam assembly	1
2	Z23A420000	Right beam assembly	1
3	SYJ30-17-02M1	Support 1	2
4	2L-1-07	Support 2	1
5	Z23A400001AM	Crush safety bar	1
6	0206040	Screw M6X12	6
7	0203004	Nut M6	8
8	0201033	Screw M8X40	1
9	0203008	Nut M8	4
10	Z23A400002	Crush safety bar cover	1

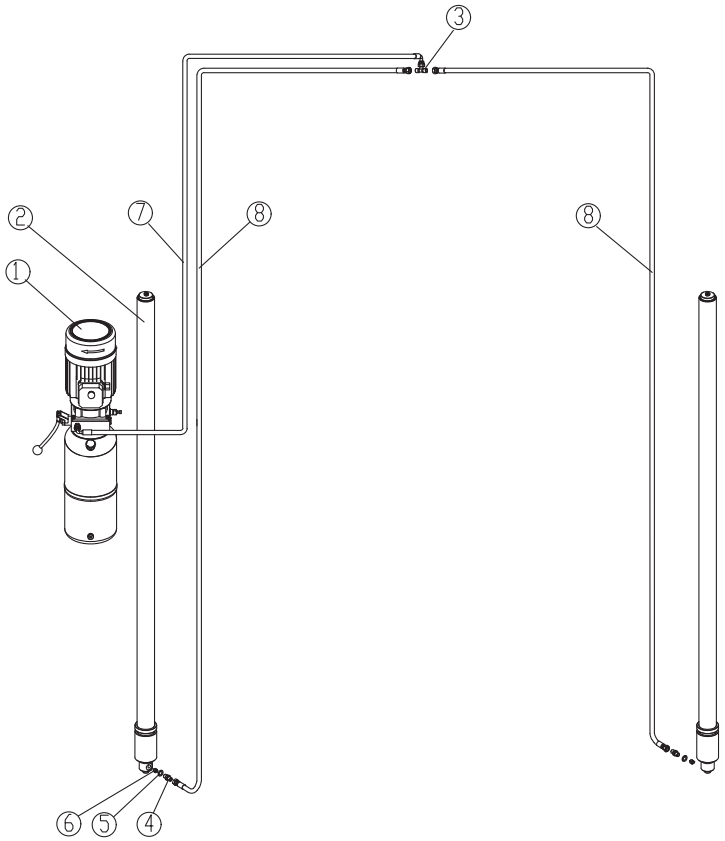
ITEM	PART NO.	DESCRIPTION	QTY
11	0201136	Screw M10X20	4
12	0204030	Flange nut M10	4
13	SP-1430-14	Mercury switch	1
14	0201020	Screw M8X55	1
15	Z23A411000AM	Left beam	1
16	Z23A410001	Pulley shaft	2
17	Z23A110001T	Cable pulley	4
18	0211014	Seeger D.15	4
19	0205023	Washer D.24	4
20	Z23A410002	Anti-derailment safety pin	2
21	0215041	Greaser M6X1 - GB/T1152	4
22	0210079	Bush SF-1/1920	4

HYDRAULIC CYLINDER



ITEM	PART NO.	DESCRIPTION	QTY
1	Z23AY20000	Hydraulic cylinder	2
9	Z23AY22000	Cylinder liner	2
10	Z23AY21002	Cylinder shaft	2
11	Z23AY18001	Cylinder cover	2
12	0212036	Seeger D. 48	2
13	0305042	Seal support ring 44X9.5X3	2
14	0310033	Seal 48X60X11	2
15	0315043	Seal 48X9.5X2.5	4
16	0309087	O-ring 56X3.55	2
17	0305017	Bleeder 1/8	2
18	0311023	Scraper 48X56X5/6.5	2
19	Z23AY11001	Shaft head	2
20	0309088	O-ring 36.5X2.65	2

HYDRAULIC LINES



ITEM	PART NO.	DESCRIPTION	QTY
1	BZ-Y1-N	Power Unit	1
2	Z23AY20000	Hydraulic Cylinder	2
3	0303021	T-Fitting 1/4 (AB-04)	2
4	0303061	Straight Fitting 1/4 (1B-04-T1)	2
5	0313001	Washer 1/4 (BS/A13.7/G1/4”)	2
6	0307021	Parachute valve 1/4 (V389201A10 G1/4)	1
7a	WW3800	Hydraulic hose 1/4 L=3800 (Standard version)	1
7b	WW4410	Hydraulic hose 1/4 L=4410 (H version)	1
8a	ZZ5090	Hydraulic hose 1/4 L=5090 (Standard version)	2
8b	ZZ5700	Hydraulic hose 1/4 L=5700 (H version)	2

For Parts & Service Assistance,
Please contact Atlas Automotive Equipment

Toll Free: 866-898-2604

Warranty

This item is warranted for five (5) years on structural components, two (2) years on hydraulic cylinders, and one (1) year on electric or air / hydraulic power units from invoice date. Wear items are covered by a 90 day warranty.

This LIMITED warranty policy does **not include a labor** warranty.

NOTE: ALL WARRANTY CLAIMS MUST BE PRE-APPROVED BY THE MANUFACTURER TO BE VALID.

The Manufacturer shall repair or replace at their option for this period those parts returned to the factory freight prepaid, which prove after inspection to be defective. This warranty will not apply unless the product is installed, used and maintained in accordance with the Manufacturers installation, operation and maintenance instructions.

This warranty applies to the ORIGINAL purchaser only, and is non-transferable. The warranty covers the products to be free of defects in material and workmanship but, does not cover normal maintenance or adjustments, damage or malfunction caused by: improper handling, installation, abuse, misuse, negligence, carelessness of operation or normal wear and tear. In addition, this warranty does not cover equipment when repairs or alterations have been made or attempted to the Manufacturer's products.

THIS WARRANTY IS EXCLUSIVE AND IS LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING ANY IMPLIED WARRANTY OR MERCHANTABILITY OR ANY IMPLIED WARRANTY OF FITNESS FROM A PARTICULAR PURPOSE, AND ALL SUCH IMPLIED WARRANTIES ARE EXPRESSLY EXCLUDED.

THE REMEDIES DESCRIBED ARE EXCLUSIVE AND IN NO EVENT SHALL THE MANUFACTURER, NOR ANY SALES AGENT OR OTHER COMPANY AFFILIATED WITH IT OR THEM, BE LIABLE FOR SPECIAL CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR THE BREACH OF OR DELAY IN PERFORMANCE OF THIS WARRANTY. THIS INCLUDES, BUT IS NOT LIMITED TO, LOSS OF PROFIT, RENTAL OR SUBSTITUTE EQUIPMENT OR OTHER COMMERCIAL LOSS.

PRICES: Prices and specifications are subject to change without notice. All orders will be invoiced at prices prevailing at time of shipment. Prices do not include any local, state or federal taxes.

RETURNS: Products may not be returned without prior written approval from the Manufacturer.

DUE TO THE COMPETITIVENESS OF THE SELLING PRICE OF THESE LIFTS, THIS WARRANTY POLICY WILL BE STRICTLY ADMINISTERED AND ADHERED TO.