

Read this entire manual before operation begins.

Record below the following information which is located on the serial number data plate.

Serial No. _____
Model No. _____
Date of Installation _____

———— Contents ————

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Important Information

Introduction

Thoroughly read this manual before operating the lift and comply with the instructions. Always display the manual in a conspicuous location.

Personal injury and property damage incurred due to non-compliance with these safety instructions are not covered by the product liability regulations.

Intended Use

This single column vehicle lift is classified as movable model. Movable single column vehicle lifts are especially useful indoors. It is special equipment for lifting vehicles, such as cars, to a certain height for maintenance. It is forbidding to park vehicles underneath. Observe the rated load capacity and load distribution of the lift.

Safety Instructions for Commissioning

- The lift may be installed and commissioned by authorized service personnel only.
- The standard lift version may not be installed and commissioned in the vicinity of explosives or flammable liquids, outdoors, or in moist rooms (e.g. car wash).

Safety Instructions for Operation

- Read the operating manual.
- Lift operation by authorized personnel over 18 years only.
- Always keep the lift and lift area clean and free of tools, parts, debris etc.
- Once the disk adapters contact the lift points, check arm restraints for engagement.
- After raising the vehicle briefly, stop and check the disk adapters for secure contact.
- Always lift the vehicle using all four adapters.

- Make sure the vehicle doors are closed during raising and lowering cycles.
- Closely watch the vehicle and the lift during raising and lowering cycles.
- Do not allow anyone to stay in lift area during raising and lowering cycles.
- Do not allow anyone on lift or inside raised vehicle.
- Only use the lift for its intended purpose.
- Comply with the applicable accident prevention regulations.
- Do not overload the lift. The rated load capacity is indicated on the lift nameplate.
- Only use the vehicle manufacturer's recommended lift points.
- After positioning the vehicle apply the parking brake.
- Use caution when removing or installing heavy components (center-of-gravity displacement).
- The main switch serves as emergency switch. In case of emergency turn to OFF position.
- Protect all parts of the electrical equipment from humidity and moisture.
- Protect the lift against unauthorized usage by padlocking the main switch.

Safety Instructions for Servicing

- Maintenance or repair work by authorized service personnel only.
 - Turn off and padlock the main switch before doing any maintenance, or repair work.
 - Work on pulse generators or proximity switches by authorized service personnel only.
 - Work on the electrical equipment by certified electricians only.
 - Ensure that ecologically harmful substances are disposed of only in accordance with the appropriate regulations.
 - Do not use high pressure/steam jet cleaners or caustic cleaning agents.
- Risk of damage!**
- Do not replace or override the safety devices.

Safety Features

Hold-to-run Type Control

The operator is required to hold the controls in the engaged position to raise or lower the lift.

Equalizing System

The lift is equipped with distributing and connecting flow valve to ensure level movement of carriage.

Pipe Break Valve

The hydraulic cylinders are equipped with pipe break valves. They respond in case of rapid pressure drop (line break) to prevent sudden lowering movements.

Pressure Relief Valve

A pressure relief valve is used to limit the hydraulic working pressure to a maximum of 200bar.

Disposal Of Used Oil

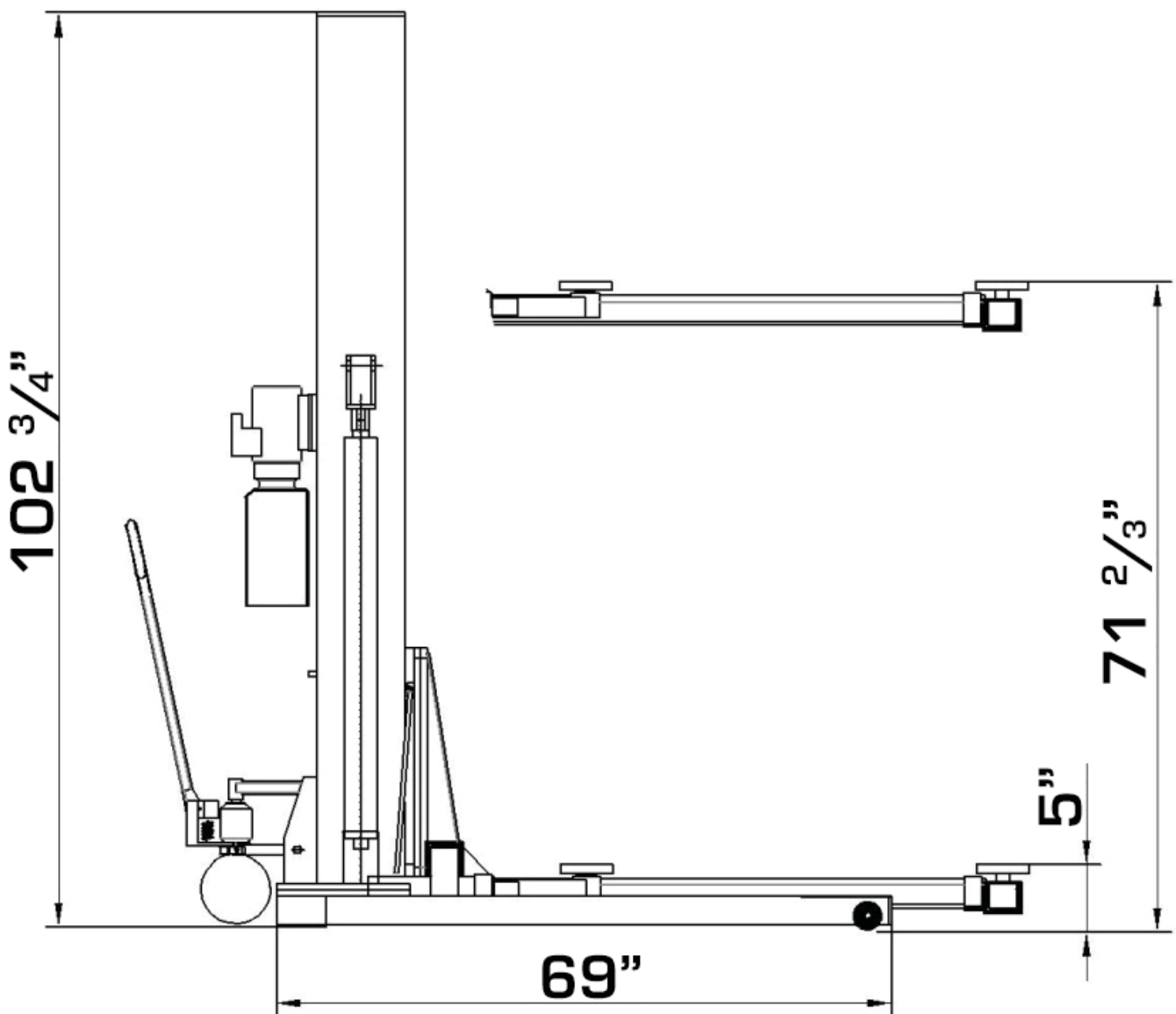
Used oil, which is removed from the power unit and the plant during an oil change, must be treated as a polluting product, in accordance with the legal prescriptions of the country in which the lift is installed.

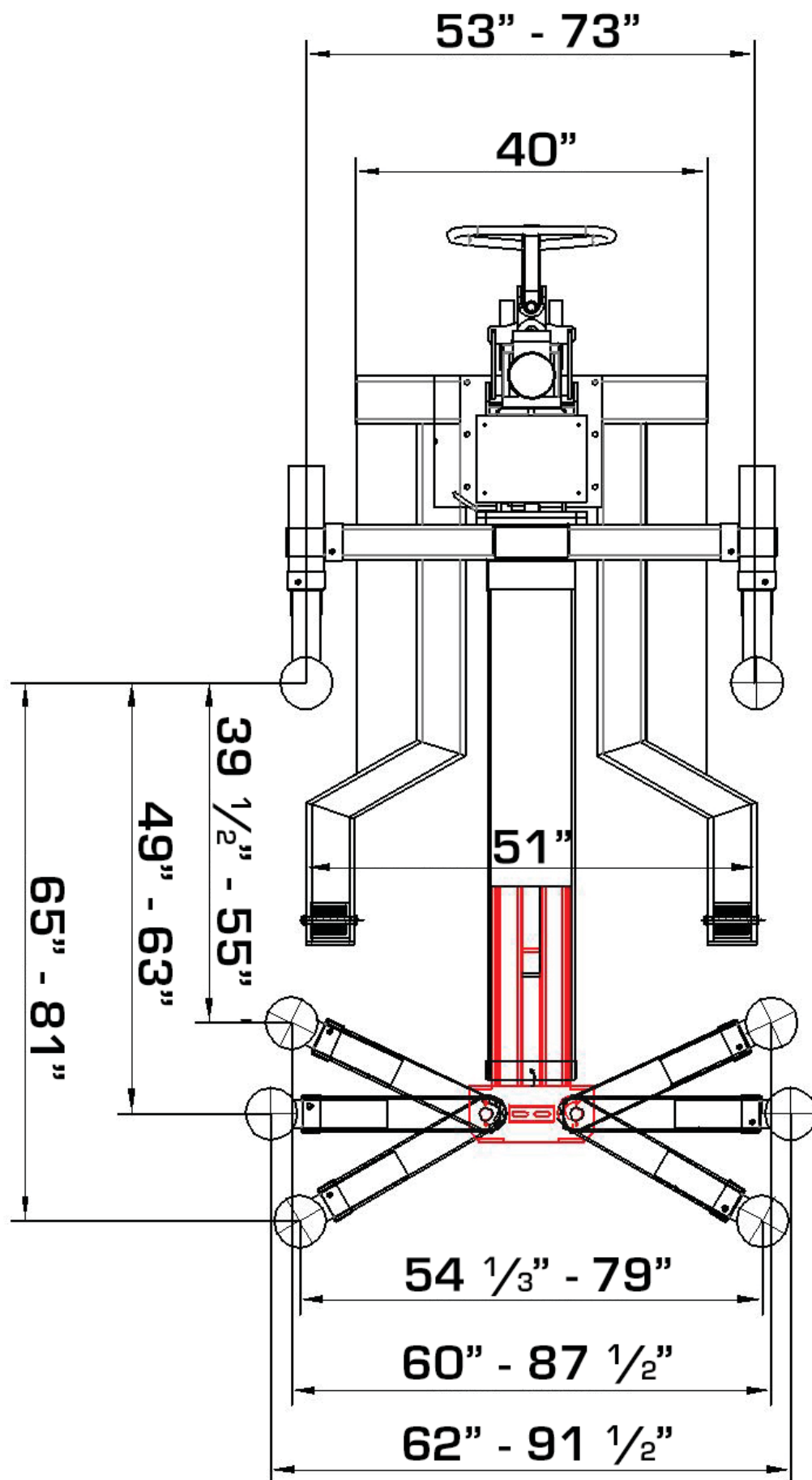
Machine Demolition

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

Specifications

Lifting Capacity	Max. Lifting Height	Overall Dimension Maximum (L*W*H)	Noise	Weight	Voltage
7,000lbs	71 2/3"	111 1/2" x 96" x 102 3/4"	<70 dB	1,900 lbs	110V, 1-phase





Transport / Packing / Storage



Only skilled personnel who are familiar with the lift and this manual shall be allowed to carry out packing, lifting, handling, transport and unpacking operations.

Packing

90% components were pre-assembled before shipment, and packed with blister packing in steel frame. Arms, adapters and rubber pads were put in the lift. Power unit was packed in carton box separately, power unit stand was packed and fixed on above the lifts.

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 center of gravity and its fragile parts.

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°C and +40°C.

Delivery And Check Of Packages

When the lift is delivered, check for possible damages due to transport and storage; verify that what is specified in the manufacturer's confirmation of order is included. 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 lift (be careful the objects do not drop from the package when opening).

Installation Requirements

Working Site

The user should prepare the working site for the lift before its arrival. The lift must be placed on flat and hard ground, which is made of cement or bricks, with the load at the position of vertical post of 3t/m². There should be > about 40" space around the lifted vehicle, and the net height indoor should be about 12'.

Power Source

Requires a dedicated circuit with 110v and 20 amp breaker.

Tools Required For Install

- Hoist or Forklift or Floor Jack or Cherry Picker
- Metric Sockets and Open Wrench set
- One 10' to 12' step ladder
- Thread Seal Tape
- ISO 32 Light Hydraulic Oil (approx. 12 quarts)

Installation Procedure

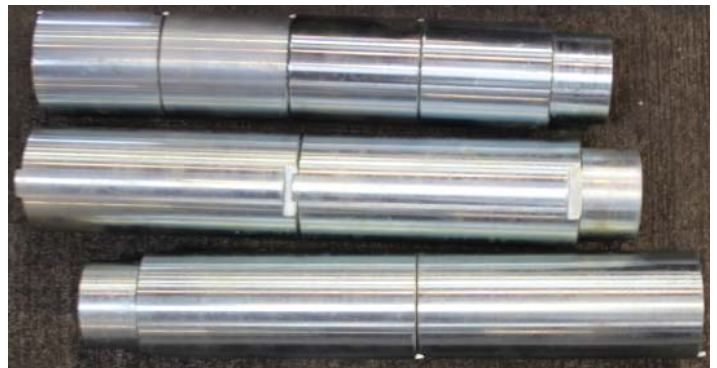
1. After unloading the lift, place it near the intended installation location.



2. Remove the shipping bands and lay out the pieces to take inventory.



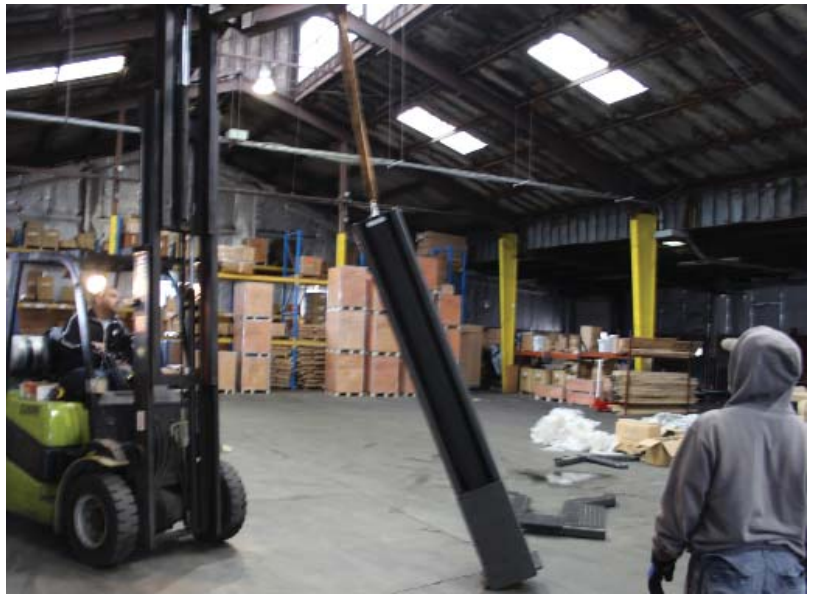
3. Remove packing materials.



4. Hoist the column onto the frame base, lining up the bolt holes.



Optional Turnbuckle Shown



5. Secure the column with the hex head bolts and washers.



6. Raise the carriage by hand. Ready the hex head bolts.



7. Hoist the lifting frame, lining up the bolt holes with the column's carriage.



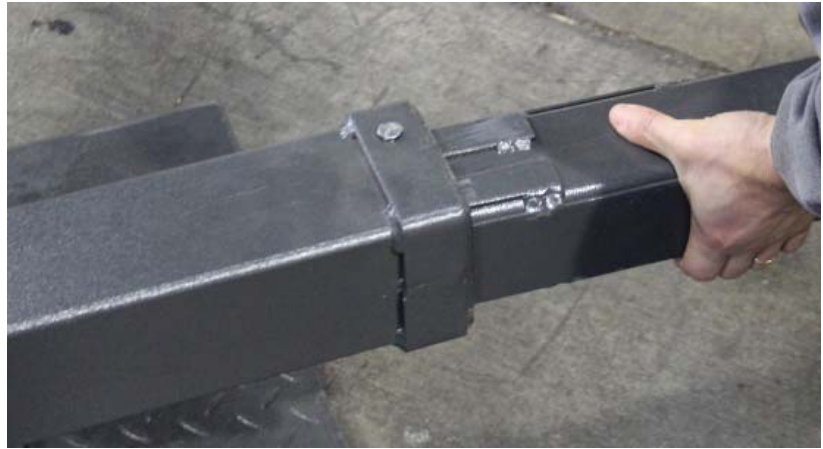
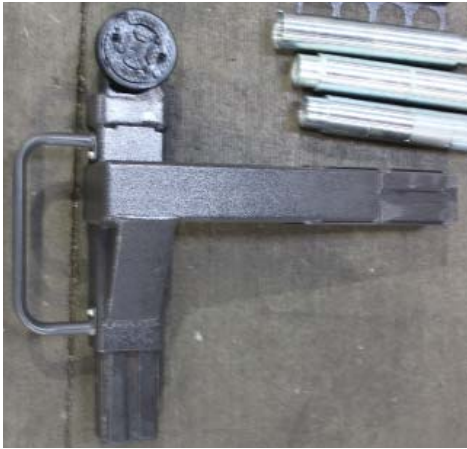
8. Secure the lifting frame with the hex head bolts and washers.



9. Slide the off-side arm assembly into the lifting frame and tighten the screw on top of the lifting frame to secure it.



10. Slide the column-side arms into the lifting frame and tighten the screw on top of the lifting frame to secure it.



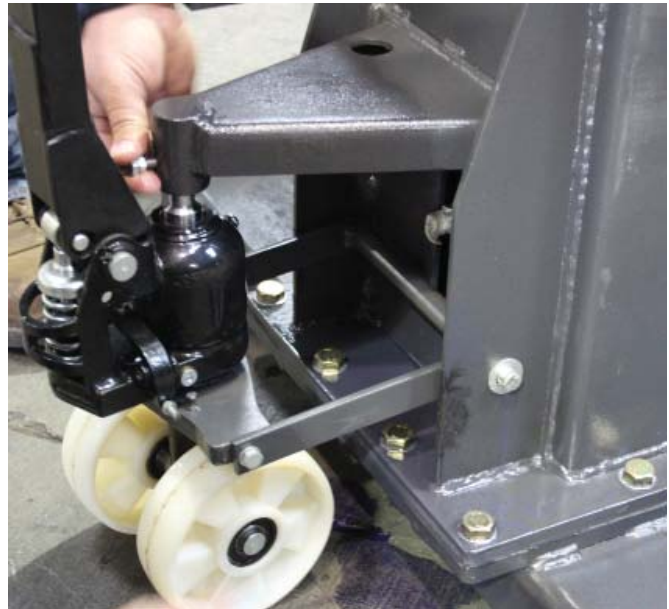
11. Screw the adapter holder onto the column.



12. Unwrap the ball bearing on the wheel assembly.



13. Secure the wheel assembly to the column with the axis pin and tighten set screw along with jam nut.

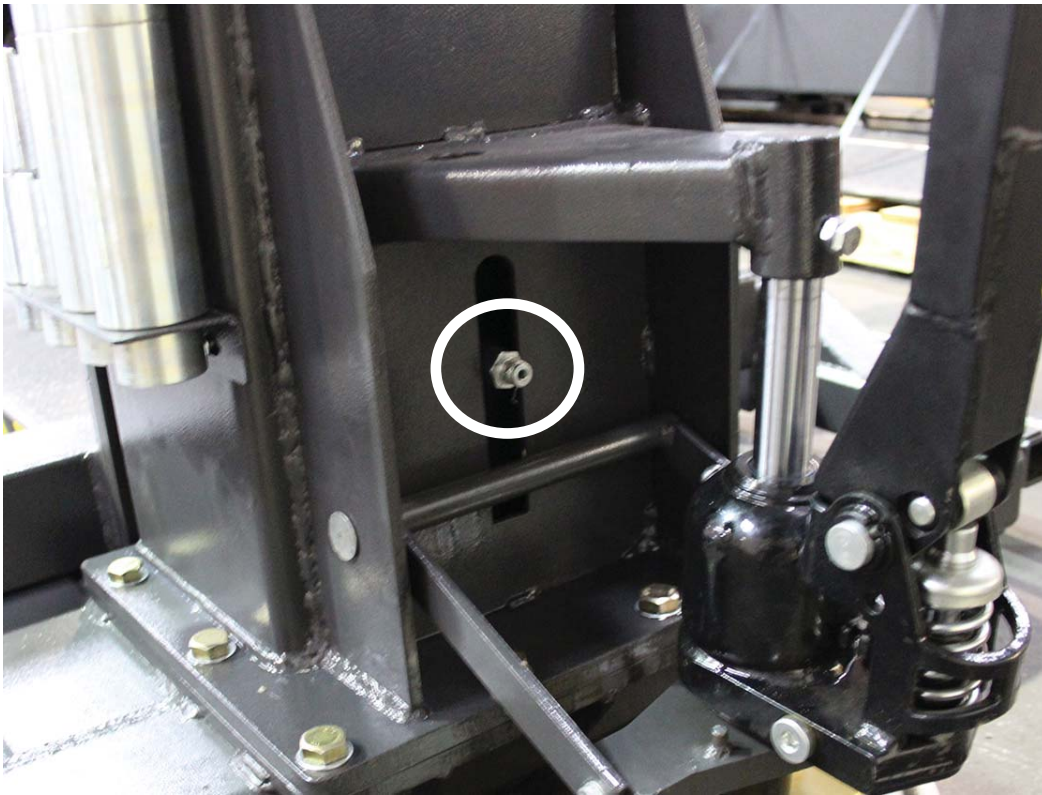


14. Install the power unit onto the column with washers and hexagon screws.



Note: Quick connect fitting on the power unit reservoir is not used.

15. Remove existing pipe fitting from hydraulic cylinder



16. Prepare new pipe fitting with O-ring washer and Thread Seal Tape



17. Install new pipe fitting into hydraulic cylinder



18. Connect and tighten the oil hose to the power unit and hydraulic fitting



Operation Instructions

Operation Rules For Mechanism System

The movable single column lift is provided with separate traveling mechanism. Pump the hauling handle of the steering rear wheel forwards and backwards to make the vertical column off the ground, then you can push or pull the lift. On arriving the working site, press the valve handle to retract the wheel, then the vertical column lands on the ground steadily.

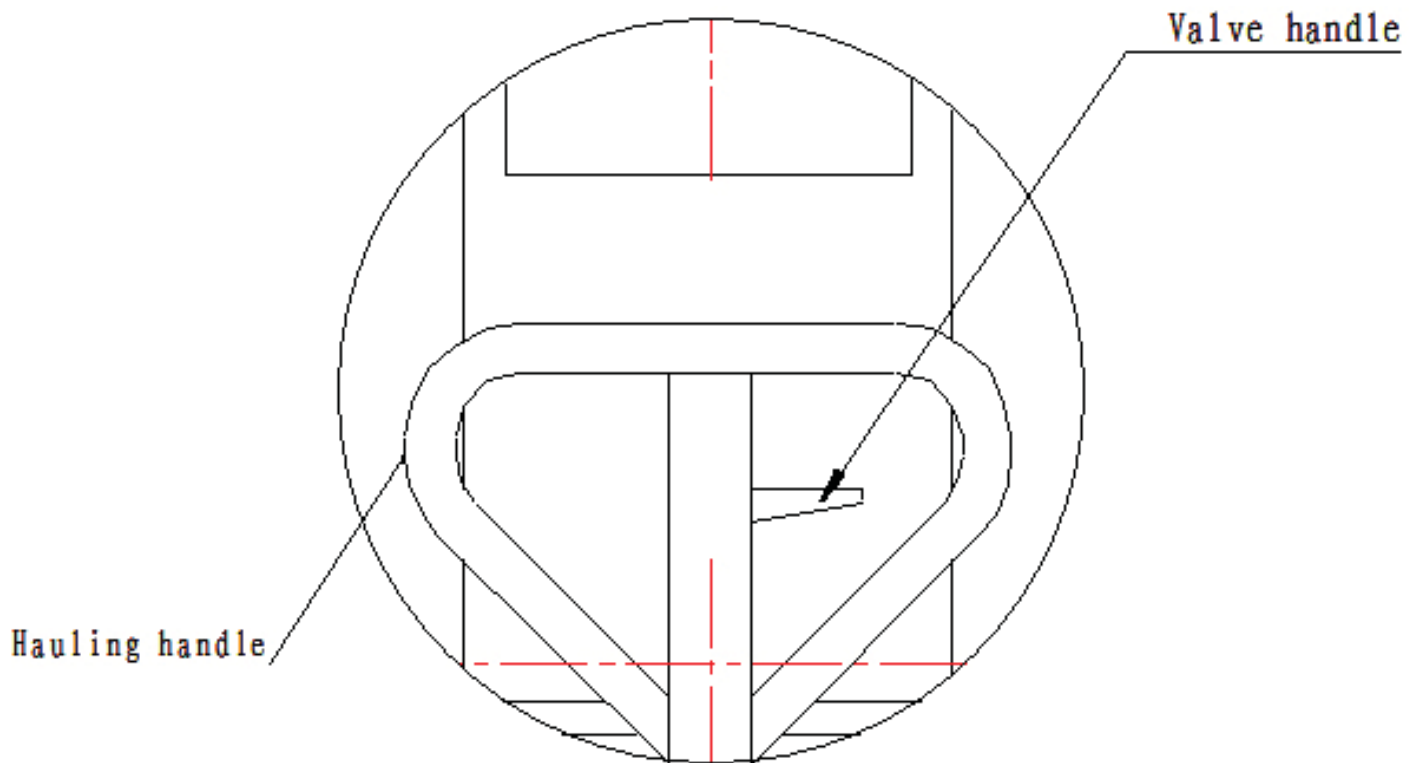
The lift must only be pushed into the vehicle if in line with it. Insert the pallet under the vehicle beam and the pallet must be in line with the beam.

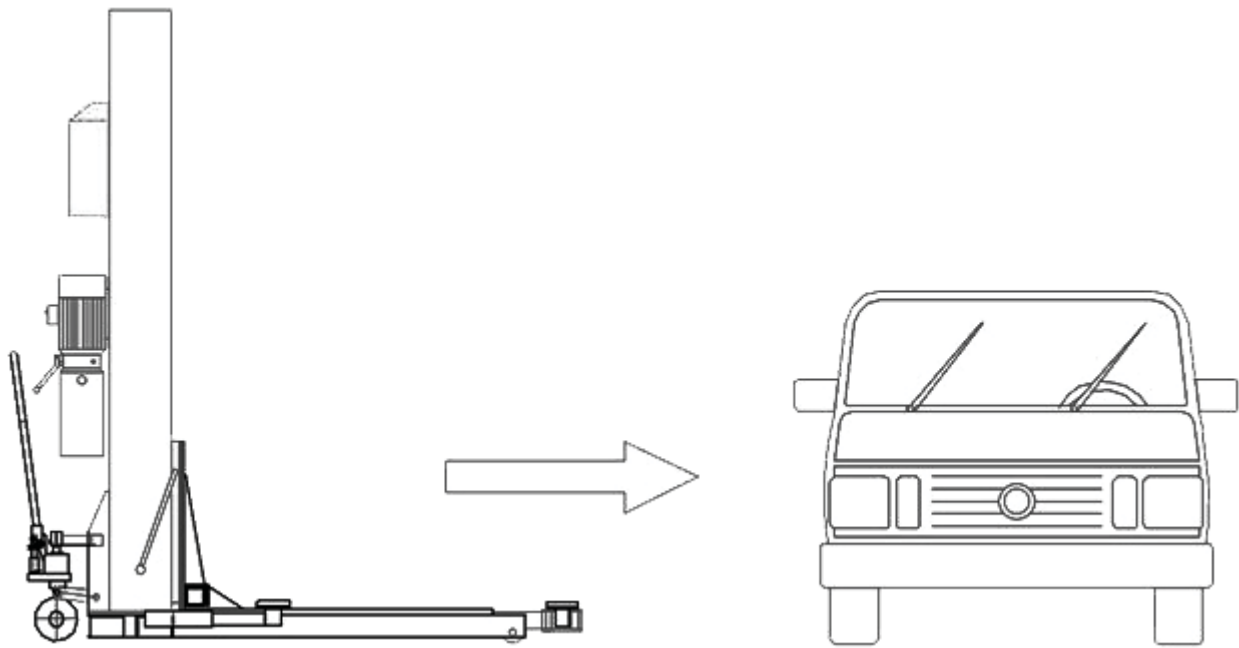
Retract the rear wheel of vertical post to land the vertical post steadily before the lift lifts load, and make sure there is no foreign article such as hand tools, bolts, screw caps, small stones. No lifting during moving!

Operation Flow

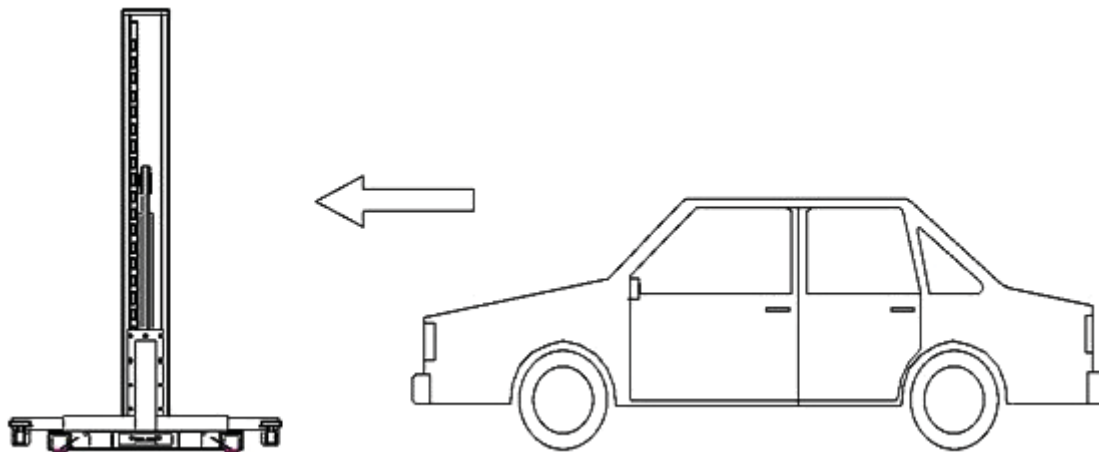
1. Vehicle stops in the service position with engine off
2. Turn the handle for hydraulic movable wheel to lift the vertical post base a bit
3. Push the lift into the underside of vehicle
4. Make sure there is no foreign articles under the base and the ground is level
5. Grasp the valve handle to make the base lowered to ground
6. Align 4 pallets on the lifting arm respectively to the supported positions on the vehicle underside
7. Press the "▲" button to raise the vehicle by 10~15 centimeters
8. Stop the vehicle raising and check for safe and secure four high points of the pallet.
9. Check if the main lifting arm touches the vehicle bottom plate, which should not occur during normal lifting.
10. Pull the safety unlock handle to make the lifting platform unlocked.

11. To adjust lifting pad, turn it anticlockwise to make it rise (adjustment distance of 4")
12. Press the "▲" button again and pay attention to lifting arm and the vehicle lifted until lifting is safe and reliable.
13. Raise the lift to the required height, then lower it to the lock position
14. After the repair of vehicle is finished, raise the lift about 2-3cm, pull the release cable on the column, then push the lowering handle on power unit to lower the lift.
15. Turn the handle of hydraulic pump and the lift is off the ground, pull out the lift.
16. Drive the vehicle away.





Movable lift pushed into the underside of the vehicle

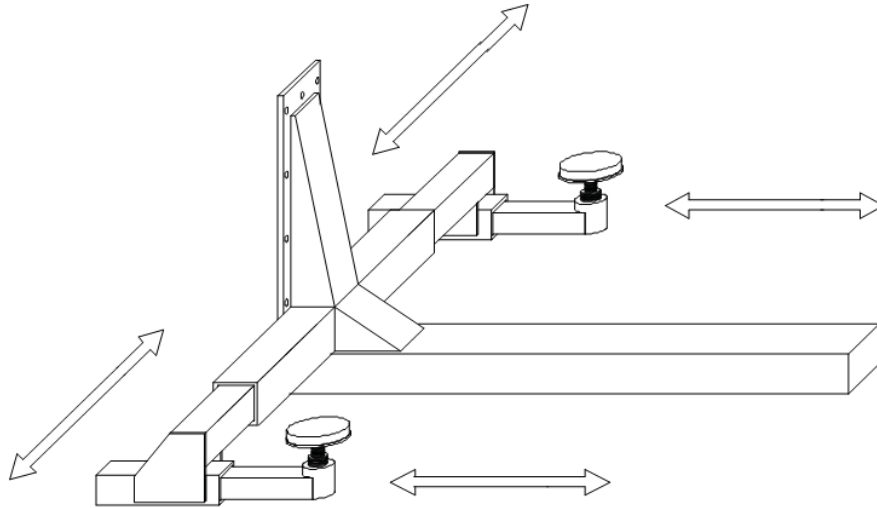


Vehicle driving onto the lift

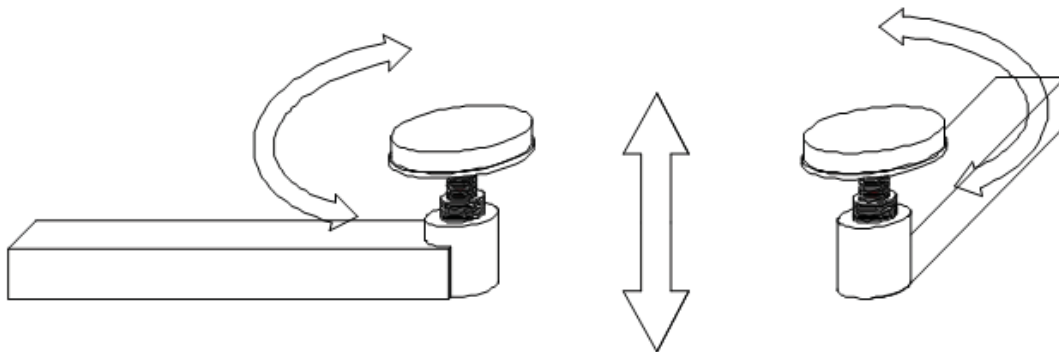
Use lifting arm

Movable Lift

1. According to the position under the vehicle chassis where the lifting arm is located, the supporting arm on the lifting arm (close to the vertical post) may be pushed and pulled up and down or to left and right, as the following figure:



2. According to the car type, the supporting arm in the outer of lifting arm may be pushed or pulled inward or outward, or to left and right.
3. The height of pallet can be adjusted by turning it clockwise or anticlockwise.



Maintenance

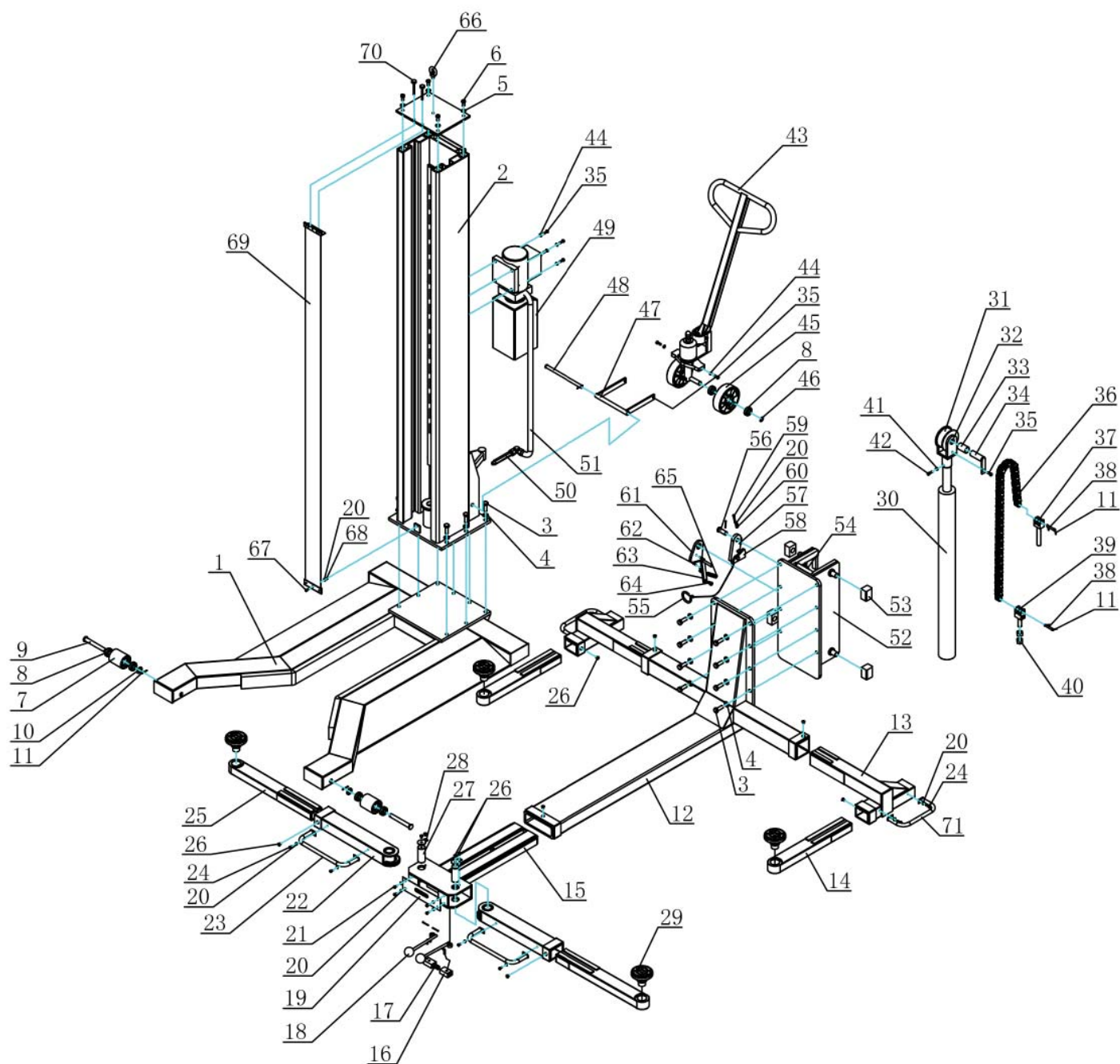
1. For daily maintenance and service of the lift, see operation steps, use, and cautions described in the previous pages.
2. The working environment and the surface of this machine should be cleaned usually.
3. During the use of this machine, if any oil leaking is found, check the leakage source. Check whether the screw of the hydraulic oil hose is tighten, if it is loosen, it should be tightened. After this step, if the leaking problem still occurs, check whether the seal kit of the cylinder is damaged, if it is damaged, it must be replaced.

Troubleshooting

PROBLEM	SOLUTION
Motor Does Not Operate	Failure of the motor to operate is normally caused by one of the following: 1. Breaker or fuse blown. 2. Faulty wiring connections; call electrician. 3. Defective up button; call electrician for service.
Motor Functions but Lift Will Not Rise	If the motor is functioning, but the lift will not rise do the following in the order given: 1. A piece of trash is under check valve. Push handle down and push the up button at the same time. Hold for 10-15 seconds. This should flush the system. 2. Check the clearance between the plunger valve of the lowering handle. There should be 1/16" clearance. 3. Remove the check valve cover and clean ball and seat. WARNING!! Failure to properly relieve pressure in the following step can cause injury to personnel. This lift uses ISO Grade 32 or other good grade non-detergent hydraulic oil at a high hydraulic pressure. Be familiar with its toxicological properties, precautionary measures to take, and first aid measures as stated in the Safety Summary before performing any maintenance with the hydraulic system. 4. Oil level too low. Oil level should be just under the vent cap port when the lift is down. Relieve all hydraulic pressure and add oil as required.

Oil Blows out Breather of Power Unit	If oil blows out of the breather of the power unit, take the following actions: 1. Oil reservoir overfilled. Relieve all pressure and siphon out hydraulic fluid until at a proper level 2. Lift lowered too quickly while under a heavy load. Lower the lift slowly under heavy loads.
Motor Hums and Will Not Run	If the motor hums but fails to run, take the following actions: 1. Lift overloaded. Remove excessive weight from lift WARNING!! The voltages used in the lift can cause death or injury to personnel. In the following steps, make sure that a qualified electrician is used to perform maintenance 2. Faulty wiring Call electrician 3. Bad capacitor Call electrician 4. Low voltage Call electrician
Lift Jerks Going Up and Down	1. If the lift jerks while going up and down, it is usually a sign of air in the hydraulic system. Raise lift all the way to top and return to floor. Repeat 4-6 times. Do not let this overheat power unit.
Oil Leaks	Oil leak causes at the power unit and cylinders are normally caused by the following: 1. Power unit: if the power unit leaks hydraulic oil around the tank-mounting flange check the oil level in the tank. The level should be two inches below the flange of the tank. A screwdriver can be used as a "dipstick". 2. Cylinder - Piston Rod: the rod seal of the cylinder is out. Rebuild or replace the cylinder. 3. Cylinder - Vent: the piston seal of the cylinder is out. Rebuild or replace the cylinder.

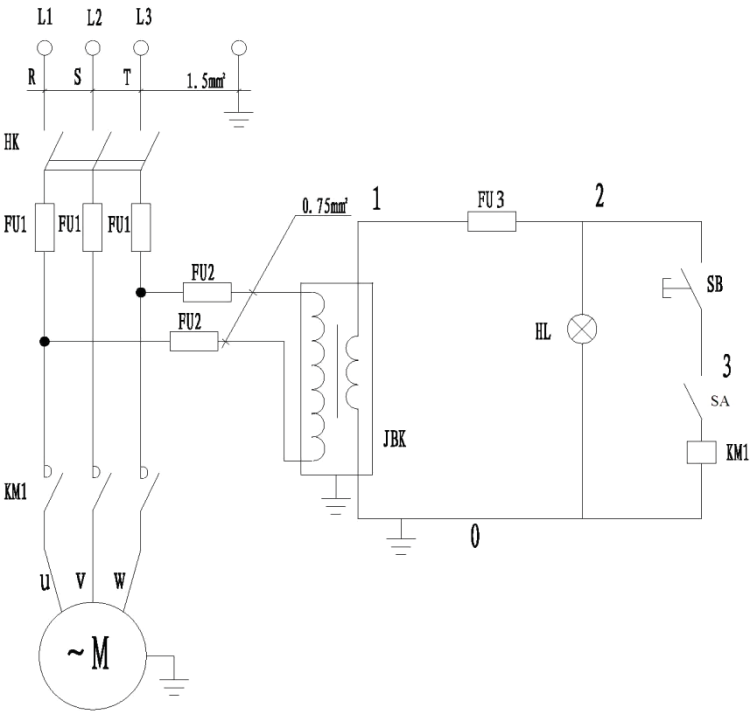
Parts Lists



No	Name	QTY	Note
1	Under Frame	1	
2	Stand Column	1	
3	Outer Hexagon Screw	16	M16*45
4	Washer	16	Φ16
5	Washer	4	Φ12
6	Outer Hexagon Screw	4	M12*30
7	Wheel	2	
8	Bearing 62042Rs	8	
9	Shaft For Front Wheel	2	
10	Washer	2	Φ20
11	Snap Pin	9	3*35
12	Lifting Frame	1	
13	Back Telescopic Boom(Horizontal)	2	
14	Back Telescopic Boom	2	
15	Longer Arm	1	
16	Rack	2	
17	Spring	1	Φ18*2*70
18	Handle	2	
19	Flapper	1	
20	Washer	14	Φ6
21	Button-Headed Screw	4	M6*10
22	Whirling Arm	2	
23	Handle	2	
24	Screw	8	M6*10
25	Front Telescopic Boom	2	
26	Sunk Screw	11	M8*10
27	Pin Shaft	2	
28	Pin Shaft Cover	2	
29	Pallet	4	
30	Oil Cylinder	1	
31	Chain Wheel	1	
32	Chain Fixed Seat	1	
33	Bush	1	
34	Sheave Pin	1	
35	Outer Hexagon Screw	7	M8*25
36	Plate Type Chain	1	25.4*65pcs

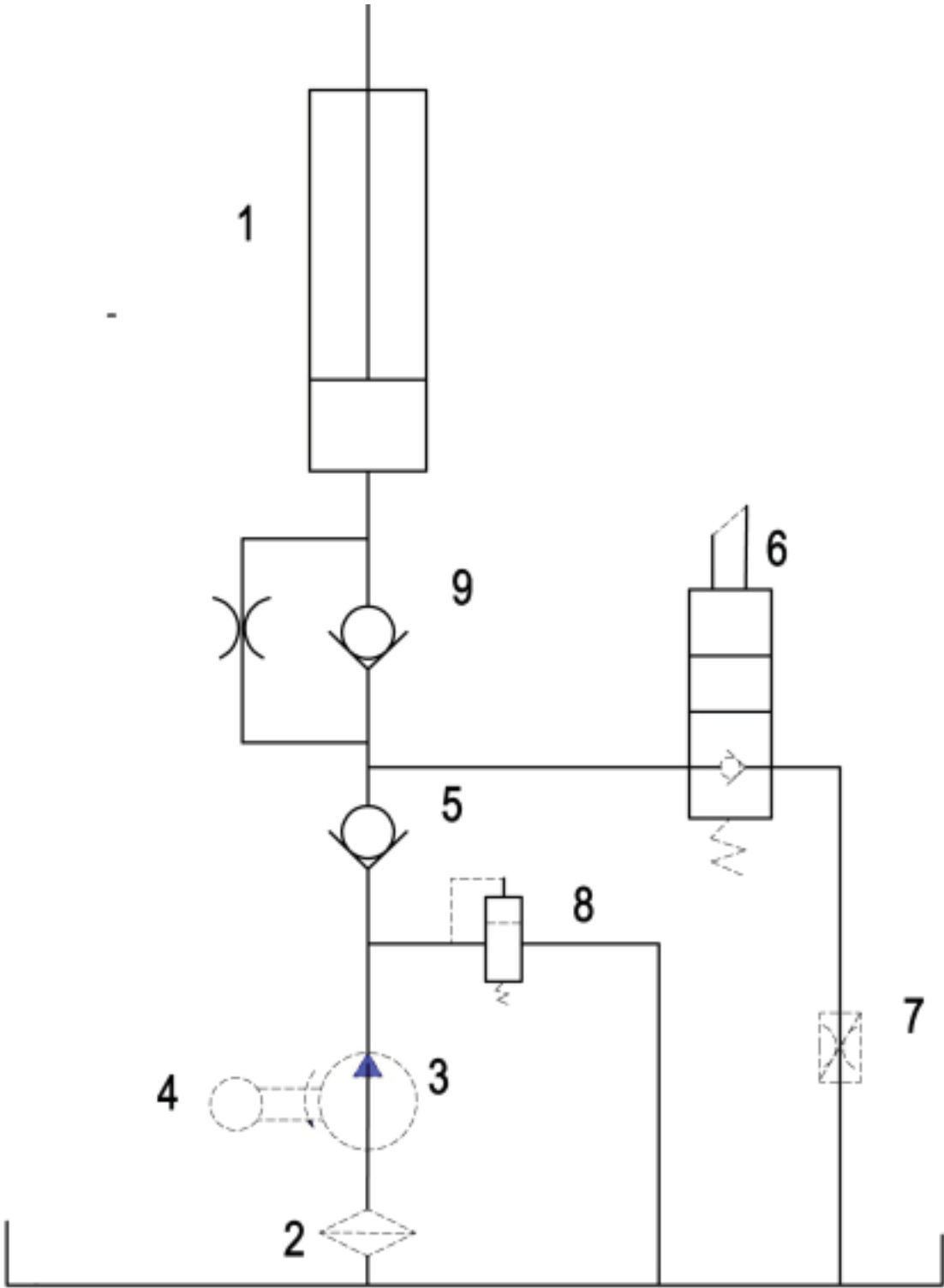
No	Name	QTY	Note
37	Upper Fixed Seat	1	
38	Fixed Pin	2	
39	Lower Fixed Seat	1	
40	Nut	2	M20
41	Nut	1	M8
42	Inner Hexagon Screw	1	M8*25
43	Handle	1	
44	Washer	6	Φ8
45	Wheel	2	Φ160*50
46	Jump Ring	2	Φ20
47	Joining Beam	1	
48	Axis Pin	1	
49	Hydraulic Power Supply	1	
50	Oil Pipe Connection	1	
51	High-Pressure Oil Pipe	1	
52	Elevating Scaffold	1	
53	Sliding Block	4	
54	Tension Spring	1	Φ13*1.2*60
55	Unlocking Handle	1	
56	Axis Pin	1	
57	Locking Plate	1	
58	Shaking Plate	1	
59	Inner Hexagon Screw	1	M6*40
60	Spring	1	Φ10*1.2*28
61	Chain Lock	1	
62	Connecting Rod	1	
63	Chain Baffle	1	
64	Bush	1	
65	Tension Spring	1	Φ15xΦ1.8x32.5
66	O Ring Screw	1	M12
67	Screw	1	M6x20
68	Nut	1	M6
69	Protection Plate	1	
70	Screw	2	M6x60
71	Handle1	2	

Circuit Diagram



EK: Main switch	FU: Fuse	KM: Contactor	M: Motor
JBK: Transformer	HL: Lamp	SB: UP button	SA: Top limit switch

Hydraulic Diagram



1. Cylinder	2. Filter	3. Oil pump	4. Motor
5. One-way valve	6. Manual release valve	7. Throttle valve	8. Relief valve
9. Anti-leakage valve			