

AutoLift AL-1132-220

Professional Two Post Parking Hoist

INSTALLATION MANUAL & OPERATION INSTRUCTIONS



**~ READ THE ENTIRE CONTENTS OF THIS MANUAL BEFORE
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.**

Specifications subject to change without notice.

Note: While all due care and attention has been taken in the preparation of this document, Advance AutoQuip shall not be liable for any inaccuracies or omissions which may occur therein

Advance AutoQuip

2 McDonald Crescent | Bassendean WA 6054

Ph: 08 9279 1663 | Fax: 08 9279 1667 | E: sales@aaq.net.au | W: www.aaq.net.au

INSTALLATION & MAINTENANCE
MANUAL FOR AUTOLIFT TWO
POST AL-1132-220 PARKING HOIST

3200Kg MAXIMUM LIFTING CAPACITY

INDEX

1. Introduction	3
2. Hoist introduction	3
3. Hoist transport	4
4. Hoist assemble	4
5. Control system introduction	15
6. Hoist operation	16
7. Hoist maintenance and repair	17
8. Ordering information	22
9. Warranty	25
10. Commissioning report	26



**READ THIS MANUAL
COMPLETELY
BEFORE
INSTALLING THE
PARKING HOIST**

1. Introduction

1.1 General Information

AL-1132-220 is a two post hydraulic parking hoist. You should read the manual carefully before you operate the hoist, the hoist must be installed by a competent person, please refer to current WorkSafe regulations Australian Standards AS/NZS 1418.9 VEHICLE HOISTS .

We will never take responsibility for the damage to the hoist, car or personnel caused by the operation that neglect the manual or the operation fail to submit the operation regulation.

1.2 Statement

This chapter contains warning instructions to operate the hoist properly and prevent injury to operators or objects.

This manual has been written to be used by the technicians in charge of the hoist (operator) and routine maintenance technician (maintenance operator).

The operating instructions are considered to be an integral part of the machine and must remain with it for its whole useful life.

Read every section of this manual carefully before operating the hoist and unpacking it since it gives helpful information about:

- **SAFETY OF PEOPLE**
- **SAFETY OF THE HOIST**
- **SAFETY OF LIFTED VEHICLES**

The supplier of the hoist is not liable for possible problems, damages, accidents, etc. resulting from failure to follow the instructions contained in this manual.

Only skilled technicians of **AUTHORISED DEALERS** or **SERVICE CENTERS AUTHORISED** by the manufacturer shall be allowed to carry out lifting, transport, assembling, installation, adjustment, calibration, settings, extraordinary maintenance, repairs, overhauling and dismantling of the hoist. **THE MANUFACTURER IS NOT RESPONSIBLE FOR POSSIBLE DAMAGE TO PEOPLE, VEHICLES OR OBJECTS IF SAID OPERATIONS ARE CARRIED OUT BY UNAUTHORIZED PERSONNEL OR THE HOIST IS IMPROPERLY USED.**

2. Introduction to the hoist

2.1 Hoist description



Chart(1) single unit

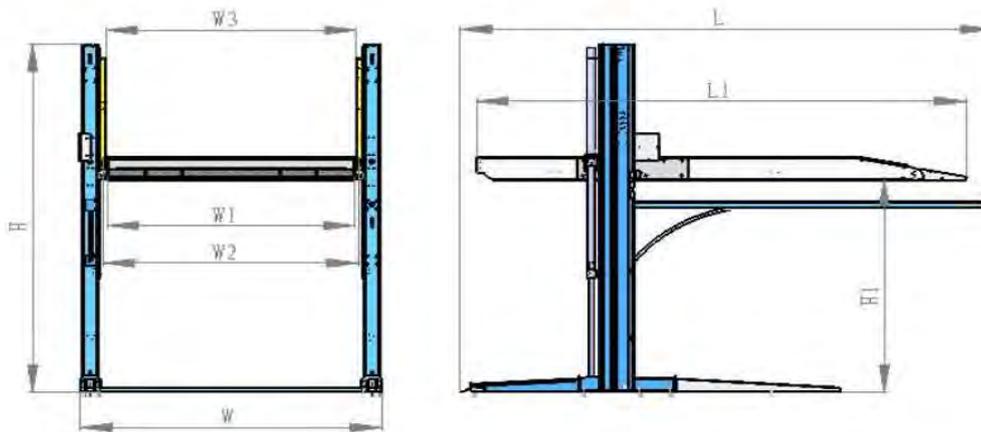
The AL-1132-220 is a two post parking hoist that developed through continuous research. The hoist enjoys great popularity with the features of simple structure, easy assembling and space-saving.

The hoist is mainly consists of posts of two sides, carriage of two sides, and wave plate platform. The left and right post can be used in common. The left and right carriage can from double-linked or multi-linked hoist with the column at random.



Chart(2) double linked unit

2.2 Hoist dimensions



Chart(3) front elevation

Chart(4) left elevation

Size code	Size name	value/mm	remark
L	Device length	4318	
L1	Platform length	4166	
W	Device width	2658	Other models see actual size
H	Device height	3497.5	Other models see actual size
H1	Platform height	$0 \leq H1 \leq 2140$	Can be adjusted according to users' requirement
W1	car capacity width	2126	Other models see actual size
W2	platform width	2200	Other models see actual size
W3	Width between carriages	2226	

2.3 Hoist parameter

Rated lifting load: 3200 Kg

Rated maximum lifting height: 2.1meters (about 83 inches)

Total hoist weight: about 1200kg.

3. Hoist transportation

The seller has packaged the equipment using packing frame, straps and paper board to avoid damage during the transportation.

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

The hoist parts may come loose during transportation. Before you cut the packing belt used to fix the hoist, be careful to avoid injury to personnel caused by fallen objects.

4. Hoist assembly

4.1 Important information

4.1.1 Before install the hoist, read and learn the safety warning in detail.

4.1.2 Keep the working site clean and tidy.

- 4.1.3 Check the working environment of the hoist. Don't use the hoist in a damp environment. Keep good ventilation and enough light of the use area.
- 4.1.4 Only trained person can operate the parking equipment. The staff untrained should keep away from the working area. All the staff without training is forbidden to operate the hoist.
- 4.1.5 Motor must be grounded to avoid electric shock.
- 4.1.6 Turn power off when installing to secure the safety as there is high voltage on the power unit.
- 4.1.7 Always pay attention to your surroundings to avoid injury.
- 4.1.8 Operate the equipment in normal way. Do not modify the equipment in any way or use aftermarket parts which are not purchased from Advance AutoQuip or its authorised repairers.
- 4.1.9 Prohibit modifying any parts.
- 4.1.10 Safety locking device should be well protected.
- 4.1.11 When lifting or lowering the vehicle, keep personnel away from the area.
- 4.1.12 Keep all other equipment away from the hoist area.
- 4.1.13 Warning: The working area should be not flammable as there is electric spark when the switch works.
- 4.1.14  this mark means safety warning.
- 4.1.15 Keep the equipment clean and keep regular maintenance. Appropriate lubrication and maintenance is important for safety and warranty.
- 4.1.16 Keep handle and button clean and dry, avoid contamination of oil and grease from the hoist.
- 4.1.17 Check the synchronisation of the left and right carriage and check if there are any damage to parts, if there is any fault, immediately cease operation and contact the authorised repairer.

4.2 Hoist layout

Before you install the hoist, you should check the following items:

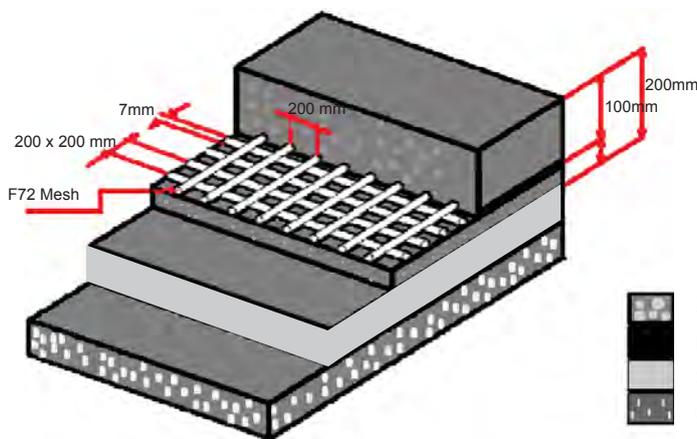
- 4.2.1 The working area should be well designed and have enough space.
- 4.2.2 Avoid barrier like electric wire to the installation area.
- 4.2.3 Check carefully if there is cracks to the concrete ground. Check if the strength of the concrete is per the manufacturer's requirements. The compressive strength should be no less than 425kg/cm. The thickness of concrete basement should be no less than 200mm, the strength should be no less than 25-30 Mpa, the just finished concrete basement must be solidified and cured over 28 days. Otherwise, this will cause damage to equipment or injury & death.
- 4.2.4 The installation basement must assure certain levelness; the tolerance is not allowed over 5mm, the tolerance within this limit can be adjusted by using shims. If the ground is uneven, it must be re-pored to the correct requirements.
- 4.2.5 Do not install equipment on asphalt or other non-concrete surface.
- 4.2.6 Do not install equipment on an uneven concrete surface.
- 4.2.7 Do not install equipment on a second or higher floor without the approval of an engineer.
- 4.2.8 Do not install the equipment outdoors, it will void the warranty.
- 4.2.9 Confirm the general installation position of the equipment, and then put columns and platform on their respective places.
- 4.2.10 Confirm the location of the electric cabinet and keep enough space for operation.
- 4.2.11 Draw up the position of the baseboard of the column with chalk after the confirmation to assure the tolerance within 3mm to avoid effecting the installation of the hoist.
- 4.2.12 Check carefully to assure the layout is correct.

4.3 Tools required to install the hoist

Hammer, Level, Open spanner, Socket head wrench, Adjustable spanner, Crow bar
Chalk or color pen, Flat screw driver, Tape measure (5m), Nipper pliers.

Concrete Foundation

Fastening the hoist to the ground Concrete Foundations



FOUNDATION DIMENSIONS IN MM			QUALITY OF CONCRETE	MIN. PRESSURE RESISTANCE OF SURFACE	MAX. REACTION ON EACH BEARING POINT
Length	Width	Thickness	25-30 Mpa	425 Kg/cm ²	0.9 Kg/cm ²
5000	4000	200			

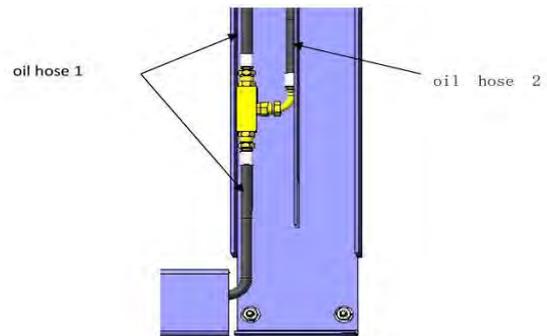
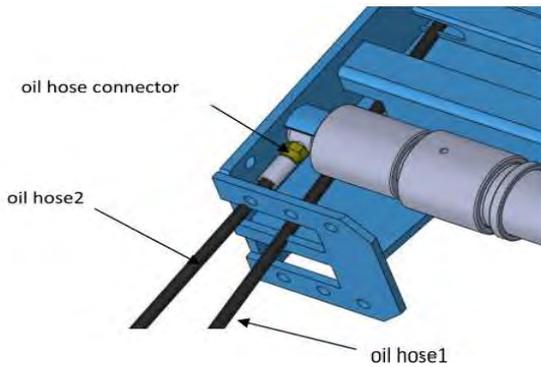
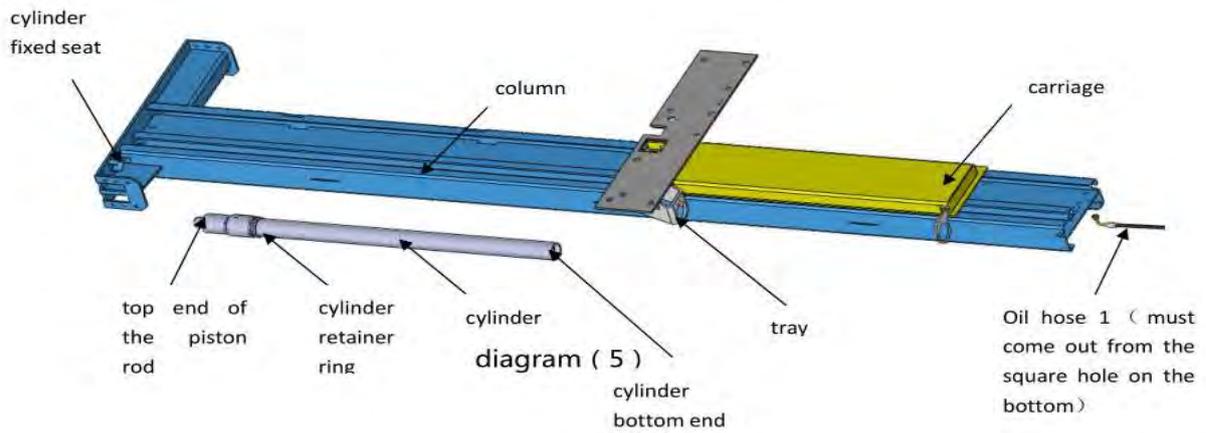
-  25-30MPA REINFORCED CONCRETE
-  F72 REINFORCED MESH
-  COMPACTED SOIL
-  GRAVEL SHEETING

Please note:

For all parking hoists that are to be installed on a suspended concrete slab, this will be the responsibility of the builder to first ensure the hoists are approved for installation and the concrete has been engineered for such purposes with an Engineer's Certificate.

4.4 Install steps

4.4.1 Feed no 1 oil hose from the top, down through the square conduit and connect to the bottom of the cylinder.
Connect no 2 oil hose to the bottom of the hydraulic cylinder and run the hose to the opposite side to the other cylinder.



4.4.2 Erect the column, connect the column base support and the column with the bolt on the front leg of column and the oil hose guide slot. Connect the carriage connection plate and the platform side beam with the bolt.

4.4.3 Install the wave plate platform. Assemble the bolt refer to chart (10) and chart (11).

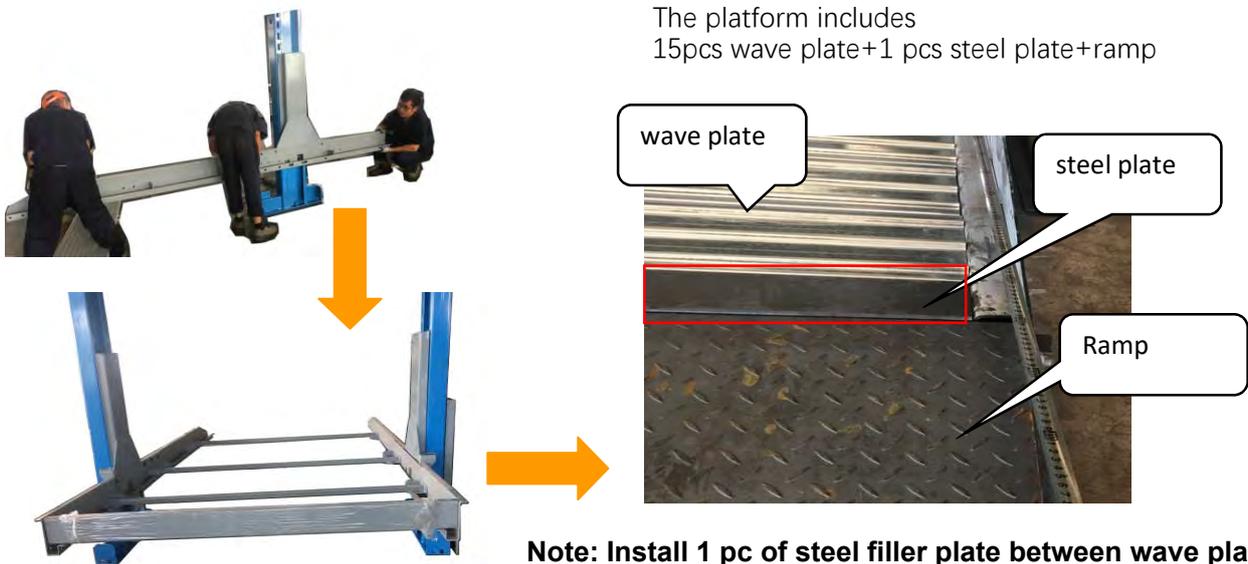


Chart (8)

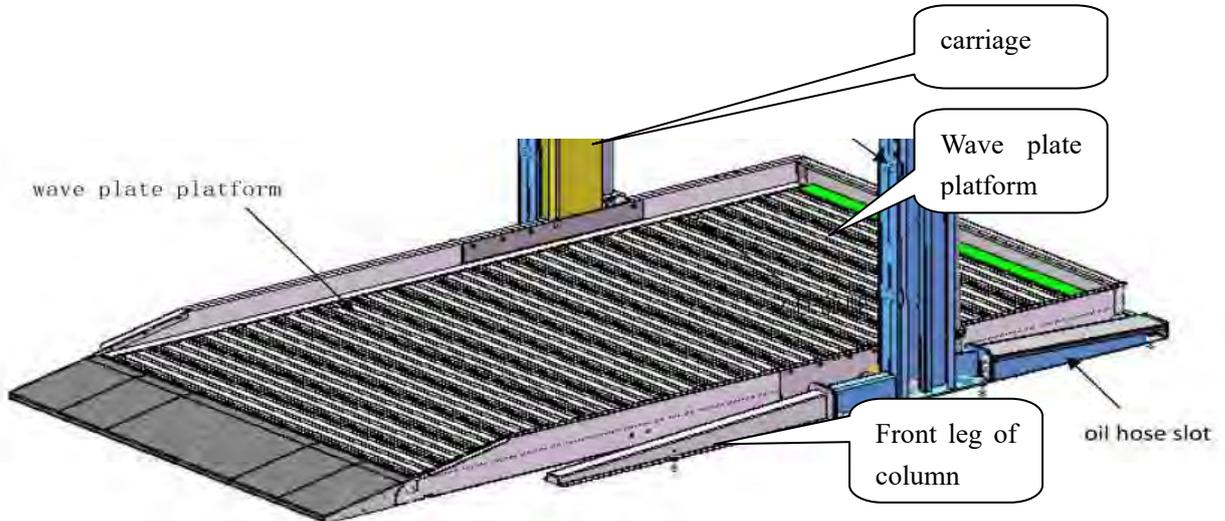


Chart (9)

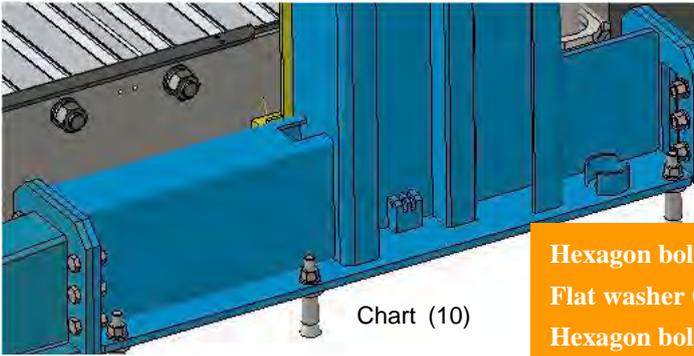


Chart (10)

- Hexagon bolt with full screw M12X45
- Flat washer C grade $\Phi 12$
- Hexagon bolt M12

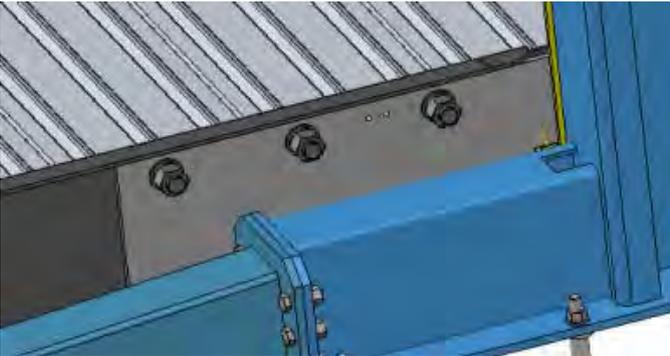


Chart (11)

- Grade A Type I hexagon nut with coarse screw M20
- Standard spring washer 20
- Flat washer C grade
- Hexagon bolt with full and coarse screw M20X50 (4/side)

4.4.4 Hang up the power pack. Fix the motor support plate on the power pack first, and then suspend it on the top of the column..

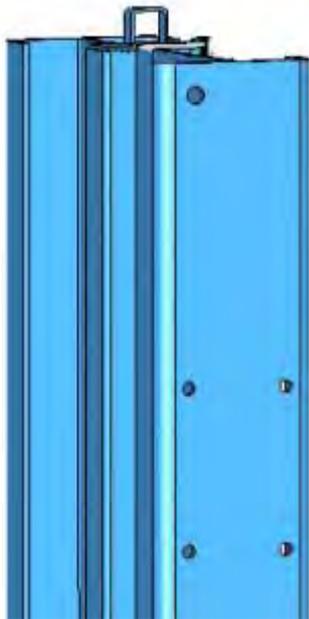


Chart (12)

- Hexagon socket head screw M10X16
- Motor support plate
- Hexagon bolt with full screw M8X25 Hexagon nut

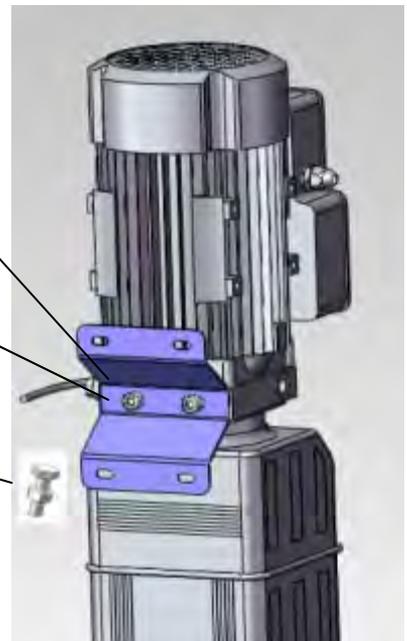


Chart (13)

4.4.5 Connect the oil hose. According to 4.4.1, oil hose 1 and the oil hose 2 will be connected with cylinders. The other end of the oil hose 1 connect the power pack...

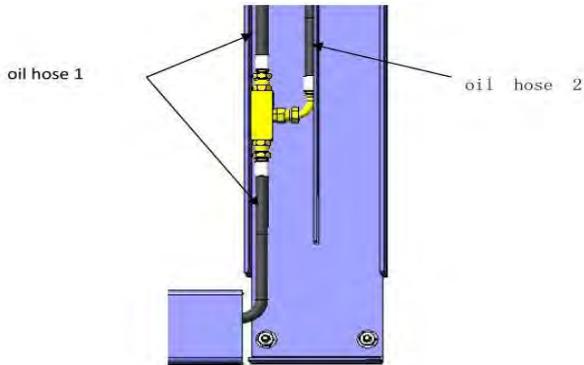


Chart (14)

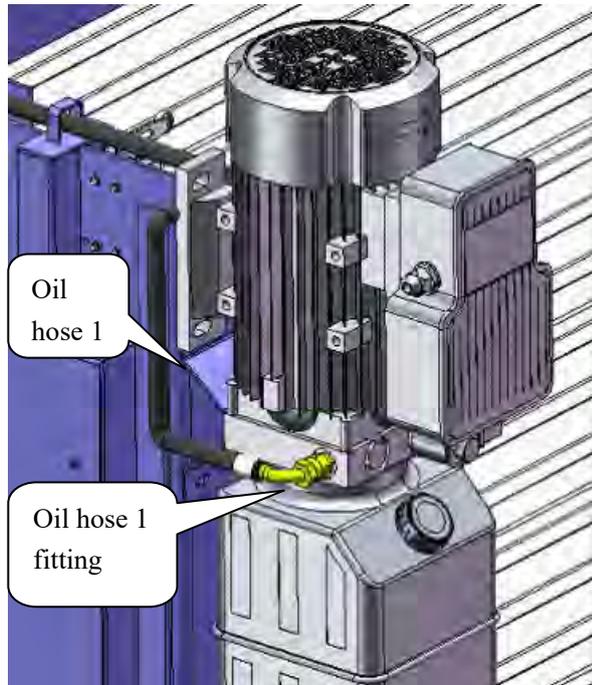


Chart (15)

4.4.6 Fix one end of the chain to the column, pull it out from the top of the chain pulley, pass through the opening of the platform, and pull it out from the other end of the platform opening.

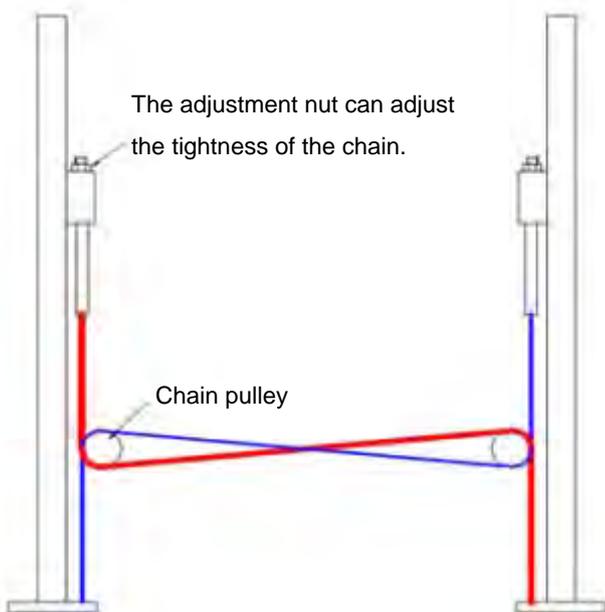


Chart (16) chain installation sketch map

Chain

Chart (15)



Cotter pin 2.5
Chain pin

Chart(15)



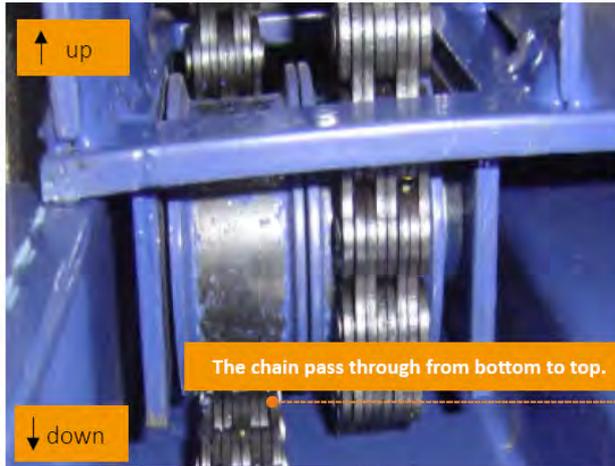


Chart (19)



Chart (20)

4.4.7 Pull the chain out from the another carriage chain pulley and fix it on the top support of the column.

4.4.8 Connect the locking hoist

The live knot bearing and the lock release pull rod connect the manual lock release device, the nut on the pull rod adjust the tightness of the pull rod.

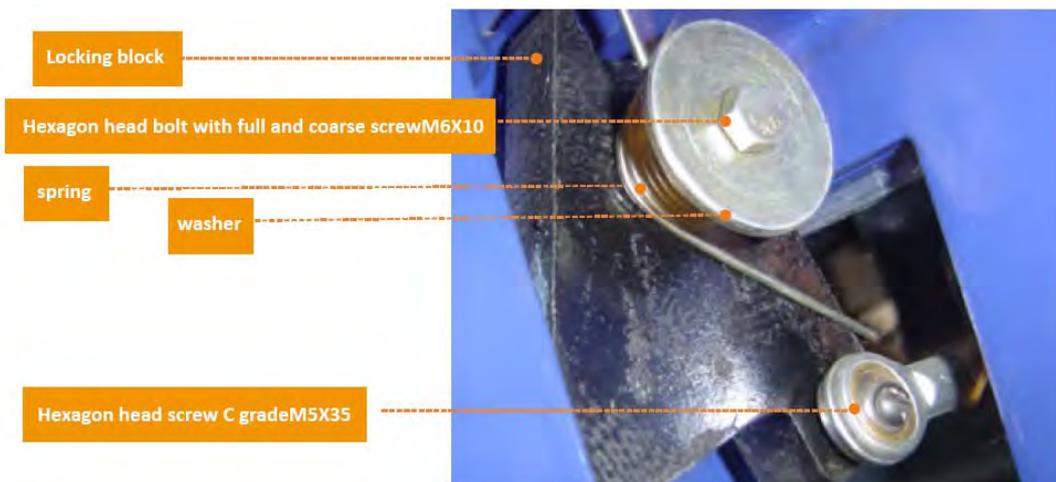


Chart (21)

4.4.9 Add Grade 32 hydraulic oil into the power pack, connect the power and then start the power pack. Control the hoist of the platform with hoist control button, stop lifting when the platform has raised to the height of one meter, tighten all bolts on the carriage and platform.

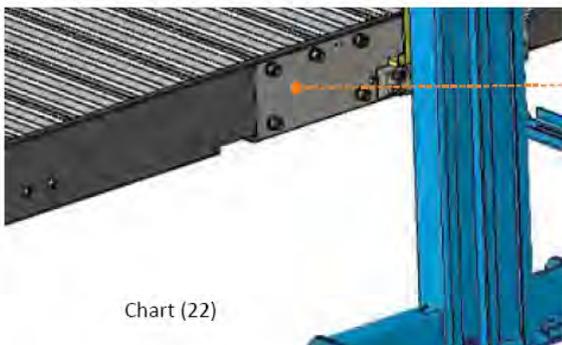


Chart (22)

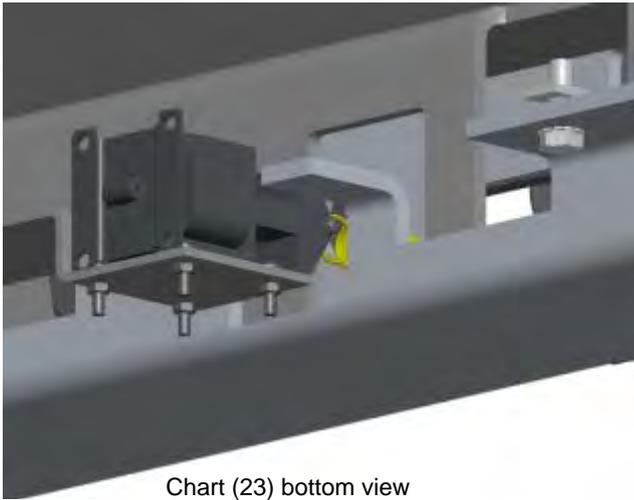


Chart (23) bottom view

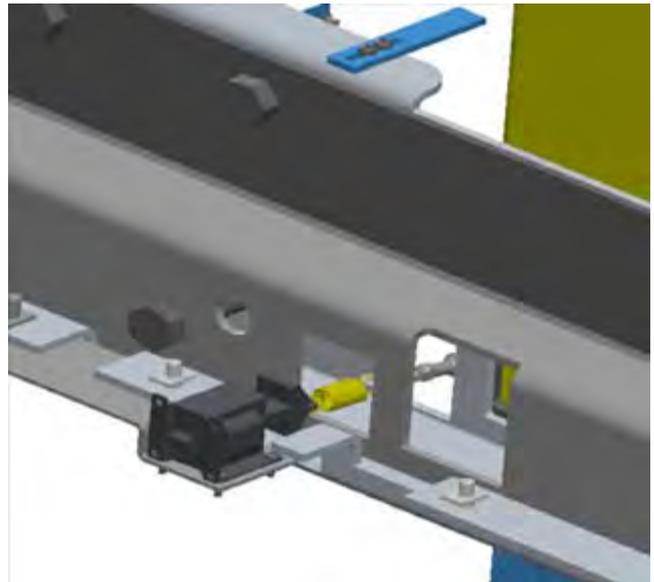


Chart (24) the view after conceal the wave plate

4.4.10 Install electric lock release

Install the electromagnet according to the following diagram.

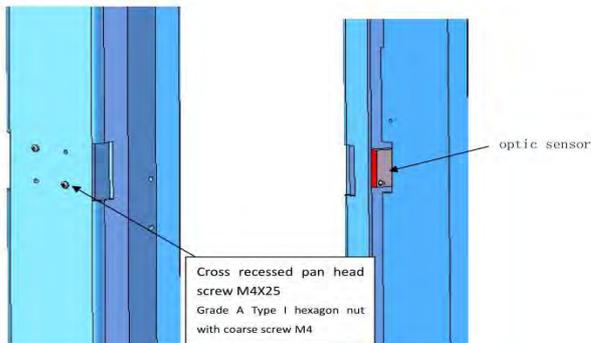
4.4.11 Install the down photocell sensor.

4.4.12 Install upper limit switch

Adjust the installation height according to the actual parking requirements.

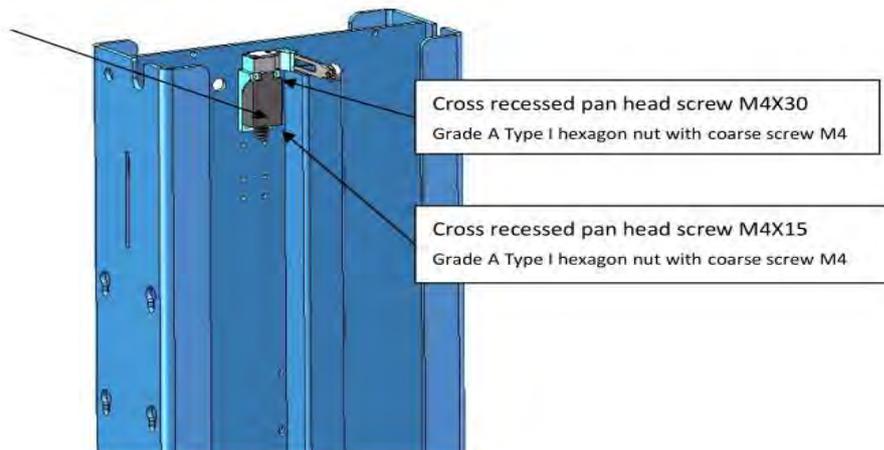
The sensor is installed in the channel between column and lock ladder.

4.4.11 Install optic sensor



Cross recessed pan head screw M4X25
Grade A Type I hexagon nut with coarse screw M4

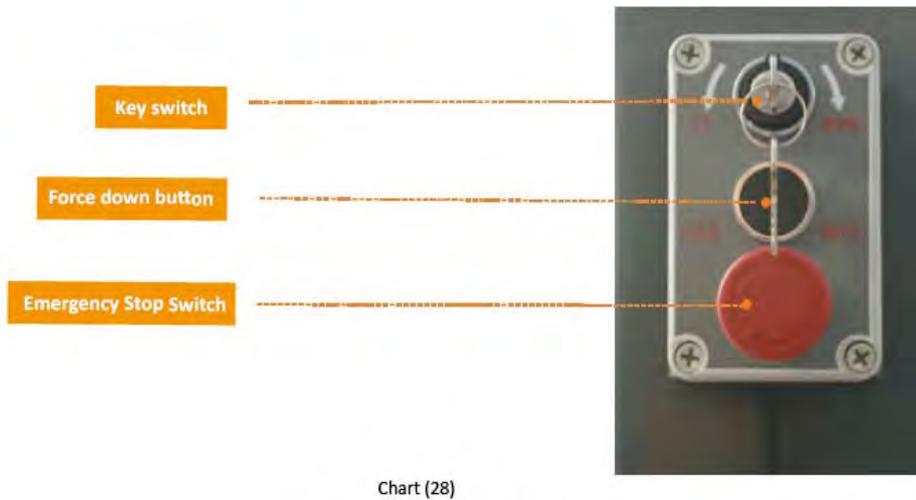
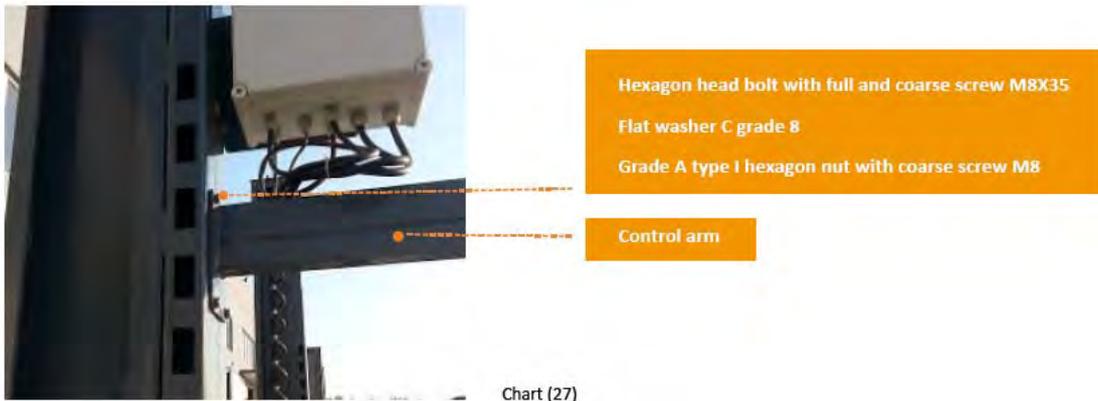
Limit switch



Cross recessed pan head screw M4X30
Grade A Type I hexagon nut with coarse screw M4

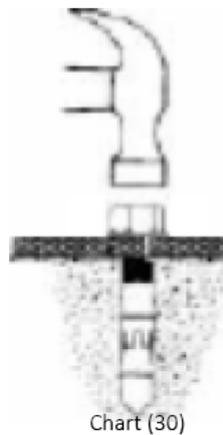
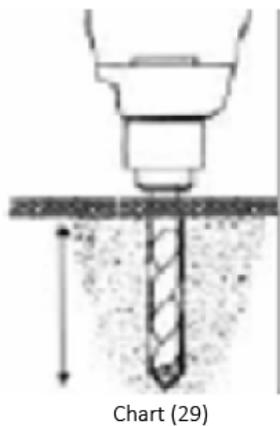
Cross recessed pan head screw M4X15
Grade A Type I hexagon nut with coarse screw M4

4.4.13 Control arm installation of the button box.

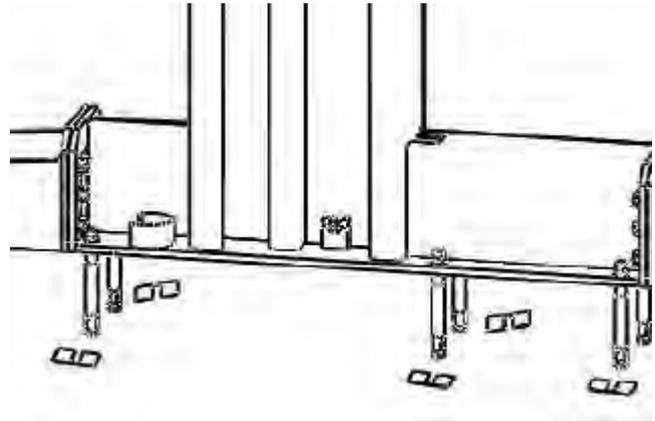


4.4.14 Use base plate of post as a template to drill hole using a hammer drill. These holes should be about 120mm deep. After drilling the hole, clear the inside of the hole and check the alignment of the base plate and chalk line.

Insert the bolt into the hole, until the washer touches the basement plate.



4.4.15 If the column is uneven to the ground, you need to insert U-type shims to adjust. After fixing the anchor bolt, the column will be even with the ground.



4.4.16 Adjust the distance $A_1=B_1$ and $A=B$ between the two columns. Add the shim to adjust when the distance is unequal ($A_1 > B_1$). After the column is vertical to the ground, fasten down the bolt and nut.



Chart (32)

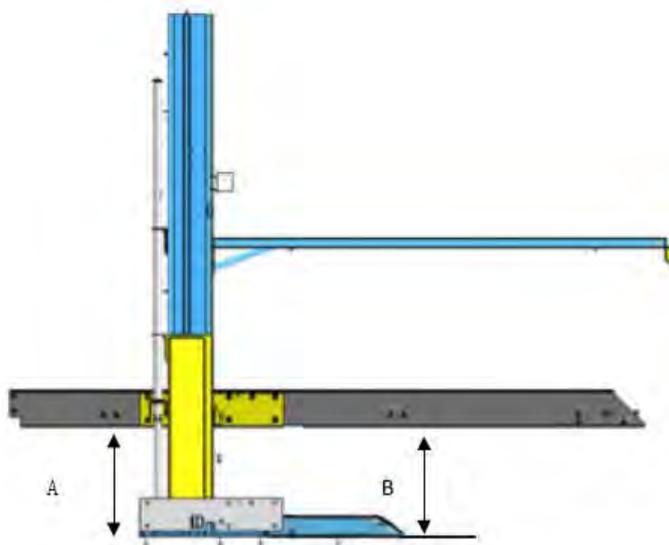


Chart (33)

4.4.17 Fix the chain, the tightness should be moderate, adjust the column of two sides to make them parallel.



Adjustment screw rod
Chain

Baseplate



Chart (34)

4.4.18 Rotate the key switch on the control box to raise the hoist.

4.4.19 When the hoist has raised to the highest position, stop rotating the key switch, avoid damage.

4.4.20 If you want to lower down, you should let it rise some distance, (about 10-20mm), and then unlock automatically.

4.4.21 At this time, loosen the bleed bolt on the top of the cylinder, don't loosen it completely, screw it down after bleeding.

4.4.22 Then continue to rotate key switch, lower down the hoist with safety. Repeat to lower it down for several times, discharge the air in the cylinder.

Attention: during the whole lifting process, observe all the operation parts, check the correctness of the installation and the debugging, only when you confirm that there is no any mistakes finally can you start the hoist.

4.4.23 After the installation, lubricate each sliding parts with the lubricant (supramoly).

5. The introduction of the control system

5.1 Control operation

There is limit switch on the top of the hoist, to control the limit height of the platform when move up. The

customer can adjust the installation position of the limit switch according to the actual parking requirement and site space. It will be automatic shut-off if the operator releases key switch, and then conduct the vernier regulation of the lifting height according to the actual parking requirement. Besides the key switch on the button box of the control arm in front of the device, there is an emergency stop switch, you should press down the button under emergency situation, to power down the device. But after excluding the fault, rotate the button to reset it, or the hoist will not be able to operate.



Chart (35)

5.2 Important information

When assembling, confirm the fastness of the wiring; check if there is any visible wire end to avoid short circuit.

When handling the equipment or parts, take measures to avoid breaking the line, otherwise, it will cause short circuit.

If short circuit occurs, the fuse protector will take effects. After that, the fuse should be changed.

The failure of the control system should be maintained by professional technicians. It is forbidden for the staff without electric service related knowledge to repair the hoist, to avoid of the body damage caused by electric shock or hoist damage caused by wrong wiring.

Prohibit exposing electric elements in damp environment to avoid short circuit.

5.3 Troubleshooting

Troubleshooting	Possible Cause	Remedy
There is no response when rotating the key switch.	The fuse of control circuit is burned.	Check and change the burned fuse.
	The power cord is open circuit.	Check the wire circuit to confirm the wire connection is right.
	The emergency stop switch is pressed down.	Rotate the emergency stop switch to reset it.
The platform can't rise when rotate the key switch, but can be lowered down when rotate it in opposite direction.	The platform has been in the highest position.	Normal phenomenon.
	Wiring of limit switch is in bad condition.	Check the circuit of limit switch to guarantee good connection.

6. Hoist operation

6.1 Attention item

- 6.1.1 If the equipment is not in serviced for a long time, the main power supply should be turned off.
- 6.1.2 If the equipment has not been in service for a long time, please lubricate it and check if there is any damage and rust corrosion before using it again. Check if the equipment is in good condition through no-load operation.
- 6.1.3 Do not use the equipment if the floor or any component is damaged.
- 6.1.4 Do not operate the equipment if there is person or other obstacle under it.
- 6.1.5 Prohibit using the equipment for other purpose.
- 6.1.6 Safety lock device should be in good condition at any time.
- 6.1.7 Do not let the unlocked equipment in a certain height, and leave.
- 6.1.8 Keep the motor dry, water damage is not covered by warranty.

Warning:



There should be enough space to escape if the vehicle is at the risk of falling down.



Gravity center of vehicle should be in the center of platform.



There should be enough space to place the hoist when lifting and lowering the vehicle.



Avoid of excessive shake when there is vehicle on the hoist.



Don't exceed the closed height the hoist control.



Avoid of the damage of the foot when lowering the hoist.



The hoist can only be used by the trained operator .



Only the staff authorized can stay on the hoist site.



When move and assemble the medium parts, safety bracket should be used.

6.2 Raising the hoist

6.2.1 Drive the car on the appropriate position of the platform. Avoid collision with the control cabinet and the rear of the platform.

6.2.2 Apply the manual brake after the is parked in position.

6.2.3 Open the car door carefully to avoid any collision with the control arm.

6.2.4 Press down the up button, lift the car to the appropriate position, and lock the hoist. Take notice that the safety locking device should always be valid.

6.2.5 You can park other vehicles under the platform, but before parking, check and confirm that all the vehicle height of the parked vehicle should be no more than platform height, to avoid the vehicle being damaged.

6.3 Lowering the hoist

6.3.1 Be sure there is no person or obstacle under the car, if there is car parked under the platform, remove the car away from the hoist.

6.3.2 Press the down button to lower the platform to the ground.

6.3.3 Drive the car off the platform.

7. Maintenance and service of hoist

7.1 Maintenance schedule

Conduct the maintenance every month regularly to ensure the use safety of the hoist.

1. Check the carriage is operating correctly.
2. Check the chain and it's connector, chain pin shaft, cotter pin is operating correctly.
3. Check if the expansion bolt is loose. You should tighten the expansion bolt if it is loose.
4. Check whether the locking device is operating correctly, if it is not, cease immediate use of the hoist and contact your authorised service agent to remedy the fault.
5. Check if there is any distortion of the column. Check if the column is vertical to the ground. You should stop operating the hoist if there is any serious distortion of the column caused by overload and abnormal use.
6. Lubricate the side block on the column with grease.
7. Check hydraulic fluid levels.

3200 kg

AutoLift 1132-220 Parking Hoist

OPERATING INSTRUCTIONS

The hoist should only be operated by personnel that have been thoroughly trained in operation and maintenance of the hoist.

1. Drive top vehicle onto the elevating platform. Vehicles can be driven in nose first or backed in.
2. Drive until the top vehicle's forward tyres rest against the forward wheel stop.
3. Turn off car engine, engage safety brake, and place the vehicle's gear selector in Park. If vehicle is manual transmission, place the transmission in first gear.
4. Check the front of the hoist to make sure that the vehicles forward tyres are securely set against the wheel stop.
5. Walk around the hoist to ensure no obstructions will interfere with the vehicle being lifted.
6. Position yourself in front of the hoist within reach of the operator control console.

TO RAISE THE HOIST

1. Once all precautions above are followed, check around and above the hoist to ensure that no objects hoist.
2. To raise the hoist platform, insert the key into the control console, turn the operator switch on the control console to the left position and hold.
3. During operation, observe the entire perimeter of the hoist as well as overhead to ensure there are no obstructions that may damage vehicle and / or the hoist.
4. ALWAYS raise the platform until it reaches its top custom-set lock position.
5. If a low ceiling is overhead be careful when lifting. NEVER allow the top vehicle to come in contact with any overhead structure or object.
6. Once top position is reached, release the operator switch to its neutral position then push the center button on the operator console, the hoist will then rest on the nearest lock position. **NOTE: Check for correct engagement of each lock.**

PLACEMENT OF LOWER VEHICLE

1. Once all precautions of the Pre-Lifting and Lifting Stage have been followed, drive the lower vehicle under the hoist platform until the vehicle is correctly parked under the top platform, or, to the location where the car is properly positioned under the hoist to allow clearance of the doors and mirrors.
2. Turn off the engine, set the parking brake and place the gear selector to Park, or place manual transmission into first gear.

REMOVAL OF LOWER VEHICLE

1. Carefully drive out the lower vehicle after making sure all is clear before lowering the lift platform.

TO LOWER THE HOIST

1. Walk around the hoist to make sure nothing is below or near the hoist platforms entire lower area to prepare for descent.
2. Be certain that no person (except the lift operator) is within 3 meters of the hoist area.
3. Turn and hold the operator switch to the right position **NOTE: the hoist will automatically raise approximately 50mm or enough to allow the mechanical locks to release.**
4. The hoist will automatically stop and automatically start descending.
5. When lowering the hoist always be watchful for objects, persons or animals that may wander under the hoist platform during operation. Cease operation by pressing the emergency stop on the control console if area becomes obstructed.
6. **KEEP HANDS AND FEET CLEAR OF ALL MOVING PARTS AND PINCH POINTS.**
7. The top vehicle is now ready to be removed from the parking area. Turn the key to the off position on the control console and remove.

MODEL: AutoLift 1132-220	SERIAL NO.:	APPROVALS:
------------------------------------	--------------------	-------------------

SAFETY OPERATING PROCEDURES

Vehicle Hoist

DO NOT use this machine unless you have been instructed in its safe use and operation and have been given permission

PERSONAL PROTECTIVE EQUIPMENT



Safety glasses must be worn at all times in work areas.



Long and loose hair must be contained.



Do not stand on hoist whilst hoist is in operation.



Sturdy footwear must be worn at all times in work areas.



Close fitting/protective clothing must be worn.



Rings and jewellery must not be worn.

PRE-OPERATIONAL SAFETY CHECKS

- ✓ Locate and ensure you are familiar with all machine operations and controls.
- ✓ Ensure all guards are fitted, secure and functional. Do not operate if guards are missing or faulty.
- ✓ Ensure the vehicle hoist has operating and maintenance instructions permanently located and clearly visible.
- ✓ Check the capacity of the hoist compared to the weight of the vehicle. If vehicle is too heavy, do not proceed.
- ✓ Ensure the area is clean and clear of grease, oil.
- ✓ Check workspaces and walkways to ensure no slip/trip hazards are present.
- ✓ Check that all safety devices are in good condition.
- ✓ Ensure support arms are capable of being locked in position.
- ✓ Ensure rubber pads are in good condition on all load points.

OPERATIONAL SAFETY CHECKS

- ✓ Centre the vehicle on the hoist, ensuring the weight is evenly distributed to the front and rear.
- ✓ Identify the correct jacking points and place the lifting pads under the vehicle at the front and rear on the jacking points, ensuring contact.
- ✓ Only one person shall operate the hoist at a time.
- ✓ The hoist must not be operated unless it has a current certificate of inspection.
- ✓ Ensure the area is clear of people and equipment before operating.
- ✓ Check vehicle stability by looking at the jacking points.
- ✓ Engage manual lock.

ENDING OPERATIONS AND CLEANING UP

- ✓ Lower the vehicle hoist and switch off machine when work completed.
- ✓ Leave the equipment and work area in a safe, clean and tidy state.

POTENTIAL HAZARDS AND INJURIES

- ⓘ Falling objects.
- ⓘ Trapping hazards.
- ⓘ Crushing hazards.
- ⓘ Hair/clothing getting caught in moving machine parts.

DON'T

- ✗ Do not use faulty equipment. Immediately report suspect equipment.
- ✗ Never leave the machine running unattended.

This SWP does not necessarily cover all possible hazards associated with this equipment and should be used in conjunction with other references. It is designed as a guide to be used to compliment training and as a reminder to users prior to equipment use.

7.2 Troubleshooting

Troubleshooting	Possible Cause	Remedy
The motor works, no hydraulic oil leakage, the sound is abnormal, but the platform can't rise.	There is air in the hydraulic oil.	Lift with idle load to the highest position, and keep for seconds and then lower down, when lowered to the half height, screw to open the oil hose connector, discharge the air and then screw down.
	the hydraulic oil solidify or viscosity of the hydraulic oil is too big as surrounding temperature is too low.	discharge the hydraulic oil, refilling qualified hydraulic oil.
	The load is over weight.	Check and confirm that hoist weight is less than rated load.
Hydraulic oil leakage of oil hose connector.	The connector is loose.	Screw down the tube connector.
	The connector is damaged.	Change the connector.
Hydraulic oil leakage of the cylinder.	The hydraulic seal kit is damaged.	Change the seal kit or cylinder.
Motor do not work.	The motor is burned.	Change the motor after check and confirm that the power is correct.
	The voltage is too low.	Check and confirm that the voltage is the regulated voltage.
	The fuse is burned.	Change the fuse.
	The limit switch is damaged.	Change the limit switch.
Platform can't fall down.	The platform is locked.	Control the platform hoist, after lock release lower the platform down.
Platform falls down slowly.	the hydraulic oil viscosity is too big.	Change to the regulated hydraulic oil or consult local hydraulic manufacture.
	The plug valve of the power unit is jammed.	take apart the valve part to wash(pay attention to dust proofing)
	The oil hose or the hose connector is jammed.	Dredge the oil hose and hose connector.
Motor rotate reversely	Wrong wiring	Rewiring according to the circuit drawing

7.3 Operation, Maintenance and Service Guide

A. Operation

1. Please pay all your attention on the movement of platform operation immediately stop operation if any imbalance is found.
2. Keep holding the key switch to operate the equipment, it will stop at once if your hand releases.
3. The equipment can stop at once if the platform hoist up to top position where it has been set with the limit switch.
4. There are three statuses in descending:
 - (a)The distance of platform to ground is 2100mm (the top position), if you keep turning the key to DOWN: after no movement for 3 to 5 seconds, the mechanical lock will be released automatically then platform start to descend.

(b)The distance of platform to ground is less than 2100mm but more than 500mm, if you keep turning the key to DOWN: the platform will lift up for 3 to 5 seconds, then the mechanical lock will be released automatically and the platform start to descend.

(c)The distance of platform to ground is less than/equal to 500mm, if you keep turning the key to DOWN: without waiting or lifting, the mechanical lock will be released automatically and the platform start to descend with buzzer and alert light.

5. The inspection on whole equipment is necessary before operation, and make sure your operation is under the condition that all equipment devices work well.

Before first operation, firstly please open general power switch, secondly open the power switch on control box, thirdly make sure the emergency stop button on control panel is open.

6. The correct drive direction is forward, It's not allowed for vehicles driven backward onto platform. Make sure vehicle is parked in the middle of platform, and the front tires must reach the car stopper in the back of platform.

7. Over loading is not allowed for vehicle parked on the platform, the rated capacity is 3200kg

The wheel base of vehicle parked on the platform should not be more than 2900mm.

The total height of vehicle parked under platform should not be more than 2000mm.

8. There is no need to raise the hoist it there is a vehicle on the platform.

9. The power indicator light is off until both general power switch and power switch on control box is opened.

B. Maintenance

1. Lubrication the guide rail and guide pulley once a month.

2 Lubrication the balance chain once a month.

3. Change the hydraulic oil three months after first operation; and change hydraulic oil every nine months thereafter.

4. Frequently check the screw nuts of bolts fixing the electromagnet and locking plate, if any screw nut is loosening it will need to be fastened immediately.

5. Before operation, check the connector of electromagnet, if it's loosening fasten it; then test the top limit switch and photocell sensor, if it still does not remedy the situation, contact the authorised service person.

6. The seal in hydraulic cylinder should be replaced every two years.

7. The roller and sliding block should be replaced every two years.

8. The valve element in solenoid valve and filter in power unit should be cleaned every six months.

9. If any noise comes out from electromagnet, contact the authorised service person for replacement.

C. Service (to be carried out by authorised personnel).

1. If the platform tilts right-and-left when lifting, check and adjust the balance chains; If the platform tilts fore-and-aft when lifting, first check if vehicle is parked correctly; second check the perpendicularity of post, if the platform still tilts after the above mentioned works, replace the roller.

2. If the platform tilts right-and-left when descending, first check if the mechanical locking plate at higher side is unlocked, make sure the wiring and related electromagnet works well if the locking plate is locked; check and adjust the balance chains if the locking plate is unlocked.

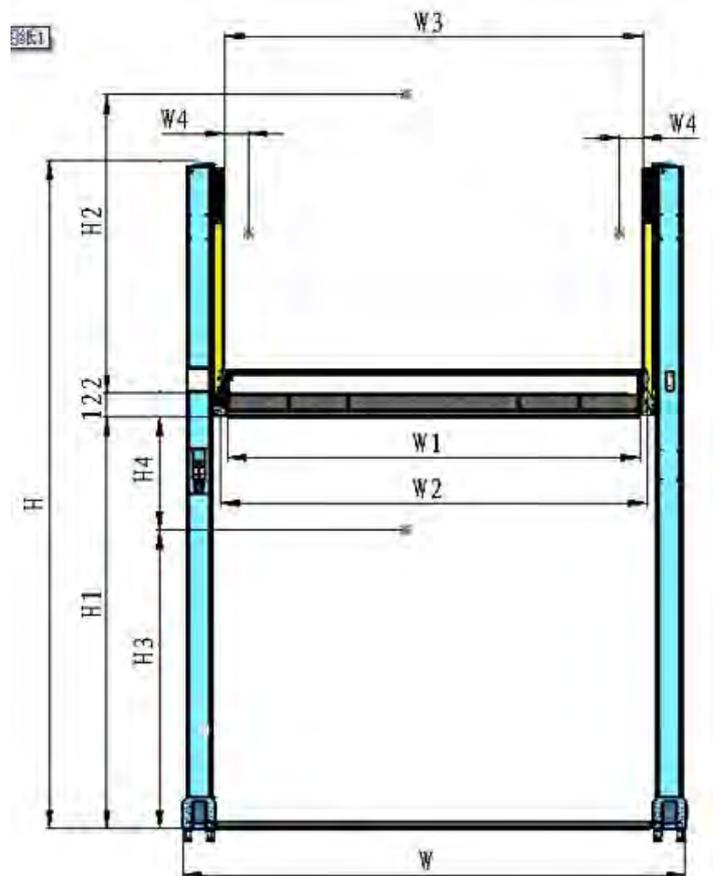
If the platform tilts fore-and-aft when descending, first check if vehicle is parked correctly; second check the perpendicularity of post, if the platform still tilts after the above mentioned works replace the roller.

3. Adjust the compensated flow control valve on the power unit, if the lifting/descending speed is too fast or too slow.

4. Check if the emergency stop button is open and air switch is closed, if the equipment doesn't lift up when keep turning UP.
 5. Check if the solenoid valve is open, if the platform only lift up but not descend, or it don't move at all when keep turning DOWN.
 6. Check if the electromagnet is working to make the mechanical locking plate unlocked, if the platform lifts up first then descends but stop on the locking tab when keep turning DOWN.
 7. Check if the electromagnet is working to make the mechanical locking plate unlocked, if the platform descends only but then stop on the locking tab when keep turning DOWN.
 8. Check if the photocell sensor works correctly if the platform only descends with buzzer and warning light on when keep turning DOWN and the platform is above 500mm height.
 9. Open the vent valve on the cylinder to make some air inside of cylinder released, if the platform jounces when lifts up.
10. Equipment balance:
- (a) Lift the platform up to any locking tab above 500mm height;
 - (b) Manually open the manual switch of solenoid valve on power unit to make platform descend;
 - (c) Keep turning on the manual switch of solenoid valve until both two mechanical locking plates on two sides of carriages fall on the bottom of the locking tabs on same level
 - (d) Tighten or loosen the screw on adjustable screw to adjust the tightening or sag balance chains, to make the platform in balance during operation.

8 Ordering information

To ensure order the hoist correctly, please read the following instruction.



1. Confirm the platform width W2

You can compute the platform maximum width W2 according to your site space and the following formula.

$$W2=W3+16=[(W-467-(N-1) \times 321) \div N]+16 \dots \dots \dots (8.1)$$

W---site width. Choose an appropriate value according to your site space.

N---unit number.If it is the signal device,then N=1,if it is two units,then N=2.

W2---platform width

W2 platform width is the platform maximum width you compute according to your site space.When you order you should take the following factors into account :W2

- 1) W2 should be no more than 2300mm.
- 2) Verify the distance W4 between the car body and the carriage.

$$W4= (W3-W5) \div 2$$

$$= (W2-16-W5) \div 2 \dots \dots \dots (8.2)$$

W5---Car width.

W4---Distance between the car and the carriage.

Please confirm the value according your car traveling demand, to make it convenient for you to pick up the car, it is suggested that the value of W4 should between 50~120.If the computed value of W3 is not appropriate, you can reselect

the unit number to compute again.

3) W2 value priority series:

1800, 1850, 1900, 1950, 2000, 2050, 2100, 2150, 2200, 2124, 2200, 2250, 2300.

4) You'd better adopt standard platform width 2100mm, to shorten supply time.

Please record the platform width value you computed, in order to use when you order the hoist.

Column height H.

$$H=H1+122+1098 \dots \dots \dots (8.3)$$

H1---low layer parking space height

You should confirm the low layer parking space height H1 according to the car height H3 and distance between the top of the car and platform.H1=H3+H4. The relation between them is H1=H3+H4.And it is suggested that the value of H4 should between 50mm~100mm.

The second item in the formula“122”, is the platform thickness.

The second item in the formula “1098”, is a constant, determined by the design constructure,you don't need to care.

You should take the factors below when you order:

- 1) When lower the platform ,it will rise 10-20mm first, and then decrease after unlocking. So the space height should be more than (H1+122+H2+20)mm, we suggest you add 50mm allowance based on the value, that is the space height should be more than (H1+122+H2+20+50)mm。 If you have no enough space, you should minish H4, and verify later. You can't install the hoist without enough space height.

2) H'value priority series:

Please record the width value of the platform that you computed, you can use it when you order the hoist.

1. compute example

Place: width=5200mm; height=3900 mm

Car model: width1950mm; height=1550mm

Unit number: 2 (pre-estimate the value according to the site and standard hoist width)

Car traveling demand: the distance between the car body and the carriage W3=60mm The distance between the car top and the platform=50mm

Compute:

1、 compute the platform width W2

$$W2 = [(W - 467 - (N - 1) \times 321) \div N] + 16$$

$$= [(5200 - 467 - (2 - 1) \times 321) \div 2] + 16$$

$$= 2222 \text{mm}$$

Verify:

1) $2222 \text{mm} < 2300 \text{mm}$, OK。

2) $W4 = (W2 - 16 - 1950) \div 2$
 $= (2222 - 16 - 1950) \div 2$
 $= 128 \text{mm} > 60 \text{mm}$ OK

3) when adopt the standard width, that is $W1 = 2100 \text{mm}$

$W3 = (2100 - 16 - 1950) \div 2$
 $= 67 \text{mm} > 60 \text{mm}$

That is to shorten the delivery period, you can choose the standard platform width, that is the platform width is 2100mm.

If can't choose the platform with standard width, please give preference to the priority series width size.

2、 compute the post height

There is only one kind of car height, so $H2 = H3 = 1550 \text{mm}$

Compute the parking height that needed: $H1 + 122 + H2$

$$= (H3 + H4) + 122 + H2$$

$$= (1550 + 588) + 122 + 1550$$

$$= 3810 \text{mm}$$

Verify whether the space height is enough: $3810 + 20 + 50 = 3880 < 3900 \text{mm}$, okay.

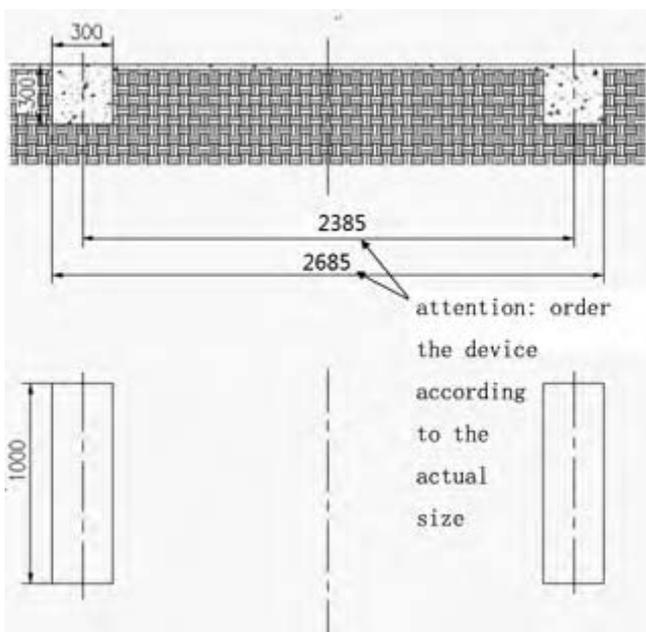
That is the data you provide to the sales person when you order the hoist: Unit quantity: 2

Platform width: 2100mm

Order attention:

1) We have only computed the post height and the platform width above ,you should supply the sales person with your local power. If there is no any appointment, we will provide you according to the standard product of our company.

2) If you are the user of large-size parking lot, please provide layout chart, our technician will assist you to confirm the post height, platform width and hoist quantity that you ordered.



Attachment 1: basement drawing

Attachment 2: after-sale service



Advance AutoQuip

2 McDonald Crescent | Bassendean WA 6054

P. 08 9279 1663 | F. 08 9279 1667

W. www.aaq.net.au | E. sales@aaq.net.au

ADVANCE AUTOQUIP WARRANTY

GENERAL WARRANTY INFORMATION:

ADVANCE AUTOQUIP'S OBLIGATION UNDER THIS WARRANTY IS LIMITED TO REPAIRING OR REPLACING ANY PART OR PARTS RETURNED TO THIS FACTORY, TRANSPORTATION CHARGES PREPAID, WHICH PROVE UPON INSPECTION TO BE DEFECTIVE AND WHICH HAVE NOT BEEN MISUSED. DAMAGE OR FAILURE TO ANY PART DUE TO FREIGHT DAMAGE OR FAULTY MAINTENANCE IS NOT COVERED UNDER THIS WARRANTY. ADVANCE AUTOQUIP RESERVES THE RIGHT TO DECLINE RESPONSIBILITY WHEN REPAIRS HAVE BEEN MADE OR ATTEMPTED BY OTHERS. THIS WARRANTY DOES NOT COVER DOWNTIME EXPENSES INCURRED WHEN UNIT IS IN REPAIR. THE MODEL NAME AND SERIAL NUMBER OF THE EQUIPMENT MUST BE PROVIDED WITH ALL WARRANTY CLAIMS. THIS WARRANTY STATEMENT CONTAINS THE ENTIRE AGREEMENT BETWEEN ADVANCE AUTOQUIP AND THE PURCHASER UNLESS OTHERWISE SPECIFICALLY EXPRESSED IN WRITING. THIS NON-TRANSFERABLE WARRANTY APPLIES TO THE ORIGINAL PURCHASER ONLY. THIS WARRANTY IS APPLICABLE TO UNITS LOCATED ONLY IN AUSTRALIA. CONTACT ADVANCE AUTOQUIP FOR SPECIFIC WARRANTY PROVISIONS FOR UNITS LOCATED OUTSIDE OF THESE COUNTRIES.

STRUCTURAL COMPONENTS:

ALL STRUCTURAL AND MECHANICAL COMPONENTS OF THIS UNIT ARE GUARANTEED FOR A PERIOD OF FIVE YEARS, FROM THE DATE OF INVOICE, AGAINST DEFECTS IN WORKMANSHIP AND/OR MATERIALS WHEN LIFT IS INSTALLED AND USED ACCORDING TO RECOMMENDATIONS.

POWER UNIT:

POWER UNIT COMPONENTS (PUMP AND RESERVOIR) ARE GUARANTEED A PERIOD OF TWO YEARS, FROM THE DATE OF INVOICE, AGAINST DEFECTS IN WORKMANSHIP AND/OR MATERIALS WHEN THE LIFT IS INSTALLED AND USED ACCORDING TO RECOMMENDATIONS.

ELECTRICAL COMPONENTS:

ALL ELECTRICAL COMPONENTS (INCLUDING MOTOR) ARE GUARANTEED A PERIOD OF ONE YEAR FOR PARTS ONLY (EXCLUDING LABOR), FROM THE DATE OF INVOICE, AGAINST DEFECTS IN WORKMANSHIP AND/OR MATERIALS WHEN THE LIFT IS INSTALLED AND USED ACCORDING TO RECOMMENDATIONS.

PNEUMATIC (AIR) COMPONENTS:

ALL PNEUMATIC (AIR) COMPONENTS (I.E. AIR CYLINDERS AND POPPET AIR VALVES) ARE GUARANTEED FOR ONE YEAR FOR PARTS ONLY (EXCLUDING LABOR), FROM THE DATE OF INVOICE, AGAINST DEFECTS IN WORKMANSHIP AND/OR MATERIALS WHEN THE LIFT IS INSTALLED AND USED ACCORDING TO RECOMMENDATIONS.

EXCLUSIONS:

WARRANTY DOES NOT INCLUDE CONSUMABLE ITEMS SUCH AS HYDRAULIC OIL, LIFTING PADS, OIL SEALS, VEE BELTS AND SLIDING BLOCKS.

THIS WARRANTY SUPERSEDES ALL OTHER WARRANTY POLICIES PREVIOUSLY STATED AND IN ALL OTHER ADVANCE AUTOQUIP'S PRODUCT SPECIFIC LITERATURE.

Advance AutoQuip

2 McDonald Crescent | Bassendean WA 6054

Ph: 08 9279 1663 | Fax: 08 9279 1667 | E: sales@aaq.net.au | W: www.aaq.net.au

COMMISSIONING REPORT

1. Details of Customer	 2 McDonald Crescent Bassendean WA 6054 P: 08 9279 1663 E: sales@aaq.net.au			
Customer Name:				
Installation Address:				
2. Hoist Details				
Model No:				
Hoist Type:				
Installation Date:				
3. Commissioning Report	Yes	No	N/A	Comments
Safety Devices				
Safety devices incorporated into the design of the vehicle to AS/NZS 1418.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Welds				
Visual check all welds completed and comply to requirement of AS/NZS 1554	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hydraulic Equipment and Controls				
Visual check carried out for leaks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Pneumatic Equipment and Controls				
Visual check carried out for leaks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Safety Locks				
Safety locks tested for correct operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Support Pads				
Checked for good working order	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Wheel Stops				
Supplied with the hoist and in good working order	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hoist Motion Limits				
Checked for correct operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Load Test and Speed Check				
Hoist checked with load for correct operation and speed control tested	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Wire Ropes				
Checked wire ropes for correct installation and tension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Concrete Floor				
Concrete floor is a suitable depth for installation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

COMMISSIONING REPORT

Location of Vehicle Hoist & Vehicle Clearances			
Vehicle hoist or any part of the load is positioned no less than 600mm away from any fixed structure			
Provisions have been made for effective clearances above the vehicle when the hoist is in its fully raised position.			
Markings - Hoist Checked for Relevant Marking Including:			
Make & Model Number			
Serial number			
Rated Capacity			
Reference to maintenance			
Operation instructions			
Screw and Nut Gaps			
Hoist compliance plate showing design registration			
Functional Test			
Vehicle hoist has been tested and all safety devices, limit switches and control function interlocks have been tested for correct operation.			
Demonstration			
The installer has demonstrated the operation of the vehicle hoist to the owner or operator			
Electrical Equipment and Controls			
Lock off isolating switch installed			
Emergency stop button installed			
3. Details of Electrical Contractor			
Trading Name:	EC Licence Number:		
Address:	Telephone Number:		
4. Signature			
	Name:		
	Date:		
I, being the person responsible for completing the commissioning report have exercised reasonable skill and competency when completing the report and hereby certify that the vehicle hoist has been commissioned fit for use as per the Australian / New Zealand Standard 1418.9:1996 Vehicle Hoists.			