

TYRE CHANGER

INSTRUCTION & MAINTENANCE MANUAL

We follow the way that wheel moving!



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

TYRE CHANGER INSTRUCTION MANUAL

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Tyre Changer

Warning

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

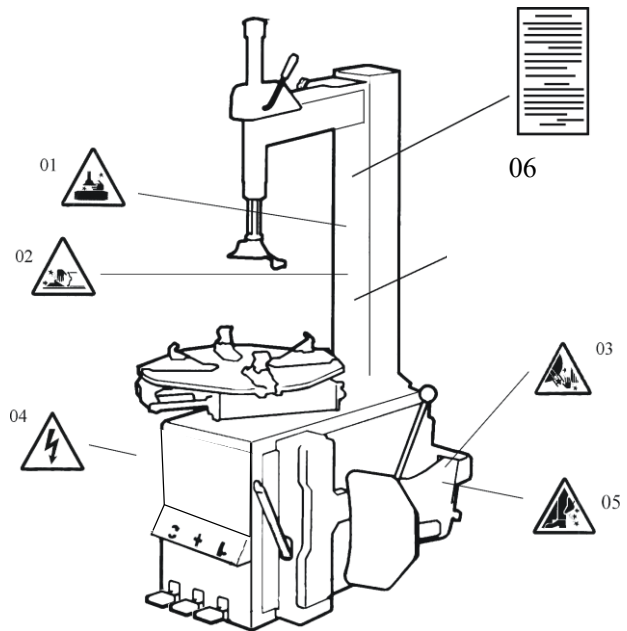
1. Introduction:

Application Range: The automatic tyre changer is especially designed for demounting / mounting tyres from wheel rims.

Caution: Please use the machine 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.

Safety regulation: Use of this machine is especially reserved to trained and qualified professional persons, those who already read the introduction manual carefully, or someone have the experience for operating similar machinery. Any changes and beyond the scope of use on this machine without manufacturer's permission or do not according to the manual, 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)



2. Safety Warnings:

- 01 Don't put hands under the Mounting head/demounting head during operation;
- 02 Don't put hands between the jaws during operation;
- 03 Don't put hands in the tyre bead when demounting the tyre;
- 04 Make sure and to check the system is equipped with a good grounding circuit;
- 05 Don't put feet between the Bead Breaker shovel and the body during operation;
- 06 Warning instruction

Security warning labels

Caution:

When the security warning labels are defaced or off, please recovery them in time!
Do not allow to operate when the security warning labels are missed or imperfect.
Do not allow to set any objects to obscure the security warning labels.

Clients can self-set the warning labels (as right picture show) at any necessary positions.



3. Technical data

External locking rim dimensions	10~21 "
Internal locking rim dimensions	12~24 "
Max. Wheel diameter	1040mm (41 ")
Max. Wheel width	355mm(14 ")
Working Pressure	8-10bar
Power supply	110V (1ph)/ 220V (1ph)/ 380V (3ph)
Optional Motor power	0.37 kw
Max. Rotating Torque (Turntable)	1078 Nm
Overall Dimension	960*760*930 mm
Noise Level	<75dB

Remark:

Rim dimensions defined at above table are based on the iron wheel rims. Aluminum rims are thicker than the iron wheel rims, so here above rim dimensions are just for the reference.

4. Transport:

When transporting, the machine should be with original package and placed according to the mark on the package. For the already packaged machine should be handled with a corresponding tonnage forklift for loading and unloading. The location to insert the fork feet shown as **Fig 1**

5. Unpacking & Inspection:

Pull out the nail which is nailed on the plate with tip jaw; unpack the carton and plastic cover. Check and make sure all parts shown on the spare parts list are included. If any parts are missing or broken, please do not use the machine and contact the manufacturer or dealer ASAP.

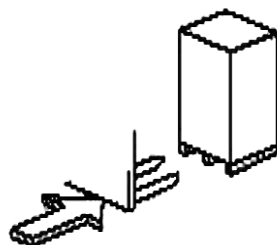


Fig 1

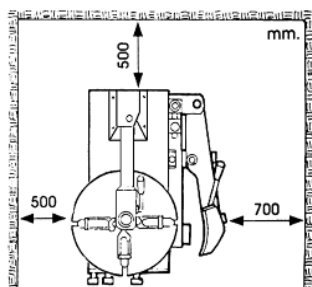


Fig 2

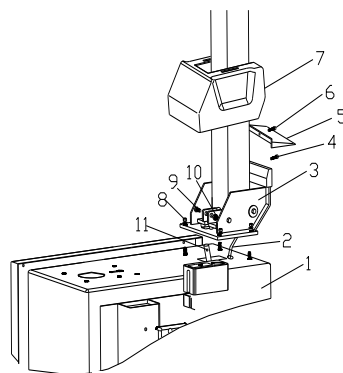


Fig 3

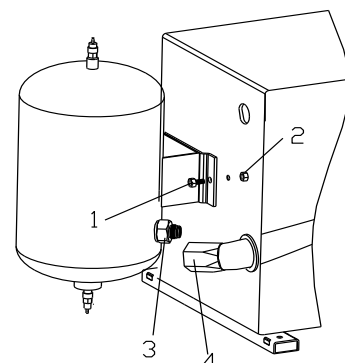


Fig 4

6. Workplace requirements:

Choose workplace in compliance with safety regulations. Connect power supply and air source according to manual and workplace must have good air condition; in order to make the machine run well, its workplace requires at least clear space from each wall shown as **Fig 2**. If installing it outdoor, it must be protected by roof against rain and sunshine.

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

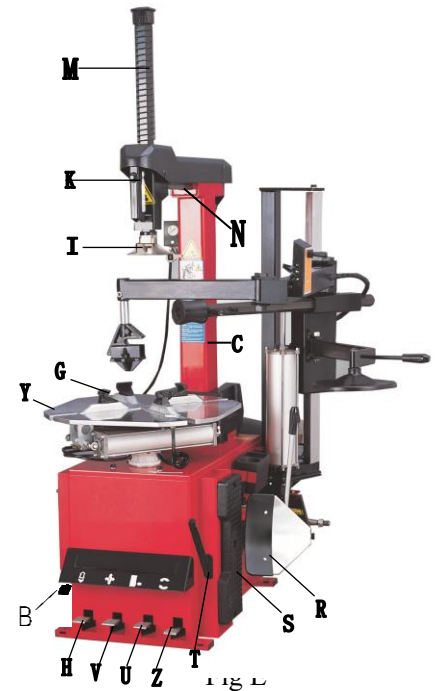
7. Position and installation:

7.1 Install the column (accessories details refer to the exploded drawing)

- 1) Tools preparation
- 2) Place the tilting seat (3, Fig 3) on the body (1, Fig 3) with 4 bolts (M12), push air hose (2, Fig 3) through the hole of the column. Tighten 4 self-locking nut (8, Fig 3).
- 3) Insert screw (9, Fig 3) into the holes of both column and tilting cylinder shaft (11, Fig 3), tighten it with self-locking nut (10, Fig 3).
- 4) Unscrew the two bolts on the left cover and remove the cover, connect air hose (2, Fig 3) previously mentioned to the side holes which control the tilting 5-way valve. Fix the left cover.
- 5) Fix the plastic cover (7, Fig 3) with two bolts (4, Fig 3).
- 6) Mount the plastic back cover (5, Fig 3) on the column with screw (6, Fig 3).

7.2 Install the air tank assembly

- 1) Unscrew the left cover, fix air tank with machine body by bolt(1) and nut(2)
- 2) Fix metal pipe (4) with connector (3), make sure there is no air leakage, shown as Fig 4.



8. Electricity and Pneumatic connections:

Warning: Before installation and connection, check to be sure that the electricity power supply corresponds to the machine technical data. All the installation of electric and pneumatic devices must be operated by a professional electrician.

Connect the compressed air connector which is on the machine right side with compressed air system. The electric grid that the machine connects to must have fuses protection device and good outer cover grounding protection. Install the leakage automatic air switch on the main power supply, leakage current is set at 30A

Caution: No power plug for this machine, the user should self-connect one power plug no less than 16A as well as in line with the machine voltage. Or directly connect with the power supply **according to the above requirements**.

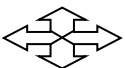
9. Adjusting operation:



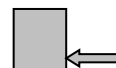
Tilting pedal (H)



Turntable Rotation pedal (Z)



Jaws open and close pedal(V)



Bead Breaker pedal(U)



Rapid Tire Inflation Pedal (B)

Please note: below operation refer to **Fig E**

Tread the Turntable Rotation Pedal (Z), Turntable (Y) clockwise rotation;

Lift up the Turntable Rotation Pedal (Z), Turntable (Y) counterclockwise rotation.

Tread Bead Breaker Pedal (U), Bead Breaker shovel (R) compress; release Bead Breaker Pedal (U), Bead Breaker shovel (R) back to original position.

Tread totally down Jaws open and close Pedal (V), four clamps (G) on the turntable open; Tread again, four clamps (G) close. When the pedal is in the middle position, the four clamps stop moving.

Depress pneumatic locking button (K) to lock the Slide arm (N) and Vertical arm (M).

Tread the Bead Breaker pedal (H), the tilting column (C) backwards down; depress again, the tilting column return.

Tyre changer operation is consisted of three parts:

- 1) Demounting the tyre bead
- 2) Demounting the tyre
- 3) Mounting the tyre

Caution: Before any operations, don't wear loose clothing and wear protective hat, gloves, and skid-proof shoes. Ensure to exhaust the air in the tyre completely, and remove all the wheel weights from the rim.

9.1. Breaking the tyre bead:

Ensure to exhaust the air in the tyre completely, place the tyre against the rubber buffer (S). Bring the shovel (F) against the bead about 10mm from the edge of the rim shown as Fig 5. Depress Bead breaker Pedal (U) to push paddle into tyre. Repeat the above operations on different positions around the tyre and both sides of tyre until tyre bead is released completely.

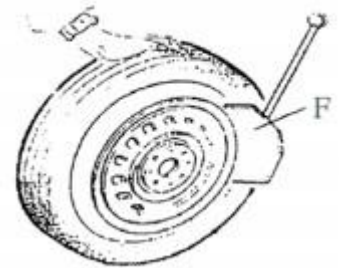


Fig 5

9.2. Demounting the tyre :

Ensure to remove all the weights on the wheel rim and to exhaust the air in the tyre completely before this operation. Apply lubricating grease (or similar lubricant) around the tyre bead. Without the lubricant may lead to badly wear and tear on tyre.

Clamp the wheel methods shown as below regarded to the ruled dimension:

a- to clamp the wheel from outside:

Depress the Jaws open and close Pedal (V) halfway down to middle, positioning for the four clamps (G) by reference scale on the Turntable (Y); put the tyre on turntable, hold the rim, and depress the Jaws open and close Pedal (V) until the wheel is secured by the jaws.

b- to clamp the wheel from inside:

Positioning for the four clamps (G) and let them all closed. Put the tyre on the turntable and depress the Jaws open and close Pedal (V) to open the clamps thereby lock the wheel in place.

Caution: Check to make sure the wheel firmly secured by the four clamps before next step.

Lower the Vertical Arm (M) until the Mounting head/demounting head (I) rests next to the edge of the rim, flip pneumatic locking button (K) to lock the Vertical Arm (M) and Horizontal arm in position, and control the distance from Mounting head/demounting head to the edge of wheel rim about 2-3 mm. Insert the Lifting Lever (T) between the tyre bead and the front section of the mounting head/demounting head (I), and move the tyre above the mounting head/demounting head as shown as Fig 6.

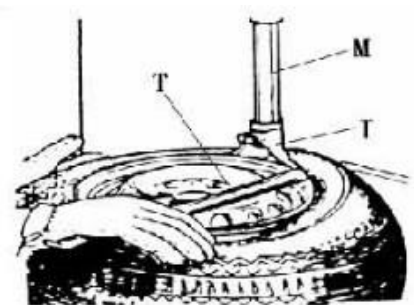


Fig 6

Caution: Chains, bracelets, loose clothes and anything else close to the rotating parts will bring danger to the operator.

With the Lifting Lever held in position, depress the Turntable Rotation Pedal (Z), rotate the Turntable (Y) in a clockwise direction until the tyre is completely separated from the wheel rim.

For the other side tyre demounting, keep using the lifting lever to lift the tyre, make the other side tyre separated from the wheel rim. Depress the Tilting pedal (H), the column backward down, take out the tyre.

9.3. Mounting the tyre :

Caution: Check to make sure that the tyre and the wheel rim are of same size before mounting the tyre.

To avoid any damage on tyre, lubricate the tyre bead and the wheel rim with the lubrication recommended by manufacturer. Put on the tyre and check the situation.

Caution: When clamp the wheel rim, don't put your hands on the wheel rim to avoid injury during this operation.

Lock the Hexagonal Vertical Mounting Arm, put the tyre on the rim, let the Rocker Arm back to place as demounting the tyre. And let one side of tyre down bead above the rear section of the Mounting head/demounting head, the other side under the front

section of the Mounting

head/demounting head.

Suppress the tyre with

hands or help arm, and

then spin the turntable for

mounting the tyre down bead.

Repeat the above operation for mounting the tyre up bead. (Fig 7)

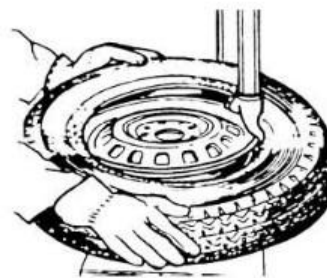


Fig 7

10. Help Arm 006

The help arm 006 is an auxiliary device for tire changer, it is used to help to demount and mount tires.

Before any operation of this machine, the operator is requested to read the manual carefully. Do not attempt any operations that are not stated in it. Manufacturer will not be responsible for any injury or damage caused by improper operation. Please keep the manual handy for consulting.

10.1 Technical Data

Work Pressure	8~10 bar
Weight	80kg
Package dimension	1230*450*350mm
Noise Level	LpA<75dB



10.2. Safety Regulations

This device is especially reserved to trained professional personnel or somebody who has experiences on mechanical operation and read this manual carefully. This device must be used together with our tire changers, we are not sure it can work with others. Manufacturer won't be responsible for any unauthorized modification.

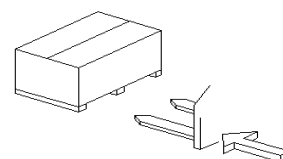


Fig 8

10.3. Installation

Notice!

The installation of this auxiliary device should be done by professional personnel.

Before assembly, disconnect the device from power supply and air source.

10.3.1. Transport

Move the device with a forklift truck as illustrated in Fig 8.

10.3.2. Unpacking

When unpacking, check and make sure all parts shown on the packing list are included. If any parts are missing or broken, please call the manufacturer or the dealer asap. Please keep the package out of children's reach.

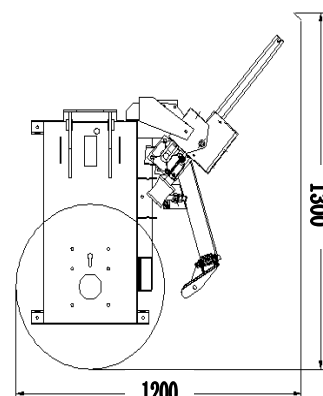


Fig 9

10.3.3. Workplace Requirement

Fig 9 shows the minimum distance (cm) from walls after assembly this auxiliary device. Please choose the right place to install it.

10.3.4 Assembly

- 1) Disconnect the tire changer from power supply and air source.
- 2) Install the column 3 with screw 1 and 2; install the support 5 of the auxiliary arm with screw 4; (Fig 10)
- 3) Install the help arm 6 with nut 7 and screw 9, then tighten 4、7、8、9 (Fig 10 、 Fig 11) ;
- 4) Install the Rotating arm (A)、 Hexagonal horizontal arm (B) and Tire lifting roller support (C) separately on the tire changer;(Fig 12)
- 5) Install the tire lifting roller (D)、 the switch (E)、 tire pressing head (F) and tire pressing roller(G) separately on the tire changer;(Fig 12)
- 6) Connect the air hose to the corresponding joint through the rear hole of the body.

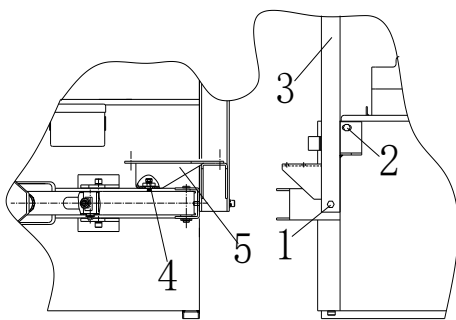


Fig 10

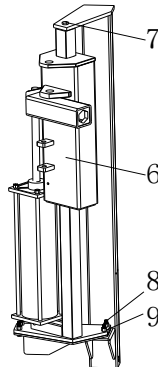


Fig 11

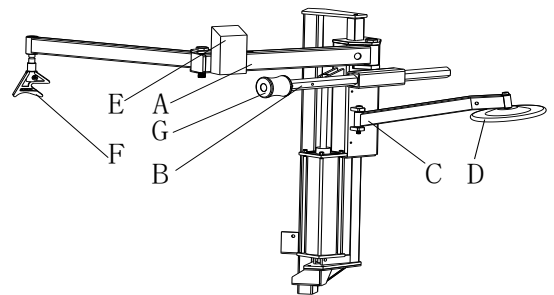


Fig 12

10.4.Functional Parts

Fig 12 shows functional parts to the 006 device:

- | | |
|--------------------------------|-----------------------------|
| A. Rotating arm connector | B. Hexagonal horizontal arm |
| C. Tire lifting roller support | D. Tire lifting roller |
| E. Raise-fall control assembly | |
| G. Tire pressing roller | |

10.5. Trial operation

The 006 device must connect with the air compressor, and the air pressure from 8 bars to 10 bars is desirable.

10.6. Operations

Mounting and demounting big flat tire is difficult work. By the help of 006 help arm to mount/demount the tire from the tire bead will make the operation easier. It is a good helper for tire changer.

10.6.1. Fixing The Tire

Loosen the bead according to the manual. Clamp the tire from outside, tread the corresponding pedal to open the jaws;

Put the tire on the turntable; Tread the corresponding pedal to close the jaws until they near the rim.

10.6.2. Demounting The Tire

- 1. Generally speaking, tire is very tight. Loosen the beads with the tire pressing head first (or using the

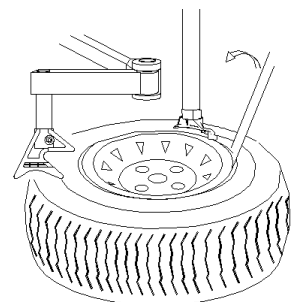


Fig 14

bead breaker if it too tight to loosen).

Pull out the Hexagonal horizontal arm; let the tire pressing roller above the tire without collision.

Lower the tire pressing roller lower with the switch handle to press the tire. Tread the pedal to rotate the turntable. Loosen the bead during this procedure. **(Fig 13)**

Caution: Lubricate the tire pressing head (upper) and the bead before the operation.

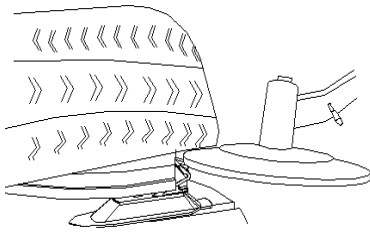


Fig 15

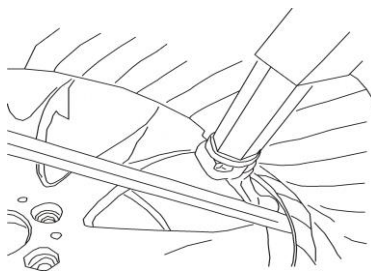


Fig 16

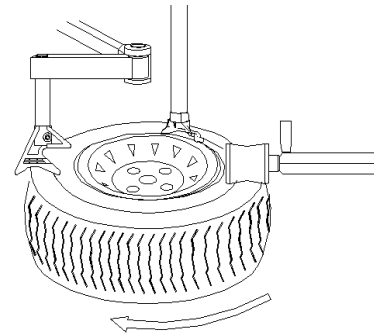


Fig 17

-2. Demounting the upper bead

a- Move the mounting head near the edge of the rim, rotate the tire pressing arm to move the tire pressing block above the tire, press the switch handle to depress the tire, and insert the lifting lever in the clearance between the tire and the rim, then hang the bead on the mounting head. **(Fig 14)**

b- Raise the auxiliary arm, rotate the tire pressing head to the opposite. Press the tire with the switch handle to create enough space.

c- Tread the power supply pedal to rotate the turntable. With the help of the tire pressing head, the upper tire bead is detached.

d- Raise the help arm to move the tire pressing block to its non-working position.

-3. Demounting the bottom bead

Turn the roller support and move it under the tire, but don't touch it with the rim.; **(Fig 15)** Tread the power supply pedal to rotate the turntable, meanwhile, lift help arm gradually to loosen tire and completely demount the bottom bead.

Caution: The roller support can't be used for all tires, some tires need following operation: Move the mounting head above the rim; Insert the lifting lever in the clearance between the bottom tire bead and the rim, have the tire hung on the mounting head(Fig 16); Tread the power supply pedal to rotate the turntable. With the help of the mounting head, the tire is detached completely.

10.6.3. Mounting the tire

Lubricate the tire bead and rotate the turntable, mount the bottom bead with the mounting head;
Pull the hex rod out, press the upper bead under the mounting head 5mm with the tire pressing roller, rotate the rotating arm and move the tire pressing block above the tire;
Don't touch with the rim in the operation, or it causes damage on the rim due to friction.

Tread the power supply pedal to rotate the turntable and the tire pressing block, lower the help arm to press the tire under the rim. Mount the tire with the mounting head. Please pay attention to the safety in the process of operation.

(Fig 17)

11. Inflating the tire :

Importance: It is very dangerous during inflating operation, take carefully and comply with instruction. When inflating, it will turn to be extremely dangerous if problems happen to tyre or rim. The possible burst force tire goes upward and outward, the big power may cause injury or death of the operator or the people around.

Tyre may burst caused by following:

- 1) The wheel rim and the tyre are not of the same size;
- 2) The tyre or the wheel rim is damaged;
- 3) The pressure of tyre inflation is over the max. pressure recommended by manufacturer;
- 4) The operator fail to comply with the safety regulation;

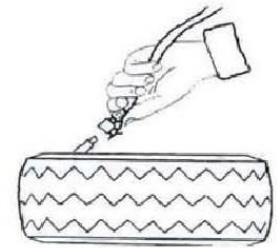


Fig 18

Please operate as follows:

- 1) Remove the valve cap from the valve stem;
- 2) Check to make sure the air nozzle is pressed down completely over the threads of the valve stem.
- 3) Check to make sure that the tyre and the wheel rim are of the same size;
- 4) Lubricate both the tyre bead and the wheel rim, additional lubrication is required if needed;
- 5) Inflate the tyre with break, while inflating, check the pressure listed on the pressure gauge, also check whether the bead is fixed or not. Repeat operation above until the bead is secured; you need take special steps when inflating convex rim or double convex rim;

- 6) Continue inflating and check the air pressure frequently until to reach the required pressure.

Note: Never exceed the max. inflation pressure given by the tyre manufacturer.

Keep hands and your body away from inflating tyres.

Only specially trained persons are allowed to perform the operations, do not allow other to operate or be near the tyre changer.

12. Moving machine:

Please use forklift to move the machine. Disconnect the tyre changer from the electricity power supply and pneumatic power supply, lift the base board and insert the feet of forklift. Then mount the tyre changer machine to a new position and fix it tightly.

Note: the place chosen for fixing the tyre changer must meet the safety regulation.

13. Maintenance:

Caution: only the professional persons can do the maintenance. To prolong the machine's life, maintain the machine timely according to the manual. Otherwise, it will impact the reliability of the machine or even cause injury to operator and others nearby.

Caution: before performing any maintenance, disconnect the tyre changer from the electric power supply and pneumatic power supply, and depress the Jaws open and close Pedal or Turntable Rotation Pedal for 3~4 times to evacuate all compressed air from the machine. Damaged parts must be replaced by professional persons with the spare parts provided by manufacturer.

Fig 19

Clean the machine once every day after work. Clean the dirt on the turntable with diesel oil once per week and lubricate the slides and clamps.

Following maintenance must be done at least once per month:

Check oil level in Oil Fog Maker, please be filled with SAE30# oil if need.

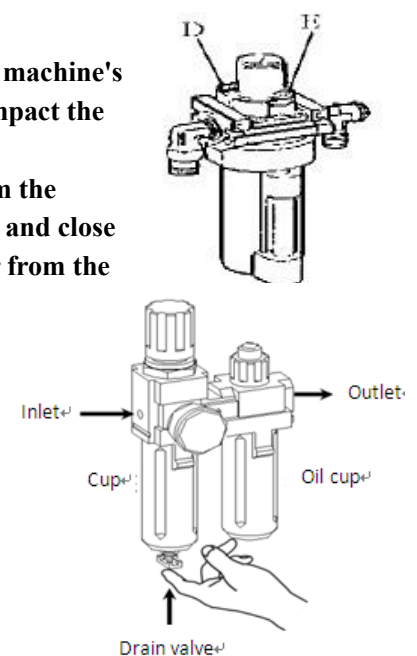


Fig 19-1

Unscrew with hex wrench (E). Based on connection of compressed air, first to depress Jaws open and close Pedal or Turntable Rotation Pedal 5-6 times, and then check whether oil in Oil Fog Maker drops down a drip of oil. For continuous operation, depress twice every time, drop down a drip of oil, otherwise adjust the screw (D) that controlled oil enter with minus screwdriver.

(Fig 19)

- As shown in Figure 19-1, when you found there are some water in the cup, push up the drain valve to drain away water with your fingers; loosen your fingers after drained water, drain valve can be automatic closed under the action of the spring.

Note: After the first 20 days of use, retighten the jaws with tightening screws (B) on the Turntable (Fig 20)

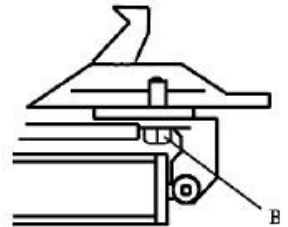


Fig 20

Caution: please disconnect the machine from electric power supply and pneumatic power supply.

Note: If Vertical Arm not be locked or not meet the requirement that 2-3mm from the bottom of Mounting head/demounting head to rim, please adjust Hexagonal Locking Plate, refer to Fig 22 and adjust the (X).

Note: In order to achieve the reliability of jaws and Bead Breaker shovel, operate as follows to keep their valves clean:

1. Remove the left side cover of the machine body by unscrewing the two screws;
2. Loosen the valve mufflers (A) which belong to Jaws open and close Pedal and Bead Breaker Pedal; (**Fig 23**)
3. Clean the mufflers with compressed air, please replace it referring to the spare parts list if it is damaged. (**Fig 23**)

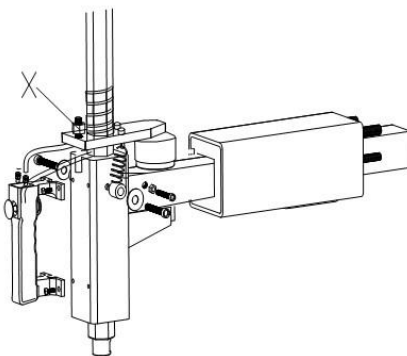


Fig 22

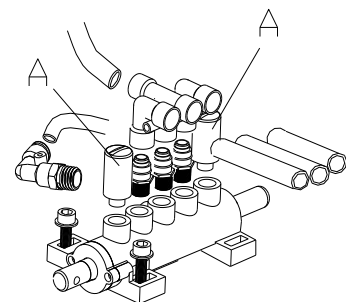


Fig 23

14. Rapid tyre inflation system (only suitable for the IT-suffix version machine):

14.1. Rapid Tire Inflation Device:

Note: before inflating operation, please make sure the pneumatic power supply connect well.

Before operation, must check the devices perform well as follow:

- a. Press Rapid Tire Inflation Pedal to the middle position (Fig 24, position 1), the inflating head should give air.
- b. Press Rapid Tire Inflation Pedal all the way down (Fig 24, position 2), a strong air

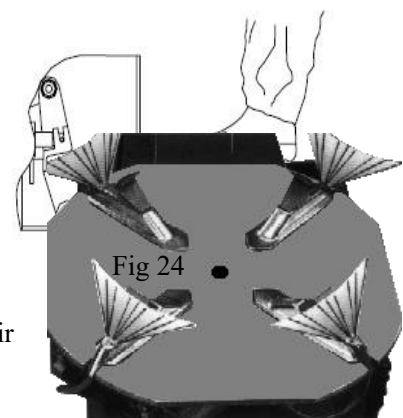


Fig 25

blast should come from the holes in the four jaws' locking sliders. (Fig 25)

14.2. Wheel rim lock and Tire inflation:

Note: A wheel can explode if:

- 1). the diameter of the rim is not exactly the same as the tyre's.
- 2). the rim or tyre are defective.
- 3). the tyre is inflated to a pressure higher than the maximum recommended by the manufacturer.
- 4). the operator does not observe the requisite safety regulations.

14.3. Inflation for tire with inner tube:

- 1). Remove the valve stem.
- 2). Check to be certain that tyre and rim diameter correspond.
- 3). Check to be certain that rim and beads are sufficiently lubricated.
- 4). Press the pedal down to the middle position to start inflation.
- 5). Release frequently the inflating pedal to check pressure on the manometer. If the air pressure is too high, press the button under the manometer for release the rest air until the correct pressure is reached.

14.4. Inflation for tubeless tire:

Note: When inflating tubeless tire using a strong jet of air, the wheel must be clamped from the inside of the rim.

- 1). Remove the valve stem.
- 2). Check to be certain that tire and rim diameter correspond.
- 3). Check to be certain that rim and beads are sufficiently lubricated.
- 4). Press the pedal down to the middle position to start inflation.
- 5). If the bead of the tyre is not well seated, due to a strong bead, lift tyre manually until the upper bead seals against the rim, then press the pedal all the way down. A strong jet of air will be released through the nozzles in the slides and this will help the bead seal.
- 6). Release the tyre, set the pedal back to the middle position and continue to inflate the tyre to the required pressure. If the air pressure is too high, press the button under the manometer for release the rest air until the correct pressure is reached.

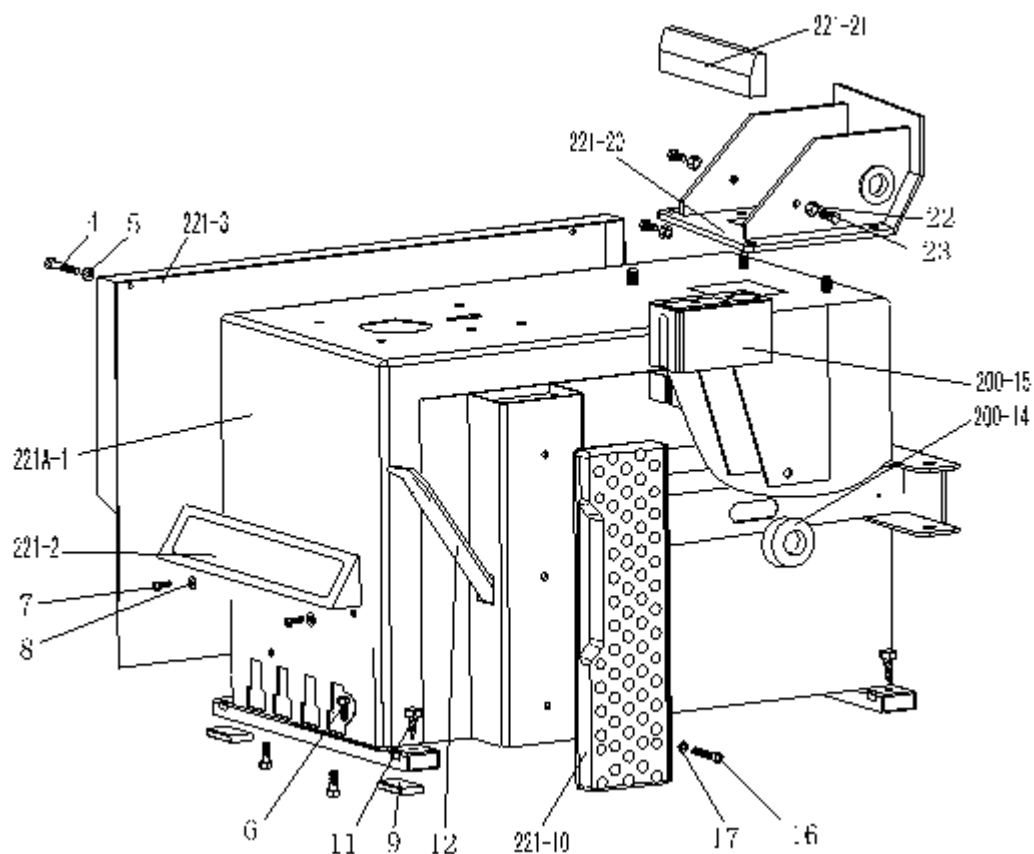
Note:

- 1). Failure to follow all warnings and instructions may lead to serious personal injury or death to operator or bystander. NEVER exceed 3.5 bar (50 psi) when seating beads or inflating tyres.
- 2). If a higher tire inflation pressure is required, remove the wheel from the tyre changer and continue the inflation procedure with the wheel inside a special protection cage. NEVER exceed the maximum inflation pressure given by the tyre manufacturer.
- 3). Only specially trained persons are allowed to perform these operations. Do not allow others to operate or be near to the tyre changer.

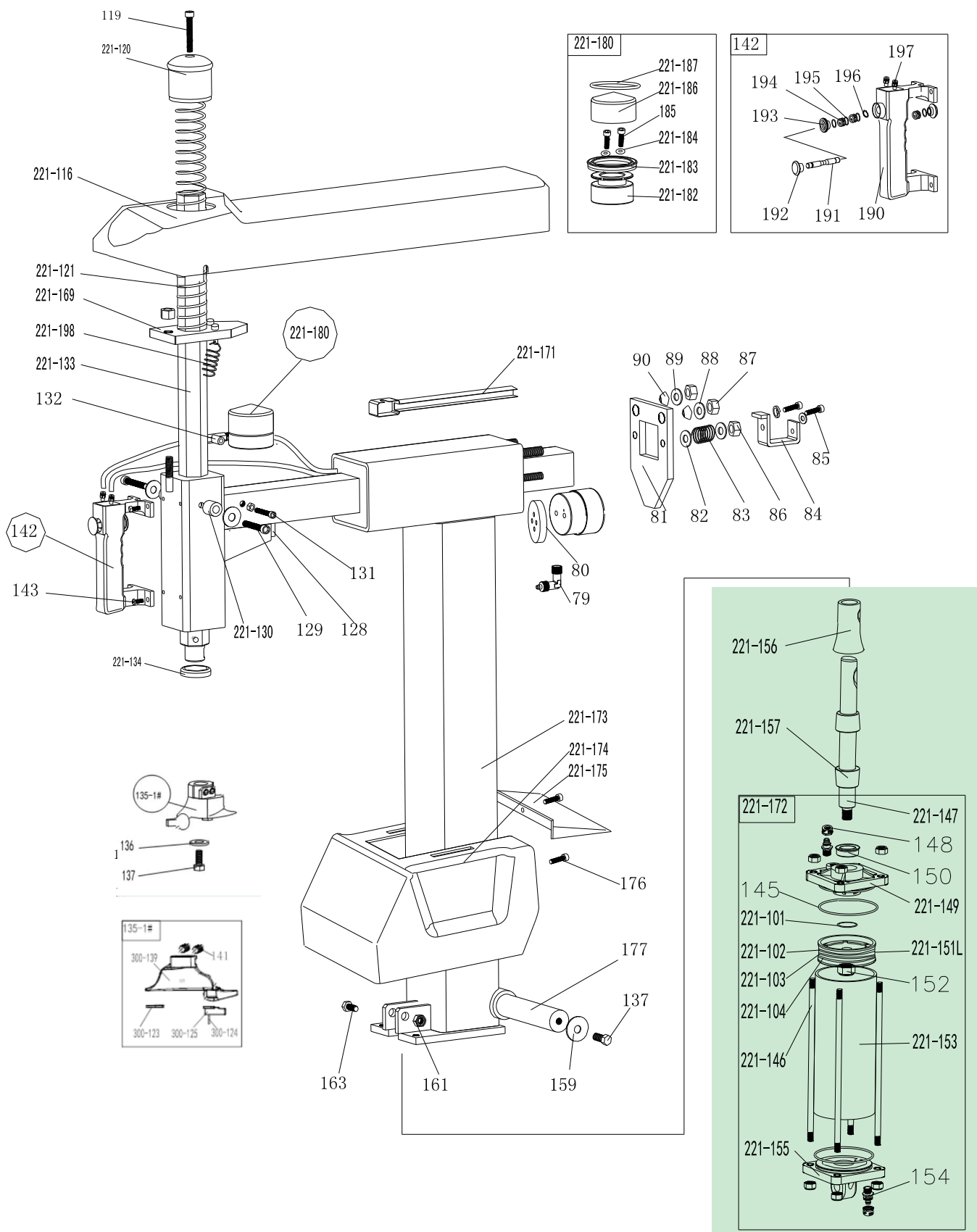
15. Trouble shooting table:

Problem	Reason	Solution
The turntable rotate just in one direction or can't rotate.	Reverse Switch broken	Replace the Reverse Switch
	The Motor's malfunction	Check the motor cable or terminal block wire; Replace the motor if it was broken.
Demount or fix the wheel, the turntable can't lock (spin with wheel); The jaws delay to open/close; The turntable locks the rim 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/demounting head always touch the rim during operation.	The locking plate incorrectly adjust or unqualified.	Replace or adjust it.
	Screws on the chuck loose; the Vertical Arm can't be locked by Locking Plate	Tighten the screws; replace the Locking Plate.
The Bead Breaker Pedal and Jaw open and close Pedal can't turn back to the original position.	pedal spring broken	Replace it.
The Bead Breaker shovel operates difficultly.	Jammed silencer	Clean it or replace it.
	The washer on the Bead Breaker cylinder is broken.	Replace it.

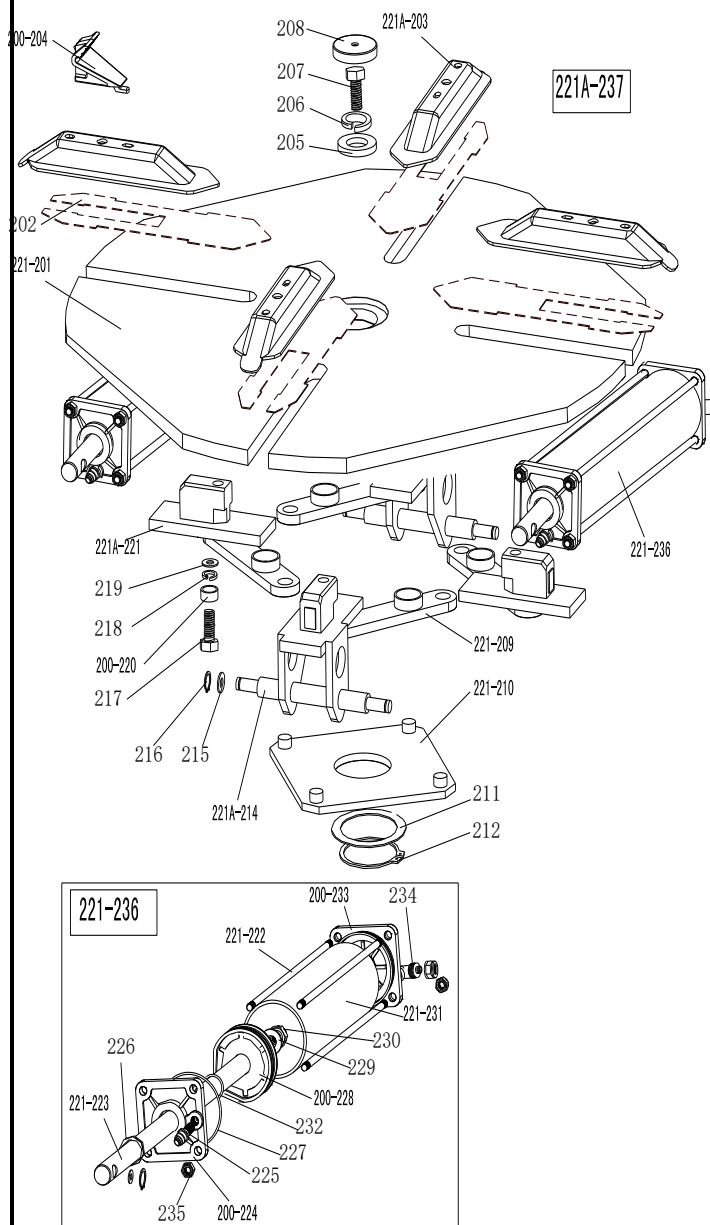
16. Exploded drawing:



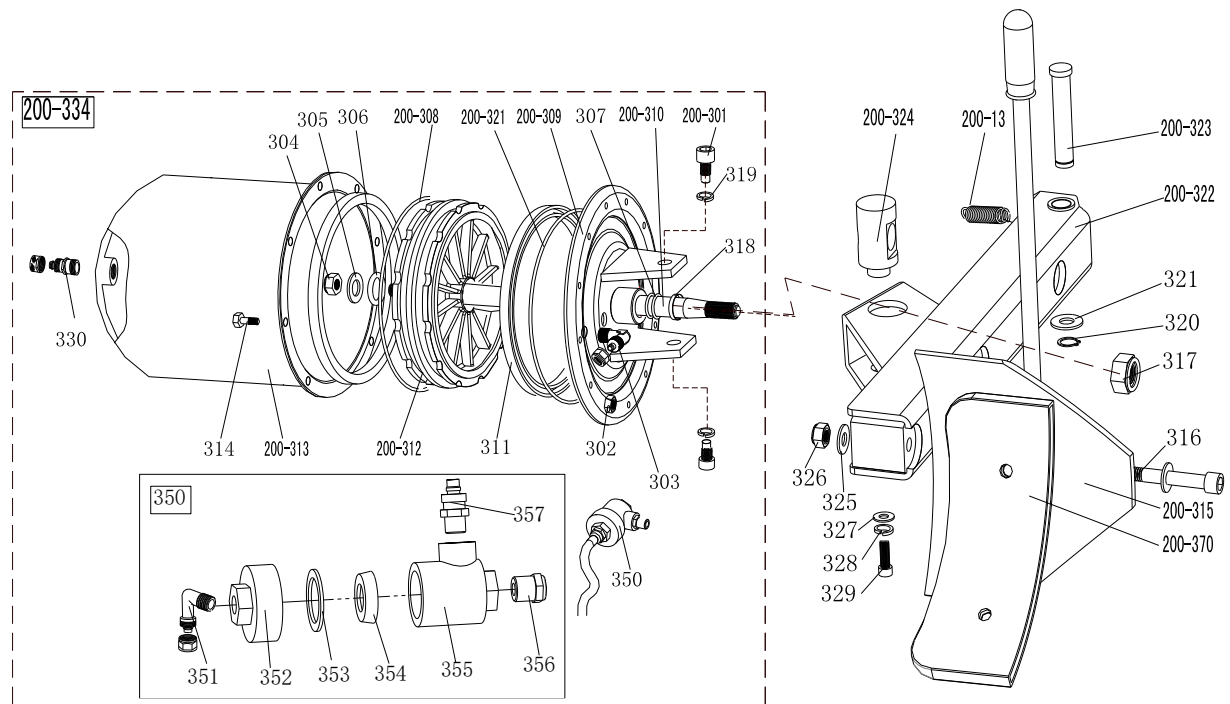
221A-1	JZ20200100046	Machine body 221
221-2	JZ20200900092	Pedal front cover
221-3	JZ20200800025	Left cover
4	FJ22009000085	Hex socket head bolt M6×10
5	FJ15006000095	Flat washer Ø6*14*1.2
6	FJ22012000100	Outer hex bolt M8x25
7		Hex socket head bolt M8×20
8	FJ15006000113	Flat washer Ø 8*22*2
9	JZ20200100049	Rubber foot buffer
221-10	JZ20200100049	Bead breaker buffer
11	FJ19004000005	Grounding screw M6x40
12	JZ11900100004	Lifting lever
200-14	JZ20200200010	Bead breaker arm rubber
200-15	JZ12000200164	Oil-water box
16	FJ22009000123	Hex socket head bolt M8x20
17	FJ15006000107	Flat washer Ø8*17*1.5
221-20	JZ20200400038	Tilting seat
221-21	JZ12000200064	Tilting protect cover
22	FJ21003000001	Self-locking nut M10
23	FJ22012000010	Outer hex bolt M10*25



79	EQ10003000014	Quick union 1/8-Ø6	221-149	JZ12500300003	Tilting cylinder cover without handle
80	JZ12001800031	Locking cylinder plate	150	FJ29005000002	V seal Ø20*28*7.5
81	JZ20200500021	Horizontal arm locking plate	221-151L	JZ12500700011	Tilting cylinder piston(Al-alloy)φ75
82	FJ15006000107	Flat washer Φ8*17*1.5			
83	JZ11700200018	Horizontal arm locking spring	221-153	JZ12500100013	Tilting cylinder barrel
84	JZ20200500018	Horizontal arm block	154	EQ10004000025	Straight union 1/8-Ø6
85	FJ22012000098	Outer hex bolt M8*20	221-155	JZ12500300004	Titling cylinder cover with handle
86	FJ21003000014	Self-locking nut M8	221-156	JZ20201900014	Tilting cylinder piston rod cover
87	FJ21003000002	Self-locking nut M12	221-157	JZ20201900012	Titling cylinder rubber sheath 1
88	FJ15006000019	Flat washer Φ 12*25*2	137	FJ22012000010	Outer hex bolt M10×25
89	FJ15006000019	Flat washer Φ 12*25*2	159	FJ15006000012	Flat washer 10*40*3
90	JZ20200500005	Locking spacer	161	FJ21003000002	Self-locking nut M12
221-116	JZ12000200063	Horizontal arm protection back cover	163	FJ22011000025	Outer hex bolt M12×65
119	FJ22009000016	Hex socket head bolt M10*50	221-169	JZ20200500032	Hex locking board 221
221-120	JZ12000200102	Vertical arm cap 228	221-171	JZ12000200161	Hose guide
221-121	JZ11700300049	Vertical arm spring	221-172	JZ30204500084	Complete titling cylinder
127	FJ19006000007	Hex socket head bolt M12*16	221-173	JZ20200400046	Column
128	JZ20201400022	Shock absorber	221-174	JZ12000200098	Column protection cover
129	FJ22009000103	Hex socket head bolt M6×35	221-175	JZ12000200099	Titling Column back cover
221-130	JZ12001800071	Guide pulley	176	FJ19018000007	Cross head screw 5*16
131	FJ22009000093	Hex socket head bolt M6×16	177	JZ20200400047	Column shaft
132	EQ11002000017	T-union 1/8-2*O6	221-180	JZ30202000056	Complete locking cylinder
221-133	JZ20200700016	Vertical arm	221-182	JZ12500700010	Complete locking cylinder piston
221-134	JZ20200700004	Vertical arm washer	221-183		V seal Ø60*50*6.5
136	JZ11801300045	Mount/demount head flat washer	221-184	FJ29002000220	O seal Ø6*3
137	FJ22012000010	Outer hex bolt M10×25	185	FJ22009000106	Hex socket head bolt M6×55
300-123	JZ12000200076	Mount/demount head flat protector	221-186	JZ12500400015	Locking cylinder cover Ø60
200-124	JZ20201000028	Hex round pin	221-187	FJ29002000228	O seal 52×2
292-125	JZ12000400022	Mount/demount head protector	190	JZ12001800014	Pneumatic handle switch plate
135-7#	JZ30204500047	Complete Mount/demount head 7#	191	JZ20200400040	Pneumatic handle valve rod
300-139	JZ11801300035	Mount/demount head	192	JZ12000300001	Pneumatic valve rod cap
141	FJ19006000007	Hex socket head bolt M12X16	193	JZ12000200110	Pneumatic handle cover
142	JZ30204500115	Complete Pneumatic locking switch	194	JZ12001800013	Pneumatic handle spacer
143	FJ22009000093	Hex socket head bolt M6*16	195	FJ29002000260	O seal 7.5*2.65
145	FJ29002000254	O seal Ø68.26*3.53	196	FJ14004000025	Snap ring Ø8
221-146	JZ12500800010	Tilting cylinder threaded	197	EQ10004000025	Straight union
221-147	JZ12500200012	Tilting cylinder piston rod	221-198	JZ11700200017	Hex locking board spring
148	FJ21003000014	Self-locking nut M8	199	FJ19006000001	Hex socket head bolt M10*12
221-101	FJ29002000014	O seal φ11*1.8	221-103	FJ29002000254	O seal φ68*3.53
221-102	FJ29009000006	Y seal φ65*75*6	221-104	FJ29002000252	O seal φ65*5.3
135-1#	JZ30200500013	Complete Mount/demount head B01#(without protectors)	300-123	JZ12000200073	Mount/demount head flat protector 1#
136	JZ11801300045	Mount/demount head flat washer U200	300-125	JZ30200500013	Protector Mount/demount head 1#
137	FJ22012000010	Outer hex boltM10*25	300-124	JZ20201000028	Hex round pin
300-139	JZ11801300009	Mount/demount head-spec	141	FJ19013000007	screwM12*16

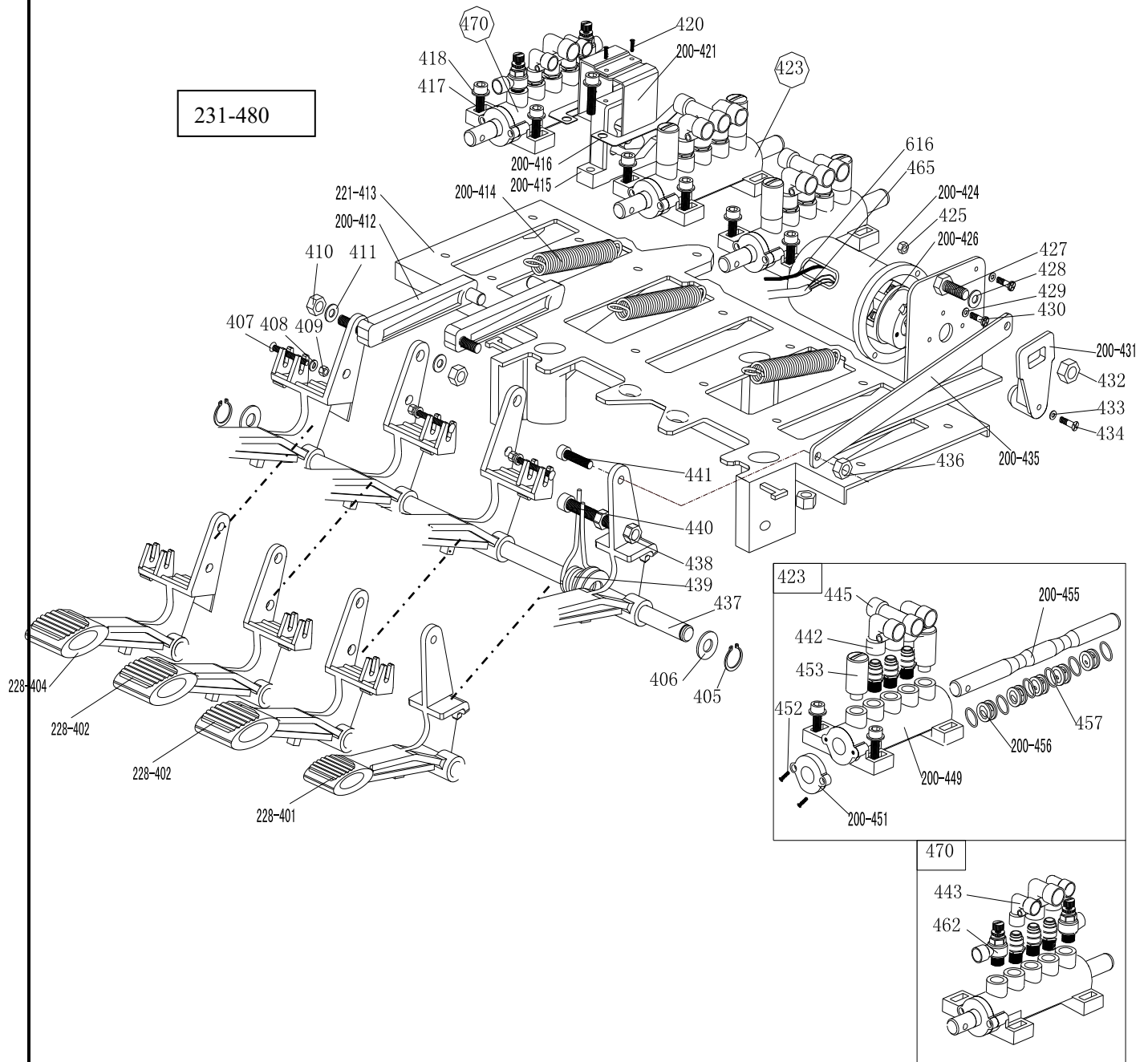


221-201	JZ20201400126	Turntable 615
202	JZ20201400055	Jaw sliding plate(optional)
221A-203	JZ20201400056	Jaw cap assembly
200-204	JZ11801300016	Jaw 200
205	JZ20201400046	Big washer
206	FJ15004000008	Spring washer Ø16
207	FJ22012000058	Outer hex bolt M16×40
208	JZ12000200083	Turntable cap
221-209	JZ20201400227	Connection rod assembly 615
221-210	JZ20201400073	Square turntable 615
211	JZ20201400044	Square turntable washer
212	FJ14004000023	Snap ring Ø65(shaft)
221A-214	JZ20201400087	Jaw slide guide with pin 615A
215	FJ15006000019	Flat washer Ø12X25X2
216	FJ14004000003	Snap ring Ø12(shaft)
217	FJ22011000027	Hex socket head bolt M12×80
218	FJ15010000002	Teeth locking washer Ø12*1
221A-237	JZ30204500193	Complete square turntable 615A
219	FJ15006000020	Flat washer Ø12X30X3
200-220	JZ20201400011	Connection rod nut
221A-221	JZ20201400079	Jaw slide guide without pin 615A
221-222	JZ12500800009	Threaded connection rod 393
221-223	JZ12500200011	Clamping cylinder piston rod 400
200-224	JZ12500300001	Clamping cylinder cover without handle
225	EQ11005000023	Straight union 1/8"-Ø8
226	FJ29005000002	V- seal 20*28*7.5
227	FJ29002000247	O- seal 63*2.65
200-228	JZ12500700008	Clamping cylinder piston Ø70
229	FJ15006000019	Flat washer Ø12X25X2
230	FJ21011000006	Nut M12X7X1.75
221-231	JZ12500100012	Clamping cylinder barrel 360
232	FJ29002000086	O- seal Ø20X2.65
200-233	JZ12500300002	Clamping cylinder cover with handle
234	EQ11004000025	Quick union 1/8-Ø8
235	FJ21003000014	Self-locking nut M8
221-236	JZ30202000034	Complete clamping cylinder

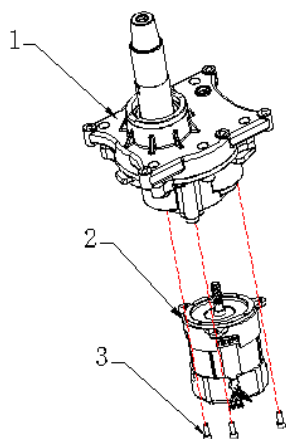


200-13	JZ11700200014	Bead breaker arm spring	320	FJ14004000007	Snap ring Ø16
200-301	JZ20201900021	Hex socket head boltM14×30	321	FJ15006000039	Flat washer
302	FJ21003000013	Self-locking nut M6	200-321	FJ290020000376	O-seal 180x5
303	EQ11004000009	Union (90°) 1/4-Ø8	200-322	JZ20200200008	Bead breaker arm 200
304	FJ21012000002	Nut M16*1.5	200-323	JZ20200200025	Bead breaker pin
305	FJ15006000039	Flat washer Ø16*28*2	200-324	JZ20201900031	Bead breaker cylinder rotating pin
306	FJ29002000056	O-seal Ø 16*2.65	325	FJ15006000019	Flat washer Ø12*24*2
307	FJ29002000095	O-seal Ø 20*2.65	326	FJ21003000002	Self-locking M12
200-308	FJ29002000071	O-seal Ø170.8x5.33	327	FJ15006000118	Flat washer Ø8*30*3
200-309	JZ20201900024	Bead breaker cylinder cover assembly	328	FJ15004000021	Spring washer Ø8
200-310	JZ12500200008	Bead breaker cylinder piston rod	329	FJ22012000098	Outer hex bolt M8×20
311	FJ29004000001	V-seal 185X168X11.5	330	EQ11005000023	Straight union1/8-Ø8
200-312	JZ12500700007	Bead breaker cylinder piston	200-334	JZ30204500092	Complete bead breaker cylinder
200-313	JZ12500100007	Bead breaker cylinder barrel	350	JZ30204500248	Bead breaker cylinder exhaust valve
314	FJ22009000093	Hex socket head bolt M6×16	351	EQ10003000016	Union (90°)1/8-Ø8
200-315	JZ20200300019	Bead breaker shovel assembly	352	JZ12000200078	Bead breaker cylinder exhaust valve cover
316	FJ22008000017	Hex socket head bolt M12×90	353	JZ12100400003	Seal washer
317	FJ21012000002	Self-locking nut M16*1.5	354	JZ12100400004	Bidirectional seal
318	CF03003000006	Guide belt	355	JZ12000100001	Bead breaker cylinder exhaust valve barrel
200-370	JZ12000200070	Bead breaker shovel protection cover(optional)	356	EQ04001000007	Muffler
319	FJ15004000006	Spring washer Ø14	357	EQ10004000017	Straight union 1/4- Ø8

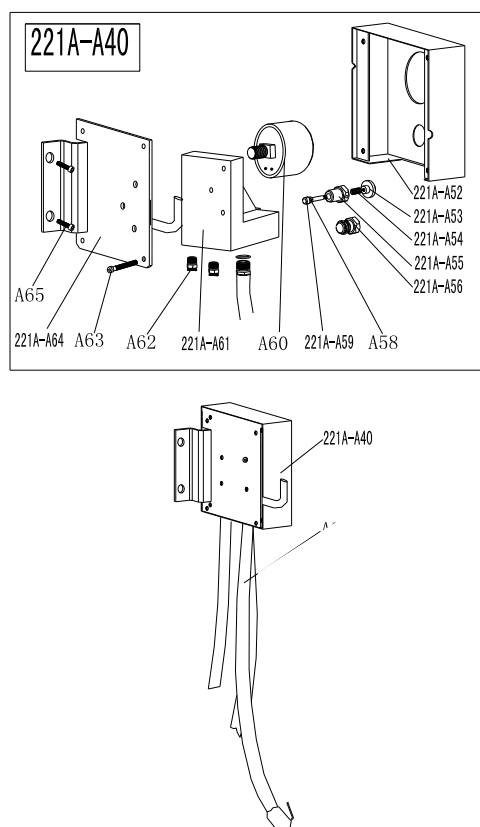
231-480



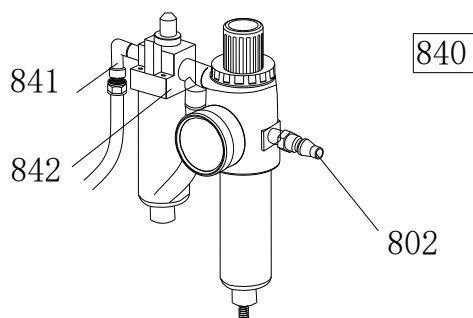
228-401	JZ11801100008	Reverse switch pedal	429	FJ15006000078	Flat washer Ø 4
228-402	JZ11801100007	5-way valve pedal(right)	430	FJ19022000023	Cross head screw M4*16
228-404	JZ11801100006	5-way valve pedal(left)	200-431	JZ12001800012	Reverse switch handle
405	FJ14004000003	Snap ring Ø12	432	FJ21003000013	Self-locking nut M6
406	FJ15006000019	Flat washer Ø12*24*2	433	FJ15006000064	Flat washer Ø3
407	FJ19022000026	Cross head screw M4X30	434	FJ19016000045	Cross head screw M3X18
408	FJ15006000078	Flat washer Ø 4	200-435	JZ20201200038	Pedal connection rod
409	FJ21003000010	Self-locking nut M4	436	FJ21003000014	Self-locking nut M8
410	FJ21003000014	Self-locking nut M8	437	JZ20201200039	Pedal front shaft
411	FJ15006000107	Flat washer Ø8*17*1.5	438	FJ21011000025	Nut M8
200-412	JZ12001800016	Cam connection rod	439	JZ11700100003	Pedal twist spring
221-413	JZ11801100003	Pedal support board	440	FJ22009000132	Hex socket head bolt M8×50
200-414	JZ11700200015	Pedal Spring	441	FJ22009000123	Hex socket head bolt M8×20
200-415	JZ12001800070	Cam	442	EQ10003000016	Quick union1/8- Ø 8
200-416	JZ20201200011	Cam washer	443	EQ10003000014	Quick union1/8- Ø 6
417	FJ22009000097	Hex socket head bolt M6×20	445	EQ10001000024	Quick T-union1/8-2* Ø 8
418	FJ15006000093	Flat washer Ø6	200-449	JZ12000100007	5-way valve barrel (right)
420	FJ19017000003	Cross head self tapping screw 2.9*12	200-451	JZ12000200193	5-way valve cover
200-421	JZ20201200040	Cam cover	452		Cross head ST2.9*14
423	JZ30204500270	Complete 5-way valve for Bead breaker cylinder	453	EQ04002000004	Muffler 1/8"
			200-455	JZ20201200005	5-way valve rod
200-424	JZ12000200080	Reverse switch cover	200-456	JZ12001800076	5-way valve rod spacer
425	FJ21011000021	Nut M4	457	FJ29002000023	O seal 12*20*4
200-426	DD12010000001	Reverse switch	462	EQ02005000016	Throttle valve
427	FJ22009000097	Hex socket head bolt M6×20	470	JZ30204500274	Complete tilting 5-way valve
428	FJ15006000093	Flat washer Ø 6X12X1	465	JZ12400200038	Power supply cable
231-480	JZ30204500010	Complete 4-pedals assembly 231	616	JZ12400200042	Motor cable



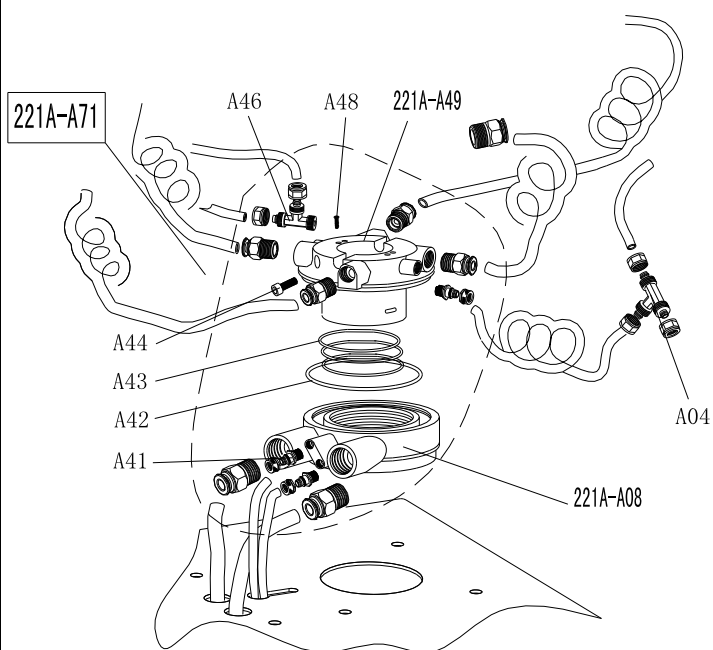
1	JZ30204500067	Complete gear box220-240V150HZ10.37KWPH
2	DD01001000055	Motor 220-240V50HZ10.37KWPH
3	FJ22009000158	hex socket head cap screw M8*25



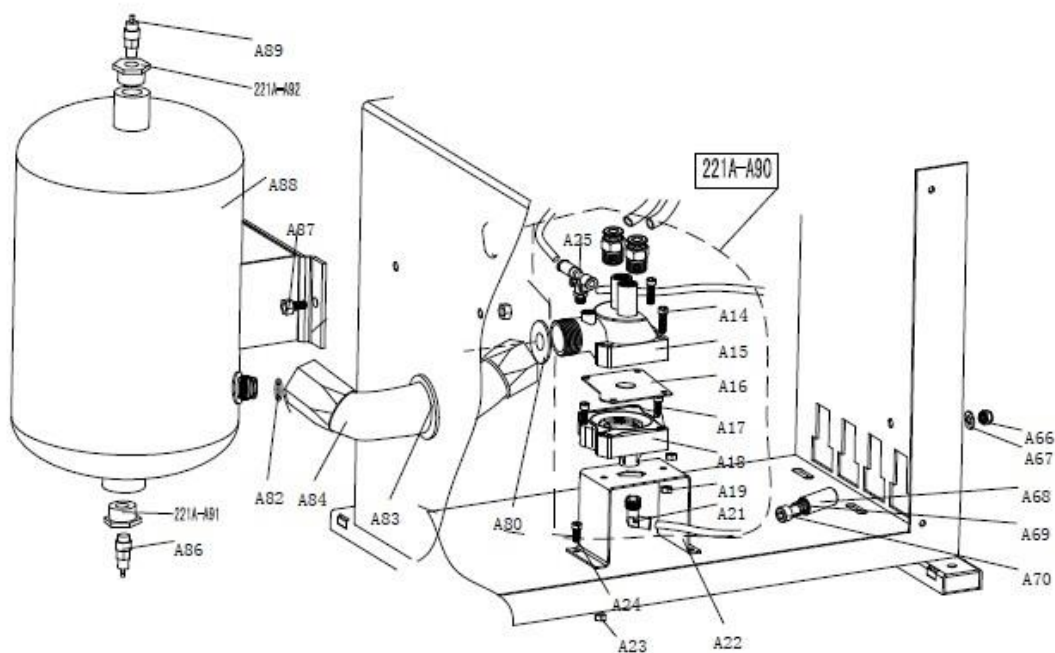
221A-A52	JZ12000200162	Pressure gauge box Φ60
221A-A53	JZ20201700006	Button
221A-A54	JZ11700300047	Button spring
221A-A55	JZ20201600014	Button valve
221A-A56	FJ19013000001	Hex socket head bolt 1/8*8
A58	FJ29002000187	O-seal 4*2
221A-A59	JZ20201700005	Button rod
A60	EQ05003000017	Pressure gauge 10kg
221A-A61	JZ12001800032	Seat with holes
A62	EQ10004000026	Quick straight union 1/8-Ø8
A63	FJ19016000018	cross head screw M4*30
221A-A64	JZ20202000006	Pressure gauge box support
A65	FJ22009000093	Hex socket head bolt M6*16
221A-A40	JZ30204500072	Complete pressure gauge box



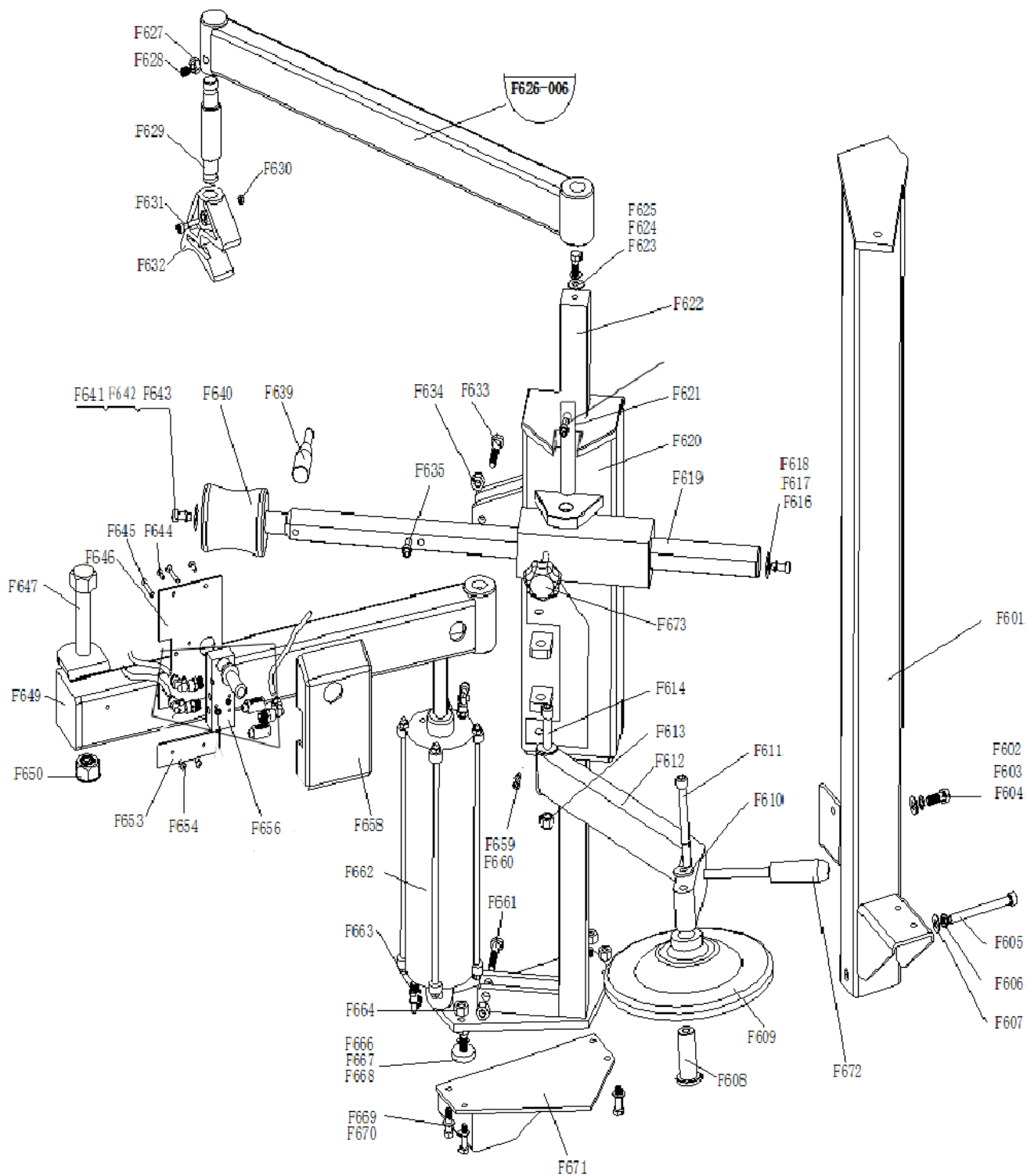
802	EQ12001000013	Quick nozzle
841	EQ11004000009	Union (90°) 1/4Φ8
842	EQ03001000011	Oil fog maker 2000
840	JZ30204500216	Complete oil fog maker



221A-A08	JZ20201400185	Rotating valve casing (A)
A04	EQ11002000011	T-union 3* Ø 8
A41	EQ11005000023	Straight union 1/8-Ø8
A42	FJ29002000282	O-seal Ø89*2
A43	FJ29002000246	O-seal Ø62*2.8
A44	FJ22009000097	Hex socket head bolt M6X20
A46	EQ11002000005	T-union 1/8-2*Ø8
A48	FJ19006000008	Hex socket head bolt M4*6
221A-A49	JZ20201400186	Rotating valve mandrel (A)
221A-A71	JZ30204500260	Complete Rotating valve (A)

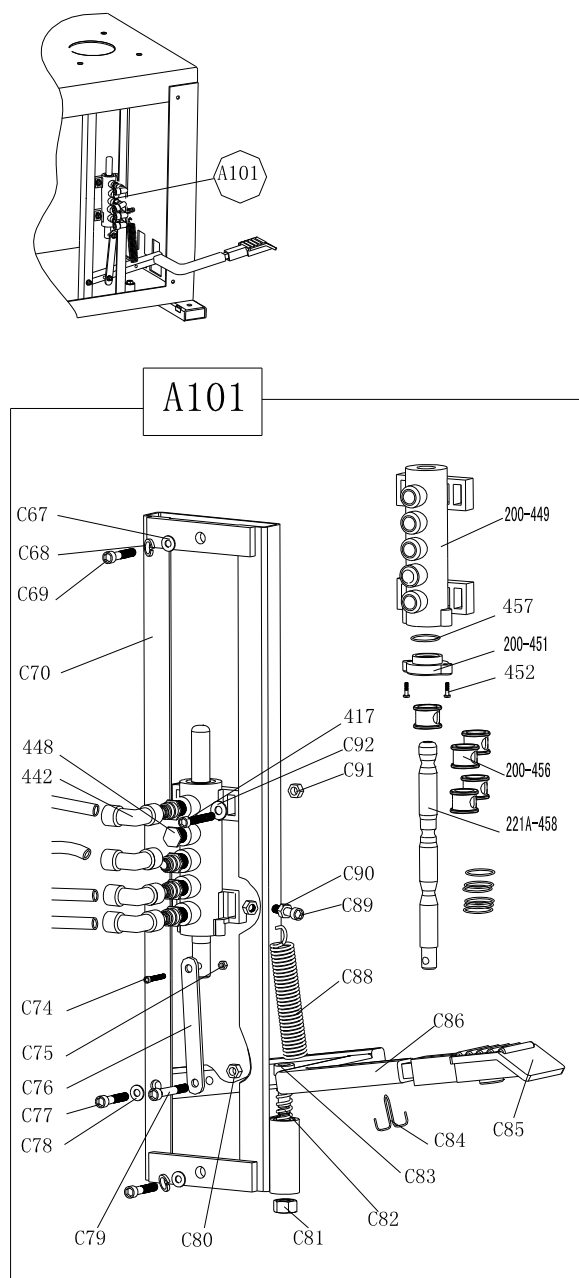


A14	FJ22009000102	Hex socket head bolt M6*30
A15	JZ12000100002	Exhaust valve barrel
A16	JZ20201600006	Exhaust valve rubber washer
A17	FJ22009000102	Hex socket head bolt M6*30
A18	JZ12000200106	Exhaust valve cover
A19	FJ21003000013	Self-locking nut M6
A21	EQ10003000009	Quick union 1/4-Ø8
A22	JZ20201600060	Exhaust valve support
A23	FJ21003000013	Self-locking nut M6
A24	FJ22009000093	Hex socket head bolt M6*16
A25	EQ02002000004	One way valve (EPCVB 8-01)1/8-2*ø8
A66	FJ21003000001	Self-locking nut M10
A67	FJ15006000006	Flat washer Ø10*20*2
A68	JZ20201200034	Limit spring plate
A69	JZ11700300042	Limit spring
A70	FJ22009000018	Hex socket head bolt M10*60
A80	JZ20201600007	Rubber washer Ø18*34*2
A83	JZ20201600015	Hose protector
A84	JZ20201600008	Metal hose
A86	EQ02007000002	Water discharge valve
A87	FJ22012000010	Outer hex bolt M10*25
A88	JZ20201600013	Air-tank assembly
A89	EQ02001000004	Safety valve
221A-A90	JZ30204500246	Complete exhaust valve
221A-A91	JZ20201600046	Air-tank down union
221A-A92	JZ20201600047	Air-tank up union



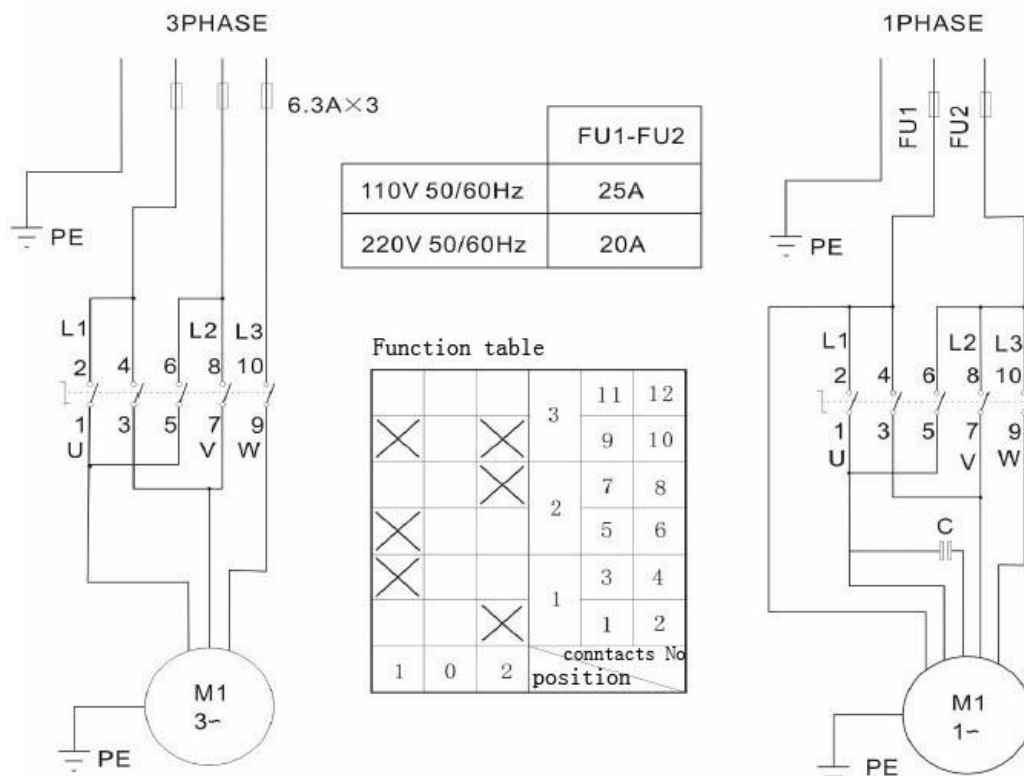
F624

F601	JZ20201300041	Column 036	F640	JZ12001800062	Tire pressing pulley
F602	FJ15006000006	Flat washer Ø10*20*2	F641	FJ15006000118	flat washer Ø8*30*3
F603	FJ15004000002	Spring washer Ø10*20	F642	FJ15004000021	Spring washerØ8
F604	FJ22012000010	Outer hexagon bolt M10*25	F643	FJ22009000123	Hex socket head bolt M8*20
F605	FJ22008000008	Hexagon socket head boltM10*100	F644	FJ19016000015	Cross head screw M4*16
F606	FJ15004000002	Spring washerØ10*20	F645	FJ19016000018	Cross head screw M4*30
F607	FJ15006000006	flat washer Ø10*20*2	F646	JZ20201300060	Raise-fall switch plate
F608	JZ20201300255	Tire lifting roller hud	F647	JZ20201300314	Connection bolt 036
F609	JZ12001800051	Tire lifting roller	F648		Raise-fall inlet pipe Ø6*4
F610	FJ15006000019	flat washer Ø12*25*2	F649	JZ20201300549	Tire pressing arm
F611	FJ22008000012	Hex socket head bolt M12*100	F650	FJ21003000007	Self-locking nut M22
F612	JZ20201300046	Tire lifting roller support 006	F651		Raise-fall exit pipeØ6*4
F613	FJ21003000002	self-lock nut M12		EQ10003000007	Quick union 1/4-Ø6
F614	FJ22008000012	Hex socket head bolt M12*100	F653	JZ20201300060	Raise-fall switch plate
F616	FJ15006000118	flat washer Ø8*30*3	F654	FJ19022000036	Cross head M5*10
F617	FJ15004000021	Spring washer Ø8	F656	JZ30204500155	Complete Raise-fall control valve
F618	FJ22009000123	Hex socket head bolt M8*20			
F619	JZ20201300261	Horizontal pushing arm			
F620	JZ20201300042	Raise-fall sleeve 036	F658	JZ12000200096	Control valve protection cover
F621	JZ20201300270	Tumbler pin	F659	FJ22009000085	Hexagon socket head bolt M6*10
F622	JZ20201300273	Square column assembly 036	F660	FJ15006000093	Flat washer Ø6*12*1
F623	FJ15006000006	flat washer Ø10*20*2	F661	FJ22012000019	Outer hexagon bolt M10*55
F624	FJ22012000010	Outer hex bolt M10*25	F662	JZ30204500368	Raise-fall cylinder 006
F625	FJ15004000002	Spring washerØ10	F663	EQ10003000014	Quick union 1/8-Ø6
F626-006	JZ20201300049	Rotating arm connector 006	F664	FJ21003000014	Self-locking nut M8
F627	FJ21011000005	Nut M10	F665	FJ21003000001	Self-locking nut M10
F628	FJ19006000003	Hex screw M10*20	F666	FJ22012000010	Outer hex bolt M10*25
F629	JZ20201300251	Pin for tire pressing head	F667	FJ15004000002	Spring washerØ10*20
F630	FJ21003000013	Self-locking nut M6	F668	JZ11801300045	Mount/demount head flat washer
F631	FJ22009000102	Hexagon socket head bolt M6*30	F669	FJ15006000107	Flat washer Ø8*17*1.2
F632	JZ12001800056	Tire pressing head (Upper)	F670	FJ22012000102	Outer hex bolt M8*30
F633	FJ22012000019	Outer hex bolt M10*55	F671	JZ20201300434	Help arm support plate
F634	FJ21003000001	Self-locking nut M10	F672	JZ12000300002	Locking handle cover
F635	FJ22009000123	Hex socket head bolt M8*20	F673	JZ20201300050	Pentagon handle
F639	JZ12001800019	Handle	F674	FJ22009000031	hex socket head cap screw

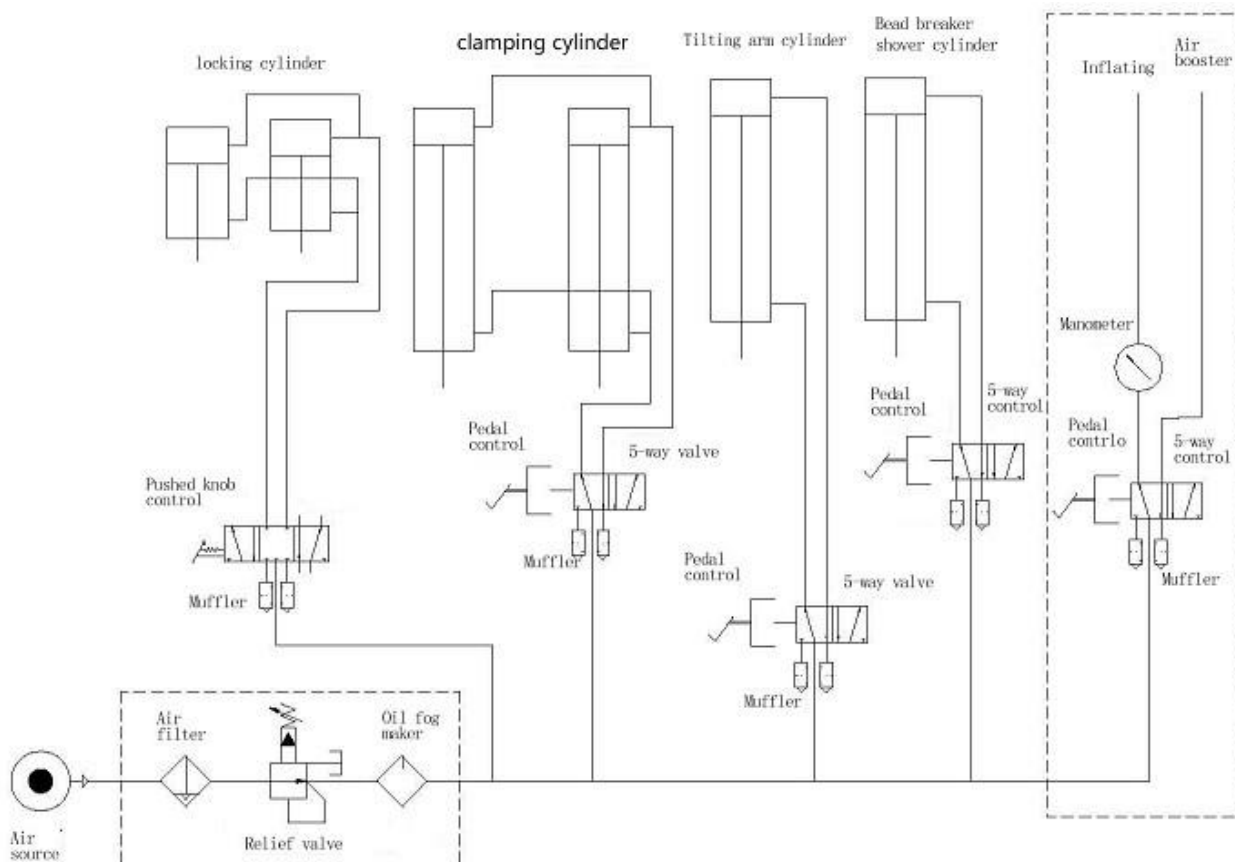


C67	FJ15006000107	Flat washer Ø8X17X1.2
C67	FJ15006000107	Flat washer Ø8X17X1.2
C68	FJ15004000021	Spring washer Ø8
C69	FJ22009000124	Hex socket head bolt M8*25
C70	JZ20201200044	5th inflating pedal support assembly
448	FJ19013000001	Hex socket head bolt 1/8*8
442	EQ10003000016	Quick union 1/8-Ø8
C74	FJ22009000071	Hex socket head bolt M5*20
C75	FJ21003000011	Self-locking nut M5
C76	JZ20201200046	Inflating 5-way valve rod
C77	FJ22009000099	Hex socket head bolt M6*25
C78	FJ15006000093	Flat washer Ø6*12*1
C79	FJ22009000099	Hex socket head bolt M6*25
C80	FJ21011000023	Nut(black) M6
C81	FJ21003000001	Self-locking nut M10
C82	JZ11700300046	Limit spring
C83	FJ22009000017	Positioning bolt M10X55
C84	FJ26003000016	Splitpin 4X40
C85	JZ12000200116	Pedal rubber
C86	JZ20201200042	Inflating pedal rod
C88	JZ11700200015	Pedal Spring
C89	FJ22009000099	Hex socket head bolt M6*25
C90	FJ21011000023	Nut(silver) M6
417	FJ22009000097	Hex socket head bolt M6×20
C91	FJ21003000013	Self-locking nut M6
C92	FJ15006000093	Flat washer Ø6X12X1
200-449	JZ12000100007	5-way valve barrel
200-451	JZ12000200193	5-way valve cover
452	FJ19025000002	cross head screw ST2.9*16
200-456	JZ12001800076	5-way valve rod spacer
457	FJ29002000023	O-seal 12X20X4
221A-458	JZ20201200022	5-way valve rod A
A101	JZ30204500008	Complete inflating pedal

17. Circuit diagram:



18. Pneumatic drawing:



19.Color reference for square columns in the attachmen :

编号	名称	规格
JZ20200400584	Square column	Wrinkle RAL7011
JZ20200400561	Square column	Wrinkle BRAL7043
JZ20200400550	Square column	Wrinkle RAL2003
JZ20200400532	Square column	Wrinkle PT429C
JZ20200400518	Square column	Wrinkle RAL7012
JZ20200400451	Square column	Wrinkle PT287C
JZ20200400508	Square column	Wrinkle PT389C
JZ20200400500	Square column	Wrinkle PT3125C
JZ20200400490	Square column	Flat light RAL5005
JZ20200400481	Square column	Wrinkle RAL7037
JZ20200400477	Square column	Wrinkle RAL7016
JZ20200400469	Square column	Wrinkle PT282C
JZ20200400463	Square column	Wrinkle PT877C
JZ20200400460	Square column	Wrinkle PT288C
JZ20200400452	Square column	Wrinkle PT P 179-11C
JZ20200400447	Square column	Flat light PT288C
JZ20200400442	Square column	Wrinkle PT COOL GRAY 7C
JZ20200400440	Square column	Wrinkle RAL5002
JZ20200400425	Square column	Wrinkle RAL2008
JZ20200400424	Square column	Wrinkle PT485C
JZ20200400423	Square column	Wrinkle PT290C
JZ20200400420	Square column	Wrinkle RAL6018
JZ20200400398	Square column	Wrinkle RAL5013
JZ20200400391	Square column	Wrinkle RAL7015
JZ20200400376	Square column	Wrinkle RAL9005
JZ20200400357	Square column	Wrinkle RAL7000
JZ20200400313	Square column	Wrinkle RAL5005
JZ20200400263	Square column	Wrinkle RAL5010
JZ20200400250	Square column	Wrinkle RAL5015
JZ20200400246	Square column	Wrinkle GW05-353
JZ20200400228	Square column	Flat light PT2411C
JZ20200400224	Square column	Wrinkle RAL9016
JZ20200400221	Square column	Wrinkle 4RAL7047
JZ20200400220	Square column	Wrinkle PT COOL GRAY 6C
JZ20200400218	Square column	Wrinkle RAL7035
JZ20200400215	Square column	Wrinkle PT395C
JZ20200400210	Square column	Wrinkle RAL7024
JZ20200400193	Square column	Wrinkle RAL3020

JZ20200400191	Square column	Wrinkle RAL3002
JZ20200400189	Square column	Wrinkle PT654C
JZ20200400181	Square column	Wrinkle RAL7021
JZ20200400180	Square column	Wrinkle RAL7040
JZ20200400178	Square column	Wrinkle PT P 179-10C
JZ20200400046	Square column	Flat light RAL3002