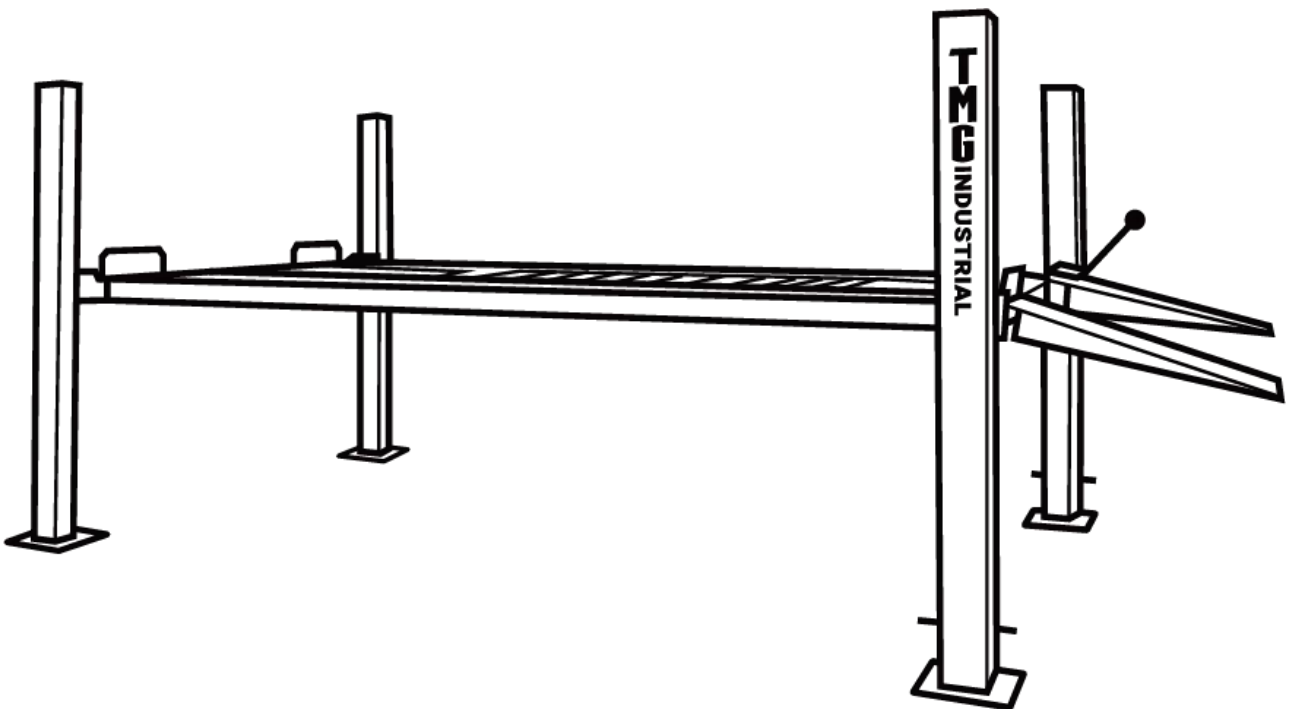


9,000 lb Four Post Auto Lift

MODEL:TMG-ALF90



- Please read the product manual completely before assembly
- Check against the parts list to make sure all parts are received
- Wear proper safety goggles or other protective gears while in assembly

Missing parts or questions on assembly?

Please call: 1-877-761-2819 or email: cs@tmgindustrial.com

Do not return the product to dealer, they are not equipped to handle your requests

IMPORTANT NOTICE

Do not attempt to install this lift if you have never been trained on basic automotive lift installation procedures. Never attempt to lift components without proper lifting tools such as forklift or cranes. Stay clear of any moving parts that can fall and cause injury. These instructions must be followed to ensure proper installation and operation of your lift. Failure to comply with these instructions can result in serious bodily harm and void product warranty. Manufacturer will assume no liability for loss or damage of any kind, expressed or implied resulting from improper installation or use of this product.



**PLEASE READ ENTIRE MANUAL
PRIOR TO INSTALLATION.**

DEFINITIONS OF HAZARD LEVELS

Identify the hazard levels used in this manual with the following definitions and signal words:



Watch for this symbol: It Means: Immediate hazards which will result in severe personal injury or death.



Watch for this symbol: It Means: Hazards or unsafe practices which could result in severe personal injury or death.



Watch for this symbol: It Means: Hazards or unsafe practices which may result in minor personal injury, product or property damage.

OWNER'S RESPONSIBILITY

To maintain the lift and user safety, the responsibility of the owner is to read and follow these instructions:

- ◆ Follow all installation and operation instructions.
- ◆ Make sure installation conforms to all applicable Local, State, and Federal Codes, Rules, and Regulations; such as State and Federal OSHA Regulations and Electrical Codes.
- ◆ Carefully check the lift for correct initial function.
- ◆ Read and follow the safety instructions. Keep them readily available for machine operators.
- ◆ Make certain all operators are properly trained, know how to safely and correctly operate the unit, and are properly supervised.
- ◆ Allow unit operation only with all parts in place and operating safely.
- ◆ Carefully inspect the unit on a regular basis and perform all maintenance as required.
- ◆ Service and maintain the unit only with authorized or approved replacement parts.
- ◆ Keep all instructions permanently with the unit and all decals on the unit clean and visible.

BEFORE YOU BEGIN

Receiving:

The shipment should be thoroughly inspected as soon as it is received. The signed bill of lading is acknowledgment by the carrier of receipt in good condition of shipment covered by your invoice. If any of the goods called for on this bill of lading are shorted or damaged, do not accept them until the carrier makes a notation on the freight bill of the shorted or damaged goods. Do this for your own protection.

NOTIFY THE CARRIER AT ONCE if any hidden loss or damage is discovered after receipt and request the carrier to make an inspection. If the carrier will not do so, prepare a signed statement to the effect that you have notified the carrier (on a specific date) and that the carrier has failed to comply with your request.

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**INSTALLER / OPERATOR
PLEASE READ AND FULLY
UNDERSTAND.
BY PROCEEDING YOU AGREE TO
THE FOLLOWING:**



Failure to follow danger, warning, and caution instructions may lead to serious personal injury or death to operator or bystander or damage to property.



Please read entire manual prior to installation. Do not operate this machine until you read and understand all the dangers, warnings and cautions in this manual.

**INSTALLER / OPERATOR
PROTECTIVE EQUIPMENT**

Personal protective equipment helps makes installation and operation safer, however, it does not take the place of safe operating practices. Always wear durable work clothing during any installation and/or service activity. Shop aprons or shop coats may also be worn, however loose fitting clothing should be avoided. Tight fitting leather gloves are recommended to protect technician hands when handling parts. Sturdy leather work shoes with steel toes and oil resistant soles should be used by all service personnel to help prevent injury during typical installation and operation activities.

Eye protection is essential during installation and operation activities. Safety glasses with side shields, goggles, or face shields are acceptable. Back belts provide support during lifting activities and are also helpful in providing worker protection. Consideration should also be given to the use of hearing protection if service activity is performed in an enclosed area, or if noise levels are high.



- ◆ I have visually inspected the site where the lift is to be installed and verified the concrete to be in good condition and free of cracks or other defects. I understand that installing a lift on cracked or defective concrete could cause lift failure resulting in personal injury or death.
- ◆ I understand that a level floor is required for proper installation and level lifting.
- ◆ I understand that I am responsible if my floor is of questionable slope and that I will be responsible for all charges related to pouring a new level concrete slab if required and any charges.
- ◆ I understand that the lifts are supplied with concrete fasteners meeting the criteria of the American National Standard “Automotive Lifts - Safety Requirements for Construction, Testing, and Validation” ANSI/ALI ALCTV-2011, and that I will be responsible for all charges related to any special regional structural and/or seismic anchoring requirements specified by any other agencies and/or codes such as the Uniform Building Code (UBC) and/or International Building Code (IBC).
- ◆ I will assume full responsibility for the concrete floor and condition thereof, now or later, where the above equipment model(s) are to be installed. Failure to follow danger, warning, and caution instructions may lead to serious personal injury or death to operator or bystander or damage to property.
- ◆ I understand that the lifts are designed to be installed in indoor locations only. Failure to follow installation instructions may lead to serious personal injury or death to operator or bystander or damage to property or lift.



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH IF NOT FOLLOWED COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OR YOURSELF AND OTHERS AND CAN CAUSE PERSONAL INJURY OR DEATH. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE THIS MACHINE.

INTRODUCTION

1. Carefully remove the crating and packing materials. **CAUTION!** Be careful when cutting steel banding material as items may become loose and fall causing personal harm or injury.

2. Check the voltage, phase and proper amperage requirements for the motor shown on the motor plate. Wiring should be performed by a certified electrician only.

IMPORTANT SAFETY INSTRUCTIONS

Read these safety instructions entirely

IMPORTANT NOTICE

Do not attempt to install this lift if you have never been trained on basic automotive lift installation procedures.
Never attempt to lift components without proper lifting tools such as forklift or cranes.
Stay clear of any moving parts that can fall and cause injury.

1. **READ AND UNDERSTAND** all safety warning procedures before operating lift.

2. **KEEP HANDS AND FEET CLEAR.** Remove hands and feet from any moving parts. Keep feet clear of lift when lowering. Avoid pinch points.

3. **KEEP WORK AREA CLEAN.** Cluttered work areas invite injuries.

4. Consider work area environment. Do not expose equipment to rain. **DO NOT** use in damp or wet locations. Keep area well lighted.

5. **ONLY TRAINED OPERATORS** should operate this lift. All non-trained personnel should be kept away from work area. Never let non-trained personnel come in contact with, or operate lift.

6. **USE LIFT CORRECTLY.** Use lift in the proper manner. Never use lifting adapters other than what is approved by the manufacturer.

7. **DO NOT** override self-closing lift controls.

8. **REMAIN CLEAR** of lift when raising or lowering vehicle.

9. **CLEAR AREA** if vehicle is in danger of falling.

10. **ALWAYS ENSURE** that the safeties are engaged before any attempt is made to work on or near vehicle.

11. **DRESS PROPERLY.** Non-skid steel-toe footwear is recommended when operating lift.

12. **GUARD AGAINST ELECTRIC SHOCK.** This lift must be grounded while in use to protect the operator from electric shock. Never connect the green power cord wire to a live terminal. This is for ground only.



13. **DANGER!** The power unit used on this lift contains high voltage. Disconnect power at the receptacle before performing any electrical repairs. Secure plug so that it cannot be accidentally plugged in during service.



14. **WARNING! RISK OF EXPLOSION.** This equipment has internal arcing or sparking parts which should not be exposed to flammable vapors. This machine should not be located in a recessed area or below floor level.



15. **MAINTAIN WITH CARE.** Keep lift clean for better and safer performance. Follow manual for proper lubrication and maintenance instructions. Keep control handles and/or buttons dry, clean and free from grease and oil.

16. **STAY ALERT.** Watch what you are doing. Use common sense. Be aware.

18. **CHECK FOR DAMAGED PARTS.** Check for alignment of moving parts, breakage of parts or any condition that may affect its operation. Do not use lift if any component is broken or damaged.

18. **NEVER** remove safety related components from the lift. Do not use lift if safety related components are damaged or missing.

19. Keep hair, loose clothing, fingers, and all parts of body away from moving parts

20. Use only as described in this manual. Use only manufacturer's recommended attachments

21. **ALWAYS WEAR SAFETY GLASSES.** Everyday eyeglasses only have impact resistant lenses, they are not safety glasses

22. **SAVE THESE INSTRUCTIONS.**

TOOLS REQUIRED

- ◆ Rotary Hammer Drill or Similar
- ◆ 3/4" Masonry Bit
- ◆ Hammer
- ◆ 4 Foot Level
- ◆ Open-End Wrench Set: SAE /Metric
- ◆ Socket And Ratchet Set: SAE/ Metric
- ◆ Hex-Key / Allen Wrench Set
- ◆ Medium Crescent & Pipe Wrenches
- ◆ Torque Wrench
- ◆ Crow Bar
- ◆ Chalk Line
- ◆ Medium Flat Screwdriver
- ◆ Tape Measure: 25 Foot Minimum
- ◆ Needle Nose Pliers

IMPORTANT NOTICE

These instructions must be followed to ensure proper installation and operation of your lift. Failure to comply with these instructions can result in serious bodily harm and void product warranty. Manufacturer will assume no liability for loss or damage of any kind, expressed or implied resulting from improper installation or use of this product.

PLEASE READ ENTIRE MANUAL PRIOR TO INSTALLATION

STEP 1

(Selecting Site)

Before installing your new lift, check the following.

1. **LIFT LOCATION:** Always use architects plans when available. Check layout dimension against floor plan requirements making sure that adequate space if available.
2. **OVERHEAD OBSTRUCTIONS:** The area where the lift will be located should be free of overhead obstructions such as heaters, building supports, electrical lines etc.
3. **DEFECTIVE FLOOR:** Visually inspect the site where the lift is to be installed and check for cracked or defective concrete.



4. Lift is designed for **INDOOR INSTALLATION ONLY**. Outdoor use permitted only if covered and dry. Always follow warnings illustrated on equipment labels.

STEP 2

(Floor Requirements)



This lift must be installed on a solid level concrete floor with no more than 3° of slope. Failure to do so could cause personal injury or death. A level floor is suggested for proper use and installation and level lifting. If a floor is of questionable slope, consider a survey of the site and/or the possibility of pouring a new level concrete slab.



- ◆ **DO NOT** install or use this lift on any asphalt surface or any surface other than concrete.
- ◆ **DO NOT** install or use this lift on expansion seams or on cracked or defective concrete.
- ◆ **DO NOT** install or use this lift on a second / elevated floor without first consulting building architect.

CONCRETE SPECIFICATIONS

CONCRETE REQUIREMENTS

3.5"~4"	Min.Thickness/ 2,500PSI
---------	-------------------------



All models **MUST** be installed on 2500 PSI concrete only conforming to the minimum requirements shown above. New concrete must be adequately cured by at least 28 days minimum.

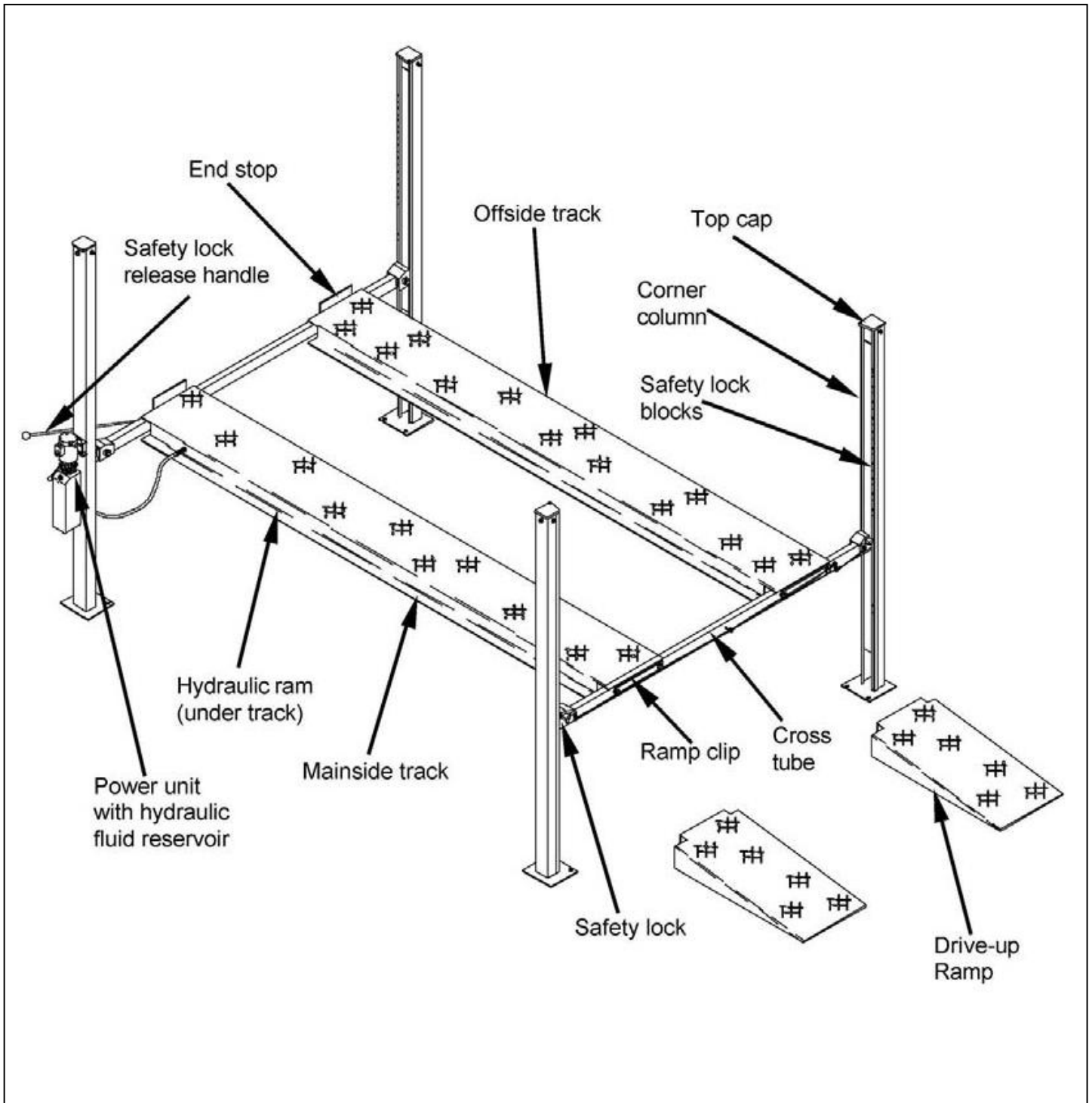
IMPORTANT NOTE:

The lifts are supplied with installation instructions and concrete fasteners meeting the criteria as prescribed by the American National Standard "Automotive Lifts - Safety Requirements for Construction, Testing, and Validation" ANSI/ALI ALCTV-2011. Lift buyers are responsible for any special regional structural and/or seismic anchoring requirements specified by any other agencies and/or codes such as the Uniform Building Code (UBC) and/or International Building Code (IBC).

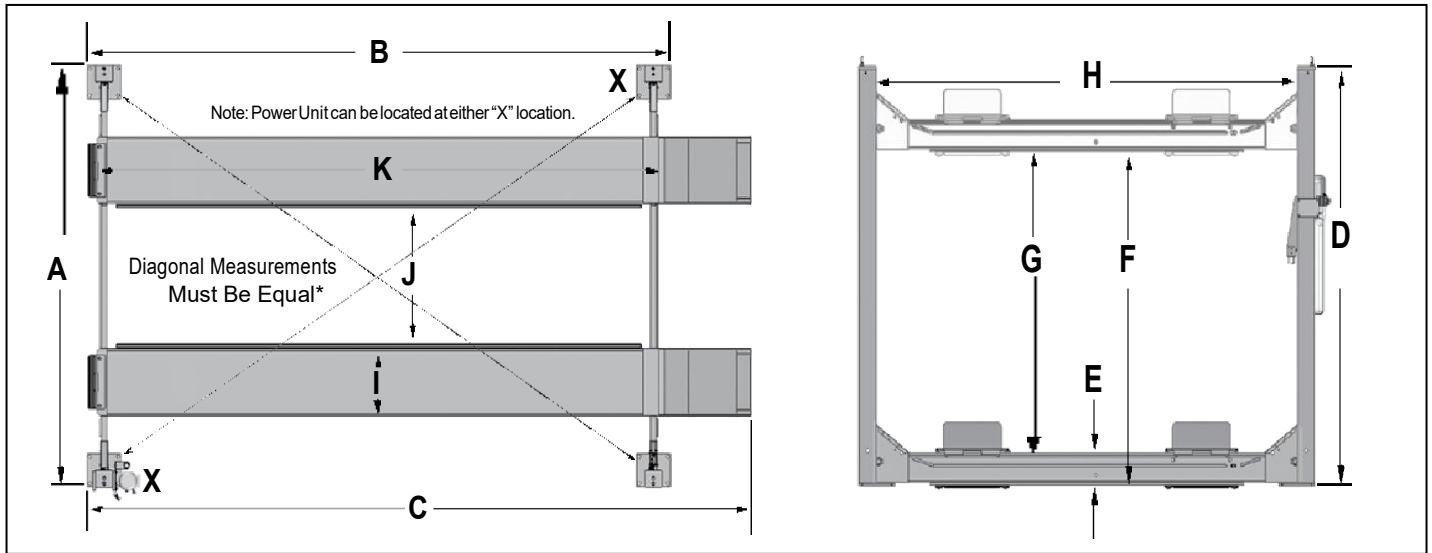
! DANGER

When removing the lift from shipping angles pay close attention as the posts can slide and can cause injury. Prior to removing the bolts make sure the posts are

held securely by a fork lift or some other heavy lifting device.



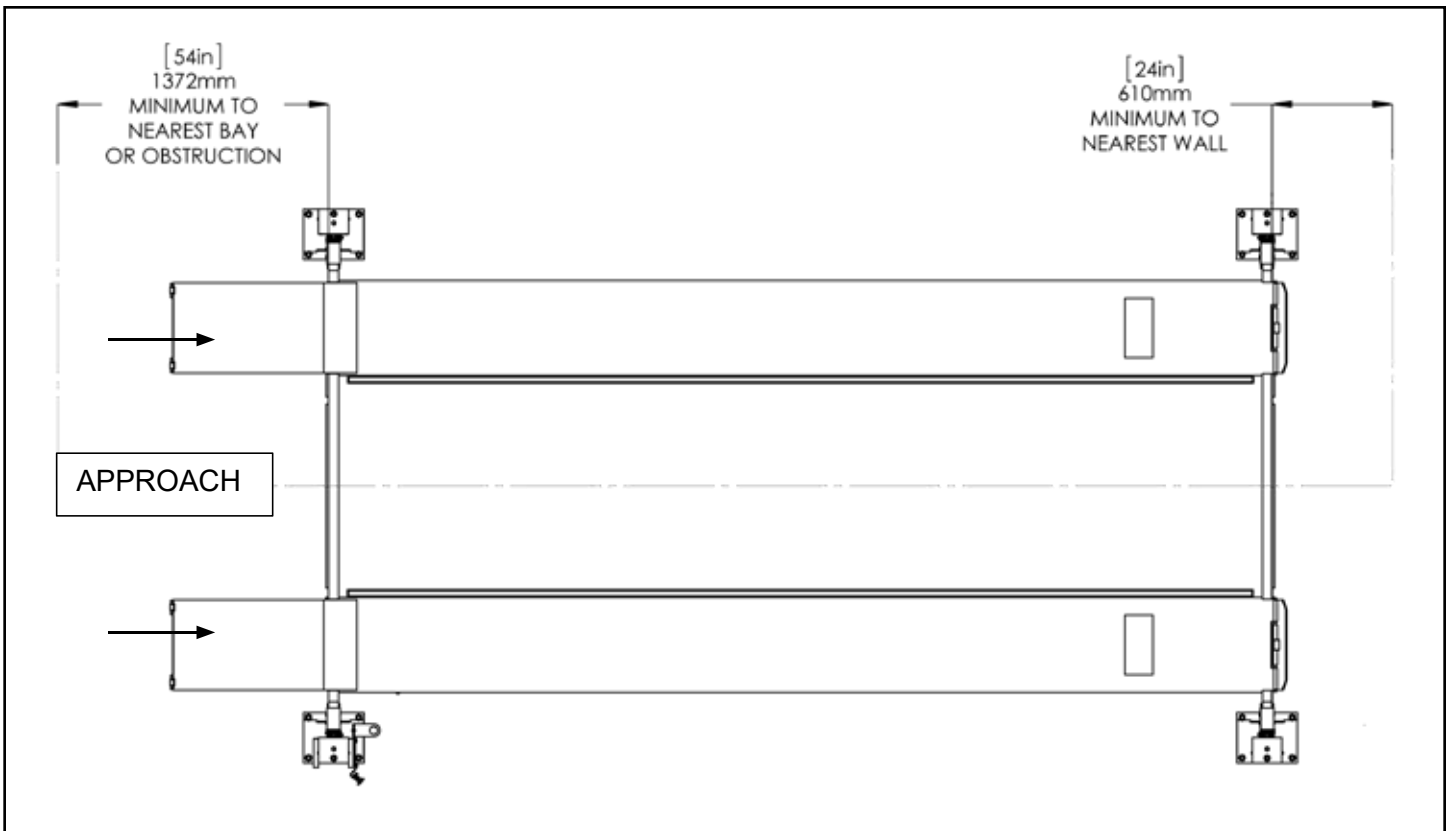
FLOOR PLAN



IMPORTANT NOTE
Check Diagonal Measurements To Ensure Square Layout
Diagonal Measurements Must Be Equal.

MODEL	TMG-ALF90
Lifting Capacity	9,000 lbs / 4082 Kg.
Max capacity / front axle	4,500 lbs. / 2,041 kg
Max capacity / rear axle	4,500 lbs. / 2,041 kg
A - Overall Width	105" / 2,664mm
B - Outside Length	175-1/8" / 4,453 mm
C - Overall Length	206-1/2" / 5,244mm
D - Height of Columns	84" / 2,133 mm
E - Min. Runway Height	4-1/2" / 115 mm
F - Max. Rise	73" / 1,855mm
G - Max Lifting Height	77" / 1,955 mm
H - Width Between Columns	92" / 2,337mm
I - Runway Width	18-5/8" / 473 mm
J - Width Between Runways(**)	37-1/2" / 956 mm
K - Length of Runways	165-3/8" / 4,200 mm
Locking Positions	10
Lock Spacing	Every 4" / 102 mm
Lifting Time	60 Seconds
Standard Motor (**)	220 VAC / 60Hz 1 Ph
Emission sound pressure at Operator Position < 70 dB(A)	
* This dimension may be limited with the addition of rolling jacks. See Rolling Jack Specifications on Separate page.	
The design, material and specifications are subject to change without notice.	

CLEARANCES



1. Lift Location: Use architects plan and Engineers automatic level (transit) when available to locate lift. The above shows clearances of a typical bay layout. Lift floor area should be level.

2. Ceiling or overhead clearance must be 80" plus height of tallest vehicle.

3. Estimating Column Shim requirements:
In the following section, the terms "highest" and "lowest" refer to elevation of floor.

A. Mark locations where lift columns will be positioned in bay.

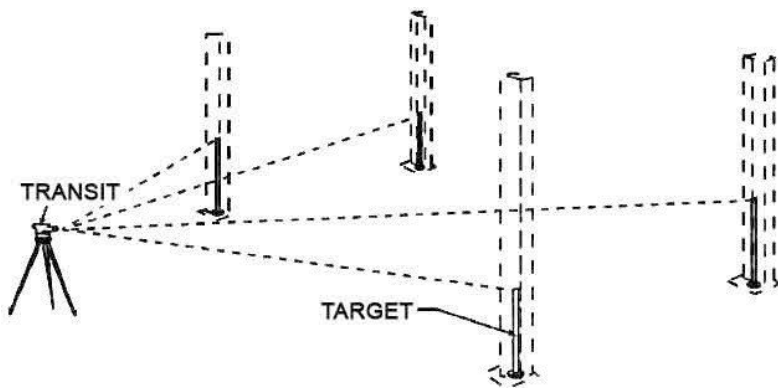
B. Place target on floor at column positions (NOT on column base plates) and record readings.

C. Find the highest of the four locations. Find the difference between the readings at each of the remaining three columns and the highest reading.

D. The difference is the estimated amount of shim thickness needed at each column.

Note: Maximum shim thickness is 1/2" per column using shims and anchors.

If no transit is available, floor slope can be determined by using a chalk line and level.

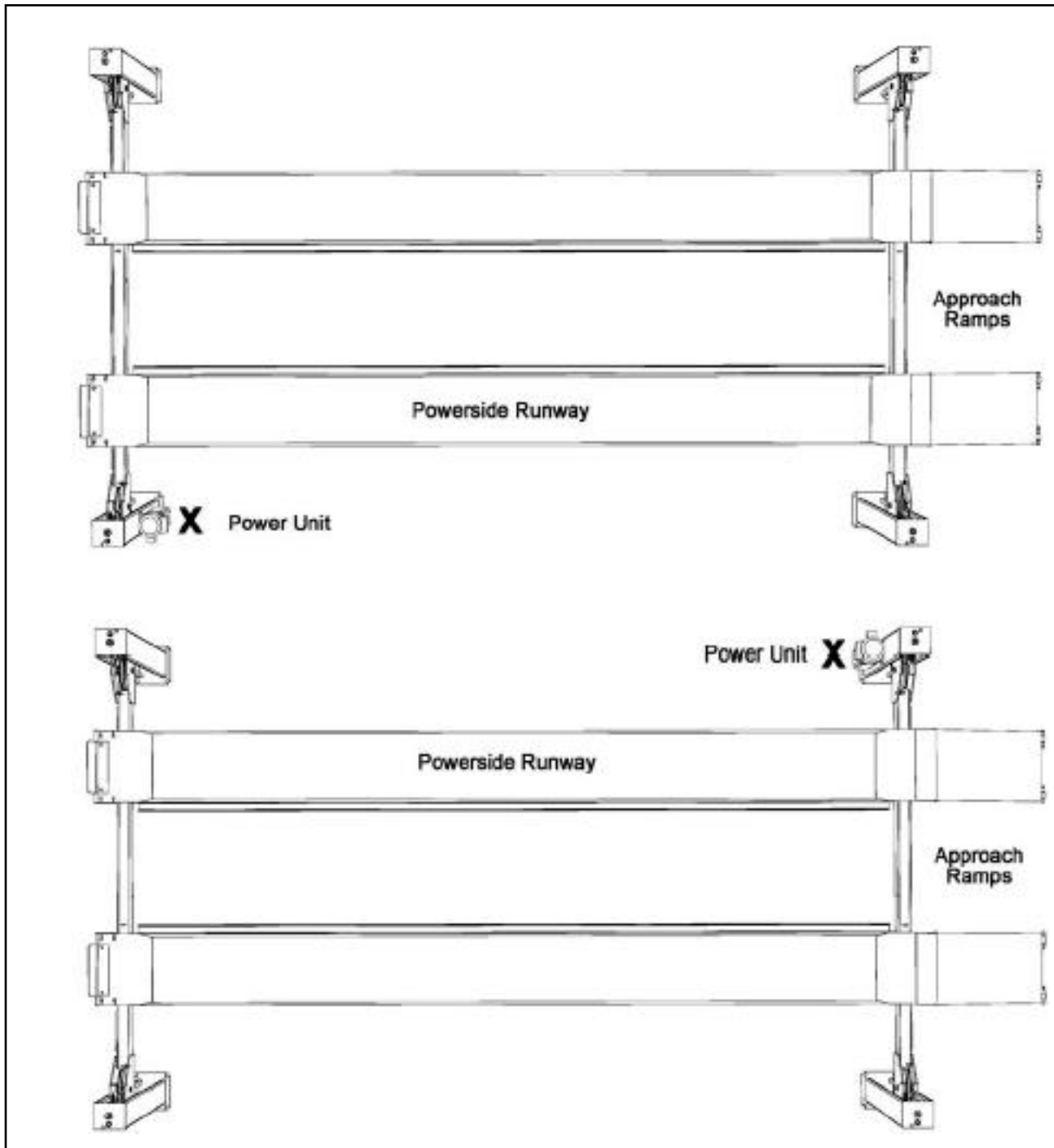


COLUMN SHIM ESTIMATES

POWER UNIT LOCATION IMPORTANT NOTE

The Power Unit can be located at either “X” location shown below. It is important to locate the POWERSIDE Runway (with Cylinder) on the SAME SIDE as the power unit location. Utility rails on the side of each Runway MUST be installed to the inside.

For the remainder of this instruction we will illustrate the Power Unit mounted at the DRIVER-SIDE (LEFT) FRONT Column - TOP ILLUSTRATION. For Power Unit at right rear, rotate lift 180° leaving Approach Ramps and Front Tire Stops in original position.



STEP 3

(Column & Crosstube Installation)

1. Place a chalk line on the floor according to the floor plan layout. Pay attention to the power Unit location. Locate and stand the columns at their respective locations. **DO NOT BOLT** Columns down at this time. Use caution to prevent the Columns from falling over. (See Fig. 3.1)

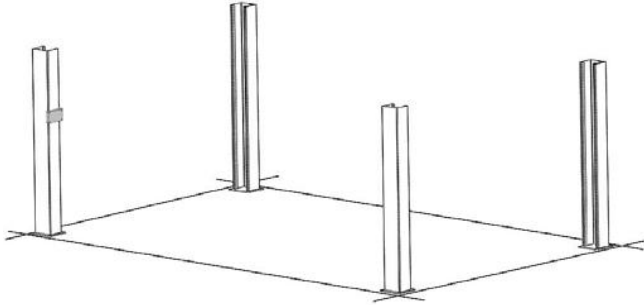


Fig 3.1

(If not bolting lift to the floor, skip to Item 3.)

2. To estimate the shim requirements, place a target on floor at each Column position and record the readings. Find the highest of the four locations then find the difference between each of the remaining Columns. This difference is the estimated amount of shim thickness that will be required at each Column. (See Fig. 3.2)

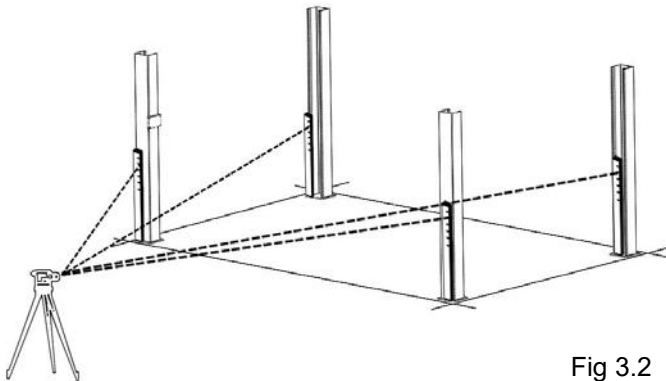


Fig 3.2

Note: The maximum shim thickness recommended by the factory is no more than 1/2" per Column using shims and anchors provided with the lift. A maximum shim thickness of 2" is possible by ordering optional shim plates.

3. Using a forklift or crane, raise the crosstubes (making sure the Plastic Slide Blocks are still in position) and drop down into the top of the Columns. NOTE: The Sheave Windows should be positioned inward and adjacent the Power Unit Column. (See Fig. 3.3)

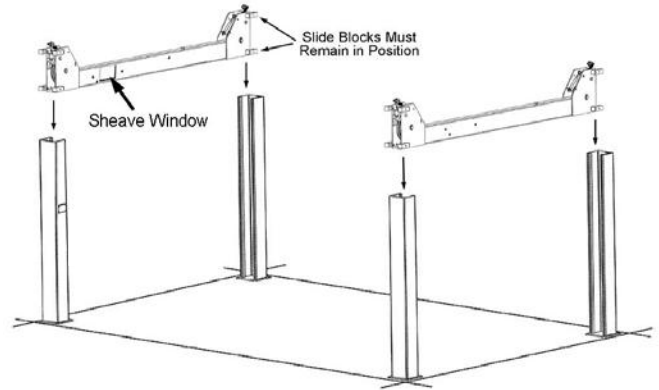
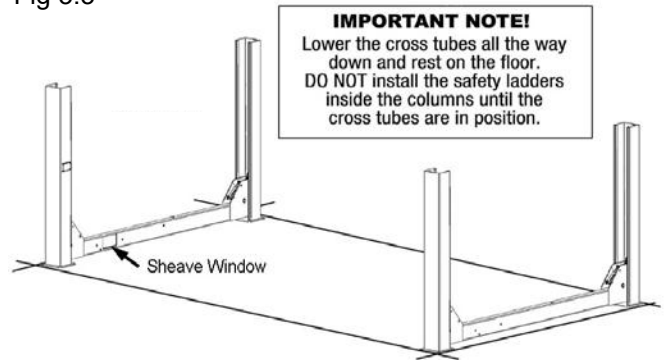


Fig 3.3



4. The Columns and Crosstubes will now be in position and spaced properly for the Runways.

STEP 4

(Raising The Crosstubes)

1. Before proceeding it will be necessary to first raise the Crosstubes off the ground to facilitate Cable routing and final assembly.

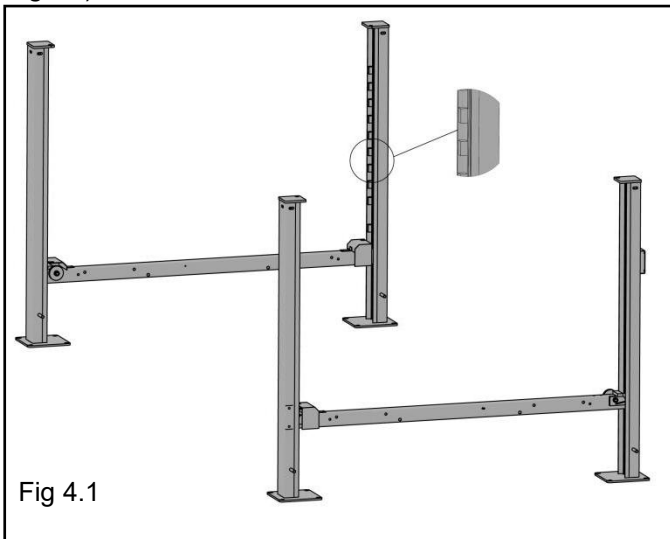


Be careful not to disturb the Columns and Crosstubes as they may tip over causing personal injury or harm

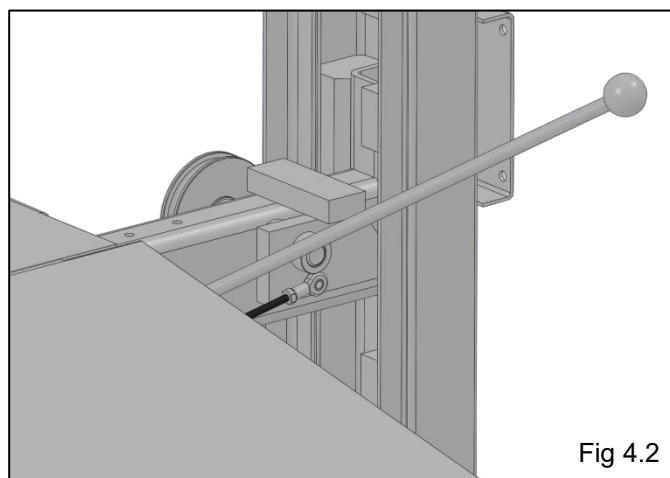
IMPORTANT NOTE

It is important that the SLACK SAFETY LOCK IS CLEARED. The Slack Safety Lock must never rest on the Safety Ladder.

2. Manually raise the Crosstubes until the Primary Safety Locks engage and rest on the third or fourth lock position or approximately 24" off the ground. (See Fig 4.1)



3. It is important that the SLACK SAFETY LOCK IS CLEARED. The Slack Safety Lock must never rest on the Safety Ladder. (See Fig. 4.2)

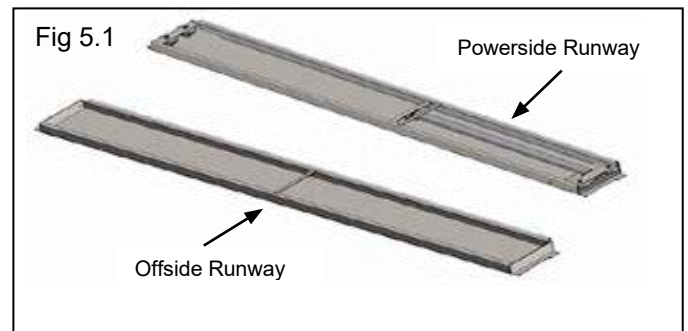


4. The Columns and Crossubes will now be in position and spaced properly for the Runways. Be very careful not to disturb the Columns and Crosstubes at this time as they may tip over causing personal injury or harm.

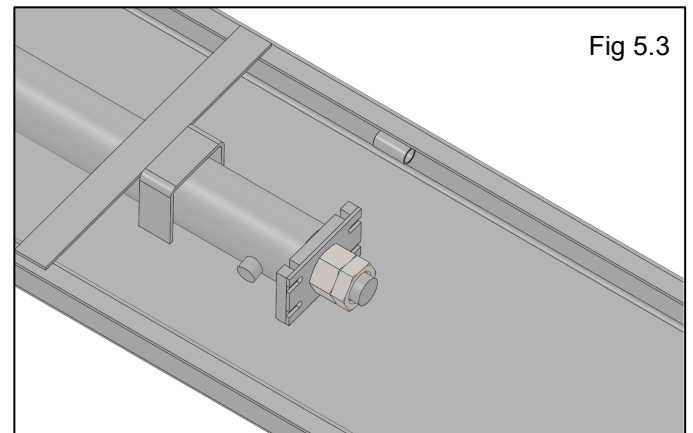
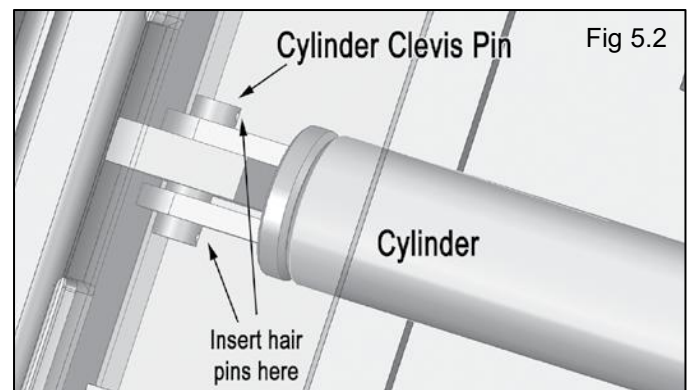
STEP 5

(Powerside Runway Installation)

1. Locate the Powerside Runway easily identified by the Cylinder and Sheave roller mounting structures welded on The underside. The Powerside Runway will be positioned on the side of the lift where the power unit is installed. (See Fig.5.1)

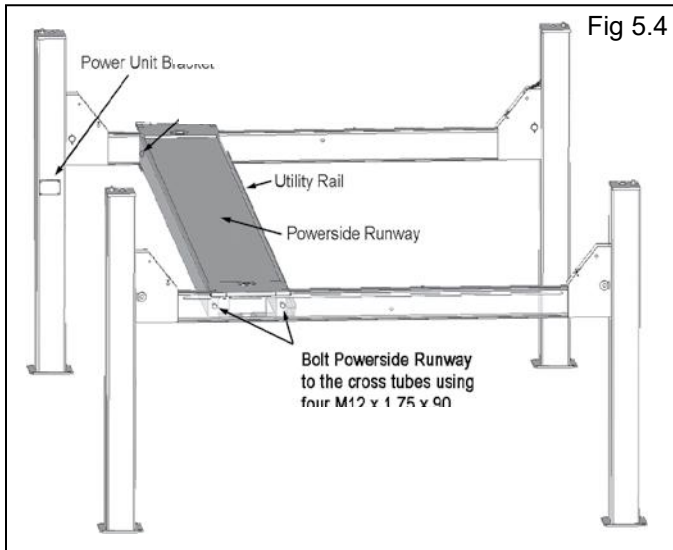


2. Install Cylinder and Cable Block as shown. (See Fig. 5.2-5.3)



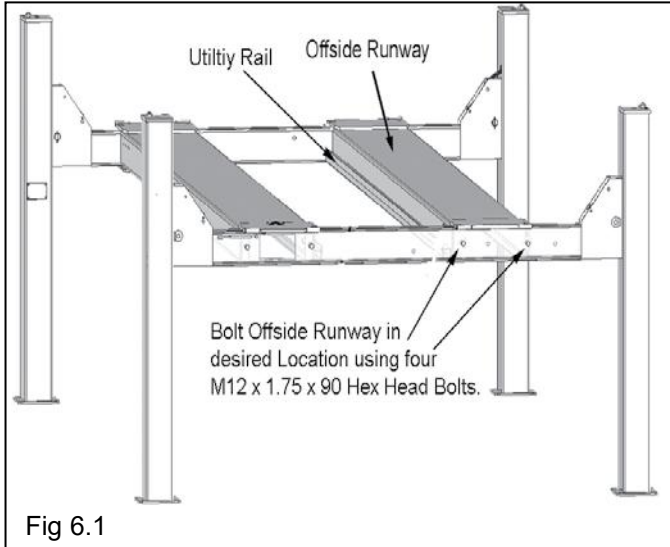
3. Remove any pre-installed Cable Sheaves from the Powerside Runway making sure to pay attention to the order in which they are removed. (This will help at the time of re-installation.) (See Page 14.)

4. Position the Powerside Runway on top of the Crosstubes with the utility rail towards the center. The Flex Tube Holes located at the side of the Powerside Runway should be adjacent to the Power Unit Column. Align the holes in the Runway with the holes on the Crosstubes and bolt together using four M14 x 2 x 100 Hex Head Bolts and Washers. (See Fig. 5.4)



STEP 6 (Offside Runway Installation)

1. Position the Offside Runway on top of the Crosstubes with the Utility Rail located inside. Determine the desired location of the Offside Runway. Align the holes in the Runway with the desired holes on the Crosstubes and bolt together using four M14 x2x 100 Hex Head Bolts and Washers. . (See Fig. 6.1)

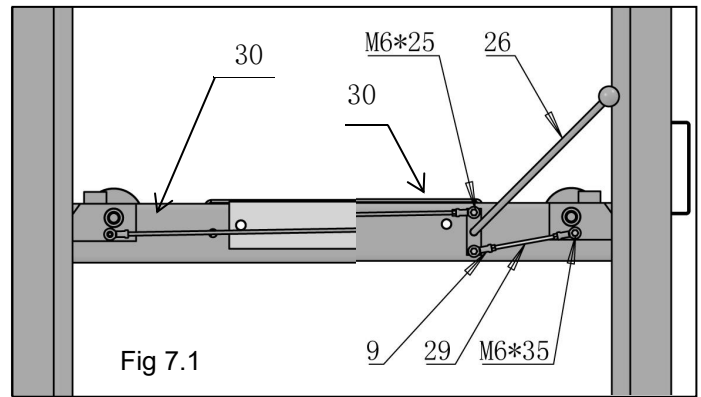


DO NOT PROCEED with Cable installation or go near the lift work area unless visual confirmation is made of ALL Safety Locks. ALL locks MUST be engaged before proceeding. Failure to comply with these instructions may result in severe personal injury or death. (See page 11)

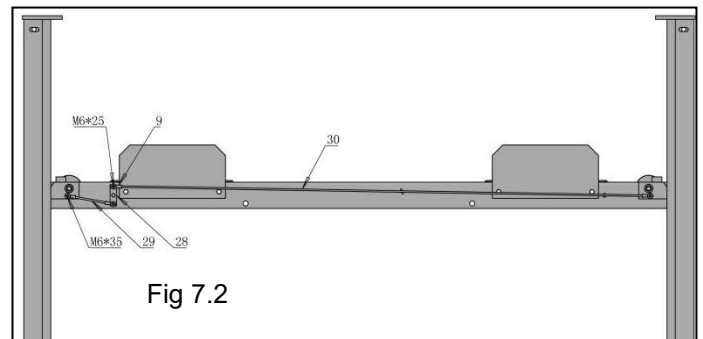
STEP 7

(Safety Lock Release Installation)

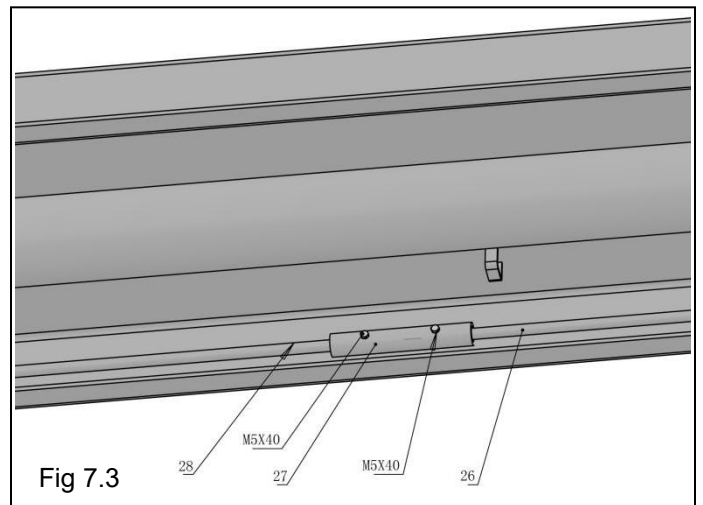
1. Install unlocked handles on the Crosstubes (power unit mounting side) and install joint bearings with M6x25, Install long, short unlock rod with M6X35.(See Fig7.1)



2. Install long unlocking lever on the Crosstubes and install joint bearings with M6x25, Install long, short unlock rod with M6X35.(See Fig7.2)



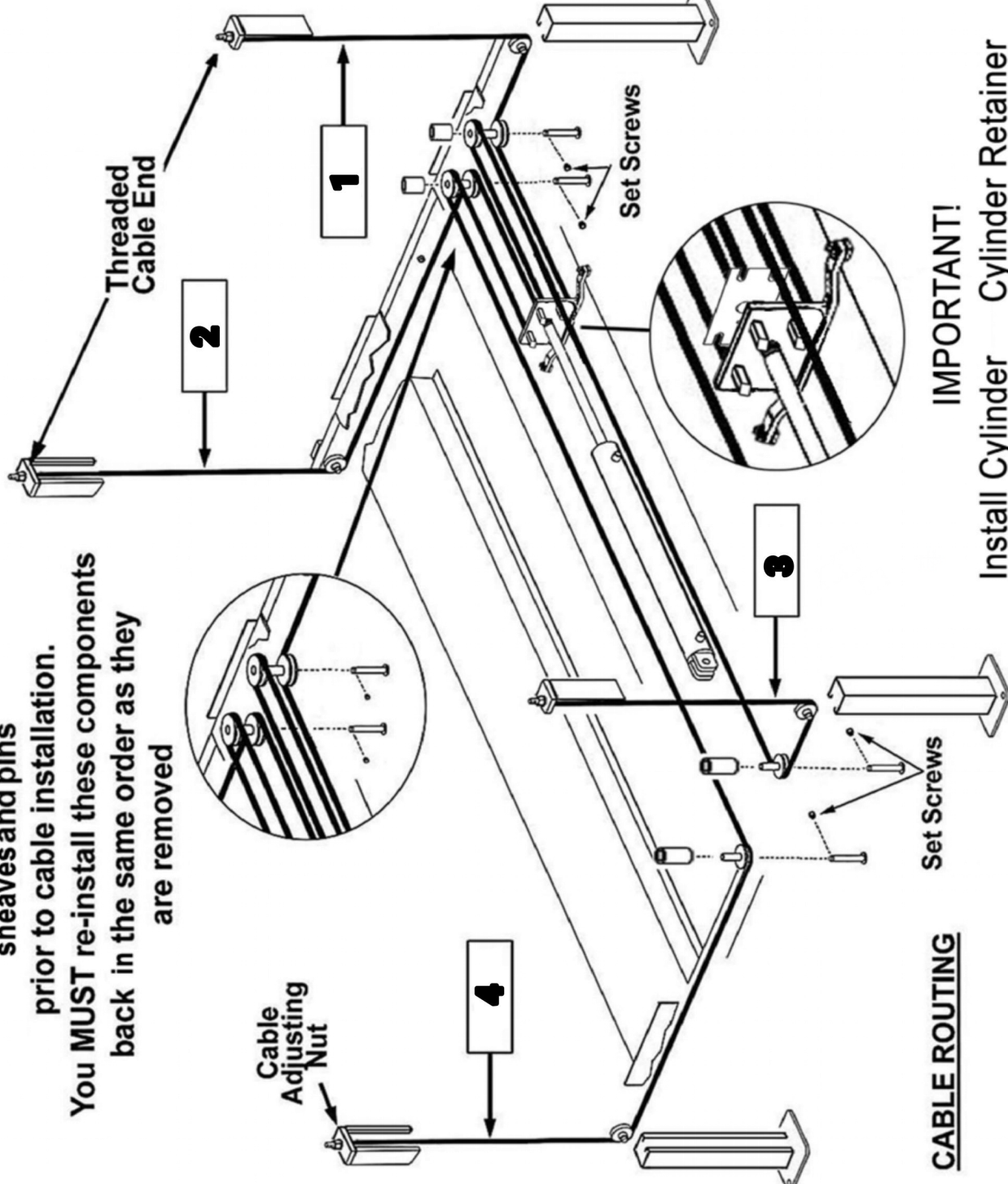
3. Connect the unlock handle and long unlock lever with the connecting sleeve.(See Fig7.3)



4. Press down the unlock handle, and the four-corner lock block can shrink at the same time to achieve the unlock function. After releasing the pressure, the lock block can be reset at the same time.

IMPORTANT

It will be necessary to remove sheaves and pins prior to cable installation. You **MUST** re-install these components back in the same order as they are removed



The cable length:
 1: 2670mm
 2: 4085mm
 3: 6720mm
 4: 8145mm

CAUTION!
 Tighten shaft set screws securely after routing cables. Failure to do so may result in injury or damage to lift.

IMPORTANT!

Install Cylinder Cylinder Retainer Guide As Shown Plate This side

CABLE ROUTING

STEP 8

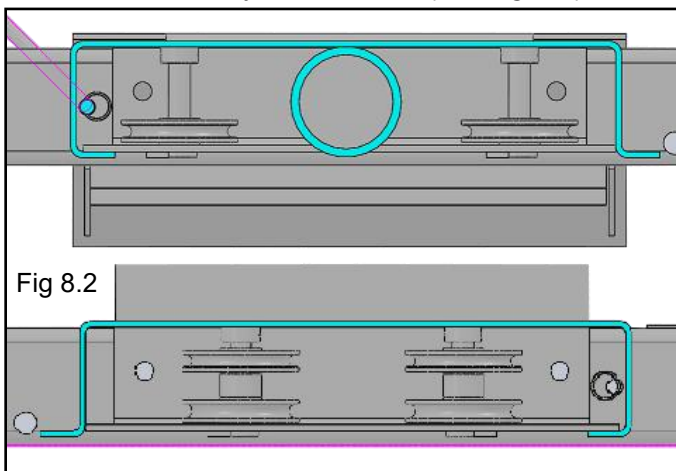
(Cable / Sheave Installation)

1. Inspect Cables to ensure proper lengths. All Cables should have ID tags showing proper Cable lengths.
2. In order to install the Cables it is necessary to first extend the Hydraulic Cylinder. Remove both Cylinder port plugs then use an air gun or come-along to extend the Cylinder.

IMPORTANT! - Be careful not to damage the chrome rod during this step. (See Fig. 8.1)



3. You must re-install the Sheaves and Pins in the same order as they are removed. (See Fig. 8.2)



! DANGER

DO NOT PROCEED unless visual confirmation is made of ALL Safety Locks. ALL locks **MUST** be engaged before proceeding. Failure to comply with these instructions may result in severe personal injury or death. (See page 11.)

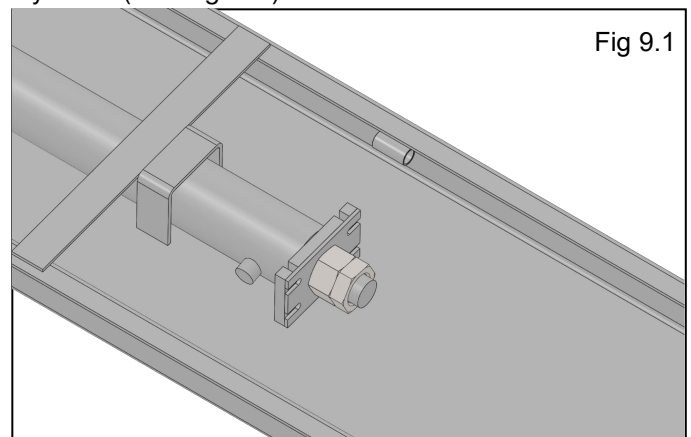
! DANGER

Failure to route Lifting Cables as described may lead to serious personal injury and/or death to operator or bystander and/or may cause damage to property.

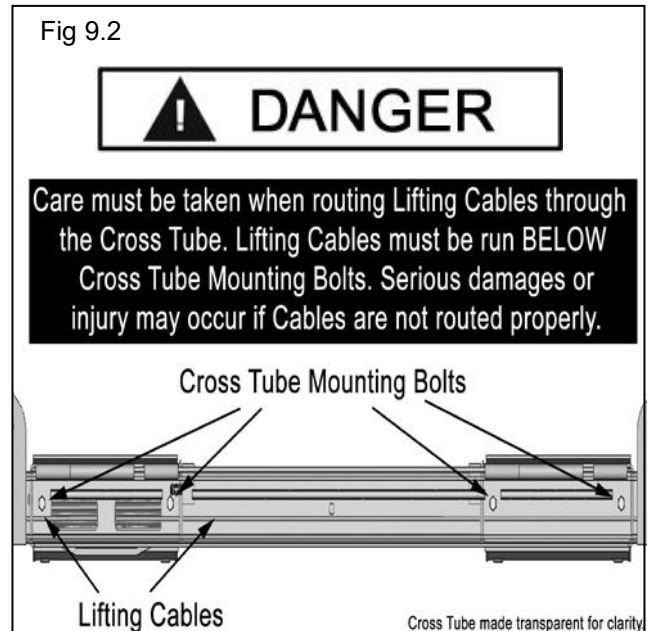
STEP 9

(Cable Installation)

1. The Cylinder Flange Plate **MUST** be installed with the Guide Assembly facing down, the welded on Spacer towards the Cylinder and the Cylinder Retainer plate on the outside of the guide. Lug ends of Cables start at Cylinder. (See Fig. 9.1)



2. Route the threaded Cable ends through the ends of each Crosstube. Care must be taken when routing the Lifting Cables to ensure they are routed **below** the Crosstube Mounting Bolts. (See Fig 9.2)

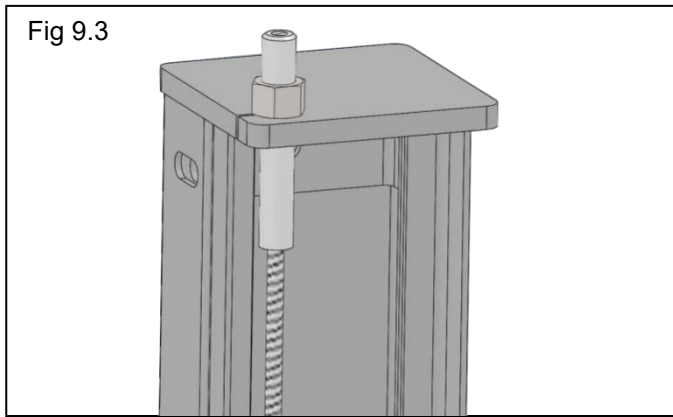


3. Route Cables over the Slack Safety Sheaves then to the top of each Column. Secure using the M20 Hex Head Nuts and Flat Washers. (See Fig. 8.3)

STEP 10

(Power Unit Installation)

1. Mount the Power Unit to the Mounting Bracket using the M8 Hex Head Bolts and Nylock Nuts then fill the reservoir with 12 quarts of 10-WT hydraulic oil or Dexron III automatic transmission fluid. (See Fig. 10.1)



4. Tighten each Nut until there is at least 2-3 threads protruding through the top of the nut. The Cables will remain loose until start up and final Cable adjustments are made. (See Fig. 9.4)

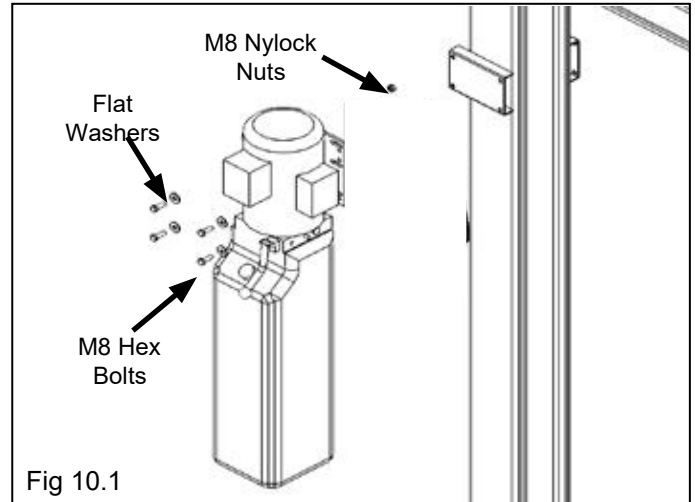
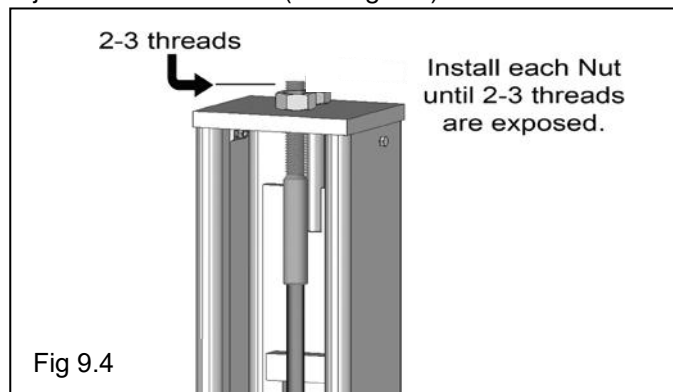


Fig 10.1



ALL WIRING MUST BE PERFORMED
BY A LICENSED ELECTRICIAN.



DO NOT PERFORM ANY MAINTENANCE OR
INSTALLATION OF ANY COMPONENTS
WITHOUT FIRST ENSURING THAT ELECTRICAL
POWER HAS BEEN DISCONNECTED AT
THE SOURCE OR PANEL AND CANNOT BE
RE-ENERGIZED UNTIL ALL MAINTENANCE
AND/OR INSTALLATION
PROCEDURES ARE COMPLETED.

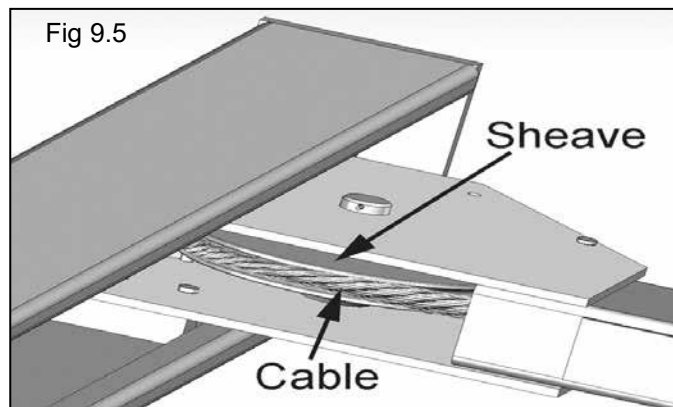
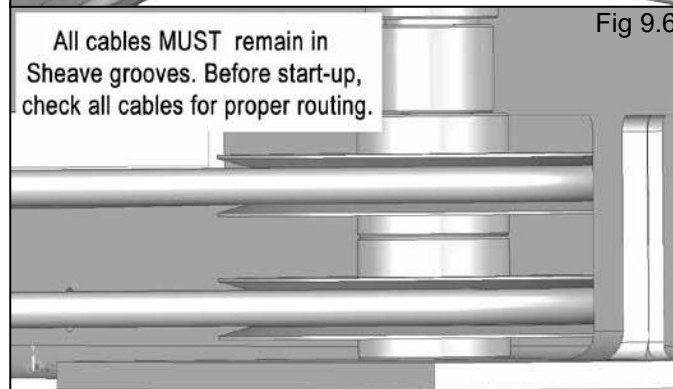


Fig 9.5

All cables MUST remain in
Sheave grooves. Before start-up,
check all cables for proper routing.

Fig 9.6



The standard Power Unit for your lift is 220 volt, 60HZ, single phase.

All wiring must be performed by a certified electrician only.

SEE WIRING INSTRUCTIONS AFFIXED TO MOTOR FOR PROPER WIRING INSTRUCTIONS.



DO NOT run Power Unit with no oil. Damage to pump can occur.

The Power Unit must be kept dry. Damage to Power Unit caused by water or other liquids such as detergents, acid etc., is not covered under warranty.

Operate lift only between temperatures of 41 °- 104° F.

Improper electrical hook-up can damage motor and will not be covered under warranty.

Motor can not run on 50HZ without a physical change in motor.

Use a separate breaker for each Power Unit.

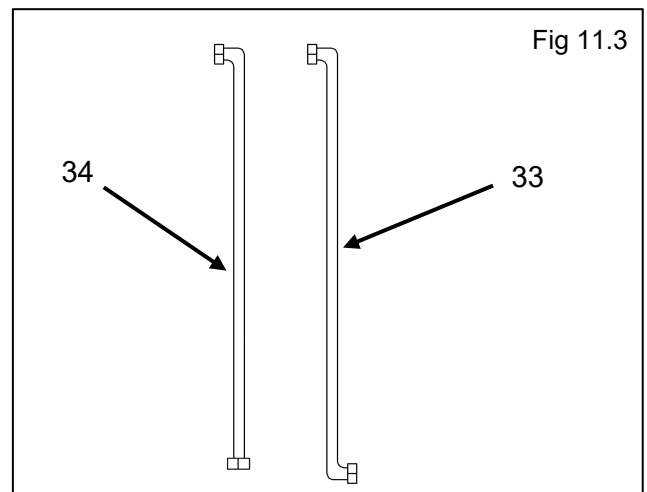
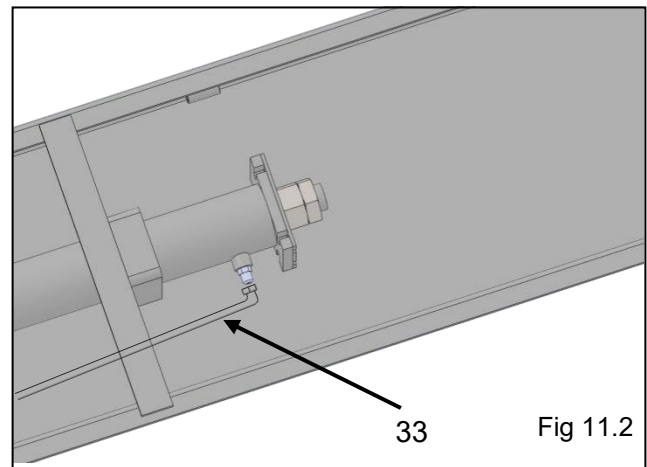
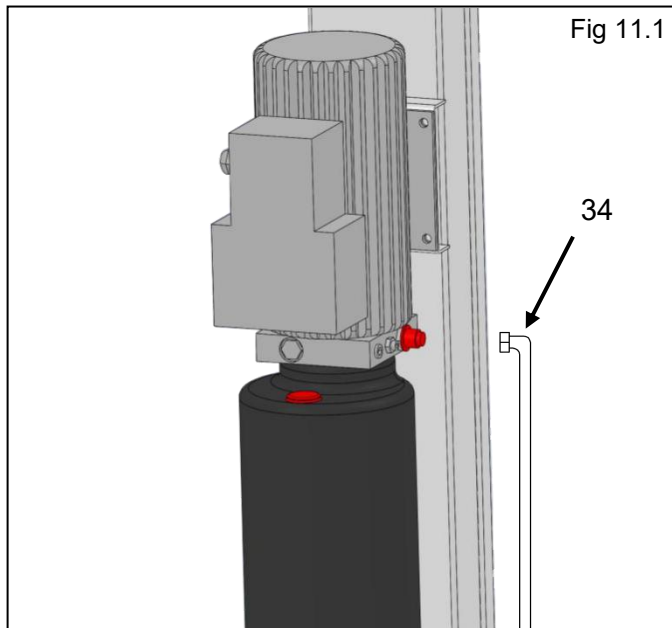
Protect each circuit with time delay fuse or circuit breaker.

For 208-230 volt, single phase, use a 25 amp fuse.

STEP 11

(Routing Hydraulic Hoses)

1. Install the Hydraulic Fitting to the POWER PORT and the connect the Hoses as described below. It will be necessary to remove the shipping plugs from the ports prior to installing the Fittings.(See Fig. 11.1 - 11.3)



2. Install the Hydraulic Fitting in the port at the ram end of the Cylinder. On the pipe thread side of the Fitting it is recommended to use Teflon Tape or pipe sealer. DO NOT USE TEFLON TAPE on the JIC flaredend.

(See Fig. 11.2)



DO NOT PERFORM ANY MAINTENANCE OR INSTALLATION OF ANY COMPONENTS WITHOUT FIRST ENSURING THAT ELECTRICAL POWER HAS BEEN DISCONNECTED AT THE SOURCE OR PANEL AND CANNOT BE RE-ENERGIZED UNTIL ALL MAINTENANCE AND/OR INSTALLATION PROCEDURES ARE COMPLETED.

IMPORTANT POWER-UNIT INSTALLATION NOTES

- DO NOT run power unit with no oil. Damage to pump can occur.
- The power unit must be kept dry. Damage to power unit caused by water or other liquids such as detergents, acid etc., is not covered under warranty.
- Improper electrical hook-up can damage motor and will not be covered under warranty.
- Motor can not run on 50HZ without a physical change in motor.
- Use a separate breaker for each power unit.
- Protect each circuit with time delay fuse or circuit breaker.
- For 208-230 volt, single phase, use a 25 amp fuse.

INSTALLATION AND ADJUSTMENT

DO NOT attempt to raise vehicle until a thorough operation check has been completed.

ALL WIRING MUST BE PERFORMED BY A CERTIFIED ELECTRICIAN ONLY.

**SEE WIRING INSTRUCTIONS AFFIXED TO MOTOR FOR PROPER
WIRING INSTRUCTIONS.**

STEP 12

(Power Unit Hook Up)

1. Have a certified electrician run the power supply to motor. Refer to the data plate found on the motor for proper power supply and wire size.



RISK OF EXPLOSION!

This equipment has internal arcing or parts that may spark and should not be exposed to flammable vapors.

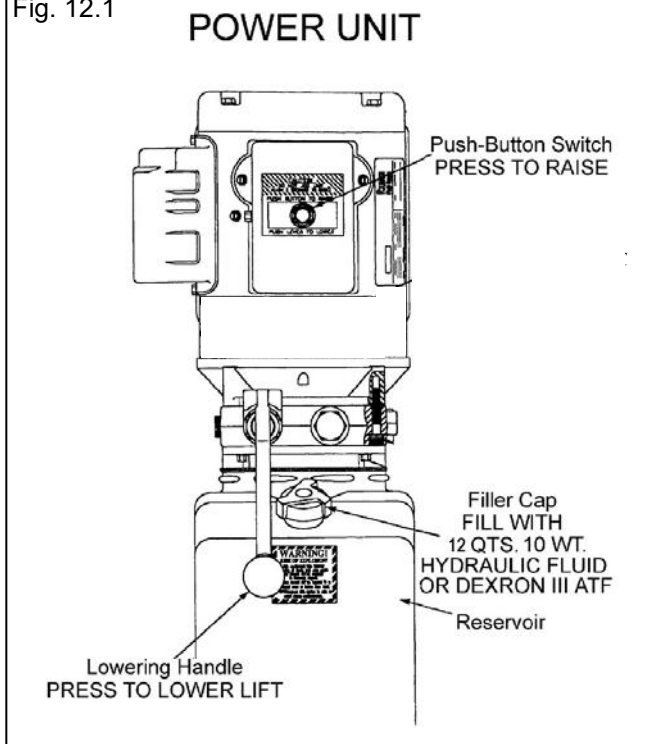
Motor should not be located in a recessed area or below floor level. NEVER expose motor to rain or other damp environments. DAMAGE TO MOTOR CAUSED BY WATER IS NOT COVERED UNDER WARRANTY.

IMPORTANT NOTE:

CAUTION Never operate the motor on line voltage less than 208V. Motor damage may occur which is not covered under warranty. Have a certified electrician run appropriate power supply to motor. Size wire for 25amp circuit. See Motor Operating Data Table.

IMPORTANT: Use separate circuit for each power unit. Protect each circuit with time delay fuse or circuit breaker. For single phase 208-230V, use 25 amp fuse. All wiring must comply with NEC and all local electrical codes.

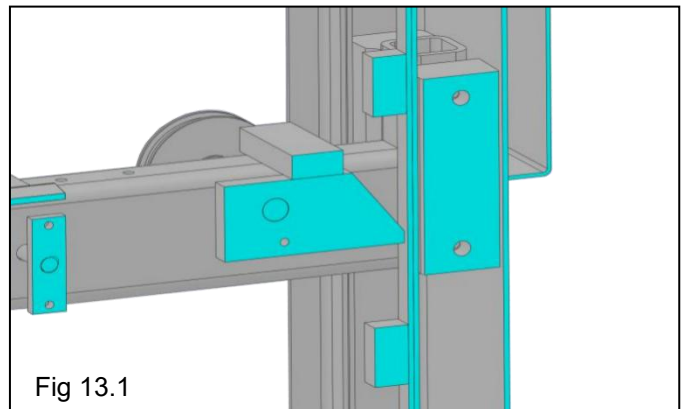
Fig. 12.1



STEP 13

(Lift Start Up / Final Adjustments)

1. Make sure the Power Unit reservoir is full with 12 quarts of 10-WT hydraulic oil or Dexron-III automatic transmission fluid.
2. Spray the inside of the Columns where the Slide Blocks glide with a light lubricant or WD-40.
3. Test the Power Unit by pressing the push-button switch. If the motor sounds like it is operating properly, raise the lift and check all Hose connections for leaks. If the motor gets hot or sounds peculiar, stop and check all electrical connections.
4. Before proceeding, double-check to make sure all cables are properly positioned within the grooves of ALL Sheaves. Make sure all Cable Sheave retaining Pins and/or Clips are secure.
5. Check to make sure that all Slack Safety Locks are cleared and free. (See Fig. 13.1)



6. Continue pressing the raise button until the Cables get taugth and the lift starts to move.
7. Raise lift until the lift stops then lower until the safeties begin to engage the top locking position. Adjust each ladder so that each topmost window rests on the safety lock. Then adjust each Cable Nut so that each safety lock is at least ONE INCH above the Top Lock Position. The Cable Nuts MUST be tightened until there is at least one inch of threads protruding through the nut.



All cable nuts MUST be tightened on each end until there is at least one inch of threads protruding through the nut. Failure to do so could result in serious injury or death.

NOTE:

There will be initial stretching of the cables in the beginning and/or with increased loads. Adjust the Cables as outlined above a week after first use, then every three to six months thereafter depending on usage and/or to compensate for stretch.

- 8. Press the safety lock release handle and HOLD, and check that all Safety Locks are functioning properly. Lower the lift by pressing the power unit lowering valve simultaneously.



KEEP HANDS AND FEET CLEAR. Remove hands and feet from any moving parts. Keep feet clear of lift when lowering. Avoid pinch points

- 9. Check all MAIN SAFETY LOCKS to make sure they move freely and spring back to the lock position when released. Lubricate all SAFETY PIVOT points with WD-40 or equal.

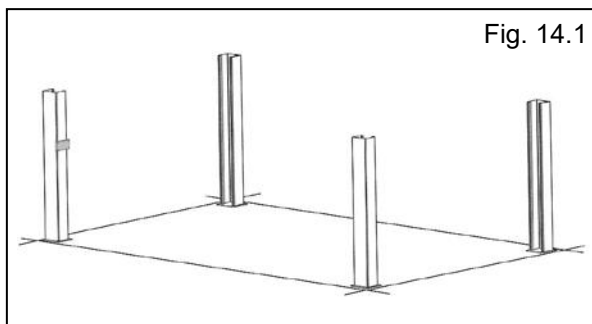
- 10. Run the lift up and down a few times to ensure that the Locks are engaging uniformly and that the safety release mechanisms are functioning. Re-adjust if necessary

STEP 14
(Anchoring The Columns)

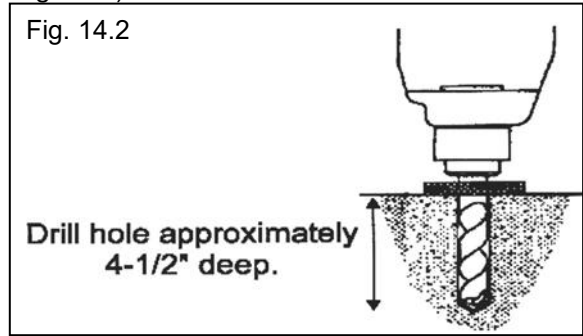
IMPORTANT NOTE:

The lifts are supplied with installation instructions and concrete fasteners meeting the criteria as prescribed by the American National Standard "Automotive Lifts - Safety Requirements for Construction, Testing, and Validation" ANSI/ALI ALCTV-2011. Lift buyers are responsible for any special regional structural and/or seismic anchoring requirements specified by any other agencies and/or codes such as the Uniform Building Code (UBC) and/or International Building Code (IBC).

- 1. Before proceeding, double check the measurements and make certain that the bases of each Column are square and aligned with the chalk line. Raise the lift up and down and make sure it operates properly at the locations prescribed by the markings on the floor. (See Fig. 14.1)



- 2. Using the Base plate on each Column as a guide, drill each anchor hole approximately 4-1/2" deep using a rotary hammer drill and 3/4" concrete bit. (See Fig. 14.2)

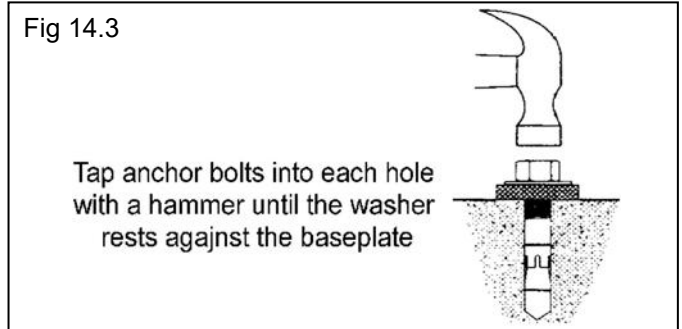


- 3. After drilling, remove dust thoroughly from each hole using compressed air and/or bristle brush. Make certain that the Columns remain aligned with the chalk line.

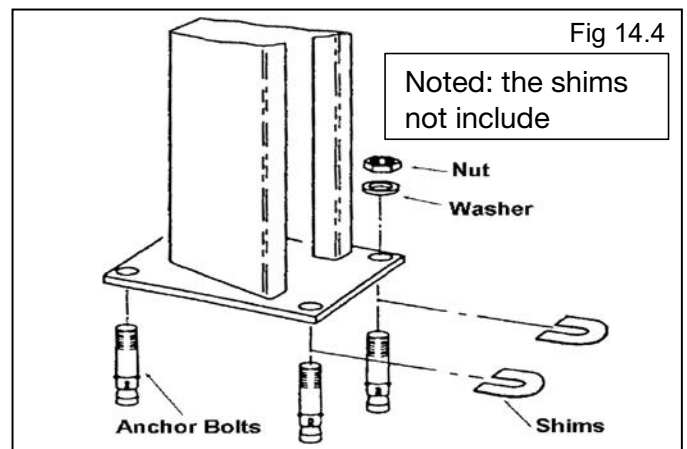


ALWAYS WEAR SAFETY GOGGLES

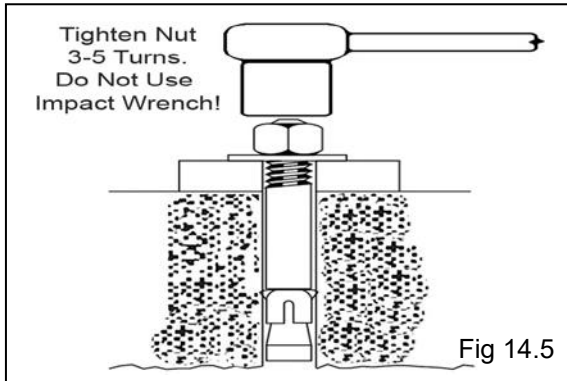
- 4. Assemble the Washers and Nuts on the anchors then tap each hole with a hammer until the washer rests against base plate. Be sure that if shimming is required, enough threads are left exposed. (See Fig. 14.3)



- 5. If shimming is required, insert the shims as necessary the base plate so that when the anchor bolts are tightened, the columns will be plumb. (See Fig. 14.4)



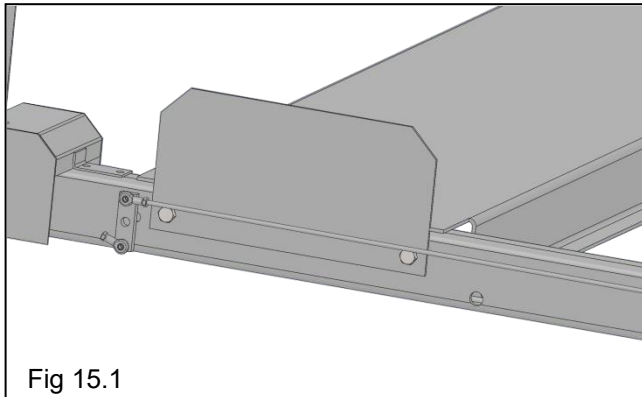
6. After any necessary shims are installed, tighten each nut 3-5 turns past hand tight. **IMPORTANT** - If anchor bolts do not hold when tightened to indicated amount, concrete must be replaced. Saw cut and remove 24" x 24" square area each column base then re-pour with reinforced 2500 PSI concrete to a depth of six inches minimum, keying new concrete under existing floor. (See Fig. 14.5)



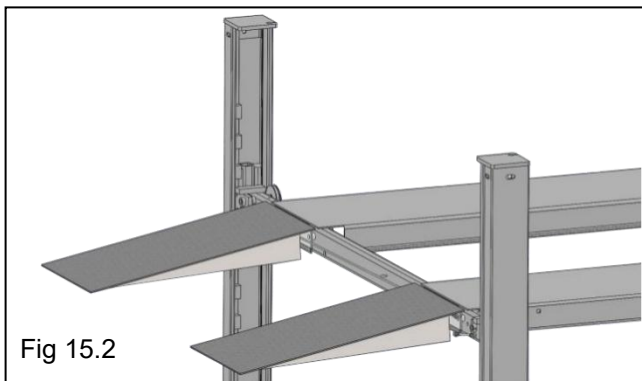
STEP 15

(Attaching the Approach Ramp /Tire Stops)

1. Install the Front Tire Stops at the forward side of the lift. (See Fig. 15.1)



2. Install the Approach Ramps on the entry side of the lift. (See Fig. 15.2)



STEP 16

(Leveling / Synchronizing)

1. Using an engineer's automatic Level (transit), locate the Level, at a convenient location in the shop that allows an unobstructed view of all four corners of the runways.
2. Follow the Level manufacturer's instructions for proper setup of the Level. Be sure it is adjusted level in all directions.
3. Raise the lift approximately 30"- 40". Then lower the lift until all primary safeties are engaged in each column and the runways are completely resting on the primary safeties.
4. Place a Level target on the right/front corner of the runway. (See Fig. 16.1)
5. Beginning with "A" position, sight the level to the target and mark the number or the graduation on the inch scale of the target that aligns to the cross hairs of the Level. (See Fig. 16.1)

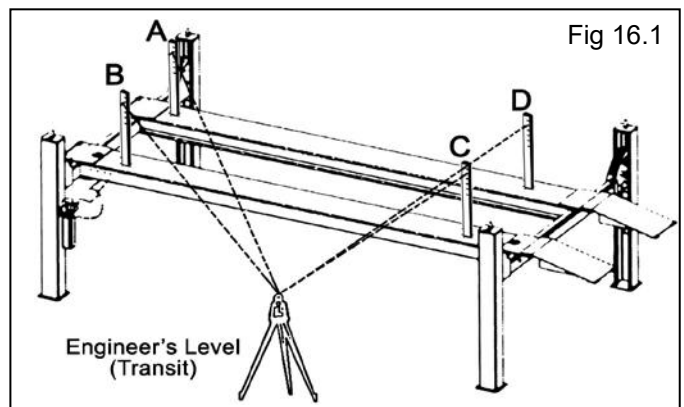
Note:

Use a pencil, marking pen or attach a paper clip onto the target scale at the cross hair reference.

6. Next, move the target and place it at point "B" on the runway. (See Fig. 16.1)
7. Rotate the Level and focus on the target scale
8. Adjust the adjustment nut on the safety ladder bar at the top of the Column at "B" until the cross hairs of the Level align to reference mark on the target scale. (See Fig. 15.1)
9. Repeat steps locating the target assembly at points "C" and "D" and adjusting Safety Ladders at each corresponding Column until the reference mark on the target scale is on the cross hairs of the Level. The Runways are now level at all four points. (See Fig. 16.1)
10. Next, load vehicle onto the lift.
11. Raise the lift to full height. Listen and watch as the primary safeties engage the safety ladder. Synchronize by adjusting the cables so that all four latches click at same time. Make necessary adjustments to the cables allowing compensation for stretch.

Safety locks may not engage at exactly the same time when vehicles are being raised. They should be close.

Be sure that all four corners have passed the SAME Safety Ladder position before lowering lift on the safety locks. NEVER lower lift on different Safety Lock position or damage to the lift may result.



STEP 17

(Bleeding)

1. Lift must be fully lowered before changing or adding fluid.
2. Raise and lower lift six times. The Cylinder is self-bleeding. After bleeding system, fluid level in Power Unit reservoir may be down. Add more fluid if necessary to raise lift to full height. It is only necessary to add fluid to Raise lift to full height.
3. To pressure test, run lift to full rise and run motor for approximately 3-seconds after lift stops. This will place pressure on the hydraulic system. Stop and check all fittings and hose connections. Tighten or reseal if required.

POST-INSTALLATION CHECK-OFF

- Columns properly shimmed and stable
- Anchor Bolts tightened
- Pivot / Sheave Pins properly attached
- Electric power supply confirmed
- Cables adjusted properly
- Safety Locks functioning properly
- Check for hydraulic leaks
- Oil level
- Lubrication of critical components
- Check for overhead obstructions
- All Screws, Bolts, and Pins securely fastened
- Surrounding area clean
- Operation, Maintenance and Safety Manuals on site.
- Perform an Operational Test with a typical vehicle

STEP 18

(Lift Operation Safety)



TO AVOID PERSONAL INJURY AND/OR PROPERTY DAMAGE, PERMIT ONLY TRAINED PERSONNEL TO OPERATE LIFT. AFTER REVIEWING THESE INSTRUCTIONS, PRACTICE USING LIFT CONTROLS BY RUNNING THE LIFT THROUGH A FEW UNLOADED CYCLES BEFORE LOADING VEHICLE ON LIFT. **NEVER RAISE JUST ONE END, ONE CORNER, OR ONE SIDE OF VEHICLE.**

- **DAILY** inspect your lift. Never operate if it malfunctions or if it has broken or damaged parts. Use only qualified lift service personnel to make repairs.

- **THOROUGHLY** train all employees in use and care of lift, using manufacturer's instructions and "Lifting It Right" and "Safety Tips" supplied with the lift.
- **NEVER** allow unauthorized or untrained persons to position vehicle or operate lift.
- **PROHIBIT** unauthorized persons from being in shop area while lift is in use.
- **DO NOT** permit anyone on lift or inside vehicle when it is either being raised or lowered.
- **ALWAYS** keep area around lift free of tools, debris, grease and oil.
- **NEVER** overload lift. Capacity of lift is shown on nameplate affixed to the lift.
- **DO NOT** stand in front of the vehicle while it is being positioned in lift bay.
- **DO NOT** block open or override self-closing lift controls; they are designed to return to the "Off" or Neutral position when released.
- **ALWAYS** remain clear of lift when raising or lowering vehicles.
- **ALWAYS** use safety stands when removing or installing heavy components.
- **DO NOT** go under raised vehicle if safety locks are not engaged.
- **NEVER LEAVE LIFT IN ELEVATED CONDITION** unless all Safety Locks are engaged.
- **AVOID** excessive rocking of vehicle while on lift.
- **ALWAYS CLEAR AREA** if vehicle is in danger of falling.
- **ALWAYS REMOVE** tool trays, stands, etc. before lowering lift.
- **ALWAYS RELEASE** safety locks before attempting to lower lift.
- **DO NOT** position yourself between a wall and the lift. If the vehicle falls in that direction, you may be severely injured or killed.

To Raise Lift;

1. Position vehicle tires in the center of each Runway.
2. Set parking brake and use Wheel Chocks to hold vehicle in position.
3. Before raising vehicle, be sure all personnel are clear of the lift and surrounding area. Pay careful attention to overhead clearances.

4. Raise the lift to the desired height by pressing the push button on the power unit.

5. After vehicle is raised to the desired height, lower the lift onto the nearest Safety Lock. Do not allow Cables to become slack. ALWAYS ENSURE ALL SAFETY LOCKS ARE ENGAGED before entering work area.

NOTE:

ALLOW (2) SECONDS BETWEEN MOTOR STARTS. FAILURE TO COMPLY MAY CAUSE MOTOR BURNOUT.



VISUALLY CONFIRM THAT ALL PRIMARY SAFETY LOCKS ARE ENGAGED BEFORE ENTERING WORK AREA. SUSPENSION COMPONENTS USED ON THIS LIFT ARE INTENDED TO RAISE AND LOWER LIFT ONLY AND ARE NOT MEANT TO BE LOAD HOLDING DEVICES. REMAIN CLEAR OF ELEVATED LIFT UNLESS VISUAL CONFIRMATION IS MADE THAT ALL PRIMARY SAFETY LOCKS ARE FULLY ENGAGED AND THE LIFT IS LOWERED ONTO THE SAFETY LOCKS, REFER TO INSTALLATION/ OPERATION MANUAL FOR PROPER SAFETY LOCK PROCEDURES AND/OR FURTHER INSTRUCTION.



WHEN LOWERING THE LIFT PAY CAREFUL ATTENTION THAT ALL PERSONNEL AND OBJECTS ARE KEPT CLEAR. ALWAYS KEEP A VISUAL LINE OF SIGHT ON THE LIFT AT ALL TIMES. ALWAYS MAKE SURE THAT ALL LOCKS ARE DISENGAGED. IF ONE OF THE LOCKS INADVERTENTLY LOCKS UPON DESCENT THE VEHICLE MAY DISMOUNT CAUSING PERSONAL INJURY OR DEATH.

To Lower Lift;

1. Before lowering vehicle, be sure all personnel are clear of the lift and surrounding area. Pay careful attention to overhead clearances. Ensure all tools and equipment have been cleared from under the lift.
2. Raise the lift off of the Safety Locks by pressing the push button on the Power Unit. Make sure you raise the lift by at least two inches to allow adequate clearance for the locks to clear.
3. Press the safety lock release handle and HOLD.
4. Push the LOWERING HANDLE on the Power Unit until the lift has descended completely.



IF YOU ARE NOT COMPLETELY FAMILIAR WITH AUTOMOTIVE LIFT MAINTENANCE PROCEDURES; STOP AND CONTACT THE MANUFACTURER FOR INSTRUCTIONS. TO AVOID PERSONAL INJURY, PERMIT ONLY QUALIFIED PERSONNEL TO PERFORM MAINTENANCE ON THIS EQUIPMENT.

DAILY MAINTENANCE

1. Make a visual inspection of ALL MOVING PARTS and check for excessive signs of wear.
2. Check safety locks to ensure they are in good operating condition.
3. Check cables and sheaves for wear. Replace worn parts as required the parts.
4. Inspect adapters for damage or excessive wear. Replace as required with the parts.

WEEKLY MAINTENANCE

1. Lubricate all Sheave and rollers with general purpose oil.
2. Check all Cable connections, bolts and pins to ensure proper mounting.
3. Lubricate Safety Lock pivot points with general purpose oil or WD-40.

MONTHLY MAINTENANCE

1. Check Safety Locks to ensure they are in good operating condition. Lubricate locking latch shafts. Push release arm several times for oil to penetrate pivot points.
2. Check equalizer cable tension. Adjust per lift installation instructions.
3. Check all Cables for excessive signs of wear.
4. Make a visual inspection of ALL MOVING PARTS and check for excessive signs of wear.
 - Always call local service representative if electrical problems develop.
 - Always replace ALL FAULTY PARTS before lift is put back into operation.
 - Every 3 Months: Check anchor bolt torque. Anchors should be torqued to 90 ft/lbs.
 - Semi-Annually: Check fluid level of lift power unit and refill if required per lift installation instructions.
 - Replace all caution, warning or safety related decals on the lift if unable to read or missing.
 - Refer to ANSI/ALI ALOIM booklet for periodic inspection checklist and maintenance log sheet.



WARNING

WIRE ROPE INSPECTION AND MAINTENANCE

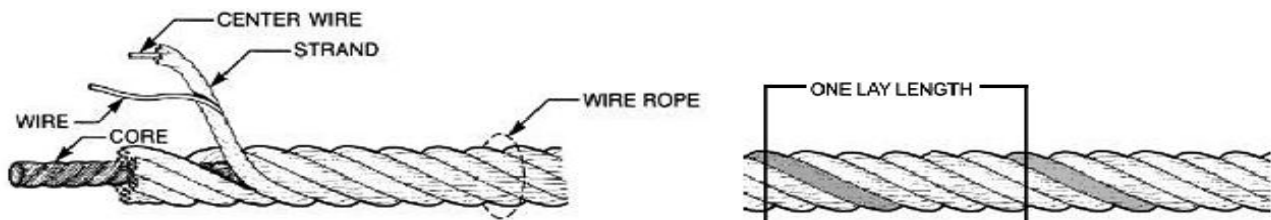
- ◆ Lifting cables should be replaced every three - five years or when visible signs of damage are apparent. **DO NOT USE LIFT WITH DEFECTIVE / WORN CABLES.**
- ◆ Lifting cables should be maintained in a well-lubricated condition at all times. Wire rope is only fully protected when each wire strand is lubricated both internal and external. Excessive wear will shorten the life of the wire rope. The factory suggested wire rope lubricant that penetrates to the core of the rope and provides long-term lubrication between each individual strand is 90-WT gear oil or ALMASOL® Wire Rope Lubricant. In order to make sure that the inner layers of the rope remain well lubricated, lubrication should be carried out at intervals not exceeding three months during operation.
- ◆ All sheaves and guide rollers in contact with the moving rope should be given regular visual checks for surface wear and lubricated to make sure that they run freely. This operation should be carried out at appropriate intervals generally not exceeding three months during operation. For all sheave axles, the factory recommends standard wheel bearing grease. For all sheaves and/or guide rollers, the factory recommends 90-WT gear oil or similar heavy lubricant applied by any method including pump / spray dispensing, brush, hand and/or swabbing.

HOW OFTEN TO INSPECT

- ◆ Lifting cables should be visually inspected at least once each day when in use, as suggested by American Petroleum Institute (API) RP54 guidelines.
- ◆ Any lifting cables that have met the criteria for removal must be immediately replaced.

WHEN TO REPLACE LIFTING CABLES DUE TO BROKEN WIRES

- ◆ Lifting cables should be removed from service when you see six randomly distributed broken wires within any one lay length, or three broken wires in one strand within one lay length.



The three basic components of a typical wire rope.

OTHER REASONS TO REPLACE LIFTING CABLES

- ◆ Corrosion that pits the wires and/or connectors.
- ◆ Evidence of kinking, crushing, cutting, bird-caging or a popped core.
- ◆ Wear that exceeds 10% of a wire's original diameter.
- ◆ Evidence of heat damage.

HOW TO FIND BROKEN WIRES

- ◆ The first step is to relax your rope to a stationary position and move the pick-up points off the sheaves. Clean the surface of the rope with a cloth — a wire brush, if necessary — so you can see any breaks.
- ◆ Flex the rope to expose any broken wires hidden in the valleys between the strands.
- ◆ Visually check for any broken wires. One way to check for crown breaks is to run a cloth along the rope to check for possible snags.
- ◆ With an awl, probe between wires and strands and lift any wires that appear loose. Evidence of internal broken wires may require a more extensive rope examination.

Safe Lift Operation

Automotive and truck lifts are critical to the operation and profitability of your business. The safe use of this and other lifts in your shop is critical in preventing employee injuries and damage to customer's vehicles. By operating lifts safely you can ensure that your shop is profitable, productive and safe.

Safe operation of automotive lifts requires that only trained employees should be allowed to use the lift.

TRAINING SHOULD INCLUDE, BUT NOT LIMITED TO:

- ◆ Proper positioning of the vehicle on the runway. (See manufacturers minimize wheel base loading requirements.)
- ◆ Use of the operating controls.
- ◆ Understanding the lift capacity.
- ◆ Proper use of jack stands or other load supporting devices.
- ◆ Proper use, understanding and visual identification of safety lock devices and their operation.
- ◆ Reviewing the safety rules.
- ◆ Proper housekeeping procedures (lift area should be free of grease, oil, tools, equipment, trash, and other debris)
- ◆ A daily inspection of the lift should be completed prior to its use. Safety devices, operating controls, lift arms and other critical parts should be inspected prior to using the lift.
- ◆ All maintenance and repairs of the lift should be completed by following the manufacturer's requirements. Lift repair parts should meet or exceed OEM specifications. Repairs should only be completed by a qualified lift technician.
- ◆ The vehicle manufacturer's recommendations should be used for spotting and lifting the vehicle.

LIFT OPERATION SAFETY

- ◆ It is important that you know the load limit. Be careful that you do not overload the lift . If you are unsure what the load limit is, check the data plate found on one of the lift columns or contact the manufacturer.
- ◆ The center of gravity should be followed closely to what the manufacturer recommends.
- ◆ Always make sure you have proper overhead clearance. Additionally, check that attachments, (vehicle signs, campers, antennas, etc.) are not in the way.
- ◆ Be sure that prior to the vehicle being raised, the doors, trunk, and hood are closed securely
- ◆ Prior to being raised, make sure there is no one standing closer than six feet from the lift
- ◆ After positioning the vehicle on the lift runways, set the emergency brake, make sure the ignition is off, the doors are closed, overhead obstructions are cleared, and the transmission is in neutral.
- ◆ Double check that the automatic chock devices are in position and then when the lift is raised, observe the chocks
- ◆ Put pads or adapters in the right position under the contact points that have been recommended
- ◆ The lift should be raised just until the vehicle's wheels are about one foot off the ground. If contact with the vehicle is uneven or it appears that the vehicle is not sitting secure, carefully lower the lift and readjust.
- ◆ Always consider potential problems that might cause a vehicle to slip, i.e., heavy cargo, undercoating, etc.
- ◆ Pay attention when walking under a vehicle that is up on the hydraulic lift.



- ◆ **DO NOT** leave the controls while the lift is still in motion.
- ◆ **DO NOT** stand directly in front of the vehicle or in the bay when vehicle is being loaded or driven into position.
- ◆ **DO NOT** Go near vehicle or attempt to work on the vehicle when being raised or lowered.
- ◆ **REMAIN CLEAR** of lift when raising or lowering vehicle.
- ◆ **DO NOT** rock the vehicle while on the lift or remove any heavy component from vehicle that may cause excessive weight shift.
- ◆ **DO NOT** lower the vehicle until people, materials, and tools are clear
- ◆ **ALWAYS ENSURE** that the safeties are engaged and lowered on to the safety ladders before any attempt is made to work on or near vehicle.
- ◆ Some vehicle maintenance and repair activities may cause the vehicle to shift. Follow the manufacturer's guidelines when performing these operations. The use of jack stands or alternate lift points may be required when completing some repairs.
- ◆ **READ AND UNDERSTAND** all safety warning procedures before operating lift.
- ◆ **KEEP HANDS AND FEET CLEAR.** Remove hands and feet from any moving parts. Keep feet clear of lift when lowering. Avoid pinch points.
- ◆ **ONLY TRAINED OPERATORS** should operate this lift. All non-trained personnel should be kept away from work area. Never let non-trained personnel come in contact with, or operate lift.
- ◆ **USE LIFT CORRECTLY.** Use lift in the proper manner. Never use lifting adapters other than what is approved by the manufacturer.
- ◆ **DO NOT** override self-closing lift controls.
- ◆ **CLEAR AREA** if vehicle is on danger of falling.
- ◆ **STAY ALERT.** Watch what you are doing. Use common sense. Be aware.
- ◆ **CHECK FOR DAMAGED PARTS.** Check for alignment of moving parts, breakage of parts or any condition that may affect its operation. Do not use lift if any component is broken or damaged.
- ◆ **NEVER** remove safety related components from the lift. Do not use lift if safety related components are damaged or missing.
- ◆ When the lift is being lowered, make sure everyone is standing at least six feet away.
- ◆ Be sure there are no jacks, tools, equipment, left under the lift before lowering.
- ◆ Always lower the vehicle down slowly and smoothly.

TROUBLESHOOTING GUIDE

1. LIFT WILL NOT RAISE

POSSIBLE CAUSE

1. Air in oil, (1,2,8,13)
2. Cylinder binding, (9)
3. Cylinder leaks internally, (9)
4. Motor run backward under pressure, (11)
5. Lowering valve leaks, (3,4,6,10,11)
6. Motor runs backwards, (7,14,11)
7. Pump damaged, (10,11)
8. Pump won't prime, (1,8,13,14,3,12,10,11)
9. Relief valve leaks, (10,11)
10. Voltage to motor incorrect, (7,14,11)

REMEDY

INSTRUCTION

- | | |
|--|--|
| 1. Check for proper oil level..... | The oil level should be up to the bleed screw in the reservoir with the lift all the way down. |
| 2. Bleed cylinders..... | See Installation Manual |
| 3. Flush- Release valve to get rid of.....
possible contamination | Hold release handle down and start unit allowing it to run for 15 seconds. |
| 4. Dirty oil..... | Replace oil with clean Dexron ATF. |
| 5. Tighten all fasteners..... | Tighten fasteners to recommended torques. |
| 6. Check for free movement of release..... | If handle does not move freely, replace bracket or handle assembly. |
| 7. Check motor is wired correctly. | Compare wiring of motor to electrical diagram on drawing. |
| 8. Oil seal damaged or cocked..... | Replace oil seal around pump shaft. |
| 9. See Installation Manual..... | Consult Lift Manufacturer. |
| 10. Replace with new part..... | Replace with new part. |
| 11. Return unit for repair..... | Return unit for repair. |
| 12. Check pump-mounting bolts..... | Bolts should be 15 to 18 ft. lbs. |
| 13. Inlet screen clogged..... | Clean inlet screen or replace. |
| 14. Check wall outlet voltages and wiring..... | Make sure unit and wall outlet are wired properly. |

2. MOTOR WILL NOT RUN

POSSIBLE CAUSE

1. Fuse blown, (5,2,1,3,4)
2. Limit switch burned out, (1,2,3,4)
3. Microswitch burned out, (1,2,3,4)
4. Motor burned out, (1,2,3,4,6)
5. Voltage to motor incorrect, (2,1,8)

REMEDY

- | | |
|--|---|
| 1. Check for correct voltage..... | Compare supply voltage with voltage on motor name tag. Check that the wire is sized correctly. N.E.C. table 310-12 requires AWG 10 for 25 Amps. |
| 2. Check motor is wired correctly..... | Compare wiring of motor to electrical diagram on drawing. |
| 3. Don't use extension cords..... | According to N.E.C. : " The size of the conductors... should be such that the voltage drop would not exceed 3% to the farthest outlet for power..." Do not run motor at 115 VAC – damage to the motor will occur. |
| 4. Replace with new part..... | Replace with new part. |
| 5. Reset circuit breaker/fuse..... | Reset circuit breaker/fuse. |
| 6. Return unit for repair..... | Return unit for repair. |
| 7. See Installation Manual..... | See Installation Manual. |
| 8. Check wall outlet voltage and wiring..... | Make sure unit and wall outlet is wired properly. Motor must run at 208/230 VAC. |

INSTRUCTION

3. LIFT LOWERS SLOWLY OR NOT AT ALL

POSSIBLE CAUSE

1. Cylinders binding, (1)
2. Release valve clogged, (5,4,2,3)
3. Pressure fitting too long, (6)

REMEDY

- | | |
|--|--|
| 1. See Installation Manual..... | Consult Lift Manufacturer. |
| 2. Replace with new part..... | Replace with new part. |
| 3. Return for repair..... | Return for repair. |
| 4. Check oil..... | Use clean 10-WT hydraulic oil or Dexron-III automatic transmission fluid only. If ATF is contaminated, replace with clean ATF and clean entire system. |
| 5. Clean release valve..... | Wash release valve in solvent and blow out with air. |
| 6. Replace fitting with short thread lead..... | Replace fitting with short thread lead. |

INSTRUCTION

4. WILL NOT RAISE LOADED LIFT

POSSIBLE CAUSE

1. Air in oil, (1,2,3,4)
2. Cylinder binding, (5)
3. Cylinder leaks internally, (5)
4. Lift overloaded, (6,5)
5. Lowering valve leaks, (7,8,1,5,9)
6. Motor runs backwards, (10,12,9)
7. Pump damaged, (5,9)
8. Pump won't prime, (1,2,3,4,5,11,9)
9. Relief valve leaks, (8,5,9)
10. Voltage to motor incorrect, (10,12,5)

REMEDY

- | <i>REMEDY</i> | <i>INSTRUCTION</i> |
|---|---|
| 1. Check oil level..... | The oil level should be up to the bleed screw in the reservoir [with the lift all the way down. |
| 2. Check/Tighten inlet tubes..... | Replace inlet hose assembly. |
| 3. Oil seal damaged or cocked..... | Replace oil seal and install. |
| 4. Bleed cylinders..... | See Installation Manual. |
| 5. See Installation Manual..... | Consult Lift Manufacturer. |
| 6. Check vehicle weight..... | Compare weight of vehicle to weight limit of the lift. |
| 7. Flush release valve..... | Hold release handle down and start unit allowing it to run for 15 seconds. |
| 8. Replace with new part..... | Replace with new part. |
| 9. Return unit for repair..... | Return unit for repair. |
| 10. Check motor is wired correctly..... | Compare wiring of motor to electrical diagram on power unit drawing. |
| 11. Inlet screen clogged..... | Clean inlet screen or replace. |
| 12. Check wall outlet voltage and wiring..... | Make sure unit and wall outlet is wired properly. |

IMPORTANT

If after observing that all mechanical locks are released and the lift still fails move following all standard operating procedures, immediately stop using the lift and contact factory or factory approved service center for further instructions.

5. LIFT WILL NOT STAY UP

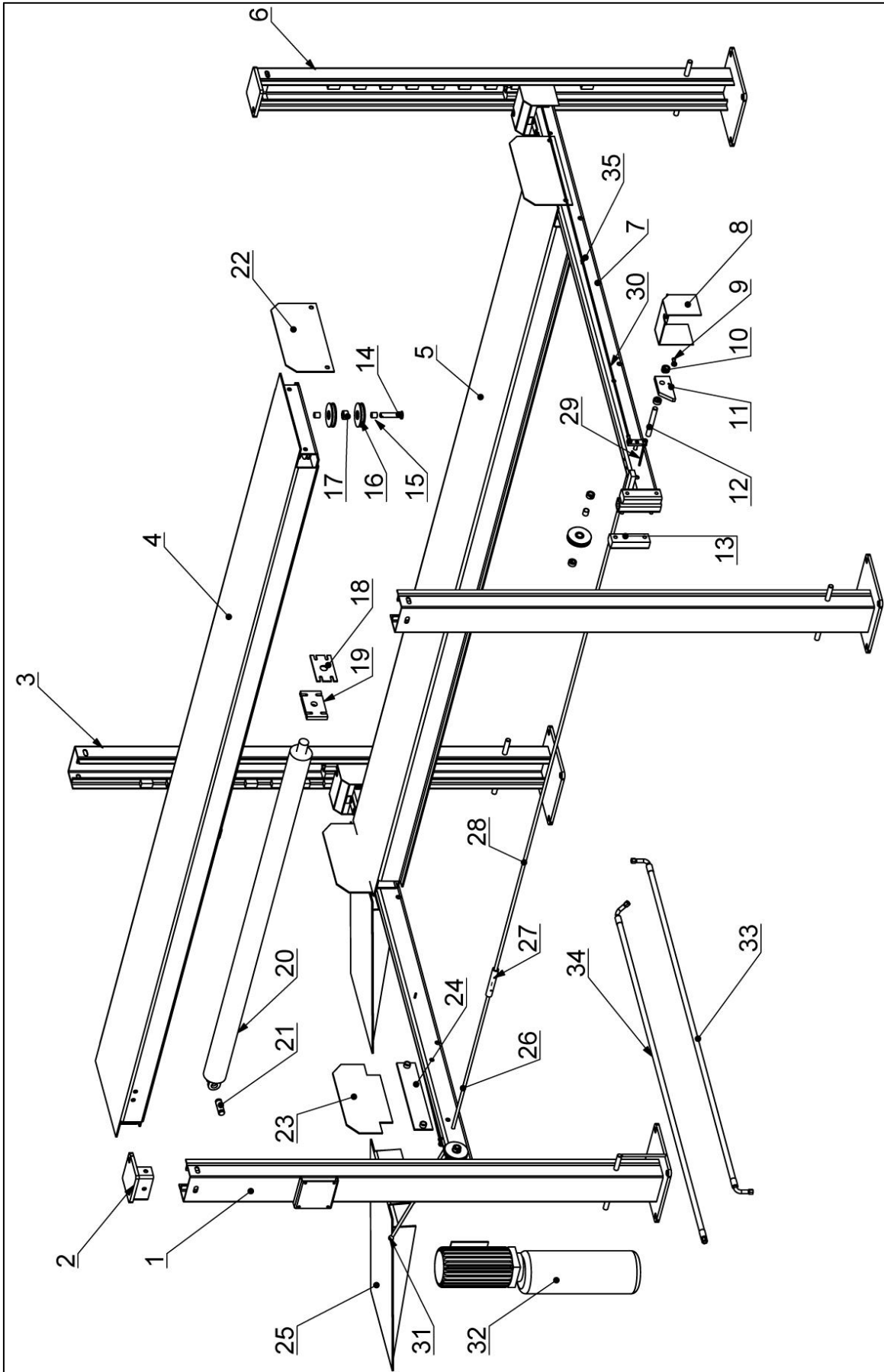
POSSIBLE CAUSE

1. Air in oil, (1,2,3)
2. Check valve leaks, (6)
3. Cylinders leak internally, (7)
4. Lowering valve leaks, (4,5,1,7,6)
5. Leaking fittings, (8)

REMEDY

- | <i>REMEDY</i> | <i>INSTRUCTION</i> |
|---|--|
| 1. Check oil level..... | The oil level should be up to the dip stick in the reservoir with the lift all the way down. |
| 2. Oil seal damaged and cocked..... | Replace oil seal around pump shaft. |
| 3. Bleed cylinder..... | Refer to Installation Manual. |
| 4. Flush release valve..... | Hold release handle down and start unit allowing it to run for 15 seconds. |
| 5. Replace with new valve..... | Replace with new valve. |
| 6. Return unit for repair..... | Return unit for repair. |
| 7. See Installation Manual..... | Consult Lift Manufacturer. |
| 8. Check complete hydraulic system for leaks..... | Tighten all hydraulics fittings and inspects all hoses. |

PARTS DRAWING



Parts List

Index#	Description	QTY	Index#	Description	QTY
1	Powerside Column	1	20	Cylinder 27X85x2060	1
2	Top Plate	4	21	Cylinder Pin	1
3	Vice Column	2	22	Front Block	2
4	Powerside Runway	1	23	Rear Block	2
5	Offside Runway	1	24	Traction Board Hanging Board	2
6	Main Column	1	25	Traction Board	2
7	Crosstube	2	26	Unlock Handle	1
8	Shield	4	27	Connecting Sleeve	1
9	Joint Bearing	8	28	Long Unlocking Lever	1
10	Fixing Sleeve	16	29	Short Unlocking Rod	2
11	Locking Block	4	30	Long unlocking rod	2
12	Locking Shaft	4	31	Handle Ball	1
13	Slider	8	32	Power Unit	1
14	Wire Rope Axle	4	33	Cylinder Tube Ø8(ID)x1840 with JIC 9/16" fitting	1
15	Oil Bearing	10	34	Power Unit Tube Ø8(ID)x1660 with JIC 9/16" fitting	1
16	Wire Rope Wheel	10	35	Wire Rope 1 3/8"x2670mm	1
17	Spacer	2	36	Wire Rope 2 3/8"x4085mm	1
18	Cylinder Flange	1	37	Wire Rope 3 3/8"x6720mm	1
19	Wire Rope Baffle	1	38	Wire Rope 4 3/8"x8145mm	1

Product Dimension Drawing

