BLACK DIAMOND
Auto Equipment

Users Manual

TC1326
TIre Changer

Table of Contents

Rated voltage	110V/220V/380V 50HZ/60HZ 1PH/3PH
Outside clamp diameter	11" - 24"
Inside clamp diameter	13" - 26"
Rim width	3" - 14"
Maximum tire diameter	39" (960mm)
Large cylinder push-pull effort	2000kgf
Crankset rotation speed	6.5 rpm
Working pressure	8-10 bar
Carton size	1150*770*1020mm
Net weight	262KG

Please check the products immediately after unpacking to ensure that they are in good condition. If any missing or damaged parts are found, please call the customer service department of Coseng Automotive Equipment(Zhuhai) Ltd.:
E-mail： carson@coseng.com.cn

Please record the serial number of the product: _____

Note: If the product does not have a serial number, please record the purchase date.

Please keep the operation instructions properly:

1) The operation instructions cover product safety warning, installation and operation, maintenance, common fault handling, etc. Please take good care of it.

2) Please record the serial number (or purchase date) of this product on the front page of the operation instructions, and keep the operation instructions in a dry and safe place for reference.

3) Please use the product correctly on the basis of fully understanding the contents of the instructions.

Chapter I Safety Precautions

1. Incorrect operation may cause personal injury and equipment damage.
2. Please read carefully and understand all the contents of the instructions before use.
3. Please ensure that children and other unauthorized personnel stay away from the work area.
4. Ensure that the equipment is connected to the correct power and air source, and is reliably grounded.
5. Please use this equipment on a flat, level, dry and reliable bearing plane.
6. Avoid accidental startup. Please ensure that the equipment is turned off and the electrical source is disconnected before maintenance.
7. Keep the protection device and safety device in the correct position and keep working normally.
8. Keep the work area clean and well lit. Chaos or dark areas may cause accidents.
9. It is strictly prohibited to overload this product, otherwise the resulting accident liability will not be covered by the insurance.
10. Please keep away from heat and fire source. High temperature may cause damage to this equipment and sealing elements.
11. Avoid dangerous environment. Do not use equipment in humid environment or expose it to rain.
12. It is strictly prohibited for any untrained personnel to use this equipment, and it is not allowed to disassemble or refit this equipment voluntarily.
13. Ensure that the wheels are installed correctly, and correct way is selected according to different wheel hubs to lock and fix them on the equipment.
14. Check carefully before each use. If there is oil leakage, loosen or damaged parts and accessories, they cannot be used.
15. Please let professionals with professional maintenance qualifications maintain the equipment reasonably. If accessory replacement is required, please use original accessory.
16. Safety shoes, safety goggles and working gloves conforming to relevant national safety regulations for safety protection must be worn during operation.
17. It is strictly prohibited to use the equipment after drinking, mental fatigue, inattention, drowsiness and any unconsciousness caused by drugs.

Warning:
The notices, warnings, instructions and other information contained in the instructions cannot cover all possible situations. Operators must understand that daily prudent operation and professional knowledge are indispensable factors in operating this product.

1.1 Warning labels

Keep hands away from tires during operation.	Please read the instructions carefully before use.	Wear protective equipment during operation.

Beware of electric shock!

Do not put any part of your body under the mounting head.

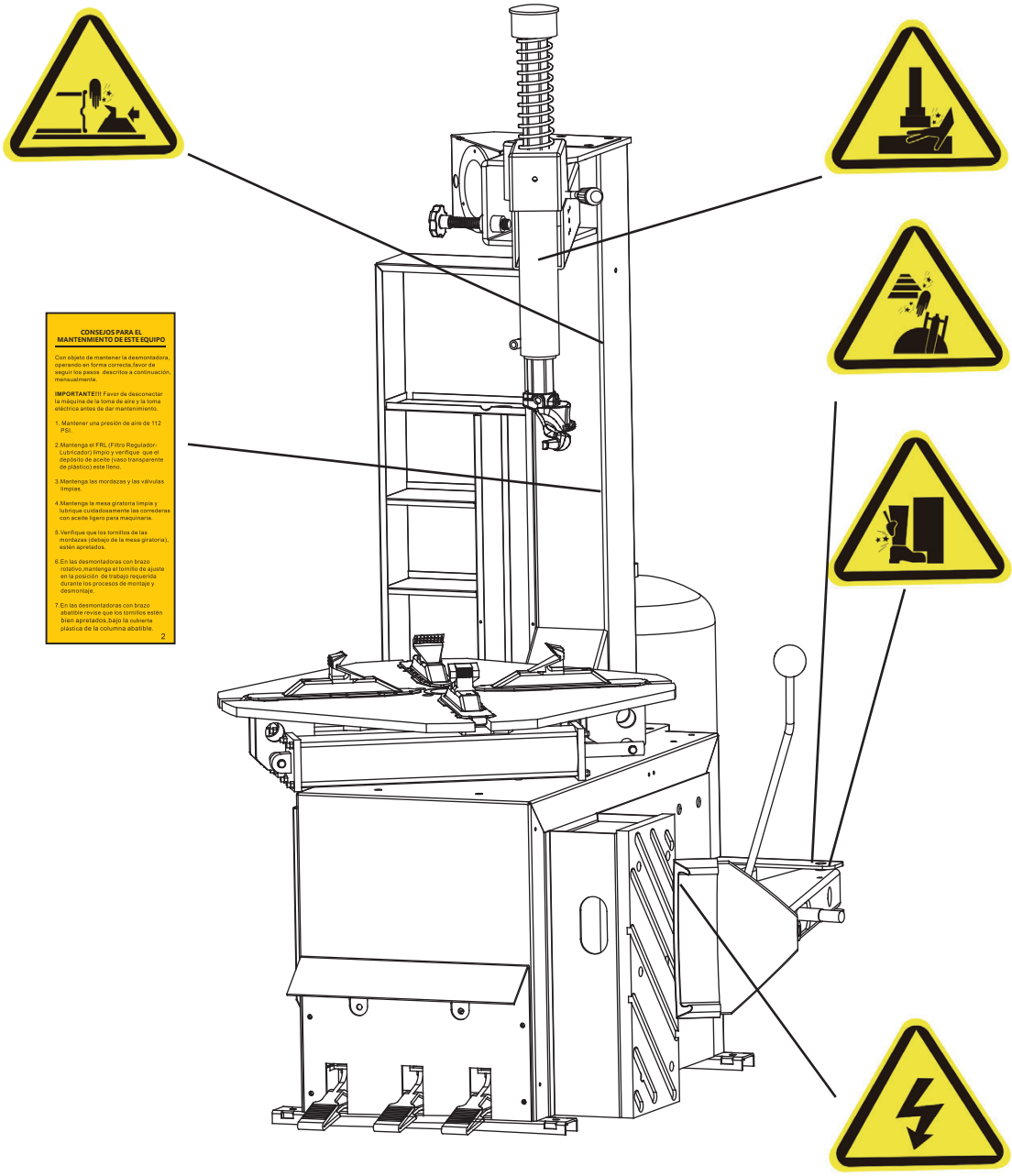
Do not stand between the shovel blade and the tire during tire pressing to avoid injury.

Note: Do not touch the tire sidewall with your hands during tire pressing.

When clamping the rim, please note that hands and other parts are not allowed to enter between the claw and the rim.

1.2 Location diagram of safety sign

Pay attention to keep the safety sign intact. If it is vague or lost, new sign shall be replaced immediately. The operator shall clearly see the safety sign and clearly identify the correct meaning of the sign.



CONSEJOS PARA EL MANTENMIENTO DE ESTE EQUIPO

Con objeto de mantener la desmontadora, operando en forma correcta,favor de seguir los pasos descritos a continuación, mensualmente.

IMPORTANTE!!! Favor de desconectar la máquina de la toma de aire y la toma eléctrica antes de dar mantenimiento.

1. Mantener una presión de aire de 112 PSI.

2. Mantenga el FRL (Filtro Regulador-Lubricador) limpio y verifique que el depósito de aceite (vaso transparente de plástico) este lleno.

3. Mantenga las mordazas y las válvulas limpias.

4. Mantenga la mesa giratoria limpia y lubrique cuidadosamente las correderas con aceite ligero para maquinaria.

5. Verifique que los tornillos de las mordazas (debajo de la mesa giratoria), estén apretados.

6. En las desmontadoras con brazo rotativo,mantenga el tornillo de ajuste en la posición de trabajo requerida durante los procesos de montaje y desmontaje.

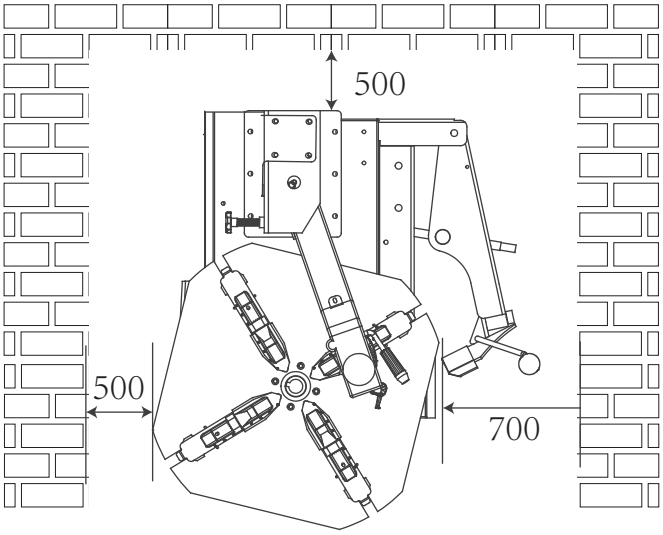
7. En las desmontadoras con brazo abatible revise que los tornillos estén bien apretados,bajo la cubierta plástica de la columna abatible.

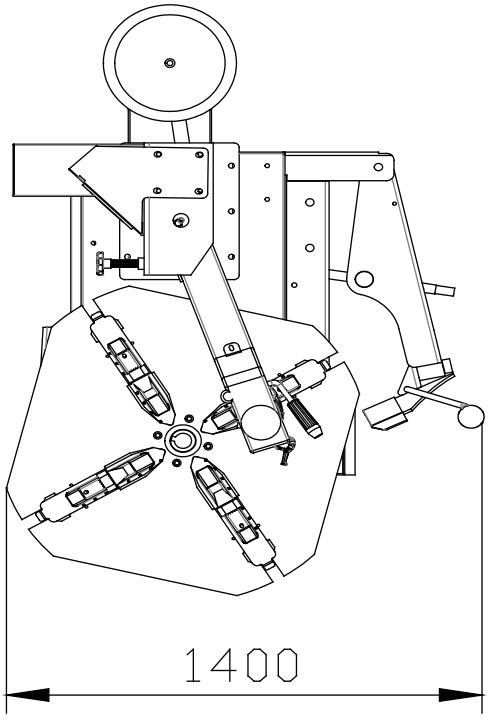
Chapter II Installation Instruction

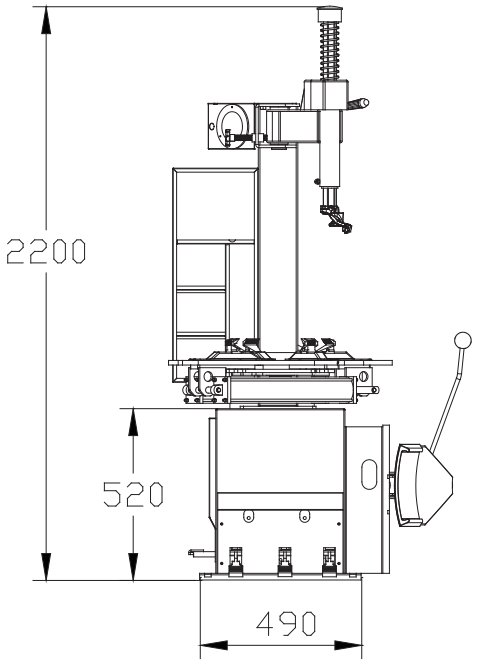
The installation of tire changer must be completed by professionals. Safe and effective use depends on correct installation.
If you have any questions, please contact the authorized dealer.

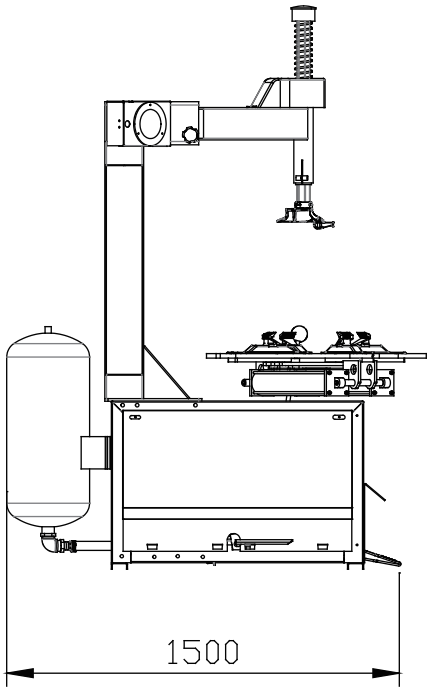
2.1 Equipment size and use space

a. The tire changer must be placed on a firm flat floor and fixed with bolts.
b. The location where the tire changer is to be installed must be provided with power and air source for connection.
c. In suitable placement location for tire changer, sufficient operation space must be reserved around the tire changer.
d. Ensure that there is enough space above and behind the selected position for the auxiliary arm or reversing arm to work normally.
e. Reserve at least 500 mm operating space on the right and front of the tire changer for tire mounting and tire pressing.







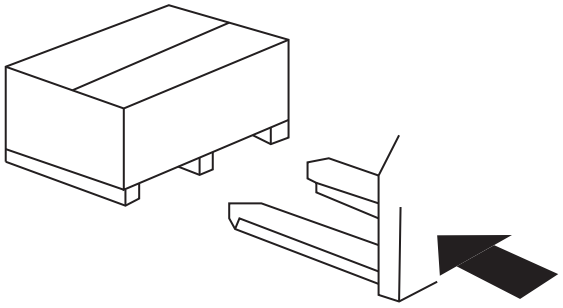


2.2 Safety rules

a. This equipment shall be operated by professionals or trained personnel.
b. The company will not be responsible for unauthorized movement of equipment (especially for electrical parts).
c. Any treatment for electrical parts can only be carried out by professionals.

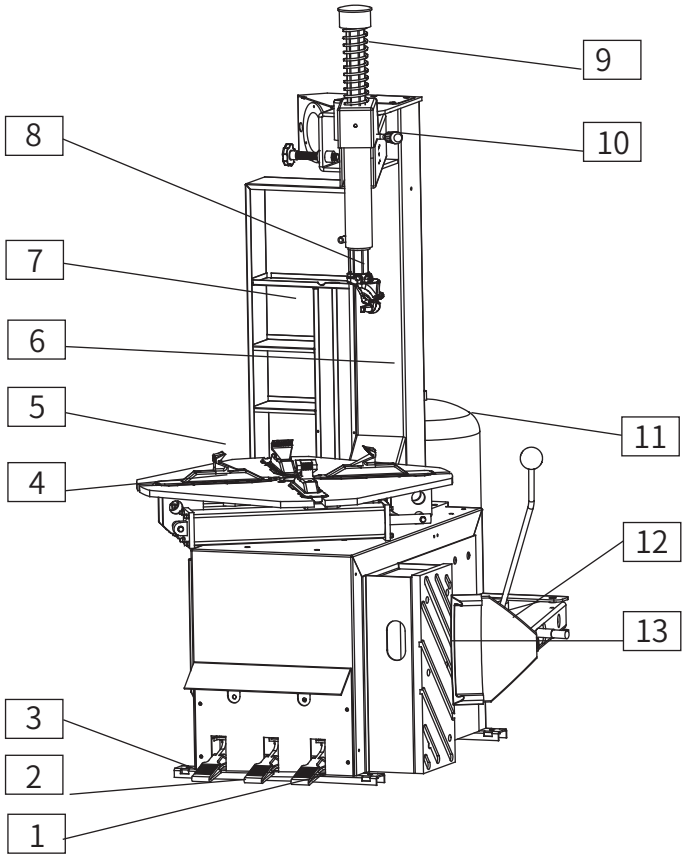
2.3 Transportation/unpacking

a. Forklift handling is adopted, and moving position is as shown in the right figure.
b. Unpack and check whether the equipment is damaged.
c. Keep packing materials away from children to avoid danger. Note: The surface of the equipment is coated with a layer of special anti-rust oil, which is easy to be coated with dust and shall be wiped off as much as possible when necessary.

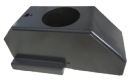


2.4 Product drawings

1. Tire pressing pedal
2. Clamping pedal
3. Rotating pedal
4. Workbench
5. Claw
6. Column
7. Toolbox
8. Mounting head
9. Hexagonal bar
10. Locking handle
11. IT installation
12. Tire pressing shovel arm
13. Tire pressing rubber pad

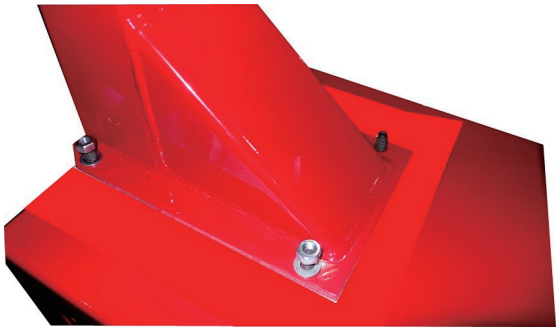


2.5 Standard accessories

				
Inflation gauge	Hexagon rod pressure spring cap	Hexagon rod pressure spring	20-inch crowbar	Crowbar sheath
				
Mounting head infilled pad -Front/rear	Adjusting handle	Column hook	Instructions	Locking cap

2.6 Erection of column

Remove the bolts at the installation position of the column on the chassis, place the column assembly on the chassis, and put the warning label forward to align the holes on the bottom plate of the column with the screw holes on the chassis, and tighten with bolts again.



2.7 Installation of hexagon rod pressure spring

a. Remove the screw on the pressure rod cap of the hexagon rod with a hexagon wrench. When removing the screw of the pressure rod cap, the hexagon rod shaft must be locked with a locking handle to prevent falling and causing equipment damage or personal injury accidents.
b. Insert the pressure rod long spring into the pressure rod, reinstall the pressure rod cap and tighten it.

2.8 Power source connection

Before energizing, check whether the network voltage is consistent with the voltage value indicated on the equipment label.
Very important: The equipment is connected with the electrical system, which shall be equipped with circuit fuse, good grounding shall conform to the national standards, and leakage protection devices shall be provided for the equipment when necessary to ensure safe operation of the equipment.

2.9 Air source connection

a. Step on the clamping pedal to ensure that the crankset claw will not suddenly open.
b. Connect the air source to the oil-water separator with a quick connector. And adjust the pressure gauge to display air pressure.
c. Connect the inflation gauge to the air source with a pipeline, and press the handle to confirm that the inflation function is normal.

2.10 Complete machine test

a. Step on the rotating pedal to turn the crankset clockwise. Jack up the pedal to turn the crankset counterclockwise.
b. Step on the clamping pedal to open the four crankset claw, and step on the pedal again to close the claw.
c. Step on the tire pressing clamping pedal to put the tire leaning shovel into working state through the tire shovel, and step on the pedal again to return the tire leaning shovel to the original position.
d. Check whether there is 1 oil drop dripping from the oil-water separator after stepping on the pedal for 3-4 times. If not, use screws for adjustment.

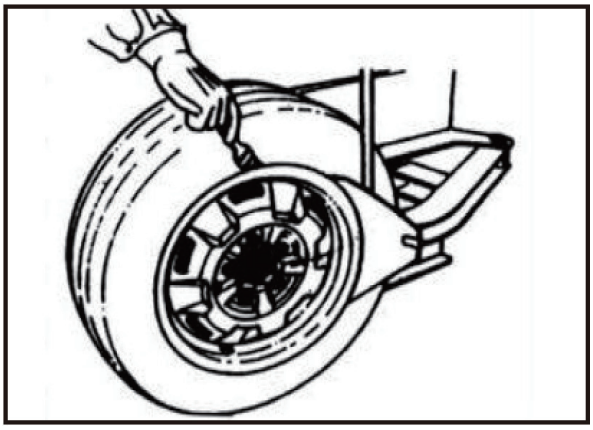
Note: For 380 V equipment models, if the rotation direction of the crankset is different from the above direction, replace the two phase lines on the 3-phase wiring terminal.

Chapter III Operation Guide

1. Do not use the machine until you have read and understood the entire instructions and the warnings therein. Before the operation, release the air from the tire and remove all lead blocks from the wheel.
2. The operation of the tire changer includes the following parts: a) tire leaning; b) tire dismounting; c) tire mounting.

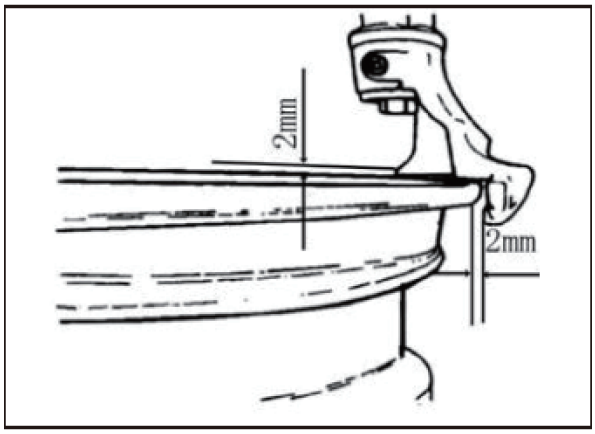
3.1 Tire leaning

Before operation, make sure all the original lead blocks are removed, remove the valve core, and check the deflation of tires.
Place the tire between the tire pressing shovel and the tire pressing rubber pad, and then step on the tire pressing pedal to separate the tire bead from the rim. Repeat the above operations on other parts of the tire to completely separate the tire beads on both sides from the rim. Place the wheel with the tire bead separated from the rim on the rotary table, step on the clamp pedal to clamp the rim (The inside clamp or outside clamp can be selected according to the rim), and prepare to dismount the tire.

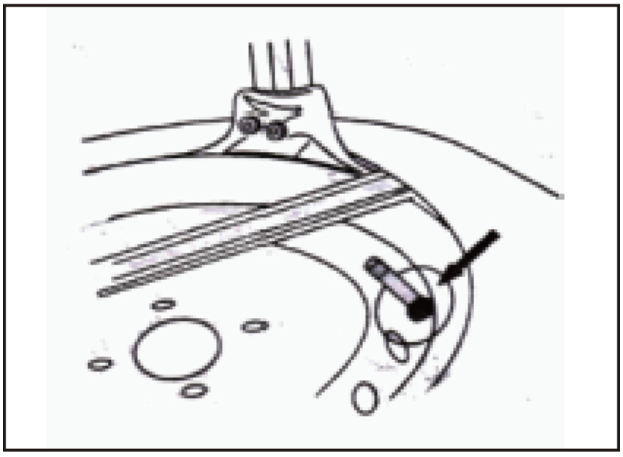


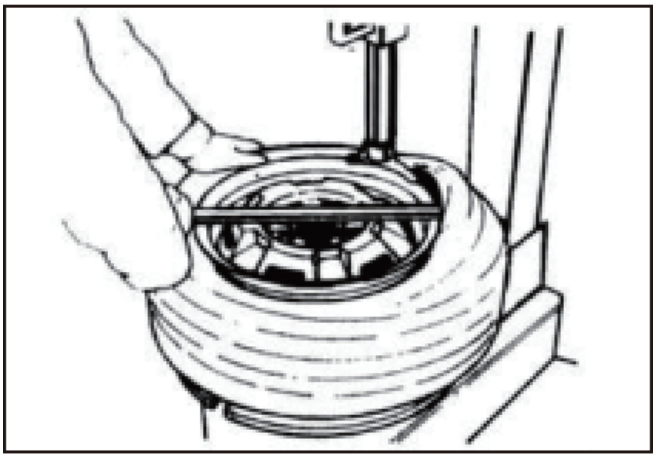
3.2 Tire dismounting

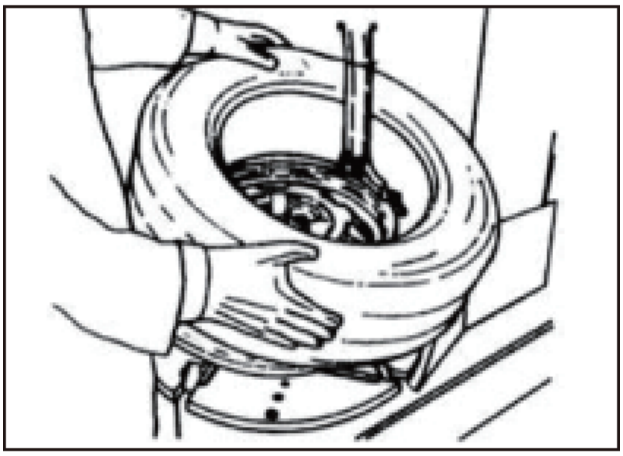
1. Apply the supplied grease (or similar grease) on the tire opening. Failure to use grease will cause serious damage to the tire opening.
2. Never put your hand under the tire while locking the rim. The correct fixing operation enables the tire to be just located in the center of the crankset to ensure that the rim is firmly fixed to the claw.
3. Place the hexagon shaft in the working position to make the mounting head closely abut against the upper edge of the rim. Use the knob to hold the rocker arm against it. Then lock it up with the locking handle. The mounting head will automatically move up little clearance. The angle of the mounting head has been adjusted according to the standard rim when leaving the factory. In case of extra large or small rims, please relocate.



4. In order to avoid damaging the inner tube, the valve core shall be located on the right side of the tire dismounting head. Loose foreign matter or foreign matters near moving parts will endanger the operator.
5. Use a crowbar to pry the tire bead onto the bulge part on head end of the mounting head. Step on the rotary table steering pedal to turn the rotary table clockwise until the upper tire bead is completely removed.
6. If the tire dismounting is blocked, stop the vehicle immediately, lift the pedal and turn the rotary table counterclockwise to eliminate the obstacle!







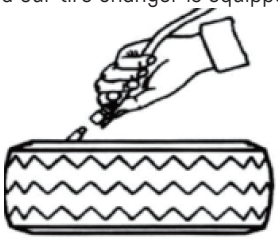
3.3 Tire installation

1. The most important thing is to check the tires and rims to prevent explosion during inflation. Before starting the installation operation, ensure that: Check whether the tire and rim are of the same size, and whether the tire and tire tread fiber are damaged. If so, do not install the tire. Whether there are dents and warpings on the rim, pay attention to whether there are any tiny scratches on the inner side of the aluminum alloy rim, which are dangerous, especially during air inflation.
2. Do not put your hand between the rim and the claw in the process of clamping the rim to avoid personal injury!
3. When the rim is locked, do not put your hands under the tire. The correct operation is to locate the tire in the center of the crankset.
4. Place the tire obliquely on the rim (left high and right low), and press down the hexagon shaft to make the mounting head abut against the rim and lock it. The left rear tire bead is placed above the tail of the mounting head, and the right front tire bead is placed below the head end of the mounting head. Press the tire opening into the groove of the rim by hand. Step on the pedal to cause the crankset to rotate clockwise. Continue this operation until the tire is fully loaded into the rim.
5. In order to prevent work accidents, keep hands and other parts of the body as far away as possible from the tire dismounting arm when the crankset rotates.
6. If there is an inner tube, install it in the tire and penetrate the valve core. Install the upper tire bead according to the previous step.
7. When dismounting and mounting tires, the crankset shall rotate clockwise. Counterclockwise rotation is only used for error correction when the machine is stuck and causes the operator's error.

Chapter IV Air Inflation

1. Be extremely careful when inflating tires, and strictly follow the following instructions. Because the tire ripper is not designed and manufactured to protect the people around from sudden tire burst.
2. The tire burst may cause serious injury or even death of the operator. Carefully check that the rim and tire are of the same size. Before air inflation, check that the tires are free from defects or wear. Check the pressure after each air injection. In any case, do not exceed the pressure value recommended by the manufacturer, and keep your body and hands away from the tire as far as possible.
3. The air inflation indicator used to inflate tires shall be under the standard version, and our tire changer is equipped with an air inflation indicator. The inflation procedures are as follows:

① Connect the air inflation indicator with the tire air valve;
② Finally, check the size coordination between the tire and the rim;
③ Check whether the tire opening is fully lubricated, and if necessary, carry out further lubrication.
④ Inflate and check the air pressure of air inflation indicator;
⑤ Continue to inflate and check the air pressure while inflating.



Risk of explosion!

1. Do not exceed 3.5 bar (51 psi) when inflating tires; before inflation, the tire will be dismounted from the crankset and placed in a special protective cage for inflation. Never exceed the inflation pressure recommended by the manufacturer. Hands and body shall be located on the rear side of the tire being inflated. Only specially trained and authorized personnel are allowed to carry out inflation operation, and other people are not allowed to operate or stay near the tire changer.
2. In this process, the noise can reach 85 dB. Noise protection is recommended.

Chapter V Storage

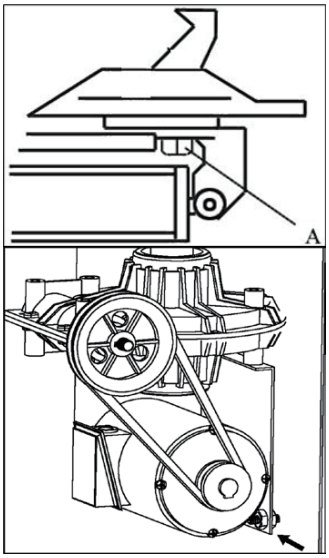
When the equipment needs to be stored for a long time, please disconnect the power and air source. Lubricate all parts to be lubricated: sliding block, sliding block slot on crankset and auxiliary arm mounting position. Drain off all oil/liquid storage. Cover the equipment with a plastic housing to prevent dust.

Chapter VI Scrapping

When the equipment life is over and it cannot be used again, please handle it properly according to relevant local laws and regulations.

Chapter VII Daily Maintenance

In order to prolong the service life of the machine, regular maintenance shall be carried out according to the instructions. Otherwise, the operation reliability of the machine will be affected, resulting in possible injuries to operators and personnel near the machine. Warning: Before any maintenance work is carried out, the air and power source must be disconnected, and the remaining compressed air in the machine must be exhausted by stepping on the lower pedal 3-4 times. Damaged parts must be replaced by professional maintenance personnel with spare parts provided by the original factory.



1) Keep the claw and cylinder control valve of tire pressing shovel clean.
2) After using the machine for 20 days, retighten the fixing screw (A) on the chuck claws.
3) If the rotating force of the chuck is not enough, check the tension of the belt as follows. Loosen the screws on the left side plate of the machine, remove the side plate, adjust the two adjusting screws for installing the motor to keep appropriate distance between the adjusting bracket and the motor seat, and then tighten the screws to achieve the effect of tensioning the driving belt.
4) In order to ensure the reliable opening/closing of the claw and the large cylinder of the tire pressing shovel, the control valve connected thereon shall be kept clean and can be maintained according to the following instructions. Remove the 4 screws of the left side panel of the machine to dismount the side panel. Loosen the valve body muffler on the claw opening/closing or large cylinder control pedal.
5) Clean the dirt on the muffler with compressed air. If it is damaged, please refer to the spare parts table for replacement.
6) Air pressure shall not exceed 10 bar.
7) Keep the workbench clean to prevent dust accumulation, and lubricate the claw seat and guide rail.
8) If the swing arm is not locked or does not reach the required size for working, the swing arm locking plate needs to be adjusted.
9) If the column swings, it is necessary to fasten the screws on both sides of the column shaft.
10) Check the oil level of the oil atomizer cylinder. If refueling is required, loosen the screw with hexagon socket wrench or unscrew the cylinder counterclockwise to add oil. Only VG32 lubricating oil can be added. Under the condition of connecting compressed air, step on the pedal once for the first time to see if the first oil drop drips from the oil atomizer. When in continuous use, step on the pedal to see if an oil drop drips from the oil atomizer.

Pull out the cover, rotate the adjustable pressure. The pressure setting range is 8-10 bar.

Press down the cover to lock the pressure.

Regularly check the water level of the steam-water separator. Do not exceed 50% height of the separator. If necessary, turn the locking button to drain water manually.

Check the lubricating oil level every day, and open the oil cap to add oil when necessary. Attention: It is forbidden to use lubricating oil exposed to air for a long time.

Check the lubrication conditions every day to ensure that the lubricating oil drips into the oil atomizer when stepping on the pedal. If necessary, use a screwdriver to adjust the adjusting screw of the oil atomizer.

Chapter VIII Faults and Troubleshooting

9.1 Maintenance idea for stuck work tray:

First of all, distinguish between circuit failure and mechanical failure.

Maintenance method:

1. Step on or lift the two direction switch pedal, and observe the motor response. If there is no response, use a multimeter to measure whether the voltage between terminals is normal on the two direction switch. If the voltage is abnormal, check the power supply line or power plug. If the voltage is normal, use a multimeter to measure whether the voltage between and terminals on the two direction switch is normal when stepping on or lifting the power switch pedal. If not, the two direction switch is broken. If normal, the motor or the capacitor is broken.
2. If the motor is buzzing but cannot rotate, the measurement method is the same as above. If the measurement result is abnormal, the two direction switch is broken. If it is normal, turn the gearbox belt pulley by hand. If it cannot be turned by hand, the gearbox is faulty. If it can be turned by hand, the motor or capacitor is faulty.
3. If the motor can rotate normally and the work tray does not rotate, it shall be a gearbox fault, such as: failure of gearbox pulley to drive the worm to rotate; the worm gear outburst, etc.

9.2 Tire dismounting inability

Maintenance method: Observe the working conditions of the motor during tire dismounting. If the motor cannot rotate during tire dismounting, it means that the torque of the motor is too small or the capacitor is faulty. If the motor can rotate, but the pulley is slipping, the explanation is that the belt is too loose. Just tighten the belt.

9.3 Failure in clamping the steel ring by the claw

Maintenance method: Check whether the air source pressure meets the requirements of the instructions. If it meets the requirements, check for air leakage or gas blow-by. If there is no air leakage or gas blow-by, the explanation is poor concentric height of claw.

9.4 Failure in tire pressing for large cylinder

Maintenance idea: In case of tire dismounting inability (including the movable large cylinder and loose tire pressing under no load), the air pressure is generally low, and air leakage or gas blow-by occurs in the large cylinder. If the large cylinder cannot move under no load, the general explanation is that the compressed air is not applied to the tire pressing end of the large cylinder.

A. Check whether the air supply pressure meets the requirements of the instructions. If it meets the requirements, check whether there is air leakage in the large cylinder. Check the air pipes at both ends of the large cylinder. Connect the air source. One of the two air pipes on the five-way valve shall be ventilated. When stepping on the tire pressing pedal, the other air pipe shall be ventilated. If it is abnormal, replace the five-way valve or adjust the installation position of the five-way valve to make it work normally.

B. If the five-way valve is checked to be normal, connect the air pipe at the reset end. The explanation is normal if the nozzle at working end of tire pressing is not ventilated. If it is ventilated, the explanation is that the piston of the large cylinder is cracked or the sealing ring is worn.

C. Air pressure check: Use air pressure gauge to check whether the air pressure at the inlet end of the oil atomizer meets the requirements of the instructions. If the air pressure at the inlet end is insufficient, turn up the air supply for the air compressor. If the air pressure at the inlet end meets the requirements and the air pressure at the outlet end is insufficient, adjust the pressure regulating knob of the oil atomizer. If the pressure regulating knob does not work, replace the oil atomizer.

9.5 Steel ring scraping and tire wearing on tire dismounting head:

1) Untight hexagonal prism pin lock
2) Loose mounting head screws or wrong orientation
3) Large clearance between the hexagonal prism and the hexagon sleeve

Maintenance method:

1) Adjustment of loose mounting head screws: Pre-tighten (not too tight) the screws first, and then tighten the screws. When tightening the screws, install a medium-sized tire so that the trolley wheel of mounting head rests on the steel ring, rotate the direction of mounting head to match it with the radian of steel ring, tighten again, and finally screw down.
2) If the hexagonal prism is pulled manually and the swing is relatively large, replace the rocker arm.

9.6 The claw does not open or close properly:

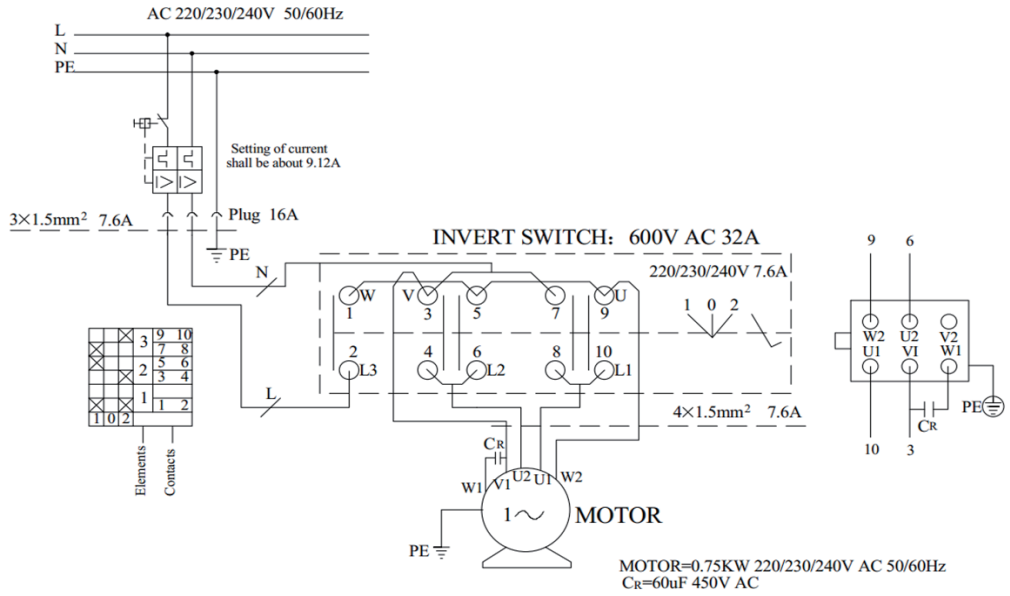
Check whether there is air leakage, check whether the five-way valve core jumps out of the pedal fork. If the above is normal, check whether there is gas blow-by in the rotary distribution valve. When the pedal is not stepped or fully stepped, only one of the air pipes connecting the rotary valve to the small cylinder is ventilated. In any case, the explanation for the phenomenon that the two gas pipes are not ventilated at the same time is that there is gas blow-by from the rotary distribution valve. If there is no problem in the above parts, check the mechanical part. Whether the claw seat is deformed or jammed, whether the square rotary table is jammed, whether the square rotary table is jammed, and whether the pin of the square rotary table falls off.

9.7 Common troubleshooting methods

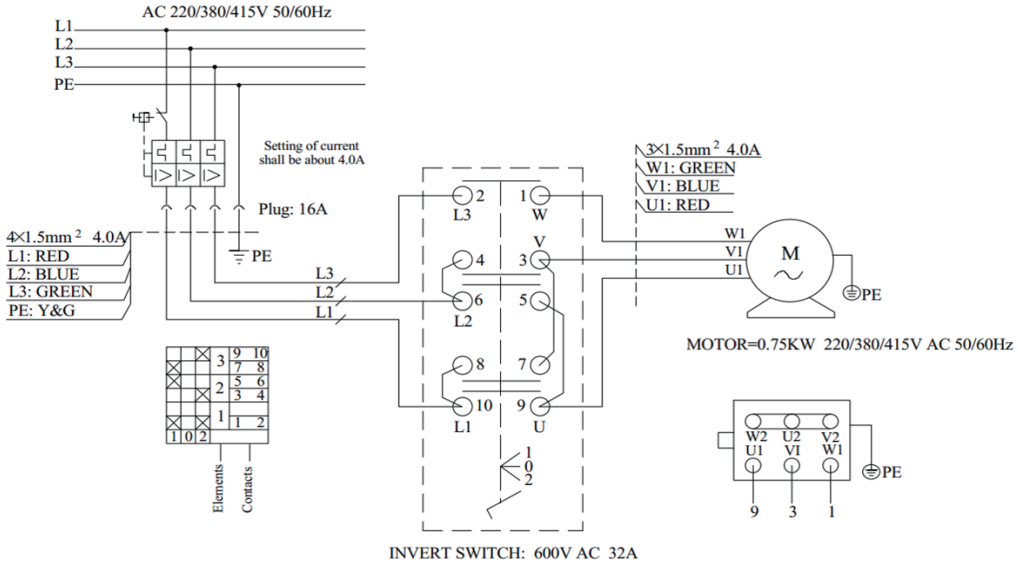
Fault phenomenon	Fault causes	Troubleshooting methods
Steel ring scraping/tire wearing on mounting head	Displacement of mounting head caused by loose column	Locking column
	Displacement of mounting head caused by loose rocker arm/slide arm	Adjust rocker arm/slide arm clearance
	Displacement of mounting head caused by large hexagon rod clearance	Adjust hexagon rod clearance
	Loose mounting head	Lock the mounting head
	Falling off of plastic spacer on mounting head	Mount the plastic spacer
	Too small clearance between mounting head and rim	Adjust the clearance between mounting head and rim 2-4 mm
Failure in clamping the rim with claw	Air leakage/gas blow-by of clamping cylinder	Check connection of gas pipe/replace sealing ring
	Air leakage/gas blow-by of rotary distribution valve	Check connection of gas pipe/replace sealing ring
	Wrong position/air leakage/gas blow-by of five-way valve	Adjust the position of five-way valve/replace O-ring
	Low air pressure of oil atomizer	Adjust the oil atomizer pressure/check the gas source pressure
	Decentraction/damage of four claws	Adjust the claw distance the eccentric bearing/ replace the claw
Large cylinder inability	Large cylinder air leakage/gas blow-by	Check connection of gas pipe/replace sealing ring
	Wrong position/air leakage/gas blow-by of five-way valve	Adjust the position of five-way valve/replace O-ring
	Low air pressure of oil atomizer	Adjust the oil atomizer pressure/check the gas source pressure
	Low cylinder intake	Adjust limit screws on five-way valve pedal
Motor inability	Damage of 220 V motor starting capacitor	Replace the capacitor
	Phase loss of 380 V power source	Check phase of power source
	Loose belt	Tighten the belt
Out-of-operation of motor	Damage of 220 V motor starting capacitor	Replace the capacitor
	Phase loss of 380 V power source	Check phase of power source
	Damage to switch or wiring error	Check switch wiring/replace the switch
	No power source or poor plug contact	Check power source/replace plug
Unfastened hexagon rod lock	Large clearance of locking plate	Adjust the clearance of locking plate
Large clearance of sliding arm	Wrong position of upper and lower roller bearing and side top thread	Adjust position
Cylinder gas blow-by	Damage of piston seal ring/gas pipe joint	Replace
Cylinder air leakage	O-ring damage/piston rod scratch/gas pipe joint damage	Replace
Five-way valve air leakage	O-ring damage/gas pipe joint damage	Replace
Five-way valve gas blow-by	O-ring damage	Replace
Oil atomizer air leakage	O-ring damage/foreign matters/gas pipe joint damage	Replacement/removal of foreign matters
No oil drop from oil atomizer	Too little amount of oil drop adjusted/no oil	Increase the amount of oil drop/refueling
Air leakage from rotary distribution valve	O-ring damage/gas pipe joint damage	Replace
Gas blow-by from rotary distribution valve	O-ring damage	Replace
Failure in closing opened claw/jittering	Foreign matters/no lubricating oil/claw deformation	Clean up foreign matters/lubricate/replace
The belt is liable to damage	Too tight belt/out-of-level between the belt pulley and the belt disk/overuse	Adjust position and level/replace
The positive and negative rotation of switch is opposite.	Wrong wiring	Reconnect/replace
Loud noise produced by reduction gearbox	Loose screw/no lubricating oil/bearing damage	Lock screw/lubricate/replace

Chapter IX Circuit and Gas Diagram

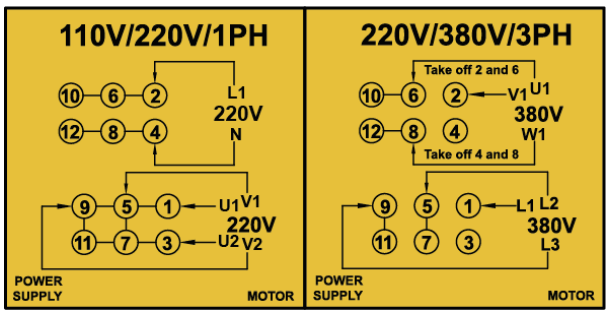
220V



380V

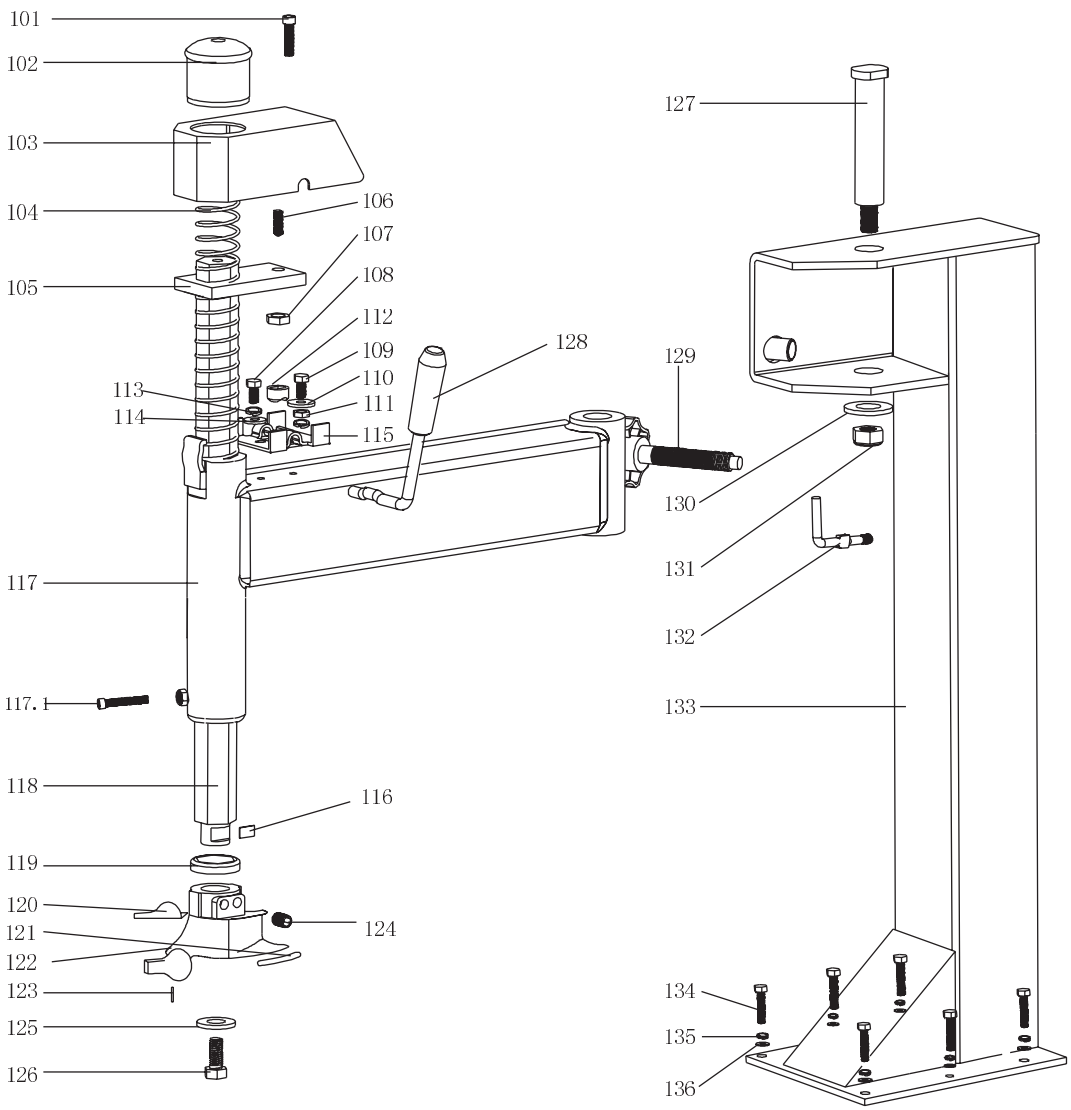


Switch wiring diagram 220 V/380 V (99*474)



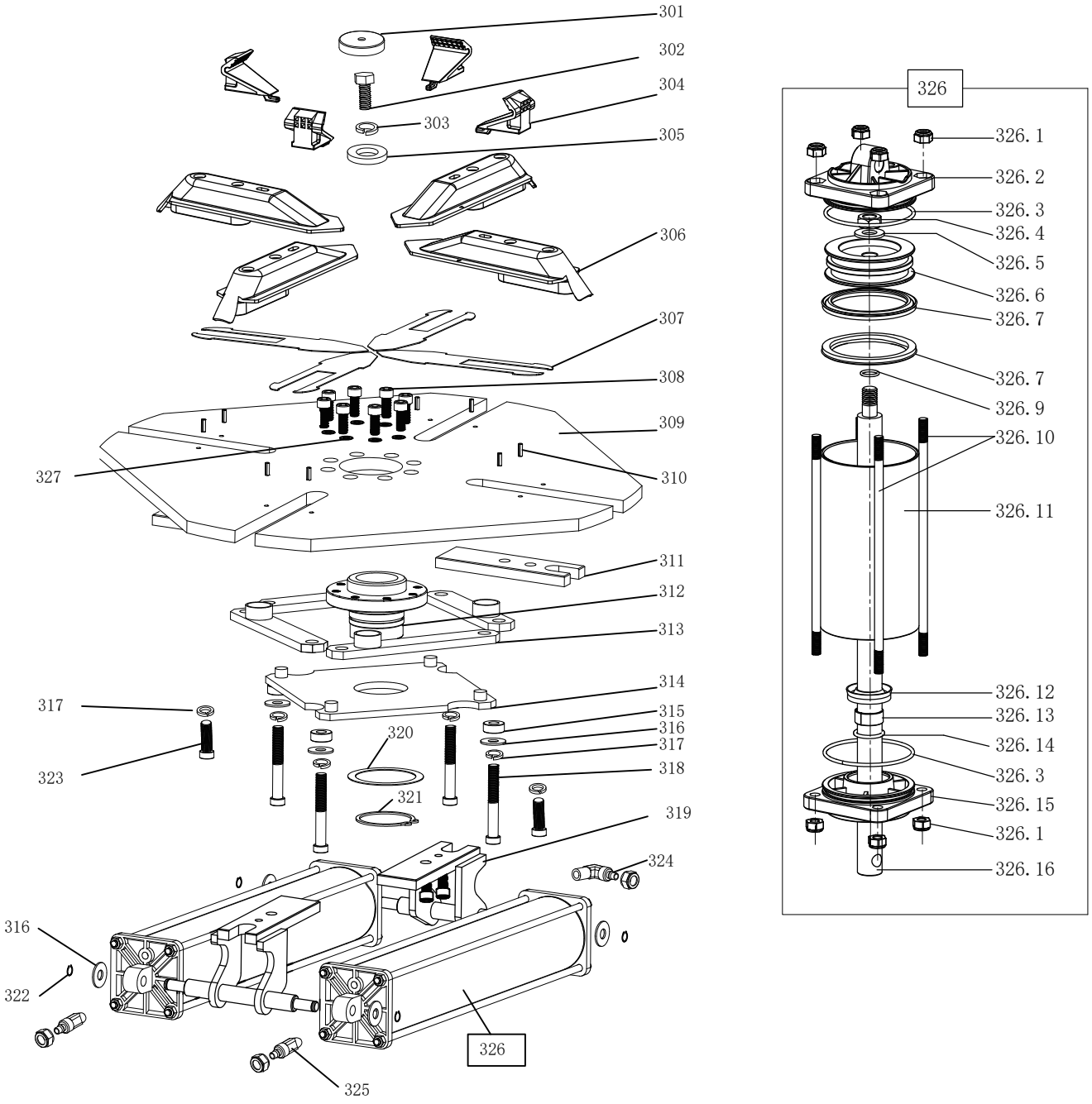
Chapter X Product Explosion Diagram

1. Column assembly:



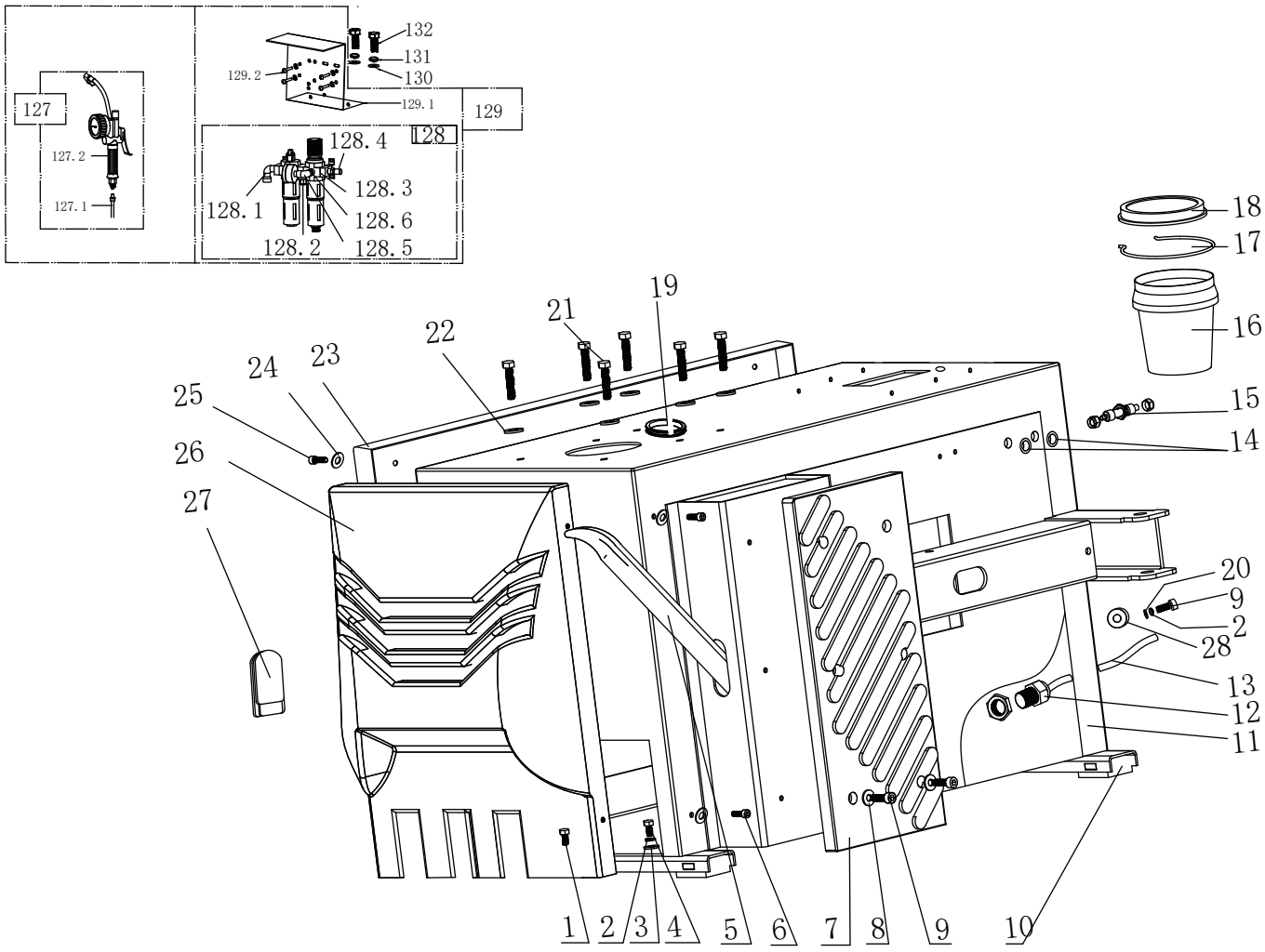
Drawing No.	Material No.	Specification name	Quantity
101	LS60030030	Hexagon socket M8*35	1
102	SJ11040020	Hexagon pressure rod cap S40	1
103	SJ11040022	Locking cap	1
104	TH80010014	Pressure rod spring Φ3.5*55*500	1
105	JG30020809K	Locking plate 12*60	1
106	JG30020972E	Locking locating pin	1
107	LM70010016	Nut M12	1
108	LS60030033	Hexagon head bolt M8*20	1
109	LS60030032	Hexagon head bolt M8*25	1
110	DQ40010006	Flat washer Φ8*24*2 mm	1
111	LM70010019	Nut M8	1
112	JG30020073P	Eccentric shaft	1
113	DQ40020004	Spring washer Φ8	2
114	DQ40010005	Flat washer Φ8*17*1.5	1
115	JG30020254M	Locking handle seat	1
116	JG30010702A	Hexagon rod birdhead manganese steel pad	1
117	ZH20010028L	Rocker arm	1
118	JG30020436K	Hexagon pressure rod	1
119	SJ11040006	Absorbing pad S40*50*10	1
120	SJ11040015	Mounting head infilled pad - rear	1
121	SJ11040014	Mounting head infilled pad - front	1
122	JG30020101N	Mounting head 3#	1
123	LM70020007	Roller pin M5*24	1
124	LS60010040	Hexagon socket female end set screw M12*16	4
125	JG30020065P	Mounting head flat washer Φ10.5*33*8	1
126	JG30020200M	Hexagon head bolt M10*25	1
127	LS60030023	Rocker arm pin	1
128	JG30020529K	Locking handle	1
129	JG30020810	Column adjusting handle	1
130	SJ11040009-1	Large washer of workbench	1
131	JG30020217M	Self-locking nut M16	1
132	LM70010003	Column hook	1
133	JG30020805	Column	1
134	ZH20010015L	Hexagon head bolt M10*60	4
135	LS60030017	Spring washer Φ10	4
136	DQ40020005	Flat washer Φ10*20*2	4

2. Large plate:



Drawing No.	material No.	Specification name	Quantity
301	SJ11040016	Work platform cover	1
302	LS60030002	Outer hexagon bolt M16 * 40	1
303	DQ40020008	Elastic washer ϕ 16	1
304	JG30020806	Claw (QPQ)	4
305	JG30020217	Working with large gaskets	1
306	ZH20010290M	Claw seat cap component (without IT)	4
307	JG30020667	Guide piece (C255 large plate) (polished)	4
308	LS60010017	Hexagonal socket head bolt M8 * 20	8
309	WJ27010191	Workbench (chrome plated) (C-shaped plate)	1
310	LM70020004	Elastic pin 5 * 16	8
311	JG30010939K	Seat bottom plate (universal)	2
312	JG30020137	Workbench cone sleeve (chrome plated)	1
313	ZH20010036	Pull component	4
314	ZH20010039	Square turntable component	1
315	JG30020072	Tie rod pin sleeve	4
316	DQ40010011	Flat washer ϕ 12 * 24 * 2	8
317	DQ40020006	Elastic washer ϕ 12	8
318	LS60030006	Outer hexagon bolt 12 * 80 (half tooth)	4
319	ZH20010287	C-type Claw Seat Assembly	2
320	JG30020064	Square turntable gasket	1
321	KH50010016	Card spring (for shaft) ϕ 65	1
322	KH50010004	Card spring (for shaft) ϕ 12	4
323	LS60030056	Outer hexagon bolt M12 * 35	4
324	JT17020108	Quick twist elbow 1/8- φ 8 * 5 (metal) with rotation	2
325	JT17020109	Quick twist straight through 1/8- ϕ 8 * 5 (metal)	2
326	PJ40010090	Clamping cylinder assembly 75 * 390	2
327	DQ40010039	Stainless steel anti loosening washer double-sided toothed butterfly shaped anti slip pad M8	8
326.1	LM70010008	Self locking nut M8	16
326.2	JG30030707	75 cylinder rear cover	2
326.3	SJ11010098	O-ring with a diameter of Φ 69 * Φ 2.65 (inner diameter * wire diameter)	4
326.4	LM70010016	Nut M12 (thin)	2
326.5	DQ40010011	Flat washer Ø 12 * 24 * 2	2
326.6	JG30030708	75 clamping cylinder piston	2
326.7	SJ11010101	Y-shaped ring YC75 80 degrees Φ 61 * Φ 76 * δ 6 (inner diameter * outer diameter * thickness)	4
326.8	SJ11010102	Guiding ring 75 * 70 * 6	2
326.9	SJ11010099	O-ring with a diameter of Φ 11.8 * Φ 1.8 (inner diameter * wire diameter)	2
326.10	WJ27010239	Cylinder rod screw 465	8
326.11	WJ27010237	Cylinder barrel 75 * 427	2
326.12	SJ11010100	Sealing ring UN20 * 36 * 8 (inner diameter * outer diameter * thickness)	2
326.13	WJ27010229	Copper sleeve Φ 20 * Φ 23 * δ 10 (inner diameter * outer diameter * thickness)	2
326.14	SJ11010084	O-ring with a diameter of Φ 19 * Φ 2.65 (inner diameter * wire diameter)	2
326.15	JG30030706	75 cylinder front cover	2
326.16	WJ27010238	Clamping cylinder piston rod 477	2

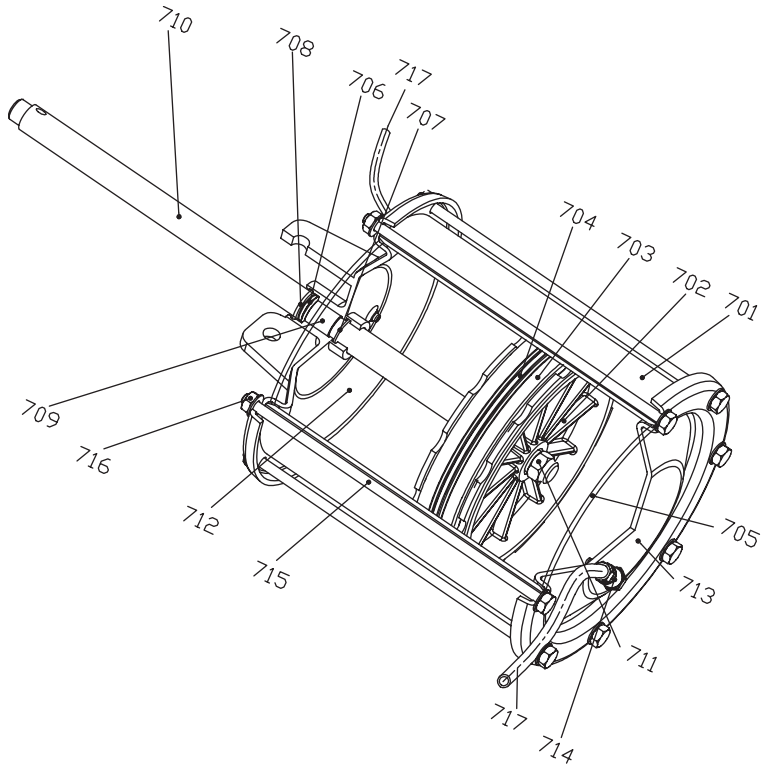
3. Box part:



Drawing No.	material No.	Specification name	Quantity
1	LS60030034	Outer hexagon bolt M8 * 16	1
2	DQ40020004	Elastic washer ϕ 8	4
3	DQ40010006	Flat washer ϕ 8 * 24 * 2	3
4	LS60030033	Outer hexagon bolt M8 * 20	3

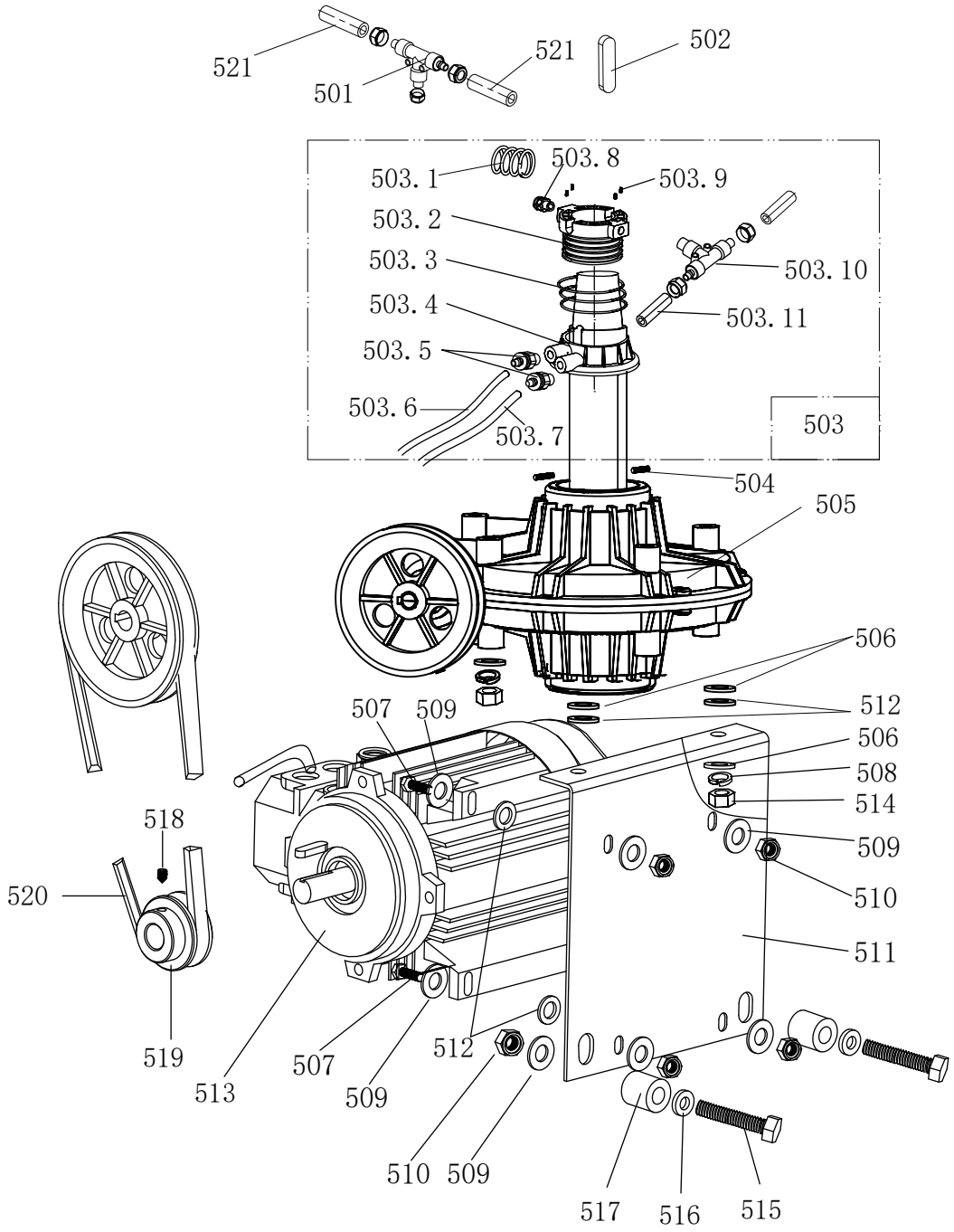
Drawing No.	material No.	Specification name	Quantity
5	WJ27010016-2	New pry bar 20 "(white three bend type)	1
6	LS60010023	Hexagonal socket head bolt M6 * 16	4
7	SJ11030002	Tire pressure rubber plate (211G)	1
8	DQ40010005	Flat washer ϕ 8 * 17 * 1.5	6
9	LS60010017	Hexagonal socket head bolt M8 * 20	7
10	SJ11040002	rubber stopper	4
11	JX10010001	Chassis (C211G)	1
12	WJ27010013	Cable screw PG13.5	1
13	XC19010059	Plug in power cord (national standard 3 * 1.5) 3.0m	1
14	SJ11040054	Protective coil φ 16	2
15	JT17010034	Quick twist partition straight through 2 * 8 * 5 (metal)	1
16	SJ11040211	Circular oil drum	1
17	SJ11040213	Oil box rack	1
18	SJ11040212	Circular oil box cover	1
19	SJ11040059	Coil protector φ45 (hollow)	1
20	DQ40010005	Flat washer ϕ 8 * 17 * 1.5	1
21	LS60030012	Outer hexagon bolt M10 * 160	6
22	DQ40010008	Flat washer ϕ 10 * 20 * 2	6
23	JG30010443	Left side panel	1
24	DQ40010004	Flat washer ϕ 6 * 12 * 1.5	6
25	LS60010020	Hexagonal socket head bolt M6 * 30	2
26	SJ11040127	Front cover (plastic)	1
27	SJ11040205	Glue block 40 * 60	1
28	SJ11040060	Coil protector φ45 (solid)	1
127	QD24010008	Air gun and watch assembly	1
127.1	JT17010110	Spring tube UC diameter 8 * 5- (2.5 meters) (black)	1
127.2	QD24010065	Pointer tire pressure gauge (domestic) (C21G1)	1
128	PJ40010081	Oil Mist Assembly	1
128.1	JT17010012	Quick plug elbow 1/4- φ 8 (plastic, black)	1
128.2	JT17010030	Quick plug straight through 1/4- φ 8 (plastic, black)	1
128.3	QD24010018	Two piece DFC2010 (16KG) oil mist generator	1
128.4	JT17020070	Quick connector PM20 (1/4 tooth)	1
128.5	JT17029121	1/8 internal tooth bend	1
128.6	JT17020119	1/8 external tooth direct copper joint	1
129	PJ40010082	Oil Mister Bracket Assembly	1
129.1	JG30020036	Oil mist holder bracket	1
129.2	LS60020009	Cross groove half round head with washer screw M4 * 10	4
130	DQ40010008	Flat washer ϕ 10 * 20 * 2	2
131	DQ40020005	Elastic washer ϕ 10	2
132	LS60030023	Outer hexagon bolt M10 * 25	2

4. Large cylinder assembly:



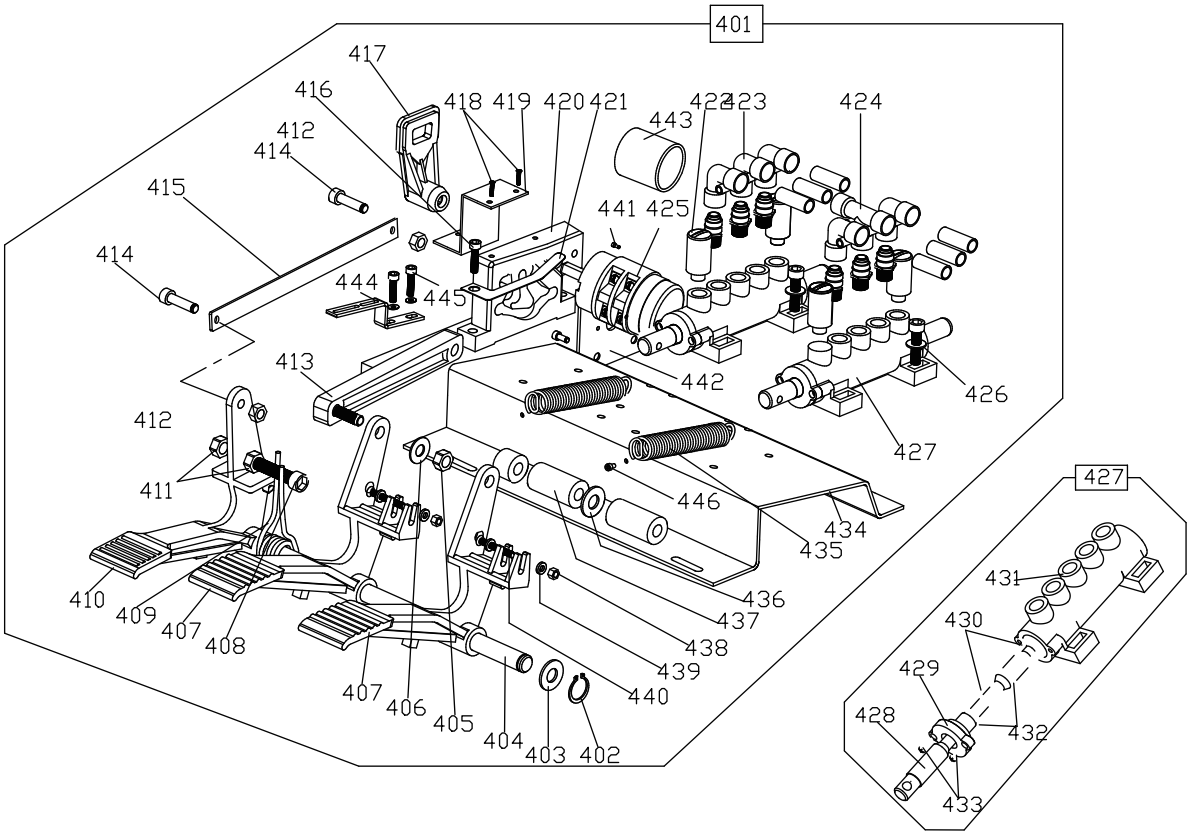
Drawing No.	Material No.	Specification name	Quantity
701	JG30010919E	Large cylinder barrel	1
702	WJ27010165	Piston	1
703	SJ11010088	V-ring	2
704	SJ11010087	Piston guide ring	1
705	SJ11010085	Sealing ring Ø182×2.65	2
706	SJ11010086	Skeleton dust ring	1
707	SJ11010084	Sealing ring Ø19×2.65	1
708	KH50010020	Φ30-hole clamp spring	1
709	WJ27010163	Self-lubricating composite bearing	1
710	WJ27010164	Piston rod	1
711	LM70010046	Hexagon heat nut M18*1.5*9 mm	1
712	ZH20010276M	Top cylinder head	1
713	JG30010918M	Lower cylinder head	1
714	JT17010010	With rotating quick-screw elbow 1/8-Φ8*5	2
715	LS60030055	Hexagon head bolt M8*230 mm	8
716	LM70010008	Non-slip locking nut M8	8
717	PAE1021-717	Air pipe Φ8*900 mm	2

5. Large cylinder assembly:



Drawing No.	material No.	Specification name	Quantity
501	JT17020111	Quick twist tee 3 * 8 * 5 (metal)	1
502	LM70020014	A-type flat key 10 * 40	1
503	PJ40010064-1	Rotating valve assembly	1
503.1	JT17010110-1	Spring tube UCφ8 * 5-2.5 meters (blue)	1/4
503.2	SJ11020009-1	Valve core (white)	1
503.3	SJ11010094	O-ring φ61.5 * 3.55	3
503.4	SJ11020008-1	Valve sleeve (white)	1
503.5	JT17010004	Quick plug straight through 1/8-ϕ8	2
503.6	QD24010043-1	Tracheal φ8 * 900 (red)	1
503.7	QD24010043-2	Tracheal φ8 * 900 (blue)	1
503.8	JT17020109	Quick twist straight through 1/8-φ8 * 5 (metal)	1
503.9	LS60010048	Internal hexagon concave end fastening screw 4 * 6	4
503.1	JT17020057-1	Quick twist tee 1/8-2 * φ8 * 5	1
503.11	QD24010047	Tracheal φ8 * 450mm	2
504	LS60010041	Internal hexagon concave end fastening screw 10 * 35	2
505	WL13010016	Worm gear box assembly (domestic sales) (318mm) (cast iron 100 teeth)	1
506	DQ40010008	Flat washer ϕ10*20*2	8
507	LS60030031	Outer hexagon bolt M8 * 30	4
508	DQ40020005	Elastic washer ϕ10	6
509	DQ40010006	Flat washer ϕ8 * 24 * 2	8
510	LM70010008	Self locking nut M8	6
511	JG30020211	Motor bracket 110V	1
511	JG30020212	Universal motor bracket (220V/380V)	1
512	SJ11040008	Motor rubber pad ϕ10 * 20 * 2	6
513	DJ21010005	Motor 60HZ/120V/1.1KW	1
513	DJ21010012	Motor 50HZ/220V~240V/1.1KW	1
513	DJ21010001	Motor 50HZ/380V/0.75KW	1
514	LM70010018	Nut (white) M10	6
515	LS60030027	Outer hexagon bolt M8 * 70 (full tooth)	2
516	DQ40010005	Flat washer 8 * 17 * 1.5	2
517	JG30020701	Shock absorber pad 1 (ϕ25 * ϕ8 * 35)	2
518	LS60010044	Internal hexagon concave end fastening screw M8 * 12	1
519	JG30020208	Motor pulley	1
520	SJ11020020	Multi wedge belt AV13 * 735 (with teeth)	1
521	QD24010045	Tracheal ϕ8 * 60mm	2

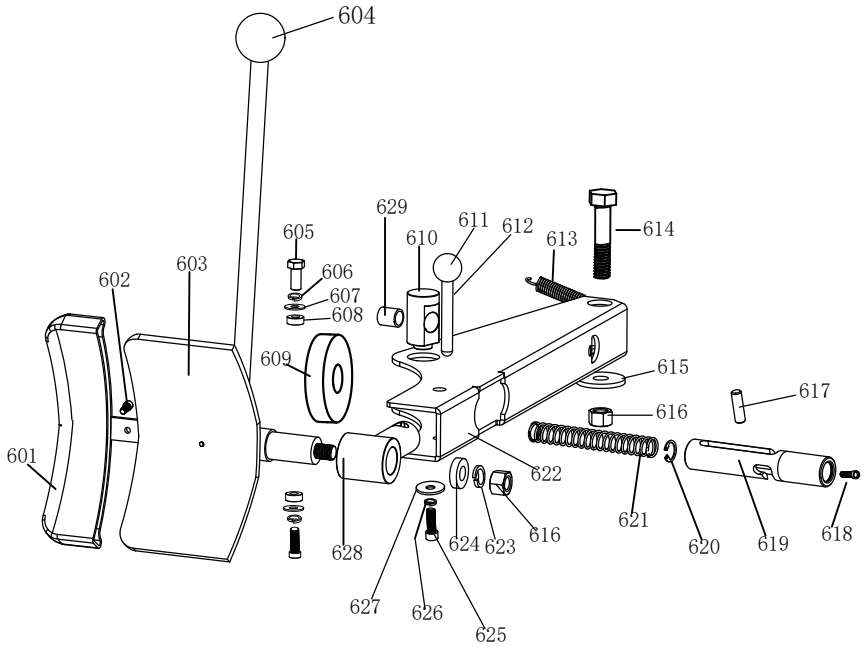
6. 3-pedal assembly:



Drawing No.	material No.	Specification name	Quantity
401	KH50010004	Clamp spring for axleΦ12	2
402	DQ40010033	Flat washer Φ12*24*1.5	2
403	JG30020243M	Axle Φ12*282	1
404	LM70010008	Self-locking nut M8	3
405	DQ40010005	Flat gasket Φ8*17	1
406	WJ27010041	Large pedal	2
407	LS60030029	Hexagon head bolt M8*70	1
408	TH80010026	Pedal torsion spring = Φ3.5*20.4*70	1
409	WJ27010041	Large pedal	1
410	LM70010019	Nut M8	2
411	SJ11040081	Cam connecting rod	1
412	JG30010799M	Tension spring position limiter	1
413	LS60010023	Hexagon socket round head bolt M6*16	3

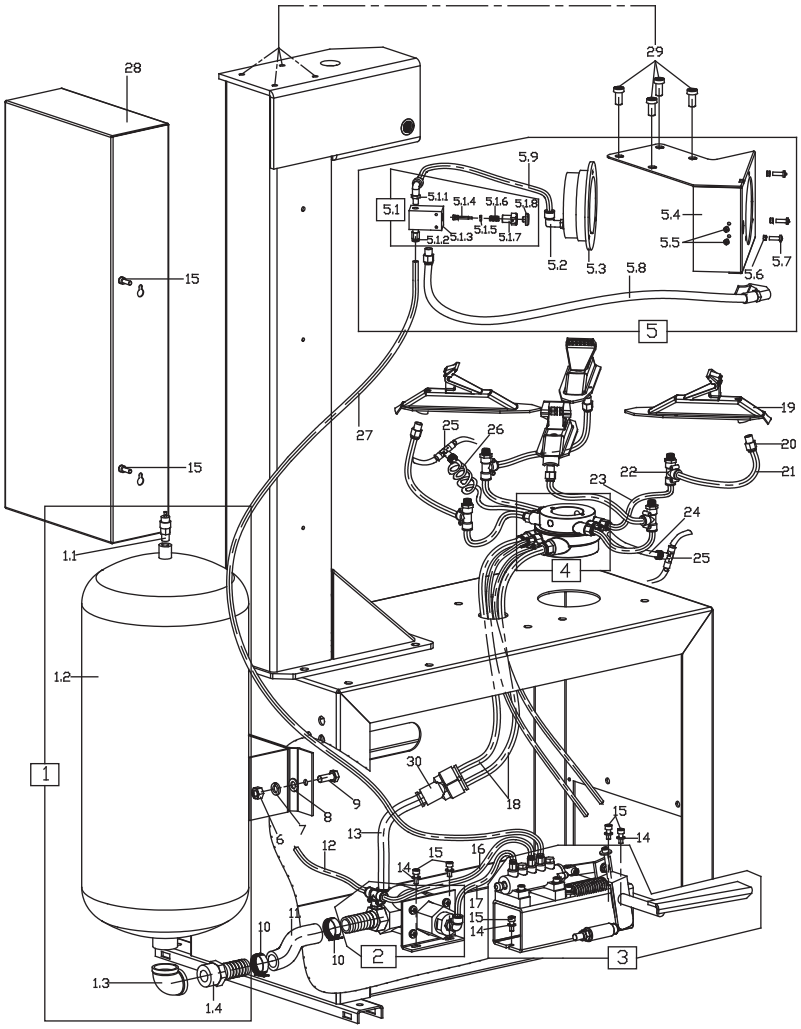
Drawing No.	material No.	Specification name	Quantity
413.1	DQ40010004	Flat washer Φ6*12*1.5	4
414	LS60010021	Hexagon socket countersunk head bolt M8*20	2
415	JG30020990M	Switch support 2	1
416	SJ11040081	Hexagon socket round head bolt M6*25	2
417	SJ11040010	Switch support	1
418	LS60020015	Cross recessed cup head tapping screw 3*10	2
419	JG30010800M	Cam cove	1
420	SJ11040001	Cam body	1
421	TH80010028	Cam spring piece	1
422	JG30020989	Switch support	1
423	PJ40010053	Five-way valve cover	2
423.1	LS60020015	Cross recessed cup head tapping screw 3*10	4
423.2	SJ11010011	O-ring 12*20*4	12
423.3	SJ11010044	Five-way valve body	2
423.4	SJ11040045	Five-way valve spacer	10
423.5	SJ11040046	Five-way valve cover	2
423.6	JG30020811X	Five-way valve rod 12 mm	2
424	QD24010045	Tracheal Φ 8 * 800 mm	1
425	LS60010021	Hexagon socket round head bolt M6*25	9
426	JT17010010	Quick-plug elbow 1/8-8	6
427	DQ40010004	Flat washer Φ6*12*1.5	9
428	ZH20010051M	Pedal bracket assembly welding	1
429	TH80010050	Pedal tension spring	2
430	DQ40010010	Flat washer Φ12*24*1.5	8
431	JG30020269M	Shaft sleeve	1
432	LM70010011	Self-locking nut M4	2
433	DQ40010002	Flat washer Φ4	2
434	LS60020017	Cross recessed countersunk head screw M4*35	2

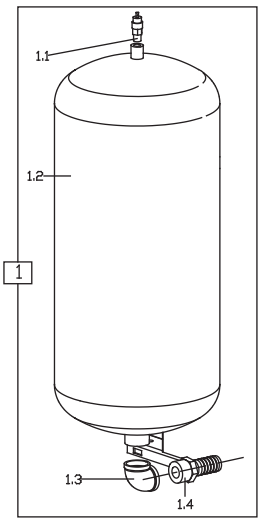
7. Shovel arm assembly:

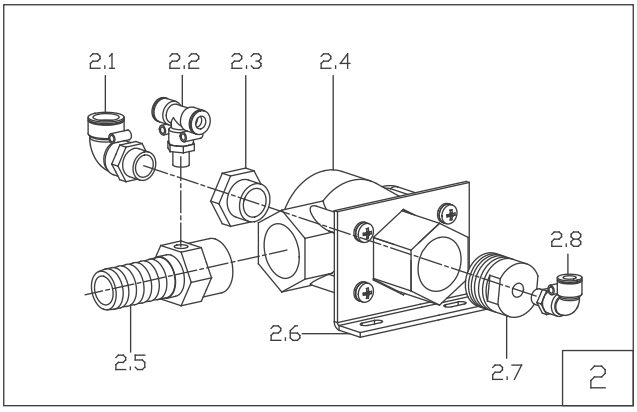


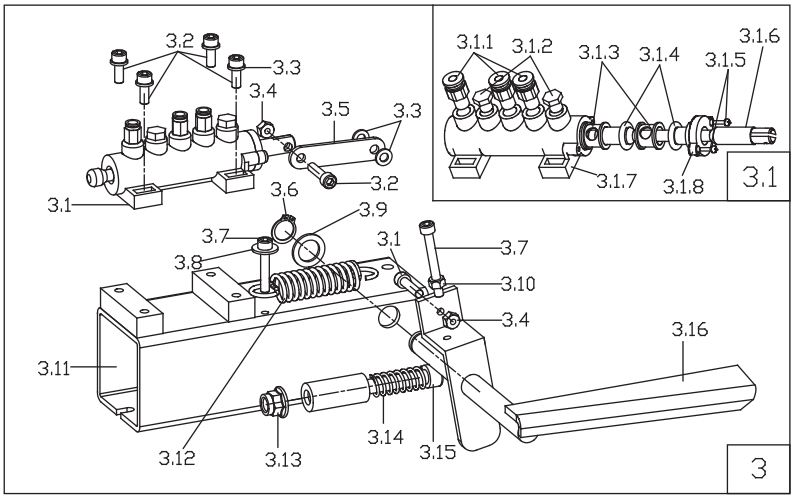
Drawing No.	material No.	Specification name	Quantity
601	SJ11040034	Tire pressure shovel cover	1
602	LS60010024	Hexagonal socket head bolt M6 * 10	1
603	ZH20010309	Tire press shovel	1
604	SJ11040243	Black ball handle M16 * 50	1
605	LS60030056	Outer hexagon bolt M12 * 35 grade 8.8 black	2
606	DQ40020006	Elastic washer φ12	2
607	DQ40010011	Flat washer φ 12 * 24 * 2	2
608	JG30011108	Large cylinder rotating pin sleeve	2
609	SJ11040003	Shovel arm rubber pad (thin)	1
610	JG30020203	Large cylinder rod sleeve	1
611	SJ11040062	Black ball handle 10 * 35	1
612	JG30010844	Pin Pin	1
613	TH80010021	Shovel arm tension spring φ2.5 * 20 * 75	1
614	LS60030001	Outer hexagon bolt M16 * 100	1
615	DQ40010012	Flat washer φ16 * 30 * 2	1
616	LM70010003	Self locking nut M16	2
617	LM70020040	Cylindrical pin 10 * 30	1
618	LS60010023	Hexagonal socket head bolt M6 * 16	1
619	WJ27010141	Adjustment sleeve for large cylinder piston rod	1
620	KH50010017	Hole clamp spring ϕ 20	1
621	TH80010048	Adjusting sleeve compression spring 1.5 * 19.5 * 125	1
622	ZH20010385	Shovel arm assembly weldment (C233H)	1
623	DQ40020008	Elastic washer φ16	1
624	JG30020217	Working with large gaskets	1
625	LS60030033	Outer hexagon bolt M8 * 20	1
626	DQ40020004	Elastic washer φ8	1
627	DQ40010007	Flat washer φ 8 * 30 * 2	1
628	ZH20010333	Tire pressure shovel connecting shaft assembly	1
629	JG30011563	Rubber sleeve for large cylinder rod	1

8. IT installation:





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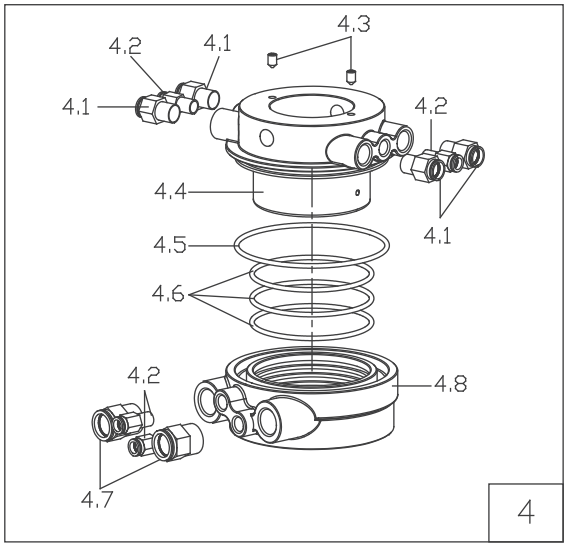
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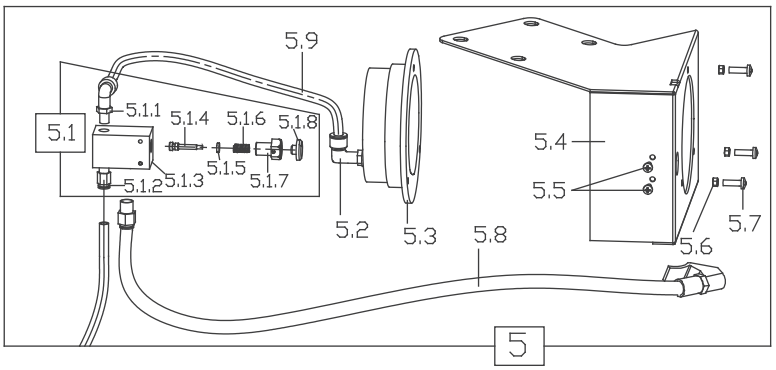
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Drawing No.	Material No.	Specification name	Quantity
1	ZJ50010022	Air Storage Tank Assy (28L)	1
1.1	FM18010002	Safety valve (CE) 12kg	1
1.2	QG12030001	Tank (28L)	1
1.3	JT17020071	L-Union IT. I7-1"	1
1.4	JG30020228	Sleeve joint 1 without hole	1
2	ZJ50010017	Quick exhaust valve assembly	1
2.1	JT17010058	Quick Insert Straight Connector 1/2-Φ16 (plastic-black)	1
2.2	JT17010017	Quick Plug Tee 1/8-2*Φ8 (plastic, black)	1
2.3	JT17020074	Stainless Steel Refill 1"-1/2"	1
2.4	FM18010008	Quick Exhaust Valve KGB/T-L25	1
2.5	JG30020229	Sleeve fitting 2 with 1/8 hole	1
2.6	JG30020024	Quick vent valve support 1	1
2.7	JG30020295	Core (2) IT. 1-1/8	1
2.8	JT17010010	Quick insert elbow 1/8-Φ8 (plastic, black)	1
3	ZJ50010016	Air blowing pedal assembly	1
3.1	PJ40010051	Five way air blowing valve assembly	1
3.1.1	JT17010004	Quick plug straight 1/8-Φ8 (plastic, black)	3
3.1.2	JT17020015	External hexagonal plug 1/8 (copper)	2
3.1.3	SJI1040045	Five-way valve sleeve	5
3.1.4	SJ11010011	O-ring 12 * 20 * 4	6
3.1.5	LS60020038	Pan head self tapping locking screw M4 * 20	2
3.1.6	JG30020057	Blowing five way valve rod	1
3.1.7	SJI1040044	Five way valve body	1
3.1.8	SJI1040046	Five way valve cover	1
3.2	LS60010022	Hexagon socket head bolt M6 * 20	6
3.3	DQ40010004	Plain washer Φ6*12*1. 5	6
3.4	LM70010009	Self-locking nut M6	2
3.5	JG30020515	Five-way valve connecting rod	1
3.6	KH50010006	Circlip spring (for shaft) Φ6	1
3.7	LS60010054		2
3.8	DQ40010006	Plain washer Φ8*24*2	1
3.9	DQ40010012	Plain washer Φ16*30*2	1
3.10	LM70010020	Nut (White) M6	1
3.11	ZH20010057	Support block	1
3.12	TH80010020	Foot opposite ear tension spring	1
3.13	LM70010007	Self-locking nut M10	1
3.14	TH80010009	Spring Φ2 * 15 * 58	1
3.15	JG30020676	Locating pin	1
3.16	ZH20010058	Foot pedal	1
4	PJ40010031	IT distribution valve assembly	1
4.1	JT17010006	Quick plug straight 1/4-Φ10 (plastic, black)	4
4.2	JT17010004	Quick plug straight 1/4-Φ8 (plastic, black)	4

Drawing No.	Material No.	Specification name	Quantity
4.3	LS60010047	Hexagon socket set screw with concave point 5*8	2
4.4	WJ27010172	Valve core	1
4.5	SJ11010091	O-ring Φ85*2.65	1
4.6	SJ11010090	O-ring Φ67*2.65	3
4.7	JT17010106	Quick plug straight 3/8-Φ12 (plastic black)	2
4.8	WJ27010173	Distribution valve sleeve	1
5	ZJ50010018	Inflation meter assembly	1
5.1	JG30020762	Through hole seat assembly	1
5.1.1	JT17010010	Quick plug elbow 1/8-Φ8 (plastic, black)	1
5.1.2	JT17010004	Quick plug straight 1/8-Φ8 (plastic black)	1
5.1.3	JG30020762	Through-hole seat	1
5.1.4	WJ27010037	Knob pressing shaft	1
5.1.5	SJ11010038	O-ring Φ4*1.8	1
5.1.6	TH80010011	Spring Φ0.8*7.5*18	1
5.1.7	WJ27010036	Knob valve body	1
5.1.8	WJ27010038	Press button	1
5.2	JT17010010	Quick plug elbow 1/8-Φ8 (plastic, black)	1
5.3	QD24010015	Pressure gauge 12kg	1
5.4	JG30030704	New air injection meter case	1
5.5	LS60020009	Cross recessed oval head screw M4*10	2
5.6	LM70010021	Nut (white) M5	3
5.7	LS60020001	Cross recessed large flat head screw M5*16	3
5.8	QD24010012	Rubber connecting pipe (with clamp) 1.5m	1
5.9	QD24010001	Air pipe M8*5	1
6	LM70010007	Self-locking nut M10	2
7	DQ40020005	Elastic Washer Φ10	2
8	DQ40010008	Flat washer Φ10*20*2	2
9	LS60030023	Outer hexagon bolt M10*25	2
10	WJ27010015	Pipe clamp 38mm	1
11	QD24010005	High pressure pipe Φ35*25	1
12	QD24010001	Trachea M8*5	1
13	QD24010035	Trachea M16*12	1
14	DQ40010004	Flat washer Φ6*12*1.5	5
15	LS60010023	Hexagon socket head bolt M6*16	5
16	QD24010001	Trachea M8*5 (intake to five-way valve)	1
17	QD24010001	Trachea M8*5 (five-way valve to quick-discharge valve)	1
18	QD24010004	Trachea M12*8	2
19	ZH20010289	Jaw seat cap with IT card assembly welding	4
20	JT17010006	Quick Plug Straight 1/4-Φ10 (plastic, black)	4
21	QD24010003	Trachea M10*6.5 (Tee to jaw seat cap)	4
22	JT17010048	Quick plug tee 1/8-2*Φ10 (plastic)	4
23	QD24010003	Trachea M10*6.5 (air distribution valve to tee)	4

Drawing No.	Material No.	Specification name	Quantity
24	QD24010001	Trachea M8*5	1
25	JT17020111	Quick twist tee 3*Φ8*5	2
26	JT17010096	Spring Tube UC Φ8*5-5 (Black)	0.25
27	QD24010001	Trachea M8*5 (five-way valve to pump meter)	1
28	ZH20030006	Storage box	1
29	LS60010011	Hexagon socket head bolt M10*20	4
30	JT17010107	Quick-insert Tee Y Type Φ16-Φ12*2 (Plastic. Black)	1