

Forward this manual to all operators. Failure to operate this equipment as directed in this manual may cause injury.

## OPERATION MANUAL



DTP607    DTP609

Lifting Capacity: 3.2T/7000lbs    Lifting Capacity: 4.2T/9000lbs

Lifting Height: 71in/1800mm    Lifting Height: 71in/1800mm

Motor:    Optional

Voltage: Single Phase/Three Phase 230V/400V 50Hz 2.2 kW

**Keep this operation manual near the machine at all times.  
Make sure that ALL USERS read and fully understand this manual**

### SHIPPING DAMAGE CLAIMS

When this equipment is shipped, title passes to the purchaser upon receipt from the carrier. Claims for the material damaged in shipment must be made by the purchaser against the transportation company at the time shipment is received.

### 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.

## Hydraulic Two-column Vehicle Lift

**This instruction manual has been prepared especially for this kind lift operating.**

**This kind of lift is the product of many years of our continuous research; testing and development and is the most technically advanced lift on the market today.**

**READ and make sure fully understand THIS ENTIRE**

**MANUAL BEFORE OPERATION.**

**RECORD HERE THE FOLLOWING INFORMATION**

**WHICH IS LOCATED ON THE NAMEPLATE**

**FOR OUR FOLLOW-UP SERVICE**

**Serial No.**

\_\_\_\_\_

**Model No.**

\_\_\_\_\_

**Manufacturing Date**

### WARRANTY

Your new lift is warranted for one year for equipment structure; one year for all operating components to the original purchaser, to be free of defects in material and workmanship.

The manufacturer shall repair or replace at their option for this period those parts returned to the factory freight prepaid which prove upon inspection to be defective.

This warranty does not extend to defects caused by ordinary wear, abuse, misuse, shipping damage, or lack of required maintenance.

This warranty is exclusive and in lieu of all other warranties expressed or implied. In no event shall the manufacturer be liable for special, consequential or incidental damages for the breach or delay in performance of the warranty. The manufacturer reserves the right to make design changes or add improvements to its product line without incurring any obligation to make such changes on product sold previously.

Warranty adjustments within the above stated policies are based on the model and serial number of the equipment. This data must be furnished with all warranty claims.

*Before installation, first check whether every element is in perfect condition.*

## INTRODUCTION

Carefully remove the crating and packing materials.

**CAUTION!** Be careful when cutting steel banding materials as items may become loose and fall causing personal harm and injury.

Inspect the lift for any signs of concealed shipment damage or shortages. Remember to

report any shipping damage to the carrier and make a notation on the delivery receipt.

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

## CONSERVING THE MANUAL

The manual is an integral part of the lift, which it should always accompany even if the unit is sold. The manual must be kept in the vicinity of the lift in an easily accessible place so that the operator and maintenance staff must be able to locate and consult the manual quickly at any time.

**ATTENTIVE AND REPEATED READING OF CHAPTER 3, WHICH CONTAINS IMPORTANT INFORMATION AND SAFETY WARNINGS, IS PARTICULARLY RECOMMENDED.**

Lift rack has been designed and built in compliance with the following:

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### LAWS

Machinery Directives: 89/37/EC, EN60204-1: 1998, EN1493: 1997

The lifting, transport, unpacking, assembling, installation, starting up, initial adjustment and testing, EXTRAORDINARY maintenance, repair, overhauls, transport and dismantling of the lift must be performed by specialist personnel from the LICENSED DEALER or an SERVICE CENTRE authorized by the manufacturer (see authorized dealer on frontispiece).

The manufacturer declines all responsibility for injury to persons or damage to vehicles or objects when any of the above mentioned operations have been performed by unauthorized personnel or when the rack has been subject to abuse.

This manual indicates only the operative and safety aspects that may prove useful to the operator and maintenance works better understanding the structure and operation of the lift and for best use of the lift.

In order to understand the terminology used in this manual, the operator must have specific experience in workshop, service, maintenance and repair activities, the ability to interpret correctly the drawings and descriptions contained in the manual and be acquainted with the general and specific safety rules relevant to the country in which the machine has been installed.

The same applies to the maintenance fitter, who must also possess specific and specialized knowledge (mechanical, engineering) needed to perform the operations described in the manual in complete safety.

The words “operator” and “maintenance fitter” used in this manual are construed as follows:

**OPERATOR:** person authorized to use the lift.

**WORKING CONDITIONS:** 1、 Regarding ambient temperature shall be 5-40°C.

- 2、 Regarding humidity shall be 30-95%.
- 3、 Regarding transportation and storage temperature shall be between 25-55°C ,  
and short period no exceeding 24 hours at up to 70°C .
- 4、 Regarding installation altitude max 1000m.

**MAINTENANCE FITTER:** person authorized for routine maintenance of the lift.

The end user can only use the machine in correct way as defined in instruction.

Loose clothes shall not be used protection cap shall also be used for long hair person, etc.

The end user should provide the MSDS (Material Safety Data Sheet) at easy accessible place when providing lubrication.

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## CHAPTER 1 DESCRIPTION OF THE MACHINE

The 2-post electro-hydraulic lift is a fixed installation. This means that it is anchored to the ground and built for Lifting and positioning automobiles and vans at a certain height off the ground.

The lift consists of the following main parts:

1. Fixed structure (posts + upper beam);
2. Mobile units (carriages + arms);
3. Lift units (2hydraulic cylinders + power unit);

Figures 3 and 4 illustrate the various parts of the lift and the work areas reserved for use by operators around the lift.

**Command side:** this side of the lift includes the area reserved for the operator to access the control box. **Service side:** this is the opposite side of the command side.

**Front side:** the side with the short arms.

**Rear side:** the side with the long arms.

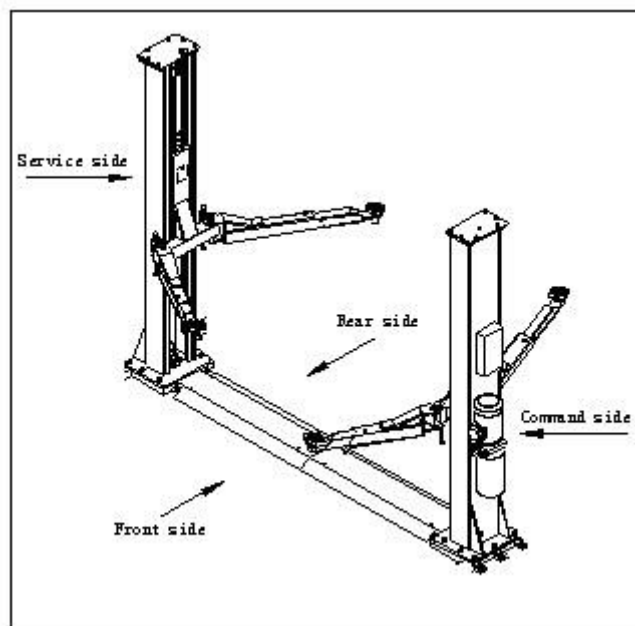


Fig.3

### 1.1 FIXED STRUCTURE (FIG.4)

This structure consists of:

1. 2 posts, (service 15 and command 1 side post) built with bent steel plate. The base is welded to a drilled plate to be anchored to the floor. The electric control box and the hydraulic power unit are attached to the command post. Inside each post are the moving parts to lift the vehicles. The control panel and the hydraulic unit are fixed to the command post.
2. Column is installed on base. Base is composed of fixed mount 3, base frame 2 and floor plate 9.

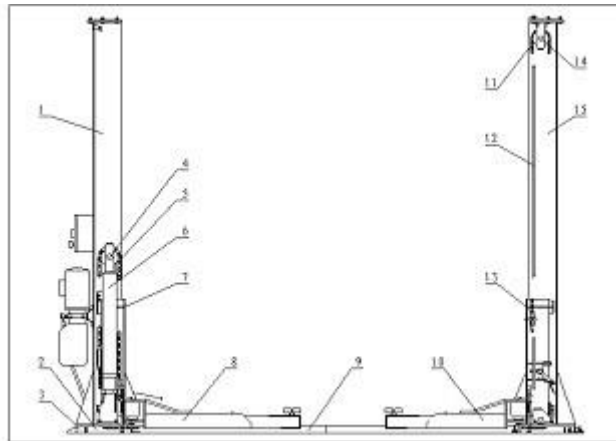


Fig.4

## 1.2 MOVING UNITS (SEE FIG.4)

Each unit consists of:

1. One carriage (7 and 13) built with welded steel plate, linked by main chain 5 and assistant chain 11, and at the bottom to the lift arms by means of pins.  
The carriage moves along the post, guided by plastic sliding pads, located inside the post itself.
2. Two telescopic arms, one long (8) and one short (10), built with tubular steel with a pad at each end that can be height adjusted to hold the car and on the opposite side the carriage connection hole.

## 1.3 LIFT UNIT (SEE FIG.4)

It consists of:

1. 1 hydraulic cylinders (6) run under main chain's driving main adjustable shelf. While the main adjustable runs under assistant chain's driving assistant adjustable shelf.
2. 1 hydraulic unit (see fig.5), on the command side, to set the cylinders run.

## 1.4 HYDRAULIC POWER UNIT (FIG.5)

The hydraulic power unit consists of:

1. An electric motor (1)
2. A geared hydraulic pump (2)
3. Descent hand-valve (3) equipped with a manual oil drain valve (see the use and maintenance chapter)
4. A maximum pressure valve (4)
5. Oil tank (5)
6. An oil delivery and return flexible pipe (6) to the cylinders feeding circuit Note: The oil delivery pipe may be under pressure

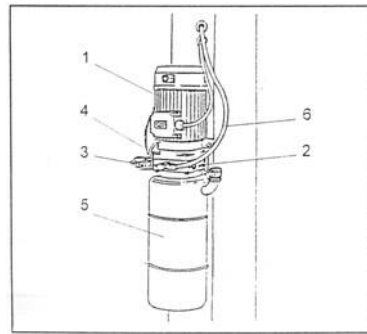
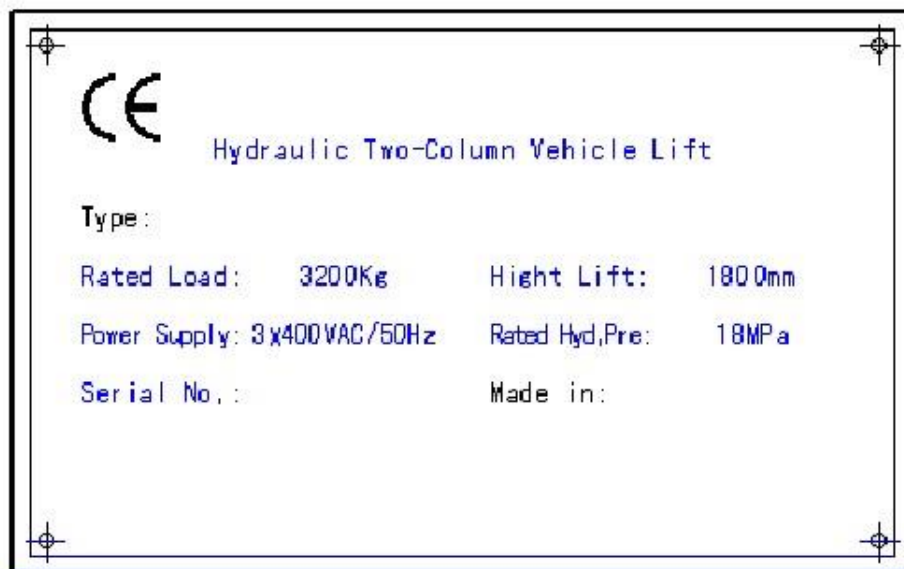


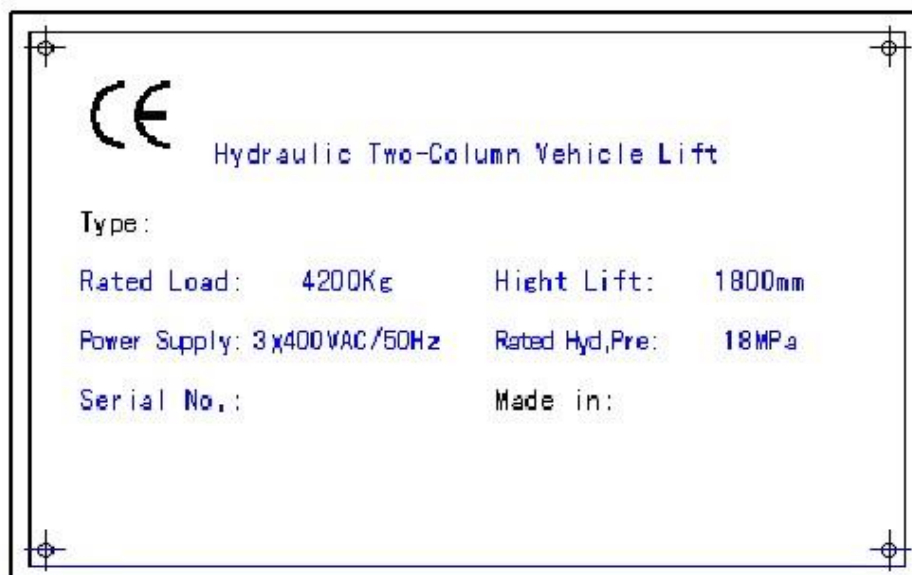
Fig.5 Hydraulic power unit

### 1.5 NAMEPLATE

On the column, there is nameplate attached as shown below:



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in this nameplate, there are information and parameter as:

- machine manufacture and address
- type
- series number
- machine parameter about electrical such as voltage/ampere/frequency/, and hydraulic pressure,
- lift height, weight
- date made in
- CE mandatory mark
- Manufacture trade mark

## CHAPTER 2 TECHNICAL SPECIFICATIONS

|  |                         |
|--|-------------------------|
| CAPACITY.....                          | 3200kg (DTP607)         |
| CAPACITY.....                          | 4200kg (DTP609/)        |
| Car max lifting height.....            | 1900mm                  |
| Lift min stand height.....             | 115mm                   |
| Clearance between carriages.....       | 2760mm                  |
| Total width.....                       | 3453mm(DTPO607/DTPO609) |
| Total width.....                       | 3353mm(DTPF607/DTPF609) |
| Side pads total width.....             | 420mm                   |
| Base measurement.....                  | 483X432mm               |
| Long arm maximum length.....           | 1250mm                  |
| Long arm minimum length.....           | 870mm                   |
| Short arm maximum length.....          | 1000mm                  |
| Short arm minimum length.....          | 710mm                   |
| Rise time with three-phase motor.....  | ≤75sec                  |
| Rise time with single-phase motor..... | ≤75sec                  |
| Descent time.....                      | 18sec ≤ t ≤ 45sec       |
| Total lift weight.....                 | about 770kg             |
| Noise.....                             | ≤70db (A) 1m            |
| Operating temperature.....             | -10°C/+50°C             |
| Work environment: .....                | closed room             |

Relative humidity.....90%

Sea level height..... $\leq 1000\text{m}$

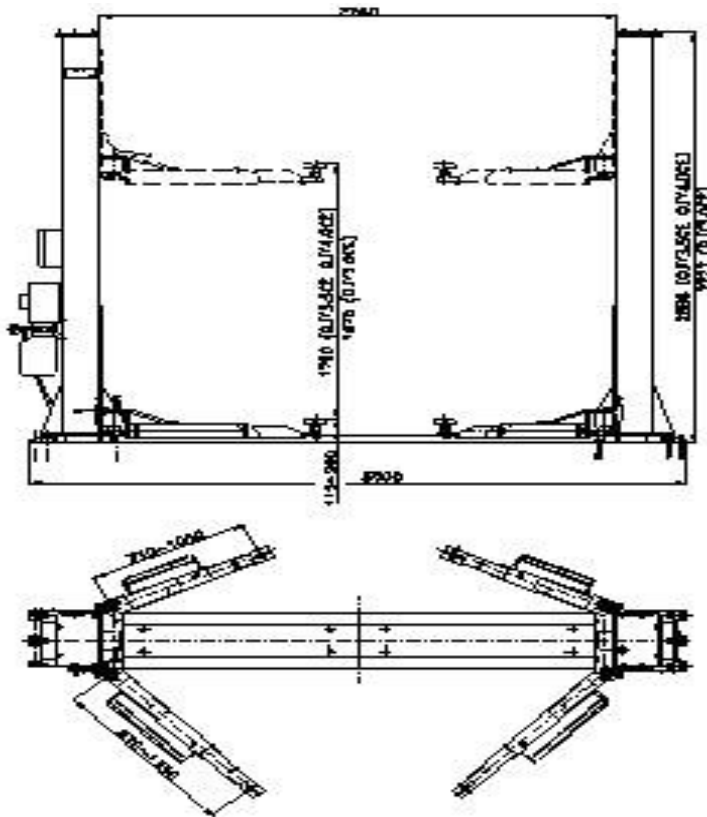


Fig.7 Dimensions and overall clearances

## 2.1 ELECTRIC MOTOR

|                             | Three-phase          | Single phase  |
|-----------------------------|----------------------|---------------|
| Electric motor power rating | 2.2KW                | 1.8KW         |
| Voltage                     | 230-400V3ph.+/-5%    | 230V1ph.+/-5% |
| Frequency                   | 50Hz                 | 50Hz          |
| Absorption                  | 230V: 11A 400V: 6.4A | 13A           |
| N° of poles                 | 4                    |               |
| Speed                       | 1400RPM              | 1380RPM       |
| Construction                | B14                  |               |
| Insulation class            | IP54                 | IP54          |
| Type                        | 90L4                 | 90L4          |
|                             |                      |               |

The motor must be connected with reference to the attached wiring diagrams.

The motor rotation wise must be the same as shown by the arrow on the pump: if not, modify the electrical connections (see ch.4.INSTALLATION-electric plant connection)

## 2.2 HYDRAULIC UNIT PUMP

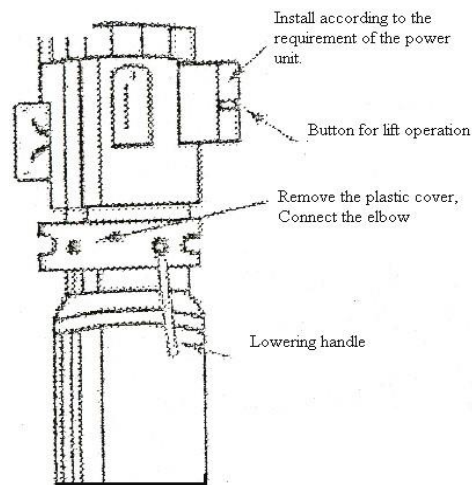


Fig.8

## 2.3 OIL

The oil reservoir contains hydraulic mineral oil in accordance with ISO/DIN 6743/4 with a level of contamination that does not exceed class 18/15 according to ISO 4406, for example IP HYDRUS OIL 32; SHELL TELLUS OIL T32 or equivalent.

## 2.4 HYDRAULIC OIL DIAGRAM

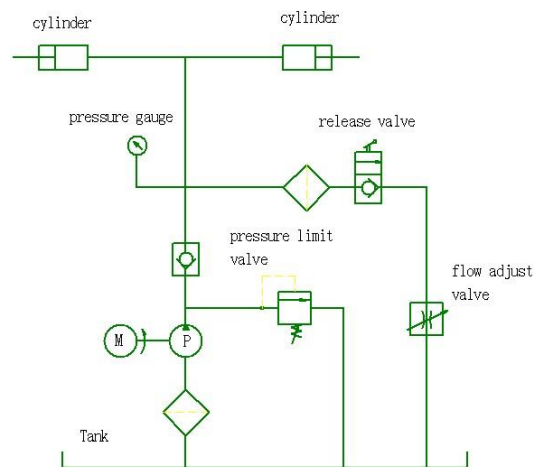


Fig.9Hydraulic system

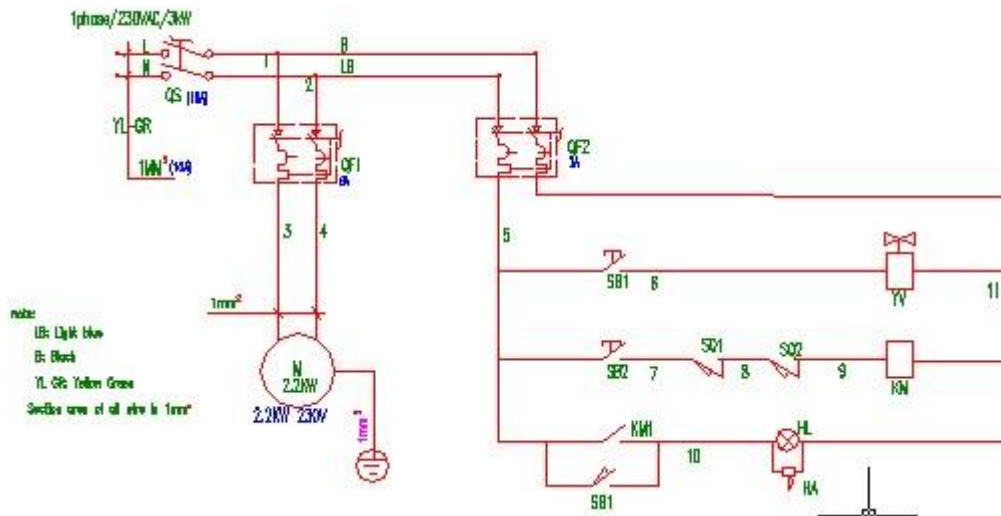


Fig.10 Single phase wiring diagrams

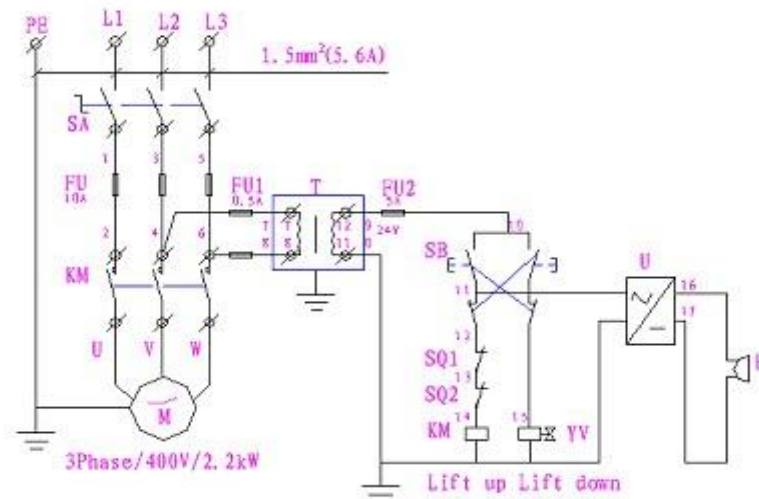


Fig.11 Three -phase wiring diagrams

## 2.5 VEHICLE WEIGHT AND SIZE

Lift rack can be adapted to virtually all vehicles no heavier than 4000kg, the dimensions of which do not exceed the following.

## 2.6 MAXIMUM DIMENSIONS OF VEHICLES TO BE LIFTED

Max width: 2400mm

Max wheelbase: 3000mm

The underbody of cars with low ground clearance may interfere with the structure of the lift .Pay particular attention in the case of low body sports cars.

Always keep the capacity of the lift in mind in the case of vehicles with particular characteristics.

THE SAFETY area will be determined by the dimensions of the vehicle.

The diagrams below include the criteria for defining the limits of use of the carrack.

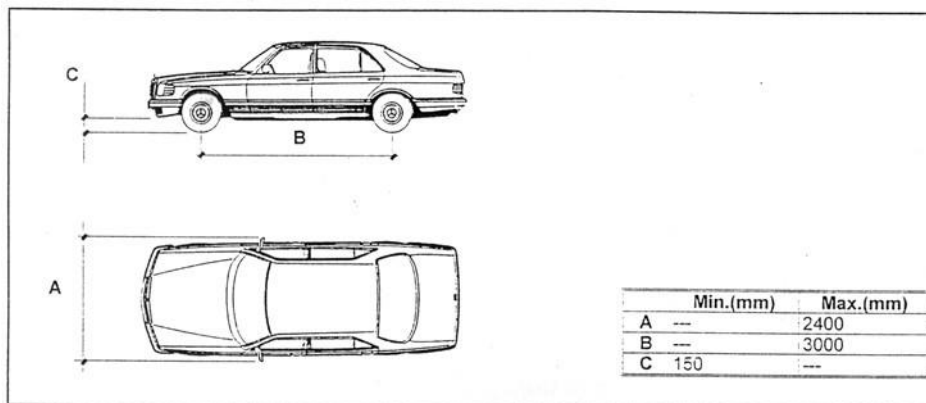


FIG.12 Minimum and maximum dimensions

**CHECK MAXIMUM LOAD CAPACITY AND LOAD DISTRIBUTION IN CASE OF LARGER VEHICLES. MAXIMUM WEIGHT OF THE VEHICLE TO BE LIFT**

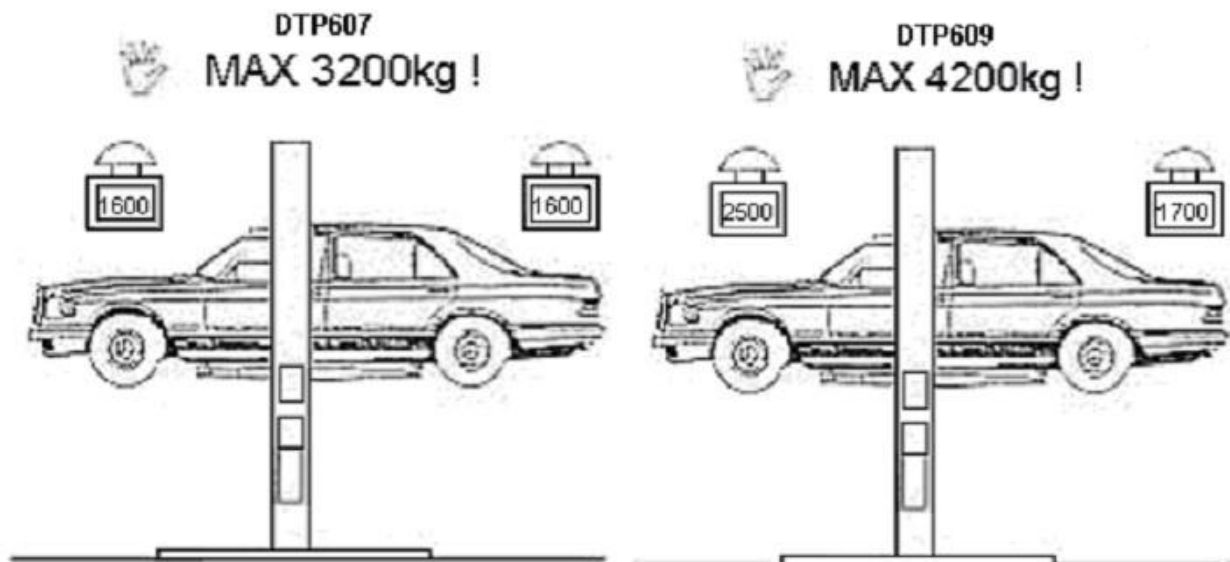


Fig.13 Weight distribution

It is vital to read this chapter of the manual carefully and from beginning to end as it contains important information regarding the risks that the operator and the maintenance fitter may be exposed to in the eventuality that the lift is used incorrectly.

The following text contains clear explanations regarding certain situations of risk or danger that may arise during the operation or maintenance of the lift, the safety devices installed and the correct use of such systems, residual risks and operative procedures to use (general and specific precautions to eliminate potential hazards).

**⚠ WARNING**

Lift is designed and built to lift vehicles and hold them in the elevated position in a closed workshop. All other uses are unauthorized; in particular, the lift is not suitable for:

- Washing and respire work;
- Creating raised platforms or lifting personnel;

- Use as a makeshift press for crushing purpose;
- Use as goods lift
- Use as a jack for lifting vehicles or changing wheels.

*THE MANUFACTURE DISCLAIMS ALL LIABILITY FOR INJURY TO PERSONS OR DAMAGE TO VEHICLES AND OTHER PCABLERTY CAUSED BY THE INCORRECT AND UNAUTHORISED USE OF THE LIFT.*

During lift and descent movements, the operator must remain in the command station as defined in figure 14. The presence of persons inside the danger zone indicated in the same figure is strictly prohibited. The presence of persons beneath the vehicle during operations is permitted only when the vehicle is parked in the elevated position.

**DO NOT USE THE LIFT WITHOUT PROTECTION DEVICES OR WITH THE PROTECTION DEVICES INHIBITED. FAILURE TO COMPLY WITH THESE REGULATIONS CAN CAUSE SERIOUS INJURY TO PERSONS, AND IRREPERABLE DAMAGE TO THE LIFT AND THE VEHICLE BEING LIFTED.**

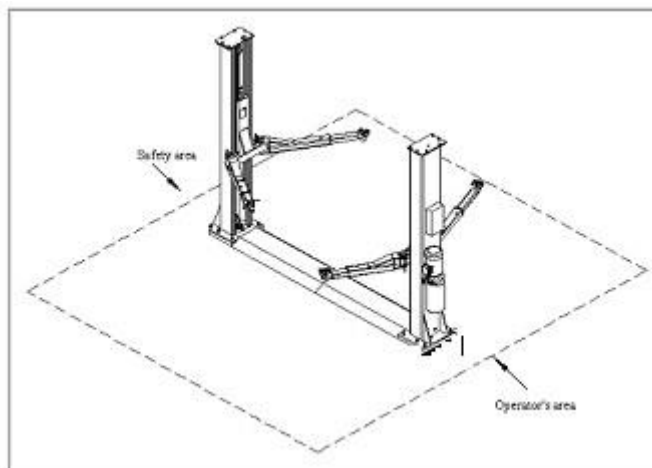


Fig.14 WORKING AREAS

## **CHAPTER 3 SAFETY INSTRUCTIONS BEFORE INSTALLATION**

### **3.1 GENERAL PRECAUTIONS**

The operator and the maintenance fitter are required to observe the prescriptions of accident prevention legislation in force in the country of installation of the lift.

Furthermore, the operator and the maintenance fitter must:

1. Always work in the scheduled working area as shown in the manual
2. Never remove deactivate the guards and mechanical, electrical, or other types of safety devices.
3. Read the safety notices affixed to the machine and the safety information in this manual.

In the manual all safety notices are shown as follows:

**DANGER:** indicates imminent danger that can result in serious injury or death.

**WARNING:** indicates situations and /or types of maneuvers that are unsafe and can cause injuries of various degrees or death.

**CAUTION:** indicates situations and /or types of maneuvers that are unsafe and can cause minor injury to persons and /or damage the lift, the vehicle or other psaltery.

### 3.2 RISKS OF ELECTRIC SHOCK:

Specific safety notice affixed to the lift in areas where the risk of electric shock is particularly high.

### 3.3 RISKS AND PROTECTION DEVICES

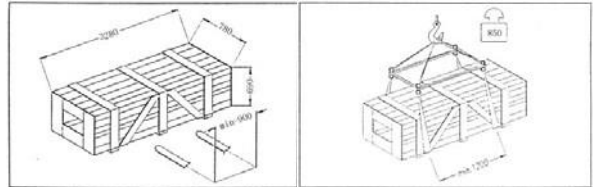
We shall now examine the risks to which the operator and the maintenance fitters may be exposed when the vehicle is immobilized in the raised position, together with the protection devices and adopted by the manufacture to reduce all such hazards to the minimum.

### 3.4 IMPORTANT SAFETY INSTRUCTIONS

*Read these safety instructions entirely and understand thoroughly before operating the equipment. Failure to operate this equipment as directed may cause injury.*

1. READ AND UNDERSTAND all safety warning dry, clean what is approved by the manufacturer. procedures before operating lift.
2. KEEP HANDS AND FEET CLEAR. Remove hands and feet from any moving parts. Keep feet clear of vehicle. lift when lowering. Avoid pinch points.
3. KEEP WORK AREA CLEAN. Cluttered work area invite injuries.
4. CONSIDER WORK AREA ENVIRONMENT. Do not expose equipment to rain. DO NOT use damp or wet locations. Keep area well lighted.
5. ONLY TRAINED OR AUTHORIZED OPERATORS should operate this lift. All non-trained personnel should be kept away from working area. Never let non-trained personnel come in contact with, or operate lift.
6. USE LIFT CORRECTLY. Use lift in the proper manner. Never use lifting adapters other than receptacle before performing any electrical repairs. Secure plug so that it cannot be accidentally plugged in during service.
14. WARNING! RISK OF EXPLOSION. This equipment has internal arcing or sparking parts which should not be exposed to flammable vapors. This machine should not be located in a recessed area or below floor level.
15. MAINTAIN WITH CARE. Keep lift clean for better and safe performance. Follow manual for proper lubrication and maintenance
7. DO NOT override self-closing lift controls.
8. REMAIN CLEAR of lift when rising or lowering
9. CLEAR AREA if vehicle is falling.
10. ALWAYS ENSURE that the safety is engaged before any attempt is made to work on or near vehicle.
11. DRESS PROPERLY. Non-skid steel-toe footwear is recommended when operating lift.
12. GUARD AGAINST ELECTRIC SHOCK. This lift must be grounded while in use to protect the operator from electric shock. Never connect the green and yellow wire to a live terminal. This is for ground only.
13. DANGER! The power unit used on this lift contains high voltage. Disconnect power at the 25. The field of motion of the load and of the lift shall be free of obstructions.
26. IT SHALL DRAW ATTENTION to the safe method of carrying the load and to the rule that, after raising a short distance, the vehicle shall be checked to ensure that it correctly and safely positioned.
27. The lift shall be observed by the operator throughout the whole lifting course.

28. IT SHALL BE FORBIDDEN for people to stand in the field of loading vehicle and of lifting parts during the lifting course. and free from grease and oil.
16. STAY ALERT. Watch what you are doing. Use common sense. Be aware.
17. 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.
19. REGARDING AMBIENT TEMPERATURE, shall be 5°C ~ 40°C; regarding humidity, shall be 30 ~ 95%; regarding transportation and storage temperature, shall be between -25 ~ 55°C, and short period no exceeding 24 hours at up to 70°C.
20. THE REQUIRED INSTALLATION HEIGHT above sea level is less than 1000m.
21. SHOULD NOT EXCEED the rated lifting capacity declared in the manual.
22. RATED CAPACITY of each lift arm is not greater than one fourth (1/4) of the overall lifting capacity.
23. DANGER. Travelling on lift is forbidden.
24. IT IS NECESSARY to refer to the complete operation instruction, especially for trouble-shooting.
29. IT IS FORBIDDEN to climb onto the loading vehicle and lifting parts when they are raised unless via a specially designed access.
30. ABOUT HYDRAULIC OILS. Hydraulic and lubricant oils used shall meet EU standard. MSDS shall be provided by the end user at the convenient place. The first supplied oil shall be replaced after 1000 used times. Then it shall be replaced after 3000 times.
31. LIFT ON & LIFT OFF. Use forklift with loading capacity of 5T to load the lift. Note: Special lifting belt shall be used and steel rope or other rope should not as a matter of abrasion of the lift. The lifting way shown as below:



32. STORAGE TEMPERATURE. Regarding transportation and storage temperature, shall be between -25 ~ 55°C, and short period no exceeding 24 hours at up to 70°C.



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

### 3.5 WARNING SIGNS ON LIFT



**CAUTION**



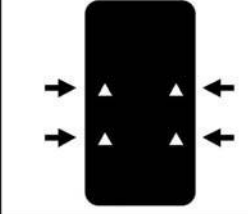
Lift to be used by trained operator only.

**CAUTION**



Authorized personnel only in lift area.

**CAUTION**



Use vehicle manufacturer's lift points.

**CAUTION**



Always use safety stands when removing or installing heavy components.

**CAUTION**



Use height extenders when necessary to ensure good contact.

**CAUTION**



Auxiliary adapters may reduce load capacity.

**WARNING**



Do not override self-closing lift controls.

**WARNING**



Keep feet clear of lift while lowering.

**WARNING**



Clear area if vehicle is in danger of falling.

**WARNING**



Position vehicle with center of gravity midway between adapters.

**WARNING**





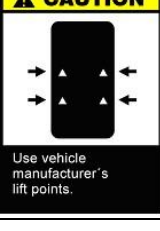

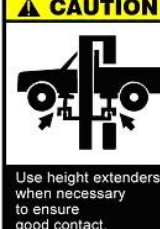

Remain clear of lift when raising or lowering vehicle.







**WARNING**



Avoid excessive rocking of vehicle while on lift.

### **3.6 INSTRUCTION OF WARNING SIGNS**

|   |  |
|---|--|
|  <p>Lift to be used by trained operator only.</p>                                | <p>Only trained personnel should operate the lift. If not, it may cause danger to the inexperienced operator or the inexperienced operator may cause damage to the lift under improper manner.</p>           |
|  <p>Authorized personnel only in lift area.</p>                                  | <p>Only Authorized personnel should operate the lift. Persons that not be allowed should be away from the lift in case of danger appears.</p>  |
|  <p>Use vehicle manufacturer's lift points.</p>                                 | <p>Make sure where the four points of the vehicle are to let the lift arms touch the four points properly.</p>   |
|  <p>Always use safety stands when removing or installing heavy components.</p> | <p>Safety stands shall be used under front and back end of the vehicle when removing or installing heavy components. Vehicle might incline or fall and cause injury if there are no safety stands under.</p> |
|  <p>Use height extenders when necessary to ensure good contact.</p>            | <p>If lifting arms can not touch the lifting points of the vehicle, select proper height extenders to the arm to reach the lifting points of the vehicle.</p>  |
|  <p>Auxiliary adapters may reduce load capacity.</p>                           | <p>Auxiliary tools, shelf for example, may reduce the load capacity of the lift.</p>   |

|  |   |
|--|---|
|  <p><b>WARNING</b><br/>Do not override self-closing lift controls.</p>                        | <p>Should not lift the vehicle over the limited lifting height, which means the lift should stop the lifting activity when the vehicle touches the limit switch. If not, the vehicle will burst the crossbeam overhead.</p> |
|  <p><b>WARNING</b><br/>Keep feet clear of lift while lowering.</p>                            | <p>Keep feet clear of lift while the lift is lowering as it may injure the feet.</p>  |
|  <p><b>WARNING</b><br/>Clear area if vehicle is in danger of falling.</p>                    | <p>There should be adequate space for personnel's escaping in case the vehicle is in danger of falling.</p>   |
|  <p><b>WARNING</b><br/>Position vehicle with center of gravity midway between adapters.</p> | <p>Position vehicle with center of gravity midway between adapters. Otherwise the vehicle may lose its balance and fall.</p>  |
|  <p><b>WARNING</b><br/>Remain clear of lift when raising or lowering vehicle.</p>           | <p>Personnel should be away from lift when it is raising and lowering to avoid possible injury.</p>   |
|  <p><b>WARNING</b><br/>Avoid excessive rocking of vehicle while on lift.</p>                | <p>Do not rock the vehicle excessively while it is on lift. Vehicle may fall under violent rocking condition.</p>   |

- **Percussion Drill**
- **Masonry Bit(16mm)**

- **Monkey Wrench (350mm)**
- **Crow Bar**

- Hammer
- Gradienter
- Open-End Wrench Set(8mm ~ 25mm)
- Square
- Chalk Line
- Flat Screwdriver
- Tape Measure(5m)
- Needle Nose Pliers

## **CHAPTER 4 TOOLS REQUIRED**

### **IMPORTANT NOTICE**

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

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

## CHAPTER 5 INSTALLATION STEPS

### 5.1 STEP 1 ( Selecting Site)

Before installing your new lift, check the following:

1. **LIFT LOCATION:** Always use architects plans when available. Check layout dimension against floor plan requirements making sure that adequate space is available. 5m×4m×4m is recommended.
2. **OVERHEAD OBSTRUCTIONS:** The area where the lift will be located should be away from overhead obstructions such as heaters, building supports, electrical lines etc.
3. **DEFECTIVE FLOOR:** Visually inspect the site where the lift is to install and check for cracked or defective concrete. All models **MUST** be installed on 2500 PSI concrete (tension  $\geq$  200kg/cm<sup>2</sup>, thickness  $\geq$  300mm) only conforming to the minimum requirements shown above. New concrete must be adequately dried by at least 28 days.
4. Lift should be operated under condition with light not less than 300lux.
5. Noise is less than 75 dB.

"DO NOT install this lift on a second / elevated floor without first consulting building architect.

"DO NOT install this lift outdoors unless special consideration has been made to protect the power unit from climate weather conditions.

### 5.2 STEP 2 ( Floor Requirements )

This lift must be installed on a solid, even concrete floor with less than 3-degrees of slope, consider a survey of the site and/or the possibility of pouring a new level concrete slab

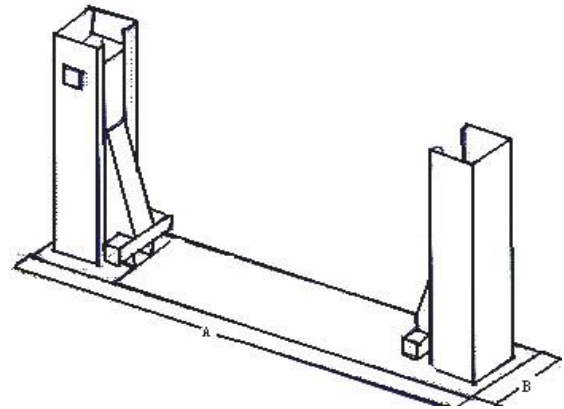
#### WARNING

"DO NOT install this lift on any asphalt surface or any surface other than concrete.

"DO NOT install this lift on expansion seams or on cracked or defective concrete.

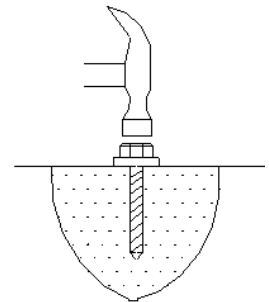
### 5.3 STEP 3 (Site Layout)

1. Determine which side will be the approach site.
2. Now determine which side you prefer the power unit to be located on. The POWERSIDE column has the power-unit mounting bracket attached to the side. (See diagram above for power unit location)
3. Once a location is determined, use a carpenter's chalk line to layout a grid for the post locations. Keep all dimensions and squareness within 1/8" or malfunctioning of the lift will occur.
4. After the post locations are properly marked, use a chalk or crayon to make an outline of the posts on the floor at each location using the post baseplates as a template.
5. Check all dimensions twice and make sure that the layout is perfectly correct.
6. Before continuing with the installation it is helpful to stand the posts up at their respective locations and get a visual of the shop, aisles and other clearances. Also, this is a good time to drive a vehicle into position and check for adequate clearance.



After drilling, remove dust thoroughly out of each hole using compressed air and/or wire brush. Make certain that the column remains aligned with the chalk line during this process. Assemble the washers and nuts on the anchors then tap into each hole with a hammer until the washer rests against the baseplate. Be sure that if shimming is required that enough threads are left exposed. ( See Fig. 2 )

Fig. 2



Hit the foot screw carefully with hammer into the hole that is drilled, and let the gasket touch the base plate perfectly.

### 5.4 STEP 4

#### ( Installing The POWERSIDE Column )

1. Before proceeding, double check measurements and make certain that the bases of each column are square and in line with the chalk line.
2. Using the baseplate on the POWERSIDE column as a guide, drill each anchor hole on the concrete approximately 7-1/2" deep using a Percussion Drill and 3/4" concrete drill-bit. To assure full holding power, do not ream the hole or allow the drill to wobble. ( See Fig. 1 )

If shimming is required, insert the shims as necessary under the baseplate so that when the anchor bolts are tightened, the columns will be plumb. ( See Fig. 3 )