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

INSTALLATION and SERVICE MANUAL

Model：LT103G

Two post hydraulic lift

CONTENTS

Product Qualification Certificate

Product name:_____

Product model:_____

Manufacturing code:_____

Shipment date:_____

Quality inspector:_____

The inspection of product accords with standard, which is conforming product.

Product Guarantee Card

User's unit	
Address and telephone	
Equipment name and model	
Shipment No.	
Shipment date	
Specification for using the guarantee card	Dear users: Thank you for using the machine produced by our company, in order to make you safely use the product for a long time, you should let professional to follow the specification and instructions to use and maintain the machine. You can get the following service according to our guarantee card and invoice. 1. Guarantee: from the date you buy our products, the problems caused by following the instructions to use it. 2. Guarantee period: one year 3. Not belong to the guarantee range: the damage caused by man-made due to transportation, improper use, insufficient foundation strength, the power is not in conformity with the stipulations. The components which are easy to damage (electrical appliances, rubber pad, slider, steel cable and so on.
Repair records	

I. Purpose

Double-cylinder hydraulic automotive lifting machine is used for different vehicle maintenances within 3500kg.

II. Main functional specifications

Model	Lifting capacity	Lifting height	Lifting time	Over height	Overall Width	Width bt. columns	Power supply
LT103G	3500kg	1800mm	50seconds	2816mm	3500mm	2800mm	220V-380V

III. Installation Requirement

1. Hex-key/Allen Wrench Set (5#, 6#) 2.Screw Sets
3. Carpenter's chalk 4.Tape Measure (7.5M)
5. Needle Nose Pliers 6.Lock Wrench
7. Rotary Hammer Drill (Φ18) 8.Hammer
9. Foot Level 10.English spanner（12"）
11. Ratchet spanner with socket 10#, 13#, 14#, 15#, 17#, 24#, 27#, 30#

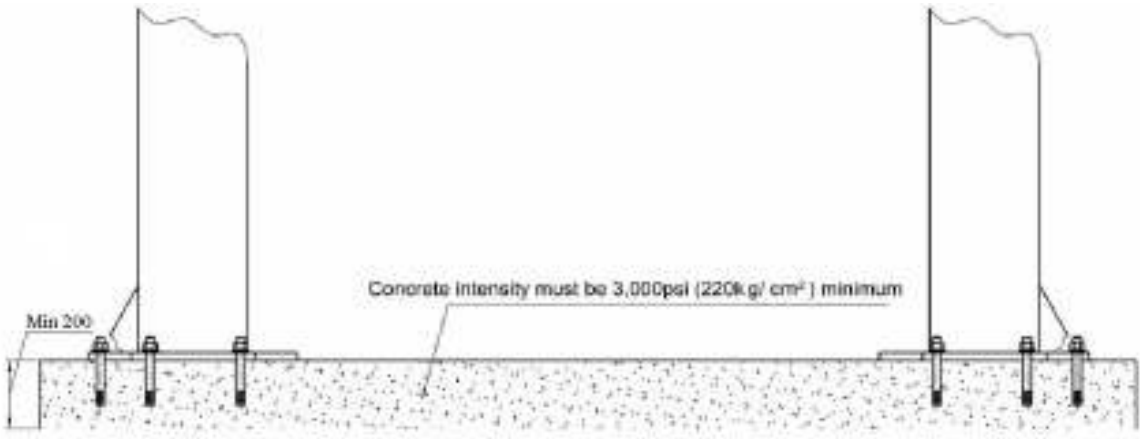
IV. Installation and Test Run

Structures:

Double-cylinder hydraulic automotive lifting machine is composed of chassis, posts, oil cylinder, carriage, corbel, chain, pulley, steel cable, protective equipment, etc. The posts are straightly fixed on the chassis and equipped with oil cylinder. Through sprocket and chain, the cylinder drives the carriage, each set of which is equipped with eight guide blocks to ensure the carriage work smoothly. By shifting the steel cable that fixed on the carriage, both carriages will work synchronically.

Foundation requirement:

1. Concrete must be thickness 150mm minimum and without reinforcing steel bars，and must be dried totally before the installation.
2. Concrete must be in good condition and must be of test strength 3,000psi (220kg/cm^2) minimum.
3. Floors must be level and no cracks.



LT103G Two post hydraulic car lift

Inside level of basement ±5mm

Concrete intensity≥250kg/cm²

Graph<1 > Basement graph

Installation

Hydraulic double posts (Base floor design)

a). Check the components and parts, accessories and fastener of lifting machine as what are listed in the packing of instruction book

Graph<2 > Components

b). Select an operational orientation, and erect the main and subsidiary posts in the both ends of chassis and fix them with expansion bolts. (note: the non-chassis lifting machine can be put on your selected position, and fix them with expansion bolts)

c). Raise the carriage about 1 meter, and the pawl will automatically be under the support of gear rack, then string the balancing steel cable. Make sure that the steel cable must enter the inside of up and down pulley grooves, and the nut of steel cable is preliminarily tightened.

d). Install the 4 sets of corbel on the carriage, then install the tray.

e). Install the hydraulic pump in the main post, connect the high-pressure hose with the pump oil outlet and oil entry at the bottoms of 2 oil cylinders (sealing ring must be installed). Connect and tighten them.

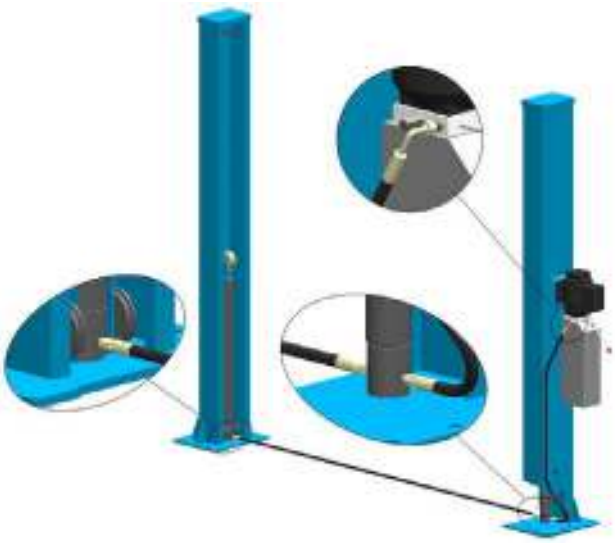
f). Put the electrical box on the main posts, connect the electric wire (1.5～2.5mm2) to the inside of electrical box from the user circuit breaker (higher than 10A)

g).Put the carriage on the bottom, and watch the main and subsidiary posts to ensure the chains are not folded, then inject 46# or 68# hydraulic oil (about 7kg) through the oil entry of pump station.

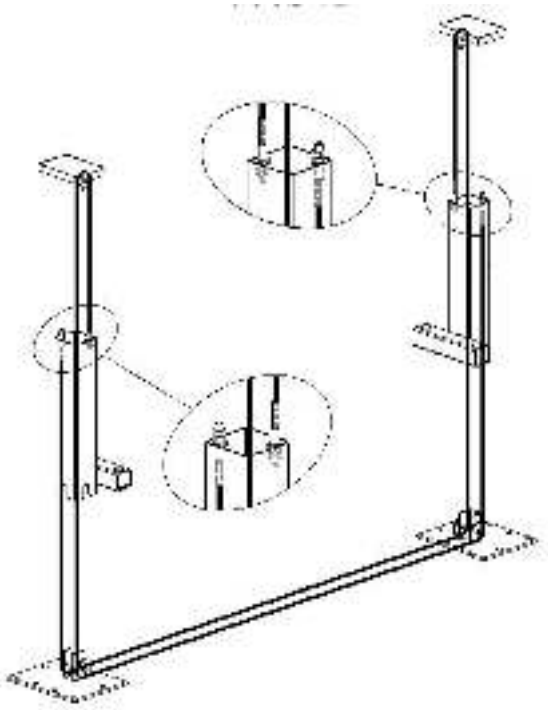
h).Start the electric motor after having confirmed the connection of oil line and circuit correctly, and observe from top the rotation direction of the electric motor to guarantee the direction should be counter-clockwise; if not, the power cord phase should be changed.

i).Conduct non-load tests for several times, adjust the balancing steel cable and tighten the nut, so that the lift height of the two carriages work coherently and synchronically

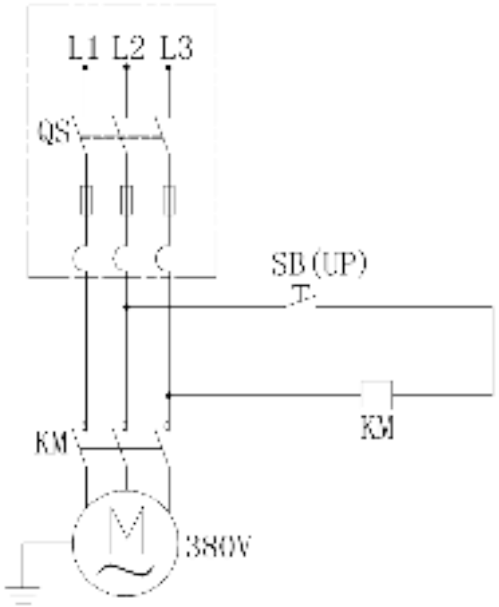
j).Spread butter on the sprocket, chain, pulley groove, steel cable, and slide lead rail, and cover the bottom. Installation finished.



Graph <3> Oil line pipe diagram

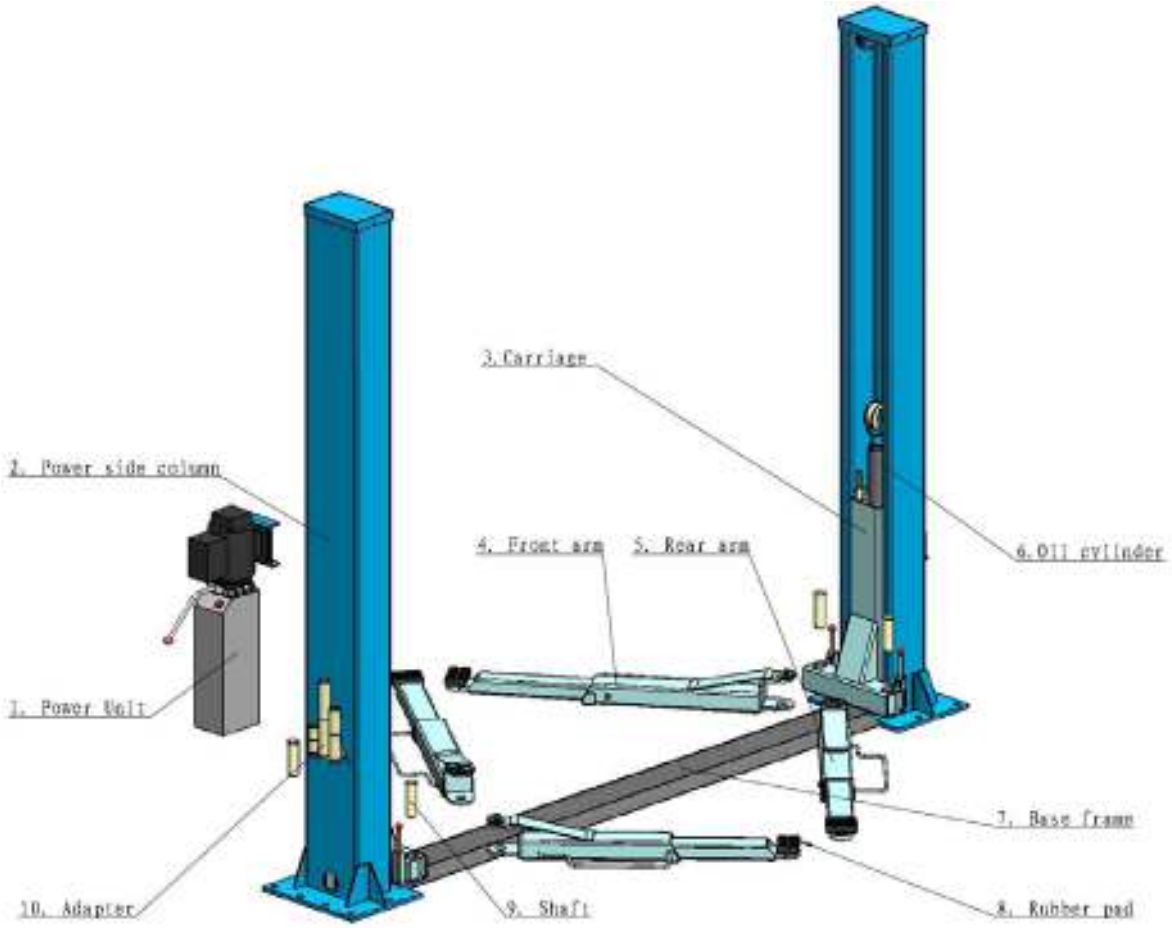


Graph <4> Install Cable diagram



Graph <5> Electric system principle diagram

V. Exploded View



Graph <6> LT103G Two post hydraulic lift

VI. Operation and usage information

To lift vehicle

A) Keep clean of environment near the lift;
B) Position lift arms to the lowest position;
C) To shortest lift arms;
D) Open lift arms;
E) Position vehicle between columns;
F) Move arms to the vehicle's lifting point;

Note: The four lift arms must at the same time contact the vehicle's lifting point where manufacturers recommended

G) Press the **UP** button until the lift pads contact underside of vehicle totally. Recheck to make sure vehicle is secure;
H) Continue to raise the lift slowly to the desired working height, ensuring the balance of vehicle;
I) Push lowering handle to lower lift onto the nearest safety. The vehicle is ready to repair.

To lower vehicle

1. Be sure clear of around and under the lift, only leaving operator in lift area;
2. Press the button of **UP** to raise the vehicle slightly, and then release the safety device, lower vehicle by pushing lowering handle.
3. Open the arms and position them to the shortest length;
4. Drive away the vehicle.
5. Turn off the power.

VII. MAINTENANCE SCHEDULE

Monthly:

1. Re-torque the anchor bolts to 80-117 Nm;
2. Check all connectors, bolts and pins to insure proper mounting;
3. Lubricate cable with lubricant;
4. Make a visual inspection of all hydraulic hoses/lines for possible wear or leakage;
5. Check Safety device and make sure proper condition;

6. Lubricate all Rollers and Pins with 90wt. Gear oil or equivalent;

Note: All anchor bolts should take full torque. If any of the bolts does not function for any reason, DO NOT use the lift until the bolt has been replaced.

Every six months:

1. Make a visual inspection of all moving parts for possible wear, interference or damage.
2. Check and adjust as necessary, equalizer tension of the cables to insure level lifting.
3. Check columns for plumbness.
4. Check Rubber Pads and replace as necessary.
5. Check Safety device and make sure proper condition.

VIII. Parts list

No.	Name	No.	Name
1	Power unit	6	Oil cylinder
2	Powerside column	7	Base frame
3	Carriage	8	Rubber pad
4	Front arm	9	Shaft
5	Rear arm	10	Adapter

IX. Maintenance, Trouble Shooting

TROUBLE	CAUSE	REMEDY
Motor does not run	1. Button does not work 2. Wiring connections are not in good condition 3. Motor burned out 4. Height Limit Switch is damaged 5. AC Contactor burned out	1. Replace button 2.Repair all wiring connections 3. Repair or replace motor 4.Replace the Limit Switch 5. Replace AC Contactor
Motor runs but the lift is not raised	1. Motor runs in reverse rotation 2. Gear Pump out of operation 3. Release Valve in damage 4. Relief Valve or Check Valve in damage 5. Low oil level	1.Reverse two power wire 2.Repair or replace 3. Repair or replace 4.Repair or replace 5.Fill tank
Lift does not stay up	1. Release Valve out of work 2. Relief Valve or Check Valve leakage 3. Cylinder or Fittings leaks	Repair or replace
Lift raises slowly	1. Oil line is jammed 2. Motor running on low voltage 3. Oil mixed with Air 4. Gear Pump leaks 5. Overload lifting	1. Clean the oil line 2. Check electrical system 3. Fill tank 4. Replace Pump 5. Check load
Lift can not lower	1. Safety device are in activated 2. Release Valve in damage 3. Safety cable broken 4. Oil system is jammed	1. Release the safeties 2. Repair or replace 3. Replace 4. Clean the oil system

X. Warranty Conditions

1) one year warranty(from the date of installation)
2) warranty scope: the failure caused because of responsibility of factory, the factory responsible for repairing the equipment
3) Not belong to the guarantee range: the damage caused by man-made due to transportation, improper use, insufficient foundation strength, the power is not in conformity with the stipulations. The components which are easy to damage(electrical appliances, rubber pad, slider, steel cable etc.