TEXAS EQUIPMENT

4 Post Alignment Hydraulic Lift

MANUAL

Model 46614A

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CONTENTS

PACKING, TRANSPORT AND STORAGE

ALL PACKING, LIFTING, HANDLING, TRANSPORT AND UNPACKING OPERATIONS ARE TO BE PERFORMED EXCLUSIVELY BY EXPERT PERSONNEL

PACKING:

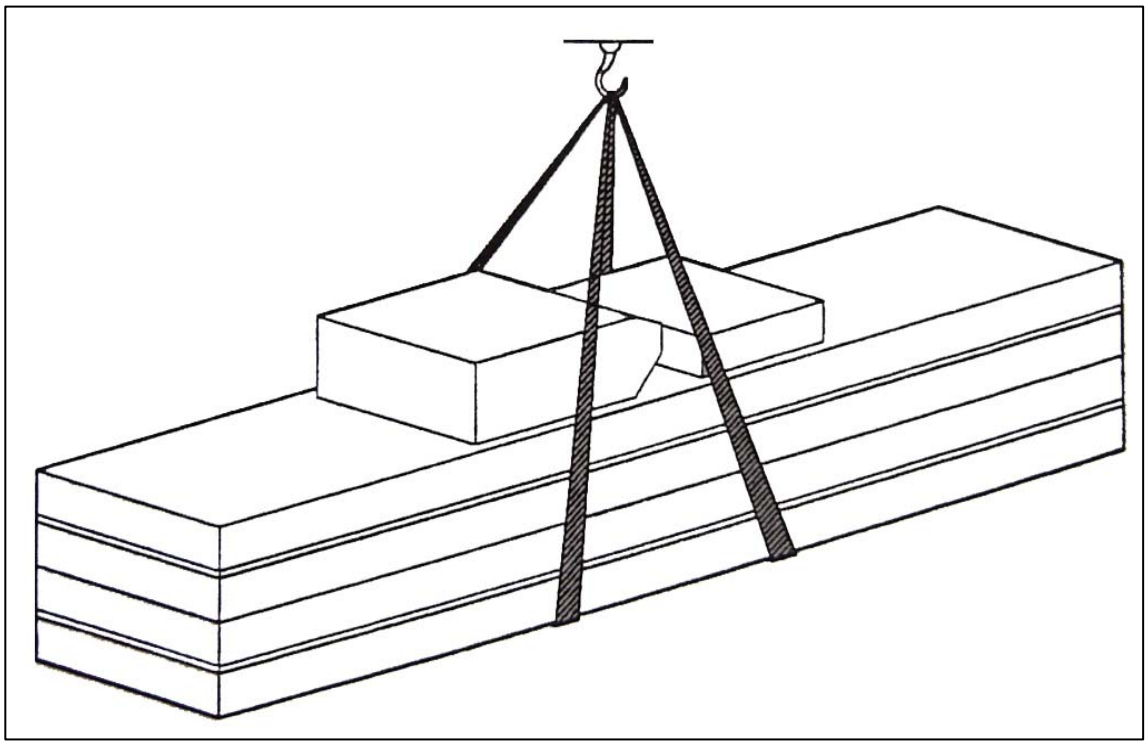
Standard equipment: hydraulic pump and accessory, main and sub beam, front and back crossbeam, front post, back post, left and right approaching ramp, rolling jack, total is 7 pieces.

TRANSPORT:

Packing can be lifted or moved by lift trucks, cranes or bridge cranes.
In case of slinging, a second person m ust always take care of the load, in order to avoid dangerous oscillations.
At the arrival of the goods, check for possible damage due to trans port operations. Also verify that all items specified in th e delivery notes are in cluded. Also verify that all item s specified in the delivery notes are included. In cas e of m issing parts, possible defect s or dam age due to transport, the person in charge or the carrier must be immediately informed.

MACHINES ARE ALL HEAVEY GOODS! DON'T MOVE OR LOAD THEM B Y MANUAL.SAFETY IS THE MOST IMPORTANT.

Furthermore, during loading and unloading operat ion goods m ust be handling as shown in the picture.



STORAGE:

Machines must be put in the house, if put them out, should do the anti-water things.
Put them in the temperature between:-25~55 centigrade

INTRODUCTION

This manual has been prepared for workshop personne l expert in the use of the lift (operator) and technicians responsible for rou tine maintenance (maintenance fitter); read the m anual before carrying out any operation with the lift and/or the packing.
This manual contains important information regarding:

- The personal safety of operators and maintenance workers.
- The safety of installation
- The safety of operating lift.

CONSERVING THE MANUAL
This manual is an integral part of the lift, which should always accompany with.
The manual must be kept in the vicinity of the lift, in an easily accessible place for the operator and maintenance staff must be able to locate and consult the manual quickly and at any time.

ATTENTIVE READING OF CHAPTER 3, WHIC H CONTAINS IMPORTANT INFORMATION AND SAFETY WARNING
THE LIFT ARE DESIGNED AND MADE AS THE STANDARD OF THE UROPEANS

The lifting, transport, unpacking, as sembly, installation, starting up, initial adjustm ent and testing, extraordinary maintenance, repair, overhauls, transport and dism antling of the lift must be performed by specialized personnel from the licensed dealer or an service center authorized by the manufacturer.
The manufacturer declines all responsibility for injury to pe rsons or damage to vehicles or objects when any of the above m entioned operations ha s been perfor med by unauthorized personnel or when the rack has been subject to improper use.
This manual indicates only the ope rative and sa fety aspects that m ay prove useful to the operator and maintenance worker, I better un derstanding the structure and ope ration of the lift and for best use of the same.
In order to understand the term inology used in this manual, the maintenance and repair activities, the ability to interpr et correctly the drawings an d descriptions contained in the m anual and be the country in which the machine has been installed.
The same applies to the m aintenance fitter, who must also posses s specific and specialized knowledge (mechanical, engineering) needed to perform the operations described in the m anual in complete safety.

OPERATOR: person authorized to use the lift
MAINTENANCE FITTER: person authorized for routine maintenance of the lift.

MANUFACTURER HAS THE RIGHT TO MAKE LITTLE CHANGE FOR T HE MANUAL IN ORDER TO IMPROVE THE TECHNOLEGE.

DESCRIPTION OF THE MACHINE

Application:

This model 46614A four-post is suitable for use in wh eel alignment, vehicle tests, maintenance and care for various types of small automobiles.

Features:

-The platforms of the lift can be adjusted to keep leveling.
-The position of the front wheel tu rning table (optional part) is ad justable. So th at the rear slide plates can be fit for more cars.
-Device performs stable and liable work with anti-breaking rope safety insurance.
-With second lifting trolley guide rail and can optional add.

Equipment:

-machine frame
-lift frame
-hydraulic system

Basic frame:

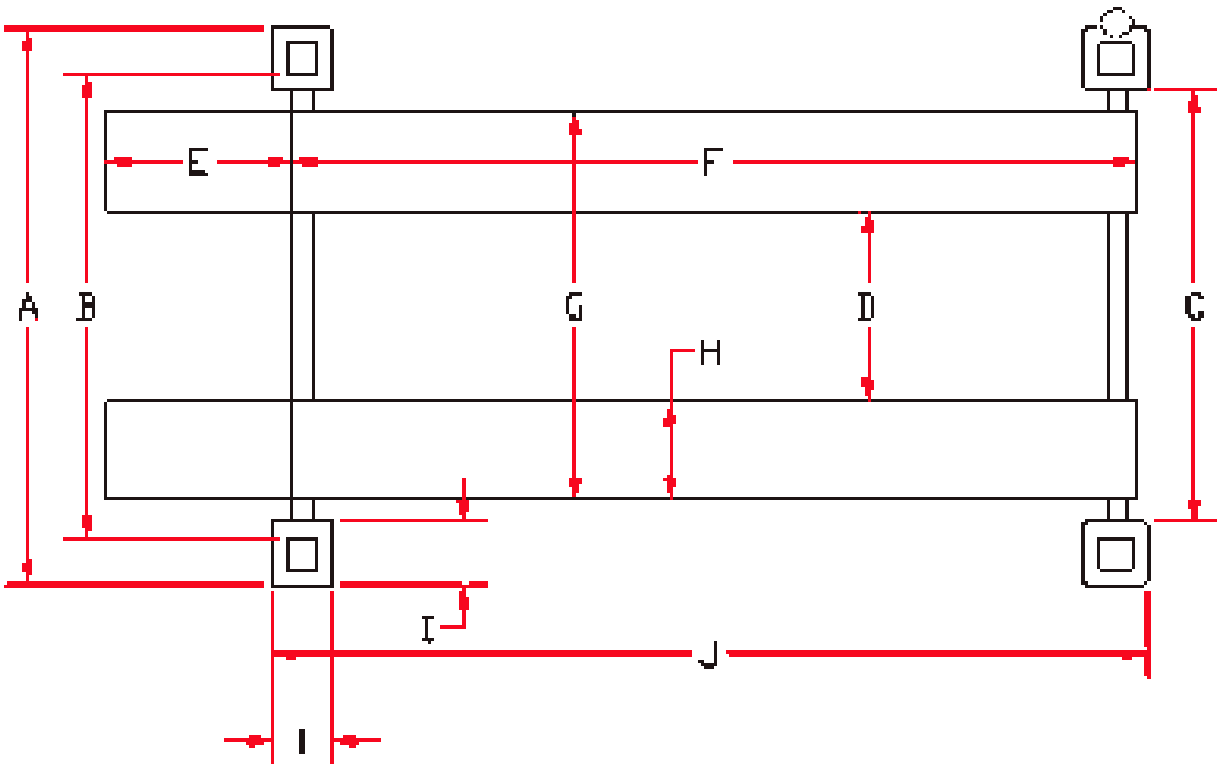
Made of concrete
Frame:
Post, main and sub beam, front and back crossbeam.
Hydraulic Pump:
Make up for hydraulic pump, pump motor, oil tank.

The four-post lift is des igned and b uilt to lift vehicle to ho ld them in th e elevated position in a closed workshop. All other use is unauthorized. In particular, the lift is not suitable for: washing and spray work, creating raised platform s or lifting personnel, use as a makeshift press for crushing purposes, use as good lift. And not to lift the vehicle whose weight exceeds the maximum weight.

Specification

MODEL	46614A
Drive	Hydraulic motor pump
Max lift weight	14000lbs
Lift height	1750mm
Platform lowest height	250mm
Platform length	5190mm
Platform width	508mm
Lifting time	≤60s
Lowing time	≤30s
Overall width	3473mm
Overall length	5280mm
Overall weight	1710kg（without pump and rolling jack）
Power supply	220V/50HZ/Single Phase or 380V/50HZ/Three Phase
Hydraulic oil	18L 46# high quality anti-wear hydraulic oil
Compressed air pressure	115Psi (8.0 Bar)

Overall Width	**A**	**3473mm**
Inside Columns	**B**	**3003mm**
Inside Soleplate of columns	**C**	**2893mm**
Between Runways	**D**	**920mm/1120mm**
Length of Ramp	**E**	**1080mm**
Length of Runway	**F**	**5190mm**
Width of Outside runway	**G**	**1936mm/2136mm**
Width of runway	**H**	**508mm**
Size of Soleplate	**I**	**300*300mm**
Overall Length	**J**	**5280mm**
Lifting Height	**K**	**1750mm**
Overall Height	**L**	**2275mm**
Length of Columns	**M**	**4790mm**
Lifting Capacity		**14000lbs**
Net（Gross） Weight		**1710(1760)kg**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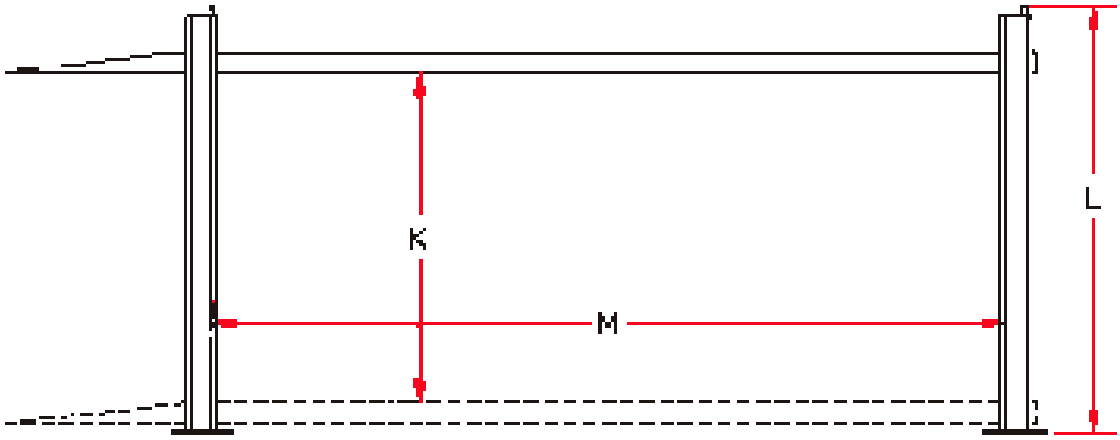
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INSTALLATION SCHEME FOR LIFT

NOTE: To install the lift it is necessary to execu te suitable foundations with the following characteristics:

-concrete the drying days are more than 28 days.

-strength ≥ 3000Psi （**2.1kg/mm^2**）

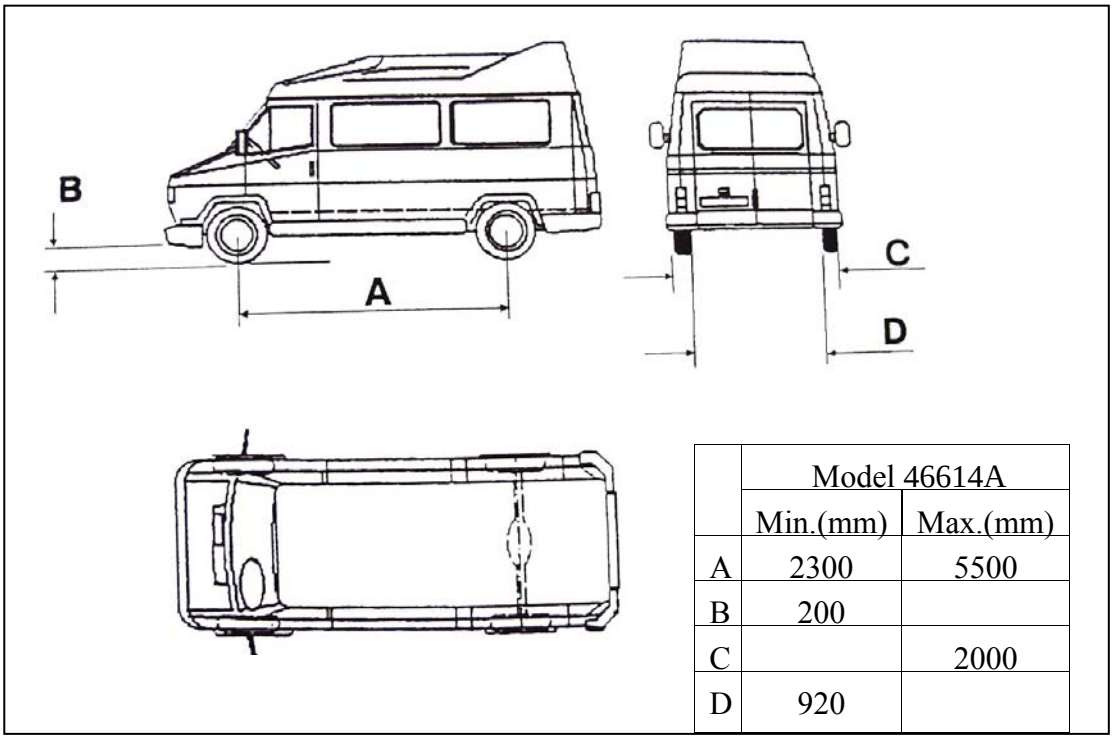
-thickness of concrete≥150mm, the leveling of whole length≤10mm

NOTE: THE THICKNESS AND LEVELLING OF THE BASE CONCRETE ARE ESSENTIAL AND THE LEVELLING ADJUSTMENT ABILITY OF THE MACHINE ITSELF CANNOT BE RELIED UPON TO EXCESSIVELY.

TYPES OF VECHLES SUITABLE FOR BEING LIFTED AND OVERALL DIMENSIONS

Lift are suitable for virtually all vehicles with total weight of no m ore than 14000lbs and with dimensions not exceeding the below data.

The following diagrams illustrate criteria used to define the operating limits of the lift.



	Model 46614A	
	Min.(mm)	Max.(mm)
A	2300	5500
B	200	
C		2000
D	920	

CAUTION: THE LOWER PARTS OF THE VECHILE UNDERBODY COULD INTERFERE WITH STRUCTURAL PARTS OF THE LIFT, TAKE PARTICULAR PARTS OF THE SPORTS-CAR.

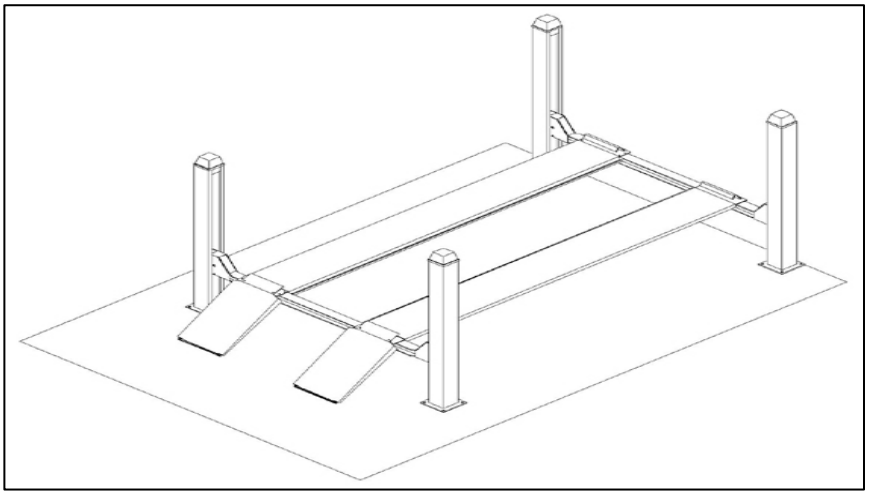
The lift will also hand le customized or non-standard vehicles, provided they are within the maximum specified carrying capacity.

Also the personnel safety zone must be defined in relation to vehicle with unusual dimensions.

SAFETY

Read this chapter carefully for there is important information of the safety for the operator or others in case of improper use of the lift is included.
In the following text there are clear explanations regarding certain situations of risk or danger that may arise during the operation or maintenance of the lift,
Lifts are designed and built to lift vehicles and hold them in the elevated position in an enclosed workshop. All other uses of the lifts are unauthorized. In particular, the lifts are not suitable for:
-washing and cleaning work;
-creating raised platforms for personnel or lifting personnel;
-use as a press for crushing purposes;
-use as elevator;
-use as a lift jack for lifting vehicle bodies or changing wheels.
The manufacturer is not liable for any injury to persons or damages to vehicles and other property caused by the incorrect and unauthorized use of the lifts.
During lifting and lowering movements the operator must remain in the control station.
The presence of persons inside the danger zone indicated is strictly prohibited.
During operations persons are admitted to the area beneath the vehicle only when the vehicle is already in the elevated position, when the platforms are stationary, and when the mechanical safety devices are firmly engaged.

DO NOT USE THE LIFT WITHOUT PROTECTION DEVICES OR WITH THE PROTECTION DEVICES INHIBITED.
FAILURE TO COMPLY WITH THIS REGULATION CAN CAUSE SERIOUS INJURY TO PERSONS, AND IRREPEARABLE DAMAGE TO THE LIFT AND THE VEHICLE BEIN LIFED.

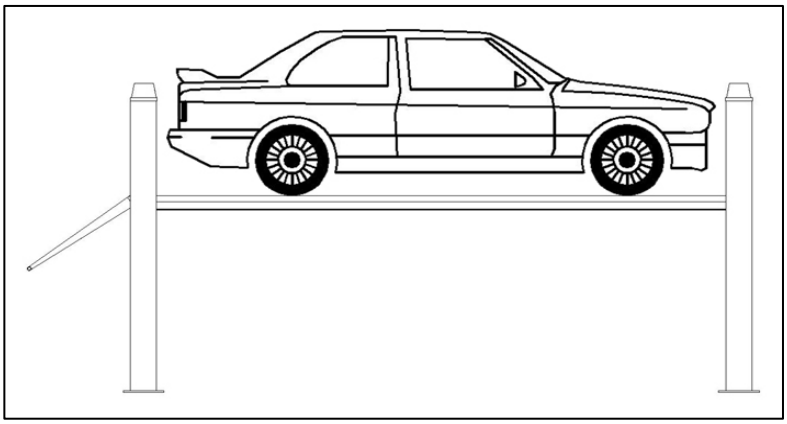


GENERAL PRECAUTIONS

The operator and the maintenance fitter are required to observe the prescriptions of safety regulation in force in the country of installation of the lift.
Furthermore, the operator and maintenance fitter must:
-always work in the stations specified and illustrated in this manual;
-never remove or deactivate the guards and mechanical, electrical, or other types of safety devices;
-read the safety notices placed on the machine and the safety information in this manual.
In the manual all safety notices are shown as follows:
Indicate imminent danger that can result in serious injury to people or poverty.
Indicate situations and/or types of maneuvers that are unsafe and can cause minor injury to persons and /or death.
Indicate situations and/or types of maneuvers that are unsafe and can cause minor injury to persons and/or damage the lift, the vehicle or other property.

RISK OF ELECTRIC SHOCK: a specific safety notice placed on the lift RISK AND PROTECTION DEVICES

We shall now examine the risks that operators or maintenance fitters may be exposed to when the vehicle is standing on the platforms in the raised position, together with the various safety and protection devices adopted by the manufacturer to reduce all such hazards to the minimum:
For optimal personal safety and safety of vehicles, observe the following regulations:
-do not enter the areas that are unsafe when vehicles are being lifted.
-switch off the engine of the vehicle; engage a gear and the hand brake,
-make sure the vehicle is positioned correctly on the platform.
-be sure to lift only approved vehicles, never exceed the specified carrying capacity, maximum height, and projection (vehicle length and width);
-make sure that there is no person on the platforms during up and down movements.



RISKS FOR PERSONNEL

This heading illustrates potential risks for the operator, maintenance fitter, or any other person present in the area around the lift, result from incorrect use of the lift.

RISK OF CRUSHING

Possible if the operator controlling the lift is not I the specified position at the control panel.

When the platforms (and vehicle) are lowering the operator must never be partly or completely underneath the movable structure. Always remain in the control zone.

RISK OF IMPACT

Caused by the parts of the lift or the vehicle that is positioned at head height.

When, due to operational reasons, the lift is stopped at relatively low elevations personnel must be careful to avoid impact with parts of the machine not marked with special color.

RISK OF OPERATOR FALLING

No person is permitted in the platform or in the vehicle when the lift lifting and lowing,

RISK OF VEHICLE MOVING

Be caused by operations involving the application of force which is sufficient to displace the vehicle.

RISK OF VEHICLE FALLING FROM LIFT

This hazard may caused of incorrect positioning of the vehicle on the platforms, incorrect stopping of the vehicle, or vehicles of dimensions that are not compatible with the capacity of the lift.

NEVER ATTEMPT TO PERFORM TESTS BY DRIVING THE VEHICLE WHILE IT IS ON THE PLATFORMS.

NEVER LEAVE OBJECTS IN THE LOWERING AREA OF THE MOVABLE PARTS OF THE LIFT.

RISK OF SLIPPINE

Be caused by lubricant contamination of the floor around the lift.

The area beneath and immediately surrounding the lift and also the platforms must be kept clean.

Remove any oil spills immediately.

RISK OF ELECTRIC SHOCK

Risk of electric shock within the electrical wiring area of the lift housing.

Do not use jets of water, steam solvents or paint next to the lift, and take special care to keep such substances clear of the electrical control panel.

RISKS RELATED TO IMAPPROPRIATE LIGHTING

The operator and the maintenance fitter must be able to assure that all the areas of the lift are properly and uniformly illuminate compliance with the laws in force in the place of installation.

NEVER EXCEED THE MAXIMUM CARRYING CAPACITY OF THE LIFT, MAKE SURE THE VEHICLES TO BE LIFTED HAVE NO LOAD. IT IS THEREFORE ESSENTIAL TO ADHERE SCRUPULOUSLY TO ALL REGULATIONS REGARDING USE, MAINTENANCE AND SAFETY CONTAINED IN THIS MANUAL.

INSTALLAION

SKILLED AND AUTHORIZED PERSONNEL ONLY SHOULD BE ALLOWED TO PERFORM THESE OPERATIONS, FOLLOW ALL INSTRUCTIONS SHOWN BELOW CAREFULLY, IN ORDER TO PREVENT POSSIBLE DAMAGE TO THE CAR LIFT OR RISK OF INJURY TO PEOPLE. BE SURE THAT THE OPERATING AREA IS CLEARED OF PEOPLE.

INSTALLATION REQUIREMENTS

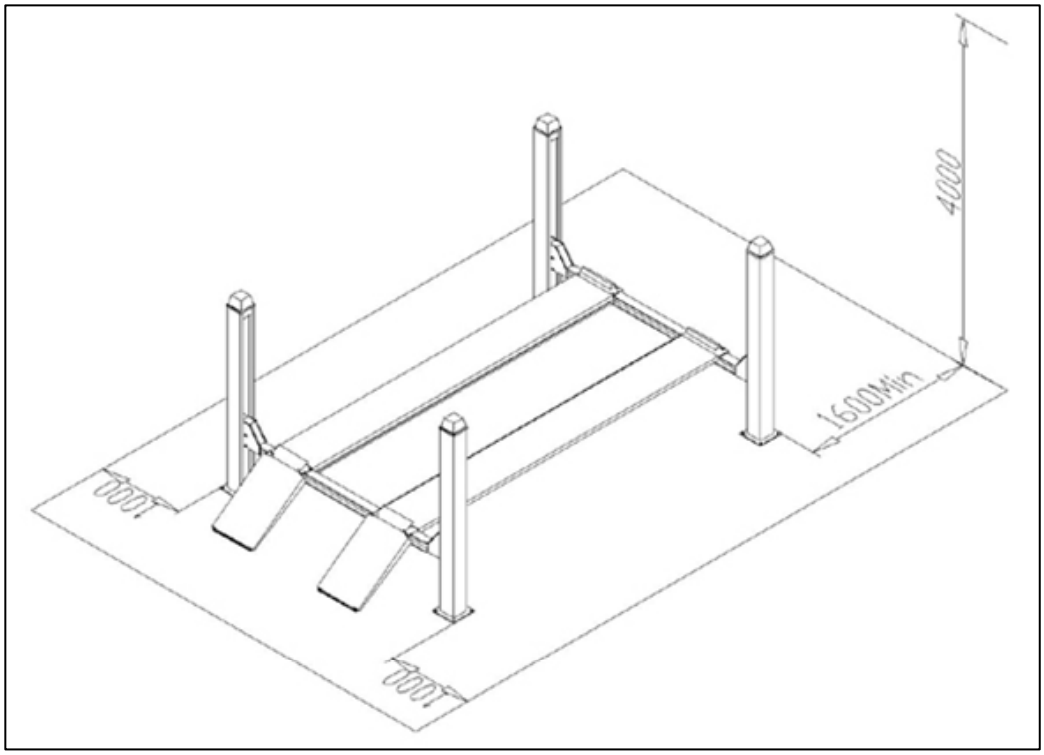
The car lift must be installed according to the sp ecified safety distances from walls must be 1000 mm at least, taking into consideration of the n ecessary space to work eas ily. Further space for the control site and for possible runw ays in case of e mergency is al so necessary; the room must be previously arranged for the power supply and pneumatic feed of the car lift. The room must be 4000 mm in heig ht, at least, the c ar lift can be placed on any floor , as l ong as it is perfectly level and sufficiently resistant.(≥3000Psi or 210Kg/cm2)

-All parts of the machine must be uniformly lit with sufficient light to make sure that the adjustment and maintenance operations specified in the m anual can be performed safely, and without areas of shadow, reflected light, glare and avoiding all situations that could give rise to eye fatigue.

-The lighting must be installed in accordance with the laws in force in the place of installation.

-the thickness and leveling of the base concrete are essential

-thickness of concrete≥150mm, the leveling of whole length≤10mm.



Step 1: CROSSBEAM INSTALLATION

-Put the front and back crossbeam on the floor.

-Put wood or iron stands under the crossbeam in order to raise it up 100--300mm.

-Fix eight nylon blocks at ends of the two crossbeams.

Step 2: RUNWAY INSTALLATION

-Put the two runways on the crossbeam s. The main runway should be located on the left side of the moving vehicle direction. The sub -runway should be located on the right side. The rolling jack wheel-rail on the runway should be inside.

-Check two platform in para llel and the d iagonal of two crossbeams are equal. Put the cab les through the cable rollers under the runway and at the crossbeam ends.

Step 3: POST INSTALLATION:

-Then put four posts on the side of the crossbeam ends. Make the ends enter the posts; cables thread ends go through the post and fix the cables with nuts on the top of the post; safety latch go through the end of the crossbeam and safety rest on the latch.

Step 4: ROLLING JACK INSTALLATION (optional)

-Adjust the distance of the rolling jack rollers. Put the rolling jack on the slide rail.

Step 5: HOSE CONNECTION

-Connect the oil hose according to the oil hose connection diagram

To avoid the unexpected lift drop down due to m echanical safety device release, insert wooden or steel stand under the crossbeam. Pay attention not to work under the lift until the hydraulic system be completely filled with hydraulic oil.

Be careful about the connection of the oil hoses to protect the hoses from dust and impurities.

-open the hydraulic oil tank, add 18L of hydraulic oil into the oil tank. The hydraulic oil is provided by the user. Please use 46# anti-wear high quality hydraulic oil.

-Connect the compressed air hose to the safety-lock release switch.

Step 6: Electrical routine connection

Only skilled personnel are allowed to perform the operations.

(This step is described in another manual.)

Make sure the hydraulic oil is added already and the power supply is OK.

Check the order of phase (three phase supply)

-Turn on the power switc h. Click the "up" button to check whether the m otor turns clockwise (looking downward). If not, turn off the power switch. Then change the order of the power supply connecting. **Only authorized person can do this.**

Machine testing

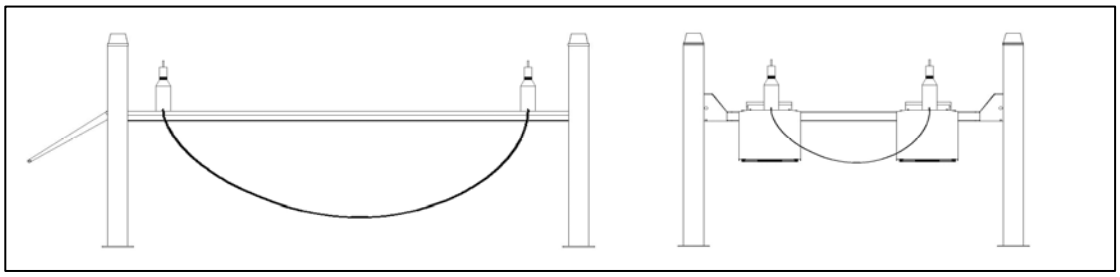
-Press "up" button. Lift up the crossbeam approximately 1000mm.
-Hold down the safety-lock release button and the lowering handle to lower the platforms to ground.
-Circle up and down of the lift to get out all the air inside the hydraulic system for 3 or 4 times with stops not less then 1 minute each time.

Anchor the columns

-Fix the lift to the concrete base with 16 anchor bolts by drilling anchor hole of 120mm in depth.

Level adjustment

-Lift the platform approximately 100mm. Check the leveling of the platforms as in the figure.



If the platforms are not in level, adjust the cable by the nut on column top.
- Hold down the lowering handle to rest the platforms on the safety latch. Check ag ain the leveling of the platforms. If it is not in level, adjust the nut of the safety latch on the top of that column.

OPERATION

Only trained person can operate the lift.

-Clear obstacles around the lift before operating.
-During lifting or lowering, no person is allowed to stand near the two sides and beneath the machine, and no person is allowed standing on the two platforms.
-Avoid lifting extra heavy vehicles or other things.
-When lifting, the hand brake lever of the vehicle s hould be pulled, and the sl ide resistant triangle woods should be used.
-Pay attention to the synchronization of the lifting and lower it down if any thing abnormal is found. Stop the machine timely, check and remove the trouble.
-When locking the main machine, the two platforms should be kept at the same height.
-When the equipment will be not used for a long tim e or over night, the machine should be lowered down to the lowest position (on ground), remove vehicle, and cut off power supply.

Main machine lower
-Raise the lift off the safety locks by pressing the "UP" button. Make sure the lift at least past 5mm to allow adequate clearance for th e locks to clear. Press the air-release-valve to clear the locks. Then hold down the lowering handle to lower the platforms.

Main machine locking
-Hold down the lowering handle without press the air-release-valve.

MAINTENANCE AND CARE

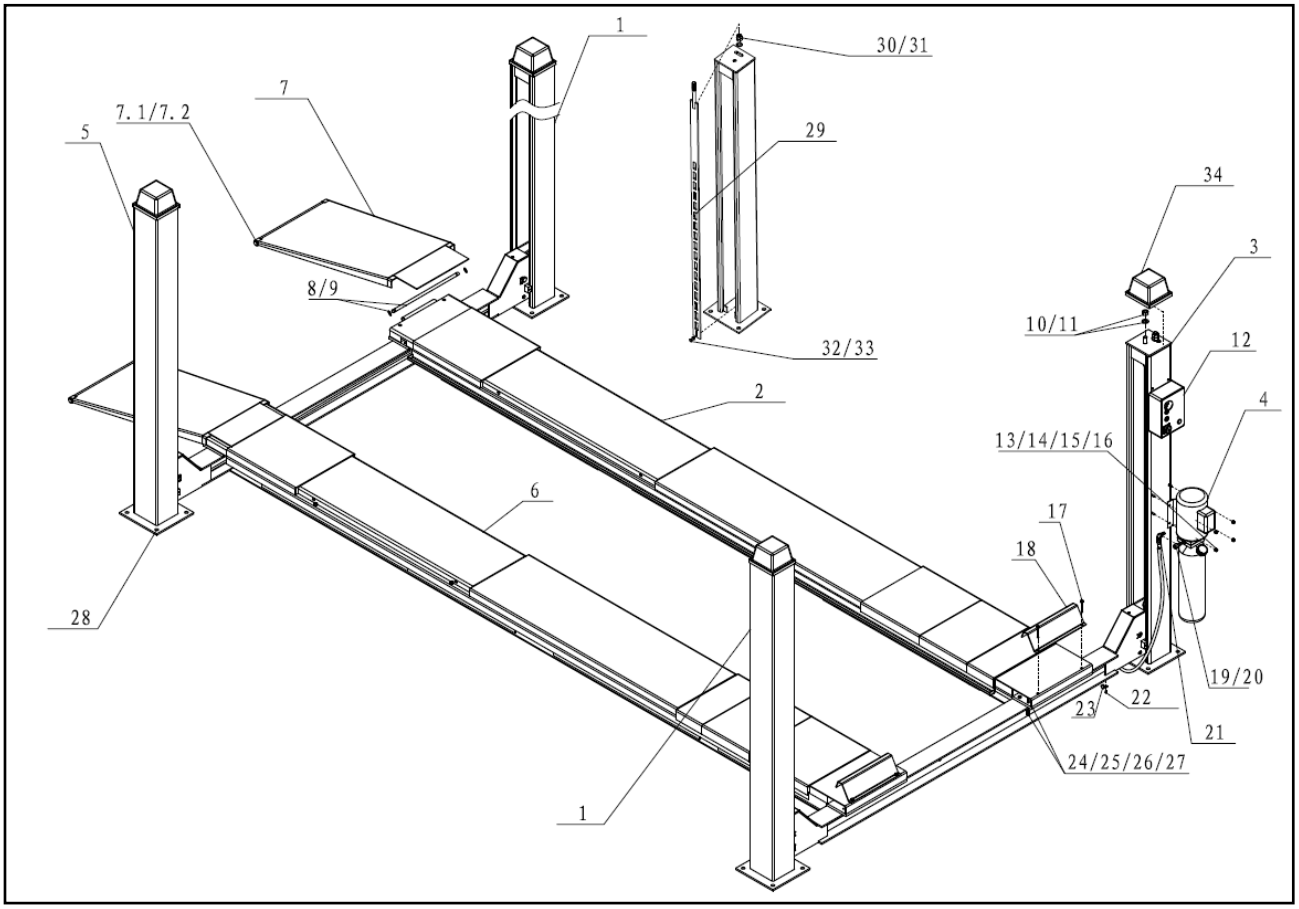
The maintenance and care of the lift must be operated by skilled person.

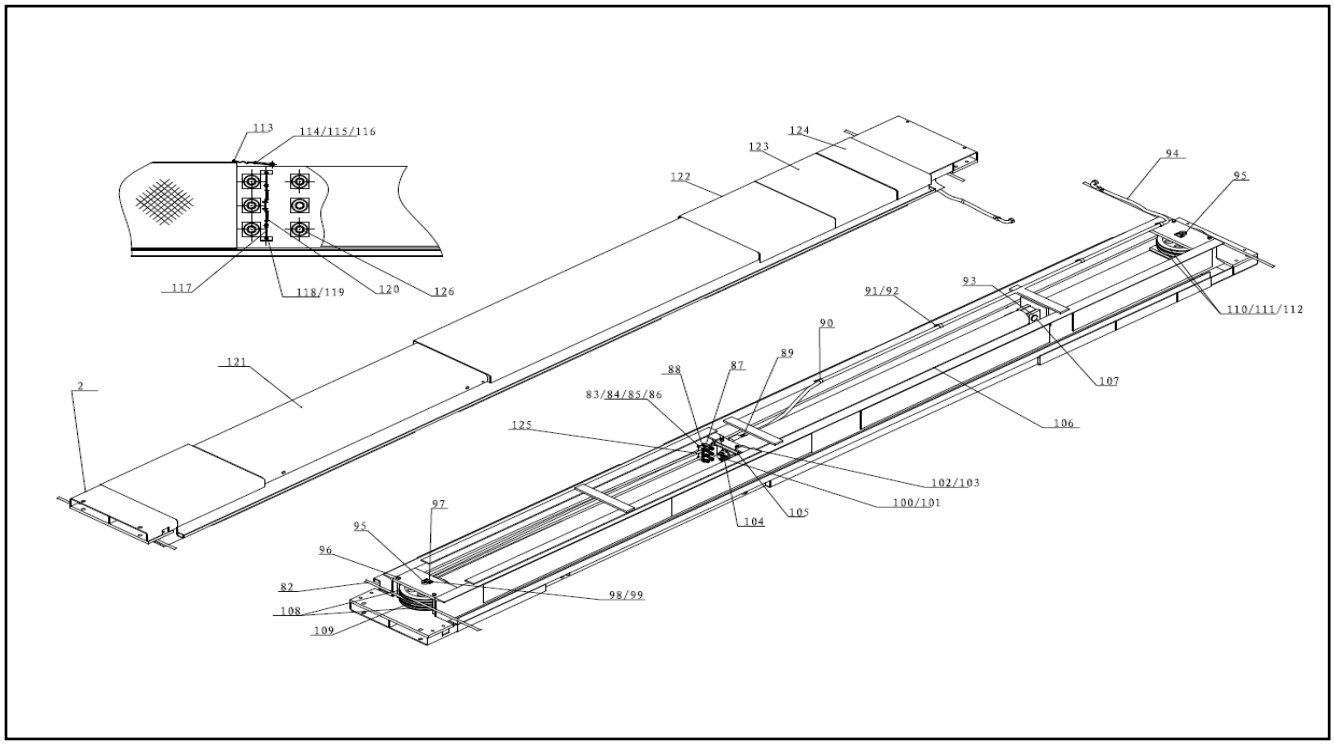
-The upper and lower sliding blocks must be cleared of foreign objects, and must be kept clean and lubricated.
-All bearings and hinges on this machine must be lubricated once a month
-The other moving parts of this lift should be lubricated yearly.
-The hydraulic oil must be replaced one time each year. The oil level should always be kept at upper limit position.
-Check the steel cable every three months and if there is something wrong, stop using, and tell the manufacture.
-The integration of the pneumatic system with an air treatment unit is suggested.

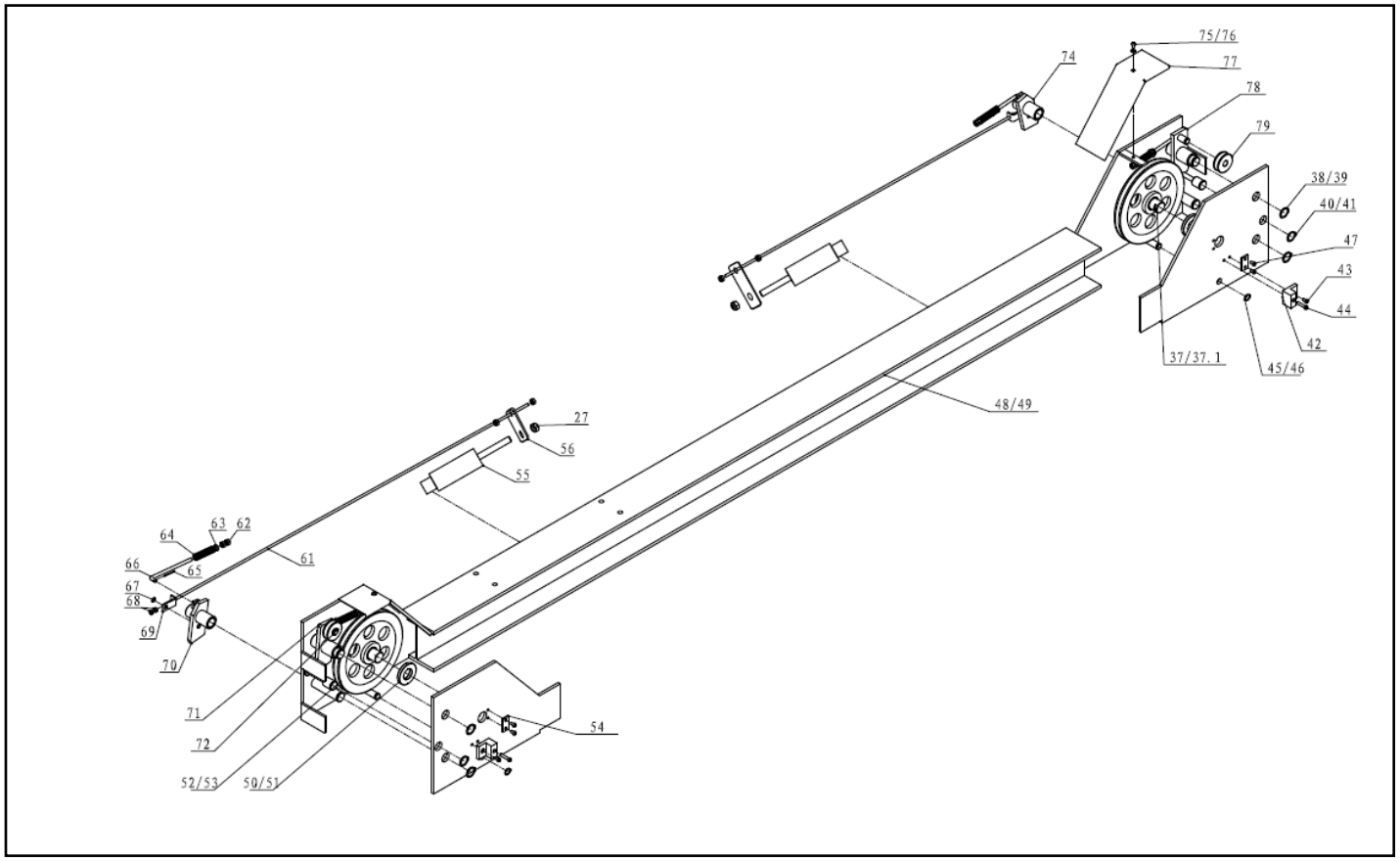
TROUBLE SHOOTING AND RESOLUTIONS

Trouble	Cause and Phenomena	Resolutions
The motor does not run in lifting operation.	Connection of power supply wires or zero wire is not correct.	Check and correct wire connection.
	The AC contactor in the circuit of the motor does not pick up.	If the motor operates when forcing the contactor down with an isolation rod, check the control circuit. If the voltage at two ends of the contactor coil is normal, replace the contactor.
	The limit switch is not closed.	Short-circuit terminal 10# and 0#, which are connected with the limit switch, and if the trouble disappears, check the limit switch, wires and adjust or replace the limit switch.
In lifting operation, the motor runs, but there is no lifting movement.	The motor turns reverse.	Change the phases of the power supply wires.
	Lifting with light load is normal but no lifting with heavy load.	The set safe pressure of the over-flow valve may be increased by turning the set knob right ward slightly. The spool of the lowering solenoid valve is stuck by dirt. Clean the spool.
	The amount of hydraulic oil is not enough.	Add hydraulic oil.
	The "operation stop valve" is not open.	Turn right and open the "Operation stop valve and supply hydraulic oil to main oil cylinder.
When press "Lower" button, the machine is not lowered.	The safety pawl are not released form the safety teeth.	First lift a little and then lowering.
	The safety pawl is not lifted.	The air pressure is not enough or the safety pawl is stuck.
	The solenoid air valve does not work.	If the solenoid air valve is energized, but does not open the air loop, check or replace the solenoid air valve.
	The lowering solenoid valve is energized but does not work.	Check the plug and coil of the lowering solenoid valve and check the right turn tightness of its end copper nut and so on.
	The hydraulic oil has too high viscosity or frozen, deteriorated (in Winter).	Replace with 20# hydraulic oil in accordance with the instruction book.
The machine lowers extremely slowly under normal loads.	The "antiknock valve" for preventing oil pipe burst is blocked.	Remove or close air supply pipe and thus lock the safety pawl of the machine without lifting of the safety pawl. Remove the "antiknock valve" from the oil supply hole at the bottom of the oil cylinder, and clean the "antiknock valve".
	Oil leakage on oil pipe or at its connections.	Tighten oil pipe connections or replace oil seals and then make-up oil and adjust levelness.
	The "oil make-up stop valve" can not be closed tightly and almost make-up oil and adjust every day.	Replace oil make-up stop valve and then make-up oil and adjust.
	The base or the machine is twisted.	Adjust again the levelness of the machine, and fill or pad the base.

Model 46614A Parts Drawing



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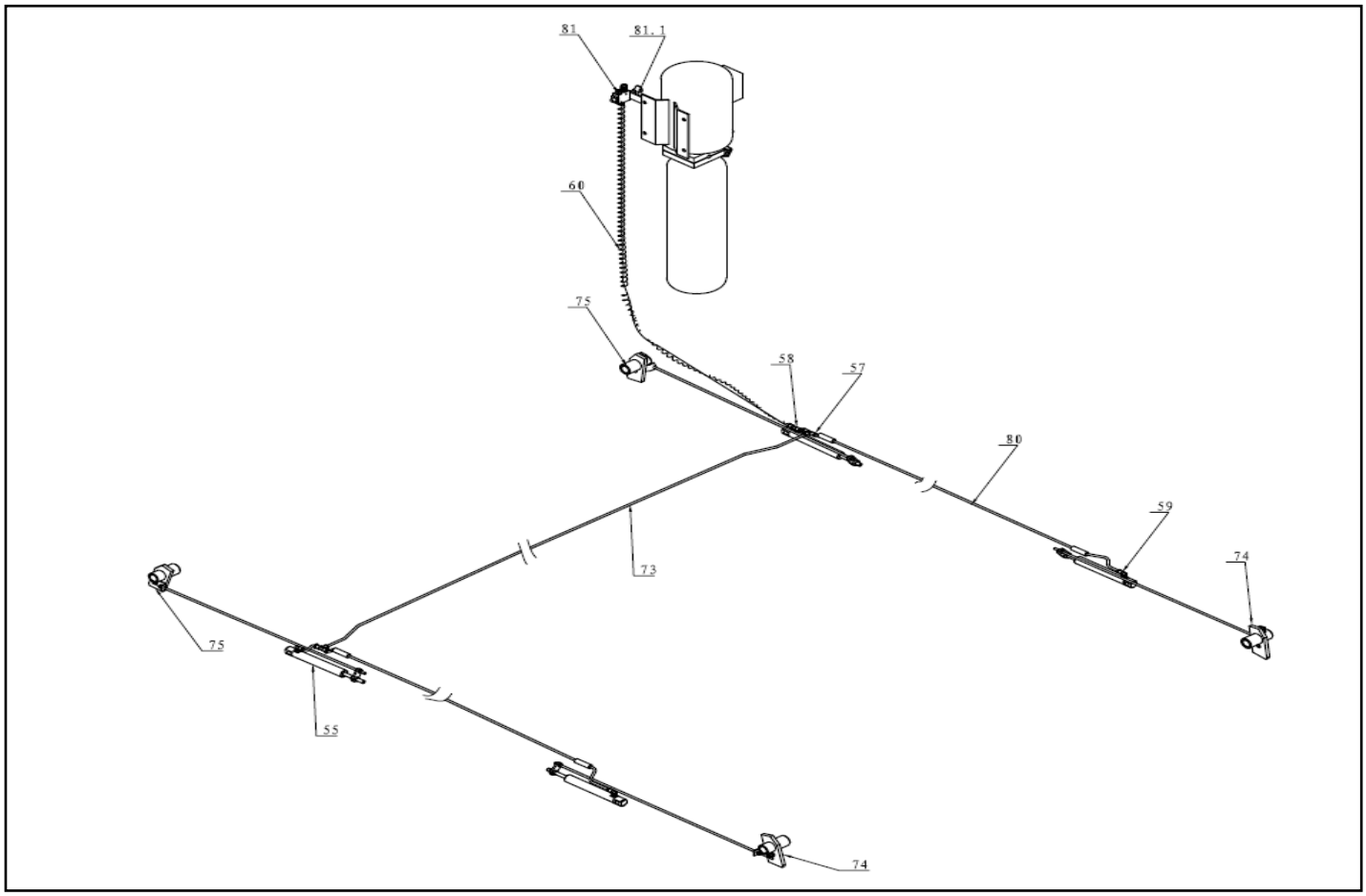
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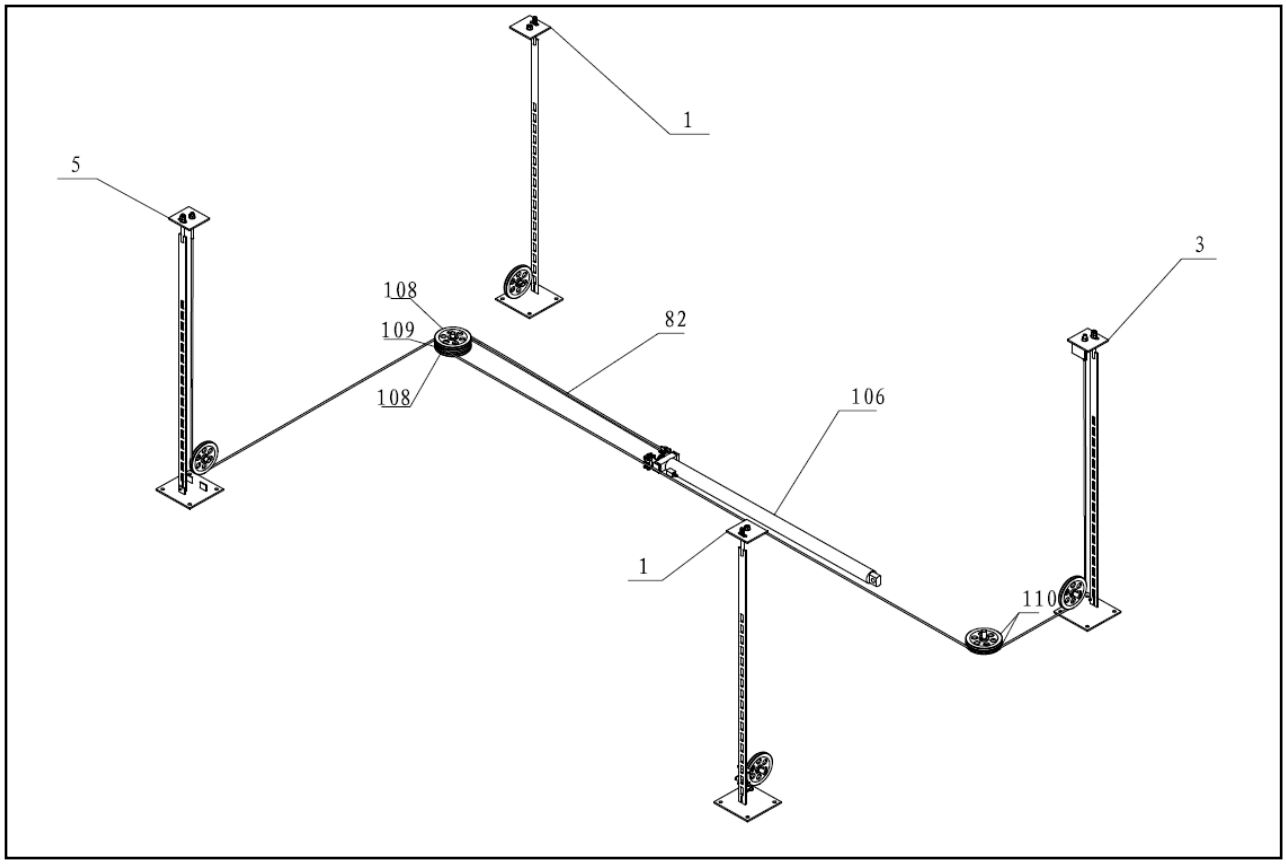
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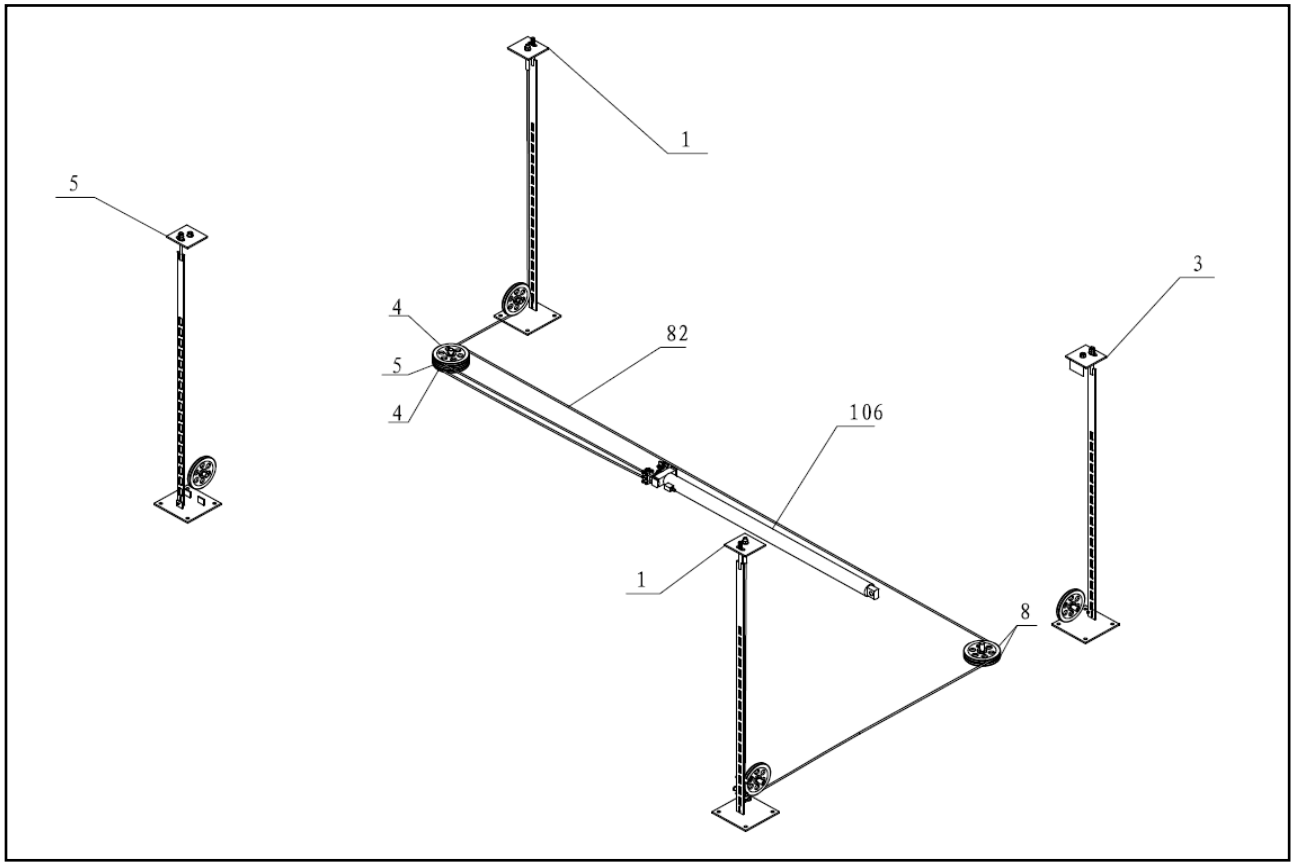
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Model 46614A Parts List

ITEM	CODE	DESCRIPTION	QTY	NOTE
1	165976*00-001	Column 3	2	
2	165976*00-002	Main runway	1	
3	165976*00-003	Column 1	1	
4	165976*00-004	Power Unit	1	
5	165976*00-005	Column 2	1	
6	165976*00-006	Sub runway	1	
7	165976*00-007	Approach ramp	2	
7.1	165976*00-007.1	approach-ramp wheel	4	
7.2	165976*00-007.2	Spindle spring retaining ring	20	d25
8	165976*00-008	Spindle spring retaining ring	4	M12
9	165976*00-009	shaft for approach ramp	2	
10	165976*00-010	Flat washer	8	d20
11	165976*00-011	Hex-head nut	12	M20
12	165976*00-012	Control box	1	
13	165976*00-013	Hex-head nut	40	M8
14	165976*00-014	Flat washer	34	d8
15	165976*00-015	Hex-head Bolt	4	M8X25
16	165976*00-016	Spring washer	14	d8
17	165976*00-017	Hex-head Bolt	4	M10X70
18	165976*00-018	front tire stop	2	
19	165976*00-019	washer	1	
20	165976*00-020	Fitting	1	
21	165976*00-021	90º Fitting	1	
22	165976*00-022	Cross-head screw	13	
23	165976*00-023	Hose clip	1	
24	165976*00-024	Hex-head Bolt	8	M10X40
25	165976*00-025	Spring washer	8	d10
26	165976*00-026	Flat washer	12	d10
27	165976*00-027	Hex-head nut	12	M10
28	165976*00-028	Anchoring Bolt	16	φ19
29	165976*00-029	safety latch	4	
30	165976*00-030	Hex-head nut		M20
31	165976*00-031	Flat washer		d20
32	165976*00-032	Inner-hex head screw	4	M10X30
33	165976*00-033	Flat washer		d10
34	165976*00-034	column cover	4	
37	165976*00-037	Spindle 1	4	
37.1	165976*00-037.1	straight-through grease fitting	6	NPT3/8
38	165976*00-038	Spindle 2	8	

ITEM	CODE	DESCRIPTION	QTY	NOTE
39	165976*00-039	Spindle spring retaining ring	20	d25
40	165976*00-040	Spindle 3	4	
41	165976*00-041	Spindle spring retaining ring	8	d24
42	165976*00-042	Nylon block	8	
43	165976*00-043	smalel cross-head screw	8	M6X12
44	165976*00-044	smalel cross-head screw	8	M6X35
45	165976*00-045	Spindle 4	4	
46	165976*00-046	Spindle spring retaining ring	12	d16
47	165976*00-047	Cross-head screw	13	M6X10
48	165976*00-048	crossbeam 1	1	Weldment
49	165976*00-049	crossbeam 2	1	Weldment
50	165976*00-050	spindle bush 1	4	
51	165976*00-051	spindle bush 2	4	
52	165976*00-052	Roller 1	4	
53	165976*00-053	Composited Bushing 3	1	L=34
54	165976*00-054	Orientation board	6	
55	165976*00-055	Air cylinder	4	
56	165976*00-056	connecting board	4	
57	165976*00-057	Tee airline-connector 2	2	
58	165976*00-058	Tee airline-connector 1	1	
59	165976*00-059	90 degree airline-connector	4	
60	165976*00-060	Spring airline	1	
61	165976*00-061	screwed pull rod for safety	4	
62	165976*00-062	Hex-head nut	40	M8
63	165976*00-063	Flat washer	34	d8
64	165976*00-064	Compressed Spring	8	
65	165976*00-065	Cotter pin	8	d2.5X20
66	165976*00-066	spring pull handle	8	
67	165976*00-067	Spindle spring retaining ring	6	d10
68	165976*00-068	Hex-head nut	25	M6
69	165976*00-069	Pull block	4	
70	165976*00-070	safety board 1	2	Weldment
71	165976*00-071	cable-safety block 1	2	Weldment
72	165976*00-072	Spindle spring retaining ring		d16
73	165976*00-073	Long airline 1	1	
74	165976*00-074	safety board 2	2	Weldment
75	165976*00-075	Cross head screw	13	M6X10
76	165976*00-076	Flat washer		d10
77	165976*00-077	Crossbeam cover	4	

ITEM	CODE	DESCRIPTION	QTY	NOTE
78	165976*00-078	cable-safety block 2	2	
79	165976*00-079	cable-safety roller	4	
80	165976*00-080	Airline 2	2	
81	165976*00-081	Air-valve switch	1	
81.1	165976*00-081.1	Fixed Plate	1	
82	165976*00-082	Steel cable	2	
83	165976*00-083	Inner-hex screw	10	M8X55
84	165976*00-084	Spring washer	14	d8
85	165976*00-085	Hex-head nut		M8
86	165976*00-086	Flat washer		d8
87	165976*00-087	Steel-cable block 2	1	
88	165976*00-088	Steel-cable block 1	1	
89	165976*00-089	Cylinder fitting	1	
90	165976*00-090	Hose plate	4	
91	165976*00-091	Cross head screw	4	M6X8
92	165976*00-092	Flat washer	14	d6
93	165976*00-093	Spindle spring retaining ring	1	d30
94	165976*00-094	Hydraulic hose	1	L=4.5m
95	165976*00-095	Wheel spindle	2	
96	165976*00-096	Limit screw	4	
97	165976*00-097	Orientation board		
98	165976*00-098	Cross head screw	4	M6X12
99	165976*00-099	Spring washer	4	d6
100	165976*00-100	Steel-cable block 3	1	
101	165976*00-101	Steel-cable block 4	1	
102	165976*00-102	Inner-hex screw	2	M8X40
103	165976*00-103	Flat washer		d8
104	165976*00-104	directed plate	1	
105	165976*00-105	heightened plate	1	
106	165976*00-106	Cylinder kits	1	
107	165976*00-107	Cylinder shaft	1	
108	165976*00-108	Wheel 2	2	
109	165976*00-109	Wheel 3	1	
110	165976*00-110	Wheel 4	2	
111	165976*00-111	wheel shaft bush	1	
112	165976*00-112	bearing	2	
113	165976*00-113	Cross-head screw	8	ST4.2
114	165976*00-114	pin	8	
115	165976*00-115	φ1.5 steel cable	8	

ITEM	CODE	DESCRIPTION	QTY	NOTE
116	165976*00-116	Aluminum alloy tube	16	
117	165976*00-117	Screwed pull rod 1	8	
118	165976*00-118	Flat washer		d6
119	165976*00-119	Hex-head nut		M6
120	165976*00-120	Spring	8	
121	165976*00-121	steel-ball cover plate	2	
122	165976*00-122	Cover 1	2	
123	165976*00-123	Cover 2	2	
124	165976*00-124	Cover 3	2	
125	165976*00-125	cable retainer	1	
126	165976*00-126	steel ball	42	
127	165976*00-127	safety transmission rod clasp	1	
128	165976*00-128	Hex-head nut		M6
129	165976*00-129	safety transmission rod	1	