## Installation And Service Manual



TWO POST LIFT
Model: 30-210HX/210HHX

## CONTENTS

Product Features and Specifications ..... 1
Installation Requirement ..... 5
Steps of Installation ..... 6
Exploded View ..... 32
Test Run ..... 41
Operation Instruction ..... 43
Maintenance ..... 44
Trouble Shooting ..... 45
Lift disposal ..... 45

## I. PRODUCT FEATURES AND SPECIFICATIONS

## CLEAR-FLOOR DIRECT-DRIVED MODEL FEATURES

## Model OHX-10 (See Fig. 1)

- Direct-drived design, minimize the lift wear parts and breakdown ratio
- Dual hydraulic cylinders, designed and made as USA standards, utilizing oil seal in cylinder
- Self- lubricating UHMW Polyethylene sliders and bronze bush
- Single-point safety release, and dual safety design
. Clear-floor design, provide unobstructed floor space
. Overhead safety shut-off device prevents vehicle damages
- Stackable rubber pads

Fig. 1


## SPECIFICATIONS

| Model | Lifting <br> Capacity | Lifting <br> Time | Lifting Height | Overall <br> Height | Overall <br> Width | Minimum <br> Pad Height | Motor |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 210 HHX | 10000 lbs | 57 S | $71-1 / 2^{\prime \prime} \sim 80-1 / 2^{\prime \prime}$ | $144^{\prime \prime}$ | $135^{\prime \prime}$ | $3-1 / 2^{\prime \prime} \sim 12-1 / 2^{\prime \prime}$ | 2.0 HP |

## Model OHX-10H (See Fig. 2)

- Direct-drived design, minimize the lift wear parts and breakdown ratio
- Dual hydraulic cylinders, designed and made as USA standards, utilizing oil seal in cylinder
- Self- lubricating UHMW Polyethylene sliders and bronze bush
- Single-point safety release, and dual safety design
. Clear-floor design, provide unobstructed floor space
. Overhead safety shut-off device prevents vehicle damage
- Stackable rubber pads
- Adjustable column height

Fig. 2


SPECIFICATIONS

| Model | Lifting <br> Capacity | Lifting <br> Time | Lifting Height | Overall <br> Height | Overall <br> Width | Minimum <br> Pad Height | Motor |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{OHX}-10 \mathrm{H}$ | 10000 Ibs | 63 s | $78-1 / 2^{\prime \prime} \sim 87-1 / 2^{\prime \prime}$ | $157^{\prime \prime} / 168^{\prime \prime}$ | $135^{\prime \prime}$ | $3-1 / 2^{\prime \prime} \sim 12-1 / 2^{\prime \prime}$ | 2.0 HP |

## Arm Swings View



Fig. 3

Swing and extending the arms to the lifting point of vehicle


Fig. 4

## II. INSTALLATION REQUIREMENT

## A. TOOLS REQUIRED


$\checkmark$ Hammer
$\checkmark$ Level Bar

## $\square-2$

$\checkmark \quad$ English Spanner (12")

$\checkmark$ Ratchet Spanner with Socket (28 ${ }^{\#}$ )


B
Wrench set
$\left(10^{\#}, ~ 13^{\#}, ~ 14^{\#}, ~ 15^{\#}, ~ 17^{\#}, ~ 19^{\#}, ~ 24^{\#}, ~ 27^{\#}\right)$

$\checkmark$ Carpenter's Chalk

$\checkmark$ Screw Sets

$\checkmark \quad$ Tape Measure (7.5m)

$\checkmark$ Pliers

$\checkmark$ Socket Head Wrench (6")

\& Lock Wrench


Fig. 5

## B. SPECIFICATIONS OF CONCRETE (See Fig. 6)

Specifications of concrete must be adhered to the specification as following. Failure to do so may result in lift and/or vehicle falling.

1. Concrete must be thickness $6 "$ minimum and without reinforcing steel bars, and must be dried completely before the installation.
2. Concrete must be in good condition and must be of test strength 3,000psi minimum.
3. Floors must be level without cracks.


Fig. 6
C. POWER SUPPLY

The electrical source must be 2.0 HP minimum. The source cable size must be $2.5 \mathrm{~mm}^{2}$ and in good condition of contacting with floor.

## III. STEPS OF INSTALLATION

## A. Location of Installation

Check and insure the installation location (concrete, layout, space size etc.) is suitable for lift installation.
B. Use a carpenter's chalk line to establish installation layout of base-plate (See Fig.7).


Fig. 7

## C. Check the parts before assembly.

1. Packaged lift and hydraulic power unit (See Fig. 8).


Fig. 8
2. Move aside the lift with fork lift or hoist, and open the extension packing carefully, take off the lifting arms and parts box from upper and inside the column, then move them to location nearby installation site, check the parts according to the shipment parts list (See Fig.9).


Shipment Parts list


Parts box
Fig. 9
3. Loose the screws of the upper package stand, take off the upper extension columns, take out the parts in the inner column and remove the package stand
4. Move aside the parts and check the parts according to the shipment parts list
(See Fig.10, 11, 12).



Fig． 11


Fig． 12

5．Open the bag 1 of parts and check the parts according to parts box list（See Fig．13，14）．


Fig． 13


Fig. 14
6. Open the bag 2 of parts and check the parts according to parts bag list (See Fig. 15).


Fig. 15

D. Place the two columns in parallel on the ground of installation position, and determine the installation position of the power side column according to the condition of the installation site. Under normal circumstances, the power side column is installed on the right side of the entering direction; then install the oil hose.

Offside column


Power-side column


Fig. 16
E. Install the cylinder and connect the oil hose to the cylinder.


Install cylinder fitting and oil hose


After connection

Fig. 17

## F. Mounting column assemble.

1. $\mathbf{O H X}-10$ mounting column assemble. Fig. 18 \& 19.

2. OHX-10H Mounting column assemble. Fig. 20.



Fig. 20


Place the two columns in parallel on the ground of the installation position, and determine the installation position of the power-side column according to the condition of the installation site. Under normal circumstances, the power-side column is installed on the right side of the entering direction; when installing the outer column, it should be installed according to the height of the workshop. When the height is not more than 168", the mounting column is selected to install the lower position; when the height is more than 168", the mounting column can be installed with the high position. (See Fig.21)


Mounting column low setting


Mounting column high setting

Fig. 21

## G. Vertical leveling of columns (See Fig. 22)

## 1. OHX-10

Put the columns on the installation layout of base-plate, install the anchor bolts. Check the Columns plumpness with level bar, and adjusting with the shims if the columns are not vertical. Do not tighten the Anchor Bolts.

*Note: The anchor bolt is knocked into the ground at least 3-1/2".


Drilling


Cleaning


Bolting

## 2. $0 H X-10 H$

Put the columns on the installation layout of base-plate, install the anchor bolts. Check the Columns plumpness with level bar, and adjusting with the shims if the columns are not vertical. Do not tighten the Anchor Bolts. (See Fig. 23)

*Note: The anchor bolt is knocked into the ground at least 3-1/2".

H. Install overhead top beam (See Fig. 24).


Fig. 24
I. Installing the limit switch control bar and limit switch (See Fig. 25).


Fig. 25
I. Lift the carriages up and make them be locked at the same level (See Fig. 26).


Fig. 26

## K. Install cables

## 1. $\mathbf{O H X}-10$ cable connection.

Cables pass through the bottom of the carriages and be pulled out from the square hole of carriages, then screw the two cable nuts (See Fig. 27)


## 2. OHX-10H Low setting cable connection (See Fig. 28)

Note: the cable should go inside the carriage.


## 3. OHX-10H High setting cable connection

Cables pass through the bottom of the carriages and be pulled out from the square hole of carriages, then screw the two cable nuts (See Fig. 29).


## L. Install oil hose and fitting

1. OHX-10 (See Fig. 30).


Fig. 30

## 2. OHX-10H Oil hose Installation (See Fig. 31).



Fig. 31
M. Install safety cable (See Fig. 32)


Fig. 32

1. Note: Requirements and instructions for installation of oil hose and safety lock wire cable.
2. Install Oil Hose (both sides and safety lock).

Note: Don't cross the oil hose and safety cable (See Fig. 33, 34 \& 35).


Power-side Safety Device
Fig. 33

The safety cable cannot put inside cable clamp on top of overhead beam


Fig. 35

## N. Install lifting arms and adjust the arm locks.

Install the lifting arms (See Fig. 36), lowing the carriages down to the lowest position, then use the $8^{\#}$ socket head wrench to loosen the socket bolt (See Fig. 37).
Adjust the arm lock as direction of arrow (See Fig. 38). Adjust moon gear and arm lock to make it to be meshed, then tighten the socket bolts of arm lock (See Fig. 39).


Fig. 36


Use the 8\# Socket Head Wrench to loosen the Socket Bolt

Fig. 37


Fig. 38

Locking the bolts after the moon gear and arm lock engaged well


Fig. 39

## O. Tighten all the hydraulic fittings, and fill the reservoir with hydraulic oil.

Note: In consideration of Hydraulic Power Unit's durability and keep the equipment running in the perfect condition, please use Hydraulic Oil 46\#.

## P. Install electrical system

Connect the power source on the data plate of power unit.
Note: 1. Install the limit switch well.
2. For the safety of operators, the power wiring must contact the floor well.
3. Pay attention to the direction of rotations when using three phase motors.

Single phase motor (See Fig. 40).

1. Connecting the two power supply wires (active wire $\mathbf{L}$ and neutral wire $\mathbf{N}$ ) to terminals of AC contactor marked L1, L2 respectively.
2. Connecting the two motor wires to terminals of AC contactor marked T1, T2.
3. Connecting $\mathbf{A 2}$ to $\mathbf{L 2}$ of $A C$ contactor.
4. Terminal 4\# of control button is connected with terminals A1of AC contactor, Terminal 3\# of control button is connected with terminals L1of AC contactor.


Fig. 40

* Optional width extension kits installation guide:
1.1. OHX-10: oil hose, top beam installation. (Figure 41)


Fig. 41

### 1.2. OHX-10: cable connection

Cables pass through the bottom of the carriages and be pulled out from the square hole of carriages, then screw the two cable nuts (See Fig. 42).


## Optional parts list

| Item | Part No. | Description | OHX-10 |
| :---: | :---: | :--- | :---: |
|  |  |  | QTY |
| 1 | 1102562008 | Control connecting pin assy. | 2 |
| 2 | 1002561009 | Cable assy. $\varphi 9.52^{*} 9790 \mathrm{~mm}$ | 2 |
| 3 | 1002571011 | Oil hose assy. $5 / 16^{\prime \prime} 140 \mathrm{~mm}$ | 1 |
| 4 | 10620079 | Straight fitting | 1 |

2. OHX-10H: oil hose, top beam installation. (Fig.43)


### 2.1. OHX-10H: Cable connection for low setting. (Fig. 44)

Note: The cables should go inside the lifting carriage.

2. 2. OHX-10H: Cable connection for high setting (Fig. 45).

Cables pass through the bottom of the carriages and be pulled out from the square hole of carriages, then screw the two cable nuts.


## Optional parts list

| Item | Part No. | Description | OHX-10H |
| :---: | :---: | :--- | :---: |
|  | QTY |  |  |
| 1 | 1102562008 | Control connecting pin assy. | 2 |
| 2 | 1002571011 | Oil hose assy. $5 / 16^{\prime \prime} * 140 \mathrm{~mm}$ (2 straight) | 1 |
| 3 | 1002571012 | Cable $\varphi 9.52^{*} 11010 \mathrm{~mm}$ | 2 |
| 4 | 10620079 | Straight fitting | 1 |

## OHX-10



Fig. 46

## OHX-10H



Fig. 47

## IX. PARTS LIST FOR OHX-10 and OHX-10H

| Item | Part No. | Description | OHX-10 | OHX-10H |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | QTY |  |
| 1 | 10206017 | Hex Bolt M10*20 | 0 | 20 |
| 2 | 10209039 | ¢10 Washer | 12 | 32 |
| 2A | 10209022 | ¢10 Washer | 12 | 52 |
| 3 | 10209021 | Hex Nut M10 | 0 | 20 |
| 4 | 10209009 | Cup Head Bolt M6*8 | 4 | 4 |
| 5 | 10209008 | Safety device protective cover | 2 | 2 |
| 6 | 10209010 | Snap ring ( $\varphi 10$ ) | 1 | 1 |
| 7 | 10209049 | Plastic pulley (Black) | 1 | 1 |
| 8 | 10209007 | Safety Spring | 2 | 2 |
| 9 | 11206002 | Safety lock pin | 2 | 2 |
| 10 | 10209012 | Hair pin | 8 | 8 |
| 11 | 11209013 | Power-side Safety Lock | 1 | 1 |
| 12 | 10206006 | ¢12 Washer | 2 | 2 |
| 13 | 10206023A | Hex Nut M12 | 2 | 2 |
| 14 | 10209005 | Self-locking nut (M8) | 8 | 8 |
| 15 | 10209004 | Rubber ring $\varphi 8 * 20 * 3$ | 4 | 4 |
| 16 | 10209003 | Hex bolt M8*25 | 4 | 4 |
| 17 | 071101 | Power unit | 1 | 1 |
| 18 | 1102561001A | Power-side column | 1 | 1 |
| 19 | 11206020 | Pulley | 6 | 6 |
| 20 | 10209057B | Bronze bush | 6 | 6 |
| 21 | 10209128 | Washer 420 | 8 | 8 |
| 22 | 10209012 | Hair pin 93.2 | 4 | 4 |
| 23 | 10209046 | M10*35 Hex Bolt | 2 | 2 |
| 24 | 11206008C | Pulley support bracket | 2 | 2 |
| 25 | 10206009 | Plastic pulley (white) | 2 | 2 |
| 26 | 10209056 | Self-locking Nut M10 | 2 | 2 |
| 27 | 1102561006 | Oil hose support bracket | 2 | 2 |
| 27A | 1061 K 074 | Protective coil | 2 | 2 |
| 28 | 1102561003A | Outer column | 0 | 2 |
| 29 | 1002561002 | Cable | 1 | 0 |
|  | 1002571003 |  | 0 | 1 |
| 30 | 10209111 | Cylinder guard coil | 2 | 2 |
| 31 | 11217056 | Cylinder¢50*1727 | 2 | 0 |
|  | 1002576001 | Cylinder¢50*1905 | 0 | 2 |
| 32 | 10206024 | M12*25 Hex bolt | 14 | 14 |
| 33 | 11206042 | Control stick fixing block | 2 | 2 |
| 34 | 10206011 | Cup head bolt M5*12 | 2 | 2 |
| 35 | 10206013 | Limit switch | 1 | 1 |
| 36 | 10209015 | Slider block | 16 | 16 |
| 37 | 10209016 | Carriage plastic cover | 4 | 4 |
| 38 | 1102563000A | Carriage | 2 | 2 |
| 39 | 10209018 | Protection rubber | 2 | 2 |
| 40 | 10209019 | M6*16 Screw | 12 | 12 |
| 41 | 10520023 | Snap ring $\varphi 38$ | 4 | 4 |
| 42 | 11217168 | Lift arm pin | 4 | 4 |
| 43 | 11206046A | Arm lock handle ( Left ) | 2 | 2 |
| 44 | 10206050A | Spring | 4 | 4 |


| Item | Part No. | Description | OHX-10 | OHX-10H |
| :---: | :---: | :---: | :---: | :---: |
| 45 | 11206046 | Arm lock handle ( Right ) | 2 | 2 |
| 46 | 10217044 | Arm lock | 4 | 4 |
| 47 | 10206032 | Snap ring $\varphi 25$ | 4 | 4 |
| 48 | 10206036 | Hair pin $96 * 40$ | 4 | 4 |
| 49 | 10279010 | Right front arm assy. | 1 | 1 |
| 50 | 1102562000B | Top beam 2 | 1 | 1 |
| 51 | 1102562000A | Top beam 1 | 1 | 1 |
| 52 | 11206025C | Control bar contacting pin | 2 | 2 |
| 53 | 11206129 | Limit switch control bar L=2400mm | 1 | 1 |
| 54 | 10201005 | Split Pin ( $\varphi 4 * 50$ ) | 2 | 2 |
| 55 | 11206154 | Rear guard | 2 | 2 |
| 56 | 10201002 | M8*16 Hex bolt | 4 | 4 |
| 57 | 10209034 | ¢8 Lock Washer | 4 | 4 |
| 58 | 10209033 | ¢8 Washer | 4 | 4 |
| 59 | 10206156 | Tool tray | 2 | 2 |
| 60 | 10201046A | Rubber pad assy. | 4 | 4 |
| 60A | 10420138 | Socket bolt M6*16 | 4 | 4 |
| 60B | 10209134 | Rubber Pad | 4 | 4 |
| 60C | 11680030C | Rubber pad pallet | 4 | 4 |
| 61 | 10279011 | Rear arm assy. | 2 | 2 |
| 62 | 10279009 | Left front arm assy. | 1 | 1 |
| 63 | 11206021 | Pulley pin | 2 | 2 |
| 64 | 10206019 | Snap ring Q 19 | 4 | 4 |
| 65 | 11206022 | Pulley shaft limit cap | 2 | 2 |
| 66 | 10217013 | M6*20 Hex bolt | 8 | 8 |
| 67 | 10420018 | M6 Self-locking Nut | 8 | 8 |
| 68 | 10206023 | M12 Self-locking Nut | 18 | 18 |
| 69 | 1102561002A | Offside column | 1 | 1 |
| 70 | 11211013 | Offside safety device | 1 | 1 |
| 71 | 11209051B | Stackable adaptor ( 1.5 " ) | 4 | 4 |
| 72 | 11209052B | Stackable adaptor ( 2.5 " ) | 4 | 4 |
| 73 | 11209053B | Stackable adaptor ( 5 " ) | 4 | 4 |
| 74 | 11209054A | Stackable adaptor bracket | 2 | 2 |
| 75 | 10680003 | M8*12 Hex bolt | 4 | 4 |
| 76 | 10201140 | Anchor bolt 3/4*6-1/2 | 12 | 12 |
| 77 | 10201090 | Shim ( 1 mm ) | 10 | 10 |
| 77 | 10620065 | Shim ( 2mm) | 10 | 10 |
| 78 | 10209066 | M16 Hex Nut | 4 | 4 |
| 79 | 1002561004 | Cable assy. $\varphi 9.52 * 9640 \mathrm{~mm}$ | 2 | 0 |
| 79 | 1002571005 | Cable assy. $\varphi 9.52 * 10860 \mathrm{~mm}$ | 0 | 2 |
| 80 | 1002561005 | Oil hose assy. L=5150mm | 2 | 0 |
| 80 | 1002571002 | Oil hose assy. L=5460mm | 0 | 2 |
| 81 | 1002561001 | Oil hose assy. $\mathrm{L}=4160 \mathrm{~mm}$ | 1 | 0 |
| 81 | 1002571001 | Oil hose assy. $\mathrm{L}=4490 \mathrm{~mm}$ | 0 | 1 |
| 82 | 10211016 | T fitting | 1 | 1 |
| 83 | 10211017 | $90^{\circ}$ fitting for cylinder | 2 | 2 |
| 84 | 1002571009 | Oil hose assy. 5/16*550mm | 0 | 1 |
| 85 | 10620079 | Straight fitting | 0 | 1 |


| Item | Part No. | Description | $\mathbf{O H X} \mathbf{- 1 0}$ | $\mathbf{O H X} \mathbf{- 1 0 H}$ |
| :---: | :---: | :--- | :---: | :---: |
| 86 | 1002561003 | Wire cable assy. L=6980mm | 1 | 0 |
| 86 | 1002571004 | Wire cable assy. L=8225mm | 0 | 1 |
| 87 | 1102561500 | Parts box1 | 1 | 0 |
| 87 | 1102571500 |  | 0 | 1 |
| 88 | 1102561501 | Parts box2 | 1 | 0 |
| 88 | 1102571501 |  | 0 | 1 |
| 89 | 10209060 | $90^{0}$ fitting for power unit | 1 | 1 |

### 4.1 Rear arm (10279011) explosive view



| Item | Part \# | Description | QTY |
| :---: | :---: | :--- | :---: |
| 1 | 10206048 | Socket bolt M10*30 | 6 |
| 2 | 10209039 | Lock washer | 6 |
| 3 | 10209022 | Washer | 6 |
| 4 | 11206049 | Moon gear | 2 |
| 5 | 11206192 | Outer rear arm assy. | 2 |
| 6 | 10201149 | screw 8*12 | 2 |
| 7 | 11206193 | Inner rear arm assy. | 2 |

### 4.2 Left front arm (10279009) explosive view



| Item | Part \# | Description | QTY |
| :---: | :---: | :--- | :---: |
| 1 | 10206048 | Socket bolt M10*30 | 3 |
| 2 | 10209039 | Lock Washer | 3 |
| 3 | 10209022 | Washer | 3 |
| 4 | 11206049 | Moon gear | 1 |
| 5 | 11206183 | Outer front left arm | 1 |
| 6 | 11206189 | Mid front left arm | 1 |
| 7 | 10201149 | Cup head bolt | 2 |
| 8 | $11201049 A$ | Inner front arm assy. | 1 |

### 4.3 Right front arm (10279010) explosive view



Fig. 50

| No | Part No. |  | Description |
| :---: | :---: | :--- | :---: |
| 1 | 10206048 | Socket bolt | 3 |
| 2 | 10209039 | Lock Washer | 3 |
| 3 | 10209022 | Washer | 3 |
| 4 | 11206049 | Moon gear | 1 |
| 5 | 11206182 | Outer front right arm | 1 |
| 6 | 11206189 | Mid front arm | 1 |
| 7 | 10201149 | Cup head bolt | 2 |
| 8 | $11201049 A$ | Inner front arm | 1 |

### 4.4 Cylinder (10209014/1002576001) explosive view



Fig. 51

Part list for cylinder

| Item | Part \# | Description | QTY |
| :---: | :---: | :--- | :---: |
| $30-1$ | 10209069 | O-ring | 2 |
| $30-2$ | 10209070 | Bleeding Plug | 2 |
| $30-3$ | 10209071 | Support Ring | 2 |
| $30-4$ | 10209072 | Y-ring | 2 |
| $30-5$ | 10209073 | O-ring | 2 |
| $30-6$ | 11209074 | Piston | 2 |
| $30-7$ | 10209075 | O-Ring | 4 |
| $30-8$ | 11209076 | OHX-10 piston rod | 2 |
|  | 1102576002 | OHX-10H piston rod | 2 |
| $30-9$ | 11209077 | Piston Rod Fitting | 2 |
| $30-10$ | 10209078 | Dust wing | 2 |
| $30-11$ | 11209079 | cover | 2 |
| $30-12$ | 10209080 | O ring | 2 |
| $30-13$ | 11209081 | OHX-10 Cylinder weldment | 2 |
|  | 1102576003 | OHX-10H Cylinder weldment | 2 |

5. Power unit (071101) explosive view
single phase, $220 \mathrm{~V} / 60 \mathrm{HZ}$


Fig. 52

## Part list of power unit (220V/60HZ/single phase)

| Item | Part No. | Description | QTY |
| :---: | :---: | :---: | :---: |
| 1 | 81400180 | Rubber pad | 2 |
| 2 | 81400250 | Starting capacitor | 1 |
| 3 | 81400200 | Running capacitor | 1 |
| 4 | 10420148 | Hex nut with washer | 4 |
| 5 | 81400066 | Capacitor cover | 2 |
| 6 | 81400363 | Motor connecting shaft | 1 |
| 7 | 80101013 | Manifold block | 1 |
| 8 | 10209149 | Spring washer | 4 |
| 9 | 81400276 | Inner iron plug | 1 |
| 10 | 81400259 | Plastic plug | 1 |
| 11 | 85090142 | Hex nut | 4 |
| 12 | 81400280 | Gear pump | 1 |
| 13 | 10209034 | washer | 2 |
| 14 | 81400295 | Hex nut | 2 |
| 15 | 81400365 | O-ring | 1 |
| 16 | 10209152 | Belt | 1 |
| 17 | 85090167 | Magnet | 1 |
| 18 | 81400290 | Filter net | 1 |
| 19 | 81400413 | Steel plate motor | 1 |
| 20 | 10420070 | Button switch | 1 |
| 21 | 41030055 | AC contractor | 1 |
| 22 | 81400528 | Motor wiring cover | 1 |
| 23 | 71111216 | AMGO plate | 1 |
| 24 | 81400560 | Throttle valve | 1 |
| 25 | 81400266 | Relief valve | 1 |
| 26 | 81400284 | Hex iron plug | 1 |
| 27 | 10720118 | Elastic shaft pin | 1 |
| 28 | 81400451 | Release handle | 1 |
| 29 | 10209020 | Handle plastic ball | 1 |
| 30 | 81400421 | Release valve nut | 1 |
| 31 | 81400422 | Self-locking washer | 1 |
| 32 | 81400447 | Valve seat(short) | 1 |
| 33 | 81400567 | Release valve | 1 |
| 34 | 81400560 | Check valve | 1 |
| 35 | 81400288 | Oil suction hose | 1 |
| 36 | 81400289 | Oil return hose | 1 |
| 37 | 81400364 | Steel hoop | 1 |
| 38 | 81400263 | Oil tank cap | 1 |
| 39 | 81400275 | Oil tank | 1 |



Fig. 53

## V. TEST RUN

## 1. Adjust synchronous cable (See Fig. 54)

Use wrench to hold the cable fitting, meanwhile use ratchet spanner to tighten the cable nut. Make sure two cables are with the same tension so that two carriages can work synchronously.
Fit the plastic hole cover on the lifting head. If the carriage does not Synchronize when lifting, please tighten the cable nut of lower side carriage.


Fig. 54

## 2. Adjust Safety Cable

Lifting the carriage and lock at the same height, strain the safety cable and then release a little, and then tighten the cable nuts. Make sure the safety device can always be worked properly.

## 3. Bleeding air

This hydraulic system is designed to bleeding air by loosing the bleeding plug. Lifting the carriages to about 1 meter height, and loose the bleeding plug, the air would be bled automatically, then tighten the plug after bleeding, the lift would work stably and smoothly, otherwise repeat bleeding (See Fig. 55).


Fig. 55

## 4. Adjust the lower speed

You can adjust the lower speed of the lift if needing: turn the throttle valve clockwise to decrease the lower speed, or counterclockwise to increase the lower speed.


Clockwise to decrease the lowering speed


Counterclockwise to increase the lowering speed

Fig. 56

## 5. Test with loading

After finishing the above adjustment, test running the lift with loading. Run the lift in low position for several times first, make sure the lift can rise and lower synchronously, the Safety Device can lock and release synchronously. And then test run the lift to the top completely. If there are anything improper, repeat the above adjustment.

## Hydraulic schematic



## To lower vehicle

1. Be sure clear of around and under the lift, only leaving operator in lift area;
2. Push button 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 150 N.M;
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 $90 w t$. 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 plumpness.
4. Check Rubber Pads and replace as necessary.
5. Check Safety device and make sure proper condition.
VIII.TROUBLE SHOOTING

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

## IX. Lift disposal.

When the car lift cannot meet the requirements for normal use and needs to be disposed, it should follow local laws and regulations.


The Cartek Group<br>6950 East N Avenue Kalamazoo, MI USA 49048 ph: 866-550-1134 email: customerservice@cartek.com www.bear-cartek.com

