

Four Post Car parking Lift

4PG9000 manual operation and manual lock release

Installation and Operation Manual



4PG9000 with optional casters

IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS

WARNING

PLEASE READ THE ENTIRE CONTENTS OF THIS MANUAL PRIOR TO INSTALLATION AND OPERATION. BY PROCEEDING WITH LIFT INSTALLATION AND OPERATION 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

BE SAFE

Your new lift was designed and built with safety in mind. However, your overall safety can be increased with 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. Keep this operation manual near the lift at all times. Make sure that ALL USERS read and understand this manual.

PRODUCT WARRANTY

Four post lift is covered under warranty for 5 years on equipment structure, to be free of defects in material and workmanship. Power units, hydraulic cylinders, and all other assembly components (such as cables, chains, valves, switches etc.) are warranted for one year against defects in material or workmanship under normal use. We shall repair or replace at its discretion, within the warranty period, those parts returned to the factory freight, prepaid, which prove upon inspection to be defective.

The warranty does not extend to:

- Defects caused by ordinary wear, abuse, misuse, negligence, shipping damage, improper installation, voltage or lack of required maintenance;
- Damages resulting from purchaser's neglect or failure to operate products in accordance with instructions provided in the owner's manual(s) and/or other accompanying instructions supplied;
- Normal wear items or service normally required to maintain the product in a safe operating condition;
- Any component damaged in shipment;
- Other items not listed but may be considered general wear parts;
- Damage caused by rain, excessive humidity, corrosive environments or other contaminants.
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THESE WARRANTIES DO NOT EXTEND TO ANY COSMETIC DEFECT NOT INTERFERING WITH EQUIPMENT FUNCTIONALITY OR ANY INCIDENTAL, INDIRECT, OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM ANY DEFECT, FAILURE, OR MALFUNCTION OF OUR PRODUCT OR THE BREACH OR DELAY IN PERFORMANCE OF THE WARRANTY.

IMPORTANT NOTICE

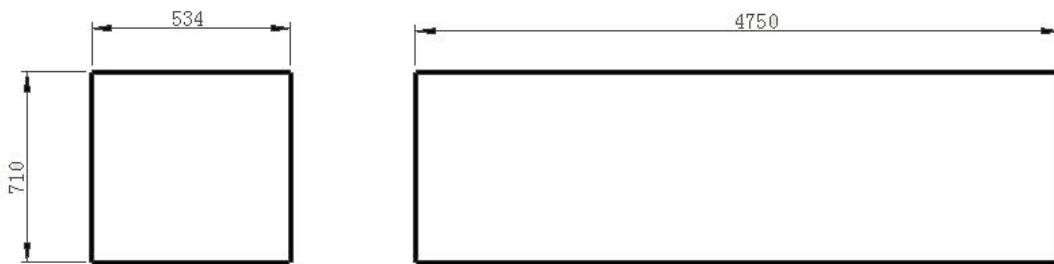
Do not attempt to install this lift if you have never been trained on basic automotive lift installation procedures. Never attempt to lift components without proper lifting tools such as a forklift or cranes. Stay clear of any moving parts that can fall and cause injury. These instructions must be followed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

Chapter 1 Packing, transport and storage

ALL PACKING, LIFTING, HANDLING, TRANSPORT AND UNPACKING OPERATIONS ARE TO BE PERFORMED EXCLUSIVELY BY EXPERT PERSONNEL WITH KNOWLEDGE OF THE LIFT AND THE CONTENTS OF THIS MANUAL.

1.1 Package

The dimension of package, please see below, and the package weight is 910kg

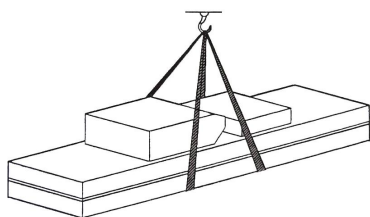


1.2 Transport

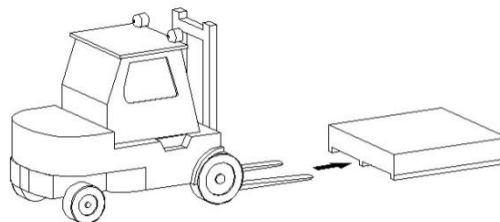


Packing can be lifted or moved by lift trucks, cranes or bridge cranes. In case of slinging, a second person must always take care of the load, in order to avoid dangerous oscillations.

During loading and unloading operation, goods must be handled by vehicles or ships. At the arrival of the goods, verify that all items specified in the delivery notes are included. If finding missing parts, possible defects or damage due to transport, one should examine damaged cartons according to 'Packing List' to verify the condition of damaged goods and missing parts, also the person in charge or the carrier must be immediately informed. The machine is heavy goods! Don't take manpower load and unload and transporting way into consideration, the safety of working is important. Furthermore, during loading and unloading operation goods must be handled as shown in the picture



Handled by crane



Handled by fork-lift truck

1.3 Storage

- The machine equipment should be stocked in the warehouse, if stocked outside should do the disposal well of waterproof.
- Use box truck in the process of transport, use container storage when shipping.
- The control box should be placed perpendicularly during the transport; and prevent other goods from extrusion.
- The temperature for machine storage: -25°C-- 55°C

1.4 Opening

When the crates arrive, check that the machine has not been damaged during transport and that all parts listed are present. The crates must be opened using all possible precautionary measure to avoid damaging the machine or its parts. Make sure that parts do not fall from the crate during opening.

Chapter 2 Description of the machine

2.1 Introduction

The 4 post parking lifts are products of our research and development division, its special features include a lifting capacity of 9000 lbs.

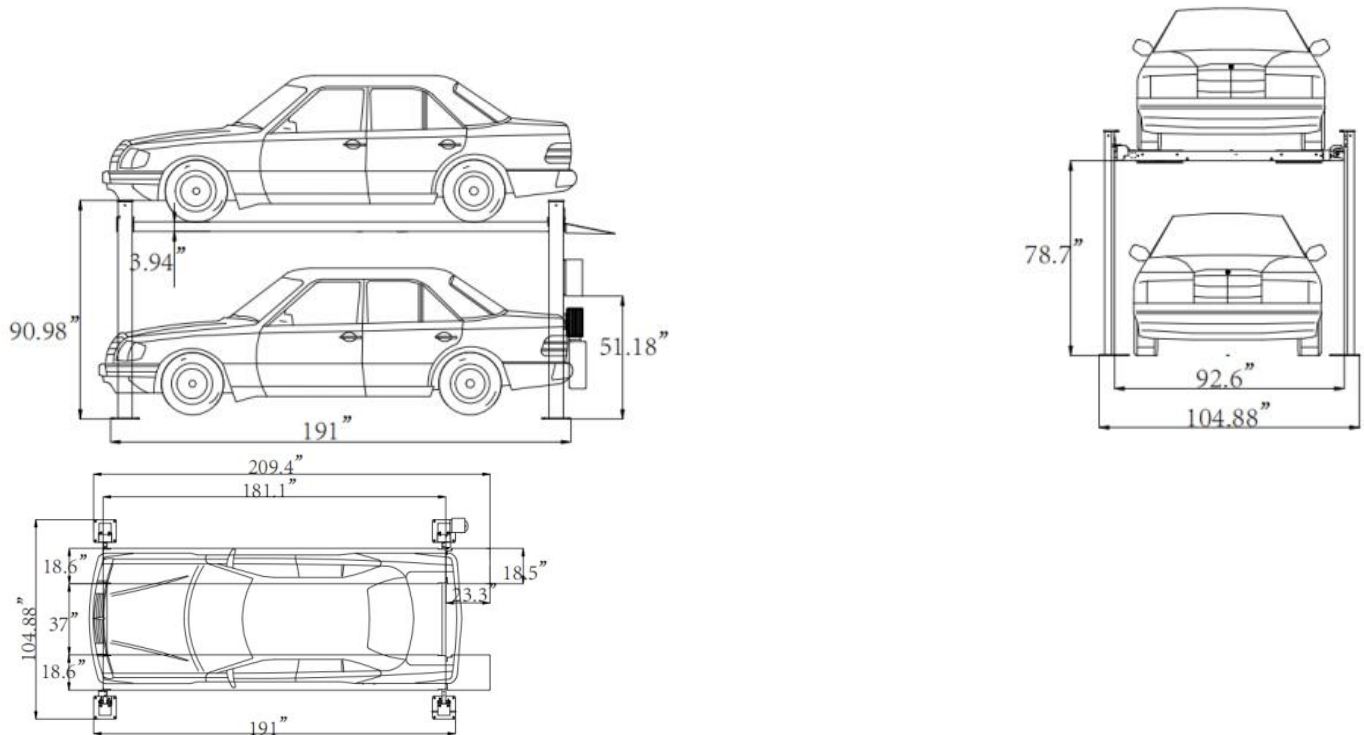
2.2 Intend use

This Four post lift can lift various vehicles which weight is less than 9000 lbs . And it is suitable for vehicle test, repair, maintenance and care.

This lift is designed to lift vehicles, not for other usage.

- Forbid to use for washing and spraying vehicles!
- Forbid to lift vehicle which weight is over 9000 lbs

2.3 Layout dimension



Chapter 3 Safety caution

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



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

For operator and people safety, a square space for a safety area at least 1m free away from the lift must be vacated during lifting and lowering. The lift must be operated only from the operator's control site in this safety area.

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



Never use the lift when safety devices are off-line. People, the lift and the vehicles lifted can be seriously damaged if these instructions are not followed.

3.1 General warnings

The operator and the person in charge of maintenance must follow accident-prevention laws and rules in force in the country where the lift is installed.

They also must carry out the following:

- Neither remove nor disconnect hydraulic, other safety devices;
- Carefully follow the safety indications applied on the machine and included in the manual;
- Observe the safety area during lifting;
- Be sure the motor of the vehicle is off, the gear engaged and the parking brake put on;
- Be sure only authorized vehicles are lifted without exceeding the maximum lifting capacity;

3.2 Safety device

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

- A maximum pressure valve is placed inside the hydraulic unit to prevent excessive weight.



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

- A mechanical safety mechanism is built inside each post



It is strictly forbidden to modify any safety device. Always ensure the safety device for proper operation during the service.

3.3 Warning labels

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

Chapter 4 Installation



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

4.1 Tools required

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

Important notice

These instructions must be followed to insure 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

4.2 Selecting site

Before installing your new lift, check the following.

1. LIFT LOCATION: Always use architectural plans when available. Check the layout dimension against the floor plan requirements making sure that adequate space is available.
2. OVERHEAD OBSTRUCTIONS: The area where the lift will be located should be free of overhead obstructions such as heaters, building supports etc.
3. DEFECTIVE FLOOR: Visually inspect the site where the lift is to be installed and check for cracked or defective concrete.
4. Your new Two-Post lift is designed for INDOOR INSTALLATION ONLY.

4.3 Floor requirements

The lift MUST be installed on 3000 PSI concrete with the minimum thickness 150mm and an extension of at least 1.5m from anchoring points. New concrete must be adequately cured by at least 20 days minimum.

DANGERS



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.

4.4 Installation

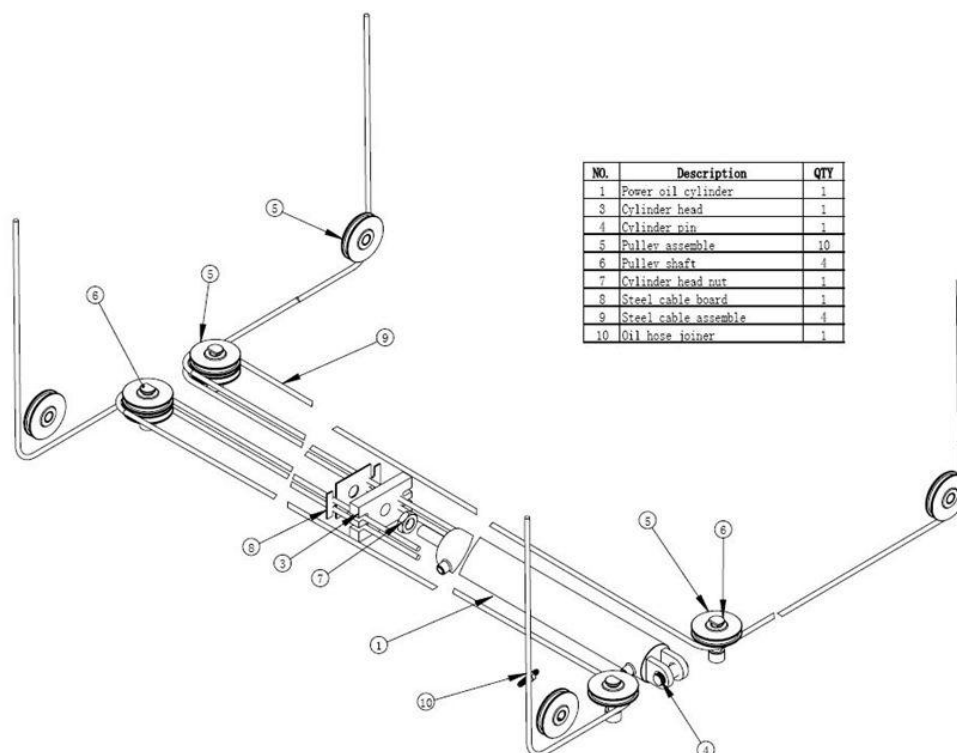
1. According to the instructions in the packing list, to check if is missing parts or damage parts.
2. According to 3 view drawing to install lift. Use chalk to draw the installation range of column lift.
3. After marking proper position for lift column, to draw with a rough outline of column position with chalk, column base as a template.

4. Re-check all the dimensions to ensure that each column of the base shape and position consistent with the chalk line.
5. Firstly, place cylinder in the positioning hole in the column bottom, then after fixing slider to slide, push the slide to bottom of the column from top. Two columns in place to ensure that the two opposite sides of the column spacing was equal to the length of cross beam.
6. Base on column bottom hole for position, to drill a hole about 150 mm deep with churn drill on concrete. To ensure the expansion bolts' fixed-strength, do not get churn drill shaking when drilling hole after drilling with a vacuum cleaner or wire brush to clean the dust of each hole. Ensure the column in the process to prevent the dumping or shifting.
7. The nuts should be reserved 3-5mm thread after assembling expansion bolts. Inserted into the drilled hole, and tapping with a hammer until the bolt to the column bottom of the spring washer parts, then taping pivot bolt until it cannot move. Measured vertical degree of vertical column with squareness gauge .If column vertical degree is large, use pad to adjust. After vertical adjustment, tighten the nut bolt.nut tightening torque is about 80N.M.
8. The lift beam is installed between two columns, with the bolts tight.

Warning: *The column vertical degree must be guaranteed, otherwise it will cause lift cannot rise or damage to person.*

9. Connect equalizer steels ropes

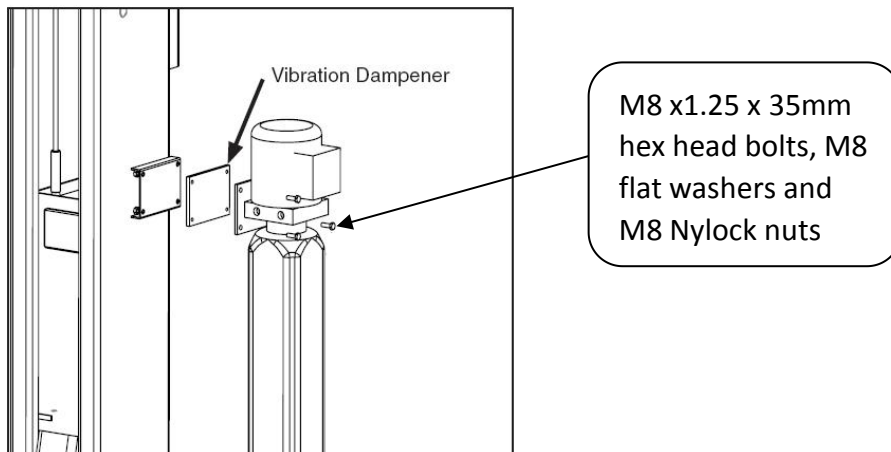
- Raise and lock each beam approximately 1m above the ground;
- Make sure that the mechanical safety on each column are fully engaged before attempting to route the equalizer cables. beams must be equal height from the floor before proceeding;
- With the beams in equal height, route the equalizer cables as shown in the figure 10. Make sure the cables in the place on the pulleys. Make sure the cables routed properly;
- After the equalizer cables have been routed, adjust the nut to make each cable in equal tension by using the adjusting wrench supplied with the lift.



10. Install lift pump unit

Attach the power unit to the POWER SIDE post. Install the vibration dampener between the power unit

and the power unit mounting plate on the Power Side post, using four M8 hex head bolts and nuts supplied.



11. According to the hydraulic layout diagram, connect the oil pipes.

- Attach the power unit onto the support mounted on the power side column and secured with included screws and washers.
- Route the hydraulic hoses referring the below photo.
- Tighten the fittings thoroughly.

Warning: *When routing the hose, make sure to fit clips in the central position to keep the hose off the moving steel cables under the base plate. Make sure to keep the hoses clean from dust.*

12. Installation of limit switch

Fix the limit switch onto the power-side column in the position as shown in the figure 14 by using the supplied screws.

And limit switch cable and motor cable are in parallel connection.

Raise the lift at a height of 70.8" (1800mm) to check for the proper function;

If the switch is not functioned properly, adjust the position of the switch lever

Chapter 5 Adjustment

5.1 Preparation before adjustment

Upright adjustment:

Use plumb to fix the top of post and check whether its install position is upright.

Then hammer the expanded bolt and tighten the ground bolt cap.

Only can hammer the expanded bolt after the expired period of the concrete and the gap between base plate and ground surface must be filled with iron plate or concrete and then tighten the anchor bolts!

5.2 Process of adjustment

- Check whether the connection of power is correct, pay attention to the turning of 1 phase motor.
- Ensure all bolts are tightened enough.
- Press and HOLD "UP" button on motor, it will go up.
- Press UP button on motor, the platform will go up 1 or 2 inch and lock latches leave the lock block, and press and hold LOCK RELEAE HANDLE, then Pull the LOWERING HANDLE on the power unit until the lift has descended completely.
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5.3 Synchronization adjustment

- Repeat to lift and lower the lift several times, to ensure the tensile force and balance of 4 steel cables. If not, adjust the cable nut.

5.4 Loading test

To check whether hydraulic system works normally when loading heavy weight.

Notice:

- Check every oil pipe and fitting, to ensure no leakage before operating the lift.
- Remove or install any heavy part, one should use safety support like jack to keep the balance of vehicle.
- -Cut off all the power when lift is not on work.

Notice

- ATTENTION:
- All bearings and hinges on this machine must be lubricated once a month
- The lock latch, steel cable, and some other moving parts should be lubricated monthly.
- The hydraulic oil must be replaced once a year. The oil level should always be kept at upper limit position.
- Check the steel cable every three months and if there is some abrasion, something wrong, stops using and contact with the manufacturer.
- Check the integration of the insurance system every day.

When change hydraulic oil, put machines to the lowest position, have the oil tank empty, when add new oil, should be filled by filter.

Chapter 6 Operation instruction

Never operate the lift with any person or equipment below.

Never exceed the rate lifting capacity.

Always ensure that the mechanical safeties are engaged before any attempt is made to work on or near the vehicle.

Never leave the lift in an elevated position unless the safeties are engaged.

If an anchor bolt becomes loose or any component of the lift is found to be defective, DO NOT USE THE LIFT until repairs is made.

6.1 DEFECTS / MALFUNCTIONS

WARNING: IN CASE OF DEFECTS OR MALFUNCTIONS SUCH AS JERKY LIFT MOVEMENT OR DEFORMATION OF THE SUPERSTRUCTURE, SUPPORT OR LOWER THE LIFT IMMEDIATELY. CONTACT QUALIFIED SERVICE PERSONNEL.

6.2 To raise the lift



- Position vehicle tires in the center of each runway.
- I Set parking brake or use wheel chock to hold vehicle in position.
- I Before raising vehicle, be sure all personnel are clear of the lift and surrounding area. Pay careful attention to overhead clearances.
- I Raise the lift to the desired height by pressing the push button continuously on the power unit.
- After vehicle is raised to the desired height, it will lower the lift autocratically on the nearest safety lock. Do not allow cables to be remain slack.
- Check to make sure all four safeties are engaged BEFORE ENTERING work area.

6.3 To lower the lift



Lock release handle on beam



Lower handle on motor

- Raise the lift off the safety locks by pushing the UP 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.
- Press the LOCK LEASE HANDLE and the lock latches will leave the lock blocks in post continuously.
- 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 rollers with general purpose oil or WD-40.
- I Check all cable connections, bolts and pins to insure proper mounting.
- I Lubricate safety lock pivot points with general purpose oil or WD-40.

Monthly Maintenance

- I Check safety locks to insure they are in good operating condition.
- I Check all cables for excessive signs of wear
- I Make a visual inspection of ALL MOVING PARTS and check for excessive signs of wear
- I Replace ALL FAULTY PARTS before lift is put back into operation.

WARNING!

- **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 below.
- **ALWAYS STAND CLEAR** of lift when lowering or raising.
- **ALWAYS INSURE SAFETY LOCKS ARE ENGAGED** before entering work area.
- **NEVER LEAVE LIFT IN ELEVATED CONDITION** unless all four safety locks are engaged.

Chapter 7 Maintenance



Cut off the power supply before servicing the lift.

The maintenance intervals indicated below apply to average workshop use. The lift should be inspected more frequently for severe use applications.

7.1 Maintenance Schedule

Establish a periodic preventive maintenance procedure to ensure trouble free operation and long service life.

Interval	Maintenance to be performed on	Items
1 week	Support arms/ Disk adapters	Check rubber pads for wear.
6 months	Greasing points	Check and lubricate as required: Slide tracks Threads of disk adapters
	Nuts of anchor bolts	Check all nuts for correct torque and retighten them as required.
12 months	Hydraulic system	Check fluid level. Check tightness of hoses and fittings.

7.2 Annual Inspection

We recommend having the lift inspected by qualified service personnel every 12 months.

7.3 Maintenance by the Operator

7.3.1 Hydraulic System

- 1 Once a year check the fluid level (see below) with the lift fully lowered and add fluid as required.
- 2 Visually check all hydraulic hoses for tightness. Power Unit



The hydraulic fluid must be replaced periodically depending on aging, soiling and water absorption. It is recommended to replace the pressure hoses as required, but after six years at the latest.

Checking the Fluid Level

The fluid level can be read through the transparent reservoir at the power unit. With the lift fully lowered, the fluid level must reach above the min level.

7.3.2 Greasing Points

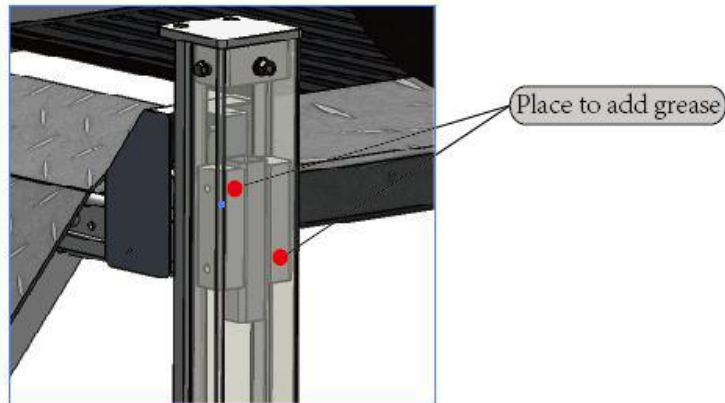


The slide tracks inside the columns should be greased every six months (or more frequently in case of noise generation)

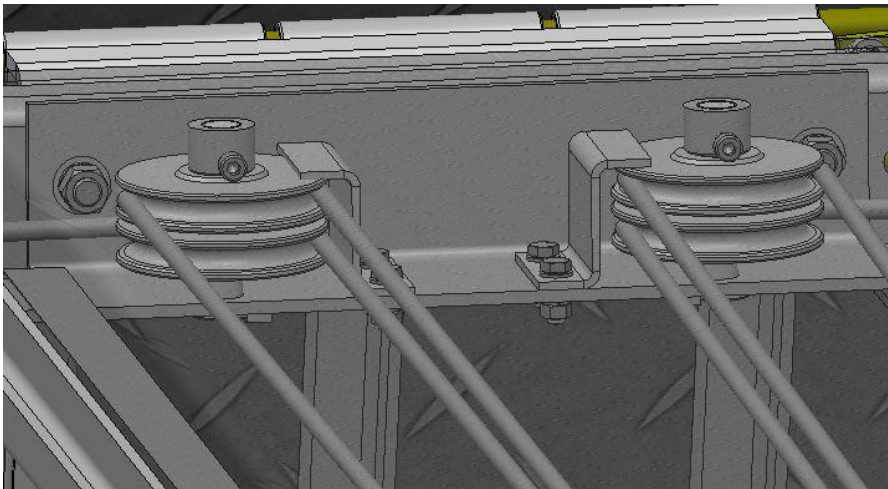
Slide Tracks

The slide tracks inside the columns should be greased every six months (or more frequently in case of noise generation).

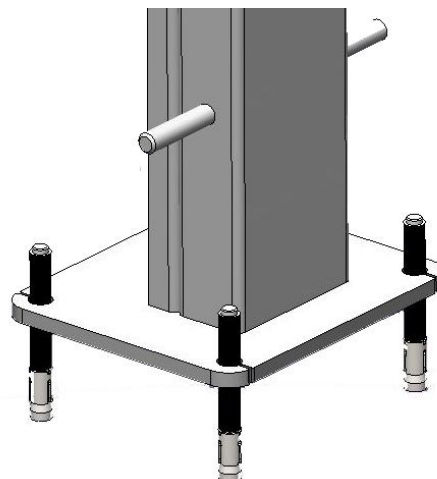
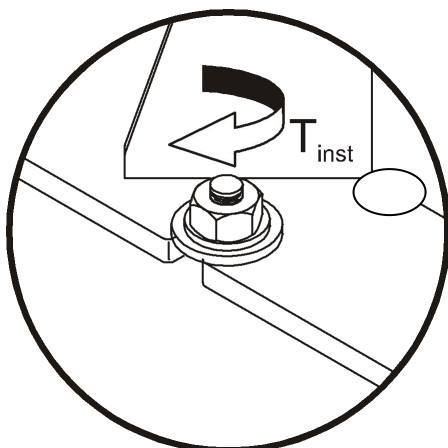
- 1 Slightly grease the slide tracks over their whole length using a brush.



7.3.3 Operational and Wear Checks



7.3.4 Lift Stability



- 1 Every six months check the nuts of all anchor bolts for correct installation torque Tinst.
- 2 Retighten them as required.

	Installation Torque Tinst
4PG9000	80 Nm

7.4 Cleaning



**Do not use high pressure / steam jet cleaners or caustic cleaning agents.
Risk of damage!**

- 1 Periodically wash off aggressive substances and treat the lift with oil or wax spray.
- 2 Repair damage to the paintwork immediately to prevent corrosion. The RAL number is available through the manufacturer.

Chapter 8 Trouble shooting

A list of possible troubles and solutions is given below:

TROUBLE:	POSSIBLE CAUSE:	SOLUTION:
The lift does not work	The main switch is not turned on	Turn the switch on
	There is no power	Check Power on to restore if necessary
	The electrical wires are disconnected	Reconnect
	Fuses are blown	Check for correct voltage Replace
The lift does not raise	The lift is overloaded	Check the vehicle weight
	The motor direction of rotation is not correct.	Interchange the two phases on the main switch
	The oil in the power unit is not sufficient.	Add some hydraulic oil
	The UP button is faulty.	Check UP button and connection for proper operation. Replace if needed
	The maximum pressure valve clogged or leaks	Check and clean if dirty or replace if faulty
	The lowering valve does not close.	Check and clean, if dirty or replace if faulty

	The suction tube or pump filter is dirty.	Check and clean if needed.
	Presence of air in the hydraulic system	Bleed the hydraulic system
The lifting capacity is not sufficient	The pump is faulty	Check the pump and replace if needed.
	Oil leakages in hydraulic circuit	Check the circuit for any leakage
The lift does not lower when the lowering button is pressed	The lowering valve does not work properly	Check the valve and replace if needed.
The lift does not lower smoothly	Presence of air in the hydraulic system	Bleed the hydraulic system
	Lubrication of sliders is not enough.	Grease
	Sliders are damaged	Replace
The motor does not stop when the lift reaches its maximum height	The maximum height limit switch does not work	Check the limit switch and replace if needed

If the problems remain unsolved, call for technical support.

Chapter 9 Disposal of used oil

Used oil, which is removed from the power unit and the plant during an oil change, must be treated as a polluting product, in accordance with the legal prescriptions of the country in which the lift is installed.

Chapter 10 Machine demolition

The machine must be demolished by authorized technicians, just like for assembling. The metallic parts can be scrapped as iron. In any case, all the materials deriving from the demolition must be disposed of in accordance with the current standards of the country in which the rack is installed. Finally, it should be recalled that for tax purposes, demolition must be documented; submitting claims and documents according to the current laws in the country in which the rack is installed at the time the machine is demolished.