

We follow the way that wheel moving!

TYRE CHANGER

INSTRUCTION & MAINTENANCE MANUAL



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

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Tyre Changer

1、 Introduction

Automatic tyre changer equipment was designed to mount/demount the tyre from the wheel rim. This series of tyre changers was designed to mount/demount larger and heavier tyre from the wheel rim which diameter from 254mm to 762mm. Different with transitional turntable, the center flange positioning could reduce the harm of the wheel rim, and more efficient. The characteristic of this tyre changer is: operating smooth and efficient with both pneumatic and hydraulic; installing the tyre easier by the automatic lifting system; positioning wheel rim by the center flange positioning design; Moving the wheel by the special working platform; operating by the multifunctional helping arms; special structure of the mount/demount head; observing by the camera and displayer.

2、 Safety Regulation:

Please read the manual carefully with fully understanding. Manufacturer shall not be liable for any damage or injury caused by failure to comply with these regulations.

Warning: This instruction is important for the machine, read carefully before installation and operation; also it is important for safe use and maintenance of machine. Please keep this manual kindly in order to use it further.

Caution: Use only for purpose for which it is designed, don't use it for other purposes. Manufacturer shall not be liable for any damage or injury caused by failure to comply with these regulations.

Use of this machine is especially reserved to trained and qualified professional persons. Any changes on this machine without manufacturer's permission may cause the malfunction and damage to machine, manufacturer can cancel warranty coverage for above. If some parts are damaged due to some reason, please replace them according to the spare parts list. (Attention: warranty is one year after manufactures' delivery date; warranty excludes the easy-broken parts). Manufacturer shall not be liable if customers change the equipment without permission. (Especially for the pneumatic and hydraulic parts)

3. Technical data:

Wheel Rim Dimensions	10 " -30 "
Max. Wheel Width	558mm (22 ")
Max. Wheel Diameter	1250mm (49 ")
Working air pressure	8-10bar
Hydraulic pressure	100bar
Optional rotating motor power supply	220v(1ph/3ph)/380v(3ph)
Optional pump power motor power supply	220v(3ph)/380v(3ph)
Rotating motor power	0.75/1.1kw
Pump power	1.5kw
Bead breaker force	1400kg
Single package overall dimension	1700*1150*1750mm(5.7*3.8*5.7ft)
N/G weight	573/660kg(1260.6/1452lbs)

4. Transport:

The machine should be transported with original package, and place it according to the label on the package. Machine within package must be transported by the forklift, and positioned as shown as the Fig 1.

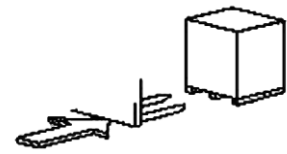


Fig 1

5. Unpacking:

Pull out the nail which is nailed on the plate with tip jaw; unpack the carton and plastic cover. Check to make sure all parts shown on the spare parts list are included. If any parts are missing or broken, please contact the manufacturer or dealer in time.

6. Workplace Requirement:

Choose workplace in compliance with safety regulations. The floor must be smooth and level, this tyre changer required the 2.9m*2.1m working space, the minimal height is 2.4m. Connect power supply and air source according to manual, workplace must have good air condition; in order to make the machine run well, its workplace requires at least 0.5m clear space from each wall shown as Fig 2. If installing it outdoor, it must be protected by roof against rain and sunshine.

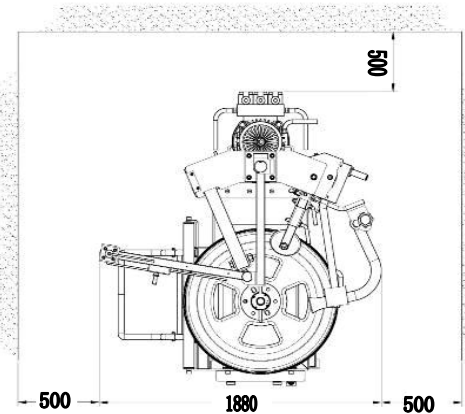


Fig 2

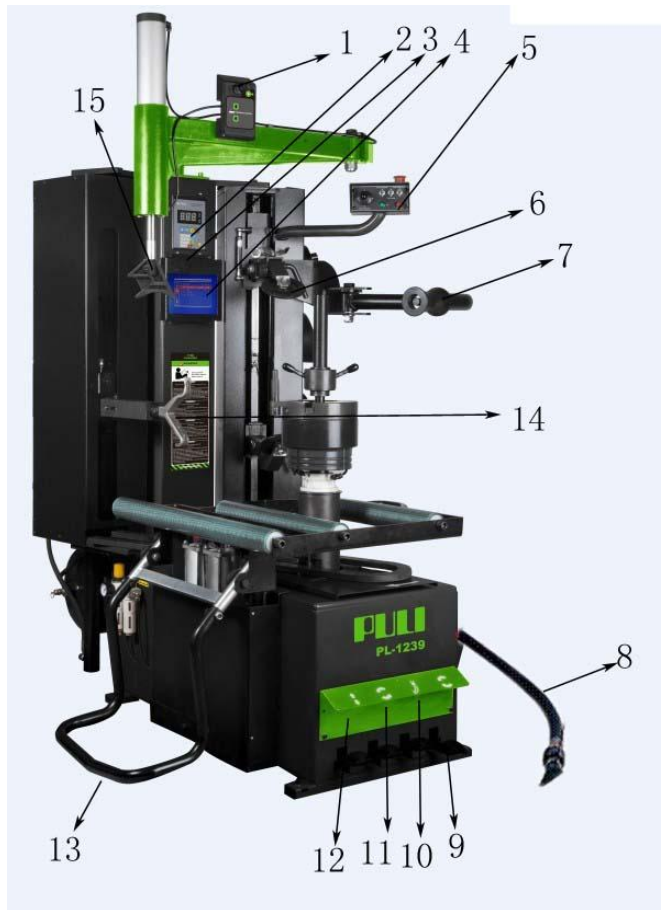
Warning: the machine with motor must not be operated in explosive atmosphere!!

Important attention : Confirm the voltage values from the supply are as same as the requirement of the machine before connection. Confirm good grounding of power grid and equipped with overload circuit protector! Check the tank weather the amount of oil is enough before first time startup, the filling up of the oil shall not less than 80%.Change the hydraulic oil after 100 hours since first startup, and change hydraulic oil every 1500 hours.

Connect the air circuit system and electrical circuit system. Connect to the air compressor with the air circuit port behind the machine. The electrical system have to has fuse system as protector, good grounding of power grid, and set up the automatic switch on the main power supply for keep from the electric leakage.

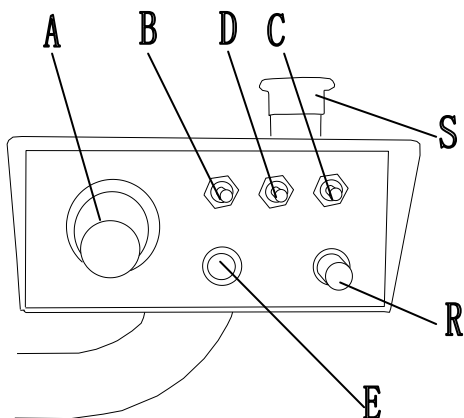
7. Machine Operation:

- | | | |
|-----------------------------|---------------------------------|---------------------------------|
| 1. Control valve | 2. Pressure gauge | 3. Overpressure discharge valve |
| 4. Video monitor | 5. Control box | 6. Upper bead breaker roller |
| 7. Tyre pressing pulley | 8. Inflating device | 9. Reverse switch pedal |
| 10. Inflating pedal | 11. Demount hook rotation pedal | |
| 12. lift/fall control pedal | 13. Tyre lifting support pedal | 14. Demount hook pedal |



Here above the finish product picture only for reference

Warning: Keep the hands and body away from the rotating part of the machine during operation. Wear the tight sleeve and body-hugging clothes, do not wear necklace, bracelets and oversize clothes.



- Key A: Mount/demount hook moves (up, down, left, right) ;
- Key B: Upper bead break roller+ Upper tyre pressing pulley moves(up and down);
- Key C: Lower tyre pressing pulley moves (up and down) ;
- Key D: Tyre fitting seat moves (front and back) ;
- Key E: Monitor switch;
- Key R: Standby/restart;
- Key S: Emergency cut-off;

Turn on by using the switch behind the body of machine before operating. (Fig 4)

Hydraulic unit will standby after running for two minutes as default setting. The time setting can be changed by open the electrical cabinet and set by adjust the time relay. (Fig 5)

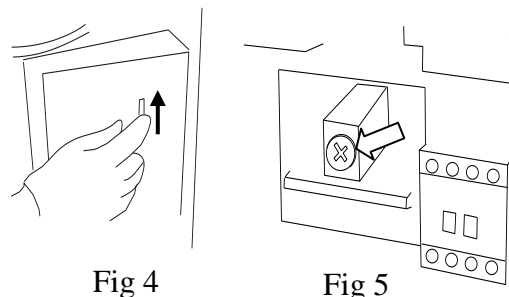


Fig 4

Fig 5

7.1 Demounting the tyre

1. Take out the valve core to deflate the tyre. Roll the tyre onto the wheel lift 14. Depress the lift pedal 13 to raise the tire up to the full height by the wheel life 14 until the lift cradle goes to 90 degrees, and then slip the tire over the turntable. Depress the lift pedal 13 to lower the wheel lift to the lowest position and align a lug hole on the rim with the alignment pin on the turntable so that the pin goes into the lug hole. Install the quick locking nut to the central post. Tighten it securely. (Fig 6)

2. Adjust the flange center position by the controller; lower the upper bead breaker disk to within 20mm over the rim until the upper bead is broken away from the wheel rim, lubricate as shown in Fig 7 within depress the rotating pedal. Raise the lower bead breaker roller; by pressing up its controller on the control panel to break the lower bead away from the wheel rim, and then lubricate the tire beads with depress the turntable rotation pedal until full lubrication (Fig 8)

3. Lower the upper bead breaker roller over the rim until the upper bead is broken away from the wheel rim by the controller. Set the tool head hook pointing down by operating the joystick; bring the hook of the tool head to within 10mm over the rim, depress the rotating pedal, the turntable rotates until the lower bead is broken away from the wheel rim; reset the bead breaker roller by pressing its controller on the control panel.

4. Adjust the lower bead breaker controller; Raise the tool head tab until the lower bead is 10mm – 20mm above the upper lip of the rim. Use the video monitor to observe the distance between the bead breaker and the wheel rim around 5-10mm. Depress the turntable rotation pedal to rotate the turntable clockwise until the lower bead is off the rim. (Fig.9)

Attention: For keeping inner tube from the pressure, please position the valve core at 10mm the right side of the tool head while operating.

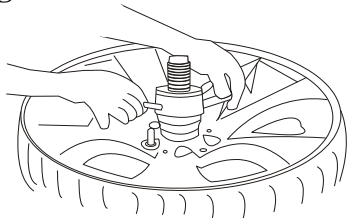


Fig 6

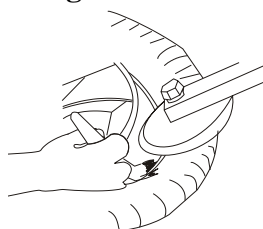


Fig 7

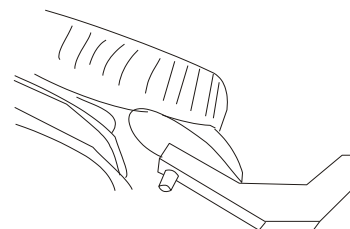


Fig 8

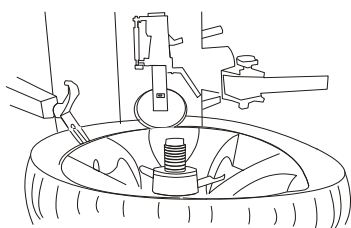


Fig 9

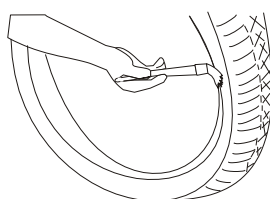


Fig 10

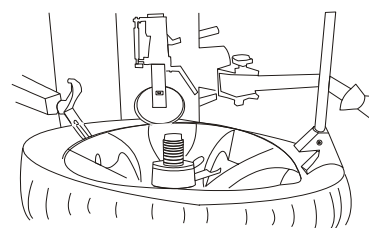


Fig 11

7.2 Mounting the tyre

1. Check the tyre and wheel rim

Warning: It is utmost important to check the tire and rim to prevent tire explosion during the inflating operations. Do not mount if the tyre and the cord fabric are damaged. The internal micro-cracks are not visible to naked eye. This can compromise the rim and can also be a source of danger especially during inflation.

Attention: Make sure the diameter of the rim and tire are exactly the same. Find rim diameter on the tyre and the tyre diameter on the rim; Never try to mount a tire on a rim if you cannot identify the diameters of both.

2. Lubricate the tire beads and wheel rim with the special grease which is suggested by the manufacturer. (If the wheel already be took our from the turntable, please install the wheel again) (Fig 10)

3. Set the tool head tap pointing down by pressing the tool head pedal. Lower the tool head to the position with 10-15mm to the wheel rim; put the tyre on the wheel, position the tyre rim on the straight hook of the tool head, depress the rotating pedal, lower bead mounting complete after turntable rotates one round.


4. Move the lower bead breaker roller upward, lower the tool head tab side down and hook on to the tyre rim by press the tool head control pedal.

5. Move the lower bead breaker roller downward; set the lower bead breaker roller and tubbiness press roller to the position with 40-50mm to the upper plane of the wheel.

6. Press the tyre by the upper bead breaker roller and then press the turntable rotating pedal, upper bead mounting complete after turntable rotates one round. (Fig 11)

Attention: The turntable rotates only in clockwise during mounting and demounting operations; anticlockwise rotating is used only for correcting the operation mistakes.

7.3 Inflating

 **Caution: Operation of inflating is extreme dangerous!! Operator should be careful and follow the operation rules. It is extreme dangerous if the tyre and wheel has any problems during the inflating, the explode might cause the tyre flies up or flies out with great power, the operator and people around might be damaged, even dead.**

Attention: Tyre exploding might cause by following:

- 1) The diameter of the wheel is not as same as the tyre's.
- 2) The wheel or the tyre has damaged
- 3) Inflation pressure exceeds the manufacturer's suggestion.
- 4) The operator's non-execution of the safety requirement.

Remove the valve core; Clamp the valve core with the inflating clamping valve (Fig 12), position the blasting nozzle towards to the rim center just under the rim lip, depressing the inflation pedal and inflate discontinuously, check the pressure from the pressure gage and check the wheel rim if the position is right, control the pressure strictly for keeping from exploding.(Fig 13). If the air pressure is too high, press the deflating button and observe the pressure gage until the value of the gage goes to the prescribed limit.

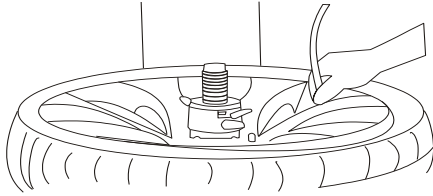


Fig 12

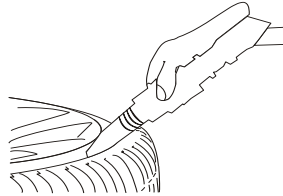


Fig 13

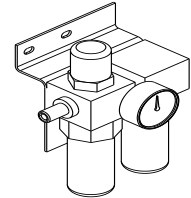


Fig 14

8. Maintenance

Periodical maintenance is necessary for the machine working longer and better; observe the oil line from the oil hydraulic pump, clean and change the oil filter periodically, lubricate the mechanical arm of the break bead roller, the lifting guide rail of the tyre lifter and every pin shaft parts, draining the air filter. (Fig 14)

9. Trouble Shooting

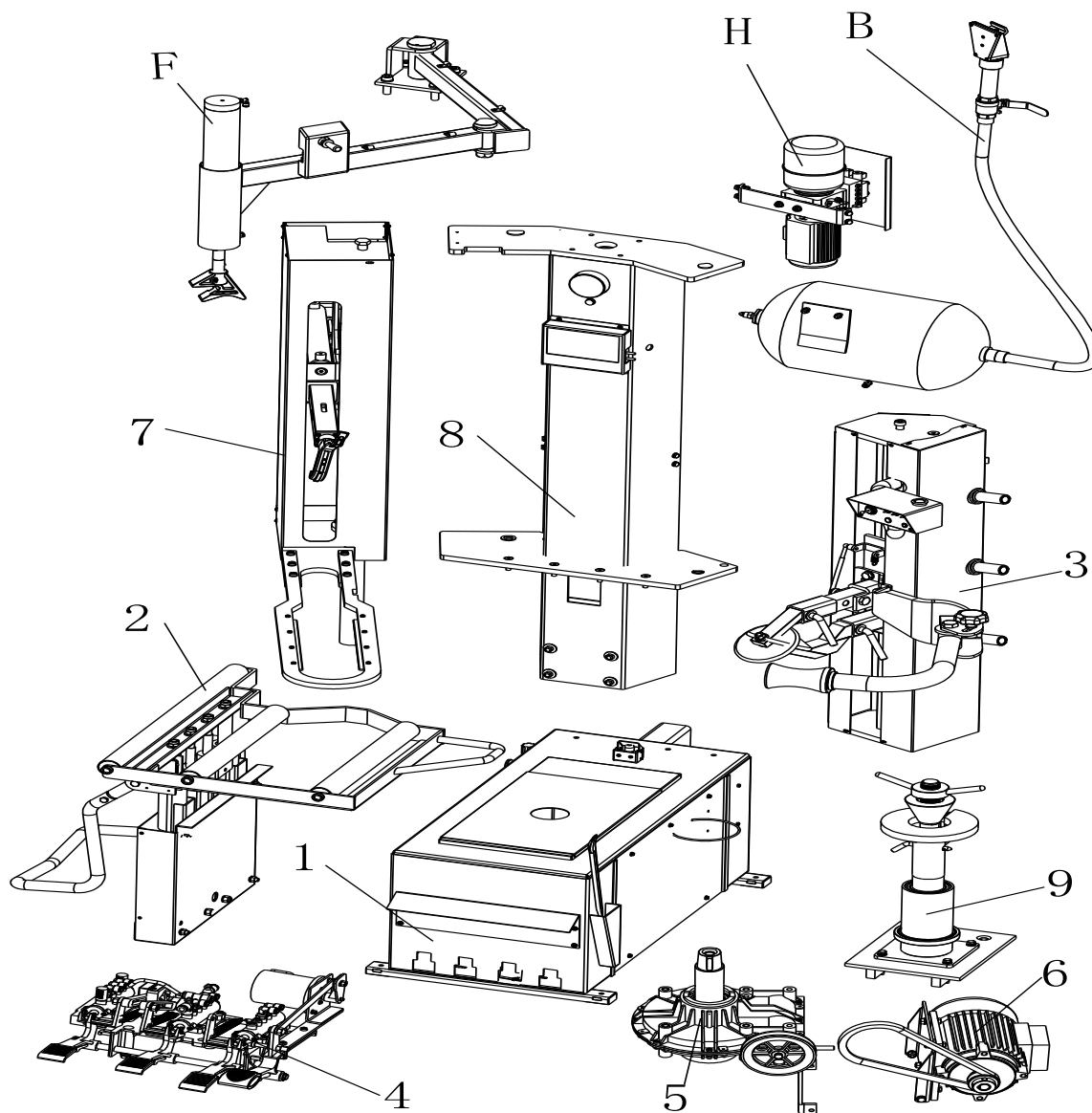
Problem	Reason	Solution
Rotates in one direction or can't rotate	Reverse switch broken	Replace the Reverse Switch
	Belt broken	Replace the belt
	The motor's malfunction	Check the motor cable or terminal block wire; Replace the motor if it was broken.
The jaws delay to open/close; the turntable can't lock or lock incorrectly	Leakage of Air network	Check all the parts on the air network.
	The clamping cylinder can't work.	Replace the cylinder piston.
	Worn jaws	Replace the jaws.
	Broken washers of the chuck cylinder	Replace it.
The mounting head always touches the rim during operation	The locking plate incorrectly adjust or unqualified.	Replace or adjust it.
	Screws on the chuck loose; the Hexagonal Vertical Arm can't be locked by Locking Plate	Tighten the screws; replace the Locking Plate.
Tyre lifting support doesn't work	No air source or lacking air pressure	Adjust the air source
Hydraulic power pack doesn't work	Power supply loose connect	Check circuit
	Electromagnetic switch burned out	Replace it
	The motor burned out	Replace it
	Lacking oil in the oil tank	Refill the oil
Machine working no stron strengh	Machine working under the improper pressure	Check and adjust the pressure
	Pump motor is broken	Change it
	The machine working without enough oil	Add the oil
Poor pressurize, automatically decline	Dust in the unloading valve or check valve	Clean the unloading valve and check valve
	Screw of the unloading valve's valve plug loose	Tighten the screw of valve plug
Hydro-cylinder running slow or can't decline	Dust in unloading valve and overflow valve or low setting pressure	Clean and adjust the overflow valve; Replace the sealing element and clean the unloading valve
	The motor running reverse	Replace the connection
	Oil-return shutoff valve too small or jammed	Clean and adjust the shutoff valve
	Unloading valve and sealing element doesn't work	Replace the sealing element
	Wrong direction of the solenoid when install the unloading valve and solenoid valve	Adjust the solenoid

If the problem cannot be solved by the information above, please contact our technician.

10. Storage

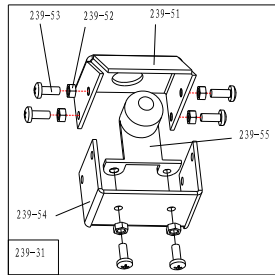
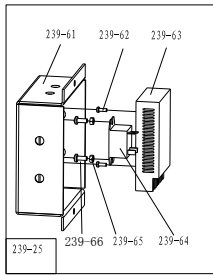
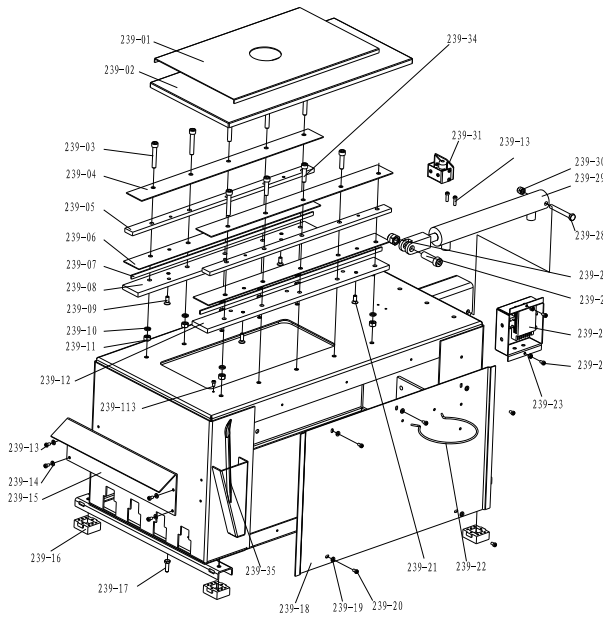
If there has any reason that the machines should be moved to another workplace, arrange the new workplace, disconnect electric supply and air supply, and move the machine to new workplace by using the forklift and lifting system, and place it as the requirement. (This process should be operated with the professional person in there. If the machine is leave unused for three months, please daub the rust preventive oil to each moveable guide rail, empty the oil from the oil hydraulic pump, pack the machine by protective film, and put in the packing case.)

11. Exploded drawing



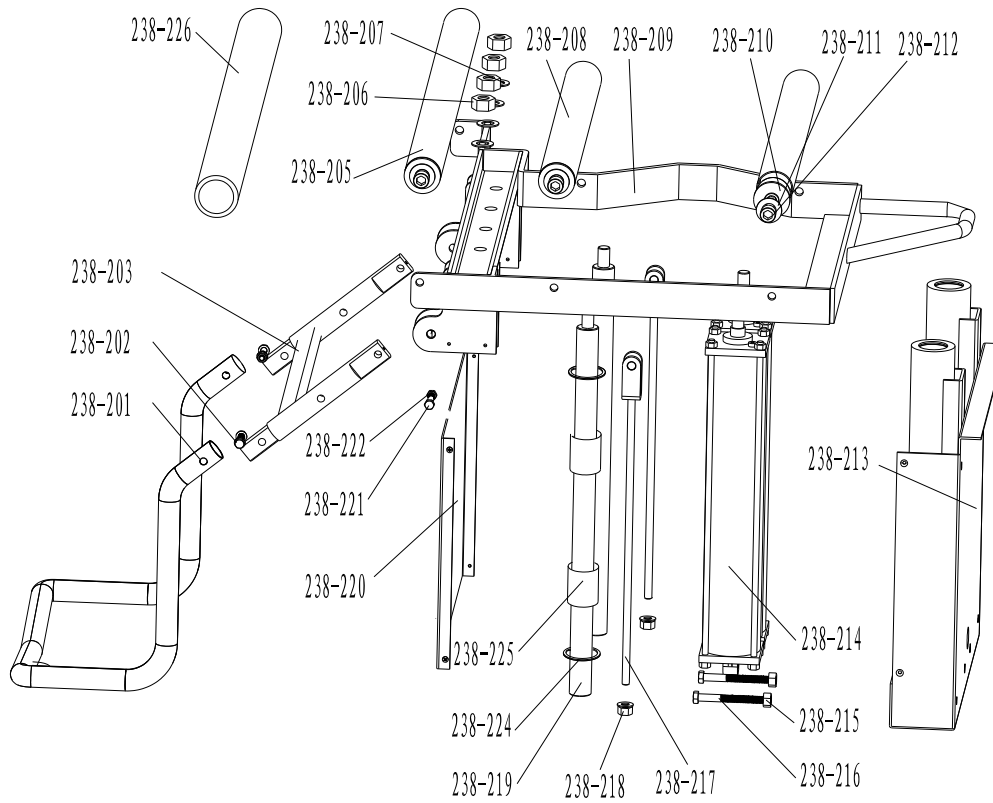
1 : Machine Body	2 : Lift/fall seat device	3 : Complete right help arm
4 : Complete control pedal	5 : Complete gear box	6 : Complete Motor
7 : Complete left help arm	8 : Complete column	9 : Complete rotating installation seat
B : Inflating system	H : Hydraulic system	F : Complete left helping arm

11.1 Complete machine body



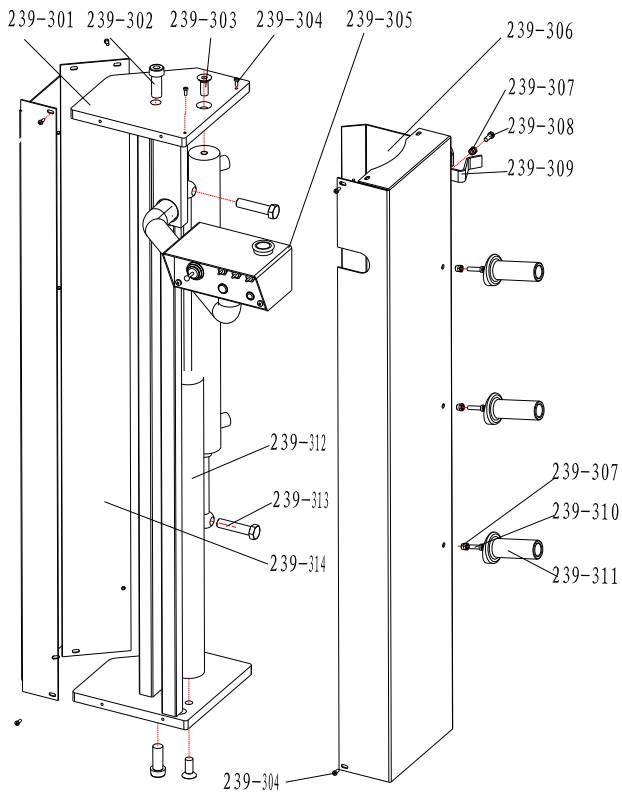
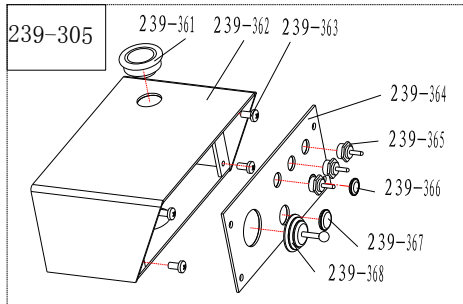
239-01	CX-238-070800-0	Mobile cover plate(2)
239-02	CX-238-070700-0	Mobile cover plate(1)
239-03	B-010-100601-0	Hex socket cap screw M10*60
239-04	CZ-238-070500-0	Antifriction mat (up)
239-05	CX-238-070300-0	partition
239-06	CZ-238-070200-0	Antifriction mat (down)
239-07	CZ-238-070400-0	Attrition reduce rod
239-08	CX-238-070100-0	Attrition reduce plate (left)
239-09	B-012-080201-0	Inner hex countersunk head screws M8*20
239-10	B-040-102020-1	Flat washer Ø10
239-11	B-004-100001-0	Hex nut M10
239-12	CX-238-070600-0	Attrition reduce plate(right)
239-14	B-040-061210-1	Flat washer Ø6
239-15	CZ-238-080000-0	Pedal front cover
239-16	C-000-001020-0	Rubber pedal protection
239-17	B-014-080201-0	Outer hex bolt M8*20
239-18	CZ-239-020000-0	Right side machine body cover
239-19	B-040-061210-1	Flat washer Ø6
239-22	C-239-333700-0	The oil box bracket
239-23	B-001-060001-0	Self-locking nut M6
239-24	B-007-060101-0	Inner hex counter sunk head screw M6*10
239-25		Power supply box assembly
239-26	B-010-160501-0	Inner hex countersunk head screws M16*50
239-27	B-001-160001-0	Self-locking nut M16
239-28	B-010-101001-0	Inner hex countersunk head screws M10*100
239-29	C-239-920000-0	Installation of a cylinder
239-30	B-001-100001-0	Self-locking nut M10
239-31		Camera assembly
239-32	B-024-050101-0	The cross slot round head screw M5*10
239-33	CA-014-035000-0	Oil fog maker assembly
239-34	B-010-100401-0	Hex socket cap screw M10*40
239-35	C-200-580000-0	Lifting lever
239-51	CX-239-290200-0	Camera bracket 2
239-52	B-024-040101-0	Cross-round head screw M4X10
239-53	B-004-040001-0	Hex nut M4
239-54	CX-239-290100-0	Camera bracket 1
239-55	S-135-500022-0	Camera 239
239-61	CZ-239-360000-0	Power supply box
239-62	B-024-030081-0	Cross-round head screw M3X8
239-63	D-050-030125-0	Switching power supply
239-64	D-050-000025-0	Integrated relay
239-65	B-001-040001-0	Self-locking nut M4
239-66	B-024-040101-0	Cross-round head screw M4X10

11.2 Lift/fall seat device

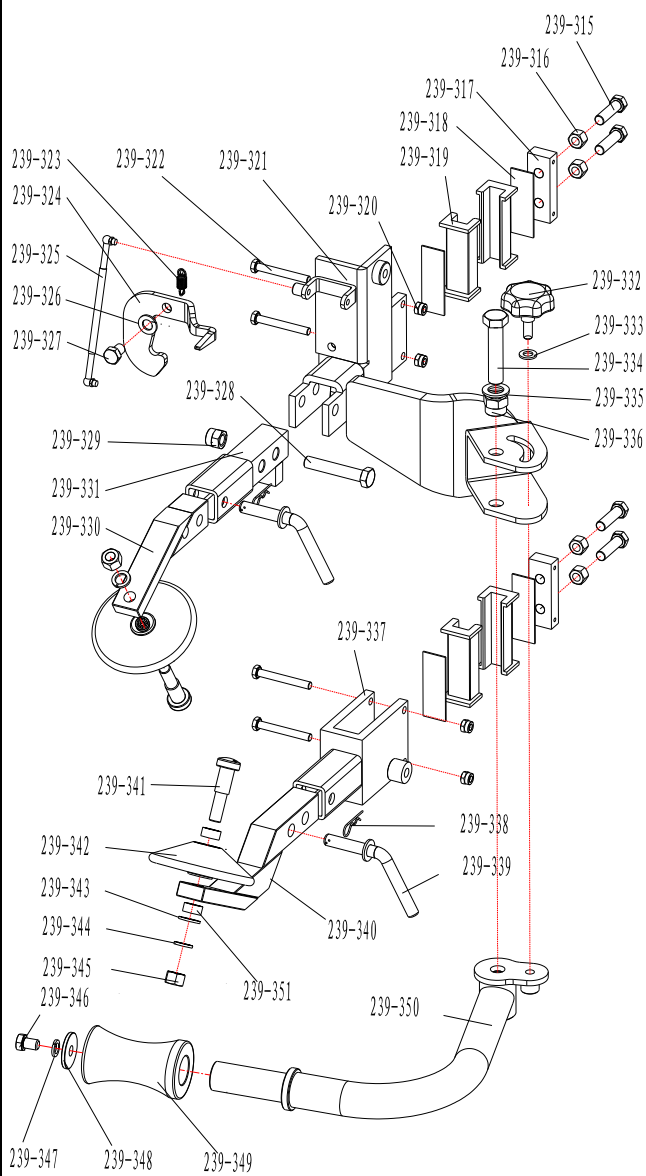


238-201	CX-238-030600-0	Bend pipe support	238-214	C-238-030700-0	Cylinder 238
238-202	B-014-100451-0	Outer hex screws M10X45	238-215	B-001-120001-0	Self-locking nut M12
238-203	CX-238-030200-0	Lifting frame	238-216	B-014-121101-0	Outer hex screw M12x110
238-205	CX-238-030508-0	Drum 2	238-217	CX-238-030400-0	Rod assembly
238-206	B-001-160001-0	Self-locking nut M16	238-218	B-001-100001-0	Self-locking nut M10
238-207	B-040-162820-1	Flat washer Ø16	238-219	CX-238-030105-0	Guide post
238-208	CX-238-030507-0	Drum 1	238-220	CX-238-030900-0	Cylinder cover plate
238-209	CZ-238-030500-0	Tire lifting frame	238-221	B-014-120601-0	Outer hex screw M12x60
238-210	CZ-238-030509-0	Drum drain plug	238-222	B-001-120001-0	Self-locking nut M12
238-211	B-050-140000-0	Spring washer Ø14	238-224	B-055-400002-0	Snap ring for hole φ40
238-212	CX-238-030510-0	Fixing bolt	238-225	CZ-238-030104-0	Guide bush
238-213	CX-238-030100-0	Rise-fall cylinder support	238-226	S-035-505040-0	Ascending pipe

11.3 Complete right help arm

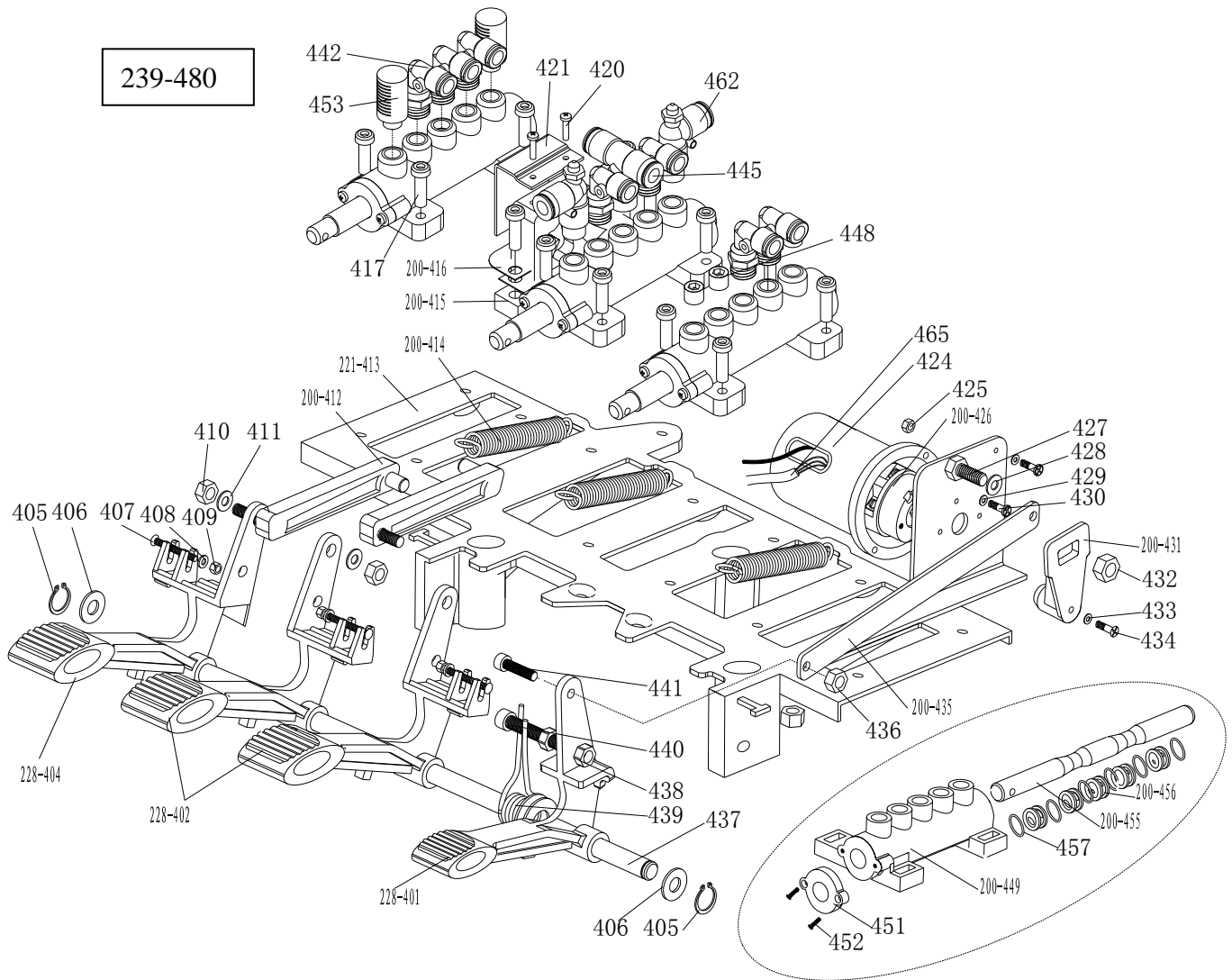


239-301	CX-238-200100-0	Roller lift/fall assembly
239-302	B-010-160401-0	Inner hex socket cap screw M16*40
239-303	B-012-120301-0	Inner hex countersunk head screws M12*30
239-304	B-024-050101-0	Cross-round head screw M5*10
239-305		Switch box assembly
239-306	CX-238-220000-0	Help arm cover B
239-307	B-001-060001-0	Self-locking nut M6
239-308	B-010-060161-0	Inner hex socket cap screw M6*16
239-309	C-238-730000-0	Hanger
239-310	B-010-060201-0	Inner hex socket cap screw M6*20
239-311	P-000-001001-0	Tools hanger
239-312	C-239-910000-0	Tyre pressing pulley hydro-cylinder
239-313	B-014-140501-0	Outer hex screw M14*50
239-314	CX-238-210000-0	Help arm cover A
239-361		Push button switch
239-362	CC-239-230000-0	Lift/fall switch box
239-363	B-024-050101-0	Cross-round head screw M5X10
239-364	CX-239-031003-0	switch box front board
239-365	S-060-030020-0	Toggle switch 239
239-366		Push button switch (red)
239-367		Push button switch (green)
239-368	S-060-040004-0	Cross four position switch



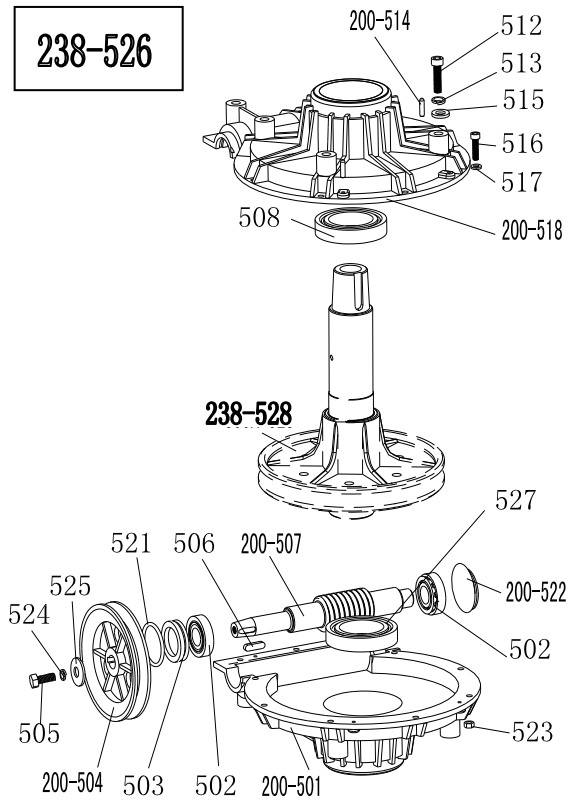
239-315	B-014-140501-0	Outer hex screws
239-316	B-004-140001-0	Hex nut M14
239-317	CX-238-201100-0	Adjustable iron block
239-318	CX-238-201300-0	Block
239-319	C-238-201200-0	U adjusted block
239-320	B-001-100001-0	Self-locking nut M10
239-321	CX-238-200200-0	Tyre pressing pulley adapting piece
239-322	B-014-100801-0	Outer hex screw M10*80
239-323	C-238-201600-0	Card board hanging spring
239-324	CX-238-201000-0	Card board
239-325	C-000-032004-0	Pneumatic spring 238
239-326	B-040-142820-1	Flat washer Ø14
239-327	B-014-140201-0	Outer hex screw M14*20
239-328	B-014-201101-0	Outer hex screw M20*110
239-329	B-001-200001-0	Self-locking nut 20
239-330	CX-238-200400-0	Roller support A
239-331	CX-238-200300-0	Roller connected sleeve
239-332	C-238-201501-0	Adjustable handle
239-333	B-040-122520-1	Flat washer Ø12
239-334	B-014-201101-0	Outer hex al screw M20*110
239-335	B-040-122520-1	Flat washer Ø20
239-336	B-001-200001-0	Self-locking nut M20
239-337	CX-238-201700-0	Guide jacket
239-338	C-238-031400-0	Fixing pin
239-339	CX-238-201400-0	Handle assembly
239-340	CX-238-201800-0	Roller bracket B
239-341	CX-238-200600-0	Roller pin
239-342	CZ-238-200500-0	Roller
239-343	B-040-162820-1	Flat washer Ø16
239-344	B-050-160000-0	Spring washer Ø16
239-345	B-004-160001-0	Hex nut M16
239-346	B-014-140201-0	Outer hex screws M14*20
239-347	B-050-140000-0	Play washer Ø14
239-348	CX-238-200900-0	Cylinder gasket
239-349	CZ-238-200800-0	Tyre pressure roller
239-350	CX-238-200702-0	Bend welded assembly

11.4 Complete control pedal



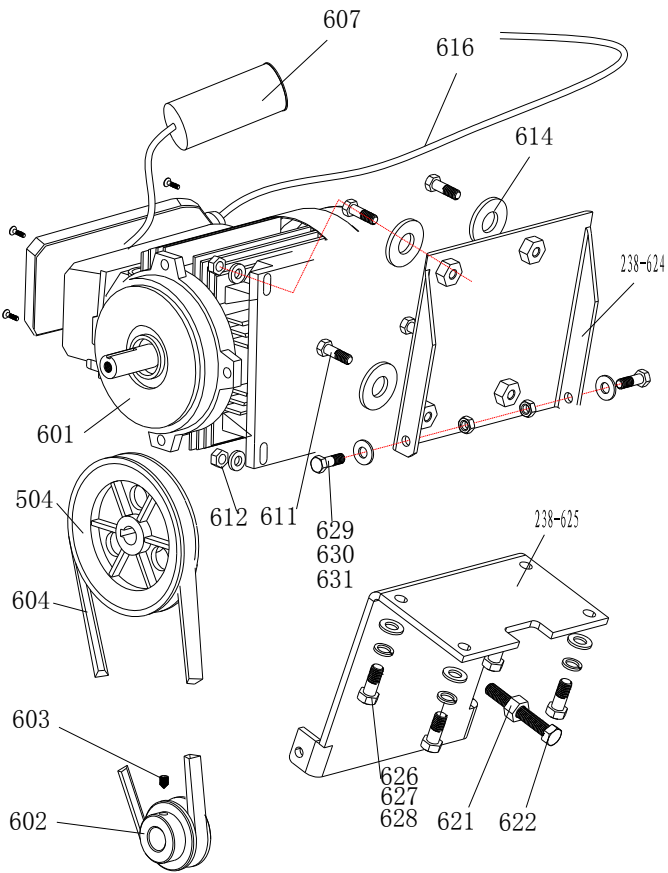
401	C-200-060400-0	Reverse switch pedal	432	B-001-060001-0	Self-locking nut M6
403	C-221-060300-0	5-way valve pedal(right)	433	B-040-030000-1	Flat washer Ø3
404	C-221-060200-0	5-way valve pedal(left)	434	B-017-030161-0	Cross-round head screw M3X18
405	B-055-120001-0	Snap ring Ø12	200-435	CX-200-060600-0	Pedal connection rod
406	B-040-122520-1	Flat washer Ø12*24*2	436	B-001-080001-0	Self-locking nut M8
407	B-024-040301-0	Cross bolt M4X30	437	CX-200-060700-0	Pedal front shaft
408	B-040-040000-1	Flat washer Ø 4	438	B-004-080001-0	Nut M8
409	B-001-040001-0	Self-locking nut M4	439	C-200-370000-0	Pedal twist spring
410	B-001-080001-0	Self-locking nut M8	440	B-010-080501-0	Hex socket head screw M8x50
411	B-040-081715-1	Flat washer Ø8*17*1.5	441	B-010-080201-0	Hex socket head screw M8x20
200-412	C-200-061300-0	Cam connection rod	442	S-012-010808-0	Quick union 1/8- Ø 8
200-413	C-200-060100-0	Pedal suport board	445	S-016-010808-2	Quick T-union 1/8-2* Ø 8
200-414	C-200-380000-0	Pedal Spring	448		Plug 1/8
200-415	C-200-061500-0	Cam	200-449		5-way valve barrel
200-416	C-200-810000-0	Cam washer	450	S-000-012400-0	Type o sealing ring 12*20*4
417	B-010-060201-0	Hex socket head screw M6x20	451	C-200-061100-0	5-way valve cover
424	C-200-061400-0	Reverse switch pedal cover	452		Cross pan head screw ST2.9*16
425	B-004-040001-0	Nut M4	453	S-023-010801-0	Muffler 1/8"
426	S-060-016000-1	Reverse switch	200-455	CX-200-061200-0	5-way valve rod
427	B-010-060201-0	Hex socket head bolt M6x20	200-456	C-200-061000-0	5-way valve rod spacer
428	B-040-061210-1	Flat washer Ø 6X12X1	457	S-000-012400-0	O-seal 12*20*4
429	B-040-040000-1	Flat washer Ø 4	459		Power supply cable
430	B-024-040161-0	Cross-round head screw M4*16	462	S-030-010806-0	Adjustable valve
200-431	C-200-530000-0	Reverse switch handle	239-480		complete 3-pedal 239

11.5 Complete gear box



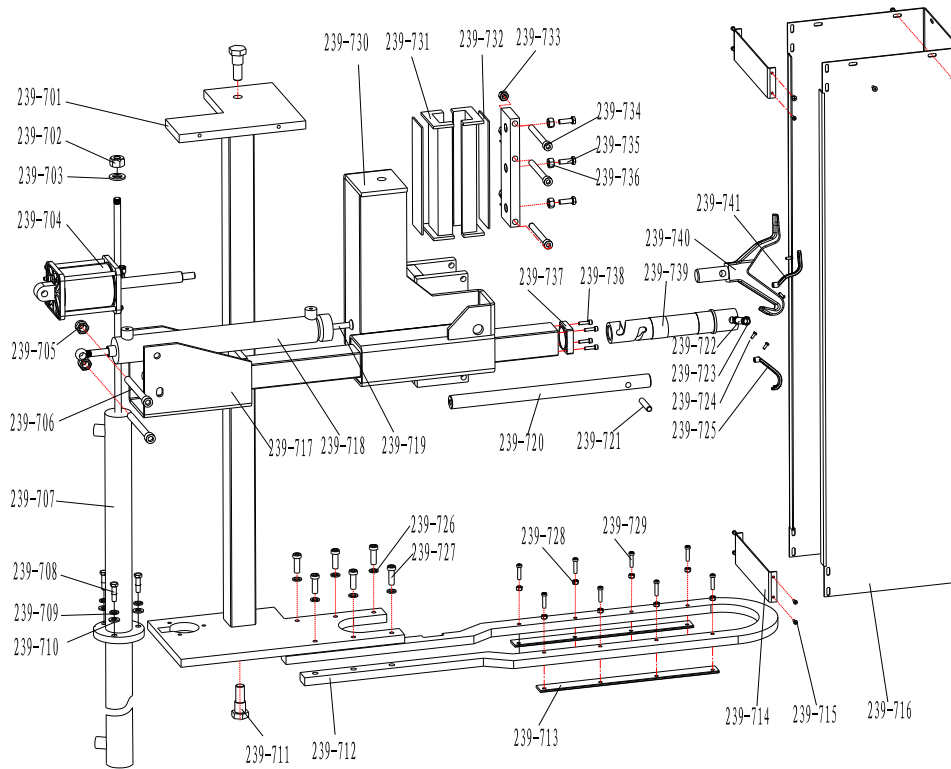
200-501	C-300-320302-0	Gear box lower cover
502	S-040-030204-0	Bearing 30204
503	S-005-020080-1	Gear box seal $\varnothing 20 \times 35 \times 8$
200-504	C-200-320500-0	Gear Belt pulley
505	B-014-080251-0	Outer hex bolt M8x25
506	B-065-006020-0	Key washer 6x20
200-507	C-200-320400-0	Worm rod
508	S-040-006010-0	Bearing 6010
512	B-014-100551-0	Outer hex bolt M10x55
513	B-050-100000-0	Spring washer $\varnothing 10$
514	B-060-006020-0	Pin 6X20
516	B-010-060201-0	Hex socket head screw M6x20
517	B-040-061412-1	Flat washer $\varnothing 6 \times 14 \times 1.2$
200-518	C-300-320301-0	Gear box upper cover
521	S-000-027310-0	O-seal $\varnothing 27.8 \times 3.1$
200-522	C-200-320700-0	Oil resistant seal
523	B-001-060001-0	Self-locking nut M6
524	B-050-080000-0	Spring washer $\varnothing 8$
525	B-040-083030-1	Flat washer $\varnothing 8 \times 30 \times 3$
238-526	CW-107-023801-0	Complete gear box
527	S-040-006028-0	Bearing 6208
238-528	C-238-320100-0	Worm gear/ shaft

11.6 Complete motor



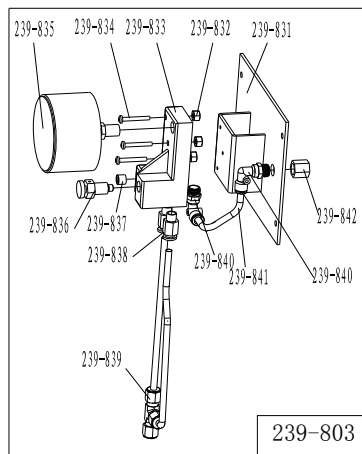
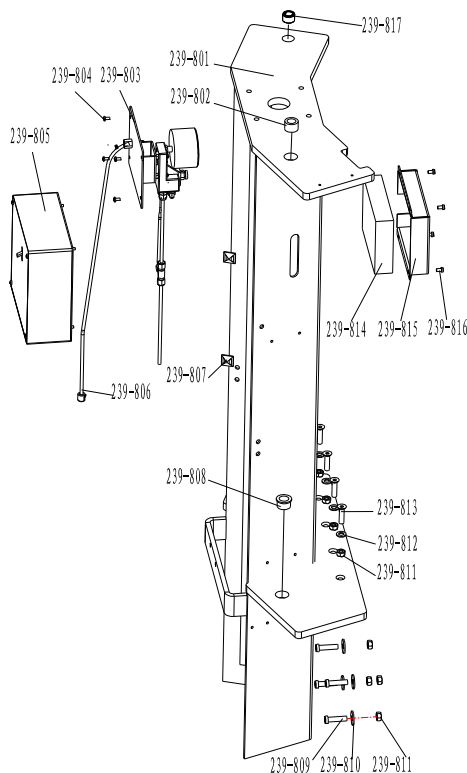
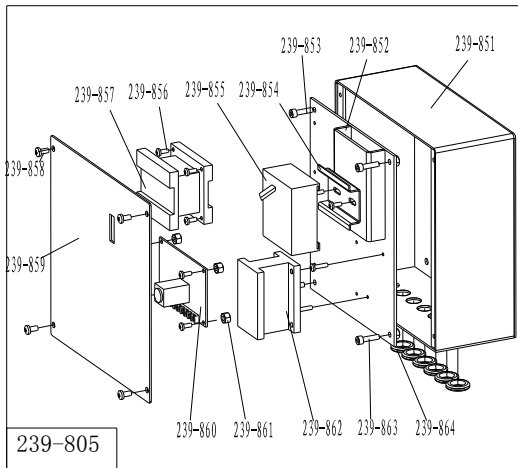
601		Motor
602	CX-200-330000-0	Motor Belt pulley
603	B-007-080121-0	Hex socket head screw M8x12
604	S-042-000686-0	Tyre changer belt A-28
605	B-014-080651-0	Outer hex bolt M8X65
606	B-040-083030-1	Flat washer Ø8X30X3
607-80		Capacitance 80µf
607-60		Capacitance 60µf
608	B-040-102020-1	Flat washer Ø10X20X2
609	B-050-100000-0	Spring washer Ø10
611	B-014-080351-0	Outer hex bolt M8X35
612	B-004-080001-0	Nut M8
613	B-040-082220-1	Flat washer Ø8X22X2
614	C-200-560000-0	Motor rubber buffer
616	CZ-000-205150-0	Motor cable 5x1.0
618	C-200-560000-0	Motor rubber buffer
621	B-004-100001-0	Hex nut M10
622	B-014-101001-0	Outer hex screw M10X100
238-624	CX-238-350000-0	Motor activity hangs
238-625	CX-238-340000-0	Motor mounting bracket
626	B-014-100301-0	Outer hex bolt M10X30
627	B-050-100000-0	Spring washer Ø10
628	B-040-102020-1	Flat washer Ø10
629	B-014-100251-0	Outer hex screw M10X25
630	B-001-100001-0	Self-locking nut M10
631	B-040-102020-1	Flat washer Ø10

11.7 Complete left help arm



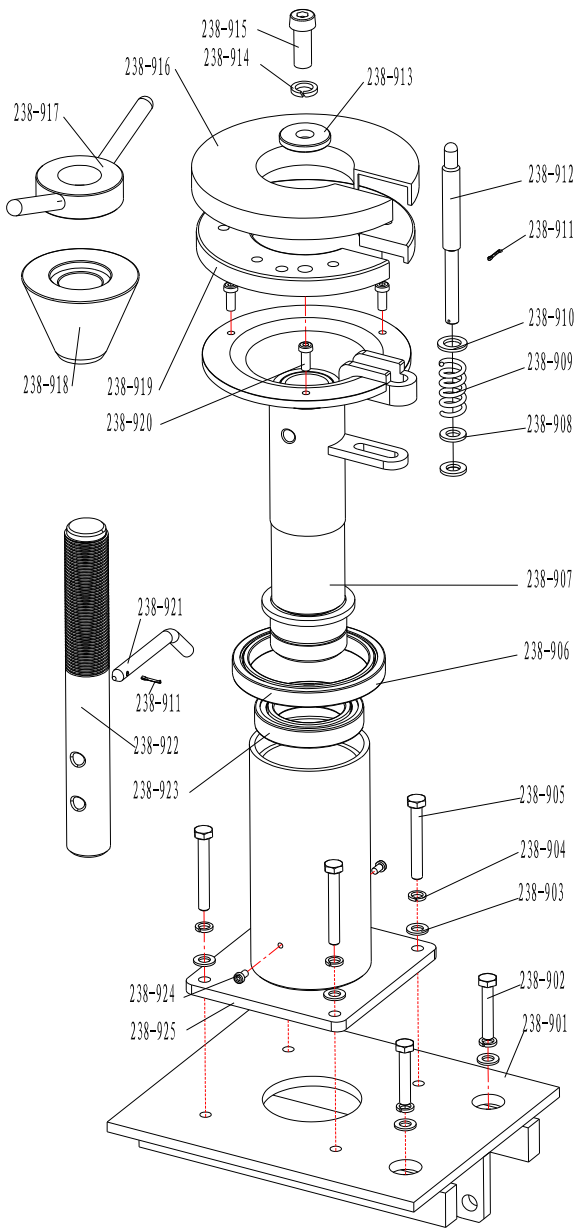
239-701	CX-239-150000-0	Left arm guide rail assembly	239-722	CZ-239-160502-0	Positioning pin 2
239-702	B-001-160001-0	Self-locking nut M16	239-723	B-055-120001-0	Snap ring Ø12 for shaft
239-703	B-040-162820-1	Flat washerØ16	239-724		Demont hook protector pin
239-704	CA-005-023900-0	Demont hook cylinder	239-725	B-050-100000-0	Demont hook protector 1
239-705	B-001-120001-0	Self-locking nut M12	239-726	B-010-121201-0	Spring washer Ø10
239-706	B-010-121201-0	Hex socket head screw M12*120	239-727	B-010-100301-0	Hex socket head screw M10*30
239-707	C-239-900000-0	Rise/fall oil cylinder set	239-728	B-001-060001-0	Self-locking nut M6
239-708	B-014-080301-0	Outer hex screw M8*30	239-729	B-010-060251-0	Hex socket head screw M6*25
239-709	B-050-080000-0	Spring washer Ø8	239-730	CX-036-030000-0	Rise/fall sleeve
239-710	B-040-081820-1	Flat washer Ø8	239-731	C-239-150805-0	U-type slot
239-711	CX-239-150500-0	Guide rail bolt	239-732	CX-239-150807-0	Block
239-712	CX-239-150900-0	Channel plate	239-733	B-001-100001-0	Self-locking nut M10
239-713	CX-239-150900-0	Channel plate damper	239-734	B-010-101001-0	Hex socket head screw M10*100
239-714	CX-239-190200-0	Left help arm protect cover 2	239-735	B-014-140351-0	Outer hex screw M14*35
239-715	B-024-050101-0	Cross-round head screw M5*10	239-736	B-004-140001-0	Hex nut M14
239-716	CX-239-190100-0	Left help arm protect cover 1	239-737	CZ-239-160400-0	Sliding arm back cover
239-717	CX-239-160000-0	Demont hook slide arm assembly	239-738	B-010-050201-0	Hex socket head screw M5*20
239-718	C-239-930000-0	Tyre changer oil cylinder	239-739	C-239-160500-0	Demont hook steering shaft
239-719	B-012-120301-0	Inner hex counter sunk head M12*30	239-740	C-239-160600-0	Demont hook
239-720	C-239-160704-0	Piston rod 239	239-741	C-239-300200-0	Demont hook pads 2
239-721	CX-239-160501-0	Positioning pin 1			

11.8 Complete column



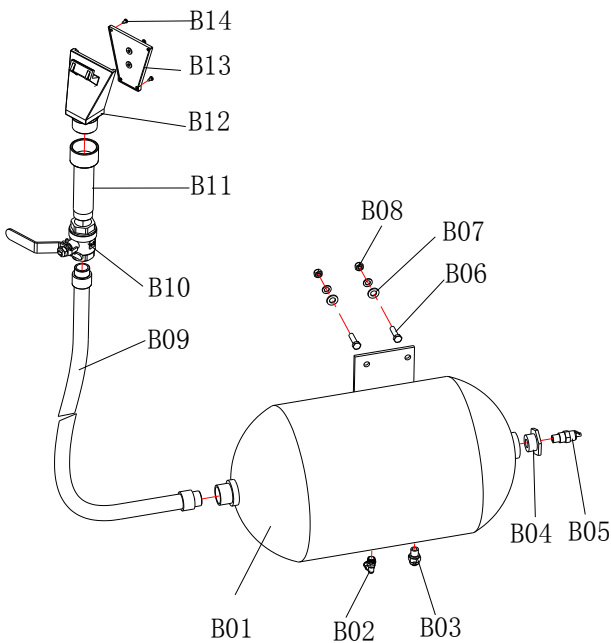
239-801	CX-239-250000-0	V-shape column
239-802	CX-239-150600-0	Rail guide bush(up)
239-803	CA-018-023900-0	Pressure gauge box assembly
239-804	B-024-050101-1	Big cross-round head screw M5*10
239-805		Electrical box assembly
239-806	S-035-014150-0	Rubber chuck connecting pipe (1.5m)
239-807		Sucker
239-808	CZ-239-150700-0	Rail guide bush(down)
239-809	B-010-100401-0	Hex socket head screw M10*40
239-810	B-040-103030-1	Flat washer Ø10
239-811	B-001-100001-0	Self-locking nut M10
239-812	B-040-103030-1	Flat washer Ø10
239-813	B-012-100401-0	Inner hex counter sunk head screw M10*40
239-814	S-135-000800-0	Video monitor
239-815	CX-239-280000-0	Video monitor box
239-816	B-010-060101-0	Hex socket head screw M6*10
239-817	CX-238-260000-0	Rail guide support sleeve
239-831	CX-238-700000-0	Pressure gauge support
239-832	B-004-060001-1	Hex nut M6
239-833	CC-238-700100-0	Seat with holes
239-834	B-024-040301-0	Cross-round head screw M4X30
239-835	S-038-000030-1	Pressure gauge 10KG
239-836		Complete air bleed valve
239-837	B-007-180081-R	Hex tacking 1/8X8
239-838	S-010-010808-0	Quick straight union 1/8-Ø8
239-839	S-013-000008-3	Quick T-union Ø8
239-840	S-012-010808-0	Quick L-union 1/8- Ø8
239-841		Hose Ø8
239-842	S-011-010414-0	Straight union (inner teeth)1/4-1/4
239-851	CZ-238-240000-0	Electrical box
239-852	CX-238-240500-0	Electrical bracket assembly
239-853	B-010-050201-0	Hex ruound head M5X20
239-854	C-000-030008-0	Card slot 35#
239-855	D-044-003001-0	Air switch 14-20A
239-856	B-024-040101-0	Cross-round head M4X10
239-857	D-038-000400-0	The transformer
239-858	B-024-050101-0	Cross-round head M5X10
239-859	CX-238-240600-0	Electrical box cover
239-860	CZ-239-000239-0	Circuit control board 239
239-861	B-004-060001-1	Nut M6
239-862	D-044-021201-0	Ac contactor
239-863	B-024-040161-0	Cross-round head M4X16
239-864	S-036-201400-0	Rubber protective ring Ø14

11.9 Complete rotating installation seat



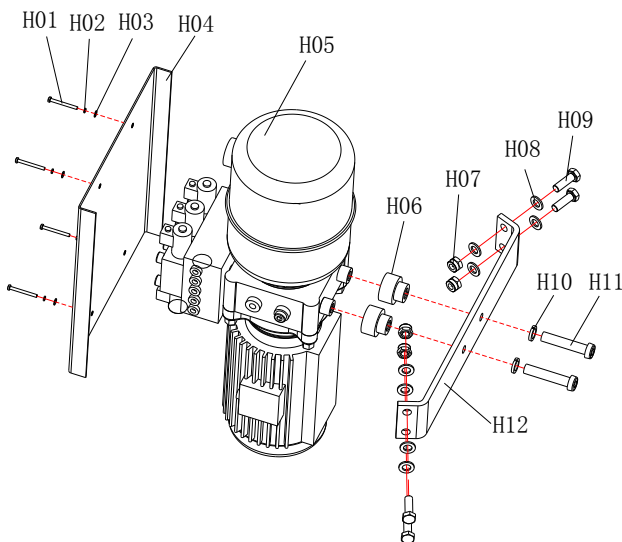
238-901	CX-238-100000-0	Reducer skate board
238-902	B-014-100551-0	Outer hex screw M10*55
238-903	B-040-102020-1	Flat washer Ø10x2
238-904	B-050-100000-0	Spring washer Ø10
238-905	B-014-100751-0	Outer hex screw M10*75
238-906	S-040-061822-2	Bearing 61822-2Z
238-907	CX-238-130100-0	Tyre installation seat
238-908	CX-238-130600-0	Check ring(down)
238-909	C-238-130400-0	Outer spring
238-910	CX-238-130300-0	Check ring(up)
238-912	CX-238-130200-0	Rotating help arm rod
238-913	CX-200-140000-0	Big washer
238-914	B-050-160000-0	Spring washer Ø16
238-915	B-010-160401-0	Hex socket cap screw M16*40 M16*40
238-916	C-238-130800-0	Rubber protection pad
238-917	CZ-238-170000-0	Quick release nut assembly
918	C-239-333801-0	1# CONE
	C-239-333802-0	2# CONE
	C-239-333803-0	3# CONE
	C-239-333804-0	4# CONE
919	C-238-130700-0	Cushioning pads of the tire installation disk
920	B-010-080201-0	Hex socket cap screw M8*20
921	CZ-238-131000-0	Connecting bolt
922	CX-238-131100-0	Threaded shaft
923	S-040-006013-2	Bearing 6013-2Z
924	B-010-060101-0	Hex socket cap screw M6*10
925	CX-238-131300-0	Intensive seat

11.B Inflating System



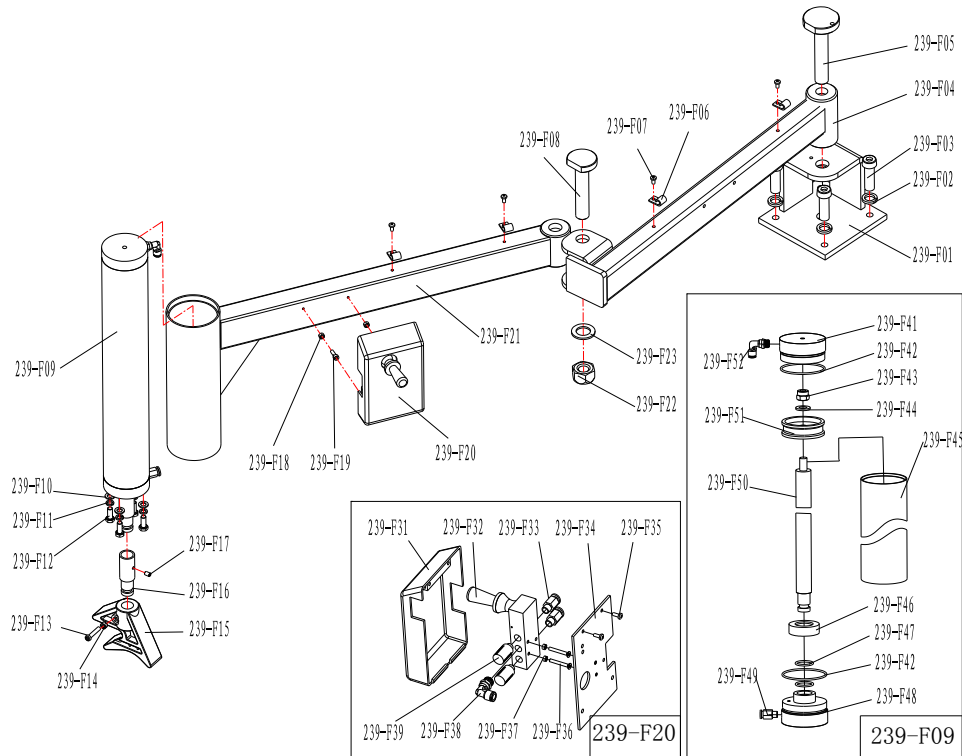
B01	CX-238-610000-0	Air tank
B02	S-012-010408-0	Quick union 1/4-φ8
B03	S-030-010400-0	Water drain valve
B04	CX-221-610500-A	Air tank joint on transfer
B05	S-030-030800-0	Safety valve 3/8*3.II-0.8
B06	B-014-080301-0	Outer hexagon bolt M8*30
B07	B-040-081715-1	Flat washer Ø8
B08	B-001-080001-0	Self-locking nut M8
B09	C-000-010001-0	Air tank hose
B10	S-030-000034-0	Stainless steel ball valve 1"
B11	CX-0UB-610400-0	Air tank explosion fittings thick
B12	C-001-020100-0	Upper inflation blowing nozzle
B13	C-001-020200-0	Cap
B14	B-019-350095-0	The cross tapping screw ST3.5*9.5

11.H Hydraulic system



H01	B-024-030401-0	Cross-round head screw M3*40
H02	B-040-030000-1	Flat washer Ø3
H03	B-050-030000-0	Spring washer Ø3
H04	CX-238-270000-0	Hydraulic pump cover plate
H05	S-049-380150-5	Hydraulic pump station 3ph (239)
H06	CX-007-090000-0	Locating sleeve
H07	B-001-080001-0	Self-locking nut M8
H08	B-040-081820-1	Flat washer Ø8
H09	B-014-080251-0	Outer hex screw M8*25
H10	B-050-100000-0	spring washer Ø10
H11	B-010-100501-0	Hex socket cap screw M10*50
H12	CX-238-140000-0	Hydraulic pump bracket

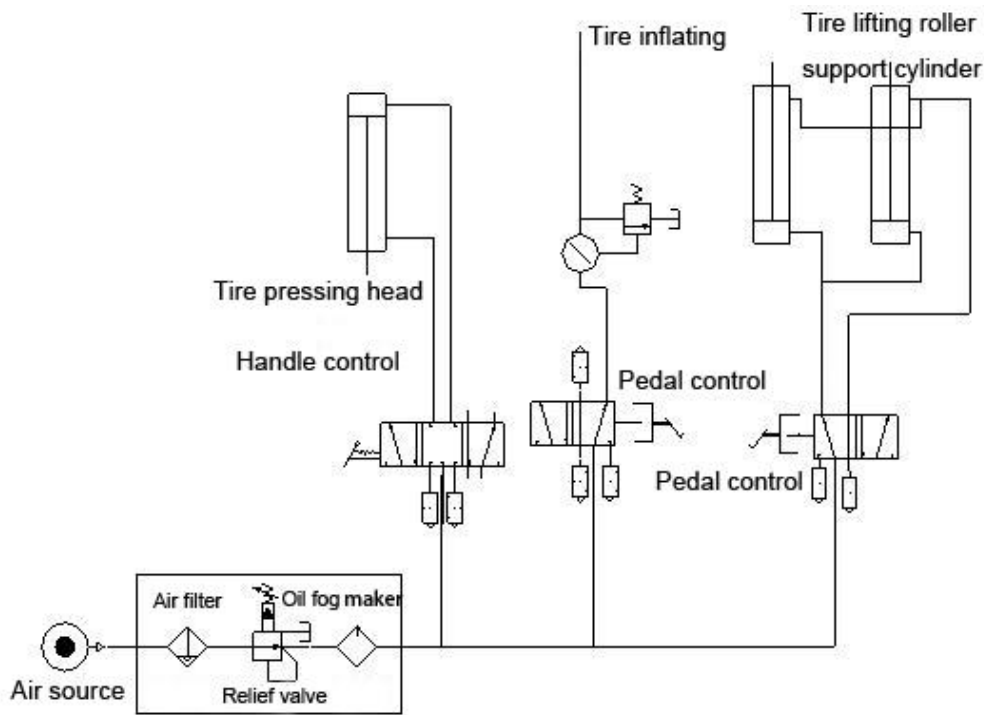
11.F Complete left helping arm



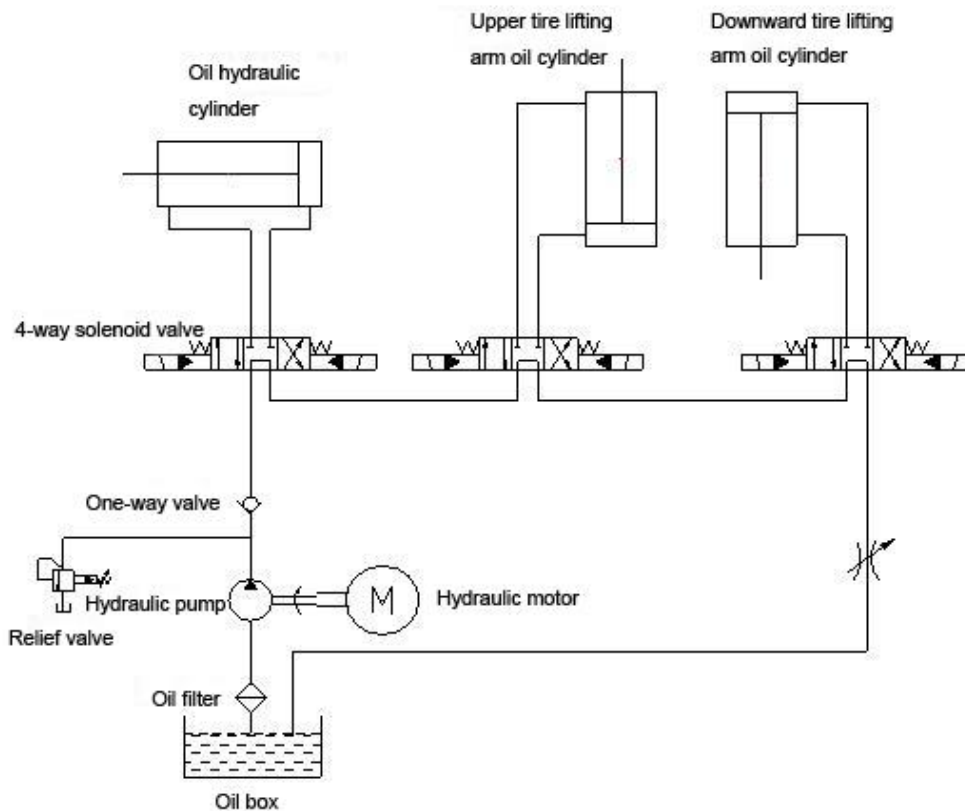
239-F01	CX-238-180300-0	Tyre pressure arm fixing seat 238	239-F23	B-040-223040-1	Flat washer Ø22
239-F02	B-050-100000-0	Spring washerØ10	239-F31	C-007-181000-0	Control valve cover(right)
239-F03	B-010-100251-0	Hex socket head screw M10*25	239-F32	S-030-010818-0	Raise-fall control valve
239-F04	CA-020-023800-0	Tyre pressing arm	239-F33	S-010-010806-0	Quick straight union 1/8- Ø6
239-F05	CX-238-180500-0	Tyre pressure arm fixing bolt	239-F34	CX-005-200000-0	Rise/fall switch bottom plate
239-F06	S-038-120406-0	Adjustable wiring fixing button	239-F35	B-024-040101-0	Cross-round head screw M4X10
239-F07	B-024-050101-0	Cross-round head screw M5*10	239-F36	B-017-040301-0	Cross-round head screw M4X30
239-F08	CX-238-180400-0	Connecting bolt	239-F37	B-004-040001-0	Hexagon nut M4
239-F09	CA-005-020900-2	Complete light cylinder 009	239-F38	S-012-010806-0	Quick union 1/8- Ø6
239-F10	B-040-081820-1	Flat washer Ø8	239-F39	S-023-010801-0	Muffler 1/8
239-F11	B-050-080000-0	Spring washer Ø8	239-F41	C-009-070200-0	Light cylinder back cover
239-F12	B-014-080201-0	Outer hex screw M8*20	239-F42	S-000-069265-0	O-seal 69X2.65
239-F13	B-010-060301-0	Hex socket head screw M6*30	239-F43	B-001-120001-0	Self-locking nutM12
239-F14	B-001-060001-0	Self-locking nut M6	239-F44	B-040-122020-1	Flat washer Ø12
239-F15	C-008-090100-0	Tyre pressing head block (upper)	239-F45	C-009-070300-0	Light cylinder barrel
239-F16	CX-238-180700-0	Extension rod	239-F46	C-221-351100-0	Cylinder cushion
239-F17		Hexagonal flat end tight set screw M6*10	239-F47	S-000-025265-0	O-seal Ø25X2.65
239-F18	B-004-050001-1	Hex nut M5	239-F48	C-009-070100-0	Light cylinder front cover
239-F19	B-010-050161-0	Hex socket head screw M5*16	239-F49	S-010-010806-0	Quick straight union 1/8- Ø6
239-F20		Raise-fall control valve assembly	239-F50	C-009-070400-0	Left light cylinder piston rod
239-F21	CX-009-030000-0	Auxiliary pressing arm	239-F51	C-200-540000-0	The clamping cylinder piston
239-F22	B-001-220001-0	Self-locking nutM22	239-F52	S-012-010806-0	Quick union 1/8- Ø6

12. Schematic diagram

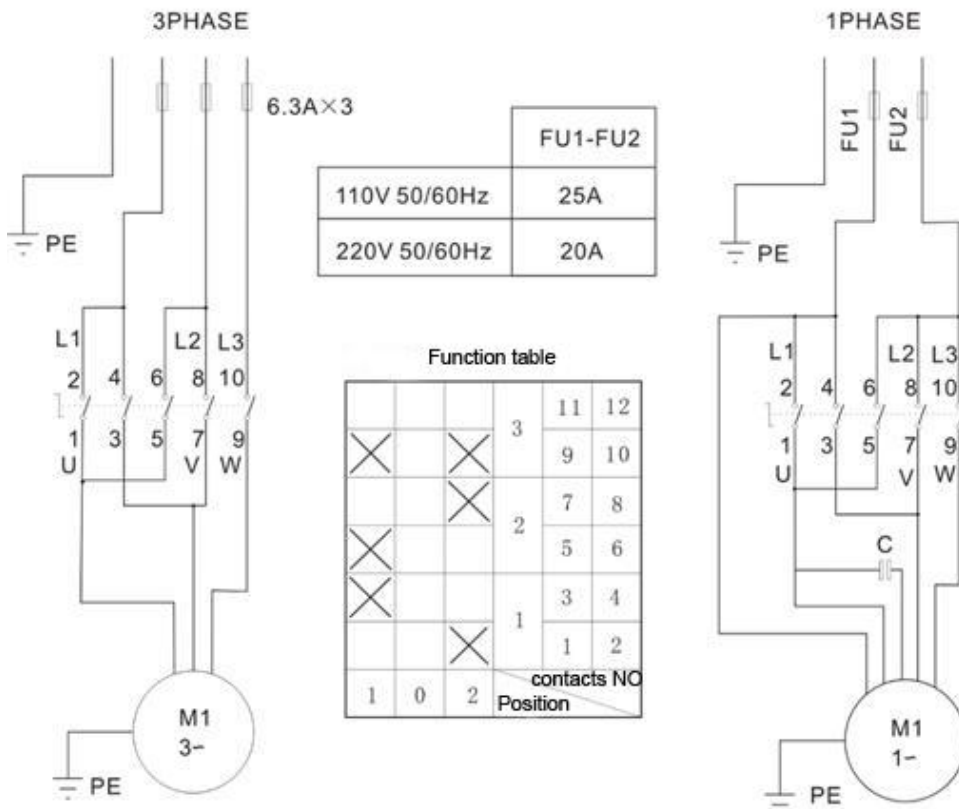
12.1 Pneumatic schematic diagram



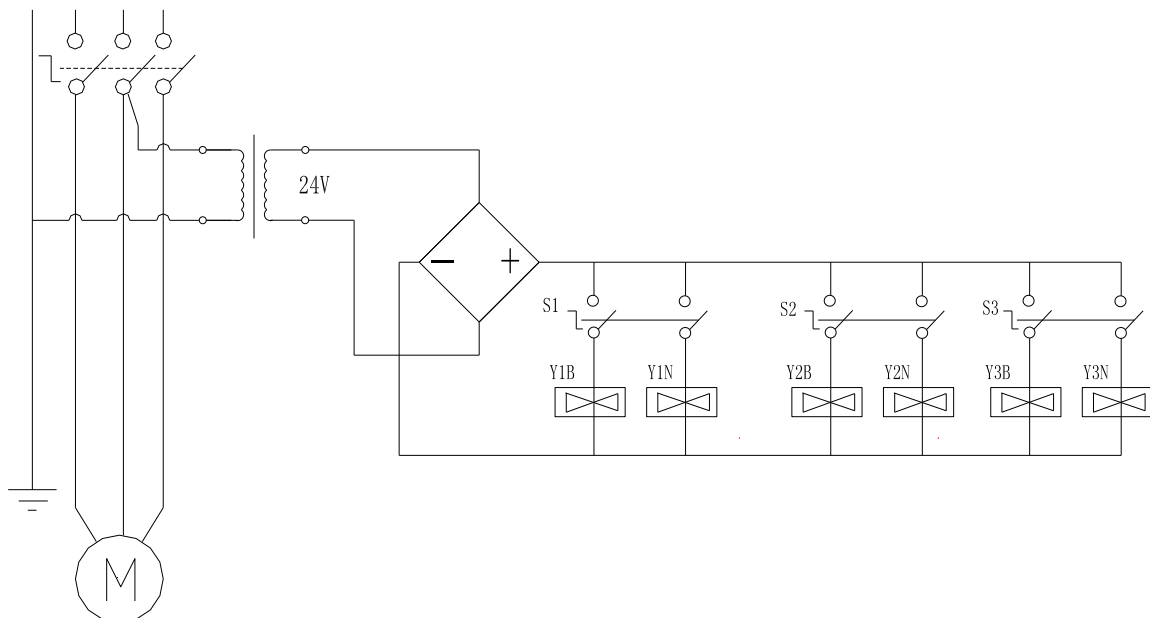
12.2 Hydraulic schematic diagram



12.3 Electric system schematic diagram



Motor schematic diagram



Hydraulic pump station circuit diagram