



HOISTS FOR EVERY SPACE

TL12.0TH

Installation Owners Manual

Free Call 1800 88 33 54

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ALL USERS MUST READ THIS MANUAL

PRIOR TO INSTALLATION

The entire contents of this manual must be read prior to installation and operation. By proceeding you agree that you fully understand and comprehend the full contents of this manual.

Forward this manual to all operators. Failure to operate this equipment as directed may cause injury or death. Keep this operation manual near the machine at all times. Make sure that ALL USERS read this manual. Do not operate this machine until you read and understand all the dangers, warnings and cautions in this manual.

BE SAFE

Your new lift was designed and built with safety in mind. However, your overall safety can be increased by proper training and thoughtful operation on the part of the operator.

DO NOT operate or repair this equipment without reading this manual and the important safety instructions shown inside.

WARNING SYMBOLS - WATCH FOR THESE SYMBOLS

Read First

Watch for this symbol:
It means read this information first.

Important

Watch for this symbol:
It means the information supplied is important and should not be ignored.

Caution

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

Warning

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

Danger

Watch for this symbol:
It means immediate hazard which will result in severe personal injury or death.

IMPORTANT INFORMATION - INSTALLING THIS LIFT

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.

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INSTALLER AND OPERATOR NOTES

You must understand these instructions, by proceeding you agree to the following:

YOU MUST UNDERSTAND!

You 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.

You understand that installing a lift on cracked or defective concrete could cause lift failure resulting in personal injury or death.

You understand that a level floor is required for proper installation and level lifting. You understand that you are responsible if your floor is of questionable slope and that you will be responsible for all charges related to pouring a new level concrete slab if required and any charges.

You 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.

You understand that Tufflift 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.

OWNERS RESPONSIBILITY!

To maintain the lift and user safety, it is the responsibility of the Owner / Installer to read and follow these instructions:

- Make sure installation conforms to all applicable Local, State, and Federal Codes, Rules, and Regulations; such as State & 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 the 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 maintenance works only to be carried out by trained Technicians.
- Keep all instructions permanently with the unit and all decals on the unit clean and visible.

SAFETY PROCEDURE 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
3. **READ AND UNDERSTAND** All safety warning procedures before operating lift.
4. **KEEP HANDS AND FEET CLEAR** Remove hands and feet from any moving parts. Keep feet clear of lift when lowering. Avoid pinch points.
5. **KEEP WORK AREA CLEAN.** Cluttered work areas invite injuries.
6. **CONSIDER** work area environment Do not expose equipment to rain. **DO NOT** use in damp or wet locations. Keep area well lit.
7. **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.
8. **USE LIFT CORRECTLY.** Use lift in the proper manner. Never use lifting adapters other than what is approved by the manufacturer.
9. **DO NOT OVERRIDE** self-closing lift controls.
10. **REMAIN CLEAR OF LIFT** when raising or lowering vehicle.
11. **CLEAR AREA** If vehicle is in danger of falling.
12. **ALWAYS ENSURE** That the safety locks are engaged before any attempt is made to work on or near vehicle.
13. **DRESS PROPERLY** Non-skid steel-toe footwear is recommended when operating lift.
14. **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.
15. **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.
16. **WARNING! RISK OF EXPLOSION** This equipment has internal arcing or sparking parts which should not be exposed to flammable vapours. This machine should not be located in a recessed area or below floor level.
17. **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.
18. **STAY ALERT.** Watch what you are doing. Use common sense. Be aware.
19. **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.
20. **NEVER REMOVE** Safety related components from the lift. Do not use lift if safety related components are damaged or missing.

SAFETY INSTRUCTIONS

- **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 safety locks are engaged 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.

TOOLS & PROTECTIVE EQUIPMENT - YOU WILL NEED

- Rotary Hammer Drill or Similar
- 20mm Masonry Bit
- Hammer
- 4 Foot Level
- Open-End Wrench Set: SAE/Metric
- Socket and Ratchet Set: SAE/Metric
- Hex-Key / Allen Wrench Set
- Large Crescent Wrench
- Large Pipe Wrench
- Crow Bar
- Chalk Line
- Medium Flat Screwdriver
- Tape Measure: 8 metre minimum
- Needle Nose Pliers

6BAR MINIMUM LINE PRESSURE THROUGH REGULATOR FOR AIRLOCKS.

PROTECTIVE EQUIPMENT

Personal protective equipment helps makes installation and operation safer, however, 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.

STEP 1 - SELECT A SITE

SELECTING A LOCATION FOR YOUR LIFT	
Lift Location	Always use architects plans when available. Check layout dimension against floor plan requirements making sure adequate space is available.
Overhead Obstructions	The area where the lift will be located should be free of overhead obstructions such as heaters, building supports, electrical lines etc.
Defective Floor	Visually inspect the installation site and check for cracked or defective concrete.
Operating Temperature	Operate lift only between temperatures of 5° - 40° Celsius.
Indoor Installation ONLY	This lift is designed for indoor use only.

Danger

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.

DO NOT install or use this lift outdoors.

Warning

This lift must be installed on a solid level concrete floor with no more than 3-degrees of slope. Failure to do so could cause personal injury or death.

Disclaimer: All measurements and diagrams are accurate at the time of publication but are subject to change.

STEP 2 - FLOOR REQUIREMENTS

A level floor is suggested for proper use & installation of 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.

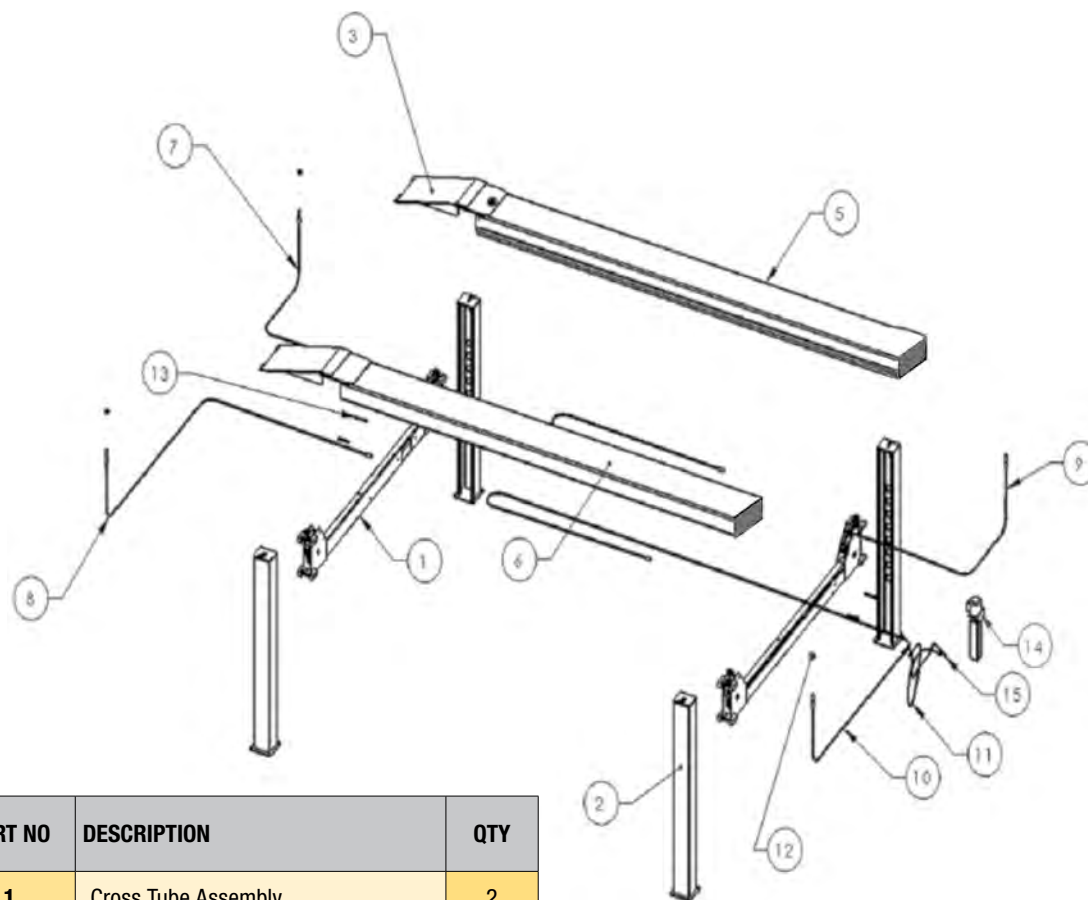
CONCRETE SPECIFICATIONS	
Lift Model	TL12.0TH
Concrete Requirement	102mm min. thickness / 3000psi min.

Danger

All models must be installed on 3000psi concrete only, conforming to the minimum requirements shown. New concrete must be adequately cured by at least 28 days minimum.

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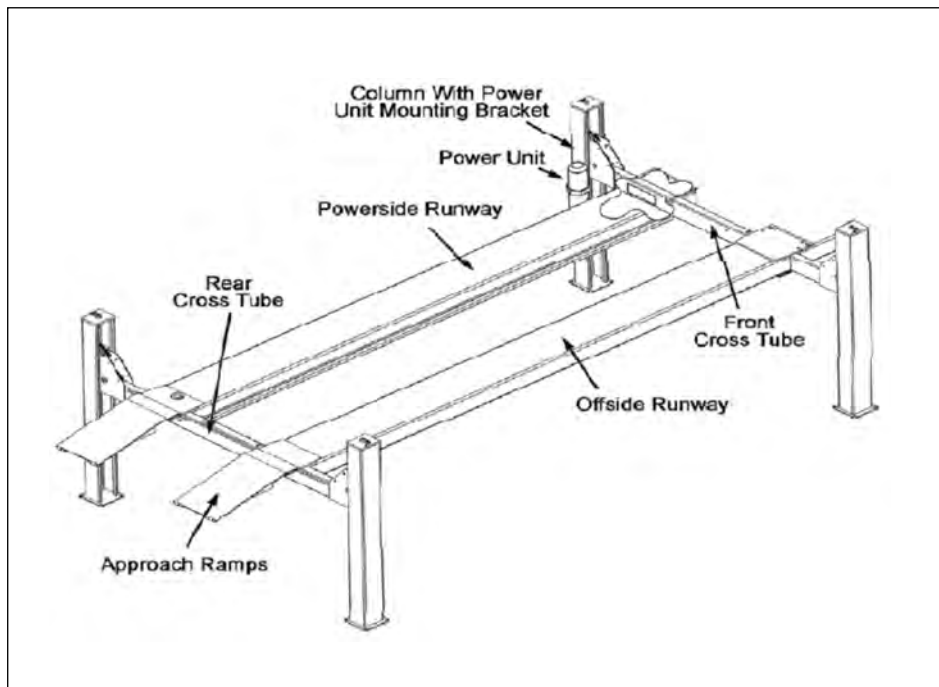
PART LOCATION - DESCRIPTION OF PARTS



PART NO	DESCRIPTION	QTY
1	Cross Tube Assembly	2
2	Post Assembly	4
3	Drive Up Ramp Assembly	2
5	Cylinder Ramp Weldment	1
6	Offside Ramp Assembly	1
7	Cable Assembly	1
8	Cable Assembly	1
9	Cable Assembly	1
10	Cable Assembly	1
11	6.35 Hydraulic Hose Assembly	2
12	Hex Nut M30 x 3.5	4
13	Hex Head Bolt M18 x 2.5 x 150L	4
14	Power Unit	1
15	90o Elbow, 37o Male Flare, 9/16-18 UNF 28, 10 3/8 – 18 NPT 28, Adjustable O-Ring	2

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ASSEMBLY VIEW



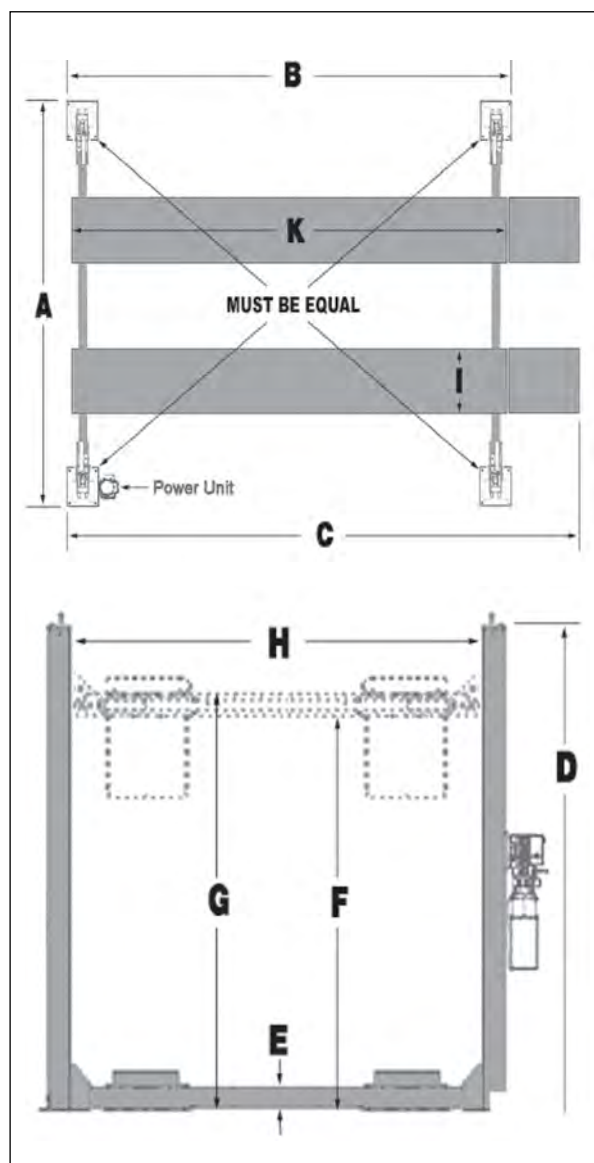
Danger

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 forklift or some other heavy lifting device

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FLOOR PLAN - SPECIFICATIONS

ITEM	TL12.0TH	SPECIFICATIONS
	Lifting Capacity*	2,247 Kg
	*Max Capacity/Front Axle	6,124 Kg
	*Max Capacity/Rear Axle	6,124 Kg
A	Overall Width	3912 mm
B	Outside Length	6528 mm
C	Overall Length	7544 mm
D	Height of Columns	2362 mm
E	Min. Runway Height	216 mm
F	Max. Rise	1524 mm
G	Max. Lifting Height	1740 mm
H	Width Between Columns	3404 mm
I	Runway Width	559 mm
K	Length of Runways	6680 mm



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POWER UNIT LOCATION

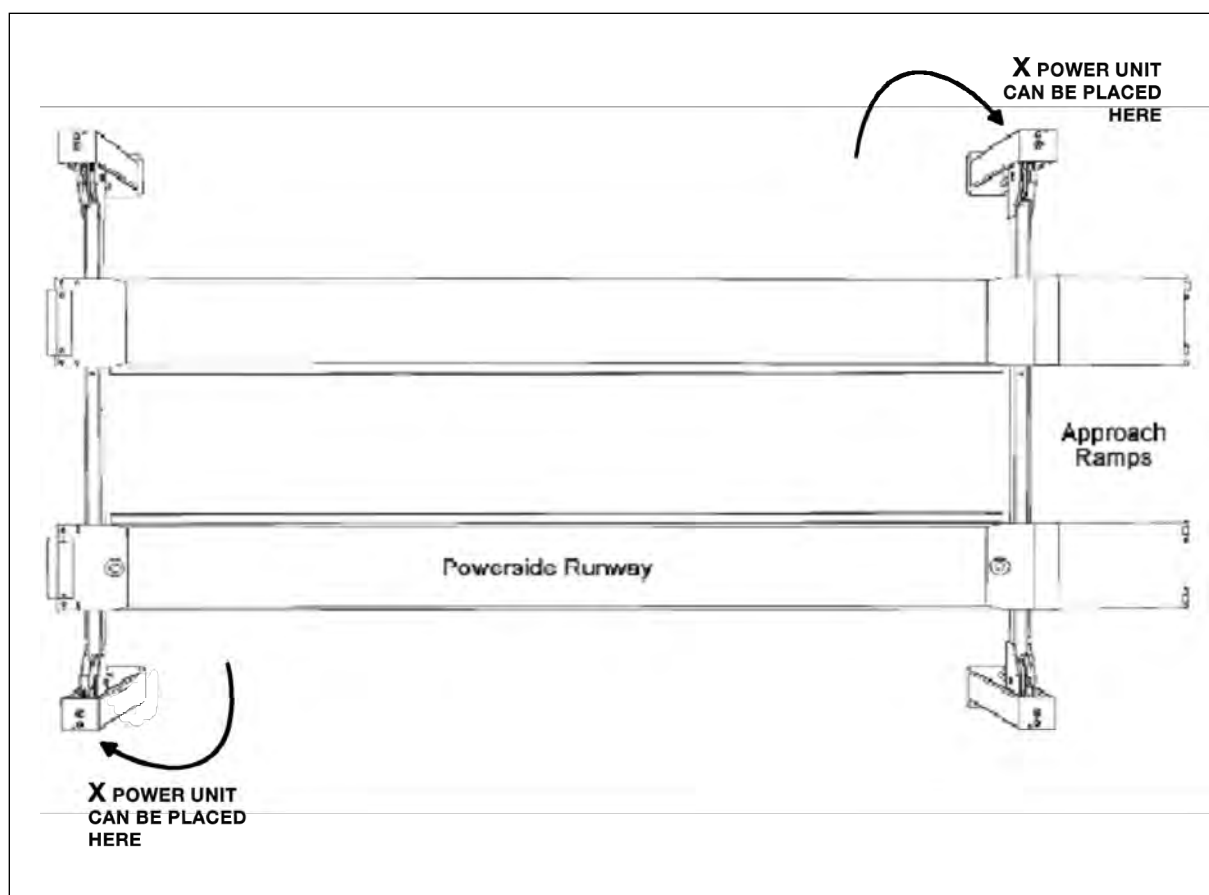
The power unit can be located at either “**X**” locations shown below.

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 **PASSENGER-SIDE** (Australian Cars - LEFT FRONT Column).

For power unit at right rear, rotate lift 180° leaving approach ramps and front tire stops in original position.



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STEP 3 - COLUMN & CROSS TUBE 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)
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)
3. With the columns standing and the cross tubes in position, install the **SAFETY LADDERS**. Pass the ladders through the column openings and drop down through the slide block guide slots on the cross tube until the ladders come to rest on the base plates. **DO NOT BOLT** columns down at this time. (See Fig. 3.3 and 3.4.)
4. The **COLUMNS** and **CROSS TUBES** will now be in position and spaced properly for the **RUNWAYS**.
5. Tighten the top nut on each safety ladder until one of the threads are exposed and the ladder is raised at least 15mm off the base of the column. (See Fig. 3.5.)

! Important

The maximum shim thickness recommended by the factory is no more than 15mm per column using shims and anchors provided with the lift. A max. shim thickness of 50mm is possible by ordering optional shim plates. Contact Tufflift for more information

! Important

Raise the ladder at least 15mm or until it is flush with the top of the nut. Keep it off of the base of the column or damage to the lift will occur.

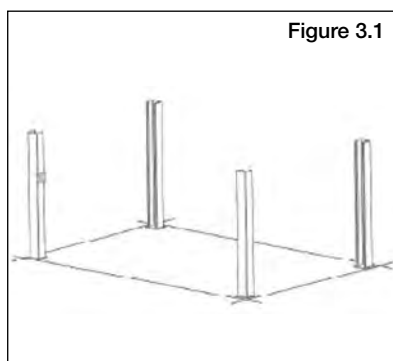


Figure 3.1

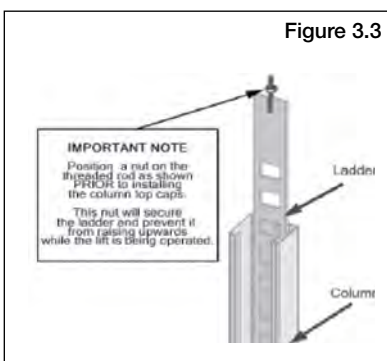


Figure 3.3

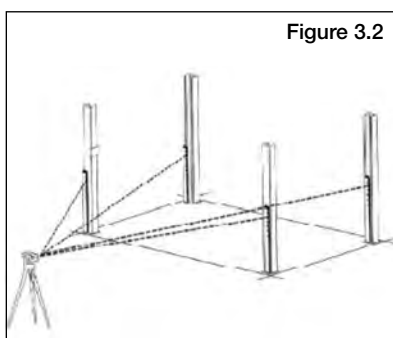


Figure 3.2

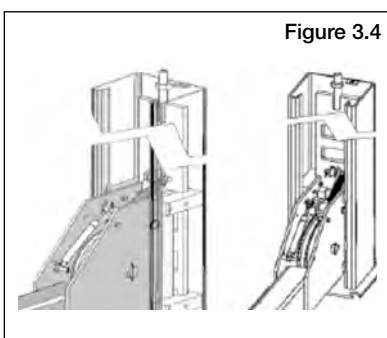


Figure 3.4

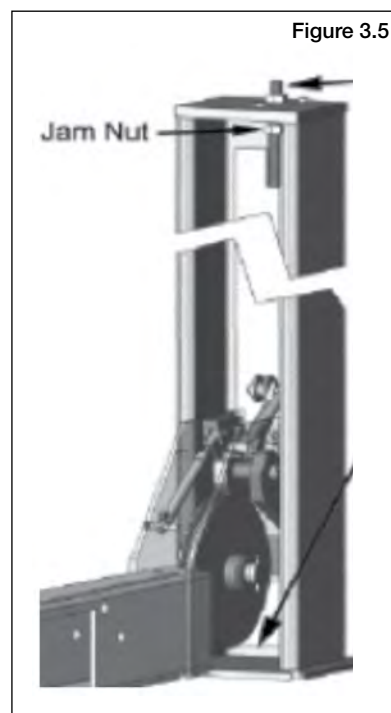
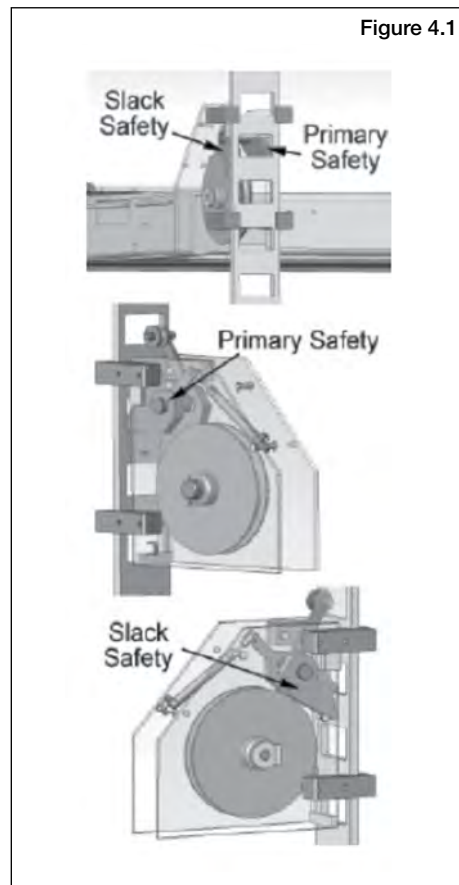


Figure 3.5

Disclaimer: All measurements and diagrams are accurate at the time of publication but are subject to change.

STEP 4 - RAISING THE CROSS TUBES

1. Before proceeding it will be necessary to first raise the **CROSS TUBES** off the ground to facilitate cable routing and final assembly.
2. The crossbeams should not be raised above 200mm off of the ground as the potential for tipping over injury or death is heightened with the greater height used. They only need to be above the ground so that the cables can be fitted.
3. The **COLUMNS AND CROSS TUBES** will now be in position and spaced properly for the runways. Be careful not to disturb the columns and cross tubes at this time as they may tip over causing personal injury or harm. (See Fig. 4.1)



! Danger

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

Never attempt to lift components without proper lifting tools such as forklift or cranes

! Important

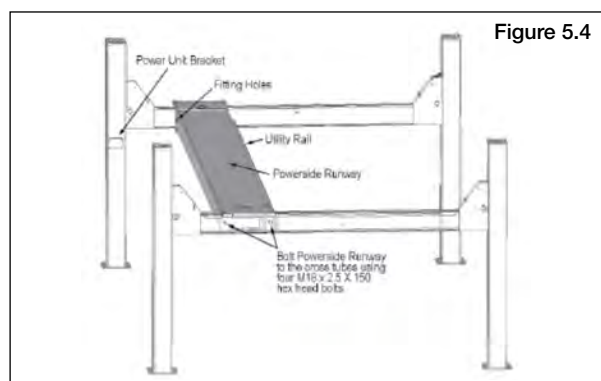
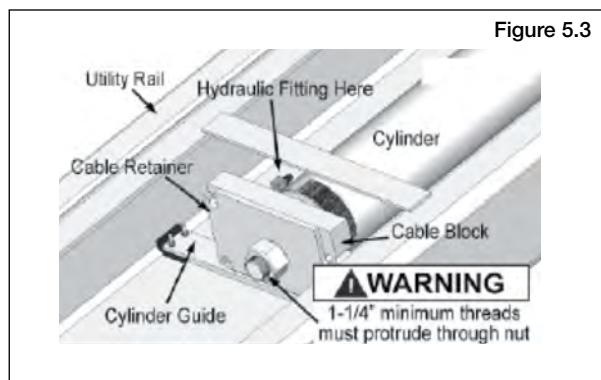
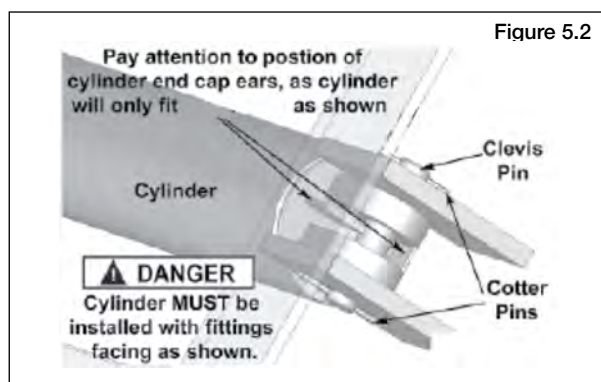
It is important that the **SLACK SAFETY LOCK IS CLEARED.**

The Slack Safety Lock must never rest on the Safety Ladder

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STEP 5 - POWERSIDE RUNWAY INSTALLATION

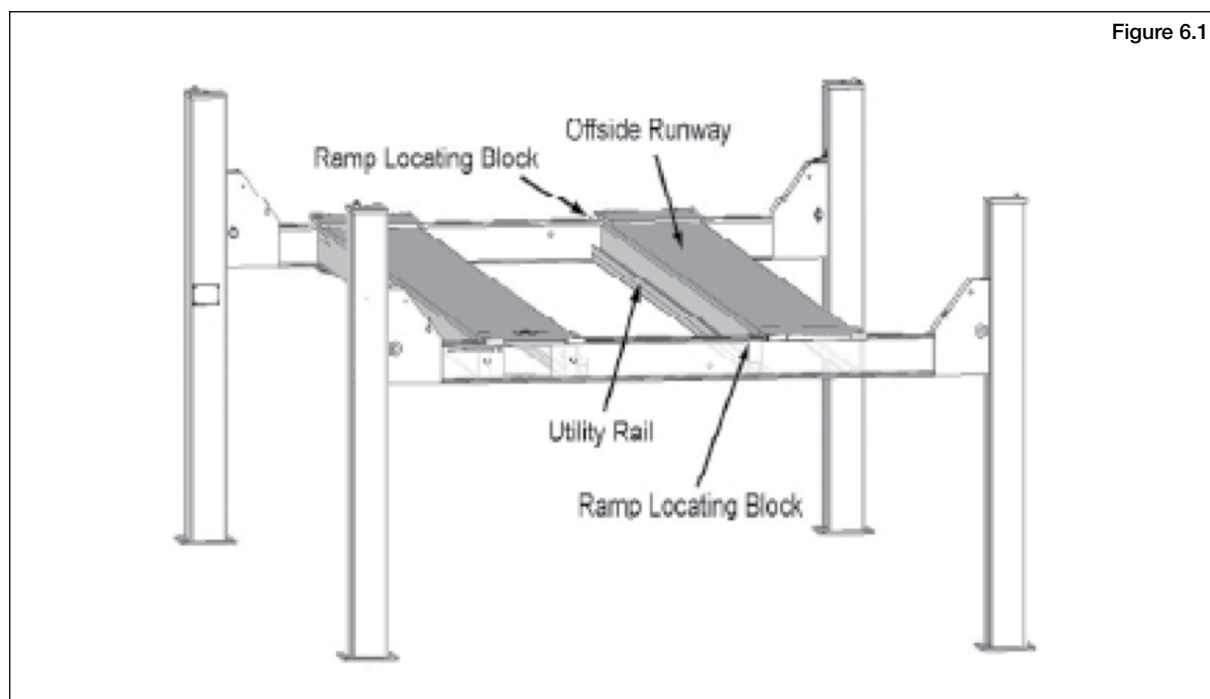
1. Locate the **POWERSIDE RUNWAY** easily identified by the cylinder and sheave roller mounting structures welded on the underside. The powerside runway will be positioned on the side of the lift where the power unit is installed. (See Fig. 5.1)
2. Install cylinder and cable block as shown. (See Fig. 5.2 and Fig. 5.3)
3. Position the **POWERSIDE RUNWAY** on top of the cross tubes with the **UTILITY RAIL** towards the centre. The fitting 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 cross tubes and bolt together using four M18 x 2.5 hex bolts and washers. (See Fig. 5.4)



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STEP 6 - OFFSIDE RUNWAY INSTALLATION

Position the **OFFSIDE RUNWAY** on top of the cross tubes with the **UTILITY RAIL** located inside.
(See Fig. 6.1)



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STEP 7 - CABLE / SHEAVE INSTALLATION

1. Inspect cables to insure 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**.
3. You must reinstall the **SHEAVES, SPACERS AND PINS** in the same order as they are removed. **Note:** Failure to install **PLASTIC FRICTION SPACERS** will result in premature sheave wear and void warranty. If cables are not installed from factory please reinstall pulleys, spacers and sheaves in the same order as removed. Failure to do so and reinstall shims (plastic or metal) can result in premature bushing failure. (See Fig. 7.1 and 7.2)

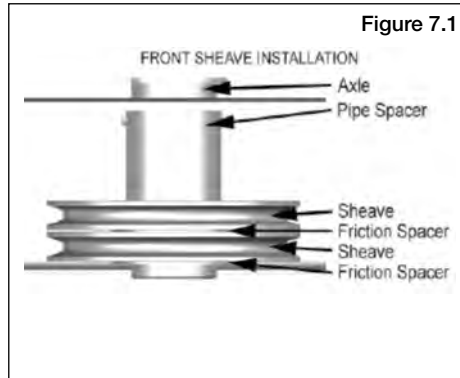


Figure 7.1

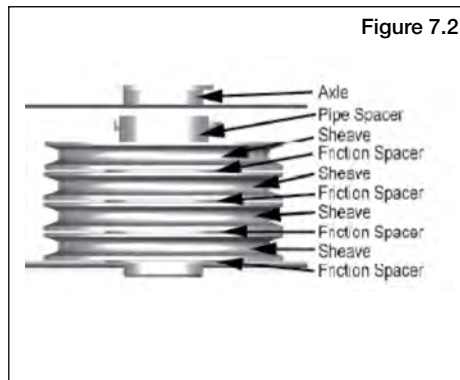


Figure 7.2

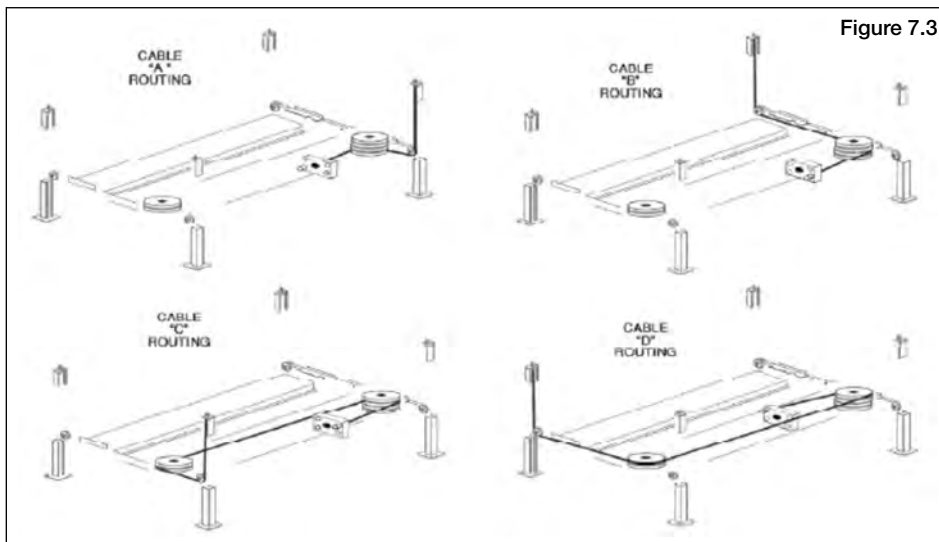


Figure 7.3

HELPFUL TIP Install the sheaves and cables in the order as shown above starting from the **SHORTEST (A)** to the **LONGEST (D)**. (See Fig 7.3 and Fig. 7.4)

! Danger

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.

ALL LOCKS MUST BE ENGAGED BEFORE PROCEEDING.

Failure to comply with these instructions may result in severe personal injury or death.

! Danger

When the cable adjusting nuts bottom out on the threaded end of the cable connector and there is still slack in the cables, the cables have stretched beyond the safe useful length and need to be replaced with factory approved cable assemblies. Do not place washers, spacers or other devices to “shorten” the effective cable length as damage to the lift or injury to persons may occur.

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CABLE / SHEAVE INSTALLATION

4. With the **CABLES** properly routed, hold the sheaves in position and install the pipe spacer then **SHEAVE AXLE**. (See Fig. 7.5)
5. Repeat the same procedure at the other end of the lift starting with the bottom sheave and cable first. Be sure that you install the sheaves, spacers and pins in the same order as they are removed.
6. Install the sheave axle retaining bolts at both ends after lining up the holes on the sheave axle and pipe spacer. (See Fig. 7.6)

! Danger

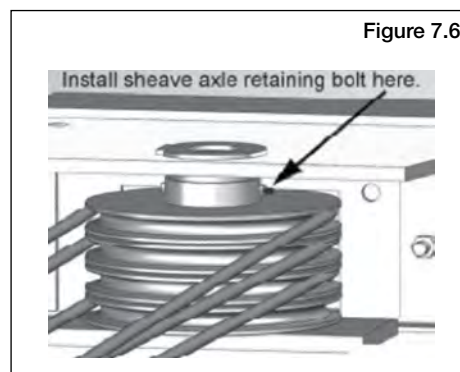
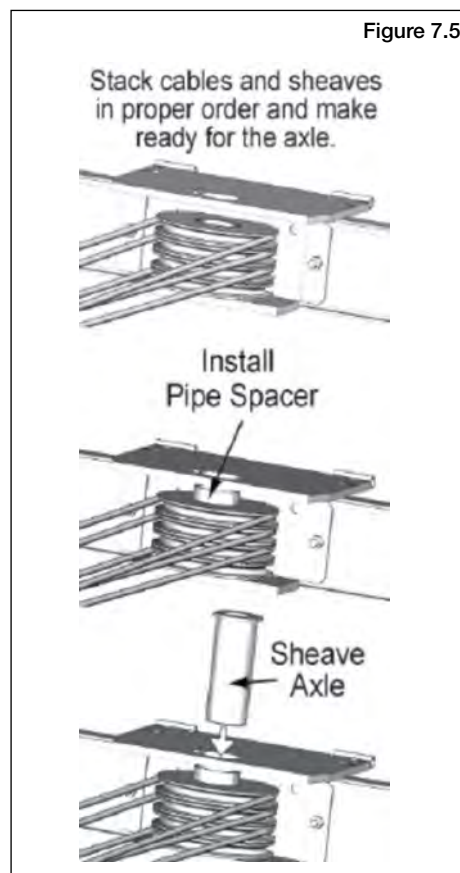
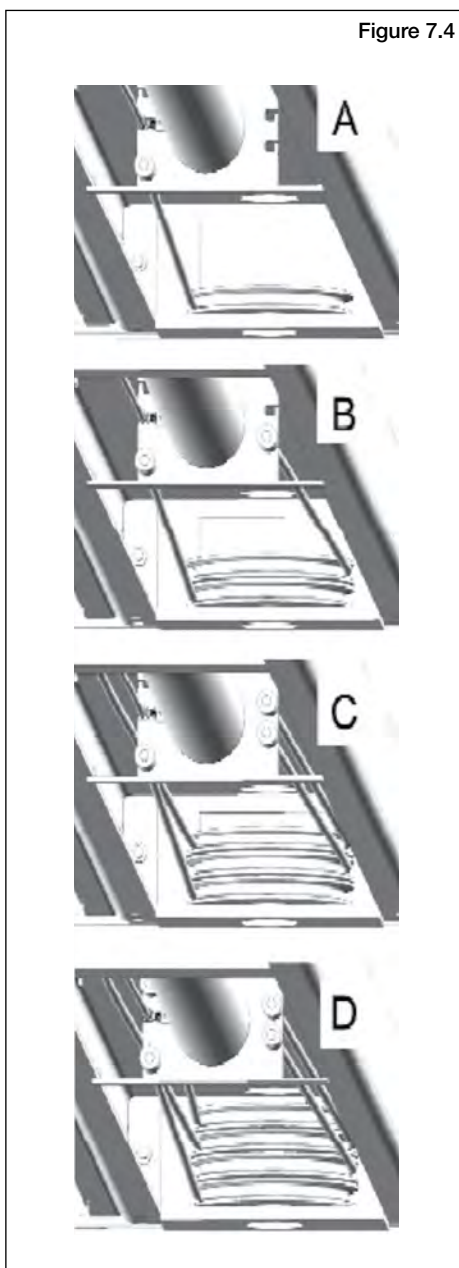
DO NOT PROCEED
Until visual confirmation is made of all Safety Lock.

ALL LOCKS MUST BE ENGAGED BEFORE PROCEEDING.

Failure to comply with these instructions may result in severe personal injury or death.

SAFETY LOCKS ENGAGED OK TO PROCEED.

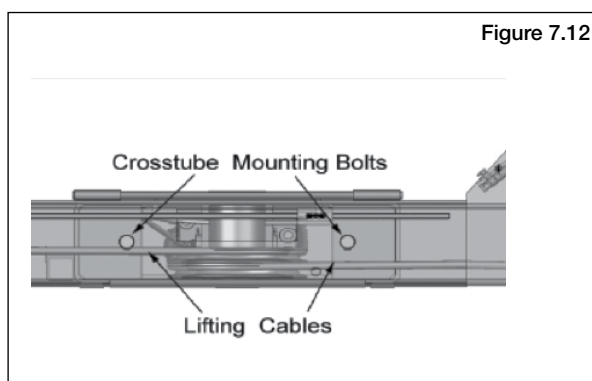
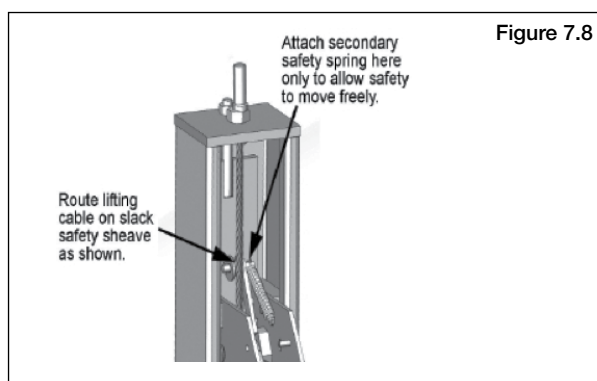
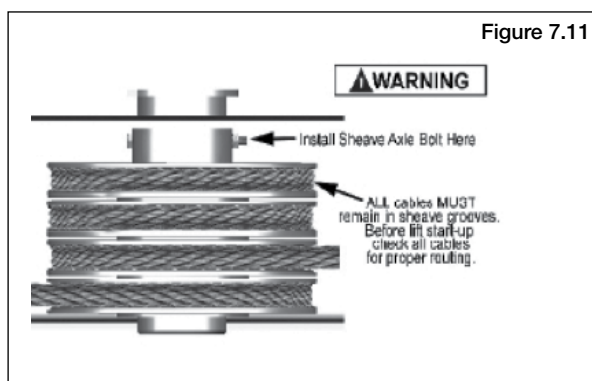
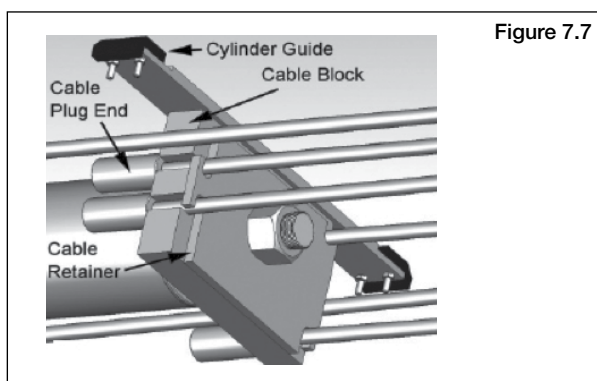
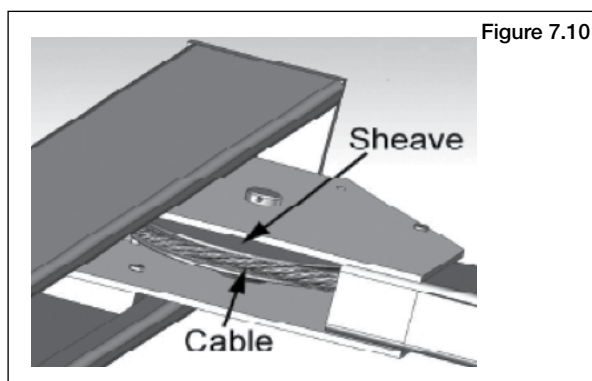
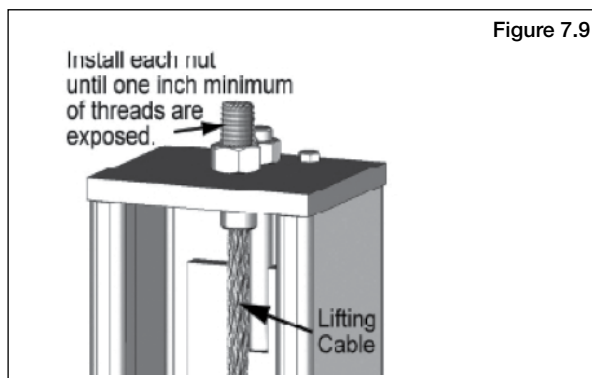
SAFETY LOCKS NOT ENGAGED REMAIN CLEAR. (See page 30)



Disclaimer: All measurements and diagrams are accurate at the time of publication but are subject to change.

CABLE / SHEAVE INSTALLATION

7. Each cable must be installed through the **CABLE RETAINER** first to keep cables stowed in their proper position on the cable block. (See Fig. 7.7)
8. Route the cable ends through the ends of each cross tube, over the **SLACK SAFETY SHEAVE** then to the top of each column. Secure using the M30 hex nuts and flat washers. Tighten each nut until there is at least one inch of threads protruding through the top of the nut. The cables will remain loose until start up and final cable adjustments are made. (See Fig. 7.8 and 7.9)
9. After routing the cables double-check to make sure all are properly positioned and **REMAIN WITHIN THE GROOVES OF ALL sheaves.**(See Fig. 7.10. and 7.11)



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STEP 8 - POWER UNIT INSTALLATION

- **DO NOT** run power unit without 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.
 - a. For 208-230 volt, single phase, use a 25 amp fuse.
 - b. For 208-230 volt, three phase, use a 20 amp fuse.
 - c. For 380-440 volt, three phase, use a 15 amp fuse.

⚠ Important

SEE WIRING INSTRUCTIONS AT THE BACK OF THIS MANUAL

⚠ Danger

ALL WIRING MUST BE PERFORMED BY A CERTIFIED ELECTRICIAN ONLY

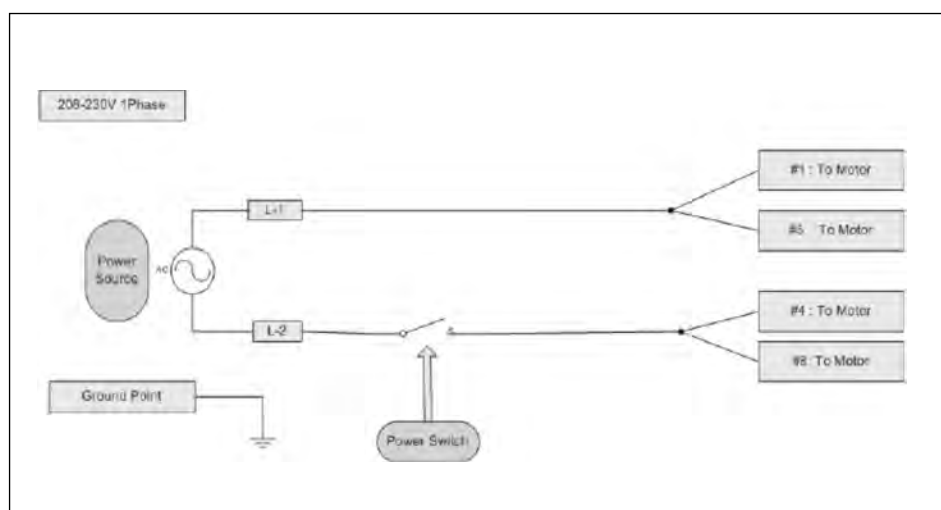
⚠ Danger

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.

POWER UNIT HOOK UP

INSTALLATION AND ADJUSTMENT.

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

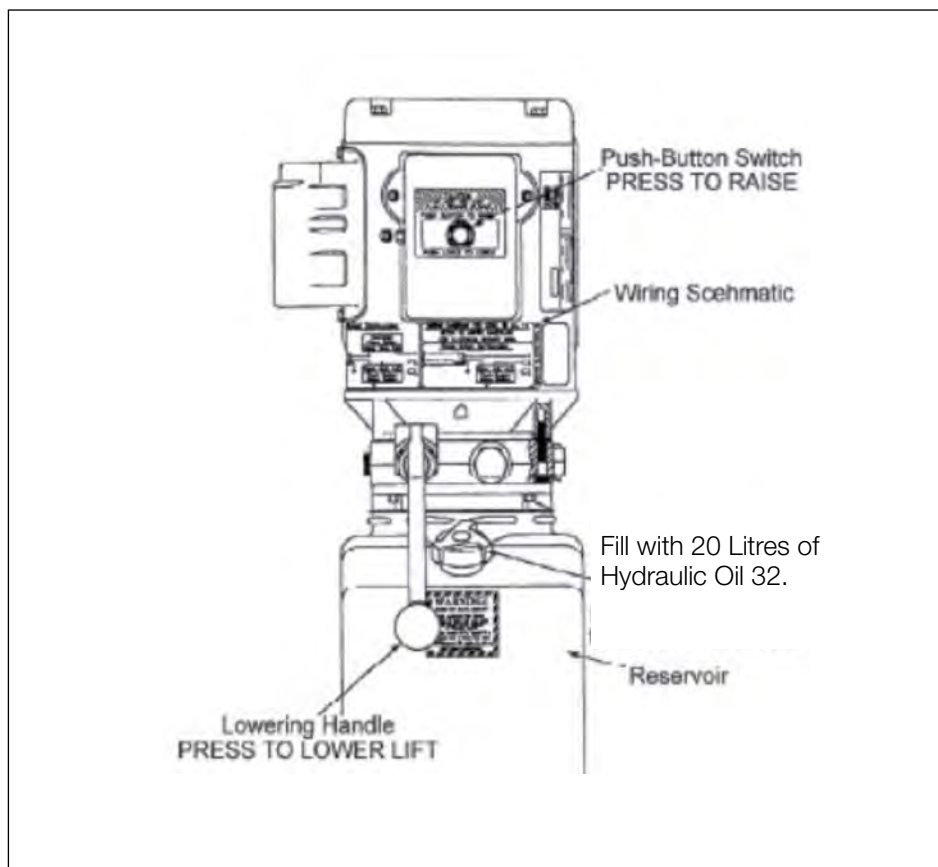


Disclaimer: All measurements and diagrams are accurate at the time of publication but are subject to change.

STEP 9 - POWER UNIT HOOK UP

Have a **CERTIFIED ELECTRICIAN** run the power supply to motor. Refer to wiring instructions at the back of this manual.

Typical power unit shown below the controls & labels may vary.



⚠ Danger

RISK OF EXPLOSION!

This equipment has internal arcing or **PARTS THAT MAY SPARK** and should not be exposed to flammable vapours. Motor should not be located in a recessed area or below floor level. **NEVER** expose motor to rain or other damp environments.

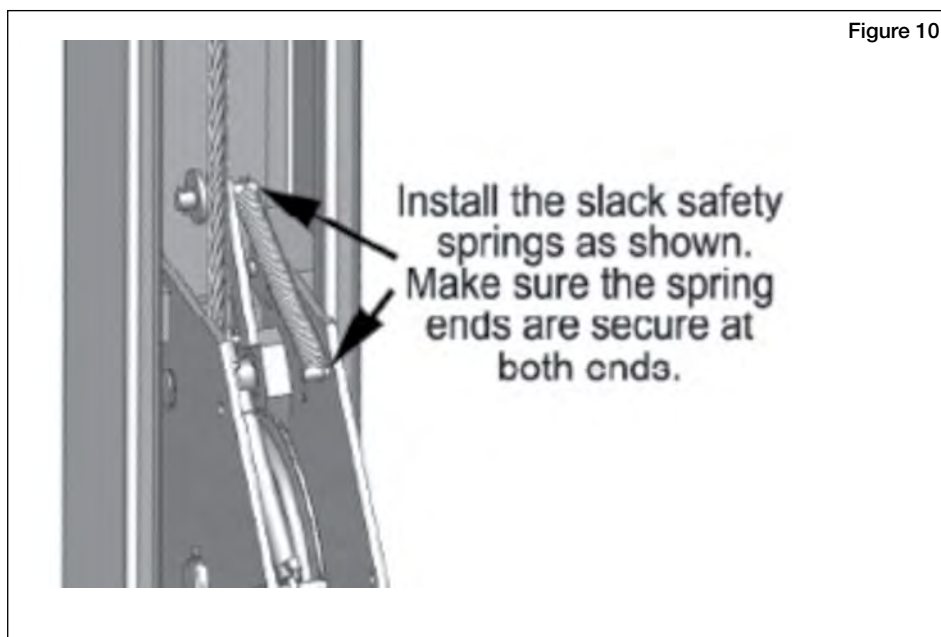
⚠ Important

DAMAGE TO MOTOR CAUSED BY WATER IS NOT COVERED UNDER WARRANTY

Disclaimer: All measurements and diagrams are accurate at the time of publication but are subject to change.

STEP 10 - INSTALLING THE SLACK SAFETY SPRINGS

Install the unattached end of the **SLACK SAFETY LOCK SPRINGS** as shown. Make sure the spring ends are secure at both ends. Do not attempt to raise the lift until the slack safety springs are attached and the rollers are pulled clear from the ladder. (See Fig. 10)



Danger

RISK OF SERIOUS INJURY The following steps involve the **SLACK CABLE SAFETY DEVICE AND MAIN SAFETY.**

Failure to follow these steps could result in serious injury or death in the event of cable failure.

Disclaimer: All measurements and diagrams are accurate at the time of publication but are subject to change.

STEP 11 - LIFT START UP / FINAL ADJUSTMENTS

1. Make sure the POWER UNIT RESERVOIR is full with 20 Litres of hydraulic oil 32.
2. Spray the inside of the Columns where the Slide Blocks glide with white lithium grease, this is the only lubricant to be used **DO NOT USE WD40**.
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. 11.1)
6. Continue pressing the raise button until the cables are taut and the lift starts to move.
7. **RAISE LIFT UNTIL THE CYLINDER BOTTOMS OUT AND THE LIFT STOPS. ADJUST EACH CABLE SO THAT EACH SAFETY LOCK RESTS AT TWO INCHES ABOVE THE TOP SAFETY LOCK POSITION.** It may be necessary to tighten or loosen each Cable to reach the proper height. The Cable nuts **MUST** be tightened until there is at least one inch of threads protruding through the nut. (See Fig. 11.2)
8. After connecting the air supply, press the **AIR VALVE** and check that all Safety Locks are functioning properly. Lower the lift by pressing the push button air valve and Power Unit lowering valve simultaneously..
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 white lithium grease, is the only lubricant to be used **DO NOT USE WD40**.
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.

⚠ Danger

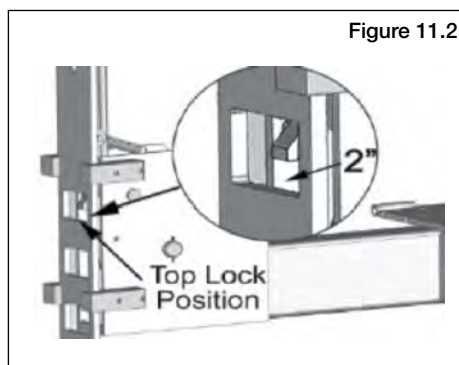
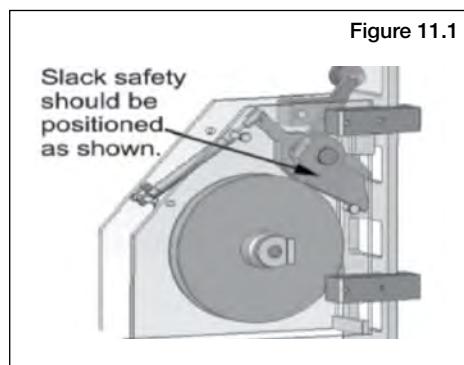
KEEP HANDS & FEET CLEAR the following steps involve the **SLACK CABLE SAFETY DEVICE AND MAIN SAFETY**. Failure to follow these steps could result in serious injury or death in the event of cable failure.

⚠ Danger

All cable nuts **MUST** be tightened on each end until there is at least 25mm of thread 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.

⚠ Important

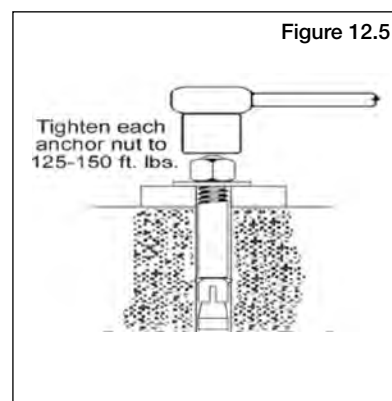
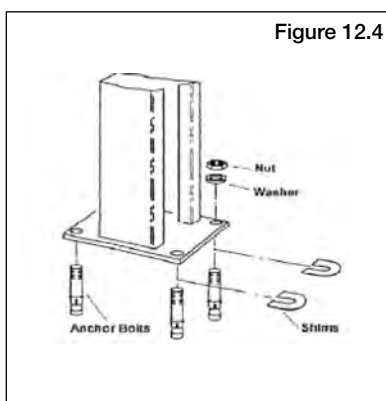
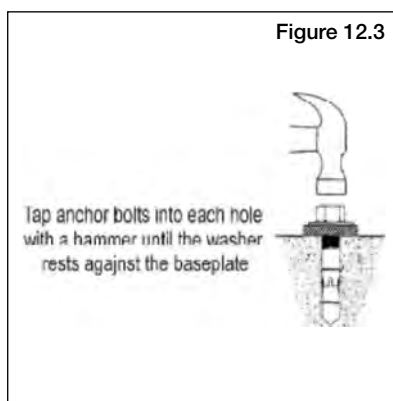
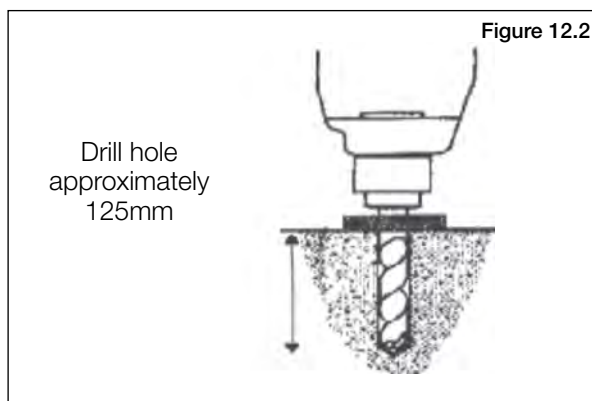
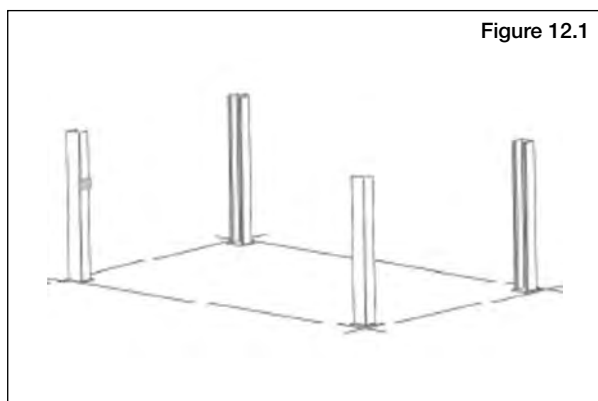
Adjust the cables again a week after first use, then every three to six months thereafter depending on usage and / or to compensate for stretch.



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STEP 12 - ANCHORING THE COLUMNS

1. Before **PROCEEDING, DOUBLE CHECK 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. 12.1)
2. Using the **BASE PLATE** on each column as a guide, drill each hole at least double the depth of the bolt, not all the way through the slab (See Fig. 12.2)
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
4. 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, enough **THREADS ARE LEFT EXPOSED**. (See Fig. 12.3)
5. 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. (See Fig. 12.4)
6. After any necessary shims are installed, tighten each anchor nut 3-5 turns past hand tight. **IMPORTANT** – If anchor bolts do not hold when torqued to required amount, concrete must be replaced. Saw cut and remove 610mm x 610mm square area under each column base then re-pour with reinforced 3000psi concrete to a depth of 150mm minimum, keying new concrete under existing floor. (See Fig. 12.5)



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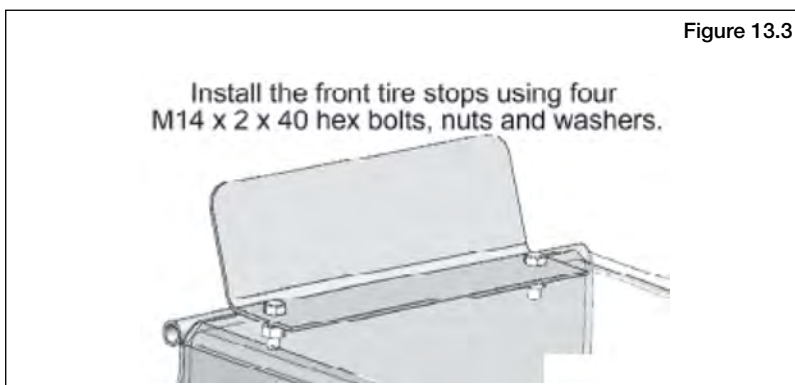
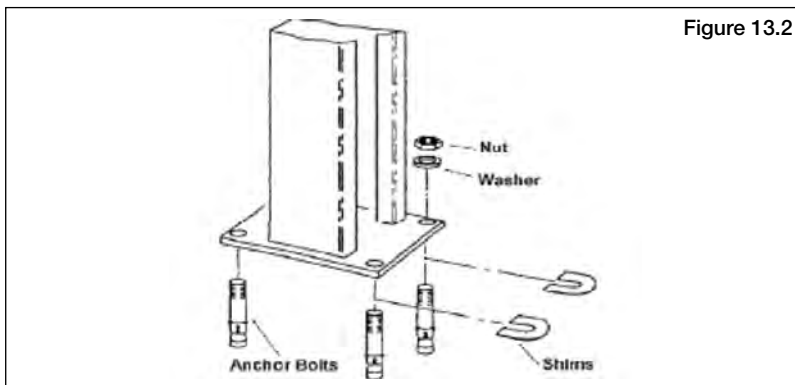
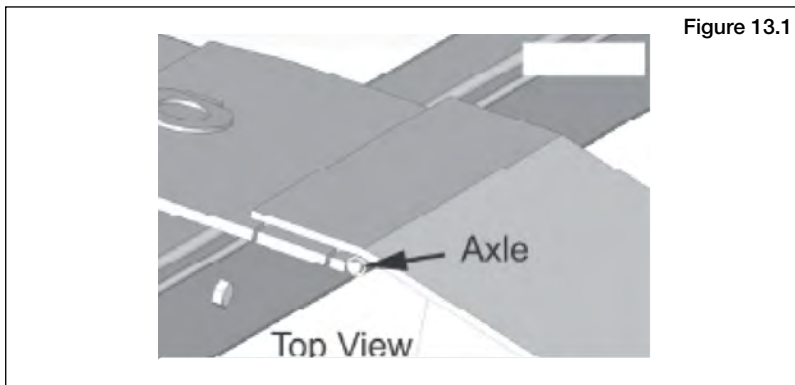
STEP 13 - INSTALL APPROACH RAMPS

Install the approach ramps on the entry side of the lift.

(See Fig. 13.1 & 13.2)

Install the front tyre stops at the forward side of the lift using the M14 x 2 hex bolts, nuts and washers. Torque to 35-45 PSI.

(See Fig. 13.3)



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STEP 14 - 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 allow full height raise.
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 CHECKLIST

- 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
- Runways Level
- All Screws, Bolts, and Pins Secured
- Surrounding Area Clean
- Operation, Maintenance and Safety Manuals on Site

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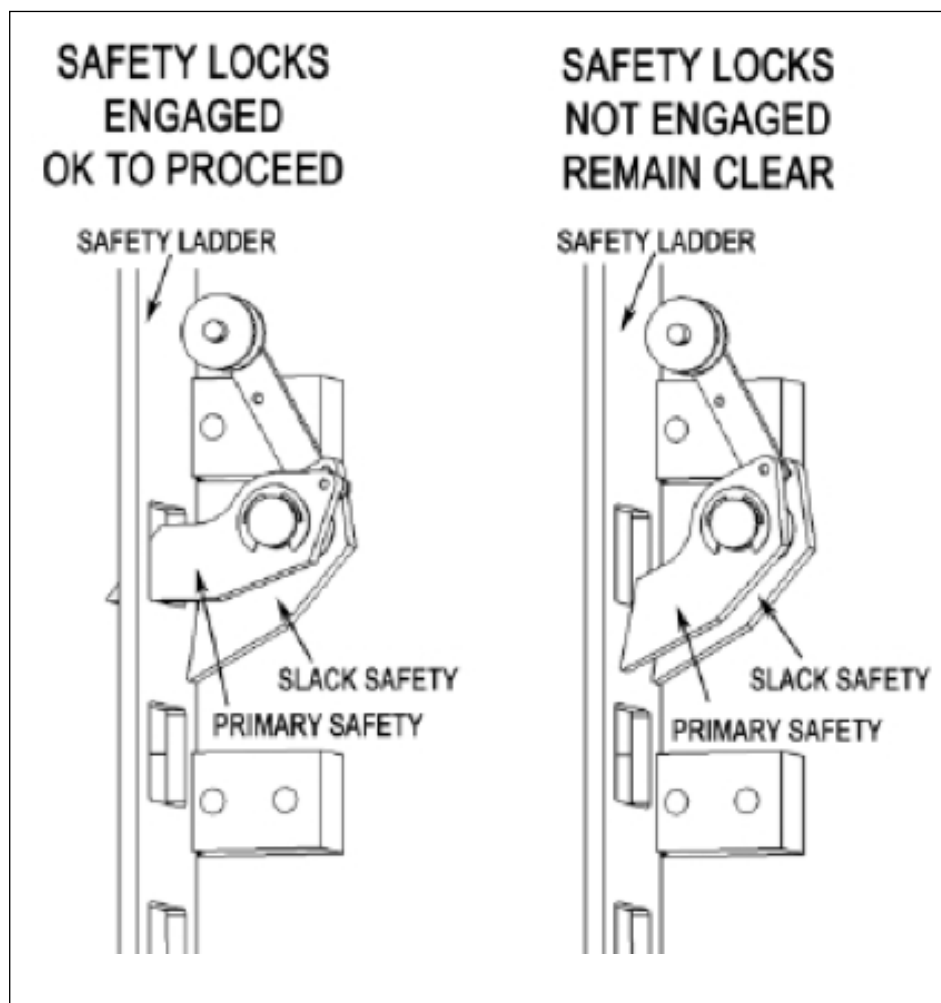
TO RAISE THE LIFT

1. Position vehicle tyres in the centre of each Runway.
2. Set parking brake or use wheel chock 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 SAFETY LOCKS ARE ENGAGED** before entering work area

Danger

VISUALLY CONFIRM THAT ALL PRIMARY SAFETY LOCKS ARE ENGAGED BEFORE ENTERING WORK AREA

Suspension components 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.



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TO LOWER THE LIFT

STEPS 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 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 push button air safety valve and **HOLD**.
4. Push the **LOWERING HANDLE** on the power unit until the lift has descended completely.

WHEN LOWERING THE LIFT PAY CAREFUL ATTENTION THAT ALL PERSONNEL AND OBJECTS ARE KEPT CLEAR.

- **ALWAYS** keep a visual line of site on the lift **AT ALL TIMES**.
- **ALWAYS** make sure that all **FOUR LOCKS** are disengaged.
- If one of the locks inadvertently locks on descent the lift and/or vehicle may disrupt causing personal injury or death.

WEEKLY MAINTENANCE

- Lubricate all sheaves and/or Rollers with 90-WT gear oil or similar heavy lubricant.
- Check all cable connections, Bolts and Pins to ensure proper mounting.
- Lubricate safety lock pivot points with white lithium grease.

MONTHLY MAINTENANCE

- Check Safety Locks to ensure they are in good operating condition.
- Thoroughly inspect all cables for wear.
- Make a visual inspection of **ALL MOVING PARTS** and check for excessive signs of wear.
- Replace **ALL FAULTY PARTS** before lift is put back into operation

Danger

NEVER EXCEED THE RATED CAPACITY of lift.

DO NOT USE LIFT if any component is found to be defective or worn.

NEVER OPERATE LIFT with any person or equipment under lift.

ALWAYS STAND CLEAR of lift when lowering or raising.

ALWAYS ENSURE SAFETY LOCKS ARE ENGAGED before entering work area.

NEVER LEAVE LIFT IN ELEVATED POSITION unless all four safety locks are engaged.

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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.
- 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

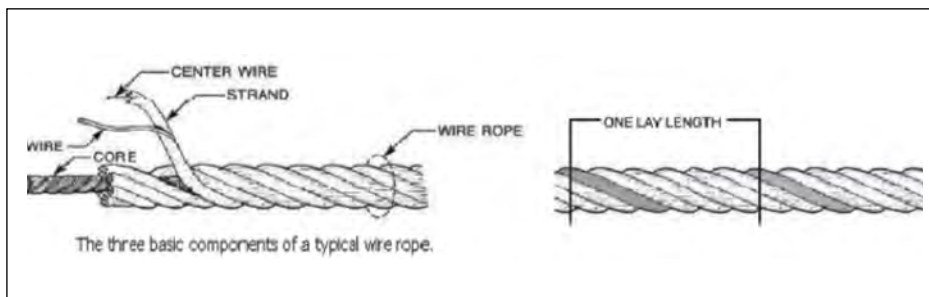
- It is important that you know the load limit. Be careful that you do not overload the lift. If you are unsure what the load limit is, check the data plate found on one of the lift columns or contact the manufacturer.
- The centre of gravity should be followed closely to what the manufacturer recommends.
- 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, boot, and bonnet are closed securely. Prior to being raised, make sure there is no one standing closer than two metres 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 adaptors in the right position under the contact points that have been recommended
- The lift should be raised just until the vehicle's wheels are approximately 300mm 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.

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 wire or 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.
- Any lifting cables that have met the criteria for removal must be immediately replaced.

Warning

When the cable adjusting nuts bottom out on the threaded end of the cable connection and there is still slack in the cables. The cables have stretched beyond the safe useful length and need to be replaced with Factory Approved Cable Assemblies.

DO NOT PLACE WASHERS, SPACERS OR OTHER DEVICES to "Shorten" the effective cable length as damage to the lift or injury to persons may occur.

Danger

Failure to read, understand and follow these instructions may cause death or serious injury. Read and understand these instructions before using lift.

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BROKEN WIRES - REPLACING WIRE ROPE

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.

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.

WHEN TO REPLACE LIFTING CABLE 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.

LIFT WILL NOT RAISE

The common problem that may be encountered and their probable causes are covered in the following chart

PROBLEM	SOLUTION
Air in oil?	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.
Cylinder binding?	Bleed cylinders See Installation Manual
Cylinder leaks internally?	Flush, release valve to get rid of possible contamination Hold release handle down allowing it to run for 15 seconds
Motor run backward under pressure?	Dirty oil Replace with clean hydraulic oil 32
Lowering valve leaks?	Tighten all fasteners Tighten fasteners to recommended torques
Motor runs backwards?	Check for free movement of release. If handle does not move freely, replace bracket or handle assembly
Pump damaged?	Check motor is wired correctly. Compare wiring of motor to electrical diagram on drawing.
Pump won't prime?	Oil seal damaged or cocked Replace oil seal around pump shaft.
Relief valve leaks?	See Installation Manual Consult Lift Manufacturer
Voltage to motor incorrect?	Replace with new part

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MOTOR WILL NOT RUN

The common problem that may be encountered and their probable causes are covered in the following chart

PROBLEM	SOLUTION
Fuse blown?	Check for correct voltage Compare supply voltage with voltage on motor name tag. Check that the wire is sized correctly. Requires AWG 10 for 25 Amps.
Limit switch burned out?	Check motor is wired correctly Compare wiring of motor to electrical diagram on drawing.
Micro-switch burned out?	Don't use extension cords 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.
Motor burned out?	Replace with new part
Voltage to motor incorrect?	Reset circuit breaker/fuse

LIFT LOWERS SLOWLY OR NOT AT ALL

The common problem that may be encountered and their probable causes are covered in the following chart

PROBLEM	SOLUTION
Cylinders binding?	See Installation Manual Consult Lift Manufacturer.
Release valve clogged?	Replace New Part
Pressure fitting too long?	Return for repair

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LIFT WILL NOT RAISE LOADED

The common problem that may be encountered and their probable causes are covered in the following chart

PROBLEM	SOLUTION
Air in oil?	Check oil level The oil level should be up to the bleed screw in the reservoir with the lift all the way down.
Cylinder binding?	Check/Tighten inlet tubes Replace inlet hose assembly.
Cylinder leaks internally?	Oil seal damaged or cocked Replace oil seal and install
Lift overloaded?	Bleed cylinders See Installation Manual
Lowering valve leaks?	See Installation Manual Consult Lift Manufacturer
Motor runs backwards?	Check vehicle weight Compare weight of vehicle to weight limit of the lift.
Pump damaged?	Flush release valve Hold release handle down and start unit allowing it to run for 15 seconds.
Pump won't prime?	Replace with new part
Relief valve leaks?	Return unit for repair
Voltage to motor incorrect?	Check motor is wired correctly Compare wiring of motor to electrical diagram on unit drawing

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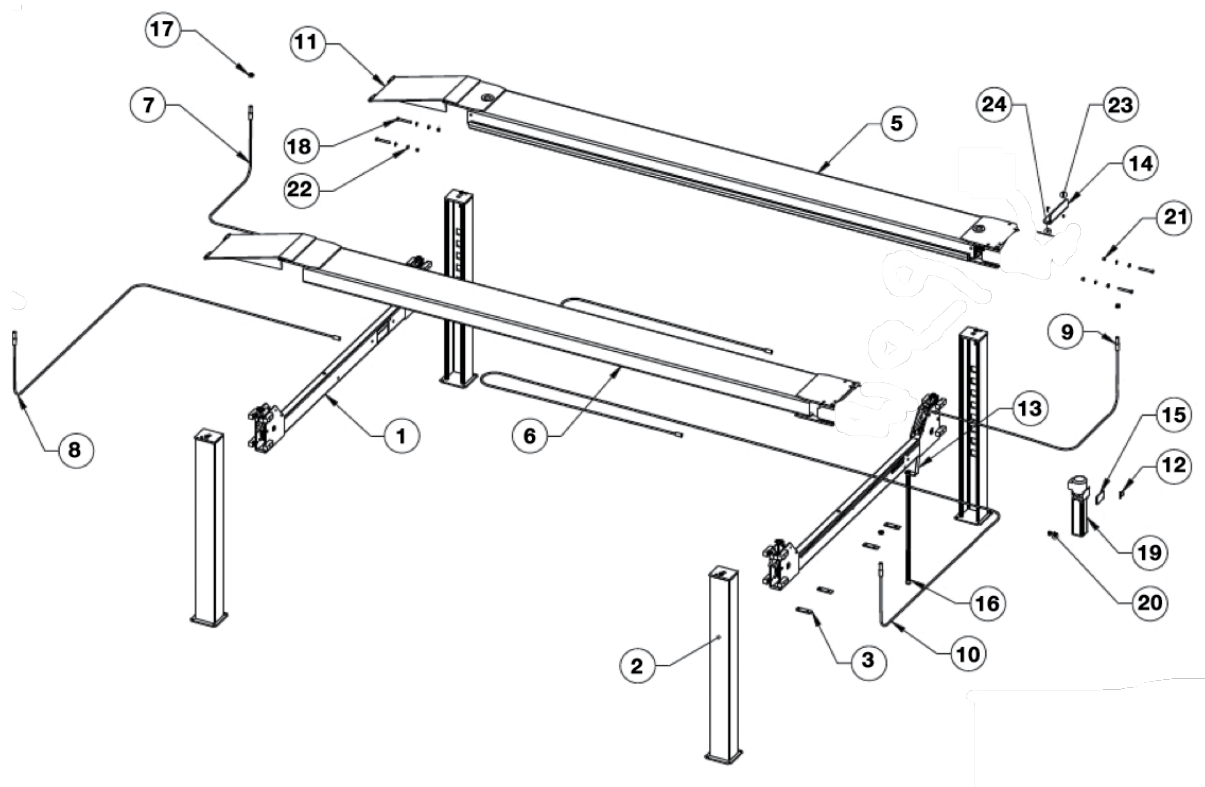
LIFT WILL NOT STAY UP

The common problem that may be encountered and their probable causes are covered in the following chart

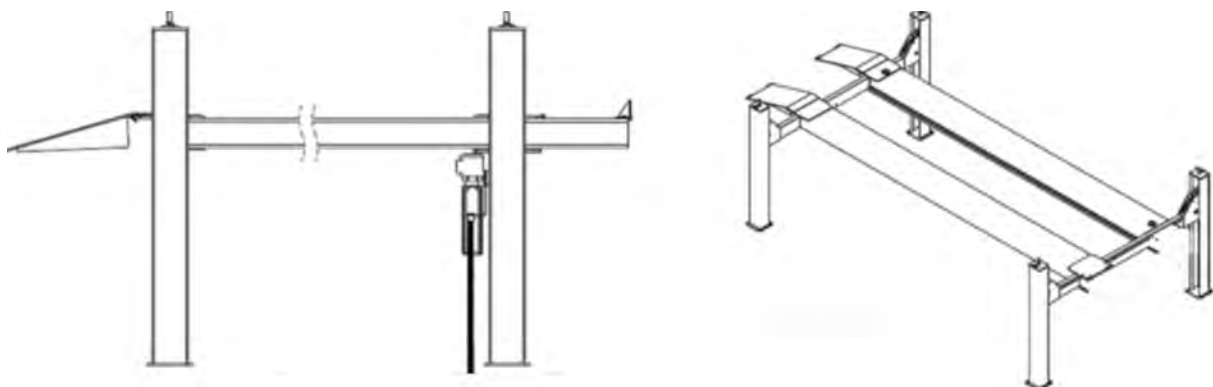
PROBLEM	SOLUTION
Air in oil?	Check oil level The oil level should be up to the bleed screw in the reservoir with the lift all the way down.
Check valve leaks?	Oil seal damaged and cocked Replace oil seal around pump shaft
Cylinder leak internally?	Bleed cylinders See Installation Manual
Lowering valve leaks?	Flush release valve Hold release handle down and start unit allowing it to run for 15 seconds
Leaking fittings?	Replace with new valve

Disclaimer: All measurements and diagrams are accurate at the time of publication but are subject to change.

TL12.0TH LIFT ASSEMBLY EXPLODED VIEW



TL12.0TH LIFT ASSEMBLY ISOMETRIC VIEW



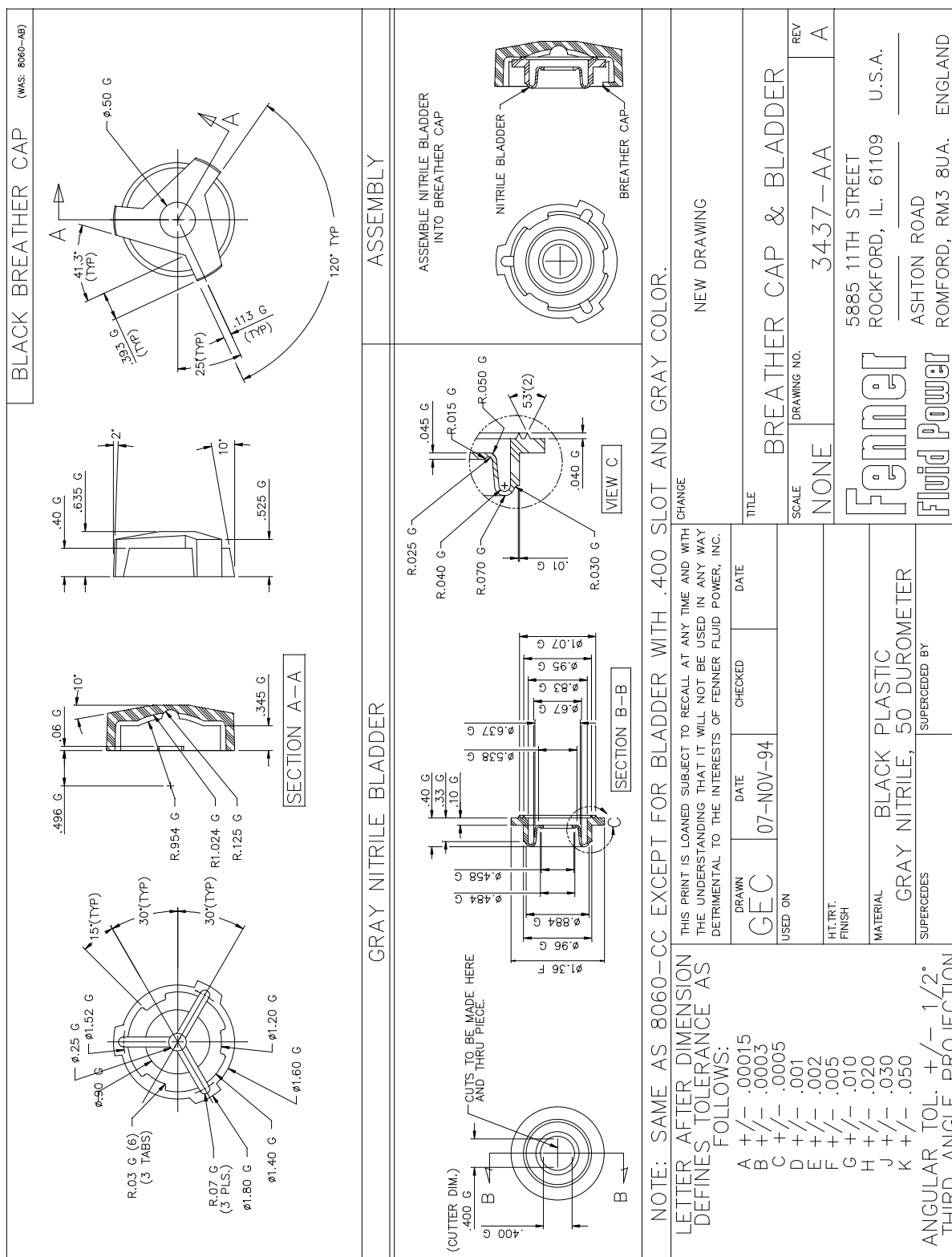
Disclaimer: All measurements and diagrams are accurate at the time of publication but are subject to change.

TL12.0TH PART NUMBERS & DESCRIPTION

ITEM NO	PART NUMBER	DESCRIPTION	QTY
1	H-283	Cross Tube Assembly	2
2	H-104	Post Assembly	4
3	H-222	Link Plate Spacer	2
5	H-288	Cylinder Ramp Assembly	1
6	H-299	Off Side Ramp Weldment	1
7	H-302	16 x 4150 L Cable Assembly	1
8	H-304	16 x 5900mm Long Lifting Cable Assembly	1
9	H-306	16 x 10535mm Lifting Cable Assembly	1
10	H-308	16 x 12274mm Lifting Cable Assembly	1
11	H-274	Drive Up Ramp Assembly	2
12	H-483	Zero Angle MTG Bracket	1
13	H-842	Flex Tube Bracket	1
14	H-851	Tire Stop Weldment	2
15	801105	Power Unit Vibration Dampener	1
16	FLEXTUBE 1320	Flex Tube, WY-PE AD34.5Bx1320ml	1
17	NN M30 x 3.5	Nylock Nut	4
18	HHBM 18x2.5x150L	Hex Head Bolt M18 x 2.5 x 150L	4
19	Power Unit	AD-1214 Power Unit	1
20	90.25 ElbowLong	900 Elbow, 37 ° Male Flare 7/16-20UNF-2A to 9/16 -18UNF-2A (L) Adjustable O-Ring	2
21	HNM 18 x 2.5	Hex Nut M18 x 2.5	4
22	M18 Flat Washer	M18 Flat Washer	8
23	HHBM 14x2x40	Hex Head Bolt M14 x 2 x 40	4
24	HN M14x2	Hex Nut M14 x 2	4

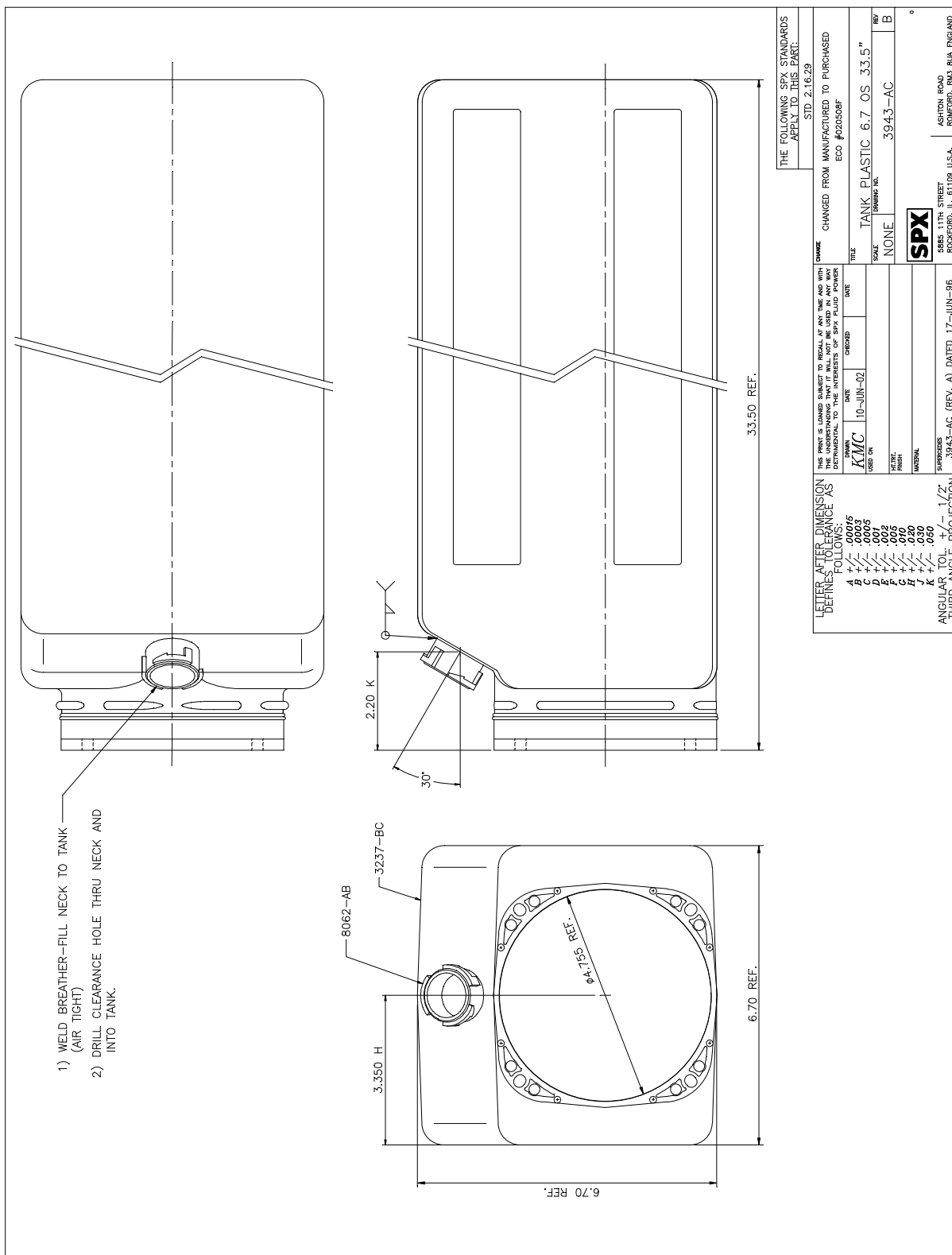
Disclaimer: All measurements and diagrams are accurate at the time of publication but are subject to change.

AUSTRALIAN MADE POWER UNIT - BREATHER CAP AND BLADDER



Disclaimer: All measurements and diagrams are accurate at the time of publication but are subject to change.

POWER UNIT - TANK

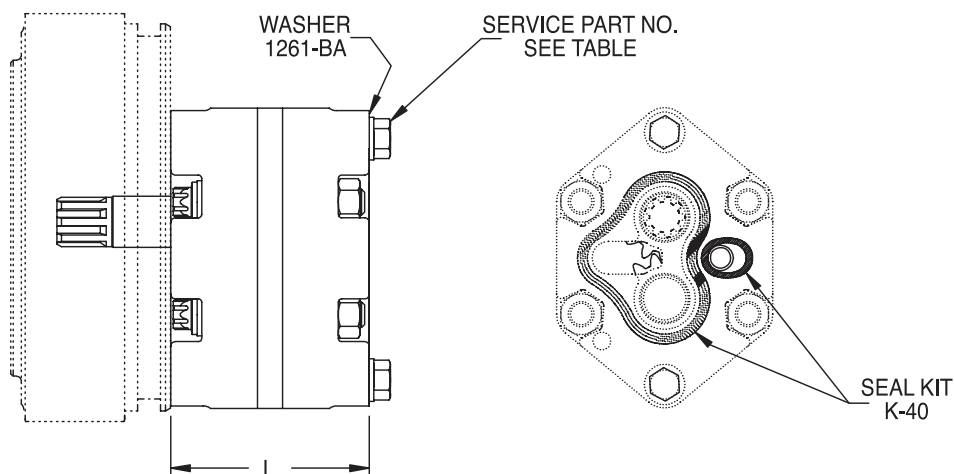


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POWER UNIT PUMP

PUMP KITS AFC SERIES

KP08-80



Current Endhead Design Uses 5/16-24 Mounting Thread. Older Endhead Design Used M8 Mounting Thread. Pump Kits Include Both Imperial And Metric Mounting Bolts.

KIT NO.	DISPLACEMENT		LENGTH		MAXIMUM PRESS			INCLUDED IN KIT KP__	
	CC REV	CIPR	MM	INCH	MAX. RPM	CONT. PSI / BAR	INTERMIT. PSI/BAR	SERVICE BOLT PART NO.	SERVICE BOLT PART NO.
KP08	0.8	0.049	57	2.25	5000	5000/350	5000/350	2824-AA METRIC	F1-1052-75 IMPERIAL
KP10	1.0	0.061	58	2.28	5000	5000/350	5000/350	2824-AA METRIC	F1-1052-75 IMPERIAL
KP12	1.2	0.073	59	2.32	5000	5000/350	5000/350	2825-AA METRIC	F1-1052-75 IMPERIAL
KP16	1.6	0.098	60	2.38	5000	5000/350	5000/350	2825-AA METRIC	F1-1052-75 IMPERIAL
KP20	2.0	0.122	62	2.44	4000	5000/350	5000/350	2825-AA METRIC	F1-1053-00 IMPERIAL
KP25	2.5	0.153	64	2.52	4000	4600/320	5000/350	2826-AA METRIC	F1-1053-00 IMPERIAL
KP31	3.1	0.189	67	2.62	4000	3600/250	5000/350	2826-AA METRIC	F1-1053-00 IMPERIAL
KP40	4.0	0.244	70	2.75	4000	3000/200	4000/280	2826-AA METRIC	F1-1053-25 IMPERIAL
KP50	5.0	0.305	74	2.90	4000	2300/160	3200/220	2827-AA METRIC	F1-1053-50 IMPERIAL
KP63	6.3	0.384	79	3.11	3200	1800/125	2500/175	2827-AA METRIC	F1-1053-50 IMPERIAL
KP80	8.0	0.488	86	3.37	2400	1500/100	2000/140	2828-AA METRIC	F1-1053-75 IMPERIAL

Kit includes washers and mounting bolts. Use all washers. Mounting bolts are grade 5. **Do not substitute.**

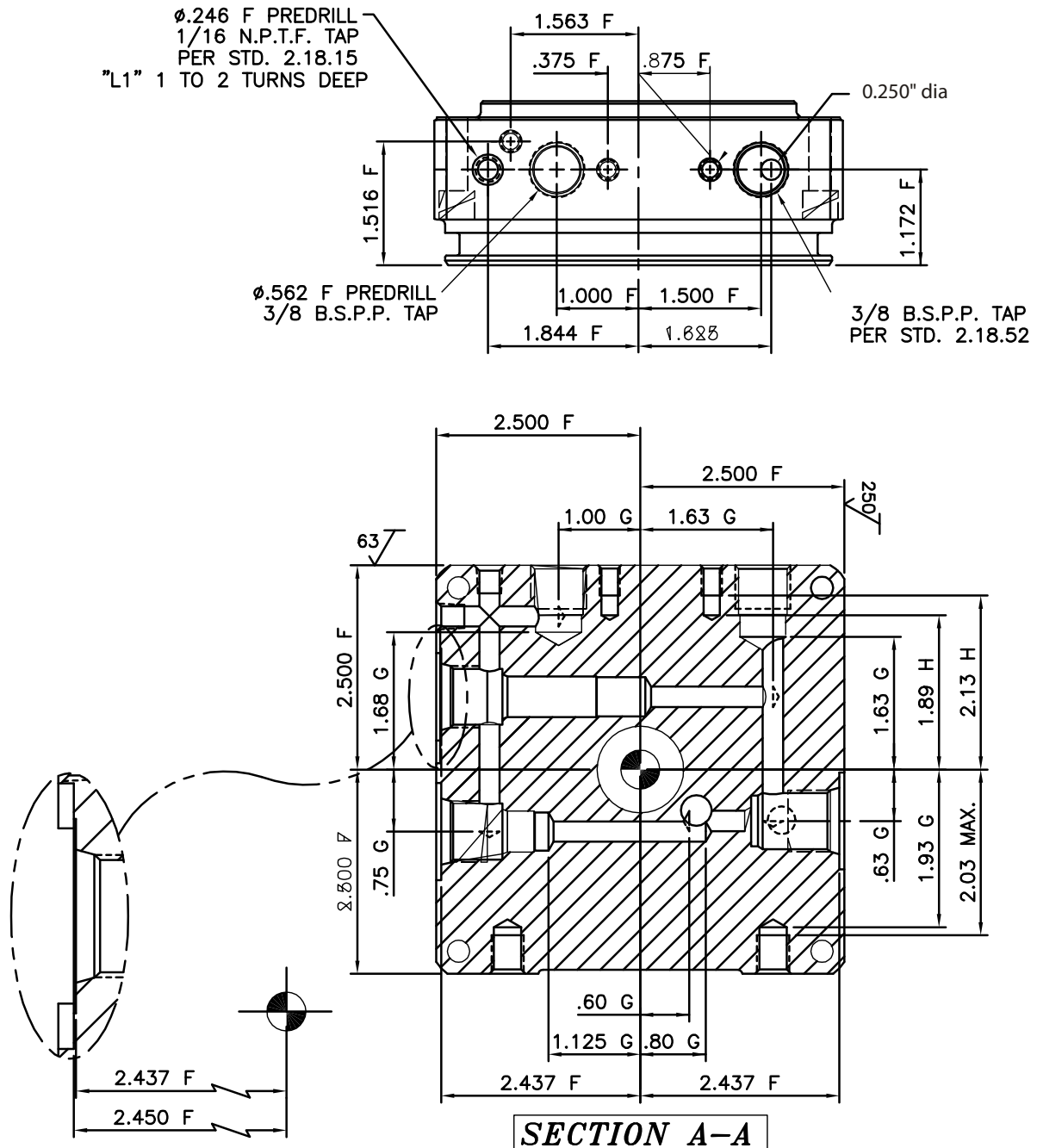
KP10 cannot be used in duplex pump applications.



Disclaimer: All measurements and diagrams are accurate at the time of publication but are subject to change.



POWER UNIT PUMP



Disclaimer: All measurements and diagrams are accurate at the time of publication but are subject to change.

WARRANTY

1. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.
2. The benefits under this warranty are in addition to other rights and remedies under a law in relation to the goods.
3. We warrant that these goods are free from defects in workmanship and materials for a period of 5 years on hoist structure and 12 months on hydraulics and working components from the date of purchase where the goods have been paid for in full and:
 - a. Have not been installed; or
 - b. Have been installed by a suitably qualified professional installer of goods of this type in accordance with the Installation, Operation, Maintenance and Instruction Manual which is supplied with the goods at the time of purchase.
 - c. Operation, Maintenance and Instruction Manual which is supplied with the goods at the time of purchase.
4. Subject to the conditions of warranty set out below, if the goods fail to operate for any reason within the applicable warranty period, we will repair or replace the goods free of charge.
5. Apart from any consumer guarantees under the Australian Consumer Law all other warranties, express or implied, and whether arising by virtue of statute or otherwise, are hereby excluded.

Tufflift Hoists Australia

2 Dairy Drive, Coburg North, VIC 3058

Phone +61 3 9470 7200

Fax +61 3 9470 7209

Freecall 1800 Tufflift (88 33 54)

www.Tufflift.com.au

Email enquiries@Tufflift.com.au



CONDITIONS OF WARRANTY

1. To make a warranty claim:
 - 1.1. The goods, a copy of this warranty, proof of purchase and an explanation of the defect must be sent to us at the address specified in this warranty; and
 - 1.2. The goods must not have had their serial number (if any) removed, defaced or changed, their casing open, their power cord altered, nor have been tampered with in any other way.
2. Freight costs and travel expenses associated with compliance with this warranty and the repair or replacement of the goods under warranty are for your account, save for where we conduct an on-site repair of the goods at a location that is within 30 kilometres of one of our authorised service agents.
3. This warranty will be invalidated and will not apply in relation to loss, damage or deterioration to a goods which is caused by any of the following:
 - 3.1. Failure to handle, store, install, service or maintain the goods in accordance with the Installation, Operation, Maintenance and Instruction Manual which is supplied with the goods at the time of purchase;
 - 3.2. Impact or contact with objects or substances brought into proximity with the goods as a result of direct or indirect human intervention;
 - 3.3. The collapse or movement of the structure on which the goods are mounted or the removal or weakening of the foundations upon which the goods are mounted;
 - 3.4. Deliberate or careless acts or omissions on your part or on the part of your employees, agents, subcontractors or any other party, excluding ourselves and our distributors;
 - 3.5. Unauthorised modifications or alterations of any part of the goods;
 - 3.6. Any event beyond our control, including, but not limited to earthquake, fire, flood, lightening, strong wind, heavy hail, or the build-up of snow or other natural substances;
 - 3.7. Use of the goods in an outdoor environment;
 - 3.8. Exposure to corrosive or other adverse environmental elements;
 - 3.9. Cosmetic damage, damage to electrical cords, dents, electrical overload, surge, spikes and or lost / missing parts.
 - 3.10. Normal wear and tear;
 - 3.11. Loading in excess of the weight capacity or operating limitations displayed on the goods specifications;
 - 3.12. Use of the goods for a purpose other than those for which it was designed;
 - 3.13. Use of the incorrect voltage on the goods; or
 - 3.14. Shipment of the goods.
4. If the goods or parts are replaced under warranty, this warranty will apply to the replacement parts for the duration of the unexpired portion of the original warranty.
5. No amendment to this warranty will be valid or binding unless recorded in writing and signed by our authorised officer.
6. Subject to the Australian Consumer Law and any other applicable state or federal law:
 - 6.1. We expressly disclaim any responsibility for any other warranty issued by any other party in respect to any component or goods purchased from us or the specification, design, manufacture or installation thereof. All claims under warranties issued by third parties must be directed to those third parties;
 - 6.2. This warranty is given for the benefit of the first owner only and is not transferable. Any claims by parties other than the original purchaser will not be recognised.

WARRANTY INFORMATION SECTION

Complete this section for your records

GOODS TYPE:

DATE OF PURCHASE:

INVOICE NUMBER:

MODEL NUMBER:

SERIAL NUMBER:

NAME ON INVOICE:

A. A. Barnes & Coy. Pty. Ltd.

41 Evans Court
Toorak, Vic 3142

Consulting Engineers

ABN 16-004-919-340

TuffLift P/L

Tel: 03 9822 5889

Fax: 03 9822 5542

11 Mar 12

Machinery description:

Vehicle Hoist

Mark machinery:

Plant model,	TL12.0TH (27K4P)
Rated capacity,	12.00 t

Engineer's Certification:

This machinery has been designed in accordance with:

AS 1418.1 - 2002	Cranes code
AS 1418.9 - 1996	Vehicle hoists
AS 3990 - 1993	Mechanical Equipment - Steelwork

Occupational Health & Safety (Plant) Regulations 1995
Victoria.

In my opinion the design adequately complies with the current codes & regulations as required by WorkSafe Victoria & is capable of safely & effectively carrying out the functions for which it was designed.

A copy of the calculations & drawings is attached.



Alex A. Barnes



Reference: **V1301268**

27 JUN 2013

David Potter
Tufflift Imports P/L
2 Dairy Drive
COBURG NORTH VIC 3058

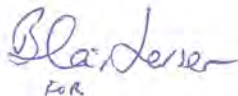
Dear Mr Potter

Registration of Plant Design: Registration Number V1301268

Please find enclosed notice of plant design registration according to the *Occupational Health and Safety Regulations 2007* and the *Equipment (Public Safety) Regulations 2007*. This notice does not imply approval, acceptance or endorsement of the design.

For further clarification, please contact the Licensing Branch on 1300 852 562 and Press 3 for Plant enquiries or email licensing@worksafe.vic.gov.au, quoting our reference number.

Yours sincerely

A handwritten signature in blue ink that reads "Leanne Harwood" with "FOR" written in smaller letters underneath.

Leanne Harwood
Licensing Manager

Enclosed:

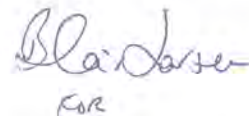
Notice of Plant Design Registration

NOTICE OF PLANT DESIGN REGISTRATION

Plant Type	Vehicle Hoist – 4 Post
Representational Drawing(s)	TUF11A 1 to 3
Design Description and Extent	Model/ID No. TL12.OTH (27K4P)
Technical Information	Max SWL 12,000 kg, Max Working Height 1.8 m
Maker	Shanghai Dongxiu Import Export Co Ltd
Confirmation Number	V1301268
Date of Confirmation	27 JUN 2013
Published technical standards or engineering principles (as listed by designer and confirmed by design verifier)	AS1418.1- 2002 Cranes, Hoists and Winches, General Requirements AS1418.9-1996 Vehicle Hoists - Cranes (Including hoists and winches) AS3990-1993 Mechanical Equipment- Steel Work

IMPORTANT INFORMATION

1. This notice applies only to the above design, which has been registered according to the above-named Regulations. WorkSafe has not verified that the designer has complied with the design obligations prescribed by the Regulations or the above mentioned technical standards or engineering principles.
2. The plant owner will require this confirmation and, therefore, a copy of it should be supplied to the manufacturer, so that it can in turn be provided to the supplier and owner with the plant or equipment.
3. The Regulations require the designer to keep and maintain, in a suitable state for examination, all records that the Regulations require for 10 years.
4. WorkSafe reserves the right to audit the registered design at any time to assess compliance with the above Acts and Regulations. If an audit is undertaken, WorkSafe may ask the person seeking registration or the plant owner or both to supply detailed information relating to the design of the plant. Design systems of work and documentation may also be audited. If an audit identifies non-compliance with the Acts and Regulations, all plant built to that design may require modifications and may be prohibited from use.
5. This notice is automatically invalidated if the design is altered to an extent that requires new measures to control risk. A person must not use, or cause or allow plant manufactured to the altered design to be used at a workplace unless WorkSafe has confirmed registration of the alteration.
6. You should quote the registration number in all correspondence to WorkSafe regarding this design. Any queries should be addressed to the WorkSafe's Licensing Branch, 1300 852 562.
7. This notice will also be considered a notice of Plant Design Registration under the Equipment (Public Safety) Regulations 2007.



Leanne Harwood
Licensing Manager



HOISTS FOR EVERY SPACE

Tufflift Hoists Australia

2 Dairy Drive, Coburg North, VIC 3058

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Fax +61 3 9470 7209

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