# 4 Post Vehicle Hoist AutoLift AL-6000S2 AutoLift AL-6000A

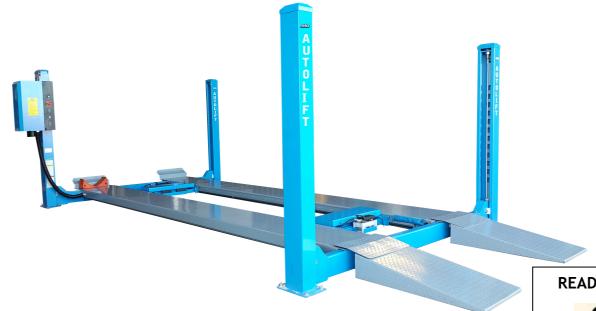


6000Kg Maximum Lifting Capacity

Design Registration Approval Number: WAH22165

Design Code: AS1418.9-1996

# INSTALLATION MANUAL & OPERATION INSTRUCTIONS



### **READ FIRST**



DO NOT use the machine until you read and understand all the dangers, warnings and cautions in this manual.



- 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



# IMPORTANT INFORMATION

THIS MANUAL MUST BE READ & UNDERSTOOD ENTIRELY BEFORE THE INSTALLATION & OPERATION OF THE HOIST.

ASSEMBLY & INSTALLATION MUST ONLY BE PERFORMED BY COMPETENT PERSONNEL.

OPERATION OF THE HOIST MUST ONLY BE PERFORMED BY TRAINED PERSONNEL.

THIS HOIST MUST ONLY BE USED FOR THE PURPOSE OF LIFTING MOTOR VEHICLES WITH A WEIGHT OF NO MORE THAN 6000KG.

THIS MANUAL MUST BE KEPT IN A SAFE PLACE FOR FUTURE REFERENCE.

SERVICING & MAINTENANCE OF THE HOIST IS THE OWNERS RESPONSIBILITY.



It is important that the following information is fully understood by the operator. Failure to read & follow these instructions may result in serious injury to personnel.

- 1. DO NOT operate the hoist if damaged. In the event of the hoist being damaged consult a competent service technician to determine the hoists safe operation.
- 2. DO NOT use the hoist to lift only one side of a vehicle. Ensure the vehicle is correctly positioned on the hoist platforms before operation.
- 3. DO NOT modify any component of the hoist.
- 4. All personnel must remain clear of the hoist during the raising & lowering of the vehicle.
- 5. All personnel must keep their feet clear of the hoist during lowering.
- 6. No objects are to be placed under the vehicle during the raising & lowering of the vehicle.
- 7. Do not excessively rock a vehicle whilst it is on the hoist.
- 8. Personnel must not ride the hoist at any time.



# The following warnings on the hoist are provided as a guide for the safe operation of the hoist.

### PLEASE OBSERVE THEM!



The hoist must be used by trained & authorised personnel only.



Only authorised personnel may be present around the hoist.



Ensure the vehicle is loaded centrally on the hoist before operation.



The vehicle handbrake must be engaged before operating the hoist.



Ensure that the safety is engaged before working under hoist.



Stop raising the hoist if the platforms become unbalanced.



If a vehicle becomes unstable on the hoist, vacate the area immediately.



Do not use the hoist for any purpose other than lifting a vehicle.



Do not use water or other liquids on or near the hoist.



The switch box must only be opened by a qualified electrician.

### **General information**

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 shop 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

AAQ Australia 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.

Any use of the machine by operators who are not familiar with the instructions and procedures contained herein shall be forbidden.

### Manual keeping

For a proper use of this manual, the following is recommended:

- Keep the manual near the hoist, in an easily accessible place.
- Keep the manual in an area protected from the damp.
- Use this manual properly without damaging it.
- Any use of the machine made by operators who are not familiar with the instructions and procedures contained herein shall be forbidden.

This manual is an integral part of the hoist: it shall be given to the new owner if and when the hoist is resold.

### **Obligation case of malfunction**



In case of machine malfunction, follow the instructions contained in the following chapter.

### Cautions for the safety of the operator

Operators must not be under the influence of sedatives, drugs or alcohol when operating the machine.



Before operating the hoist, operators must be familiar with the position and function of all controls, as well as with the machine features shown in the chapter "Operation and use"

### Warnings



Unauthorized changes and/or modifications to the machines relieve the manufacturer of any liability for possible damages to objects or people. Do not remove or make inoperative the safety devices, this would cause a violation of safety at work laws and regulations.



Any other use which differs from that provided by the manufacturer of the machine is strictly forbidden.



The use of non genuine parts may cause damage to people or objects.

### **DECLARATION OF WARRANTY AND LIMITATION OF LIABILITY**

The manufacturer has paid proper attention to the preparation of this manual. However, nothing contained herein modifies or alters, in any way, the terms and conditions of manufacturer agreement by which this hoist was acquired, nor increase, in any way, manufacturer's liability to the customer.

### TO THE READER

Every effort has been made to ensure that the information contained in this manual is correct, complete and up-to date. The manufacturer is not liable for any mistakes made when writing this manual and reserves the right to make any changes due to the development of the products, at any time without prior notice.

# **Product identification**

The identification data of the machine are shown in the label placed on the control unit.

Four Post Vehicle Hoist CE							
Model No.	AL-6000A /AL-6000S2	Power Supply	240V/50HZ/1PH, 415V/50HZ/3PH				
Lift Height(mm)	1750/1700	Power(Kw)	2.2				
Capacity(Kg) / Tonne	6000 Kg 6 Tonne	Air Pressure(Mpa)	0.6-0.8				
NW(Kg) / Tonne	1820Kg / 1.82 Tonne	GW(Kg / Tonne)	2150 Kg / 2.15 Tonne				
JACK Lifting Height(mm)	450	Jack Lifting Capacity(Kg)	3000 / 3 Tonne				



Use the above data to order spare parts or when contacting the supplier. The removal of this label is strictly forbidden.

Machines may be updated or slightly modified from an aesthetic point of view and, as a consequence, they may present different features from these shows, without prejudicing what has been described herein.

### **Warranty certificate**

The warranty is valid for a period of 12 months starting from the date of the purchase invoice.

The warranty will come immediately to an end when unauthorized modifications are made to the machine or parts of it are carried out.

The presence of defects in workmanship must be verified by the Manufacturer's personnel in charge.

### **Technical servicing**

For all servicing and maintenance operations not specified or shown in these instructions, contact your Dealer where the machine has been purchased.



ATTENTION: moving and positioning operations can be very dangerous if not performed with the utmost caution. Send bystanders away; clear the installation site; check the integrity and suitability of the tools and equipment; do not touch the suspended loads and stay at a safe distance from them; move the suspended loads at not more than 20cm height from ground; carefully follow the instructions given below; in case of doubt do not persist.

For transport and volume reasons, the hoist is supplied partially disassembled. The different parts are joint together to allow a safe transport and handling. Transport of the hoist must be performed by suitable means. Avoid any damage during handling.

### Lifting and handling

When loading/unloading or transporting the equipment to the site, be sure to use suitable loading (e.g. cranes, trucks) and hoisting means. Be sure also to hoist and transport the components securely so that they cannot drop, taking into consideration the package's size, weight and centre of gravity and it's fragile parts.



Hoist and handle only one package at a time

### Storage and stacking of packages

Packages must be stored in a covered place, out of direct sunlight and in low humidity, at a temperature between -10  $^{\circ}$ C and +40  $^{\circ}$ C.

Stacking is not recommended: the package's narrow base, as well as its considerable weight and size make it difficult and hazardous.

### Delivery and check of packages

When the hoist is delivered, check for possible damages due to transport and storage, verify that what is specified in the manufacturer's confirmation of order or consigment number. In case of damage in transit, the customer must immediately inform the carrier of the problem. Packages must be opened paying attention not to cause damage to people (Keep a safe distance when opening straps) and parts of the hoist (be careful the objects do not drop from the package when opening).

# **Product description**

The hoist is composed by four vertical posts and two platforms, which must be safely anchored to the ground. The platforms are equipped with slide block with electro-hydraulic control system. The hoist is operated by an electric motor controlling a hydraulic pump, which delivers the hydraulic fluid to the cylinders at the bottom of the posts for lifting platforms with the sole purpose of performing motor vehicle service, repairing and inspection.

Any other use not described is to be considered as improper and irrational, and thus it will be under the whole responsibility of the operator.

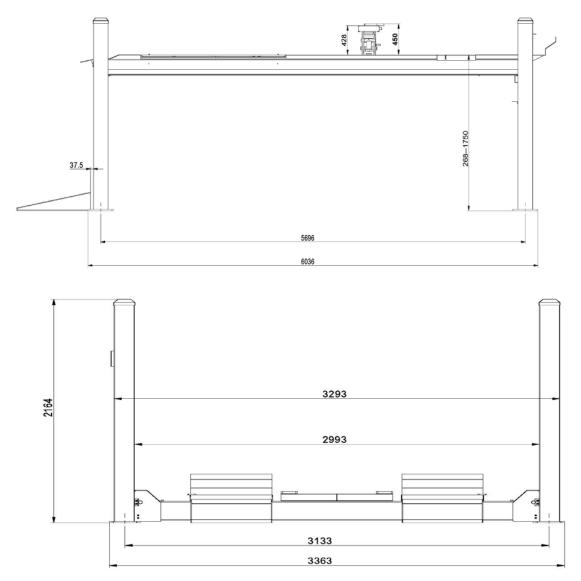
Follow the instructions given by this guide carefully to grant the machine a correct function, efficiency and a long working life. Keep this guide as well as all the supplied technical literature in a safe place close to the hoist in order to help the users to consult it whenever necessary. The technical literature is an integral part of the hoist and it must always follow the product, even in case of sale.

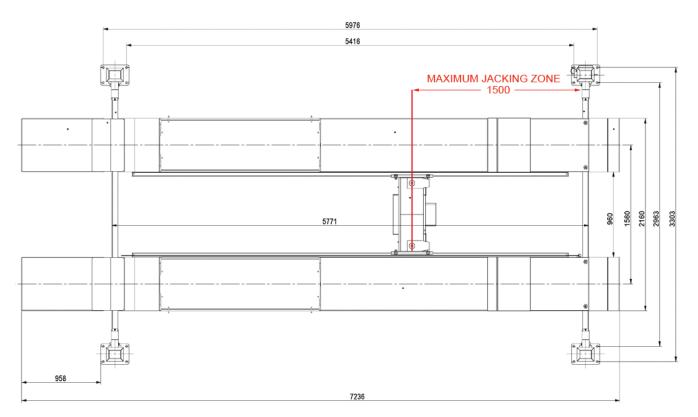
Follow the directions given by this guide with the utmost attention: the Constructor declines all responsibility for any damage due to negligence and non-observance of the herewith-contained instructions.

==The non-observance of herewith-contained instructions will automatically involve the immediate lapse of warranty.

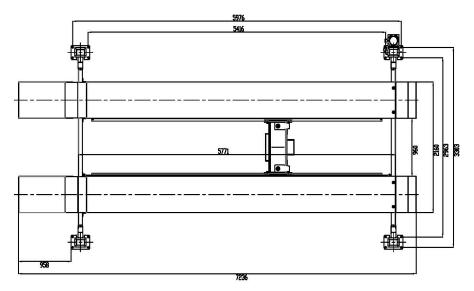
### **Dimensional diagrams**

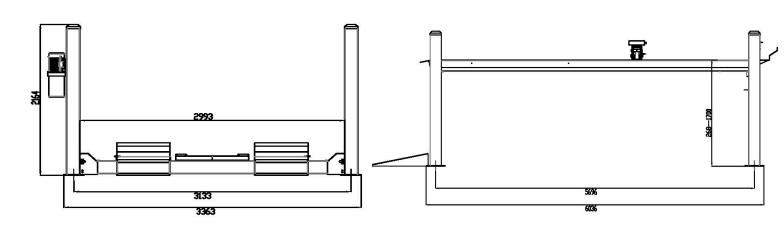
### **Dimensions / AL-6000A**





## Dimensions / AL-6000S2





## 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 hoist can be caused if installations are made by unskilled personnel.



Before carrying out any operations, remember to insert the safety piece of wood between the lower booms and the base frame.

### Checking for room suitability

The hoist has been designed to be used in covered and sheltered places free of overhead obstructions. The place of installation must not be next to washing areas, painting workbenches, solvent or varnish deposits. The installation near to rooms, where a dangerous situation of explosion can occur, is strictly forbidden. The relevant standards of the local Health and Safety at Work regulations, for instance, with respect to minimum distance to wall or other equipment, escapes and the like, must be observed.

### Lighting

Lighting must be carried out according to the effective regulations of the place of installation. All area next to the hoist must be well and uniformly light.

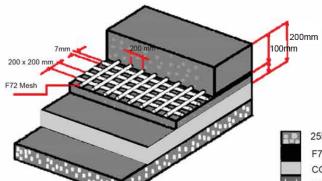
### Installation surface

The hoist must be placed on level floor and sufficiently resistant. The surface must be suitable for bearing maximum stress values, also in unfavorable working conditions. For installations on raised surface, compliance with the maximum carrying capacity of the surface is recommended.



A level floor is suggested for proper installation. Small differences in floor slope may be compensated for by proper shimming. Any major slope change will affect the level lifting performance. If a floor is of questionable slope (more than 3mm side to side or 5mm within the fill length of hoist), considering to pour the new concrete slab.

### Installation



FOUNDATION DIMENSIONS IN MM		QUALITY OF CONCRETE	MIN. PRESSURE RESISTANCE OF SURFACE	MAX. REACTION ON EACH BEARING POINT	
Length	Width	Vidth Thickness 25-30		425	0.9
8000	3000 4000 200		MPA	Kg/cm <sup>2</sup>	Kg/cm²

25MPA REINFORCED CONCRETE F72 REINFORCED MESH COMPACTED SOIL GRAVEL SHEETING

Please ensure that the hoist is installed in compliance to relevant state requirements regarding positioning in the workshop.

Installation must be performed by Competent Personnel Only.

The Hoist must be installed in a suitable environment for the safe repair of motor vehicles.

#### **Foundation**

The hoist must be bolted to level concrete that is in good condition. Do not install the hoist on or near cracks and expansion joints in the concrete, doing this could effect the safe installation of the hoist.

The concrete must:

- Have a minimum thickness of 200mm
- Be Reinforced
- Be a grade of no less than 25MPA.

### **Tools Required**

For the installation of the hoist you will require the following:

- Rotary hammer drill
- 16mm Masonry drill bit
- Chalk line
- Spirit Level
- General tool Kit

### Unpacking

The hoist is supplied in a purpose built cradle. Once unpacked, the following

will be included:

- 2 Platforms
- 2 Transverse Beams
- 1 Control Post
- 3 Non-Control Posts
- 4 Safety Ladders
- 2 Run-Ups
- 2 Wheel Stops
- Fitting Kit
- 2 Jacking Bridges (If Supplied)

### Assembly

All Assembly, Connections & Installation must be performed by Competent Personnel Only.

### Please note:

In reference to the following instructions, when mentioned, the Left & Right Hand Platforms and Front & Rear Transverse Beams are viewed from the drive on perspective.

### Proceed with the following:

- 1. Establish the location of where the hoist will be installed. At this point ensure the work area is clean and that the concrete is ready for installation as outlined earlier in **C.1 Foundation**.
- 2. Place a chalk line across the floor where the front of the hoist will be positioned.
- 3. Position the Control Post with the front of the base parallel with the chalk line.
- 4. Vertically level the post in both planes. Ensure that the utmost care is taken with the Control Post until it is safely secured to the concrete.
- 5. Drill the 4 x 16mm holes of the control post into the concrete and fix the column with 4 x 16mm x 140mm Tru-Bolts. Ensure the bolts are now tightened.
- 6. Now that the Control Post is in position, a <u>qualified electrician</u> can now connect the electrical wiring to the control box.
- 7. The platforms and transverse beams need to be assembled into position. Due to the control post already being bolted into place, it is important that the hoist is built from that point.
- 8. Using 200mm high suitable blocks of timber, locate the transverse beams into position on the timber, noting that there is a front & rear beam. The difference being that the front beam has a safety striker attached for the limit switch, this end must be assembled to the control post position of the hoist.
- 9. Position the platforms taking note to feed the wire cables through the transverse beams before bolting the platforms to the beams. To do this, remove each pulley from the transverse beam, feed the cable through and replace the pulley. Ensure that the cables are fed through correctly and that they are positioned on the correct pulley. For the correct wire cable layout **Refer Section G.1 Wire Cable Diagram.** Please note, there is a Left & Right Platform. The Left Hand Platform has an outlet on the Front Left for the hydraulic hoses; this must be positioned closest to the control post.
- 10. Bolt the front transverse beam into position.

### Assembly (Continued)

- 11. Before bolting the rear transverse beam into position fit the Jacking Bridges in the centre of the platforms. Please note that there is a Front & Rear Jacking Bridge, these are marked on the packaging. The control switches on the jacking bridges must be facing each other. Run the hydraulic hoses from the jacking bridges in the right hand platform and through the front transverse beam to the hydraulic hose outlet in the front of the Left Hand Platform.
- 12. With the jacking bridges fitted, bolt the rear transverse beam into position.
- 13. With the Platforms, Jacking Bridges & Transverse Beams now assembled, place the safety ladders in the transverse beams ensuring that the ladder is inserted between the end of the transverse beam and the cable guide roller assembly. It is important that the safety ladder is located centrally to the transverse beam. It is also important that the Chamfer on the safety ladder must be facing towards the middle of the hoist. (See Picture 1)
- 14. With the safety ladders in place, position each of the remaining noncontrol posts around the hoist. The posts should be in such a position so that the end of the transverse beam is inside the post. The nylon guides on the transverse beam should be placed against the face of the post. (See Picture 2)
- 15. Once the posts are in position, locate the bottom of the safety ladder into the hole at the bottom of the post ensuring the locating tab on the end of the safety ladder is not contacting with the concrete. Secure the safety ladder to the top of the post using the nuts supplied. (See Picture 3)
- 16. Feed the wire cables from the transverse beam to the top of each post, and secure the thread with the nuts supplied. One nut should be placed underneath the bracket in the top of the post and one should be placed on top of the bracket in the post. (See Picture 4) At this stage lock the nuts.
- 17. Connect the hydraulic hoses from the left platform to the control box on the control post. (See Picture 5) The three hoses must be connected, these include the 1 Main Hose from the hydraulic cylinder & the 2 Jacking Bridge Hoses.
- 18. Connect the wiring loom inside the control box for the actual hoist & the jacking bridges. There are 4 Solenoid Plugs on the wiring loom, each with colour coded wiring. The correct plug & solenoid combination can be identified by the colour coded wiring, and connect as follows:
  - Solenoid On Power Pack Plug With Black & White Wiring
  - Hoist Solenoid On Manifold Plug With Black & Grey Wiring
  - Jack 1 Solenoid On Manifold Plug With Black & Red Wiring
  - Jack 2 Solenoid On Manifold Plug With Blue & Black Wiring
- 19. On the Control Post, fit the travel limit switch to the safety ladder. (See Picture 6)
- 20. Fill the power pack reservoir with hydraulic oil. Hydraulic 32 grade oil should be used.

### **Assembly (Continued)**

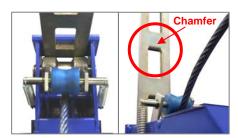
Prior to commencing the next stages it is important that the utmost care is taken with operating the hoist until all posts are safely secured to the concrete.

- 21. With the power connected to the hoist, press the up button to raise the hoist approximately 300mm. At this point, remove the blocks of timber from under the transverse beams. Now check that all hydraulic lines & wire cables are in their correct position and have not caught on each other or the hoist.
- 22. Raise the hoist to full height taking care not to over stroke the hydraulic cylinder under the left platform. Adjust the limit switch on the safety ladder inside the control post. It must make contact with the safety striker on the front transverse beam. (See Picture 7)
- 23. With the hoist at full height remove the D shackles on the cables at the end of the hydraulic cylinder under the left platform. Run the hoist up and down several times. By doing this it will allow the hoist to self level.
- 24. Once the hoist has self levelled, re-fit the D shackles on the cables and lock into place. At the same time ensure the twin lock nuts on the head of the hydraulic cylinder are locked into position.
- 25. Now lower the hoist so that it is only 100mm from the ground.
- 26. Check that all posts are in the correct position, ensuring that they are square to each other as well as horizontally level. Depending on the install situation, the posts may need to be shimmed. Before bolting it is also important to ensure that the posts are vertically level in both planes.
- 27. Once all posts are correctly positioned and level, they are ready to be bolted.
- 28. Drill the 4 x 16mm holes of the posts into the concrete and fix the column with 4 x 16mm x 140mm Tru-Bolts. Ensure the bolts are now tightened.
- 29. Once bolted down & tightened, check all levels.
- 30. Install the Wheel Stops at the front of each platform.
- 31. Install the Run-Up Ramps at the rear of each platform.
- 32. With the hoist on its locks and with no load on the wire cables, grease the 4 Transverse Beam Pulley Pins & the 4 Platform Pulley Pins. While pumping the grease into the pins, ensure you rotate the pullies by hand. This ensures even distribution of grease.
- 33. The final step in the installation process is to adjust the wire cables. As the levels have already been checked, ideally all four locks should click simultaneously when the hoist is raised. To test, raise the hoist to full height, and then lower half way down, taking note of the clicks from the safety locks. If the clicks are out of sync adjust the relevant cables to overcome. Once the cables have been adjusted and the clicks are synchronised, lock both of the nuts on each of the cable ends.

### **Assembly (Continued)**

- 34. Once the install and cable adjustment has been completed, check the synchronisation of the locks with a vehicle on the hoist. If necessary readjust the cables.
- 35. Place the post caps on top of all posts.

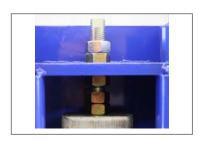
### **Assembly Pictures**



Picture 1



Picture 2



Picture 3



Picture 4



Picture 5



Picture 6



Picture 7

#### **Cam Lock Test Procedure**

- 1. Raise the hoist 1 metre from the ground.
- 2. Starting at the front of the hoist, position a <u>raised</u> floor jack under the centre of the transverse beam.
- 3. With the <u>raised</u> floor jack in position, lower the hoist onto the floor jack until the wire cables have gone slack. This will allow the Cam Locks to operate.
- 4. With the wire cables now slack, quickly lower the floor jack so that the Cam Locks engage the safety ladders. The Cam Locks must prevent the hoist from lowering once the floor jack is lowered.
- 5. Repeat this above steps for the rear of the hoist also.

#### **Electrical Connection**

VOLTAGE	AMPS
240 Volt	15 AMP
415 Volt	20 AMP

### \*\*\*PLEASE NOTE\*\*\*

All electrical work on the hoist including motor connection & mains supply connection must <u>Only</u> be performed by a qualified electrician

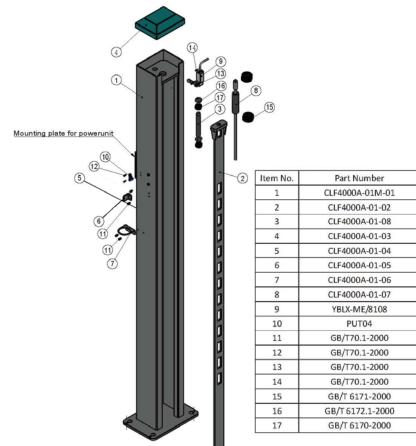
### **Important Information**



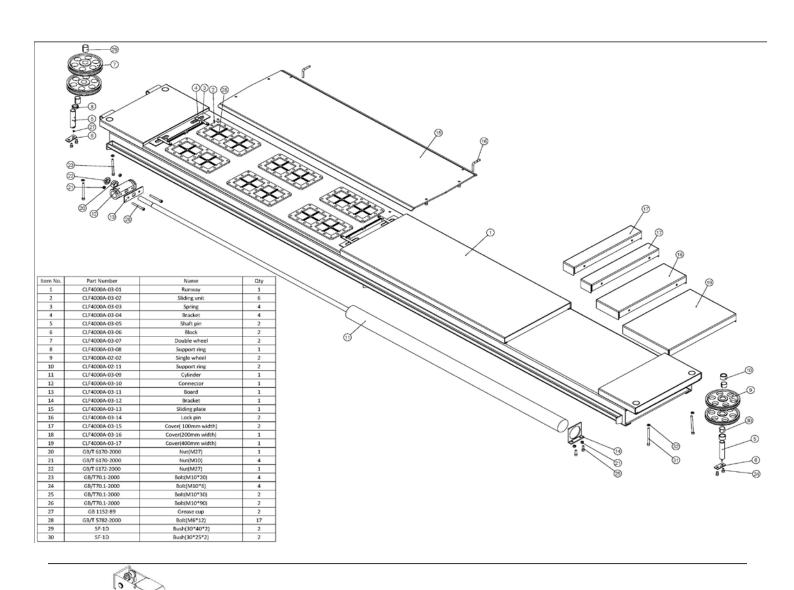
It is the installers' responsibility to ensure that all Fasteners, Nuts, Bolts & Hydraulic Lines are checked and tightened.

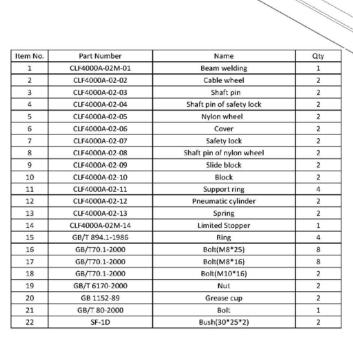
It is the installers' responsibility to train the operator(s) of this hoist and to return the Vehicle Hoist Installation & Training Report to activate warranty.

# **Parts List**

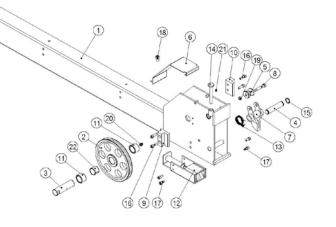


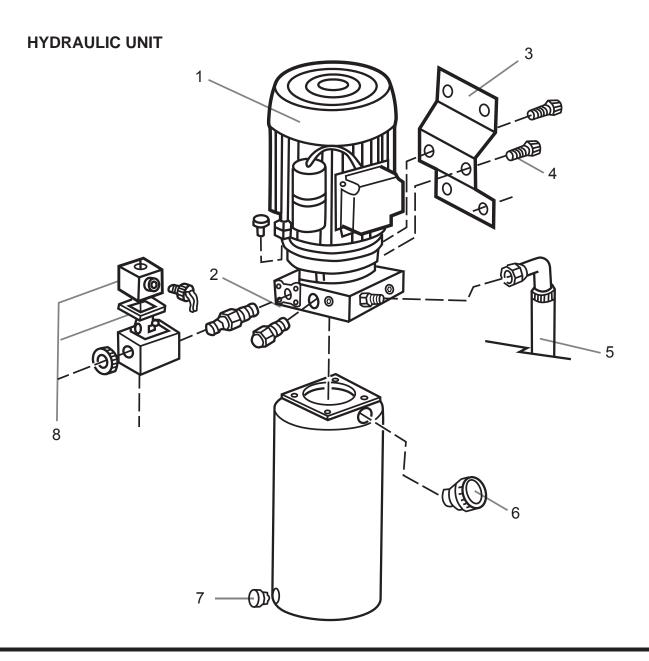
Item No.	Part Number	Name	Qty
1	CLF4000A-01M-01	Column welding	1
2 CLF4000A-01-02		Lock strip welding	1
3	CLF4000A-01-08	Screw	1
4	CLF4000A-01-03	Column Top Cover	1
5	CLF4000A-01-04	Control Box	1
6	CLF4000A-01-05	Bracket	1
7	CLF4000A-01-06	Bracket for black tube	1
8	CLF4000A-01-07	Steel cable assembling	2
9	YBLX-ME/8108	Adjust switch	1
10	PUT04	Connector	1
11	GB/T70.1-2000	Bolt(M6*10)	6
12	GB/T70.1-2000	Bolt(M3*15)	2
13	GB/T70.1-2000	Bolt(M4*30)	2
14	GB/T70.1-2000	Bolt(M4*15)	2
15	GB/T 6171-2000	Nut(M33*2)	2
16	GB/T 6172.1-2000	Nut(M20)	3
17	GB/T 6170-2000	Nut(M20)	2



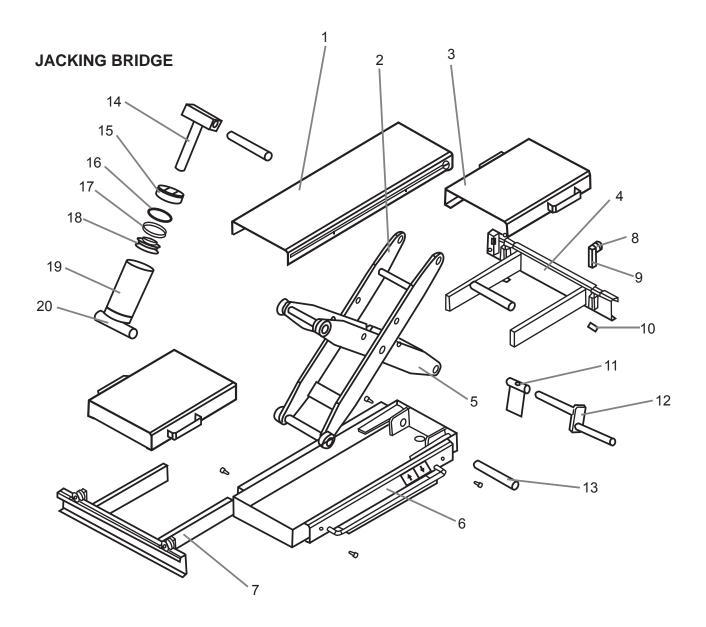


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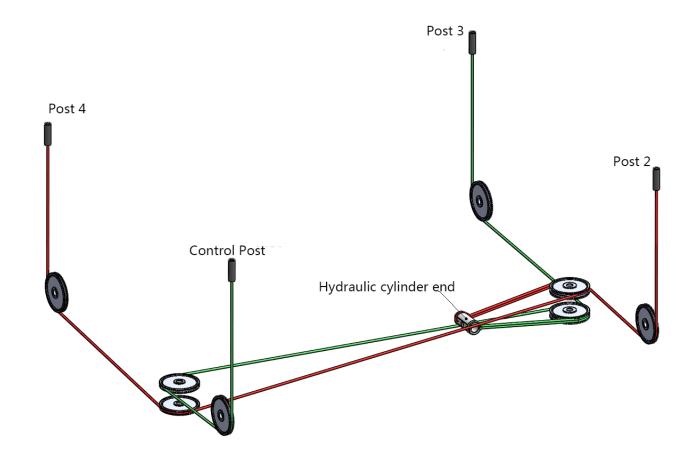
- 1. MOTOR
- 2. RELIEF VALVE
- 3. SUPPORT
- 4. SUPPORT BOLT
- 5. HYDRAULIC HOSE
- 6. BREATHER CAP
- 7. DRAIN CAP
- 8. SOLENOID VALVE SET



- 1. MAIN BOARD
- 2. LINK 1
- 3. SLIDE TABLE
- 4. RAIL GUIDE
- 5. LINK 2
- 6. BASE
- 7. RAIL
- 10. ONE TOUCH HOSE COUPLER
- 11. STOPPER

- 12. STOPPER PIN
- 13. MIDDLE LINK PIN
- 14. ROD
- 15. ROD COVER
- 16. HEAD SEAL KIT
- 17. PISTON
- 18. PISTON SEAL KIT
- 19. TUBE
- 20. TAIL COVER

# Wire Cable Diagram



# **Technical specifications**

Model type	AL-6000A/6000S2
Туре	FOUR POST HOIST WITH
	ALIGNMENT/WITHOUT ALIGNMENT
Capacity	6000kgs
Lifting time	<55s
Descent time	>25s
Max. lifting height	1750mm/1700mm
Min. lifting height	268mm
Overall width	3303mm
Overall height	2164mm
Drive through	2993mm
Power supply	240V/50/Hz/1PH, 415V/50HZ/3PH
Motor	2.2 KW
Noise	≤85dB
Installation place	Indoors
Net Weight	2100kgs/1770kgs
Gross Weight	2150kgs/1820kgs
Safety catch type	Pneumatic
Jack lifting capacity	3000kg
Jack lifting height	450mm

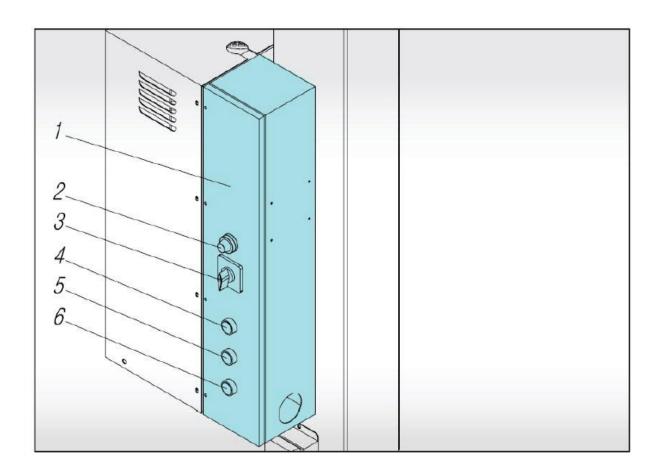
# **Operation and use**



ATTENTION: Read the instructions "GENERAL SAFETY RULES" with the utmost attention.



ATTENTION: Before operating on the control board, make sure that there are no bystanders and around the hoist.

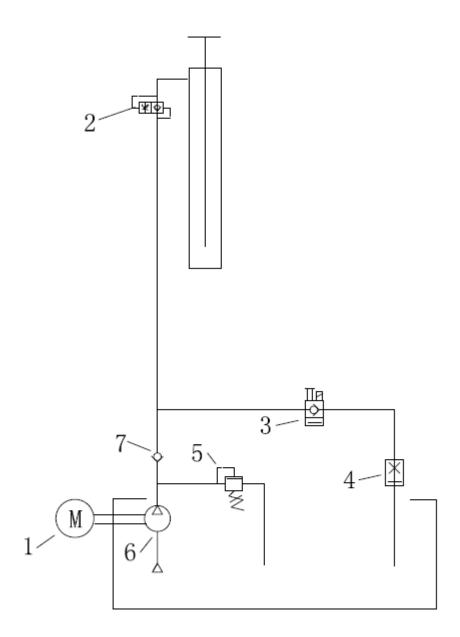


Part No.	Part Name		
1	Control Panel		
2	Power Lamp		
3	Power Switch		
4	Up Button		
5	Lock Button		
6	Down Button		

### **Switch Box Operation**

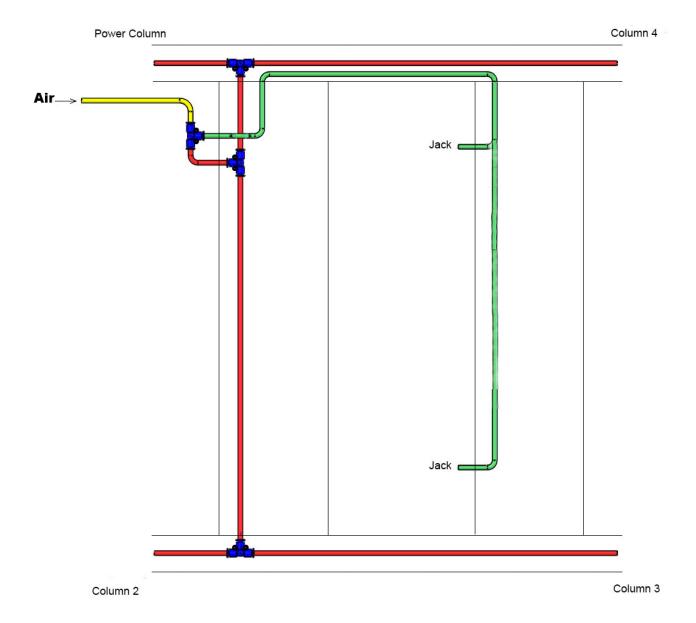
- 1. Use the up button to raise the hoist.
- 2. Use the lock button to lower the hoist to the next safety lock.
- 3. Use the down button to lower the hoist. During this operation the hoist will automatically raise to clear the safety locks before lowering

# Hydraulic system diagram

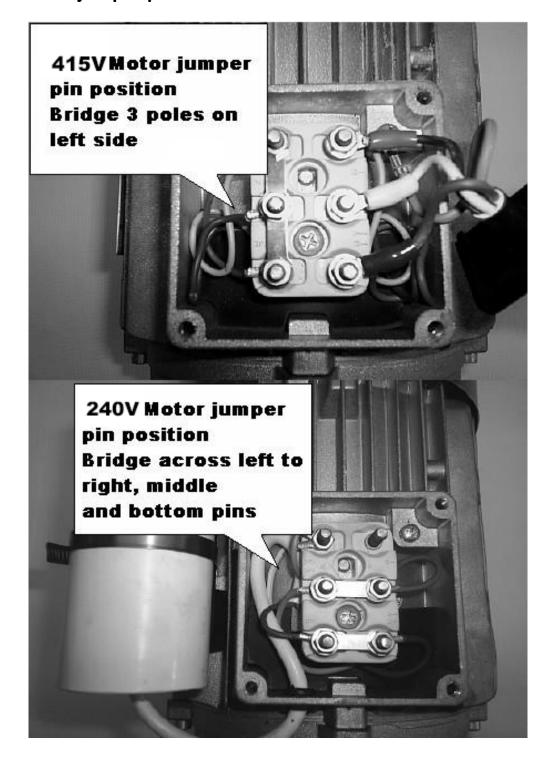


- 1. Motor
- 2. Parachute Valve
- 3. Unloading valve
- 4. Descend speed regulating valve
- 5. Relief valve
- 6. Gear pump
- 7. Check valve

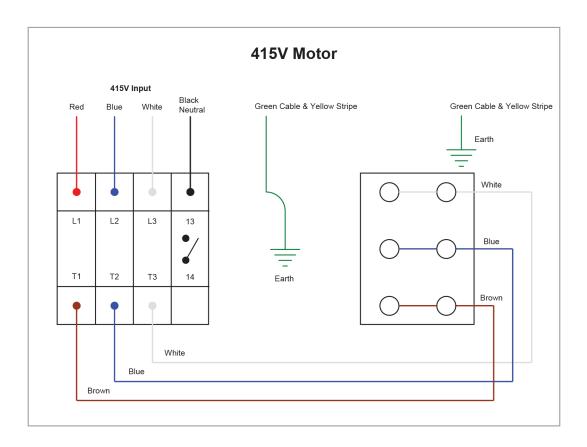
# Air Line Diagram

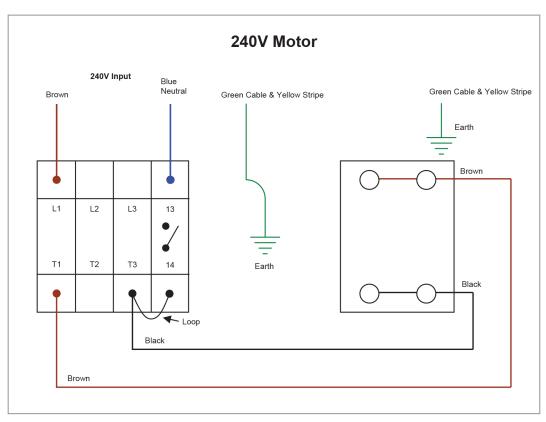


# **Electric motor jumper pins**



### **Wiring Diagram**





#### **OPERATING INSTRUCTIONS**

#### Operation Of Air/ Hydraulic Jacking Bridges

In some situations, a vehicle may need to be lifted from the platforms of the hoist. The Air / Hydraulic Jacking Bridges allow the technician to remove the vehicle from the platform to work on Tyres & Wheels, Brakes & Suspension. (See Picture 1)

# Each Jacking Bridge Has A Maximum S.W.L. (Safe Working Load) of 3000KG and this must not be exceeded.

Max.capacity: 3000 Kg Max.liftging height: 450 mm

Distance between pick-up points: 860 -1080 mm

Working air pressure: 6-8bar NET weight: 130kg

### Positioning The Jacking Bridges

- 1. Slide the jacking bridge into the lifting position under the vehicle, and slide out the lifting extensions so that they will engage the vehicles lifting points, cross member or chassis rails.
- 2. Place the rubber lifting blocks on top the jack in such a way that they will engage the lifting points, cross member or chassis rails when raised.

### Raising & Locking The Jacking Bridges

- 1. Press on the Air Pump until the jacking bridge raises the vehicle to the desired height. (See Picture 2)
- 2. Ensure the safety lock is activated manually by using the handle attached to the safety tongue (See Picture 3).

### Releasing The Safety Lock & Lowering The Jacking Bridges

- 1. To lower the jacking bridge, raise the jack slightly and manually disengage the safety lock. Return the lift extensions to the closed position and remove the rubber blocks.
- 2. Once the above has been performed Press on the Air Pump until the jacking bridge has lowered to its lowest position. (See Picture 4)



Picture 1



Picture 3



Picture 2



Picture 4

### **Maintenance**

The several maintenance operations to be carried out are described below. A low operation cost and a long life of the machine depends from constant observation of the operations.



**CAUTION:** The listed intervention times are given for information and they refer to normal operating conditions. They can change according to the kind of service, environment (more or less dusty), frequency of use, etc. In case of heavier conditions, servicing must be increased. When filling up or changing the hydraulic fluid, use the same kind of oil used previously.

### **Periodical maintenance operations**

#### 9.1.1 EVERY WEEK

- Check the cleanness of the mobile parts
- > Check the safety devices as previously described.
- Check hydraulic fluid levels as follows
- If maximum lift height is not achieved, check limit switch position, if ok check oil level, add oil.
- Fill up through the filler cap using 32-45 viscosity hydraulic oil.
- Check tension of foundation bolts (dyne bolts)

#### 9.1.2 EVERY MONTH

- Check tightening of screw.
- > Check the hydraulic system seal and tighten the loose unions, if necessary.
- > Check the hydraulic hoses condition. In case they are worn, replace them by new hoses of the same kind.
- Check the greasing and wear condition of pins, rollers, bushes of trolleys structure as well as arms and relevant extensions. If necessary, replace the damaged parts by original spare parts.

### 9.1.3 EVERY 2000 HOURS RUNNING

- Empty the tank and check the condition of the hydraulic fluid. Clean the oil filter. If the operations are carried out with care, there will be an advantage for the user who will find the equipment in perfect condition each time he restarts work.
- Carry out cable adjustment, to level platforms by means of adjusting the nuts on the cable ends see figure below.

# **Trouble shooting**

A list of possible troubles and solutions is given below

TROUBLE	POSSIBLE CAUSE	SOLUTION
	The main switch is not turned	Turn the switch on
	on	
	There is no power	Check Power on to the restore if
The hoist does not work		necessary
	The electrical wires are	Replace
	disconnected	
	Fuses are blown	Replace
	The motor direction of rotation	Interchange the two phases on
	is not correct	the main switch.
	The oil in the hydraulic unit is not sufficient.	Add some hydraulic oil
	The UP button is faulty	Check UP button and
	The Or button is laulty	connection for proper
The hoist does not raise		operation. Replace, if needed.
	The maximum height limit	Check the switch and relevant
	switch is faulty.	connection for proper
	·	operation. Replace, if needed.
	The lowering solenoid valve	Check and clean, if dirty, or
	does not close	replace, if faulty.
	The suction pump filter is dirty	Check and clean if needed.
The lifting capacity is not	The pump is faulty	Check the pump and replace, if
sufficient		needed
	Oil leakages in hydraulic circuit	Check the circuit for any leakage
	The lowering solenoid valve	Verify if it is powered and check
	does not work properly	magneto for damage (replace if
The hoist does not lower	Safaty salanaid valva is iammed	disconnected or blown)  Verify if it is powered and check
when the DOWN button is	Safety solenoid valve is jammed	magneto for damage (replace if
pressed		disconnected or blown)
	The DOWN button is faulty	Replace the DOWN button
	The lowering and solenoid	Verify that solenoid valve sliders
	valves stay opened.	are not blocked
Carriages do not stop in	Leakage in the hydraulic	Check connections for proper
standing position	pipelines.	tightening and tubes for
		damage(replace if damaged)
	Hydraulic cylinders are faulty	Check and replace if needed.
The hoist does not lower smooth	Presence of air in the hydraulic	Bleed the hydraulic system.
	rsystem	
Lifting is not synchronized	Check cable adjustments for	Adjust the cable nuts at the top
	correct engagement on the locks.	
The hoist does not stop at	The safety height limit switch	Check the limit switch and
safety height	does not work	replace if needed.
The motor does not stop when the hoist reaches it maximum	The maximum height limit switch does not work	Check the limit switch and replace if needed.
height	Switch does not work	Teplace il lieeded.
пеівпі		

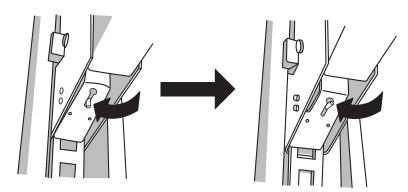
# **Emergency Decending**

### **CIRCUMSTANCES**

ELECTRICAL FAILURE OR ANY HYDRAULIC LINE FAILURE

#### PREPARATION BEFORE PROCEEDING

- 1) CLEAR OBSTACLES UNDERNEATH OF HOIST.
- 2) TURN THE POWER SWITCH OFF.
- 3) NEVER ENTER UNDER THE HOIST DURING THE PROCEDURE.
- 4) MAKE SURE SAFETY DEVICE ON 4 POSTS IS DISABLED.



5) IF THE SAFETY DEVICE IS ON LOCKED POSITION, USE JACK TO LIFT THE PLATFORM AND DISABLE THE DEVICE.

\*\* NEVER ALLOW ANY PERSON ENTERING UNDER HOIST WHILE PERFORMING THIS PROCEDURE

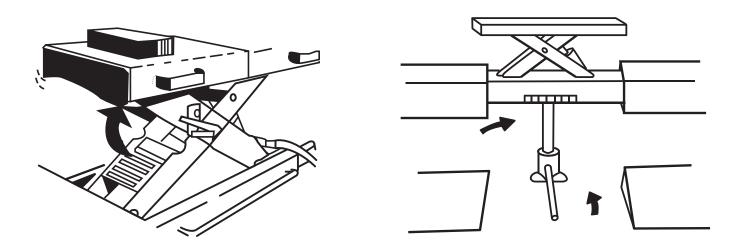
#### **PROCEDURE**

IF YOU HAVE ANY DOUBT FOR PERFORMING THIS OPERATION, CONTACT TRAINED PERSONNEL.

### **AFTER COMPLETION**

REPOSITION ALL THE BOLTS AND NUTS INCLUDING EMERGENCY COCK VALVE TO ITS ORIGINAL POSITION AND COVER THE PANEL

- \*\* FOLLOW SAME PROCEDURE FOR JACK BRIDGES AS ABOVE .
- 1) MAKE SURE THE SAFETY LOCK ON JACK BRIDGE IS CANCELLED



<sup>\*</sup> If it is engaged, use garage jack and lever and push top part of the jack bridge and release safety lock.

<sup>2)</sup> INSTEAD OF LOOSENING 2 LOOSEN EITHER 3 OR 4 JACK BRIDGE RELEASE VALVE IN STEP OF ABOVE PROCEDURE

# **6TONNE**

# **4 Post Hoist**

### **OPERATING INSTRUCTIONS**

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

- 1. Position the vehicle between the columns, turn off the engine and apply the park brake.
- 2. Place the manual wheel chocks in front and rear of at least one wheel.
- 3. Make sure that all personnel are clear and there are no obstructions around the hoist.

### TO RAISE THE HOIST

- 1. Press the "UP" button on the control box until the desired working height is obtained checking for any obstructions.
- 2. Once the hoist has reached the desired working height lower the hoist onto the safety locks by means of pressing the park button on the control box.

Note: Check for correct engagement of each lock.

#### TO LOWER THE HOIST

- 1. Raise the hoist 100mm or until the locks are clear.
- 2. Push on the "DOWN" button

Note: The hoist will automatically raise approximately 50mm.

- 3. Check for any obstructions under the hoist when lowering and all personnel are clear of the area.
- 4. When the hoist has been lowered to the ground, remove the wheel chocks.
- 5. Switch off power to the hoist.

MODEL:	SERIAL NO.:	APPROVALS:
AutoLift AL-6000S2		WAH22165

Design Code: AS1418.9 -1996

# SAFETY OPERATING PROCEDURES Vehicle Hoist

# DO NOT use this machine unless the operator has been thoroughly instructed in its safe use and operation.



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



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



Rings and jewellery must not be worn.



Long and loose hair must be contained.



Close fitting/protective clothing must be worn.



Do not stand on hoist whilst hoist is in operation.

A vehicle hoist must not be operated unless it has a current certificate of inspection.

### PRE-OPERATIONAL SAFETY CHECKS

- 1. Ensure that vehicle hoist has operating and maintenance instructions permanently located and clearly visible.
- 2. The equipment must be used in accordance with manufacturer's instructions.
- 3. Check the capacity of the hoist compared to the weight of the vehicle. If vehicle is too heavy, do not proceed.
- 4. Ensure the area is clean and clear of grease, oil, and objects that may be a slip/trip hazard.
- 5. Familiarise yourself with and check all machine operations and controls.
- 6. Check all safety devices are in good condition.
- 7. Ensure support arms are capable of being locked in position.
- 8. Ensure rubber pads are in good condition on all load points.
- 9. Faulty equipment must not be used. Immediately report suspect equipment.

### **OPERATIONAL SAFETY CHECKS**

- 1. Centre vehicle on hoist, ensuring that the weight is evenly distributed to the front and rear.
- 2. Identify the correct jacking points.
- 3. Only one person shall operate the hoist at a time.
- 4. Ensure hoist area is clear of people and equipment before operating.
- 5. Never leave the hoist running unattended.
- 6. Check vehicle stability by looking at the jacking points.
- 7. Engage and check for the correct engagement of the locks.
- 8. At the completion of work lower the vehicle hoist and ensure all equipment is left in a safe position.

### **HOUSEKEEPING**

- 1. Switch off equipment.
- 2. Leave the equipment and work area in a safe, clean and tidy state.

### POTENTIAL HAZARDS

■ Falling objects ■ Trapping hazards ■ Crushing hazards ■ Entanglement hazards



#### 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. CABLE ADJUSTMENTS ARE NOT COVERED UNDER WARRANTY AND ARE A NECESSARY MAINTENANCE ITEM THAT MUST BE CARRIED OUT BY THE OWNER / END USER.

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

# **COMMISSIONING REPORT**

1.	Details of Customer				
	Customer Name:				
	Installation Address:				
2.	Hoist Details	2 McDonald Crescent			
	Model No:				
	Hoist Type:				Bassendean WA 6054
	Installation Date:			D.	
		P: 08 9279 1663   E: sales@aaq.net.au			08 3273 1003   E. Sales@aaq.net.au
3.	Commissioning Report	Yes	No	N/A	Comments
	Safety Devices		-		
	Safety devices incorporated into the design of the vehicle to AS/NZS 1418.9				
	Welds				
	Visual check all welds completed and comply to requirement of AS/NZS 1554				
	Hydraulic Equipment and Controls	<u> </u>		-	
	Visual check carried out for leaks				
	Pneumatic Equipment and Controls				
	Visual check carried out for leaks				
	Safety Locks				
	Safety locks tested for correct operation				
	Support Pads				
	Checked for good working order				
	Wheel Stops				
	Supplied with the hoist and in good working order				
	Hoist Motion Limits				
	Checked for correct operation				
	Load Test and Speed Check				
	Hoist checked with load for correct operation and speed control tested				
	Wire Ropes				
	Checked wire ropes for correct installation and tension				
	Concrete Floor				
	Concrete floor is a suitable depth for installation				

# **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		T	T	
	Lock off isolating switch installed				
	Emergency stop button installed				
3.	Details of Electrical Contractor				
	Trading Name:	EC Lice	nce Nur	nber:	
	Address:	Teleph	one Nui	nber:	
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 herby certify that the vehicle				
	hoist has been commissioned fit for use as per the Australian / New Zealand Standard 1418.9:1996				
	Vehicle Hoists.				