

Original

Installation And Service Manual



SINGLE POST LIFT Model: SML-6

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I. PRODUCT FEATURES AND SPECIFICATIONS



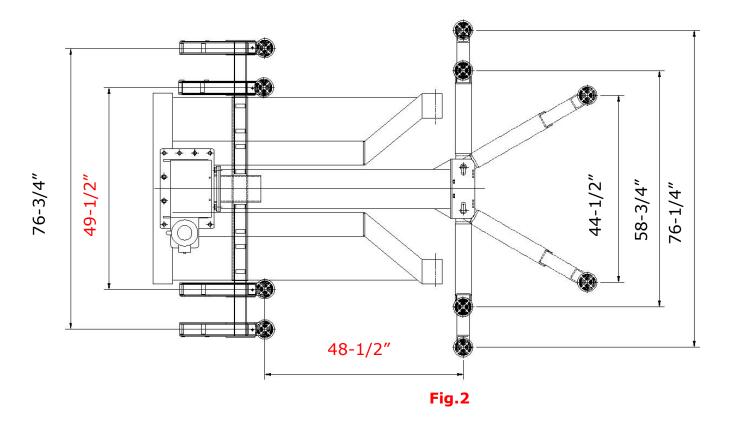
MOBILE CHAIN-DRIVE SINGLE POST MODEL SML-6

- · Compact design.
- · Hydraulic cylinders, designed and made on ANSI standard, utilizing NOK oil seal in cylinder.
- \cdot Self-lubricating UHMW Polyethylene sliders and bronze bush.
- · Single-point safety release, and dual safety design.
- · Adjustable lifting arms, with drop in screwed type rubber pads.

MODEL SML-6 SPECIFICATIONS

| Model | Lifting Capacity | Lifting Height | Lifting Time | Overall Height | Overall Width | Minimum Pad Height | Motor |
|-------|---------------------|-----------------|-----------------|-------------------|------------------|-----------------------|-------------|
| SML-6 | 6,000 lbs | 71-7/8″~77-1/8″ | 84S/32S | 108-7/8" | 76-1/8" | 4-1/8"~9-1/4" | 1.5HP/2.0HP |

Arm Swings View



II. INSTALLATION REQUIREMENT





Fig.3

B. STORAGE AND INSTALLATION REQUIRMENT

Keep or install the equipment in shaded, normal temperature, dry and ventilated environment.

C. POWER SUPPLY

The electrical source must be 2HP minimum. The source cable size must be 2.5mm².

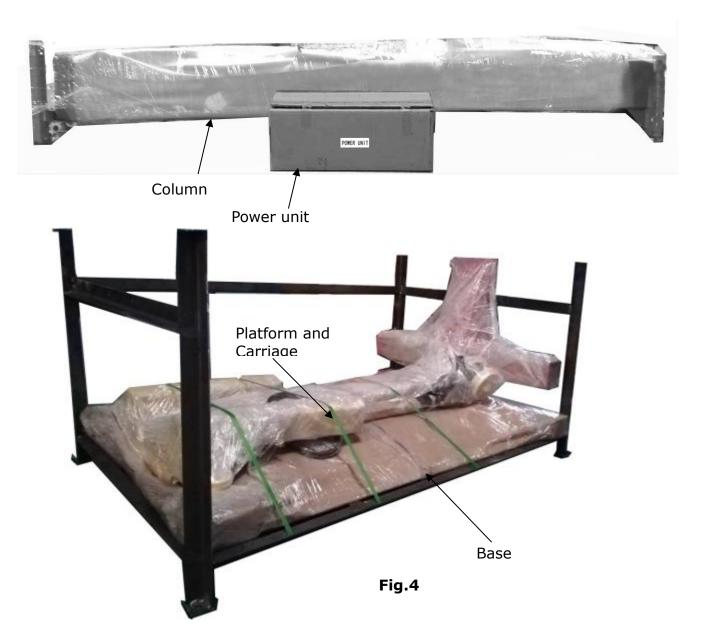
III. STEPS OF INSTALLATION

A. Location of installation

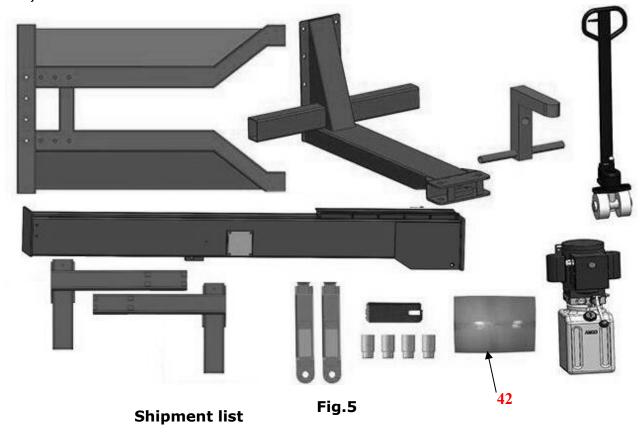
Check and insure the installation location (concrete, layout, space size etc.) is suitable for lift installation.

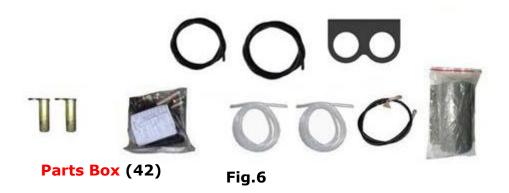
B. Check the parts before assembly

1. Packaged lift and hydraulic power unit (See Fig. 4)



- 2. Take off the packaging on the machine ⇒Take off the packing rack.
- 3. Move aside the parts and check the parts according to the shipment parts list (See Fig.5 & 6)

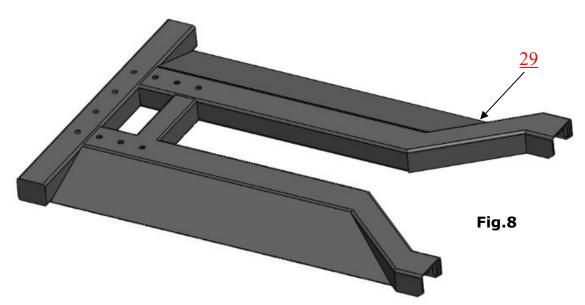




4. Check the parts of the parts bag according to the parts bag list (See Fig. 7)

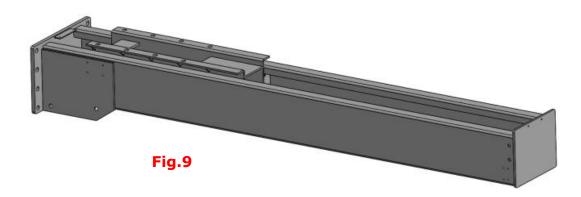


C. Lay the base flat to the ground, confirm installation place according to the ground state, the main purpose is to save space. (See Fig.8)

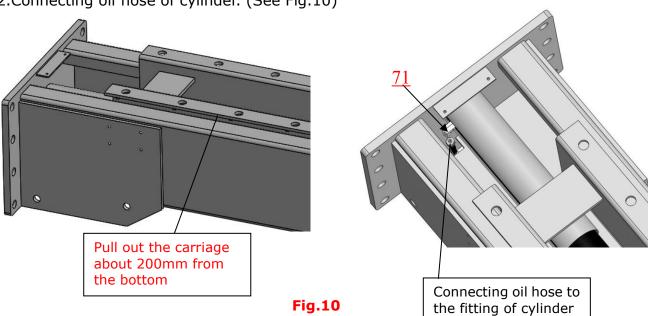


D. Install column and lift platform

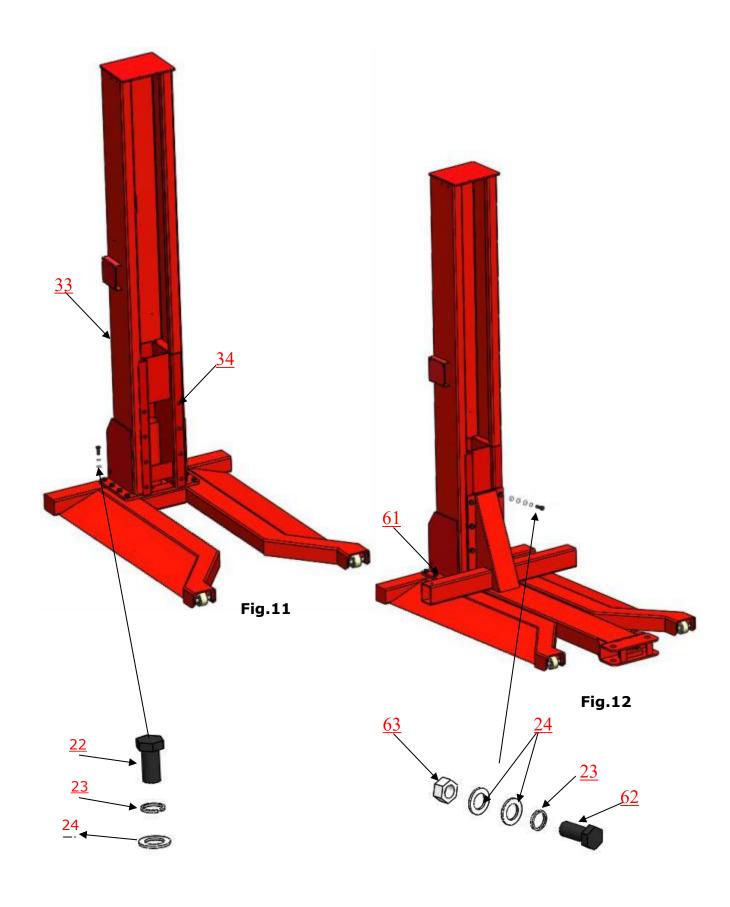
1.Lay the column flat to the ground. (See Fig.9)



2. Connecting oil hose of cylinder. (See Fig. 10)



- 3.Fix column to the base plate. (See Fig.11)
- 4.Fix lifting platform to carriage. (See Fig.12)



E. Install cover of the safety device, retainer and protective cover (See Fig.13) After install the retainer, tighten slightly with M6*8 cup-head bolt.

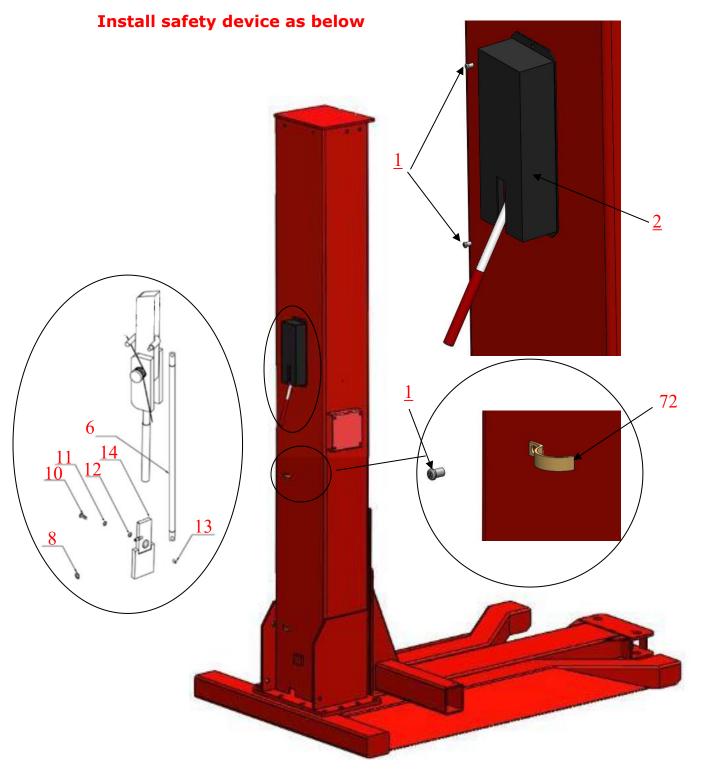


Fig.13

F. Install power unit and oil hoses (See Fig.14)

Note: Tighten the oil hose fitting and power unit fitting to avoid oil leakage; Pay attention to the direction of power unit fitting.

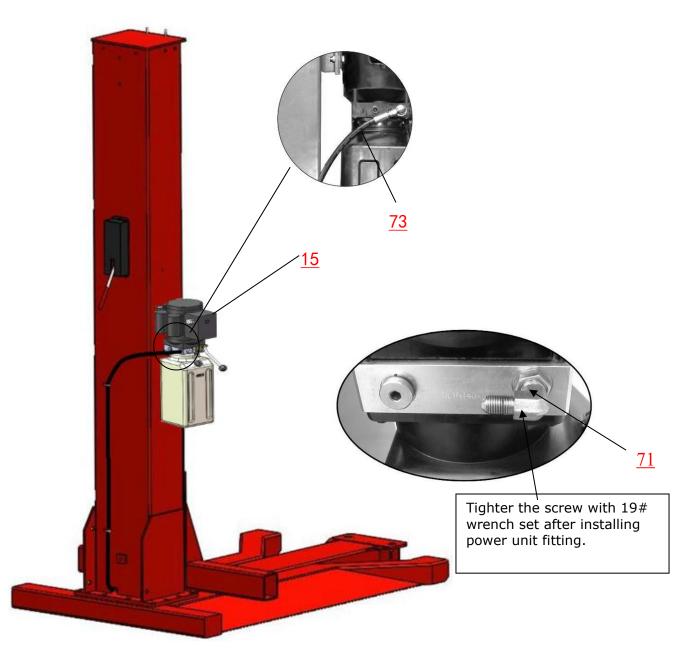


Fig.14

G. Install plastic cover (See Fig.15)

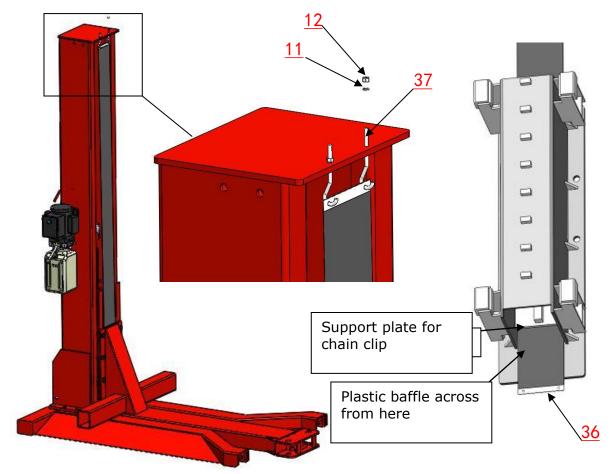
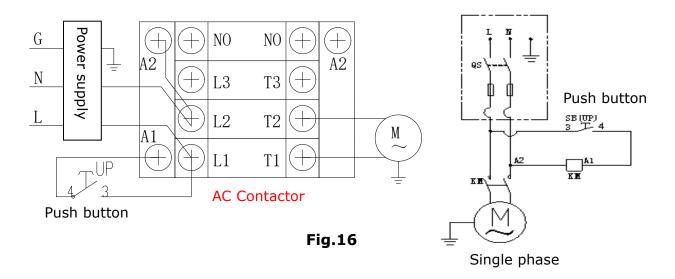


Fig.15

H. Connect the power source according to the data on plate of power unit

Note: For the safety of operators, the power wiring must have a good ground connection. **Single phase motor (See Fig. 16)**

- 1. Connecting the two power supply lines (active wire L and neutral wire 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 A2 to L2 of AC contactor.
- 4. Connecting terminal A1 of AC connector to terminal 4# of push button; Connecting terminal L1 of AC connector to terminal 3# of push button;



I. Install lifting arms

Tighten the screw with wrench

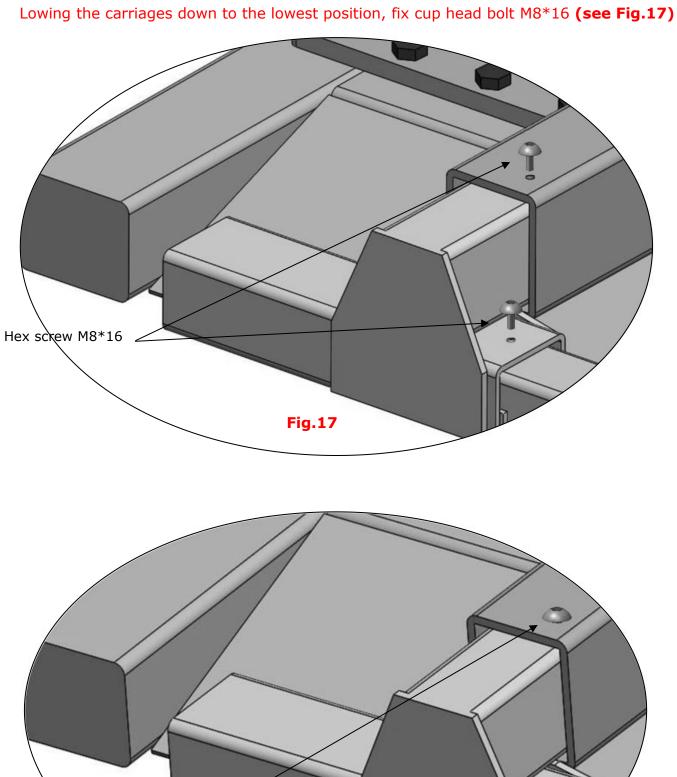
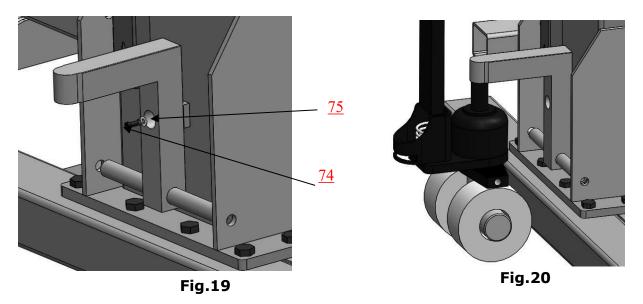


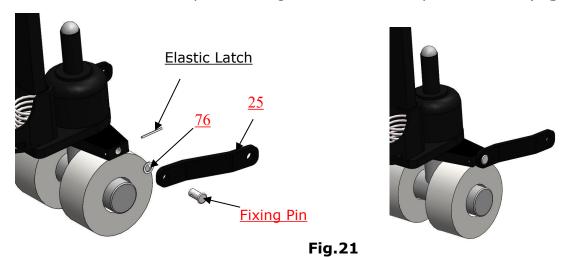
Fig.18

J. Install wheel assembly

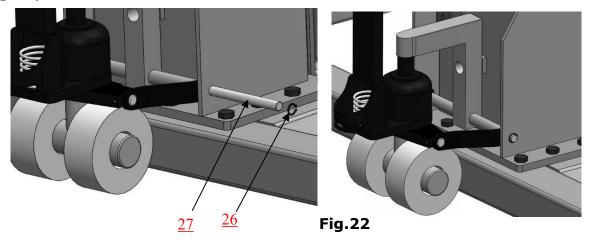
1. First tighten the wheel assembly fixed square pipe by socket bolt with lock washer ϕ 12 (**Fig.19**). Put the wheel assembly into the fixed square pipe then tighten it. (**Fig.20**),



2. Insert the wheel assembly connecting board and fixed by elastic latch (Fig.21).



3. Use wheel assembly pin go through the fixed square pipe, then buckle with spring. (**Fig.22**)



K. 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#.

L. Using level to measure and adjust the column to be vertical (Fig.23).

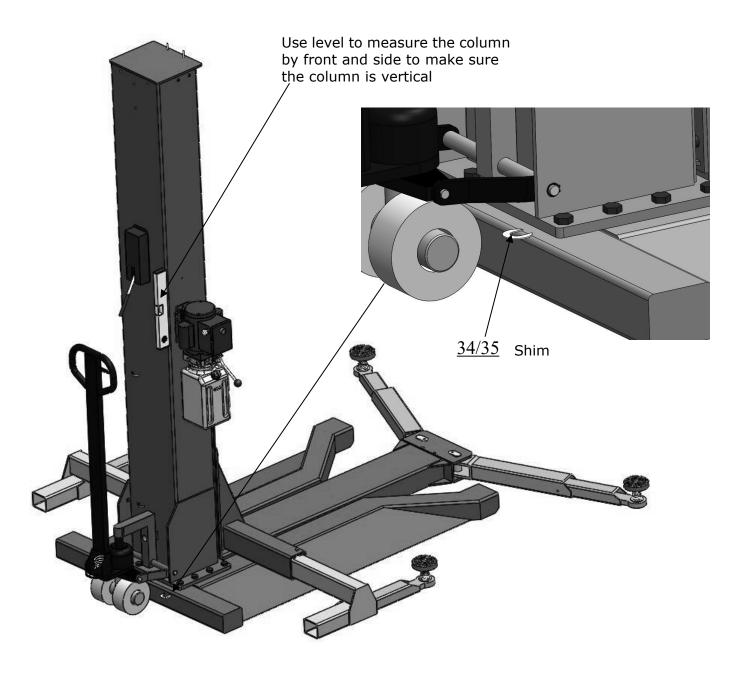
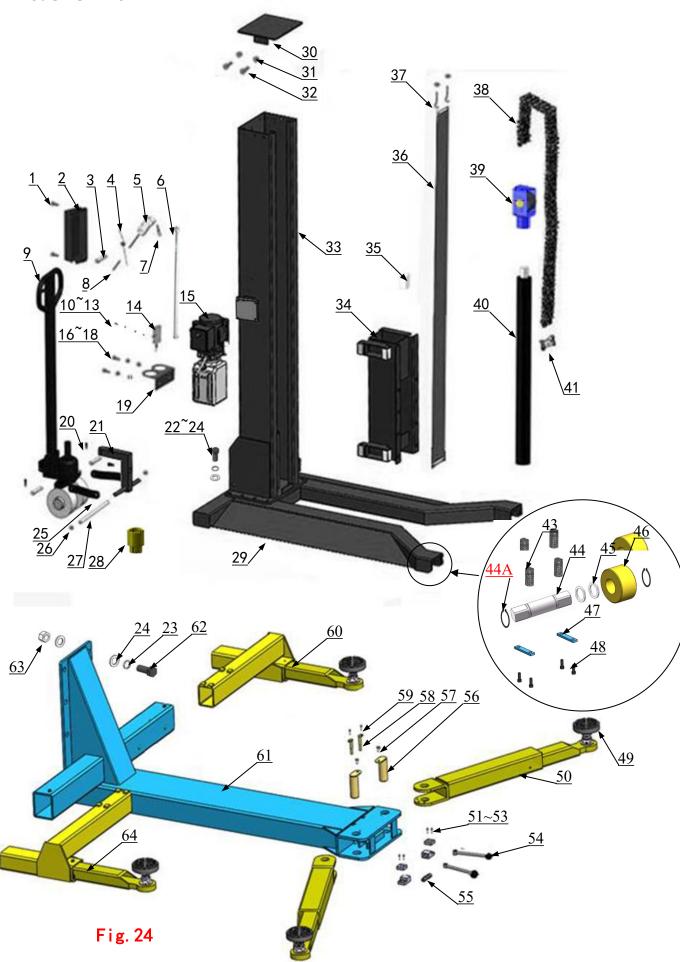


Fig.23

IV EXPLOEDED VIEW

Model: SML-6



PARTS LIST FOR SML-6

| Item | Part# | Description | QTY. | Note |
|------|----------|--------------------------------|------|------|
| 1 | 10209009 | Cup Head Bold M6*8 | 6 | |
| 2 | 10209008 | Safety Cover | 2 | |
| 3 | 11206002 | Safety Pin | 1 | |
| 4 | 10209007 | Safety Spring | 1 | |
| 5 | 11203002 | Power Side Safety Device | 1 | |
| 6 | 11203013 | Coupling | 1 | |
| 7 | 10209012 | Elastic Pin | 1 | |
| 8 | 10420049 | Split Pin | 2 | |
| 9 | 10101028 | Wheel Assembly | 1 | |
| 10 | 10217013 | Hex Bolt M6*20 | 1 | |
| 11 | 10209149 | Lock Washer φ6 | 1 | |
| 12 | 10420045 | Washer φ6 | 9 | |
| 13 | 10420018 | Self-Locking Nut M6 | 3 | |
| 14 | 11203015 | Power-side safety block | 1 | |
| 15 | 81513019 | Manual Power Unit | 1 | |
| 16 | 10680003 | Hex Bolt M8*12 | 2 | |
| 17 | 10209034 | Lock Washer φ8 | 4 | |
| 18 | 10209033 | Washer φ8 | 4 | |
| 19 | 11203035 | Stackable Adapter Set | 1 | |
| 20 | 10201002 | Hex Bolt M8*16 | 1 | |
| 21 | 11102607 | Wheel fixing square pipe Assy. | 1 | |
| 22 | 10101002 | Hex Bolt M20*50 | 10 | |
| 23 | 10201114 | Lock Washer φ20 | 18 | |
| 24 | 10209128 | Washer φ20 | 18 | |
| 25 | 11101030 | Wheel connecting plate | 2 | |
| 26 | 10206019 | Snap Ring φ19 | 2 | |
| 27 | 11102010 | Wheel assembly pinφ19*376 | 1 | |
| 28 | 11203034 | Stackable Adapter | 4 | |
| 29 | 11102611 | Base | 1 | |
| 30 | 11101013 | Top plate | 1 | |
| 31 | 10206023 | Self-Locking Nut M12 | 4 | |
| 32 | 10217069 | Hex Bolt M12*30 | 4 | |
| 33 | 11101674 | Column | 1 | |
| 34 | 11102608 | Carriage | 1 | |
| 35 | 10217188 | Slide Block | 8 | |
| 36 | 10101026 | Plastic baffle | 1 | |

| Item | Part# | Description | QTY. | Note |
|------|-----------|----------------------------|------|------|
| 37 | 10203117 | Hook with adjustment Screw | 2 | |
| 38 | 10101007 | Chain | 1 | |
| 39 | 10207008 | Chain Pulley seat assy. | 1 | |
| 40 | 10207010 | Cylinder | 1 | |
| 41 | 10201010A | Chain Connector | 2 | |
| 42 | 10102501 | Parts Box | 1 | |
| 43 | 10683018 | Springφ18*φ11*70 | 4 | |
| 44 | 11101039 | Roller shaft | 2 | |
| 45 | 41080221 | Bearing | 4 | |
| 46 | 11101038 | Roller | 2 | |
| 47 | 11101675 | Roller shaft limit block | 4 | |
| 48 | 10207021 | Socket Bolt M6*12 | 8 | |
| 49 | 10203054 | Rubber Pad Assy. | 4 | |
| 50 | 10101033 | Lifting Arm Assy. (outer) | 2 | |
| 51 | 11101011 | Control Handle | 2 | |
| 52 | 10420043 | Socket Bolt M8*20 | 4 | |
| 53 | 10101008 | Arm lock | 2 | |
| 54 | 11101009 | Arm lock fixed plate | 2 | |
| 55 | 10720003 | Spring φ2*75 | 1 | |
| 56 | 11101005 | Arm Pin | 2 | |
| 57 | 10420043 | Socket Bolt M8*20 | 8 | |
| 58 | 11101012 | Connecting Pin | 2 | |
| 59 | 10101006 | Screw M6*12 | 2 | |
| 60 | 10102028 | Inner Arm Assy. ① | 1 | |
| 61 | 11102609 | Lifting Platform | 1 | |
| 62 | 10101001 | Hex Bolt M20*45 | 8 | |
| 63 | 10420175A | Hex Nut | 8 | |
| 64 | 10102029 | Inner Arm Assy.2 | 1 | |
| 65 | 10209003 | Hex Bolt M8x25 | 4 | |
| 66 | 10209004 | Rubber Ring φ8*φ20*3 | 4 | |
| 67 | 10209005 | Self-Locking Nut M8 | 4 | |
| 68 | 10209060 | 90° Fitting for Power Unit | 1 | |
| 69 | 10206013A | Limit Switch | 1 | |
| 70 | 10206011 | Cup Head Bolt M5*12 | 4 | |
| 71 | 10201020 | 90° Fitting for Cylinder | 1 | |
| 72 | 11217048 | Retainer | 2 | |
| 73 | 10102016 | Oil Hose 1/4" *2735mm | 1 | |
| 74 | 10101029 | Socket Bolt M12*20 | 1 | |
| 75 | 10206006 | Washer φ12 | 1 | |
| 76 | 10420029 | Washer φ16 | 2 | |
| | 10620065 | Shim (2mm) | 10 | |
| 77 | 10201090 | Shim (1mm) | 10 | |

4.1 Rubber Pad Assy. (10203054) Exploded View:

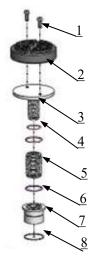
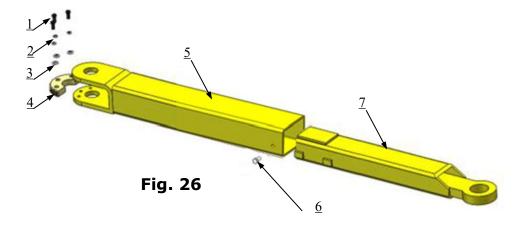


Fig. 25

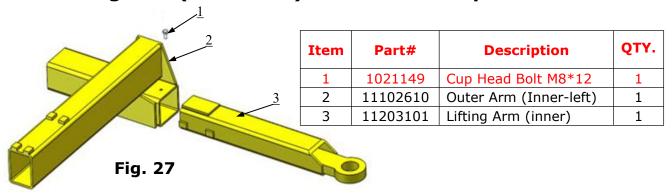
| Item | Part# | Description | QTY. |
|------|----------|----------------------------|------|
| 1 | 10420043 | Socket Bolt M8*20 | 8 |
| 2 | 10203043 | Double screwed rubber Pads | 4 |
| 3 | 11203026 | Rubber Pad Frame Assy | 4 |
| 4 | 10201060 | O Ring | 8 |
| 5 | 11203025 | Adjusting Rod | 4 |
| 6 | 10203041 | Lock washer | 4 |
| 7 | 11203024 | Revolving Shaft | 4 |
| 8 | 10203042 | Lock Washer | 8 |

4.2 Lifting Arm (outer) (10101033) Exploded View:

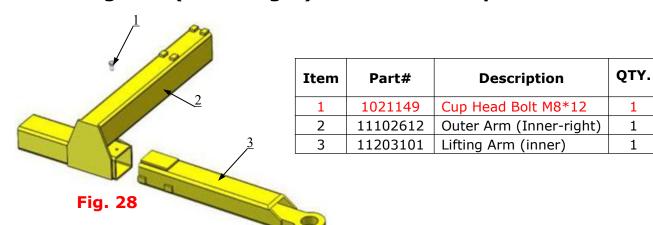


| Item | Part# | Description | QTY. |
|------|----------|---------------------|------|
| 1 | 10209032 | Socket Bolt M8*20 | 6 |
| 2 | 10209034 | Lock Washer φ8 | 6 |
| 3 | 10209033 | Washer φ8 | 6 |
| 4 | 10209035 | Moon Gear | 2 |
| 5 | 11101019 | Lifting Arm (outer) | 2 |
| 6 | 10201149 | Cup Head Bolt M8*12 | 2 |
| 7 | 11203101 | Inner Arm | 2 |

4.3 Lifting Arm (Inner Left) (10102029) Exploded View:



4.4 Lifting Arm (Inner Right) (10102028) Exploded View:



4.5 Chain Pulley Seat assy. (11207681) Exploded View:

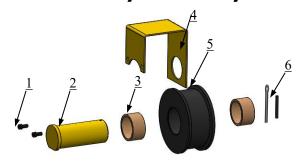
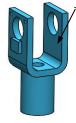
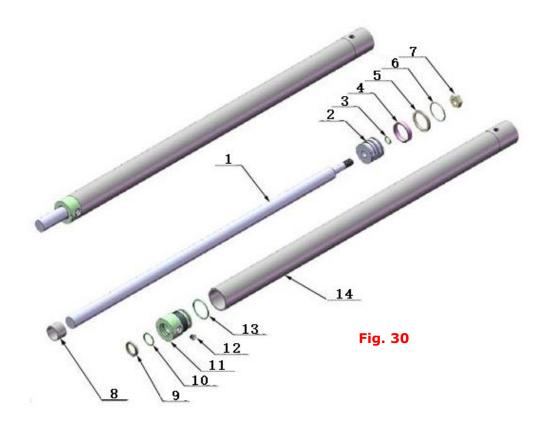


Fig.29



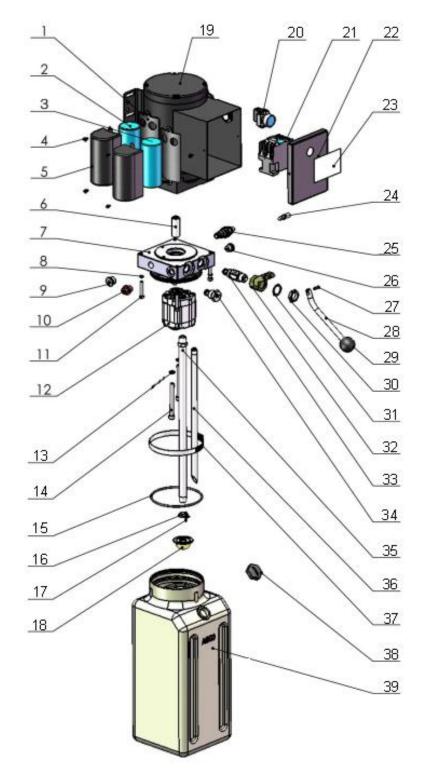
| Item | Part# | Description | QTY. |
|------|----------|----------------------|------|
| 1 | 81400335 | Socket Bolt M5*10 | 2 |
| 2 | 11207006 | Pin for Chain Pulley | 1 |
| 3 | 10420132 | Bronze Bush | 2 |
| 4 | 11207693 | Chain limit block | 1 |
| 5 | 11207007 | Chain Pulley | 1 |
| 6 | 10201005 | Split pin φ4*50 | 1 |
| 7 | 11207008 | Chain Pulley Seat | 1 |

4.6 Cylinder (10207010) Exploded View:



| Item | Part# | Description | QTY. | Note |
|------|----------|-----------------------------|------|------|
| | 1 41 677 | 2 000puio | | |
| 1 | 11207027 | Piston Rod | 1 | |
| 2 | 11207028 | Piston | 1 | |
| 3 | 10206069 | O-Ring | 1 | |
| 4 | 10620053 | Support Ring | 1 | |
| 5 | 10620054 | Y-Ring | 1 | |
| 6 | 10630027 | O-ring | 1 | |
| 7 | 10206071 | Hex Nut | 1 | |
| 8 | 11207029 | Piston rod adjusting sleeve | 1 | |
| 9 | 10217078 | Dust Ring | 1 | |
| 10 | 10520058 | O-Ring | 1 | |
| 11 | 11207030 | Head Cap | 1 | |
| 12 | 10201034 | Bleeding Plug | 1 | |
| 13 | 10207031 | O-Ring | 1 | |
| 14 | 11207032 | Cylinder Tube | 1 | |

4.7 Manual Power Unit (071103) Exploded View:

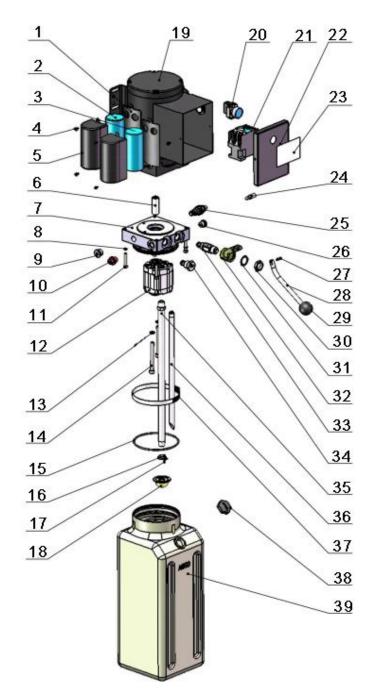


110V/60HZ/1 Phase Manual Fig. 31

PARTS LIST FOR MANUAL POWER UNIT (071103)

| ITEM | Part# | Description | QTY. | Note |
|------|----------|-----------------------------|------|------|
| 1 | 81400180 | Rubber pad | 2 | |
| 2 | 81400130 | Start capacitor | 1 | |
| 3 | 81400088 | Run capacitor | 1 | |
| 4 | 10420148 | Cup Head Bolt with Washer | 4 | |
| 5 | 81400066 | Cover of capacitor | 2 | |
| 6 | 81400363 | Motor connecting shaft | 1 | |
| 7 | 81400362 | Manifold block | 1 | |
| 8 | 10209149 | Lock Wash | 4 | |
| 9 | 81400276 | Iron Plug | 1 | |
| 10 | 81400259 | Red plastic plug | 1 | |
| 11 | 85090142 | Socket Bolt | 4 | |
| 12 | 81400312 | Gear pump | 1 | |
| 13 | 10209034 | Lock Washer | 2 | |
| 14 | 81400295 | Socket bolt | 2 | |
| 15 | 81400365 | O ring | 1 | |
| 16 | 10209152 | Tie | 1 | |
| 17 | 85090167 | Magnet | 1 | |
| 18 | 81400290 | Filter | 1 | |
| 19 | 81400412 | Motor | 1 | |
| 20 | 10420070 | Push button | 1 | |
| 21 | 41030055 | AC connector | 1 | |
| 22 | 81400287 | Cover of Motor Terminal Box | 1 | |
| 23 | 71111182 | AMGO lable | 1 | |
| 24 | 81400560 | Throttle valve | 1 | |
| 25 | 81400266 | Relief valve | 1 | |
| 26 | 81400284 | Iron Plug | 1 | |
| 27 | 81400452 | Pin | 1 | |
| 28 | 81400451 | Handle for release valve | 1 | |
| 29 | 10209020 | Plastic ball | 1 | |
| 30 | 81400421 | Nut for release valve | 1 | |
| 31 | 81400422 | Self-Locking Washer | 1 | |
| 32 | 81400449 | Valve seat(Low) | 1 | |
| 33 | 81400567 | Release valve | 1 | |
| 34 | 81400566 | Check valve | 1 | |
| 35 | 81400375 | Inlet pipe | 1 | |
| 36 | 81400376 | Oil return pipe | 1 | |
| 37 | 81400364 | Hose clamp | 1 | |
| 38 | 81400263 | Oil tank cap | 1 | |
| 39 | 81400320 | Oil tank | 1 | |

4.8 Manual Power Unit (071104) Exploded View:

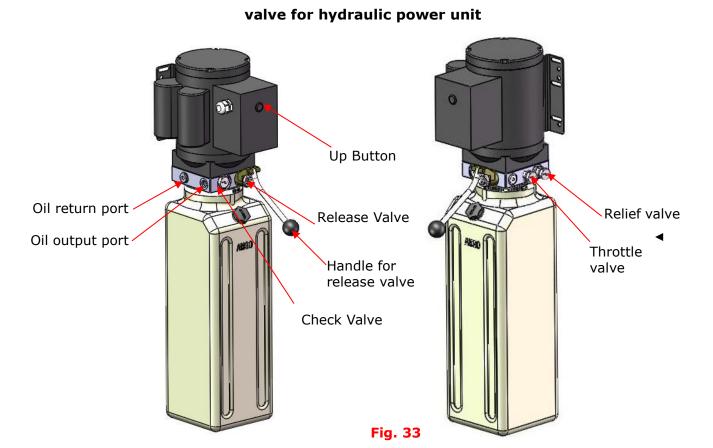


220V/60HZ/1 Phase Manual Fig. 32

PARTS LIST FOR MANUAL POWER UNIT (071104)

| ITEM | Part# | Description | QTY. | Note |
|------|----------|-----------------------------|------|------|
| 1 | 81400180 | Rubber pad | 2 | |
| 2 | 81400130 | Start capacitor | 1 | |
| 3 | 81400088 | Run capacitor | 1 | |
| 4 | 10420148 | Cup Head Bolt with Washer | 4 | |
| 5 | 81400066 | Cover of capacitor | 2 | |
| 6 | 81400363 | Motor connecting shaft | 1 | |
| 7 | 090101 | Manifold block | 1 | |
| 8 | 10209149 | Lock Wash | 4 | |
| 9 | 81400276 | Iron Plug | 1 | |
| 10 | 81400259 | Red plastic plug | 1 | |
| 11 | 85090142 | Socket Bolt | 4 | |
| 12 | 81400280 | Gear pump | 1 | |
| 13 | 10209034 | Lock Washer | 2 | |
| 14 | 81400295 | Socket bolt | 2 | |
| 15 | 81400365 | O ring | 1 | |
| 16 | 10209152 | Tie | 1 | |
| 17 | 85090167 | Magnet | 1 | |
| 18 | 81400290 | Filter | 1 | |
| 19 | 81400413 | Motor | 1 | |
| 20 | 10420070 | Push button | 1 | |
| 21 | 41030055 | AC connector | 1 | |
| 22 | 81400287 | Cover of Motor Terminal Box | 1 | |
| 23 | 71111104 | Name plate | 1 | |
| 24 | 81400560 | Throttle valve | 1 | |
| 25 | 81400266 | Relief valve | 1 | |
| 26 | 81400284 | Iron Plug | 1 | |
| 27 | 10720118 | Pin | 1 | |
| 28 | 81400451 | Handle for release valve | 1 | |
| 29 | 10209020 | Plastic ball | 1 | |
| 30 | 81400421 | Nut for release valve | 1 | |
| 31 | 81400422 | Self-Locking Washer | 1 | |
| 32 | 81400449 | Valve seat(Low) | 1 | |
| 33 | 81400567 | Release valve | 1 | |
| 34 | 81400566 | Check valve | 1 | |
| 35 | 81400375 | Oil Inlet pipe | 1 | |
| 36 | 81400376 | Oil return pipe | 1 | |
| 37 | 81400364 | Hose clamp | 1 | |
| 38 | 81400263 | Oil tank cap | 1 | |
| 39 | 81400320 | Oil tank | 1 | |

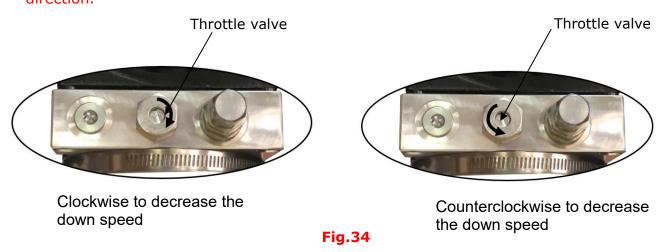
Illustration of hydraulic



V. TEST RUN

1. Adjust the lower speed (Fig.34)

You can adjust the lower speed of the lift if needing: Turn the Throttle Valve in clockwise direction to decrease the lower speed, or increase the speed in counterclockwise direction.

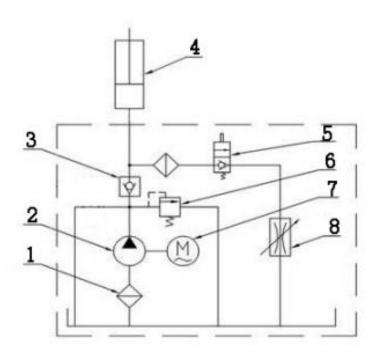


2. Test with load

After finishing the above adjustment, test running the lift with load. Lift the lift in low position for several times first, make sure the lift can rise and lower without improper. And then test run the lift to top position completely. If there are anything improper, repeat the above adjustment.

NOTE: It may be vibrated when lifting at start, please lifting it with load for several times, the air would be bled and the vibration would be disappeared automatically.

Circuit Diagram of Hydraulic System



- 1. Filter
- 2. Gear Pump
- 3. Check Valve
- 4. Cylinder
- 5. Release Valve
- 6. Relief Valve
- 7. Motor
- 8. Throttle Valve

Fig.35

VI. OPERATION INSTRUCTIONS

To lift vehicle

- 1. Keep clean of site near the lift;
- 2. Position lift arms to the lowest position;
- 3. To shortest lift arms;
- 4. Open lift arms;
- 5. Position vehicle beside of the lifting arm, car should at the other side of the column;
- 6. Move arms to the vehicle's lifting point;

Note: The four lift arms must at the same time contact the vehicle's lifting point where manufacturers recommended

7. Turn on the power of the power unit and press **up** button until the rubber pads fully contact the car, making sure it is safe;

- 8. Slowly lift the lift. Make sure that the car is in a balanced state, then lift the car to the required height and release the **UP** button
- 9. Press the release handle of the power unit and lower the lift to the safety lock position. Only after confirming that the safety device is in a normal working state then the car can be maintained.

To lower vehicle

- 1. Be sure the clearance of around and under the lift, only leaving operator in lift area;
- 2. Press the start button of the power unit to raise the vehicle slightly, and then open the safety device, then lower the vehicle by pressing the release handle of the power unit;
- 3. Open the arms and position them to the shortest length;
- 4. Drive away the vehicle.

VII.MAINTENANCE SCHEDULE

Monthly:

- 1. Check all connectors, bolts and pins to insure proper mounting;
- 2. Lubricate cable with lubricant;
- 3. Make a visual inspection of all hydraulic hoses/lines for possible wear or leakage;
- 4. Check Safety device and make sure proper condition;
- 5. Lubricate all Rollers and Pins with 90wt. Gear oil or equivalent;

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 the vertical of columns.
- 4. Check Rubber Pads and replace as necessary.
- 5. Check Safety device and make sure proper condition.

VIII. TROUBLE SHOOTING

| TROUBLE | CAUSE | REMEDY |
|-----------------------|---|--|
| | 1.Start Button does not work | 1. Replace button |
| | 2.Wiring connections are not in good condition | 2. Repair all wiring connection |
| Motor does not run | 3. AC contractor burned out 4. Motor burned out | 3. Repair or replace contractor4. Repair or replace motor |
| | 1 Makay mana in waxayan wakatian | 1 Deverage have require |
| | 1.Motor runs in reverse rotation | 1.Reverse two power wire |
| Motor runs | 2. Release valve in damage | 2.Repair or replace 3.Repair or replace |
| but the lift is | 3.Gear pump in damage4.Relief valve or check valve in damage | 4.Repair or replace |
| not raised | 5.Low oil level | 5.Fill tank |
| | J.Low on level | 3.1 III Carik |
| | 1.Release valve out of work | |
| Lift does not | 2 Relief valve or check valve leakage. | Repair or replace |
| stay up | 3.Cylinder or fittings leaks | |
| | 1. Oil line is jammed | 1. Clean the oil line |
| | 2. Motor running on low voltage | 2. Check Electrical System |
| Lift raises | 3. Oil mixed with air | 3. Fill tank |
| too slow | 4. Gear Pump leaks | 4. Replace Pump |
| | 5. Overload lifting | 5. Check load |
| | Safety device are locking | 1. Release the safeties |
| 1:64 | 2. Release valve in damage | 2. Repair or replace |
| Lift cannot | 3. Safety cable broken | 3. Replace |
| lower | 4. Oil system is jammed | 4. Clean the oil system |
| | 5.Hydraulic solenoid valve out of work | 5. Replace the solenoid valve |

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.



Manual No.: 72221707

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