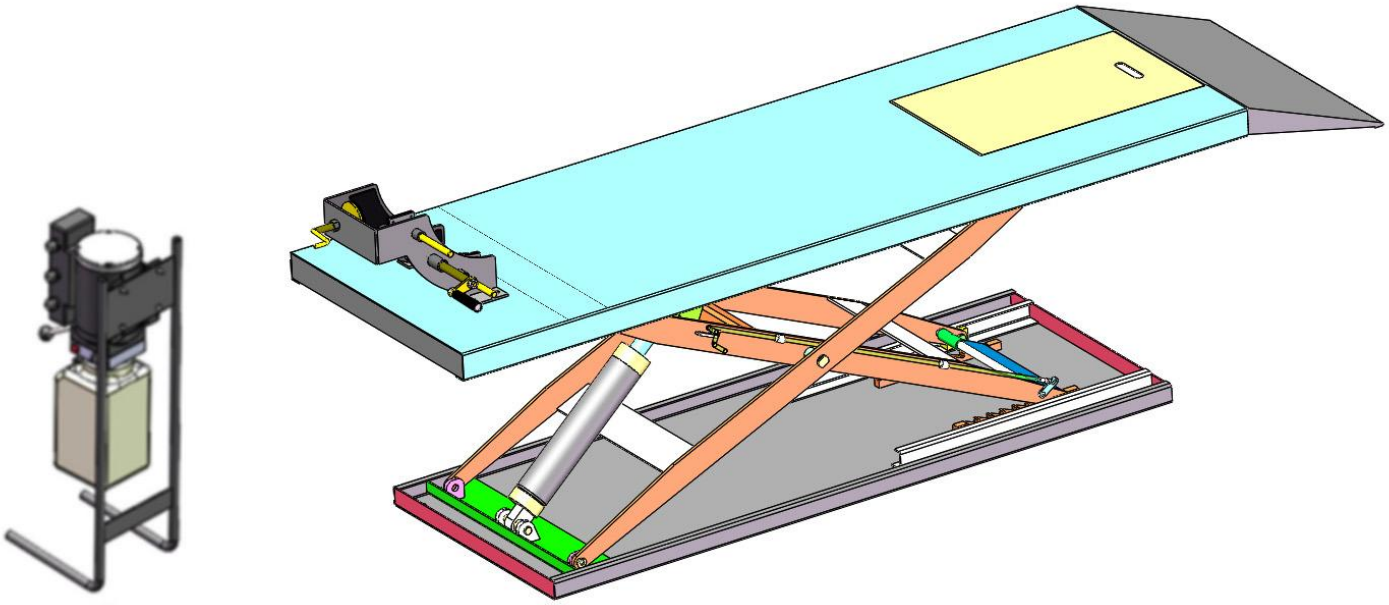
AMGO® Hydraulics

Installation And Service Manual

Original



Motorcycle lift
MC-1200

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I .PRODUCT FEATURES AND SPECIFICATIONS
Motorcycle lift MC-1200：

- Hydraulic direct-drive cylinders, designed and made on high standard, utilizing oil seal in cylinder
- Self-lubricating UHMW Polyethylene sliders and bronze bush
- Non-skid diamond platforms
- Automatic safety release system
- Optional: Width extension kit and length extension kit

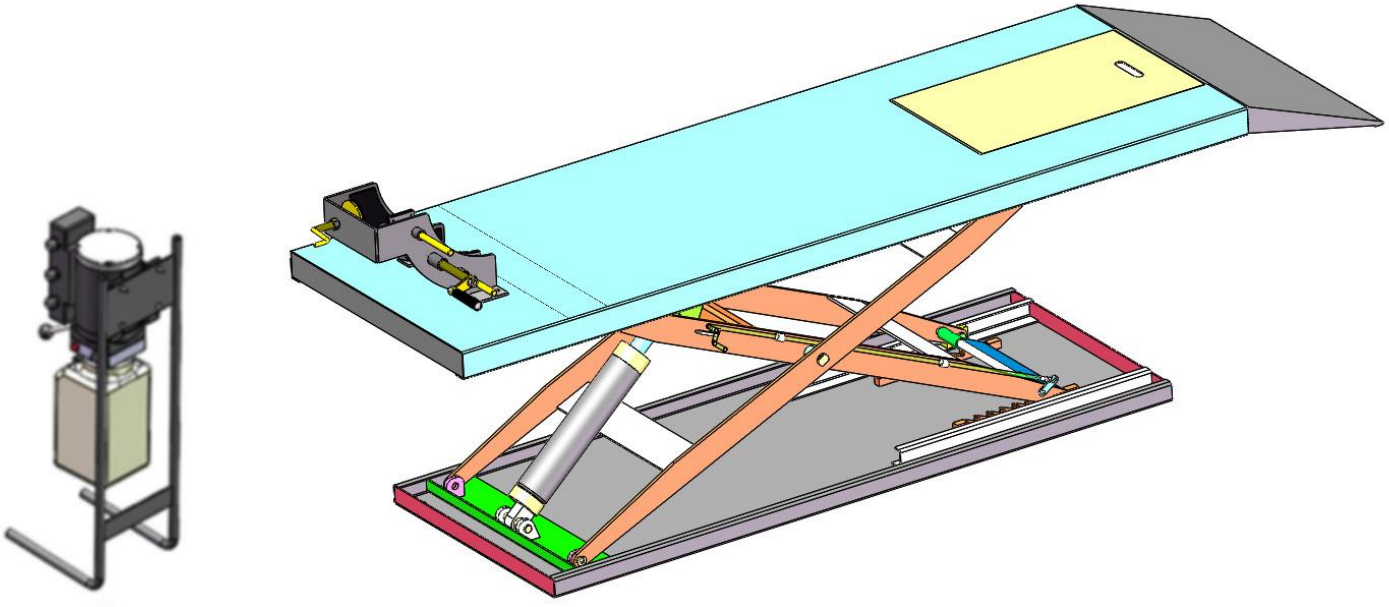


Fig.1

MODEL MC-1200 SPECIFICATION

Model	Capacity	Lifting Height	Lifting Time	Overall Length	Overall Width	Minimum Height	Motor
MC-1200	1200LBS	43″	23s	106-1/4″	29-1/2″	6″	1.0HP

II . INSTALLATION REQUIREMENT

A. TOOLS REQUIRED

▻Rotary Hammer Drill (Φ19)

▻Ratchet Spanner with Socket：(28#)

▻Screw

▻Grease gun

▻English Spanner (12")

▻Hook Spanner(40~42mm)

▻Wrench Set：(13#、15#、17#、19#)

▻Pliers

Fig.2

B. SPECIFICATIONS OF CONCRETE

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

1. Concrete must be thickness 3 1/2" minimum and without reinforcing steel bars, and must be dried completely before lift installation.
2. Concrete must be of test strength 3000PSI.

C. POWER SUPPLY

The power capacity must be more than 1.0HP, the power cable size must be 0.003875sq.in and in good condition of connecting to the floor.

III.STEPS OF INSTALLATION

A. Check the parts before assembly to make sure all the parts are completed.

1. Packaged cargo (lift, drive-in ramp, parts box, power unit stand, wheel vise). Move the parts aside, open the outer packing and check the parts according to the shipment parts list. **see Fig.3**

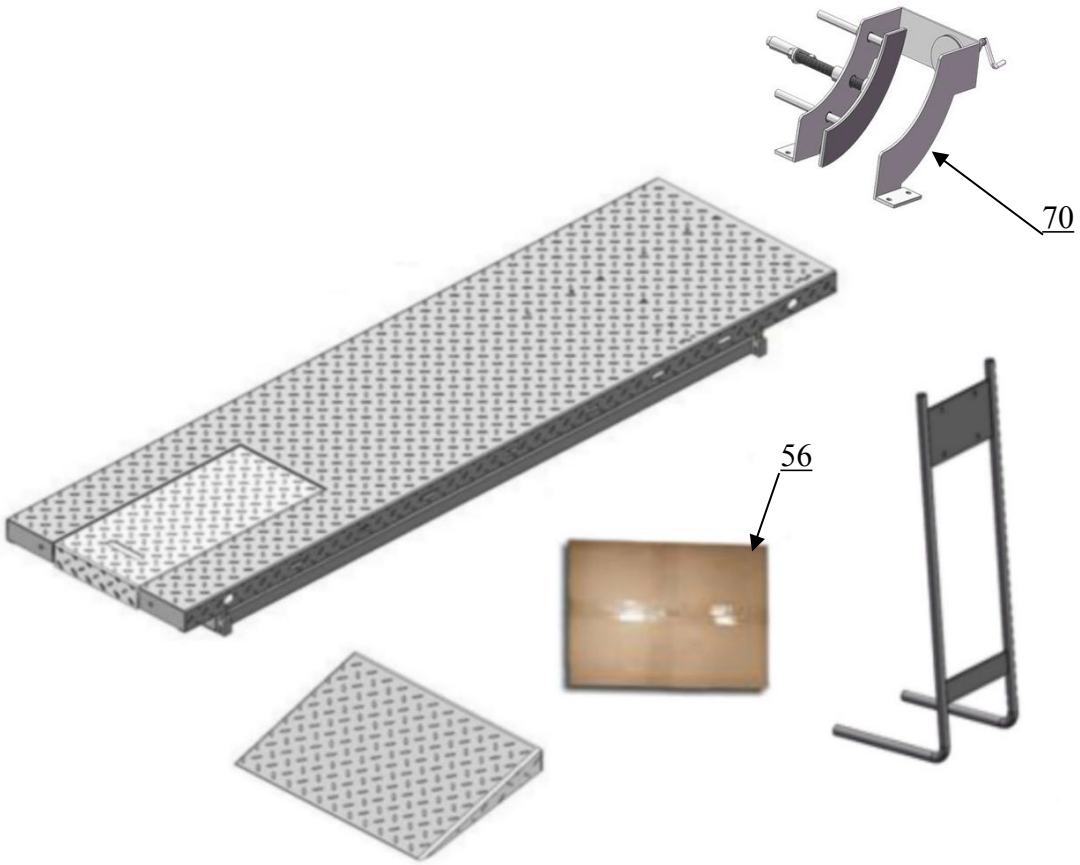


Fig.3

2. Open the parts box, check the parts according to the parts list **(See Fig. 4)**.

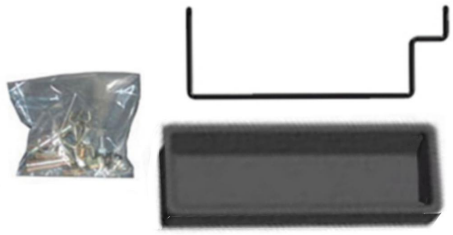


Fig.4

3. Open the parts bag, check the parts according to the parts list **(See Fig. 5)**.

Fig.5

B. Put the lift and control cabinet in good order and connect the oil hose, see Fig.6

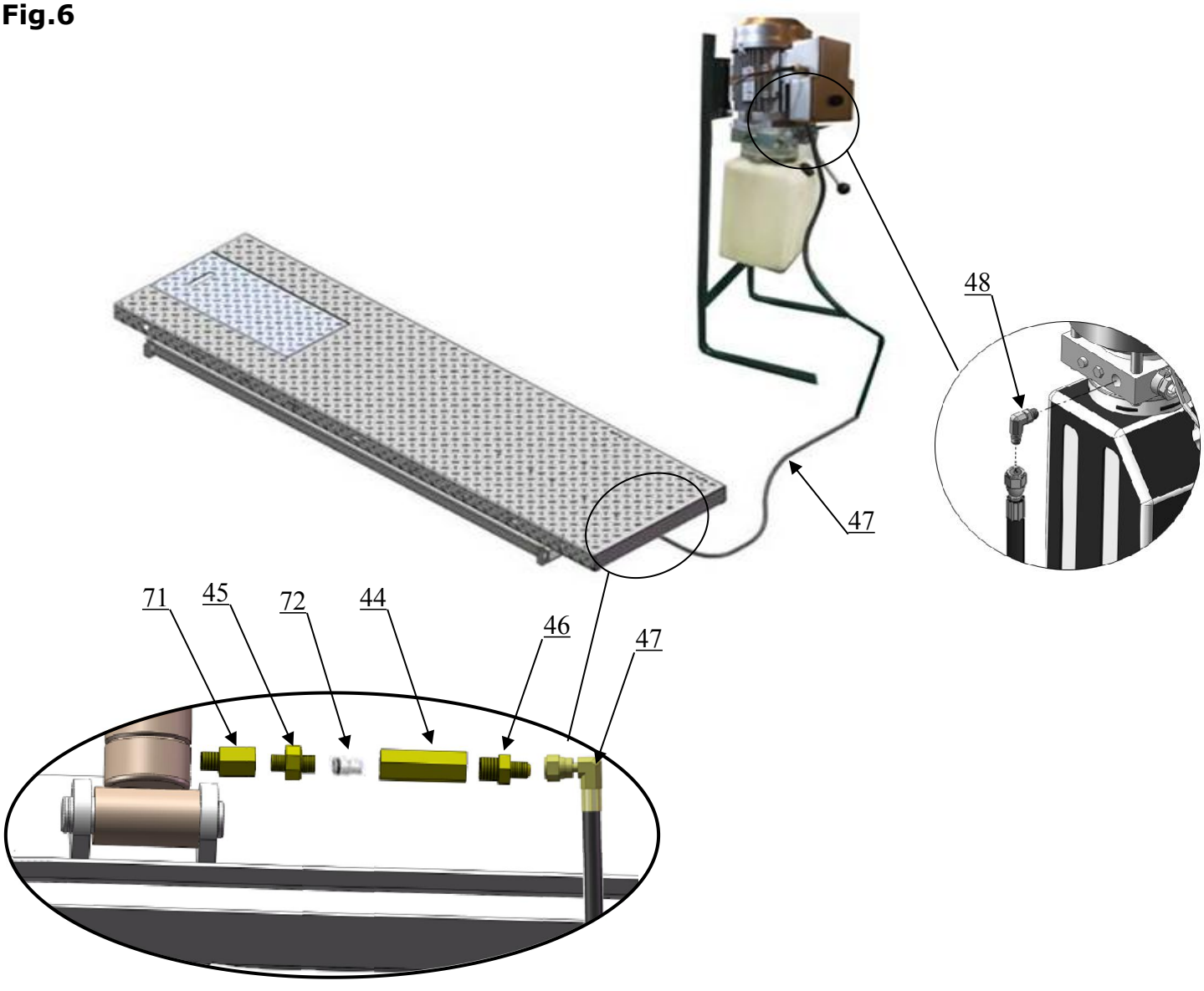


Fig.6

2.1 Step of power unit stand installation

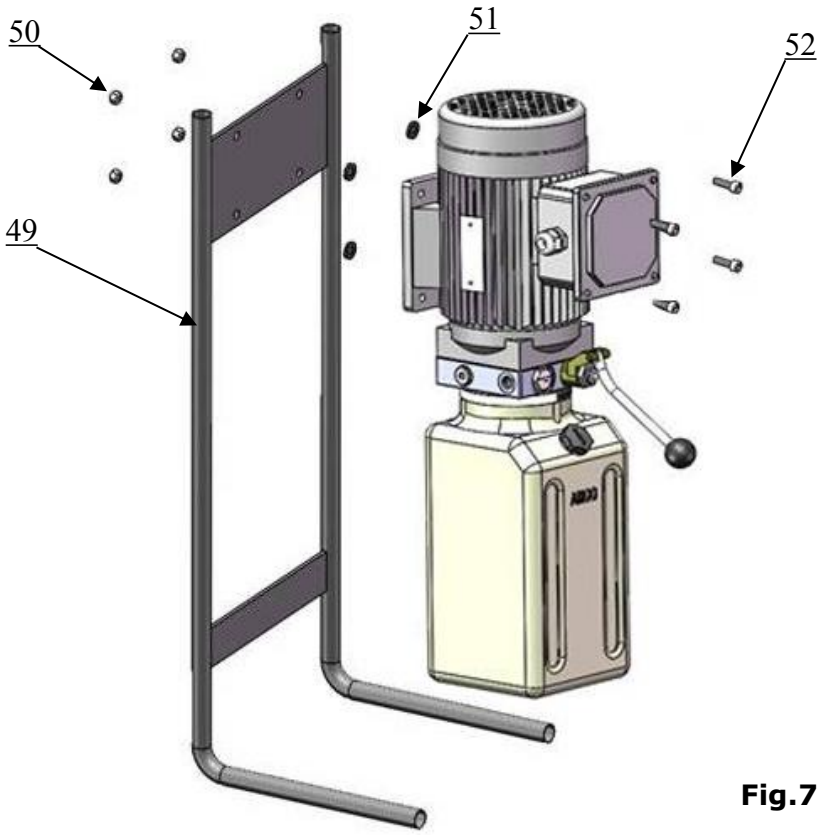
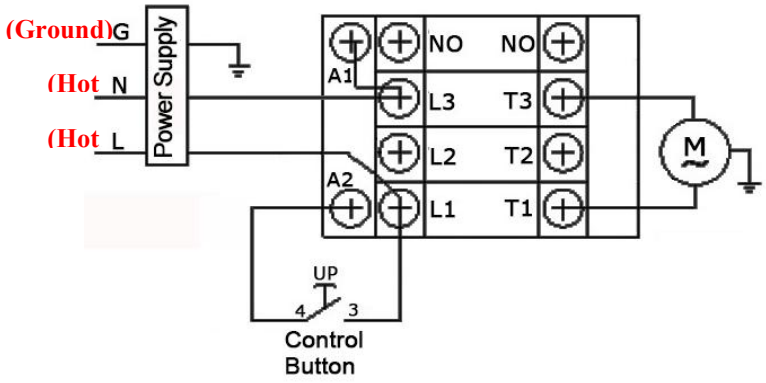


Fig.7

C. Install Electrical System

1. When power supply wires are active wire L and neutral wire N ,connecting active wire L to terminals of AC contactor marked L1, connecting neutral wire N to terminals of AC contractor marked L3.
2. When power supply wires are two active wire L ,connecting to terminals of AC contactor marked L1, L3 respectively.
3. Earth wire is connected with the earth wire terminal of the motor.



AC contactor

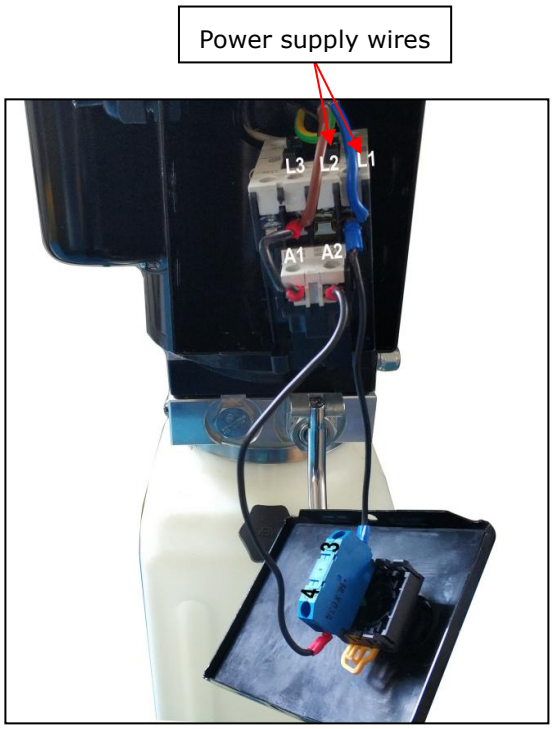


Fig.8

D. Tighten all the oil hose fittings, fill the power unit with right amount hydraulic oil (In order to ensure the service life of the hydraulic system and keep the lift in best performance, please fill No.46 high-quality anti-wear hydraulic oil.)

E. Install adjustable wheel vise and tool tray. (See Fig 9)

1. After connected the circuit wire, lifting the motorcycle lift to a suitable height, install the wheel vise and tool tray as to below photos**;**

2. The wheel vise can be chosen to install in different installed position of the platform.

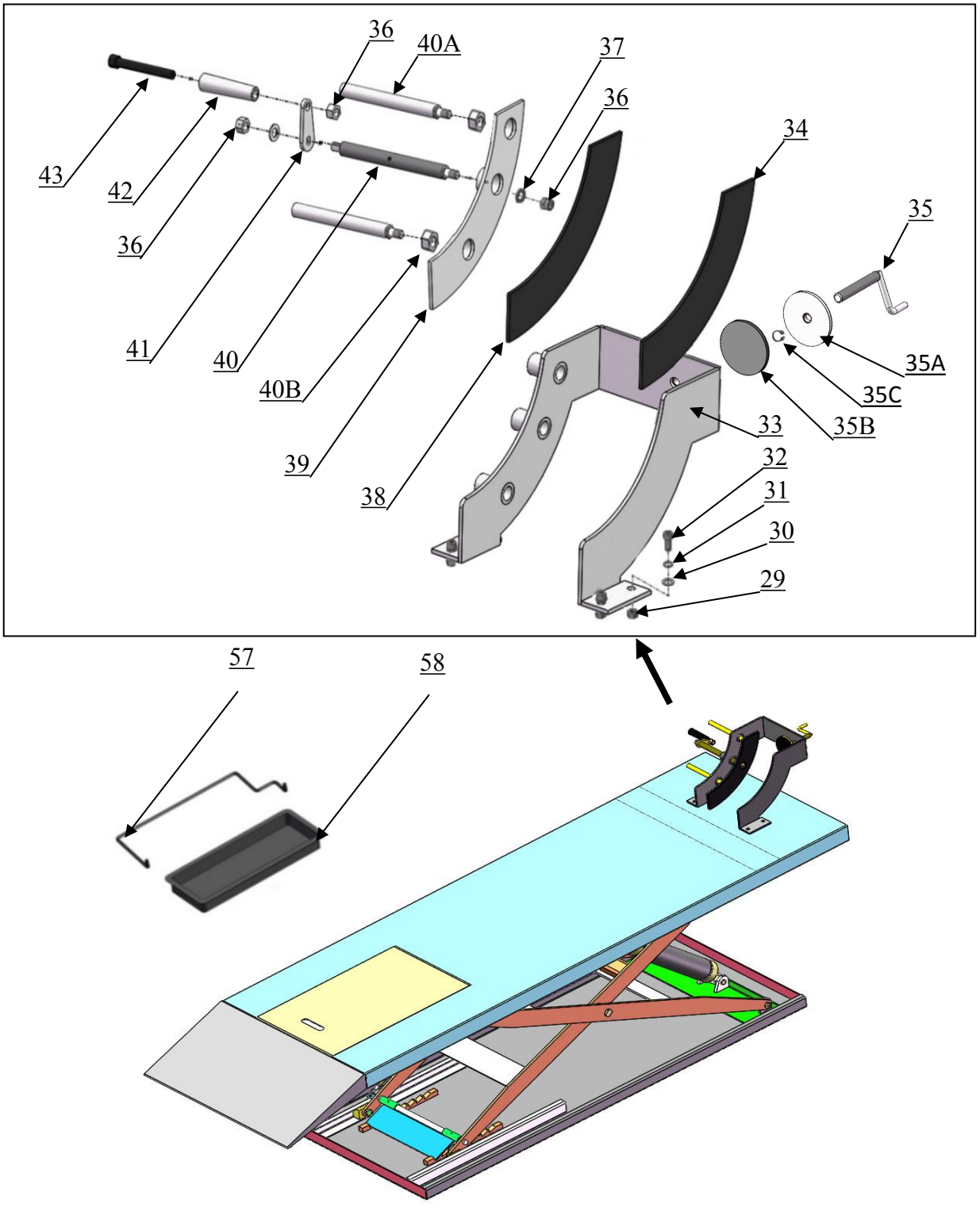


Fig.9

***F. Install optional width extension kit(MC001). See Fig 10**

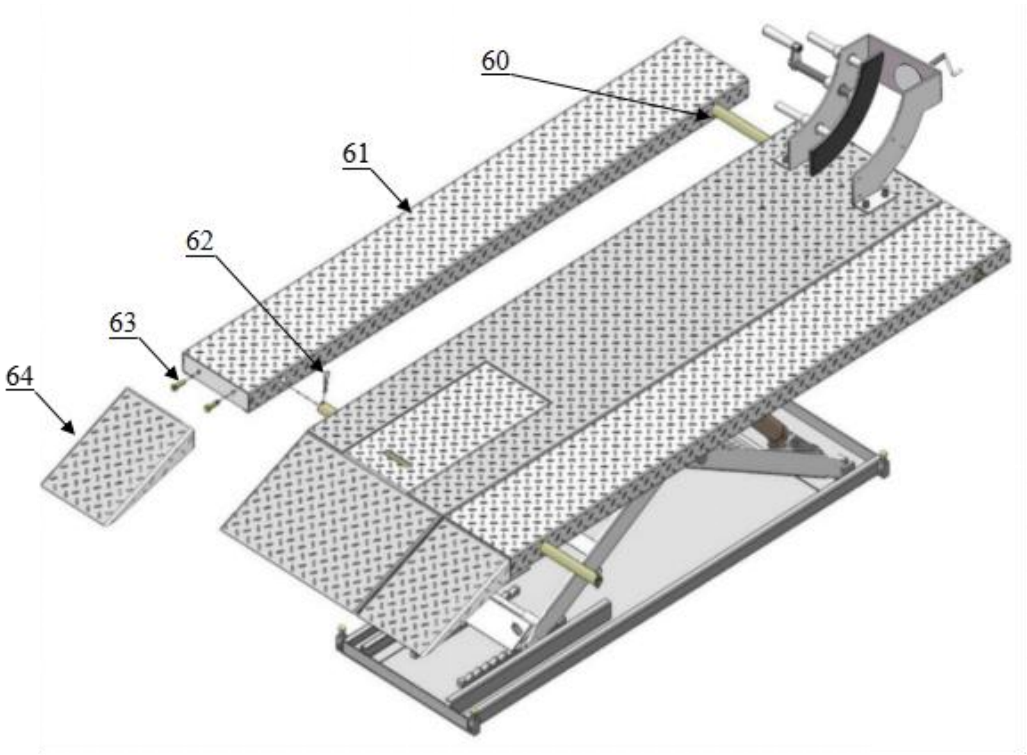


Fig.10

***G. Install optional Length extension kit(MC002). See Fig 11**

Note: Connect the holes on platform extension kit and the platform. Install the adjustable fixing device on the platform extension kit.

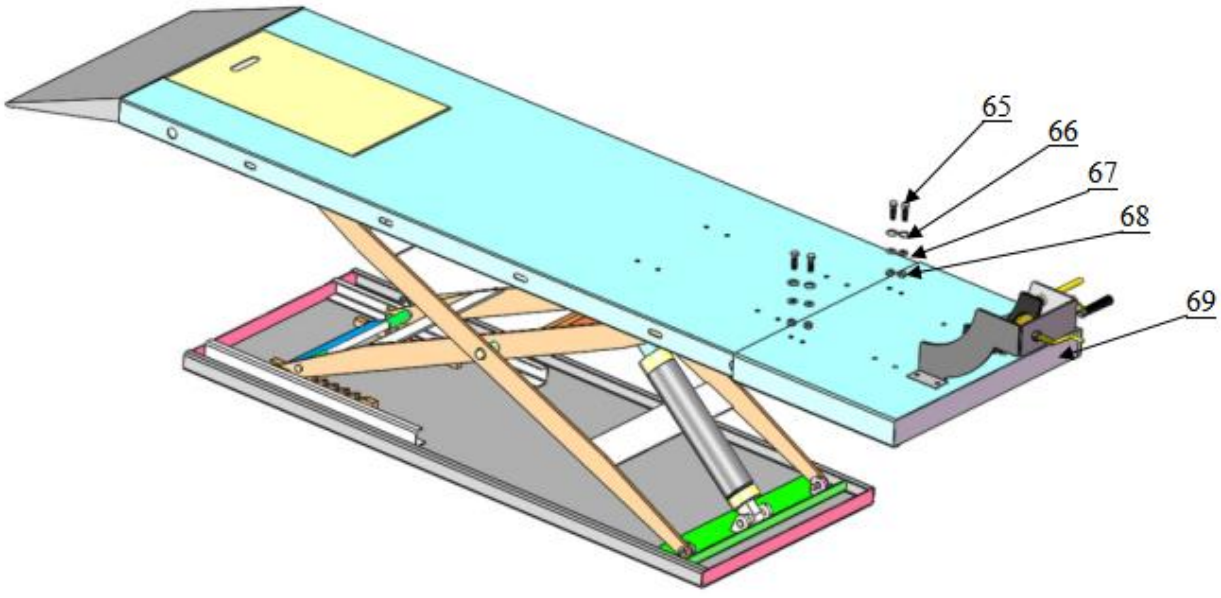


Fig.11

IV. EXPLODED VIEW

MODEL：MC-1200

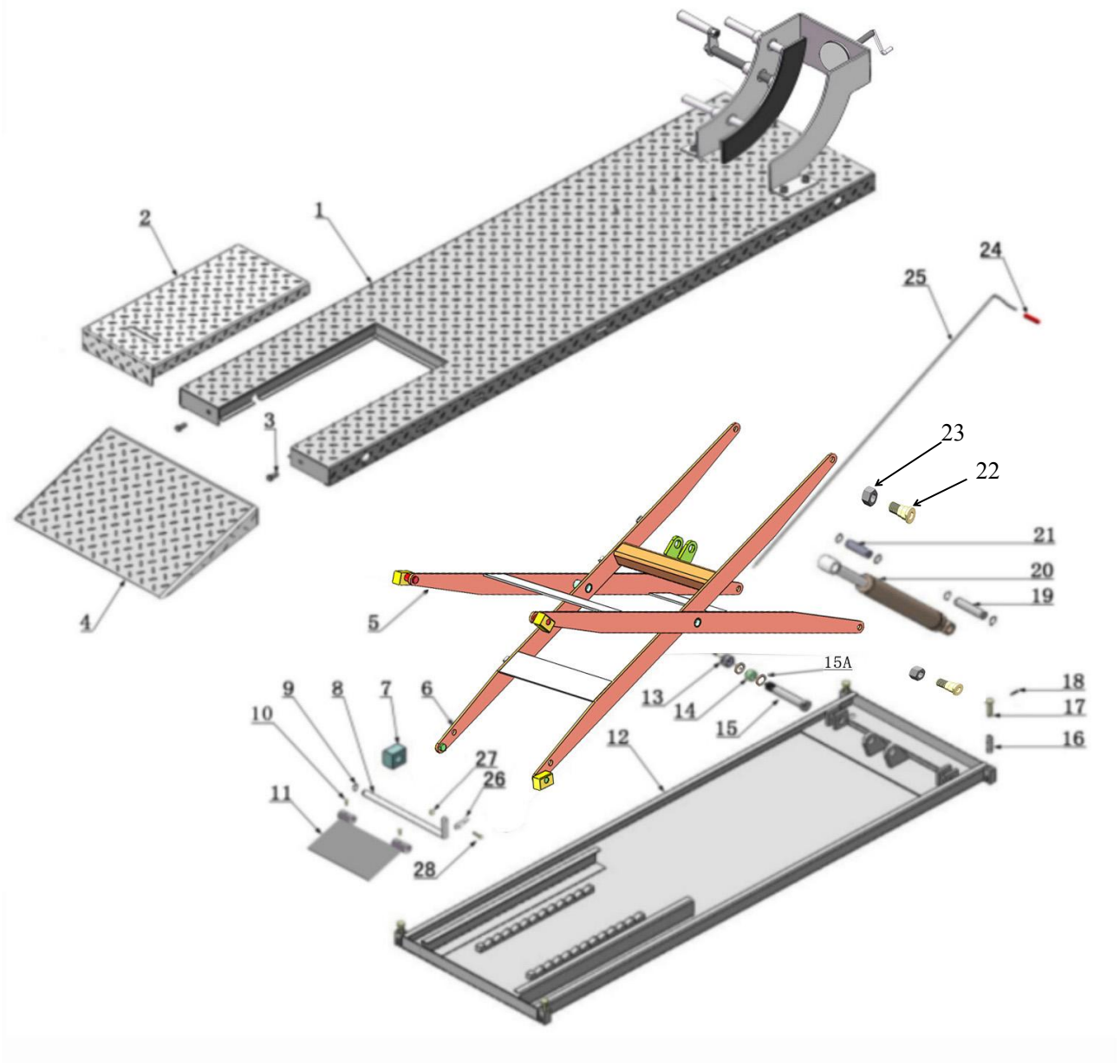


Fig.12

Parts list of Lift

Item	Part#	Description	QTY.	Note
1	11720020-01	Platform	1	
2	11720723	Cover plate of Platform	1	
3	10217069	Hex bolt	2	
4	11720022	Drive-in ramp	1	
5	11720023-01	Outer scissor	1	
6	11720024-01	Inner scissor	1	
7	1003105001	Slider 60*42*33	4	
8	11720122-01	Pin for safety device	1	
9	10206019	Snap ring	2	
10	10640050	Socket bolts	2	
11	11720026-01	Safety device	1	
12	11720027-03	Base	1	
13	1003085004	Self-locking nut M18	2	
14	1002011001	Steel bush φ22*φ19*14	4	
15	11720007-01	Pin for Scissor φ29*95	2	
15A	10510053	Washers Φ24*Φ19.5*1.8	6	
16	10720003	Spring φ2*75	5	
17	11720012	Pin for Spring φ25*82	4	
18	10209025	Hair Pin φ4*25	6	
19	11640006A	Cylinder Base Pin φ25*112	1	
20	10640007	Cylinder φ63*290	1	
21	11640057	Pin for Cylinder Connecting φ25*88	1	
22	1103082011A	Pin	1	
23	650024	Self Locking nut M16	4	
24	10620136	Rubber tube	1	
25	11720111-01	Safety Device connecting bar	1	
26	11720110	Connecting sleeve	1	
27	10420018	Self Locking Nut M6	1	
28	10720102	Socket Bolt M6*18	1	
29	10209021	Hex Nut M10	4	
30	10209022	Washer Φ10	4	
31	10209039	Lock Washer Φ10	4	
32	10720002	Socket Bolt M10*25	4	
33	1103083015	Wheel vise fixing seat	1	
34	1103083011	Support plate (Left)	1	
35	1103083022	Positioning adjustment screw rod	1	
35A	1103083019	Positioning plate	1	
35B	1003083002	Rubber pad 90*90*5	1	
35C	10630032	Snap ring φ12	1	
36	10206023	Self Locking Nut M12	3	

Item	Part#	Description	QTY.	Note
37	10206006	Washer φ12	6	
38	1103083010	Support plate (Right)	1	
39	1103083016	Wheel vise moving board	1	
40	1103083012	Adjusting Pin	1	
40A	1103083009	Guide Pillar	2	
40B	10209066	Hex Nut M16	2	
41	1103083007	Handle connecting plate	1	
42	1103083017	Control Handle	1	
43	10410040	Socket Bolt M12*110	1	
44	11420245	Straight fitting J0065 G3/8-19(M)*3/8NPT(F)	1	
45	11420244	Straight fitting J0064 1/4NPT-18(M)*G3/8-19(M)	1	
46	10420119	Straight fitting 3/8NPT(M)*1/4JIC(M)	1	
47	10440042	Oil Hose 1/4*2550mm	1	
48	10209060	90^0 Fitting $3/8SAE^{O/R}$(M)*1/4JIC(M)	1	
49	11720131	Power Unit Stand	1	
50	10209005	Self Locking Nut M8	4	
51	10209004	Rubber Ring	4	
52	10209003	Hex Bolt M8*25	4	
53	10209059	Anchor Bolt 3/4*5-1/2	4	
54	10720013	Safety Cable L=1120mm	1	
55	10720014	Securing belt（Optional）	1	
56	10720500	Part Box	1	
57	11720100	Tool tray bracket	1	
58	10206156	Tool tray	1	
59	81513024	Power unit	1	
70	86010782	Wheel vise assy.	1	
71	11630103	Straight fitting J0020 1/4NPT(M)*1/4NPT(F)	1	
72	11720114	Balance valve(0.7)	1	
Optional: Width extension kits (MC001)				
60	10720036-01	Connecting pin	2	
61	10720035-01	Width extension platform	2	
62	11209012	Hair pin φ3.2	4	
63	10217069	Hex bolt M12*30	4	
64	11720034	Width extension drive-in ramp	2	
Optional: Length Extension kits (MC002)				
65	10209126	Hex bolt M10*25	4	
66	10209039	Lock Washer Φ10	4	
67	10209022	Washer Φ10	4	
68	10209021	Hex nut M10	4	
69	11720062	Extension platform	1	

4.1 Cylinder (10640007)

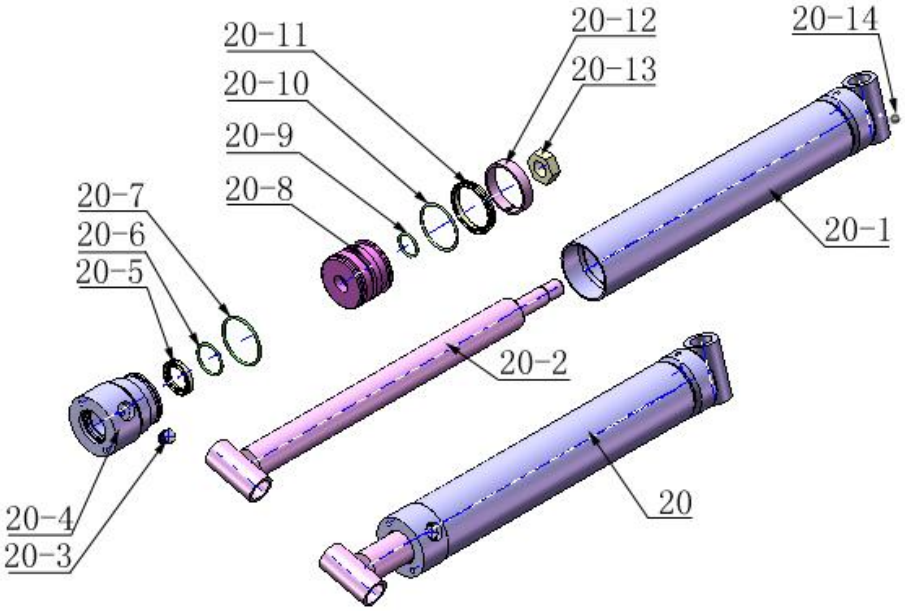


Fig.13

Parts for cylinder

Item	Part#	Description	QTY.	Note
20-1	11640030A	Bore Weldment	1	
20-2	11640031A	Piston Rod	1	
20-3	10201034	Bleeding Plug	1	
20-4	11201033	Head Cup	1	
20-5	10209078	Dust seal	1	
20-6	10201032	O Ring	1	
20-7	10201035	O Ring	1	
20-8	11201028	Piston	1	
20-9	10206069	O Ring	1	
20-10	10201031	O Ring	1	
20-11	10201030	Y Ring	1	
20-12	10201029	Support Ring	1	
20-13	10206071	Nut	1	
20-14	10620064	Oil nozzle	2	

4.2 Power unit (071103)

Single phase 110V 60Hz
Manual power unit

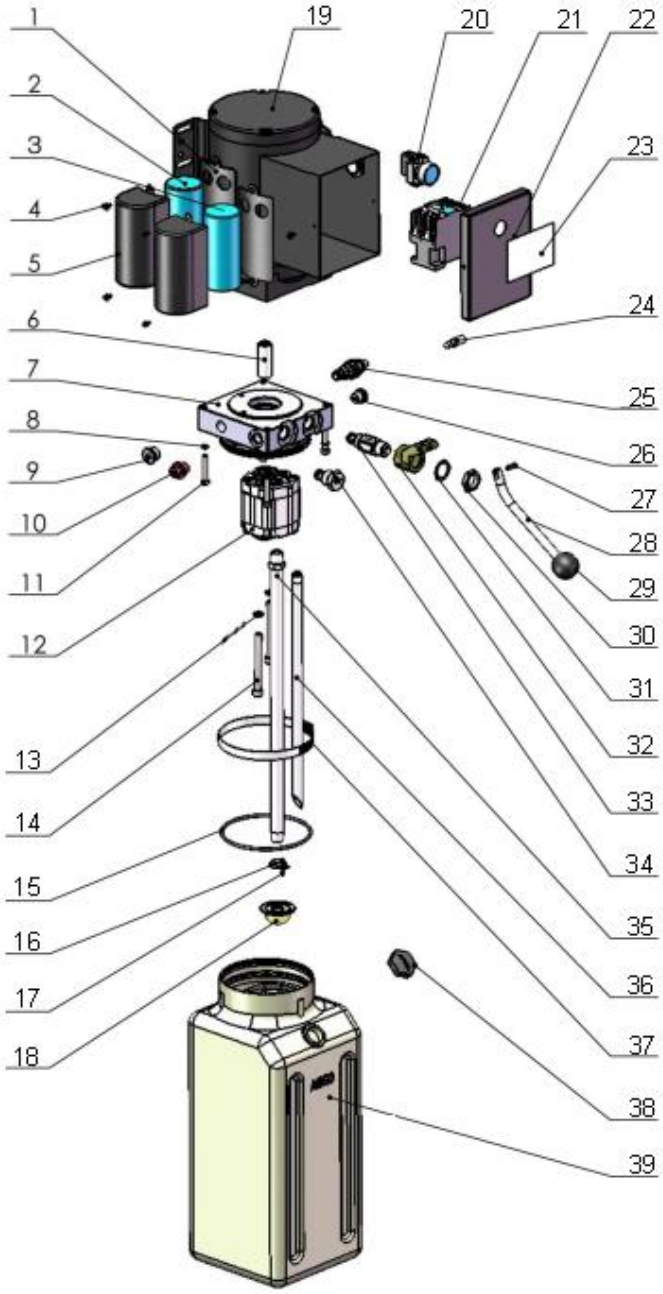


Fig.14

Parts for Manual power unit

Item	Part#	Description	QTY.	Note
1	81400180	Rubber pad	2	
2	81400250	Start capacitor	1	
3	81400200	Run capacitor	1	
4	10420148	Cap head bolt with washer	4	
5	81400066	Cover for capacitor	2	
6	81400363	Motor connecting shaft	1	
7	81400362	Manifold block	1	
8	10209149	Lock washer	4	
9	81400276	Iron plug	1	
10	81400259	Red rubber plug	1	
11	85090142	Socket bolt	4	
12	81400312	Gear pump	1	
13	10209034	Washer	2	
14	81400295	Socket bolt	2	
15	81400365	O-ring	1	
16	10209152	Belt	1	
17	85090167	Magnet	1	
18	81400290	Filter mesh	1	
19	81400412	Motor	1	
20	10420070	Button switch	1	
21	81400559	AC contactor	1	
22	81400287	Cover of motor terminal box	1	
23	71111211	AMGO label	1	
24	81400560	Throttle valve	1	
25	81400266	Release valve	1	
26	81400284	Iron plug	1	
27	81400452	Elastic pin	1	
28	81400451	Handle for release valve	1	
29	10209020	Plastic ball for arm lock	1	
30	81400421	Release valve nut	1	
31	81400422	Release valve shim	1	
32	81400449	Valve seat(Low)	1	
33	81400567	Release valve	1	
34	81400566	Check valve	1	
35	81400375	Oil suction pipe	1	
36	81400376	Oil return pipe	1	
37	81400364	Hose clamp (stainless steel)	1	
38	81400263	Oil tank cap	1	
39	81400320	Oil tank	1	

Illustration of hydraulic valve for power unit

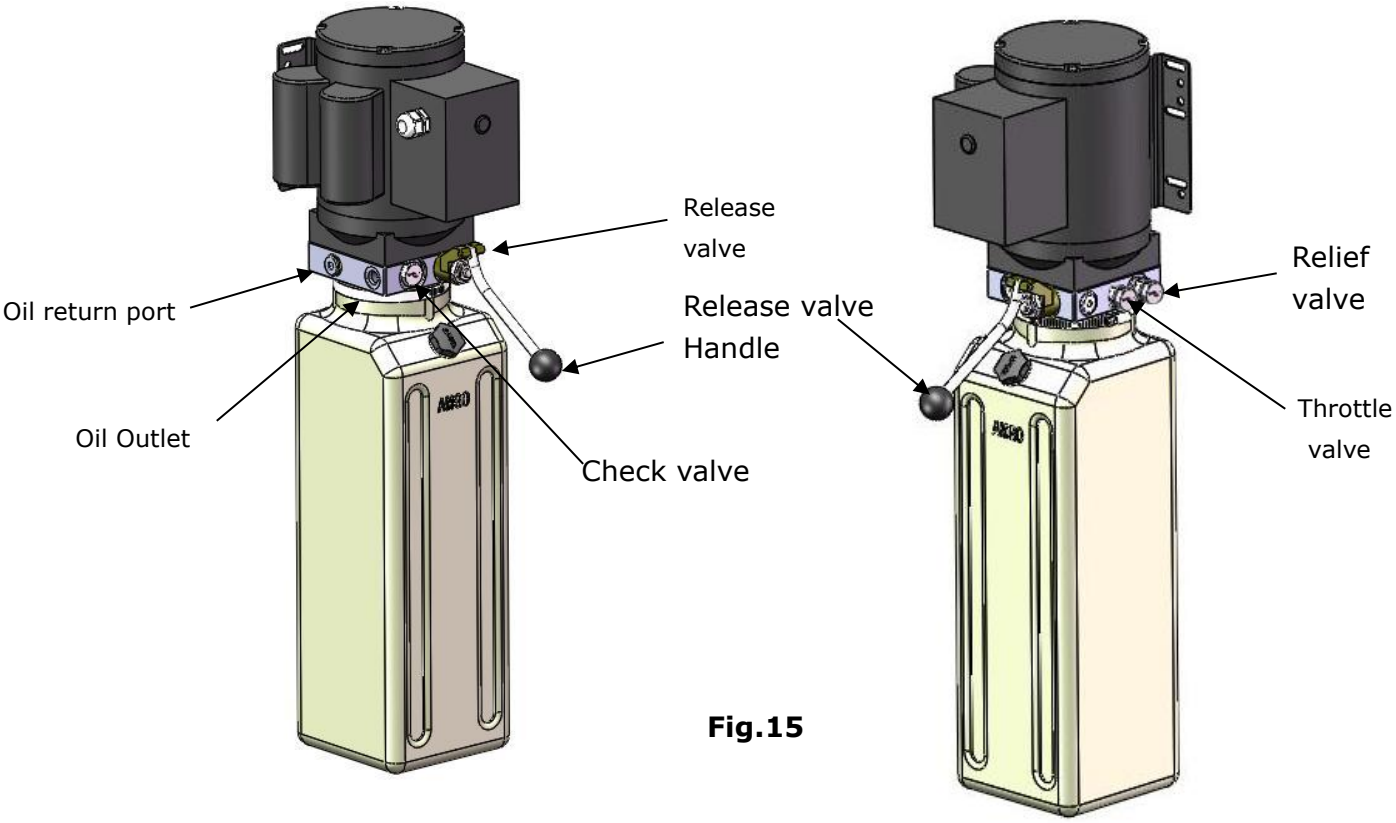


Fig.15

V. TEST RUN

1. Install anchor bolts. see Fig.16

Install the anchor bolts to fix the machine after installing.

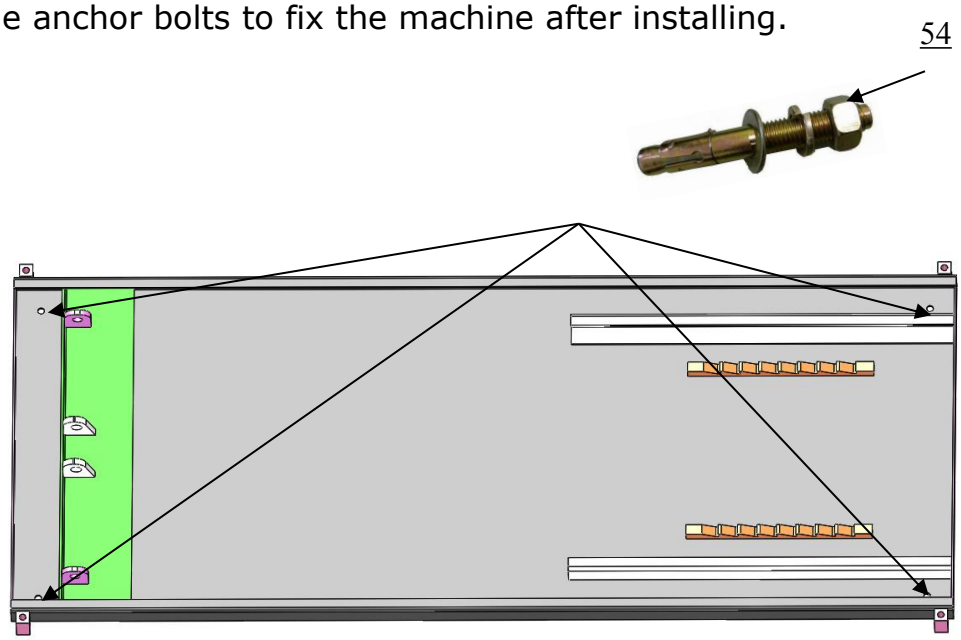


Fig.16

Steps:

Note: Twisting force is 150N.m for fixing the anchor bolt, knock the anchor bolt into the ground at least 2-3/4".

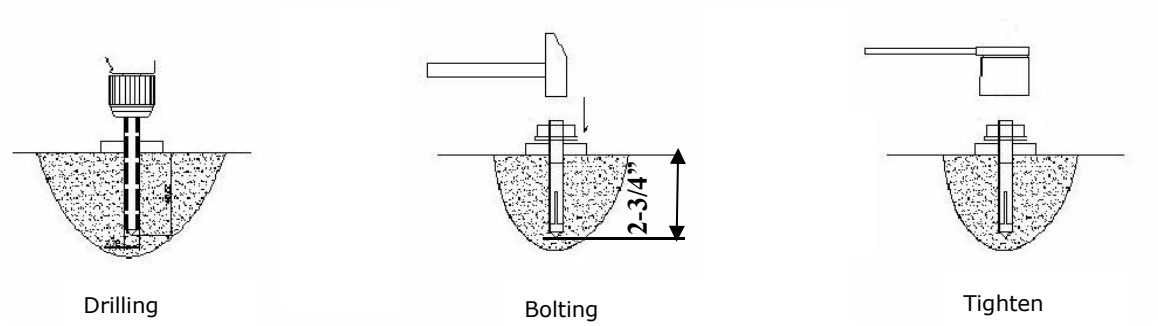


Fig.17

2. Adjust safety cable

Rise the lift to the highest position **(See Fig.18)**, rotating the safety lock handle as the direction of arrow. Loosen the screw of the safety cable by spanner, lift up the safety lock plate from the rack about 1/2"~3/4" **(See Fig.19)**, then tighten the safety cable by spanner.

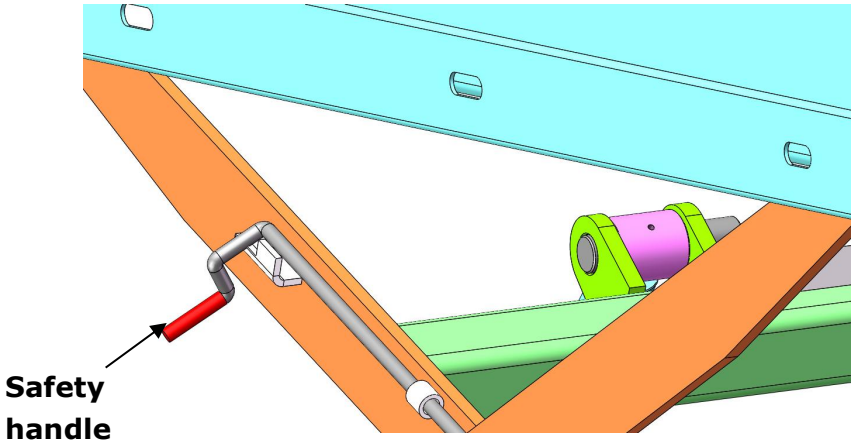


Fig.18

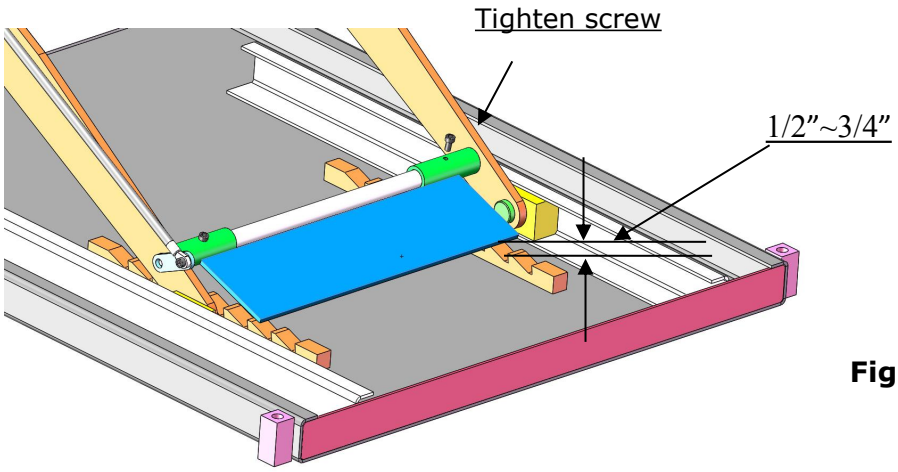


Fig.19

VI. OPERATION INSTRUCTIONS

1. Install well the oil hose between cylinder and power unit, connected the wire, the motorcycle lift can be operated.

2. Rise up the lift without motorcycle for testing.

3. To lift motorcycle

Lower the lift to the lowest position, loosen the wheel vise. Move the motorcycle to the platform, put the front wheel into the wheel vise, set well the motorcycle. Put up the foot stool of the motorcycle. Rotated handle to clamp the wheel. Tighten the securing belt. Make sure the wheel is tightened and the securing belt is fixed before using. **(See Fig.20)**

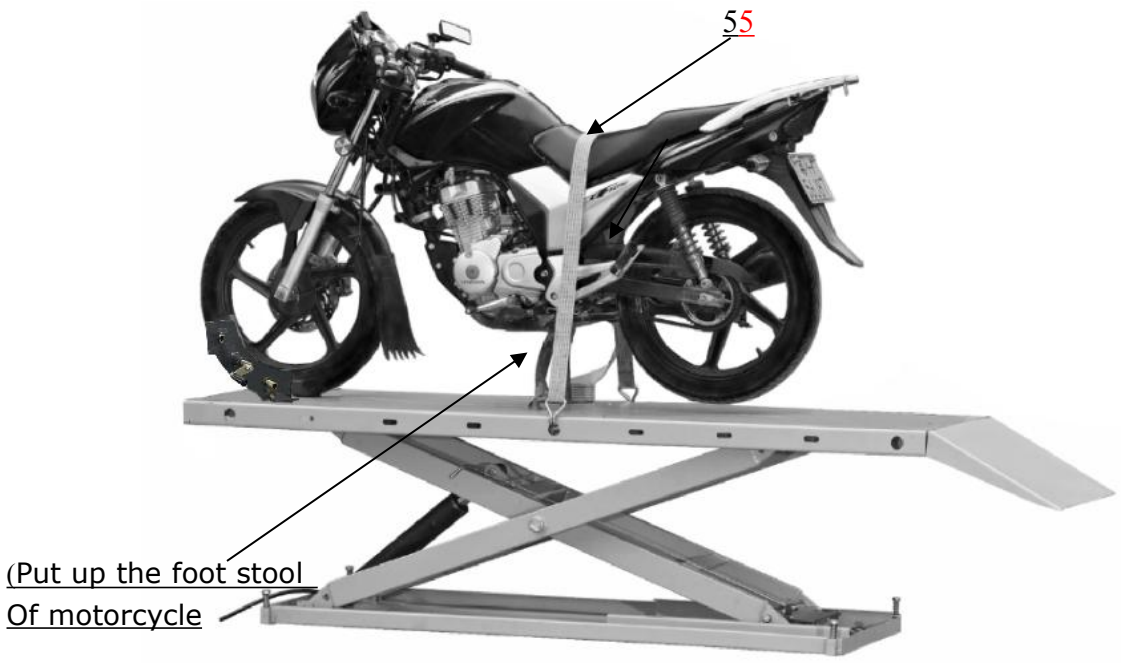
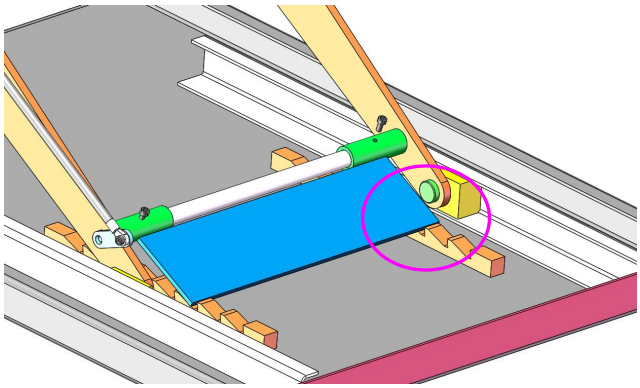


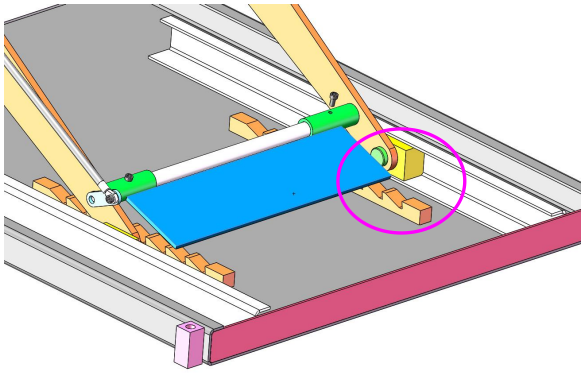
Fig.20

4. To lower the lift: Rise the lift for several seconds. Rotate the safety lock handle downward **(see Fig.21)** to release the safety device. After the safety device is released **(see Fig.22)**, press the release handle in the power unit, the lift would be lowered.



Safety device is locked

Fig.21



Safety device is released

Fig.22

VII. MAINTENANCE SCHEDULE

Monthly maintenance:

1. Lubricate all moving parts with lubricant.

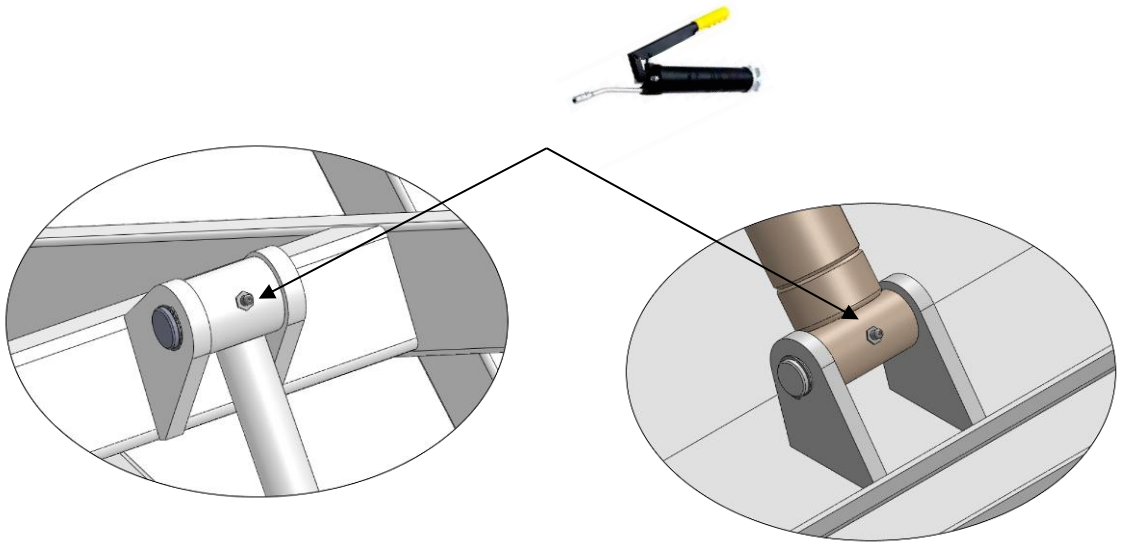


Fig.23

2. Check all connectors, bolts and pins to insure proper mounting.
3. Make a visual inspection of all hydraulic hoses/lines for possible wear or leakage

Every six months:

1. Make a visual inspection of all moving parts for possible wear, interference or damage.
2. Check all fasteners and re-torque

Oil cylinder maintenance:

In order to extend the service life of the oil cylinder, please operate according to the following requirements.

1. Recommend to use N46 anti-wear hydraulic oil.
2. The hydraulic oil of the lifts should be replaced regularly during using. Replace the hydraulic oil 3 months after the first installation, Replace the hydraulic oil once a year afterwards.
3. Make at least one full trip raising and lowering per day. For exhausting the air from the system, which could effectively avoid the corrosion of the cylinder and damage to the seals caused by presence of air or water in the system.
4. Protect the outer surface of the oil cylinder's piston rod from bumping and scratching, and timely clean up the debris on the oil cylinder dust-ring and the piston rod.

VIII.TROUBLE SHOOTING

NO	TROUBLE	CAUSE	REMEDY
1	Motor does not run	1. Button does not work 2. Wiring connections are not in good condition 3. Motor burned out 4. AC contactor burned out	1. Replace button 2. Repair all wiring connections 3. Repair or replace motor 4. Replace AC Contactor
2	Motor runs but the lift is not raised	1. Motor runs in reverse rotation 2. Release Valve in damage 3. Gear Pump out of operation 4. Relief Valve or Check Valve in damage 5. Low oil level 6. Overload lifting or low pressure	1.Reverse two power wire 2. Repair or replace 3. Repair or replace 4. Repair or replace 5. Fill tank 6.Check load or adjust the pressure
3	Lift does not stay up	1. Release Valve out of work 2. Relief Valve or Check Valve leakage 3. Cylinder or Fittings leaks	Repair or replace Repair or replace Replace fitting and oil seal
4	Lift rises slowly	1. Oil line is jammed 2.Motor running on low voltage 3. Oil mixed with air 4. Gear Pump leaks 5. Overload lifting	1. Clean the oil line 2. Check Electrical System 3. Fill tank 4. Repair or replace 5. Check load
5	Lift cannot lower	1. Safety device are not in activated 2. Release Valve in damage 3. Oil system is jammed	1. Release the safety device 2. Repair or replace 3. 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.

AMGO® Hydraulics

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