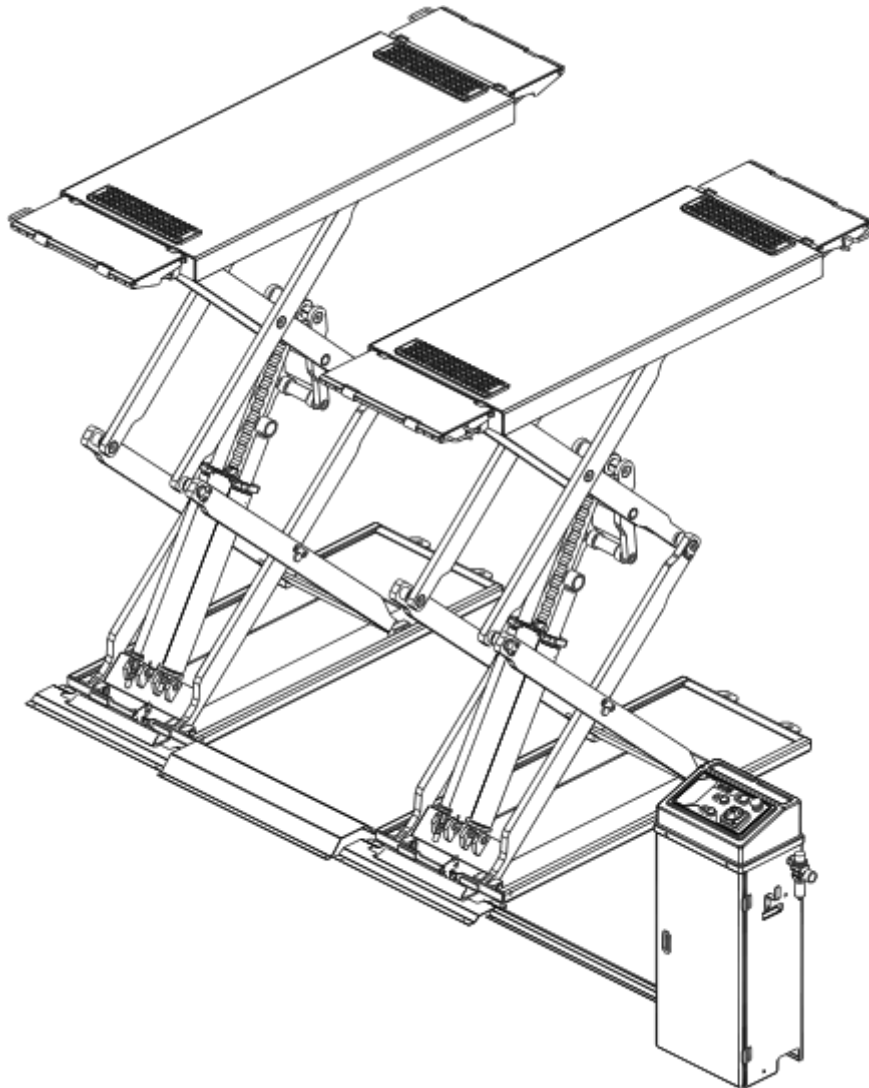




Concept FH3.5 Scissor Lift

OPERATING INSTRUCTIONS



Index

1. Safety
2. Main characteristics
3. Main technical parameters.....
4. Overall dimensions.....
5. Installation.....
6. Maintenance and repair.....
7. Troubleshooting.....

1. Safety

- a. Please read the instructions carefully before using the equipment. Only trained professional personnel should control and operate it.
- b. Clear obstacles around platform before it begins to work.
- c. Do not stand around the lift when it raises or descends, no-one should be in the vehicle when the lift is in operation.
- d. Weight of lifted vehicles should be within the scope of rated lifting capacity.
- e. Keep eyes on two platforms observing whether they are at the same level when the lift is being raised and lowered. Power should be cut off if there appears to be an abnormal lift. Equipment should only be used after checking and resolving any issues.
- f. The platforms will rise for short time and then descend when you press the down button.
- g. Equipment should be lowered to its lowest position and switched off when it is not in use.
- h. Fire extinguishers should be available on site.
- i. Air intake pipe which connects with lubricator (user-owned) should meet standard of air-compressed pressure 6~8kg/cm²
- j. Air-compressed should be filtered by oil-water separator to avoid air pressure system freezing if equipment is used below 10°C.

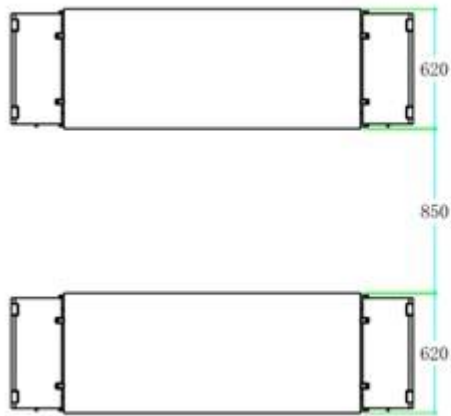
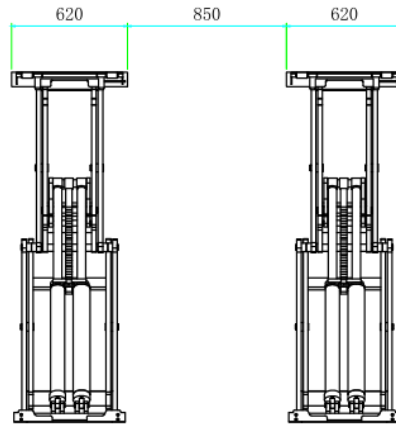
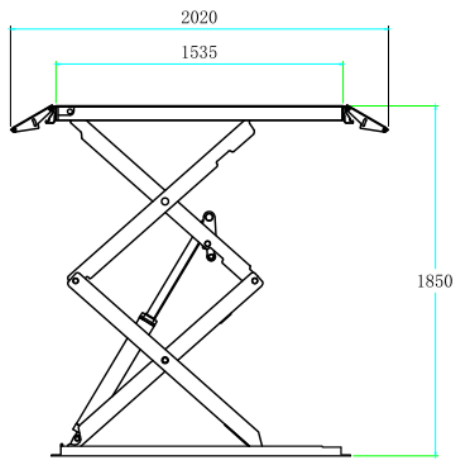
2. Main characteristics

- a. Utilises hidden, scissor-type structure with small footprint.
- b. Independent control box with lower pressure, high safety performance.
- c. Hydraulic capacity, synchronised cylinder, platforms operate with high stability.
- d. Hydraulic and mechanical lock device for safety.
- e. With hydraulic warning, overload safety valve protection, anti-explosion safety valve for preventing lift descent at speed.
- f. Utilises high quality hydraulics and electric parts
- g. Manual descent device for use when power off.

3. Main technical parameters

Max lifting capacity	3500KG
Lifting height	1850mm
Lifting time	≤50 sec
Platform length	1,535 mm
Platform width	620 mm
Motor power	2.2kw
Rated oil pressure	20MPa
Air pressure	6-8kgf/m ²

4. Overall dimensions (Refer to picture1)



5. Installation

Foundation below two platforms is of concrete structure, when interior ground thickness is less than 150mm, concrete area 2500mm x 2500mm, thickness ≥ 150 mm will need to be poured. Thickness and level are both important as minimal self-adjustment is possible.

Installation requirements:

Lift should be installed according to regulated safety distance of wall, column and other equipment.

Power and air supply should be connected to control box in installation place.

Installation height of interior space not less than 4000mm.

Any interior ground will be feasible to install if ground conditions meet requirements and sufficient weight-load capacity (≥ 250 kg/cm², thickness of ground concrete ≥ 150 mm)

Lifting platform installation:

Put two lifting platforms on the necessary position.

Bottom of oil cylinder will be forward of whole machine (entry direction).

Using forklift or other lifting equipment raise the platforms and ensure mechanical lock is engaged. Wooden block could be inserted between connecting rod which prevents the sudden lock out of operation.

Do not work under the machine when the hydraulic system is without oil.

Move platforms and adjust space distance between them, keep them parallel and connect oil pipe.

Gas circuit should be connected to complete hydraulic system's connection. Keep oil pipe, electric wire and gas pipe in a good condition. Joints will be protected when connecting oil pipe and gas pipe, preventing any impurity from entering the oil and gas circuit for breaking hydraulic system.

Press “up” button and observe whether two platforms are stable and synchronized.

Observe whether safety claws drop into position exactly.

Any persons and items are prohibited in the regulated area of lifting when to test.

Stop for abnormal faults and test again after solving them.

Load test

A car will be driven to platforms and its weight should be within maximum scope of lift.

Rubber pads of lift will be on top position of a car.

Press “up” button and observe whether two platforms are stable and synchronized or not when to raise.

Observe whether safety claws drop into position exactly. Check for oil and gas leakage.

Any persons and items are prohibited in the regulated area of lifting when to test for load.

Weight of tested car should be within the scope of maximum lifting weight.

Check leakage for oil and gas circuit. Stop for any abnormal faults and test again after solving them.

Operation safety instructions:

Clear obstacles around machine before starting work.

No-one should be within the vehicle or working area when the platforms are being raised or lowered.

Do not lift vehicles outside of maximum capacity.

Keep eyes on position of rubber block under vehicle chassis when raising.

Platforms will be raised a little prior to lowering, observe whether two safety claws and two safety teeth are fully separated.

Platforms should be in its lowest position when equipment is out of operation for a long time or at night. Vehicles should be removed and power cut off.

Operation for manual descent of power off

Move safety claws of two platforms and place hard object under them.

Cut off switch (preventing the sudden electric), open control box and find "down" solenoid valve.

Release slowly manual oil-returning bolt which locates in the end part of solenoid valve and then platform will be lowered.

Screw tightly the manual oil-returning bolt after descending.

6. Maintenance and repair

1. Anti-wear hydraulic oil should be replenished to keep oil level height when the machine is operated for its first time or unused for more than one month.
2. Lubricating oil should be greased into oil-hole every week.
3. Roller parts should be kept clean and greased on their surface.
4. Fuel strainer should be cleaned every three months; hydraulic oil should be changed every three months for its first operation and every six months after that.

Fuel tank and strainer should be cleaned with gasoline when changing hydraulic oil.

5. Air-compressed should be filtered by oil-water separator in air system for ensuring cylinder and solenoid valve operated in stable conditions, air-compressed pressure should be 6-8kg/cm².
6. Voltage regulator should be installed if local voltage fluctuation value is over 10%.

7.Troubleshooting

PROBLEM	REASON	SOLUTIONS
Motor doesn't rotate when required	<ol style="list-style-type: none"> 1. Problems on power supply or neutral wire 2. AC contactor of motor's main circuit is not magnetic 3. Limit switch is not closed 	<ol style="list-style-type: none"> 1. Check and connect electric wires 2. AC contactor will need to be changed if coil voltage of both sides is normal. 3. Fault disappears after switch terminal connected by wires. Check limit switch, wires and adjust or replace.
Motor rotates but does not raise when pressing up button	<ol style="list-style-type: none"> 1. Motor reverse rotation 2. Light load will not raise 3. Insufficient hydraulic oil 4: "Working stop valve" is not opened 	<ol style="list-style-type: none"> 1. Change power wires 2. Rotate lightly to right side and increase safety pressure value of spill valve. Core of lowering solenoid valve is blocked and needs cleaning. 3. Replenish hydraulic oil 4 Unscrew working stop valve from left side ensuring hydraulic oil is supplied to main cylinder
Will not lower when pressing down button	<ol style="list-style-type: none"> 1. Safety claw not separated from safety tooth 2. Safety claw not lifted 3 Solenoid valve is not working 4. Power supply in lowering solenoid valve not working 5. High viscosity of hydraulic oil or frozen (in winter) 	<ol style="list-style-type: none"> 1. Raise lightly and then descend 2. Insufficient air pressure or safety claws are blocked 3. Solenoid valve should be checked or changed. 4. Check plug coil of lowering solenoid valve and confirm whether nut is screwed tightly from right side 5. Change hydraulic oil
Normal load but descends slowly	<ol style="list-style-type: none"> 1. Anti-explosion valve is blocked 	<p>Remove or close intake pipe to ensure safety claw will not be raised and is locked Remove anti-explosion valve in oil-hole in the bottom of oil cylinder and clean it.</p>
Left and right platform are not synchronized and not in the same level	<ol style="list-style-type: none"> 1. Air of oil cylinder is not exhausted fully 2. Leakage on oil pipe or joint 3. "Oil replenishing valve" is loose (it needs oil nearly every day) 	<ol style="list-style-type: none"> 1. Refer to operation of oil replenishing adjustment 2. Check joint or change oil seal and then replenish oil for adjusting. 3. Change oil replenishing valve and then adjust.
Noise when raise and descend	<ol style="list-style-type: none"> 1. Insufficient lubrication 2. Foundation or machine itself is skewed 	<ol style="list-style-type: none"> 1. Grease oil into all joints and moving parts 2. Adjust level of machine