8T/10T/12T/16T Four post lift introduce

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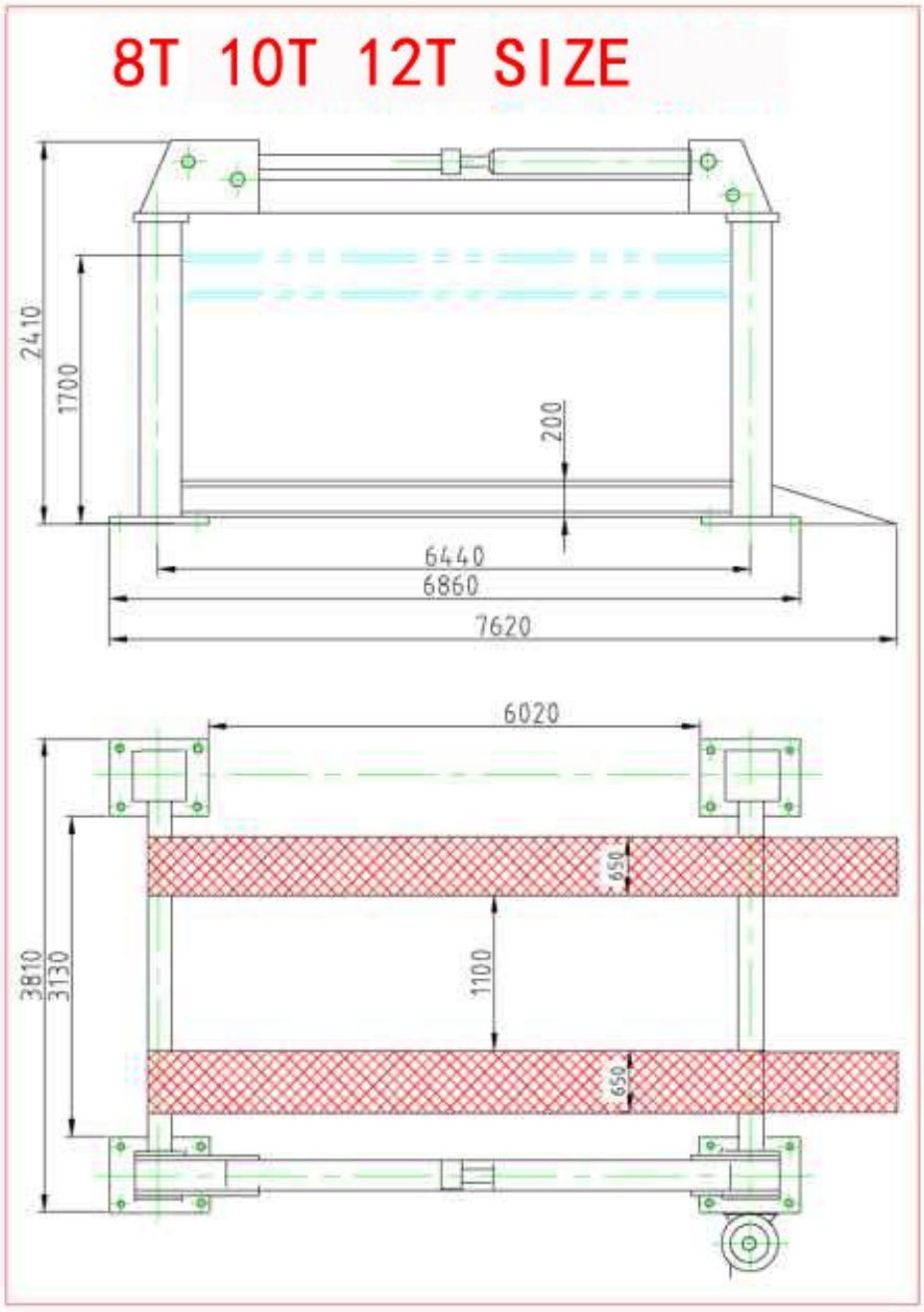
Heavy duty four post lift is a hydraulic & transmission type auto lifter developed by our company. The lifter body is welded up with profile steel, novel and endurable. Special safety device against chain breaking is installed to ensure safe and reliable operation. This lifter features simple operation, stable running, low noise and wide range of application.

This product mainly consists of posts, lifting beam,tray,transmission beam, chain safety device,oil cylinder,hydraulic pump station,etc.To raise the lifter, just press motor button. To lower down the main unit, toggle down the handle of the manual directional control valve at the pump station to unload oil cylinder and lower down the tray

Technical parameters

Type	Lifting weight T	Lifting height Mm	Rising time s	Falling time s	Min. height mm	Pump station pressure MPa	Motor power KW	outline dimension	Operating voltage
HC480P	8T	1700	<110	<110	200	16	3	6860*3810*2410mm	380
HC4100P	10T	1700	<110	<110	200	16	3	6860*3810*2410mm	380
HC4120P	12T	1700	<110	<110	200	16	3	6860*3810*2410mm	380
HC4160P	16T	1700	<110	<110	215	16	4	7300*3810*2410mm	380



Package

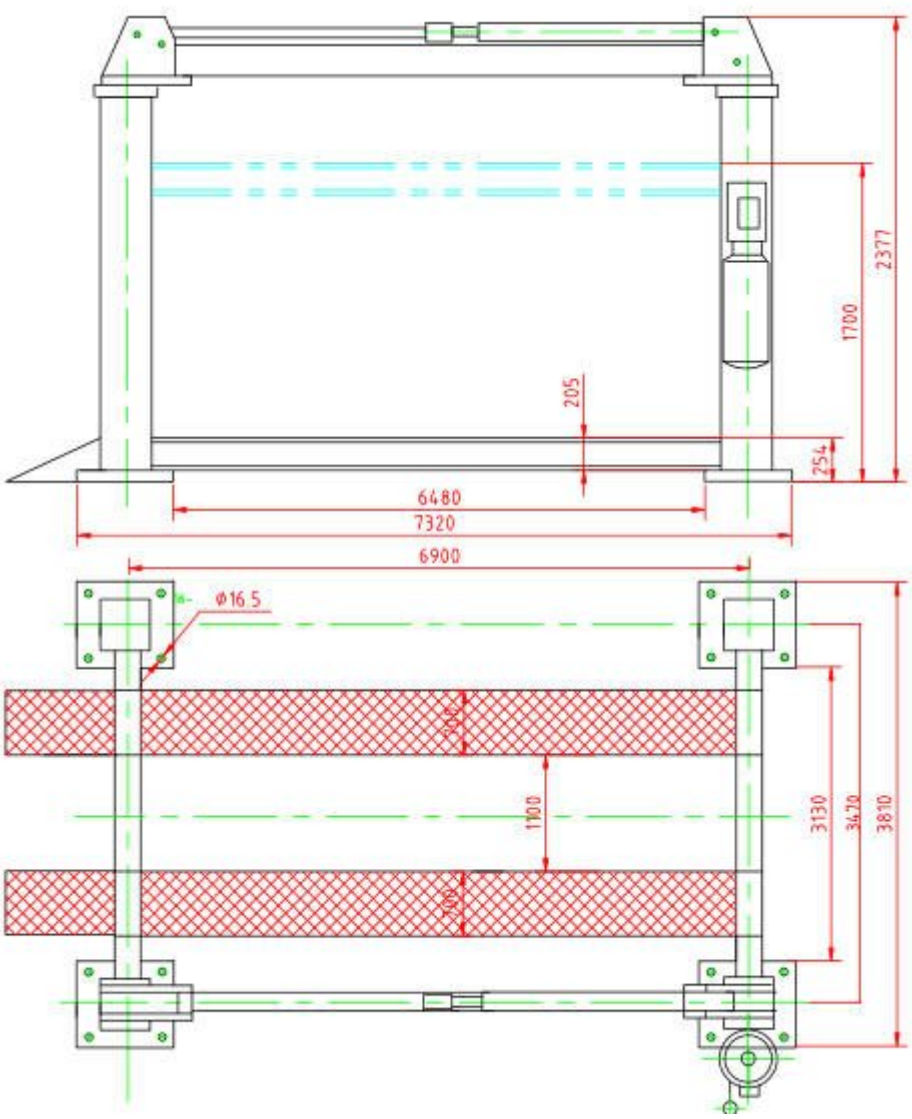
2100x430x500mm 2PC

6800x700x660mm 1PC

1200x830x200mm 1PC

750x520x1200mm 1PC

16t size



package

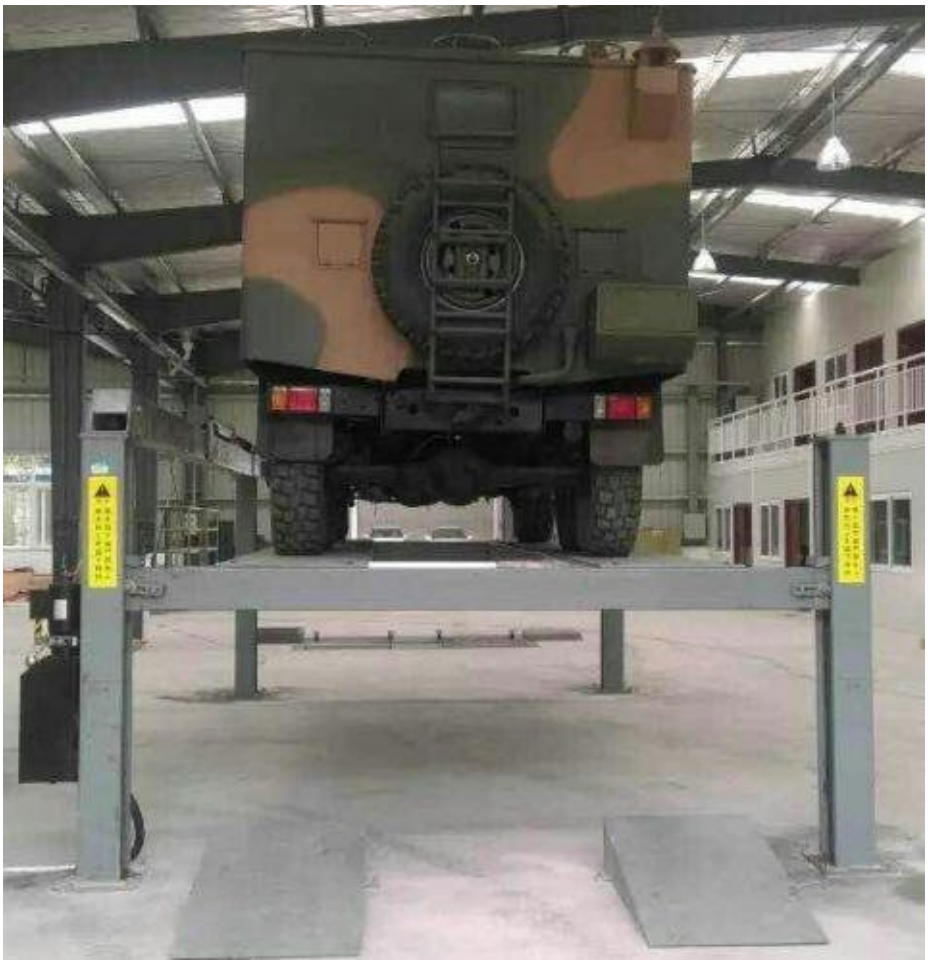
2100x430x500mm 2PC

7200x700x660mm 1PC

1200x830x200mm 1PC

750x520x1200mm 1PC

Some case



use manual:

6. Safety Device

The safety device against chain breaking has a manual plate clip structure. It is installed on both ends of the lifting beam. When the chain is broken, the claw clip on both ends of the lifting beam will set against the plate clip to prevent the tray from falling down the ensure safety to people, equipment and vehicle.

7. Operation of lifter

7.1 Drive the vehicle onto the tray and block the wheels with cushion wood.

7.2 Lay down four claw clips on both ends of the lifting beam to ensure the tray is secured during rising.

7.3 Rising: switch on the power and press the pump station button and the lifter begin to rise up. When reaching the required height, release the button to stop. In order to ensure safety when servicing, should lower down the tray to fall the claw clip onto the plate clip before working.

7.4 Falling down: when falling the lifter, first rise the tray over 50mm to disconnect the claw clip with the plate clip, and pull up four claw clips, than toggle down hand-operated directional valve at pump station to fall down the tray.

8. Precautions

8.1 It’s strictly prohibited to walk under the lifter when it’s going up and down.

8.2 It’s not recommended to raise the lifter to the limit of the height to avoid excessive pressure at pump station.

8.3 All the things under the tray must be cleared off before the vehicle goes down.

8.4 The safety claw clips must be secured when servicing the vehicle.

8.5 Keep the working environment clean.

8.6 Add grease at the lubrication points at least once every week.

8.7 The user should contact the dealer or manufacturer at once for specialists for any problems that he can’t solve.

9. Installation:

The installation steps as follows:

9.1 The equipment should be installed on vibration-free and solid concrete foundation.

9.2 Fix the tray and lifting beam with M10 bo1ts. (Also see External Dimensional Structure Diagram)

9.3 Fix four posts onto the floor with M16 expansion bo1ts and posts should be kept vertical (Also see External Dimensional Structure Diagram)

9.4 Fix the transmission beam onto the top of posts with M14 bo1ts and nuts. (Also see transmission Beam Installation Diagram)

9.5 Connect the chain

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9.6 Fix the hydraulic station on the back of a post, and connect the oil pile. Fill up the oil tank with 30# hydraulic oil.

9.7Apply lubrication grease on chain and rollers.

10. Test run

10.1 Pre-test inspection: should carry our an overall inspection before test run to check whether the fastening parts, connection parts and hydraulic system fittings are tightened up, whether the power conforms to rating, and whether the motor’s rotating direction is consistent with that marked on the pump station.

10.2 No-load run: repeat the rising and falling for several times to observe whether the hydraulic system and its running parts are normal and whether it’s running normal when reaching the height limit.

10.3 Load run: repeat the rising and falling for several times to check whether the units are running normally. Only after test start with the lifting &service.

11. Maintenance:

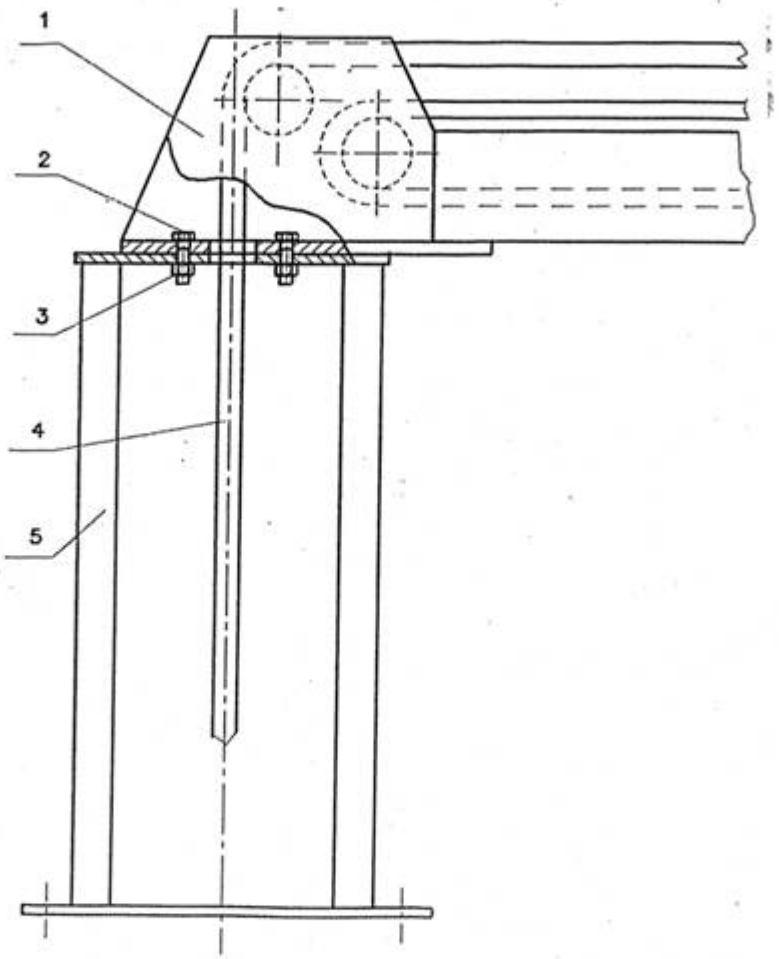
11.1 Keep the machine clean: this machine should be cleaned regularly and kept clean.

11.2 Frequent inspection: the safety device should be inspected frequently for whether it is sensitive and reliable. If the safety device is found abnormal, it should be adjusted, repaired or replaced. The chain should be inspected frequently for any broken piece. If any broken piece is found, should change it immediately. Don't try to use the broken piece otherwise may cause accident.

11.3 Maintenance on hydraulic system: should keep the hydraulic oil clean. If the oil is not clean, should change with new oil to ensure the service life of the hydraulic parts. After running for the first three months for the machine initially filled with oil, should clean the system and change with new oil. Later change the oil once every six months.

Transmission Beam Installation Diagram

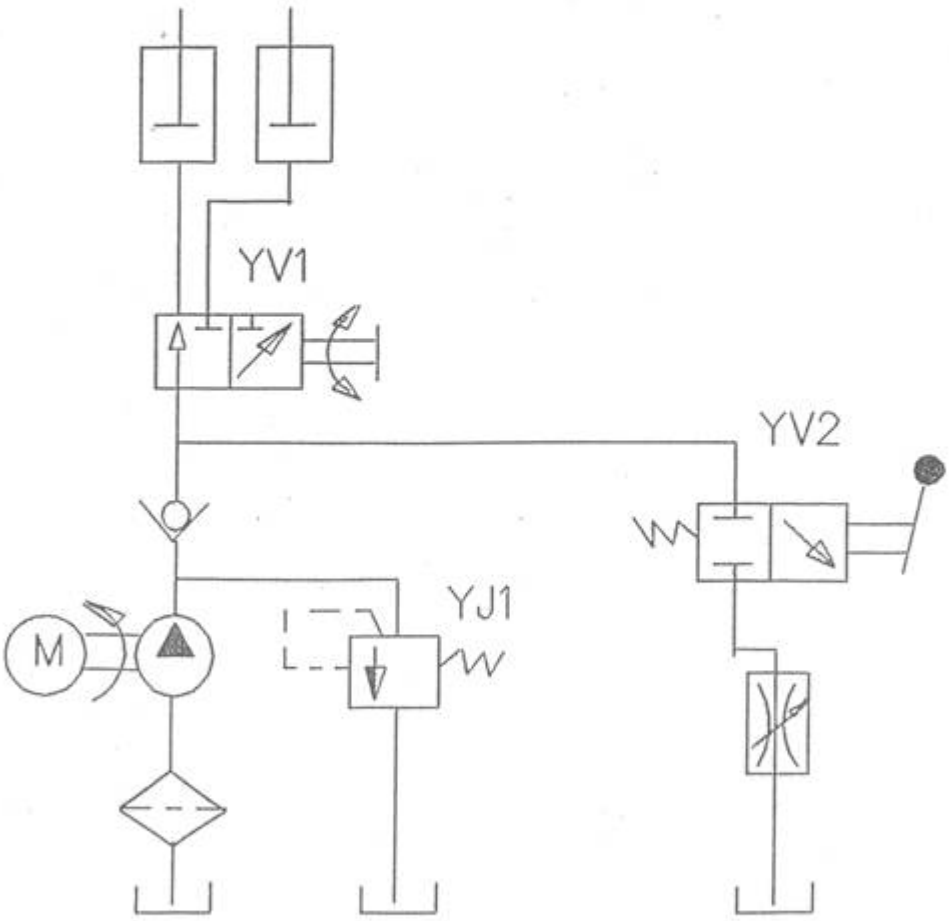
1. Transmission Beam, 2.Hexagonal Bolt, 3.Hexagonal But, 4. Chain, 5. Post



1、传动梁 2、六角螺栓 3、六角螺母 、链条 5、立柱

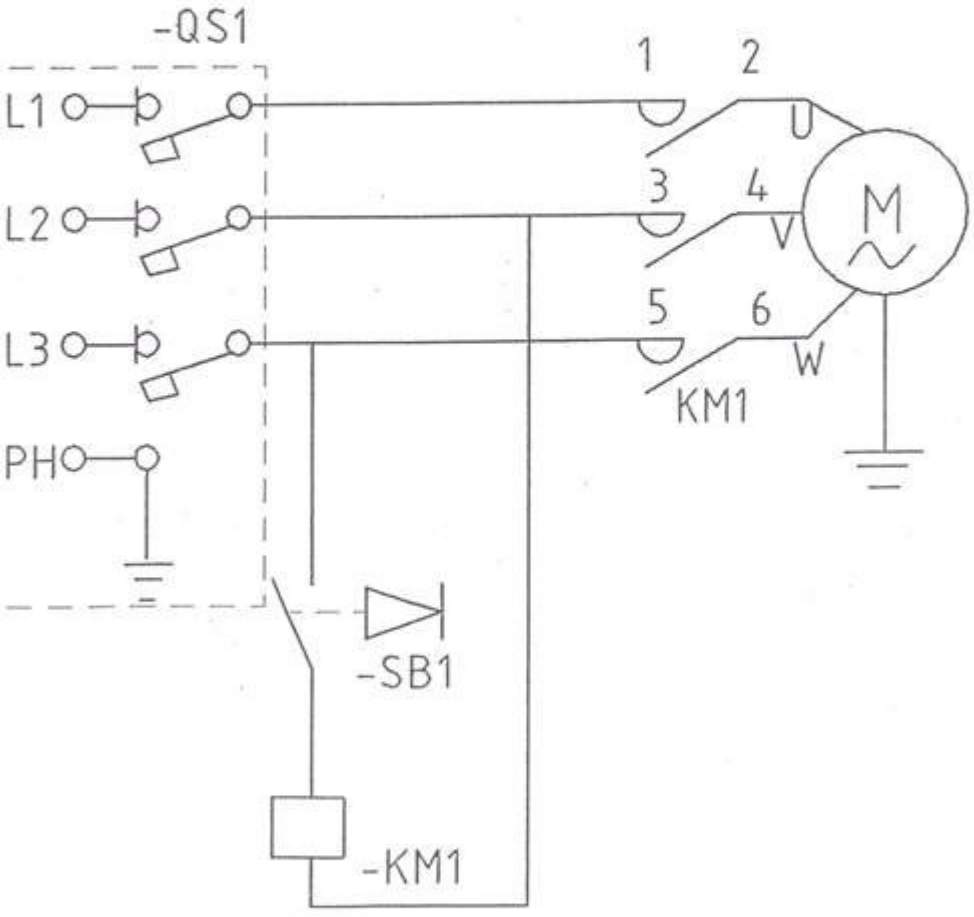
5.

Hydraulic Oil Circuit Diagram



6.

Electrical Diagram



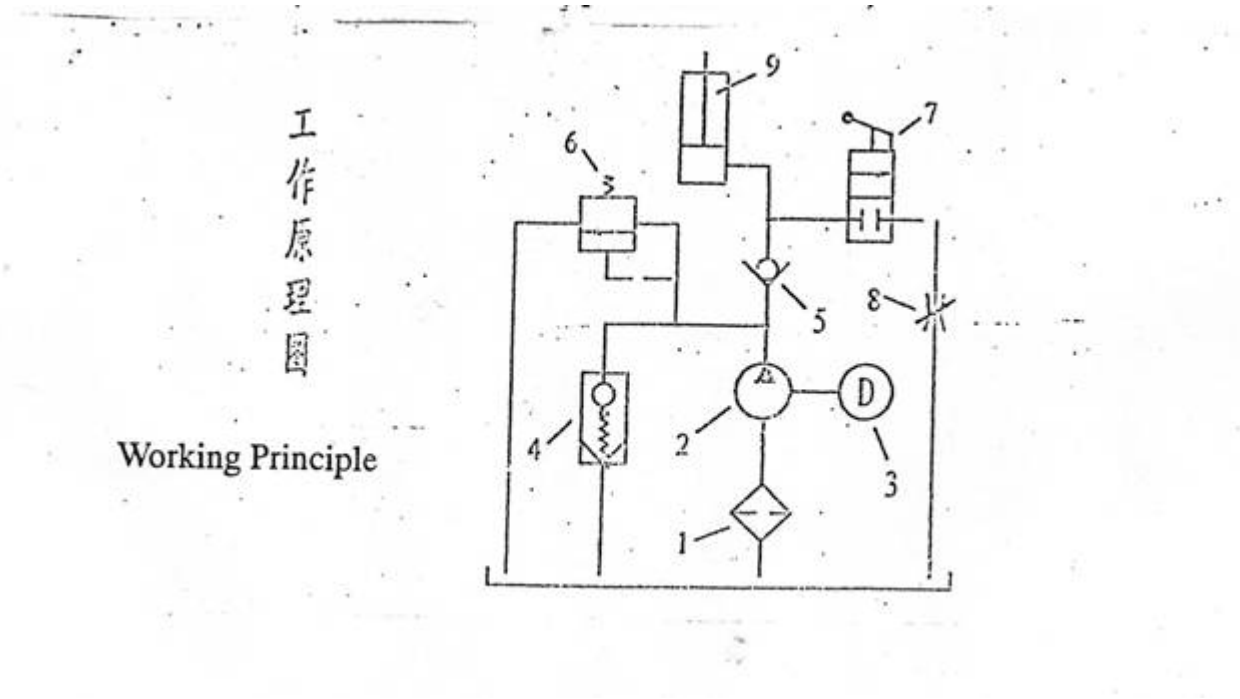
7.

Instructions to Operation & Repairing of Hydraulic Power Unit

1. Hydraulic Power Unit

The hydraulic power unit is designed by modifying the hydraulic station: to closely connect the gear oil pump, control valves,motor,and oil tank together so that the unit is compact,light,and beautiful while having good performance.

2.Working principle of hydraulic power unit(special for auto lifter)



2.1 Rising up of the lifter:

After the motor is started up,the gear oil pump②begins to operate,and the hydraulic oil will pass through oil filter ①and then check valve ⑤and enter ⑨to raise the lifter up.When the motor stops,the gear oil pump②will stop operation immediately and the lifter stops at the lifted height.Then the pressure is kept by check valve ⑤ and manual unloading valve ⑦

2.2 Going down of the lifer:

When to fall down the lifter,just push down the handle of manual unloading valve ⑦ and once the handle is released,the falling will stop immediately.The falling speed can be adjusted by throtrle valve ⑧turn inward to slow the speed and turn outward to increase the speed.

2.3 Pressure adjustment of hydraulic power unit:

The hydraulic power unit is usually set to the normal operating pressure(1820Mpa)at the time of delivery.The operator can adjust the fluid valve ⑥to change the pressure.The fluid valve ⑥ functions as both pressure adjusting element and pressure limiting element.Therefore,the operator's better not adjust the fluid valve.

2.4 The system is also equipped with cushion valve ④to ensure the service life of the motor gear oil pump and lower the noise at start-up and make the hydraulic power unit start up without loading.

3. Common faults and trouble-shooting method for hydraulic power unit

Faults	Cause	Check and trouble-shooting method
The lifter doesn't lift.	1. Electric motor 2. Cushion valve 3. Gear system	1. Check whether the electric motor runs normally,whether the power supply is OK,and whether the motor meet the specification. 2. check the cushion valve(in the oil tank).Dismantle the cushion valve to check whether the "O"ring the cushion valve is damaged.If damaged,replace with new one and install the valve again. 3. Check the gear pump;disconnect the power unit and the oil tank and jog the motor to observe whether the hydraulic oil comes out from the oil hole.If the oil comes out,it means the pump is OK.If not,it means the pump is not good and needs to be changed.
The lifter goes down accidentally	1. Unloading valve 2. Check valve 3. Oil pipe 4. Oil cylinder	1. Check for the leakage on the unloading valve.If leaking,change the unloading valve.If not,dismantle it and clean with gasoline then install it again. 2. Dismantle the check valve and clean with gasoline.When cleaning,be sure to dismantle it and after

		cleaning install it again. 3. Oil pipe:check for leakage on the oil pile and fitting .If leaking,change it. 4. Dismantle the oil cylinder;check whether the oil seal of the piston is good .If not,change it.
Abnormal noise on dynamic power unit	1. Hydraulic oil 2. Electric motor	1. Check whether the oil level in the oil tank reaches 4/5 of the tank height.If not,add a certain amount of hydraulic oil or 35# machinery oil to 4/5 2. Check the motor:press the screw driver against one end of the motor and the ear touches the end of the screw driver to listen whether the noise comes from the motor.If yes,change the motor.
The lifter goes down too fast	1. Check valve 2. Unloading valve 3. Oil pipe	1. Check valve:dismantle the check valve and open kit and clean with gasoline.Then install again. 2. Unloading valve:dismantle the unloading valve and clean with gasoline and then install again. 3. Check for the leakage on oil pipe and fitting.If leaking,take actions to stop the leaking.