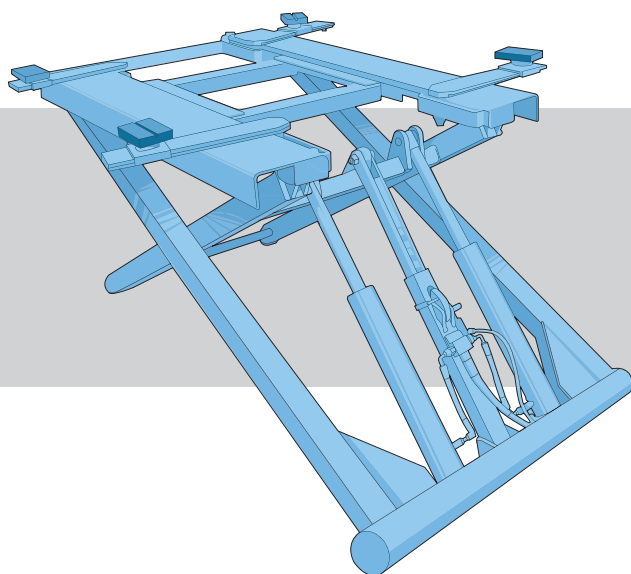


## HESHBON MID-RISE LIFT

### Installation/Operation & Maintenance Manual



**HL-30M**



Please read this manual before you get started.  
You must read and understand the precautions for safety to protect your safety  
and any damage to your property.

## NOTE TO THE USER

Thank you for purchasing HESHBON,S CAR LIFT  
Please read this instruction carefully for safe and proper use of  
the car lift, and keep it handy for future reference.

- This Manual is for model : HL - 30M
- As for the assurance of safety in design and construction of car lift, read this Manual first.
- Please make sure that this manual is delivered to end users for their implementation of safety.
- Don't use the car lift in a potentially explosive atmosphere.

ANY PART OF THIS PRINT MUST NOT BE REPRODUCED  
IN ANY FORM WITHOUT PERMISSION.  
THIS PRINT IS SUBJECT TO CHANGE WITHOUT NOTICE.

# TABLE OF CONTENTS

<b>Introduction</b>	<b>1</b>
Description of components	1
Functions	2
Specification	2
<b>safety</b>	<b>3</b>
Danger, warning, caution	3
<b>Installation</b>	<b>5</b>
Check list before installing	5
Installation procedures	6
<b>Operation</b>	<b>7</b>
<b>Maintenance</b>	<b>7</b>
Equipment maintenance	7
Check the maintenance methods	8
Check list and periodic maintenance	9
<b>Parts List</b>	<b>10</b>
<b>Appendix - Circuit</b>	<b>14</b>

Introduction

Safety

Installation

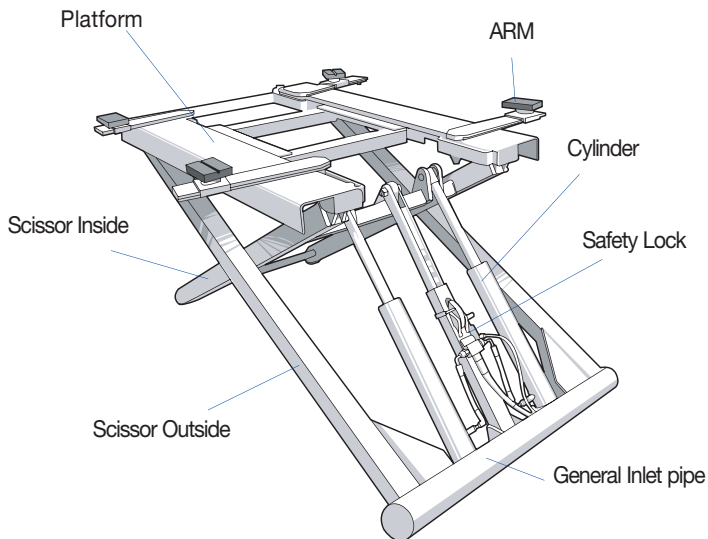
Operation

Partlist

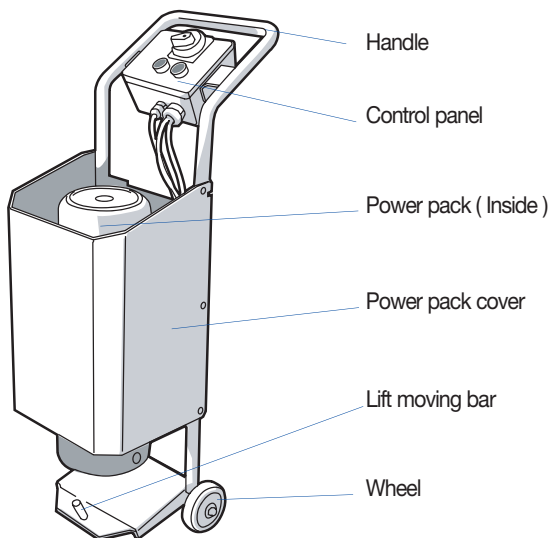
■ This manual was prepared in April,2005 the product specifications contained in this manual are subject to change without notice.

## Components

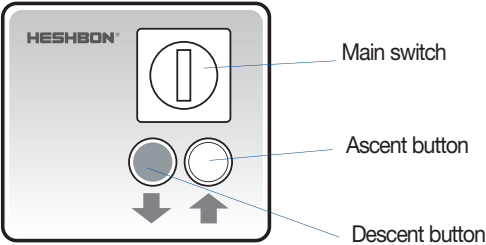
### ■ Lift



### ■ Control panel



Description



Specification

Model Name	HL - 30M
Capacity	2700 kg
Hydraulic working pressure	200 Kgf/cm <sup>2</sup>
Overall Max.Height	1,000 mm
Min.platform height	170 mm
Stroke	340 mm
Lifting Time	15 ~ 25 sec
Lowering Time	10 ~ 20 sec.
Standard Motor	1ph 2,5HP 4P 220V 50/60Hz
Net Weight	320 kg
Layout dimensions (W/L/H)	1,017 × 2,000 × 100 mm

## Danger/warning/caution

Rules for illustrations in the Manual.

These are the rules for the illustrations in the manual. Make sure that you read them and understand them. The rules are applied only to the manuals of Heshbon Co., Ltd..



Do not come under the vehicle during operation.  
▶ This can cause injury or death.



Evacuate to a safe place instantly in the event that the vehicle tips.  
▶ This can cause injury or death.



Make sure you follow the instructions, otherwise critical injury or death can occur.



Make sure you follow the instructions, otherwise critical injury or damage can occur.



Make sure you follow the instructions; otherwise, injury or damage can occur



The terms are described to enhance the understanding of the equipment.



Information to use the equipment efficiently.



Precautions or check points for the use of the equipment.



Please refer to the page

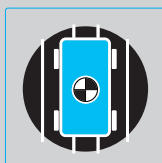


### Warning before using the equipment

Only trained personnel may operate the equipment. Inexperience can cause accidents.



Position the vehicle to make sure that it is balanced front and rear, right and left (otherwise the vehicle may fall off).



Do not operate damaged equipment (a critical accident could occur - contact your Heshbon supplier)



After that a vehicle is placed on the lift make sure that the hand brake is applied. Passenger transport is forbidden.





### Warning while operating

Allow no unauthorized persons in the work area.



Before lowering the lift, check that there are no obstructions under the vehicle or the lift arms.



When the vehicle is lifted, do not rock it as this may dislodge it.



Do not lift a vehicle using one pair of arms only.

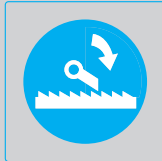


### Warning while operating

To avoid injury, keep your feet clear of the arms and carriages.



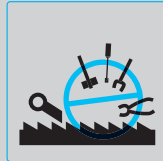
Before going under the lift, make sure that the safety pawls are engaged.



To avoid being electrocuted, disconnect the main power before opening the control panel.



Do not modify the control panel or the safety functions as this may impair their function.



### Warning when operating

Do not rock the vehicle when lifted. Do not use a high pressure cleaner as the vehicle lower part.



Read and fully understand the manual before using the lift

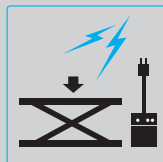


### Warning before using the equipment

Check the safety devices to see that they are clean and operable.



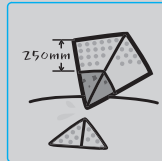
If the lift is idle for a long time, disconnect the main power supply. In the event of thunder storm, disconnect the main power supply.



## Checklist before installing

### Installation site

The site must be flat and horizontal. The floor must have minimum 250mm depth of reinforced concrete.



Surface load under the posts must be minimum 350kN/m<sup>2</sup>.

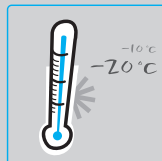


To maintain the warranty, the lift is intended for indoor installation only. In the event that it is installed outside it should be protected from snow and rain. Outdoor installation makes the warranty invalid.

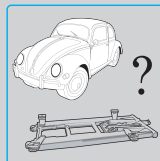


### Installation site

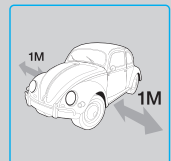
Ambient temperature 10°C to 50°C. Do not operate under freezing conditions.



Vehicle access to the lift must be safe and easy.



There must be a safe working distance of minimum 1m between the lift and the wall or any fixed object.



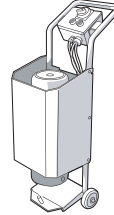
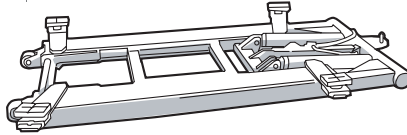
The lift should be installed by skilled engineers either from Heshbon or from Heshbon's appointed representatives. Failure to observe this makes the lift warranty invalid. If the lift is to be moved to another site at a later date, it must be reinstalled by skilled engineers either from Heshbon or from Heshbon's appointed representatives.



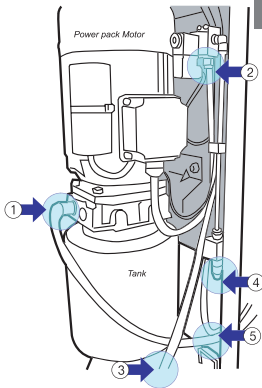
## installation

### 1 Installation procedures

Place the main parts on the appropriate position



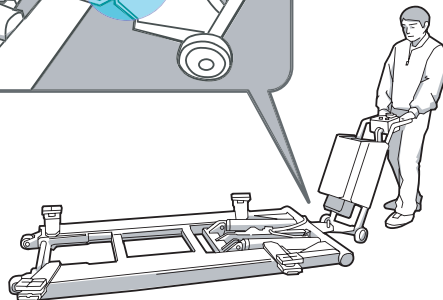
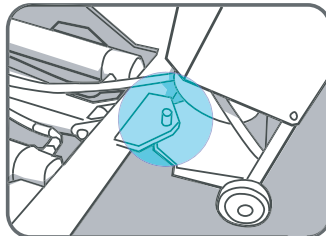
### 2 Assembling control panel



- ① Connection of pressure hose
- ② Connection of air hose ( Out )
- ③ Connection of Main Power
- ④ Connection of air hose (IN)
- ⑤ Fix the hose with tie strings up to a distance of 100mm from control panel.

### 3 The way to move lift

After product establishment completing it sells and neyl it hangs it moves the main body mobile exchange seal in the main body.  
Hook as shown below to pull or push.



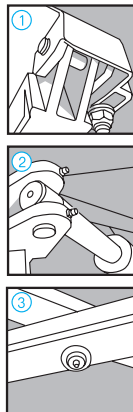
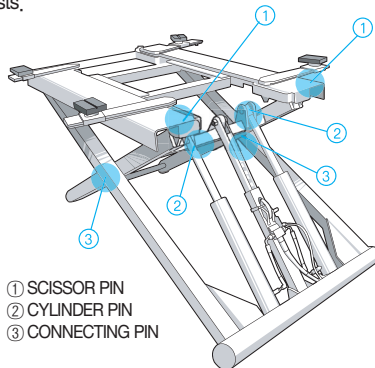
## Equipment maintenance

### ■ Lubrication

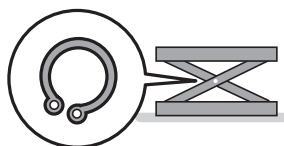
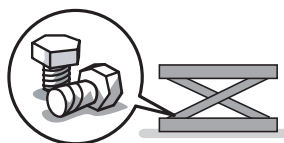
► At 2-or-3-month intervals, depending on service usage,

#### 1 Molybdenum disulphide grease

► Apply molybdenum disulphide grease liberally to the carriage guides and the guide runners inside the posts.



## Operation



### ■ Cleanliness

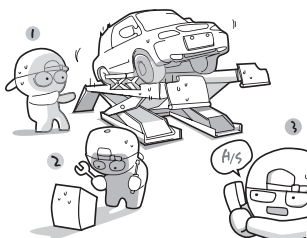
► Check every day that the lift is clean and that the work area is clean and free from debris or obstructions.

► Clean safety devices at 2-or-3-month intervals, depending on service usage.

- Clean the arm lock gears and surroundings, lubricate the gear teeth and the release mechanisms. Clean the safety lock pawls, and lubricate the axles.

### ■ Check the circle of the link axis

► Check the existence of the inside and outside of the link axis.



- ① It is very dangerous. Do not enter the lift.
- ② Do not touch the operational part if you do not understand the manual descending method.
- ③ If you decide a failure cannot be treated properly request after-sale service immediately.

## Trouble Shooting

Symptoms		Check point	Corrective Action to be taken
Hydraulic Cylinder And its units	The abnormal noise at motor listened.	1. Rated capacity is exceeded. 2. Relief pressure is low. 3. Shortage of hydraulic oil.	1. Operate within rated capacity. 2. Adjust to 2.7 ton 3. Let air out of the hydraulic unit after supplying the oil
	Hydraulic Oil is leaked.	1. Defect in hydraulic hoses. 2. Leakage from connecting parts. 3. Bad cylinder packing.	1. Replace the hydraulic hose. 2. Tighten the connection. 3. Request A/S.
	Oil is contaminated.	Check if an water or Foreign substance comes into the cylinder.	Exchange oil (annually) (Hydraulic oil : 32CST/12liter)
	The lift is not move up .	Check if the oil is leaked or hydraulic pump are damaged.	Contact customer service department.
	The lift is not lowered.	Check if the valve is properly operated.	Contact customer service department.
	The fitting parts is rusted.	Check if the grease is not sufficiently injected.	Inject the grease every 1 month.
Electric Devices	Motor is not operated and the abnormal noise at motor is listened	1. Check if the motor is damaged. 2. Check if the fuse is opened. 3. Check if the push button is damaged. 4. Check if the upper limit is operated. 5. Check if wiring gauge is proper. 6. Check if the input power less than 200V is supplied.	1 Replace the motor (Request A/S). 2. Replace the fuse after solving trouble. 3. Replace the push button (Request A/S). 4. Re-operate after lowering the lift. 5. Replace to the cable with over 3.5mm <sup>2</sup> diameter. 6. Increase the input power capacity.
	Fuse is snapped	1. Check the Contact of magnetic contactor. 2. Check the capacity of circuit breaker. 3. Check if the wire is damaged.	1. Replacement (Request A/S). 2. Replacement (Request A/S). 3. Replacement after checking.
	Motor is operating but lift is not moved up.	1. Check if the rotating direction of motor is correct. 2. Check if hydraulic lines is damaged.	1. Re-operate after changing the phase connection. 2. Refer to check points for hydraulic cylinder and unit.

## Check list and periodic maintenance

Inspection period	Points to be checked	Items to be checked	Inspection method	Action to be taken	Replacement period
1 week	Rubber Support for adjustment	Abrasion and deformation	Visual	Replacement	1 year
	Magnetic contactor	Damage of contact	Measurement	Replacement	2 year
3 months	Wire Rope	Abrasion, deformation and Breaking of wire	Visual	Replacement	2 year
	Post Guide	Abrasion	Visual	Replacement	4 year
	DU bush	Abrasion	Visual	Replacement	4 year
	Axle for wire pulley	Noise and abrasion	Visual	Replacement	5 year
	Wire pulley	Abrasion	Visual	Replacement	5 year
6 months	Electrical components	Damage of components	Measurement	Replacement	3 year
	Hydraulic Oil	Shortage of oil	Visual	Replacement	1 year
1 year	Piston Seal Kit	Oil leak or deformation	Visual	Replacement	3 year
	Load Seal Kit	Oil leak or deformation	Visual	Replacement	3 year



## **APPENDIX**

# **PARTS LIST**

**MODEL**

---

**HL - 30M**

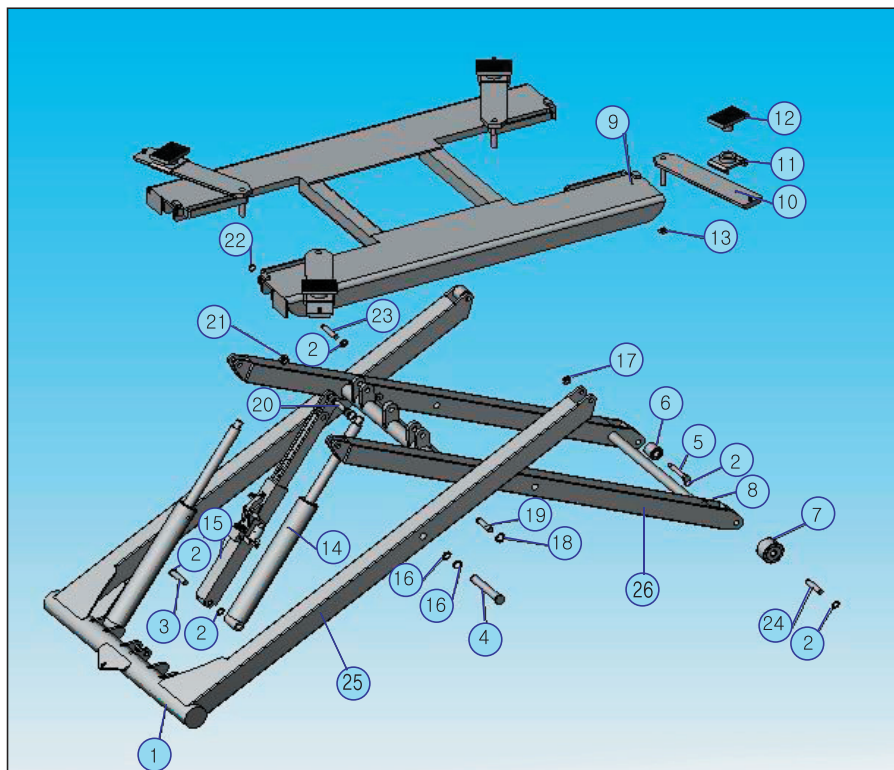
---

**VERSION 1 - 04.2005**

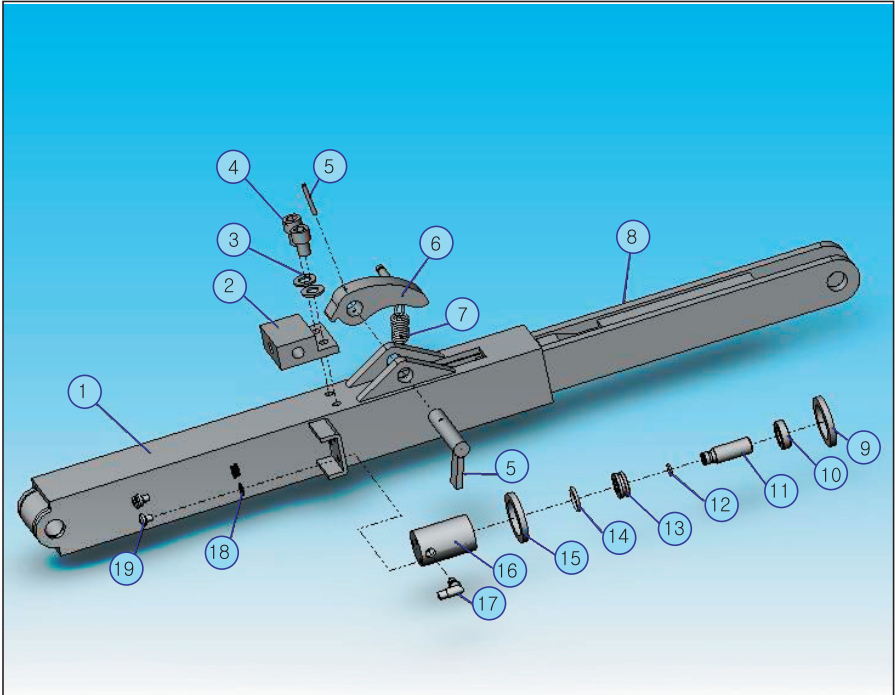
Your Source of Excellent Equipment

**HESHBON®**

This installation manual is prepared as of April, 2005. This manual is subject to change without prior notice if the lift specificaion is changed.



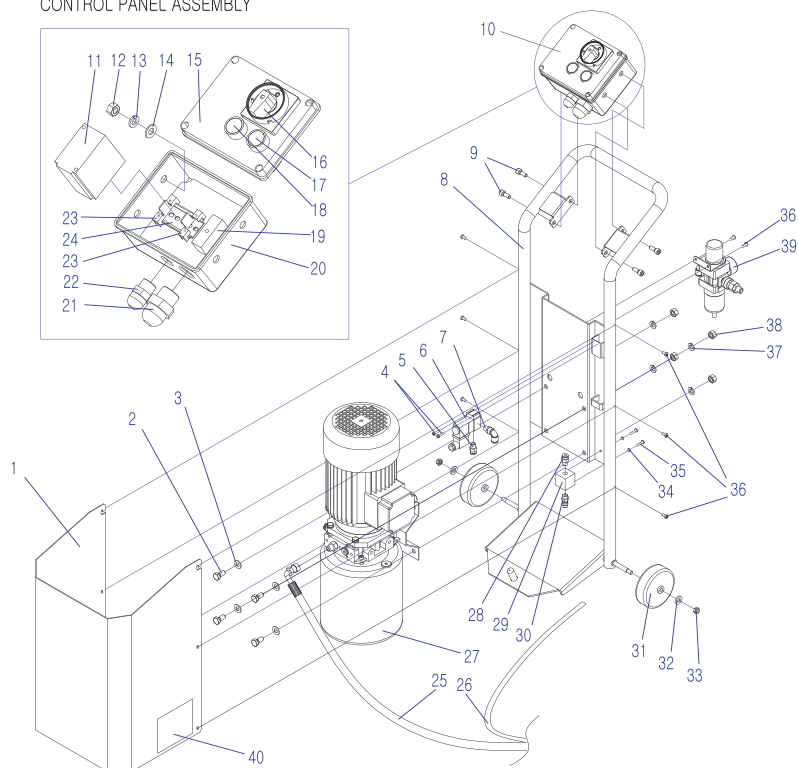
NO	DESCRIPTION	QTY	NO	DESCRIPTION	QTY	NO	DESCRIPTION	QTY
1	GENERL INLET PIPE	1	10	PLATE	4	19	CYLINDER PIN	2
2	RETAINING RING 20	20	11	SADDLE HOLDER	4	20	SAFETY LOCKING PIN	1
3	SAFETY LOCKING PIN	1	12	RUBBER SADDLE	4	21	LOCKING RING 18	1
4	SCISSOR PIN	2	13	LOCKING NUT	4	22	RETAINING RING 18	6
5	WHEEL PIN	2	14	CYLINDER ASSEMBLY	2	23	CONNECTING PIN	2
6	SMALL WHEEL	2	15	SAFETY LOCK ASSEMBLY	1	24	WHEEL PIN	2
7	BIG WHEEL	2	16	RETAINING RING 24	2	25	SCISSOR OUTSIDE	1
8	NUT	2	17	NUT	2	26	SCISSOR INSIDE	1
9	TABLE	1	18	NUT	2	27		



NO	DESCRIPTION	QTY	NO	DESCRIPTION	QTY	NO	DESCRIPTION	QTY
1	LOCK SHEATH	1	8	LOCK POLE	1	15	C - RING	1
2	BASE	1	9	C - RING	1	16	CYLINDER	1
3	WASHER 12	2	10	RING	1	17	TIE - IN	2
4	BLOT M12	2	11	RAM	1	18	WASHER 6	3
5	PIN	1	12	O - RING	1	19	BOLT M 6	3
6	LOCK BLOCK	1	13	BUSHING	1	20		
7	SPING	1	14	O - RING	1	21		

## Control panel

### CONTROL PANEL ASSEMBLY



NO	DESCRIPTION	Q'TY	NO	DESCRIPTION	Q'TY
1	POWER UNIT COVER	1	21	CABLE LOCKER	1
2	HEX BOLT (M10x25L)	4	22	CABLE LOCKER	1
3	PLATE WASHER (M10)	4	23	STOPPER	2
4	ROUND HEAD BOLT (M4x25L)	2	24	RAIL	1
5	ONE TOUCH AIR NIPPLE(ST.) (PT1/8x6x4)	1	25	HYDRAULIC HOSE	1
6	AIR SOLENOID VALVE	1	26	PNEUMATIC HOSE (6x4)	1
7	ONE TOUCH AIR NIPPLE(EL.) (PT1/8x6x4)	1	27	POWER UNIT	1
8	CONTROL PANEL CARRIER BODY	1	28	ONE TOUCH AIR NIPPLE(ST.) (PT1/4x6x4)	1
9	WRENCH BOLT (M8x20L)	4	29	AIR BLOCK	1
10	CONTROL BOX ASS'Y	1	30	AIR COUPLER PLUG	1
11	MAGNET CONTACTOR	1	31	CASTER WHEEL (4")	2
12	HEX NUT (M8)	4	32	PLATE WASHER (M10x3t)	2
13	SPRING WASHER (M8)	4	33	NYLON NUT (M8)	2
14	PLATE WASHER (M8)	4	34	SPRING WASHER (M4)	2
15	UPPER CONTROL BOX	1	35	ROUND HEAD BOLT (M4x20L)	2
16	CAM SWITCH	1	36	TRUSS HEAD TAPPING BOLT (M5x13L)	6
17	UP PUSH BUTTON SWITCH	1	37	SPRING WASHER (M10)	4
18	DOWN PUSH BUTTON SWITCH	1	38	HEX NUT (M10)	4
19	FUSE HOLDER	1	39	AIR UNIT (OPTION)	1
20	BOTTOM CONTROL BOX	1	40	NAME PLATE	1







Your source of Excellent equipment

**HESHBON®**

HESHBON CO.,LTD. 410-2 Hanjin-Ri,Dangjin-Gun  
Chungnam, Korea 343-823  
TEL: 82-41-351-3592 FAX: 82-41-351-3535  
<http://www.heshbon.com> E-mail: [heshbon@heshbon.com](mailto:heshbon@heshbon.com)