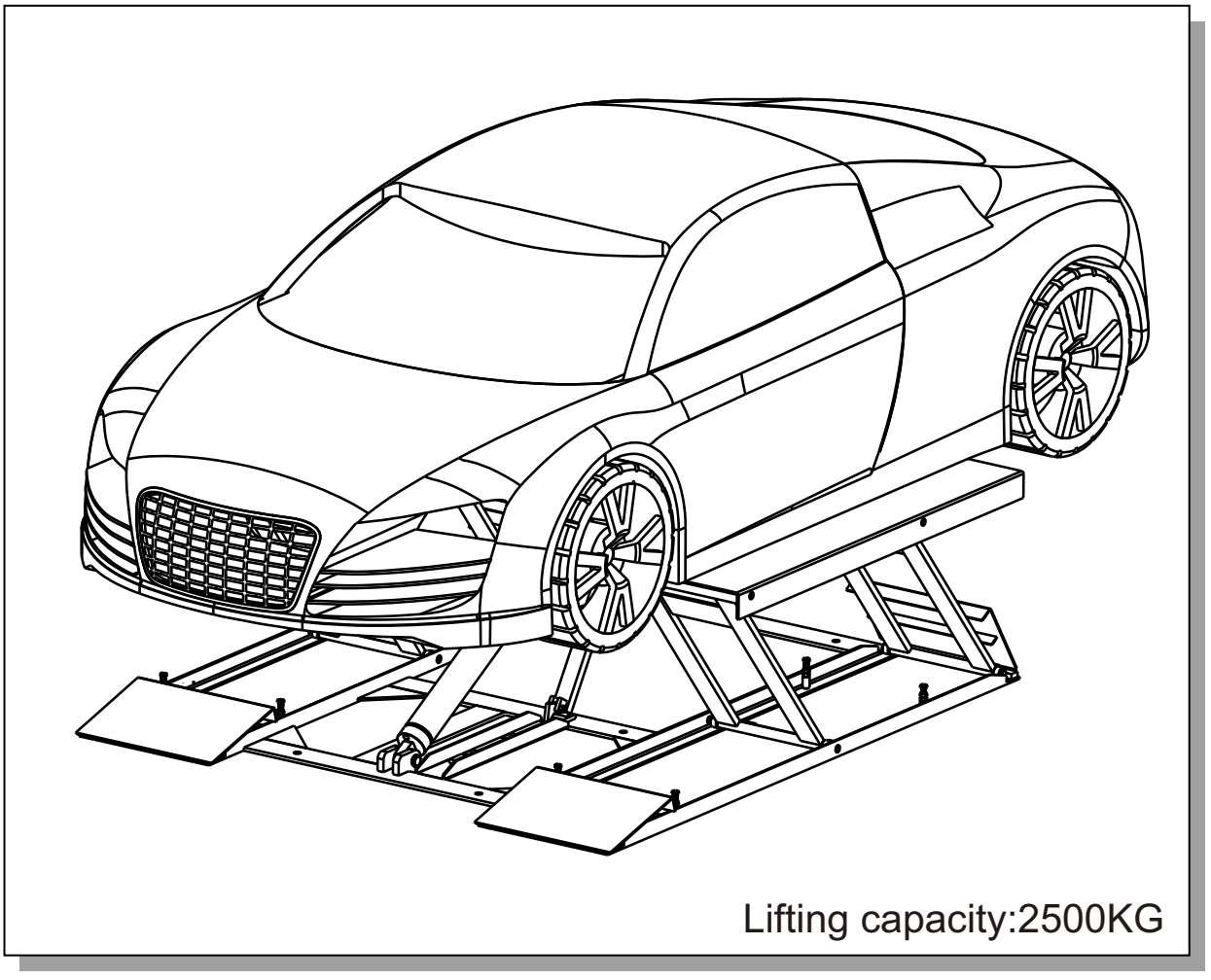
SMALL PARALLEL PLATFORM SCISSOR LIFT

CL-S30H



Lifting capacity:2500KG

INSTRUCTION & MAINTENANCE MANUAL

Read this entire manual carefully and completely before installation or operation of the lift

SCISSOR LIFT INSTRUCTION MANUAL

INDEX **PAGE**

1. Packing, transport and storage

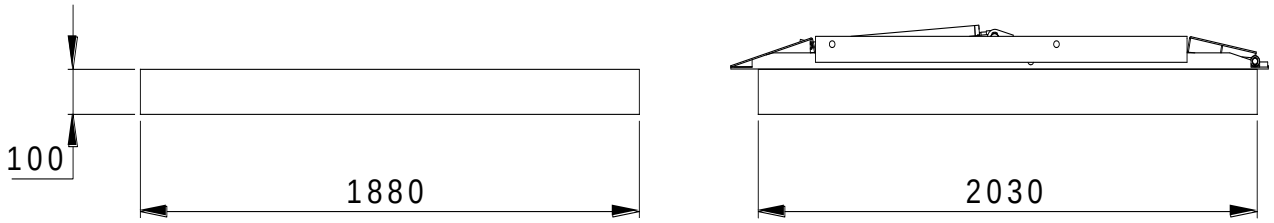
All packing, lifting, handling, transport and unpacking operations are to be performed exclusively by expert personnel.

1.1 Packing:

Packing List

NO.	Name	Accessory name and quantity
1	Frame	Frame 1 piece
2	Accessory box	1 set(details are in the accessories packing list)

Table 1



Picture 1(Packing dimension picture)

1.2 Transport:

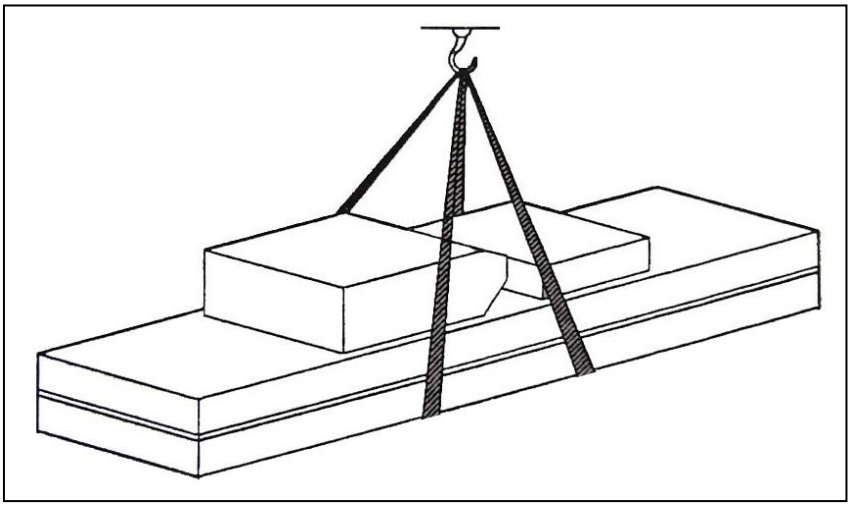
Packing can be lifted or moved by lift trucks, cranes or bridge cranes. In case of slinging, a second person must always take care of the load, in order to avoid dangerous oscillations.

During loading and unloading operation, goods must be handled by vehicles or ships.
At the arrival of the goods, verify that all items specified in the delivery notes are included. In case of missing parts possible defects or damage may due to transport operations.

If finding missing parts, possible defects or damage due to transport, one should examine damaged cartons according to **<<Accessories Packing List.>>** to verify the condition of damaged goods and missing parts, also the person in charge or the carrier must be immediately informed.

The machine is heavy goods! Don't take manpower load and unload and transporting way into consideration, the safety of working is important.

Furthermore, during loading and unloading operation goods must be handled as shown in the picture. (**Picture 2**)



Picture 2 (Goods-lifted)

1.3 Storage:

-The machine equipment should be stocked in the warehouse, if stocked outside should do the disposal well of waterproof.
-Use box truck in the process of transport, use container storage when shipping.
-The control box should be placed perpendicularly during the transport; and prevent other goods from extrusion.
-The temperature for machine storage : -25ºC-- 55ºC

2. Manual introduction

This manual has been prepared for workshop personnel expert in the use of the lift operator and technicians responsible for routine maintenance fitter.

Workers should read the **<<Instruction & Maintenance Manual>>** carefully before carrying out any operation with the lift. This manual contains important information regarding:
-The personal safety of operators and maintenance workers.
-Lift safety.
-The safety of lifted vehicles.

Several tips should be done by the operator as follow:
1.Well conserving the manual. Manufacturer owns the right to make little change for the manual owing to the improvement of technology.
2.Good disposal the used oil.
3.The machine must be demolished by authorized technicians, just like for assembling

3. Description of the machine

3.1 Machine Application

small parallel platform scissor lift can lift all kinds of vehicle whose weight is less than 2500kg, suitable for use in vehicle tests, maintenance and caring for automobiles, which is particularly suitable for use in the basement or on the floor, without construction and hole.

3.2 Structure Features

-Use hidden and thin scissor structure, dispense with construction and ground hole, the occupation is small

-High quality hydraulic cylinder and parallel structure design make the lift stable and durable to use.

-Only 100mm height to lift car, convenient surface installation, suitable for various types of automobile.

-Hydraulic cylinders locking each other and anti-explosion for pipe, stable reliable synchronization.

-Unlocking automatically no need air supply.

-Parallel structure design makes the lift stable and durable to use.

3.3 Automatic locking/unlocking structure

Locking operation(picture 3):

-Press the button "up", and the safety pawl moves with the connecting rod.

-Stop pressing the button until the rod falls to the safety gear only.

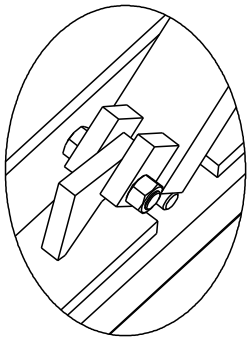
-Press the handle downward, and the rod will move to the nearest gear to lock the lift tightly.

Unlocking operation(picture 4):

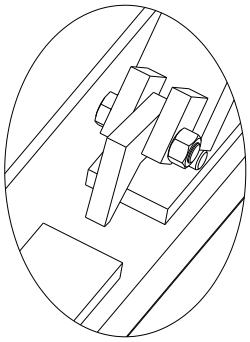
-Press the button "up", and the safety pawl moves with the connecting rod.

-Stop pressing the button until the safety pawl falls to the safety gear only.

-Press the handle downward, and the rod will move to the nearest gear to unlock the lift .



Picture 3



Picture 4

3.4 Equipment

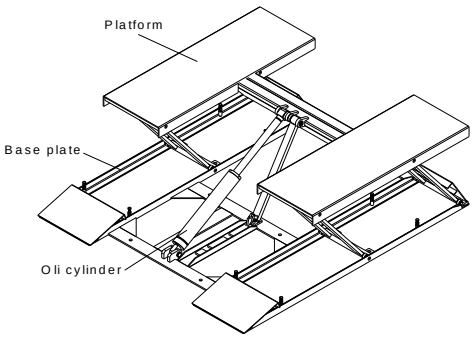
-Machine basement (The position and space of equipment installation)

-Machine frame (The main structure of lift and insurance institution)

-Power unit (Machine-controlled part)

3.5 Frame

Make of base plate, platform and hydraulic cylinder.



Picture 5

3.6 Power unit

It is made up of hydraulic pump, motor, oil hose and electric control box

Function of each valve on the power unit	
Name	Function
Gear pump	Extract hydraulic oil and provide high pressure.
Valve block	Connect the motor and the gear pump.
Motor	Provide power for the gear pump.
Overflow valve	Adjust oil pressure.
Throttle valve	Adjust the speed of falling.
Lowering solenoid valve	Control flow of the hydraulic oil.
One-way valve	Control the one-way flow of hydraulic oil.

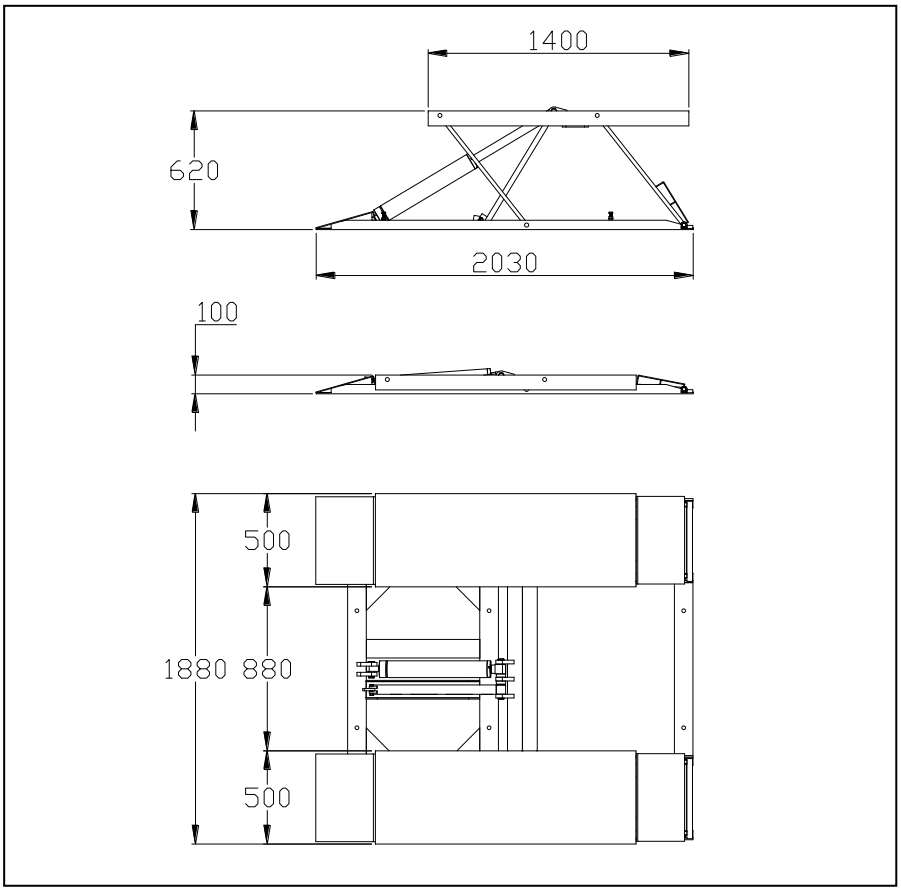
4. Specifications

4.1 Main technical parameter

Machine type	Scissor lift
Drive	Power unit
Lifting capacity	2500kg
Machine lift height	620mm
Platform initial height	100mm
Platform length	1400mm
Platform width	500mm
Lifting time	≤25s
Descent time	≤25s
Whole machine length	2030mm
Whole machine width	1880mm
Power supply	3/PE~380V, 50Hz,10A
Whole machine power	2.2kw
Hydraulic oil	6L corresponds to wearable hydraulic oil
Gas pressure	
Working temperature	5-40℃
Working humidity	30-95%
Noisy	< 70db
Installation height	height above sea level≤1000M
Storage temperature	-25℃~55℃

Table 2

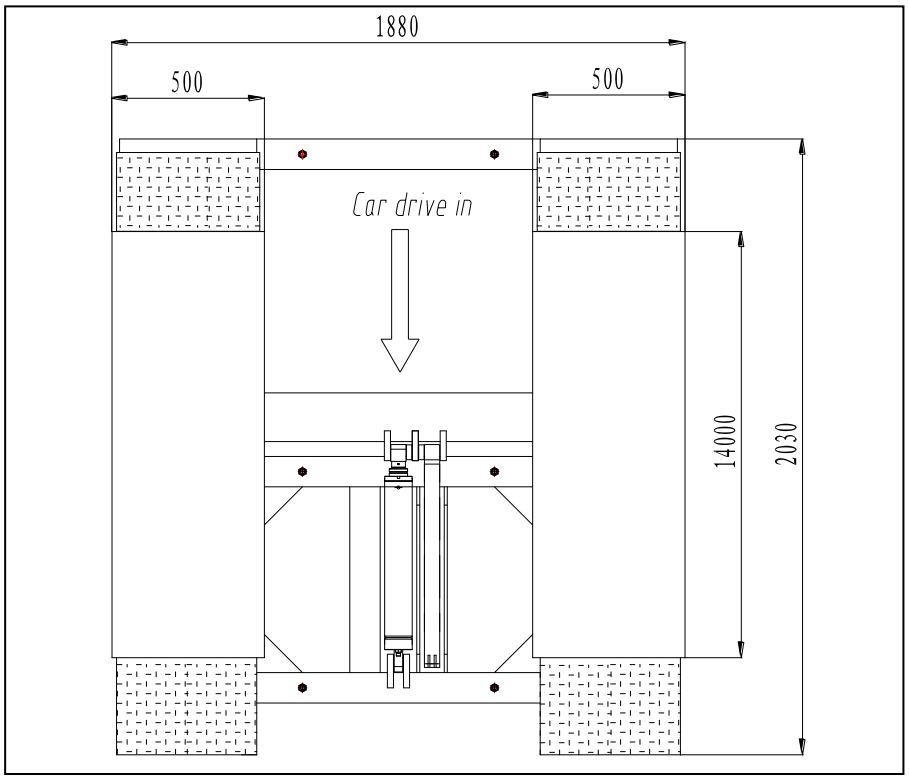
4.2 External dimension drawing



Picture 6 (Lift dimension picture)

4.3 Installation scheme for scissor lift

Picture 7 (Equipment basic picture)

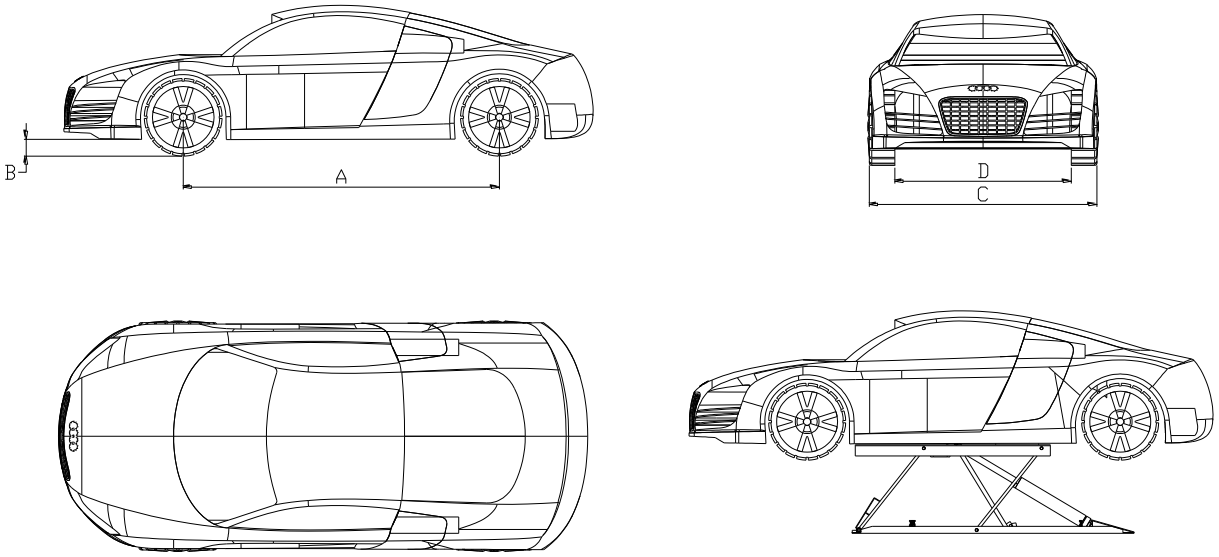


4.4 Types of vehicles suitable for

This lift are suitable for virtually all vehicles with total weight and with dimensions not exceeding the below data. Maximum weight not exceed than 2500kg

The max dimension of vehicle:**(For reference only)**

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



Picture 8

	Scissor lift	
	Min	Max.
A	2000	3000
B	120	
C		1900
D	900	

The lower parts of the vehicle underbody could interfere with structural parts of the lift. Take particular parts of the sports-car.

The lift will also handle 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.

Read this chapter carefully and completely since important information for the safety of 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, the safety device installed and the correct use of such systems, residual risks and operative procedures to use (general specific precautions to eliminate potential hazards).

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 spray work;
-Use in outdoors;
-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 damage to vehicles and other property caused by the incorrect and unauthorized use of the lifts.

During lifting and descent, the operator must remain in the control station as the diagrams illustrated.

As the diagrams illustrated, 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 (e.g.: the safety gear is completely locked).

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 irreparable damage to the lift and the vehicle being lifted.

5. Safety

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:

Warning: indicates following operations that are unsafe and can cause minor injury to persons and damage the lift, the vehicle or other property.

Risk and protection devices

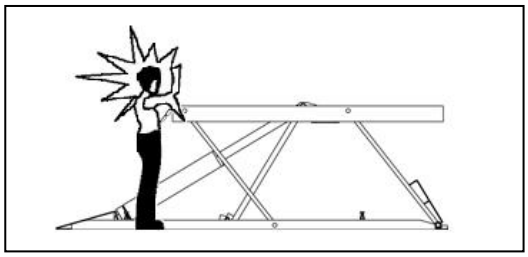
We shall now examine the risks that operators or maintenance fitters may be exposed to when the vehicle is standing on the platforms in the raised position, together with the various safety and protection devices adopted by the manufacturer to reduce all such hazards to the minimum.

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 impact

Before the operator begins up and down movements, make sure that there are no personnel inside the danger zone. When, due to operational reasons, the lift is stopped at relatively low elevations (lower than 1.75m above the ground) personnel must be careful to avoid impact with parts of the machine not marked with special colors. (**Picture 9**)



Picture 9

Risk of falling off (personnel)

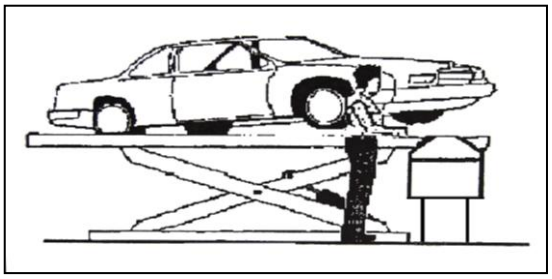
During up and down operations, personnel are prohibited from entering the platforms and the vehicle to avoid falling off.

Risk of falling (vehicle)

This hazard may arise in the case of incorrect positioning of the vehicle on the platforms, overweight of the vehicle, or in the case of vehicles of dimensions that are not compatible with the capacity of the lift.

When the platform is being tested, the vehicle engine can not be turned on.

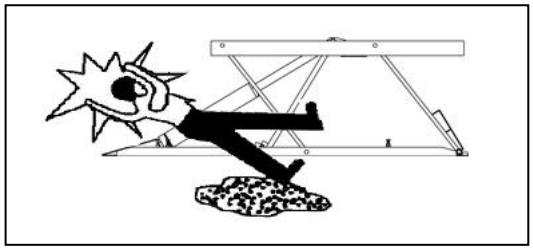
There is nothing should be placed on the lift-lowering area and the movable parts of the lift.



Picture 10

Risk of slipping

The floor caused by lubricant contamination of around the lift. The area beneath and immediately surrounding the lift and also the platforms must be kept clean. Remove any oil spills immediately.(**Picture 11**)



Picture 11

Risk of electric shock

Risk of electric shock in areas of insulated and shattered electric equipments

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 appropriate lighting

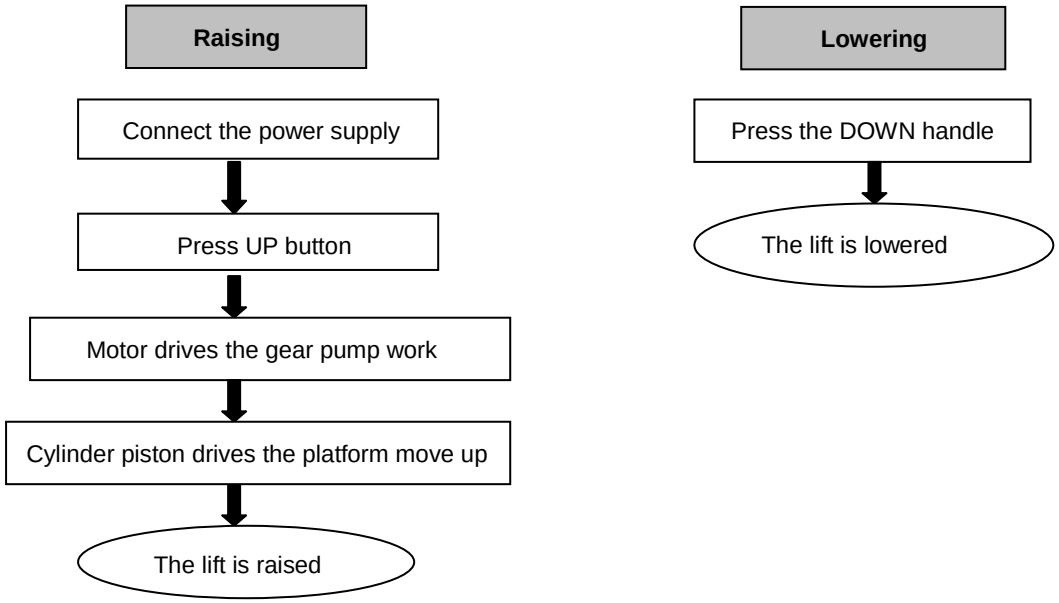
The operator and the maintenance fitter must be able to assure that all the areas of the lift are properly and uniformly illuminate compliance with the laws in force in the place of installation.

During up and down operations, the operator should continually observe the lift and can operate it only in the position of operator. When lifting and lowering the vehicle, the cushion needs being put in the bottom of chassis.

The handling of safety devices is strictly forbidden. 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.

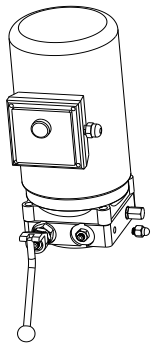
6. Operation



Emergency lowering in case of no power

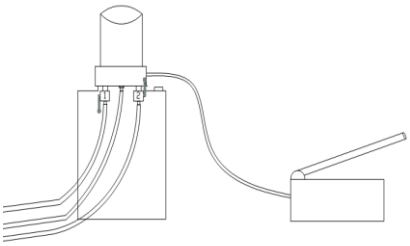
Safety lock is engaged.

1. Take down the removable plug from the hydraulic block.



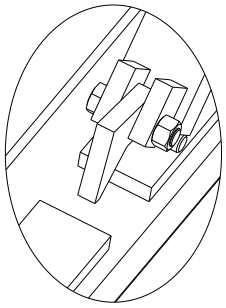
Picture 12

2. Connect the optional hand pump to hydraulic block at the point where the removable plug used to be fitted.



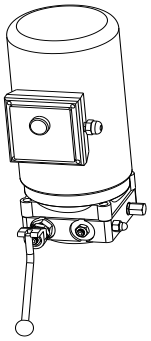
Picture 13

3. Press the handle of the optional hand pump to raise the platform to have the safety teeth unlocked.



Picture 14

4. Press the lowering handle downward to lower the lift



Picture 15

7. Maintenance and care

Skilled personnel only is allowed to perform the operations

Daily checking items

The user must perform daily check. Daily check of safety system is very important – the discovery of device failure before action could save your time and prevent you from great loss, injury or casualty.

·Always wipe clean, keep the machine clean.

·Clear barriers and ground oil, keep the working condition clean.

·Check the integrity of each safety devices, ensure the motion is flexible and reliable.

·Check the reliability of limit switch motion.

·Check whether oil leakage of the machine exist.

Weekly checking items

·All bearings and hinges on this machine must be lubricated once a week by using an oiler

·Check the working conditions of safety parts.

·Check the amount of oil left in the oil tank. Oil is enough if the carriage can be raised to highest position. Otherwise, oil is insufficient.

Monthly checking items

·The safety gear and other movable parts must be lubricated one month.

·Check the abrasion and leakage of oil hose.

Yearly checking items

·The hydraulic oil must be replaced one time each year. The oil level should always be kept at upper limit position.

·.Check abrasion and damage of all the active parts.

·.Check the lubrication of roller. Lubricate it if drag phenomenon exist.

-The machine should be lower to the lowest position when replace hydraulic oil, then let the old oil out, and should be filtering the hydraulic oil.

-Each team checks the agility and reliability of pneumatic safety equipment.

Storage after use

When the machine does not use for a long time:

·.Cut off the power supply and lubricate all the active parts.

·.Drain the hydraulic oil of oil cylinder, oil hose and oil tank.

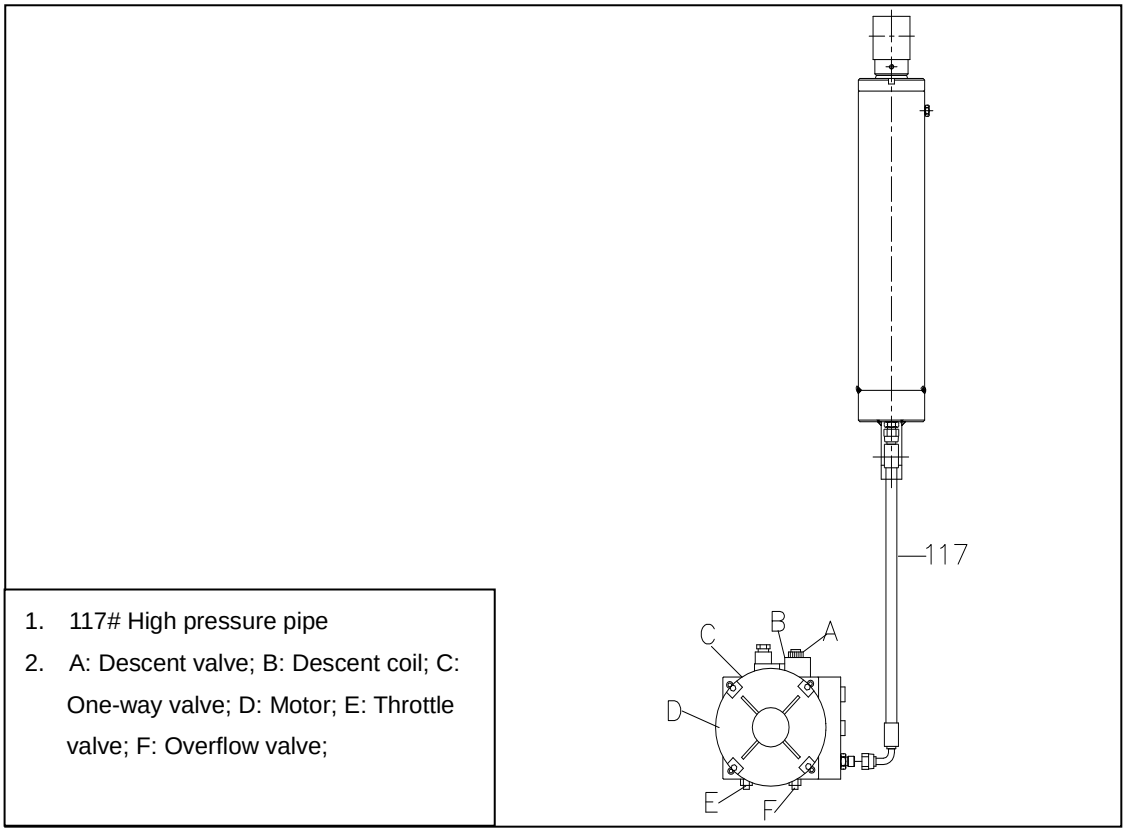
·Sheathe the machine with dust-proof cover.

8. Trouble shooting table

- Check if the hydraulic oil runs out or not.
- Check if the AC contact loop burns out or not.
- Check if the button switch fails or not.

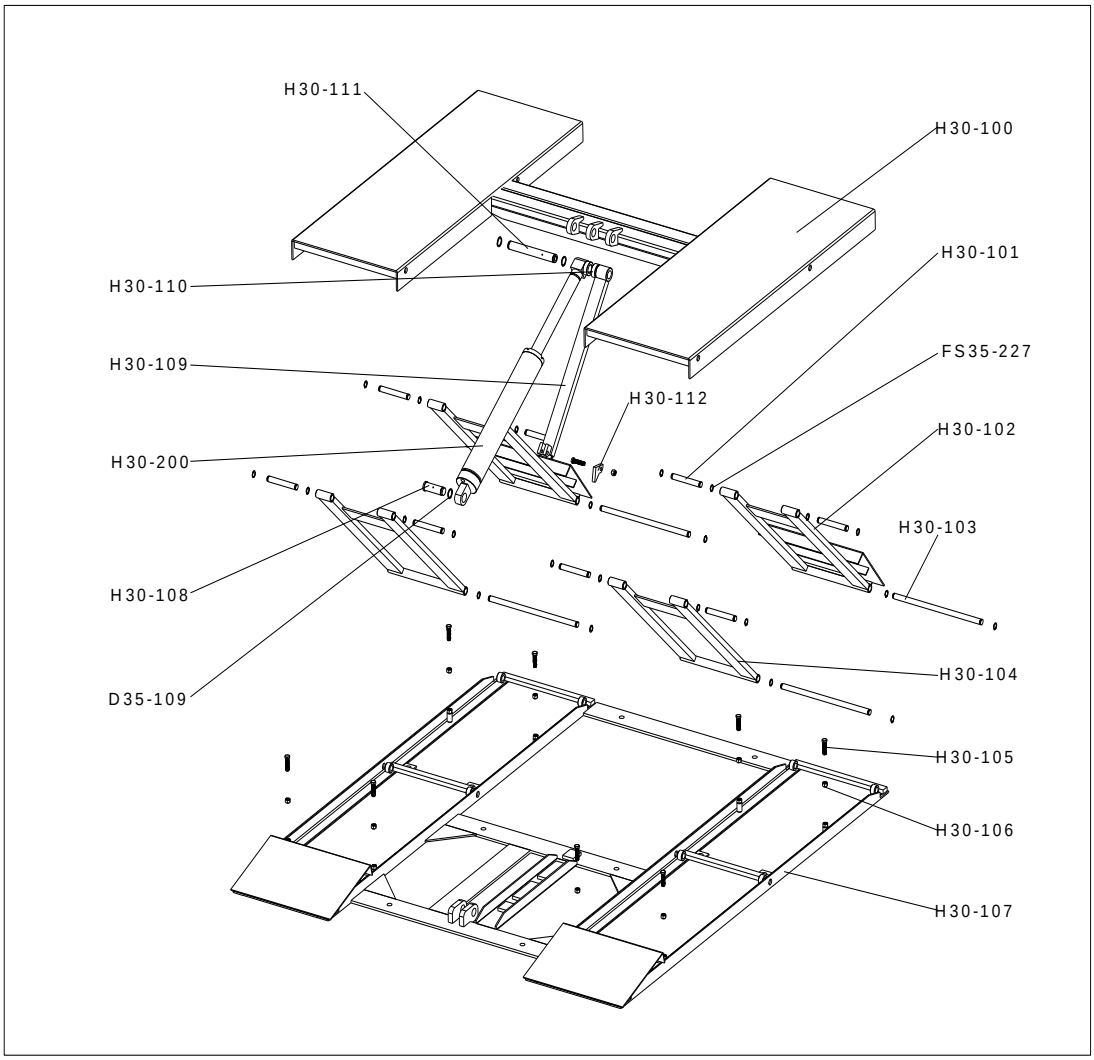
Failure Phenomena	Cause and Phenomena	Resolutions
The motor does not run in lifting operation.	①Connection of power supply wires is not correct.	Check and correct wire connection
	②The AC contactor in the circuit of the motor does not pick up.	If the motor operates when forcing the contactor down with an isolation rod, check the control circuit. If the voltage at two ends of the contactor coil is normal, replace the contactor.
In lifting operation, the motor runs, but there is no lifting movement.	①The motor turns reverse.	Change the phases of the power supply wires.
	②Lifting with light load is normal but no lifting with heavy load.	Lift is overloaded and is unable to carry the load being attempted. Carefully lower and remove vehicle from lift. The spool of the lowering solenoid valve is stuck by dirt. Clean the spool.
	③The amount of hydraulic oil is not enough.	Add hydraulic oil.
The machine lowers extremely slowly under normal loads.	①The hydraulic oil has too high viscosity or frozen, deteriorated (in Winter).	Replace with hydraulic oil in accordance with the instruction book.
Noisy lifting and lowering.	①Lubrication is not enough.	Lubricate all hinges and motion parts (including piston rod) with machine oil
	② The base or the machine is twisted.	Adjust again the levelness of the machine, and fill or pad the base.

9. Oil hose connection diagram

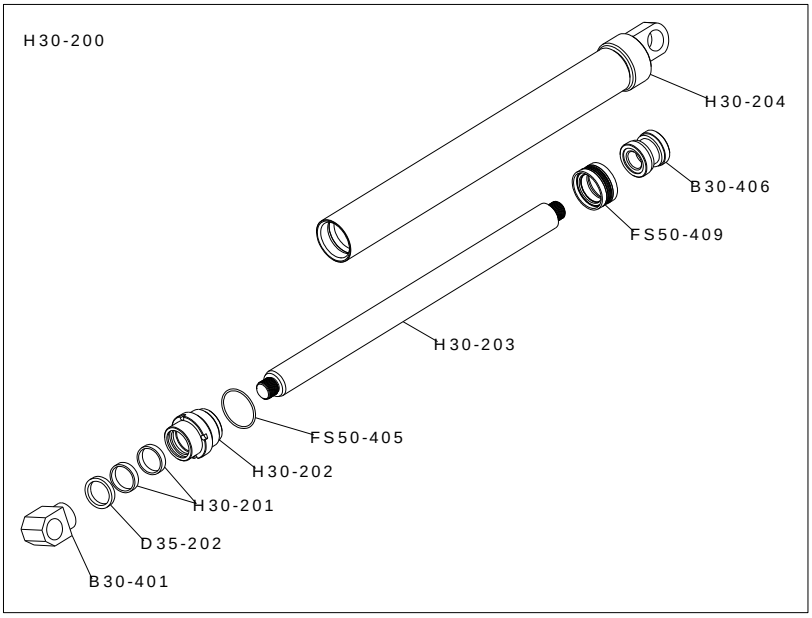


1. 117# High pressure pipe
2. A: Descent valve; B: Descent coil; C: One-way valve; D: Motor; E: Throttle valve; F: Overflow valve;

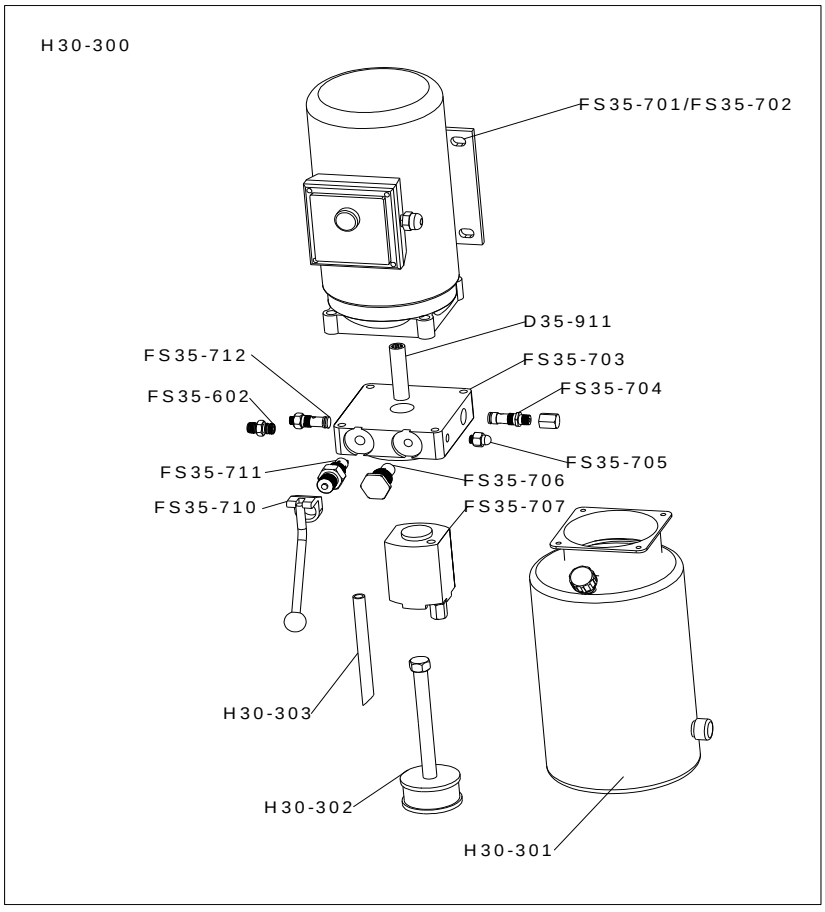
10. Explosion drawing



H30-100	top plate
H30-101	connecting rod short shaft
FS35-227	shaft snap ring Ø20
H30-102	connecting rod 2 assembly
H30-103	connecting long short shaft
H30-104	connecting rod 1 assembly
H30-105	hex bolt M12X50
H30-106	hex nut M12
H30-107	base
D35-109	shaft snap ring Ø30
H30-108	Stationary shaft of oil cylinder
H30-200	oil cylinder complete
H30-109	insurance rod
H30-110	spacer sleeve
H30-111	piston rod stationary rod
H30-112	insurance claw



H30-200	oil cylinder complete
B30-401	oil cylinder support block
D35-202	dust-proof ring Ø45X53X6.5
H30-201	Wear ring
H30-202	sub oil cylinder cover
FS50-405	O-ring Ø75X4
H30-203	piston rod
FS50-409	combined seal ring Ø75X55X22.4
B30-406	piston
H30-204	oil cylinder



H30-300	Power unit complete
FS35-701	1 phase motor
FS35-702	3 phase motor
D35-911	Annectent spinde
FS35-703	Valve block
FS35-704	Overflow valve
FS35-705	Plug
FS35-706	One-way valve
FS35-707	Gear pump
H30-301	Oil tank
H30-302	Suction oil hose
H30-303	Escape oil hose
FS35-710	Lowering handle
FS35-711	Lowering valve
FS35-602	Oil hose union
FS35-712	Throttle valve

11. Accessories Packing List

Name	Pic	Spec.	Qty
1.Power unit		Manual lowering	1 set
2.Rubber mat		160mm*120mm*35mm	4 pc
3.High pressure oil hose		3.5m(117#)	1 pc
4.Foundation bolt		Foundation bolt M16	14 set
5.Foundation bolt		Foundation bolt M8	2 set
6.Use manual		including instruction manual, certificate of soundness, warranty bill and packing list	1 pc