

TIRE CHANGER  
INSTRUCTION MANUAL

INDEX	PAGE
1. Technical Data -----	2
2. General safety warnings and precautions -----	2
3. Specific Product Warnings And Precautions -----	3
4. Assembly Instruction -----	3
4-1 Transport	
4-2 Unpacking	
4-3 Product Description	
4-4 Workplace Requirements	
4-5 Assembly Procedure	
4-6 Pneumatic Link Up	
4-7 Electric Link Up	
5. Operating Instructions -----	
5-1 To Perform Preliminary Operating Texts	5
5-2 To Break The Tire Bead	
5-3 Demounting The Tire From The Wheel	
5-4 Mounting The Tire Onto The Wheel Rim	
5-5 Inflating The Tire	
6. Routine Maintenance -----	8
7. Trouble Shooting Guide -----	10
8. Exploded Drawings -----	12
9. Electric And Pneumatic Drawings -----	16
9-1 Electric Drawings	
9-2 Pneumatic Drawings	
10. Spare Parts Lists -----	17

## 1. TECHNICAL DATA

ITEM	DESCRIPTION
Electric Requirements (3ph)	0.55 kw
Electric Requirements (1ph)	0.75 kw
Max. Wheel Diameter	39" (990mm)
Max. Wheel Width	13" (330mm)
External Locking Rim Dimensions	10" ~18"
Internal Locking Rim Dimensions	12" ~20"
Max. Bead Breaker Opening	13" (330mm)
Max. Working Pressure	110PSI (8 bar)
Bead Breaker Force	5500Lbs.(2500kgs)
Max. Rotating Torque (Turntable)	795 ft·lbs (1078N·m)
Noise Level	<70dB
Overall Dimensions(L×W×H)	38.2" × 30.1" × 37" (970mm×765mm×940mm)
Shipping Weight	471 Lbs.(214kgs)

## 2. GENERAL SAFETY WARNINGS AND PRECAUTIONS

You will need the manual for the information of the machine, such as safety warnings and precautions, assembly, operating, maintenance and parts lists/assembly diagrams. Keep your invoice with this manual for future reference. Manufacturer shall not be liable for any injury to persons on damage to things caused by failure to comply with these regulations and can cancel warranty coverage.

- 1) KEEP WORK AREA CLEAN AND DRY. Cluttered, damp or wet work areas invite injuries.
- 2) KEEP CHILDREN AWAY FROM WORK AREA. Do not allow children to handle this machine.
- 3) STORE IDLE EQUIPMENT. When not in use, tools and equipments should be stored in a dry location to inhibit rust. If the machine has to be stored for a long time, disconnect it from all power sources.
- 4) DRESS SAFELY. Do not wear loose clothing or jewelry as they can become caught in moving parts. Wear a protective hair covering to prevent long hair from becoming caught in moving parts.
- 5) STAY ALERT. Watch what you are doing at all times. Use common sense. Do not use this tool when you are tired or distracted from the job at hand.
- 6) CHECK FOR DAMAGED PARTS. Before operation, carefully check that this tool will operate properly and perform its intended function. Check for damaged parts and any other conditions that may affect the operation of this machine. Replace or repair damaged or worn parts immediately.

- 7) REPLACEMENT PARTS AND ACCESSORIES. When servicing use only identical replacement parts. Only use accessories intended for use with this machine. Approved accessories are available from DISTRIBUTOR.
- 8) MAINTAIN THE MACHINE WITH CARE. Keep the machine clean and dry for better and safer performance.
- 9) MAINTENANCE. Service and maintenance should be performed regularly by qualified technicians.
- 10) USE THE RIGHT PRODUCT FOR THE RIGHT JOB. There are certain applications for which this product was designed. Do not use this product for a purpose for which it was not intended.

### 3.SPECIFIC PRODUCT WARNINGS AND PRECAUTIONS

- 1) BEFORE PERFORMING ANY SERVICES OR MAINTENANCE, ALWAYS DISCONNECT THE MACHINE FROM ITS AIR SUPPLY SOURCE. PUMP THE BEAD BREAKER PEDAL SEVERAL TIMES TO EVACUATE ALL COMPRESSED AIR FROM THE MACHINE, AND DISCONNECT THE UNIT FROM ITS ELECTRICAL SUPPLY SOURCE.
- 2) USE CLEAN, DRY, REGULATED COMPRESSED AIR AT UP TO 8 BAR (110 PSI). Do not exceed the recommended maximum of 8bar.
- 3) If an automatic oiler is not used, add two drops of oil into the Quick Connector of the Pressure Regulator.
- 4) DO NOT INFLATE A TIRE ABOVE OR BELOW THE AIR PRESSURE RECOMMENDED BY THE TIRE MANUFACTURER.
- 5) ALWAYS DISPOSE OF OLD TIRES ACCORDING TO CORRELATED LAWS.
- 6) TO AVOID PERSONAL INJURY AND/DR MACHINE DAMAGE, ALWAYS MAKE SURE THE TIRE RIM IS FIRMLY SECURED ON THE TIRE CHANGER WITH THE JAWS.
- 7) NEVER PLACE YOUR HANDS BETWEEN THE VEHICLE WHEEL RIM AND THE JAWS DURING THE LOCKING/CLAMPING STAGE.

### 4.ASSEMBLY INSTRUCTION

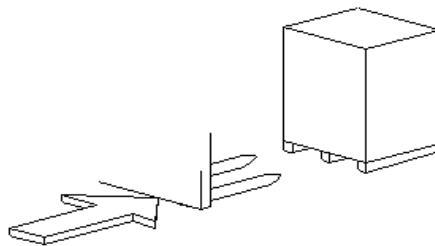


Fig.1

#### 4-1 Transport

When transporting the machine it must be handle with a forklift truck with the forks Positioned as show as in the Fig.1.

#### 4-2 Unpacking

When unpacking, check to make sure all parts shown on the spare parts List/Assembly. Diagrams are included. If any parts are missing or broken, please call the manufacturer or the dealer as soon as possible.

#### 4-3 Production Description

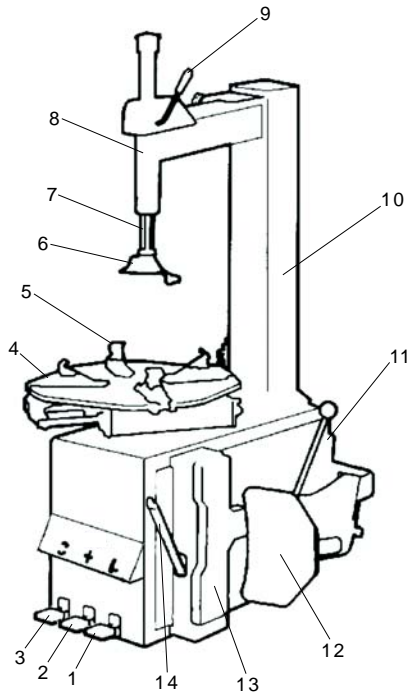


Fig.2

1	BEAD BREAKER PEDAL	2	JAW CLAMP PEDAL
3	REVERSE PEDAL	4	TURNTABLE
5	JAW	6	MOUNTING HEAD
7	TOOLS SHAFT	8	SWINGING ARM
9	BLOCK SUPPORT	10	COLUMN
11	PRESSURE REGULATOR	12	PADDLE
13	BUFFER	14	BEAD LIFTING LEVER

#### 4-4 Workplace Requirements

The machine's workplace requires 1400(width)×1685(depth) with at least 500 mm of clear space from each wall. Place the tire changer on a firm, smooth and unbroken floor. Drill four holes in the floor corresponding to the holes pre-drilled in the base of the machine. Holes should be 80mm deep. Its diameter is 10mm. Then insert the expansion Plugs and lighten with the 10mm spanner.

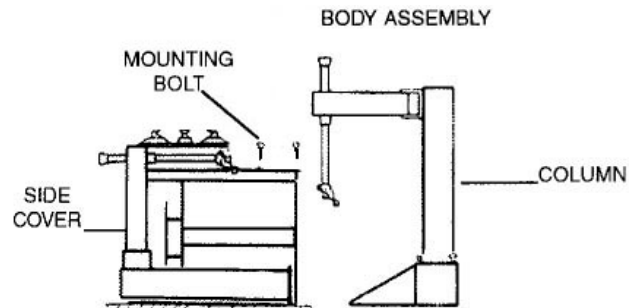


Fig.3

#### 4-5 Assembly Procedure

- 1) Temporarily remove the four mounting bolts, washers, and Nuts located at the top / rear of the body assembly.

- 2) With assistance, set the column on the body assembly, and align the four mounting holes in which the bolts, washers, and nuts were moved.
- 3) Firmly wrench tightens the column with the four mounting bolt, washers, and nuts mentioned in step 1 above.

#### 4-6 Pneumatic Link Up

- 1) Push the clamping pedal down completely to ensure that the clamping jaws do not open unexpectedly.
- 2) Connect the air hose to the union on bottom of the vertical column, which is as a tanker.
- 3) Connect the inflation gun, if it is to be installed, to its connector.
- 4) Connect the tire changer to a compressed air network. (Suggested working pressure is 8 bar) using the connector which is on the air-water separator located right side of the base assembly.

#### 4-7 Electric Link up

- 1) Before making any electric link up, check to be certain that the main voltage corresponds to what is stamped on the voltage tag.
- 2) It is absolutely essential that the system is equipped with a good grounding circuit.
- 3) The machine must be connected to a power supply line circuit bracket set for 30mA.

### 5.OPERATING INSTRUCTION

#### 5-1 To Preliminary Operating Tests

- 1) Connect the tire changer to its air and electrical supply sources, and allow adequate time for the compressed air system to reach the recommended 110-PSI.
- 2) Depress the Reverse Pedal (3, Fig2) down, the turntable should turn in a clockwise direction. Pull the pedal up and the turntable should turn anticlockwise.
- 3) Press the bead breaker pedal (1, Fig2) to activate the paddle. When the pedal is released. The pedal should return to its original position.
- 4) Press the jaw clamp pedal (2, Fig.2) once to open the four jaws. Press the pedal again to close the jaws.

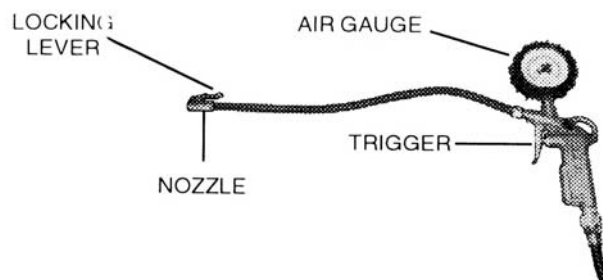


Fig.4

- 5) Press the trigger on the air gauge to release air from the nozzle. (Fig.4)

#### 5-2 To Break Tire Bead

- 1) CAUTION: Before carrying out this procedure, deflate the tire fully, and remove all the wheel weights.
- 2) Close the turntable clamping jaws completely.
- 3) Open the bead breaker arm by hand by pushing it towards the outside. Place the wheel up against the Rubber Buffer. Bring the Paddle against the bead about 10mm from the edge of the rim. (see Fig.5 )
- 4) Depress the bead breaker pedal fully to activate the paddle. Release pressure on the

bead breaker pedal. When the blade has reached the end of its travel and / or when the tire bead is broken.

- 5) Rotate the tire slightly, and repeat the procedure around the entire circumference of the wheel rim until the bead is completely detached from the rim. (Fig.5)
- 6) Repeat the above steps for the other side of the wheel / tire.

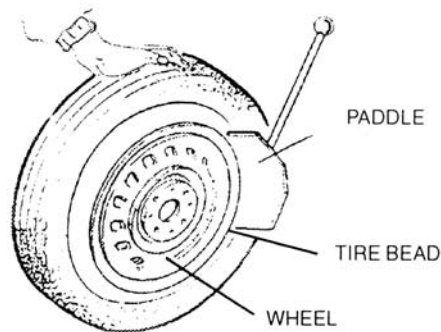


Fig.5

### 5-3 To Remove The Tire From The Wheel

- 1) CAUTION: Before carrying out this procedure, deflate the tire fully, and remove all the wheel weights.
- 2) Spread tire grease (or a similar lubricant) liberally on the complete circumference of the broken tire bead.

NOTE: Failure to lubricate the tire bead may cause serious damage to the bead.

- 3) Place the wheel / tire evenly on the turntable.(4, Fig.2)
- 4) To lock the wheel on the turntable, proceed as follows according to the wheel size:

#### RIM from 10" to 18":

Position the four jaws (5, Fig.2) according to the reference mark located on the turntable by depressing the jaw clamp pedal (2, Fig.2) halfway down.

Place the wheel on the four jaws and, while keeping the wheel rim pressed down, depress the jaw clamp pedal as far as it will go.

Check to make sure the wheel is firmly secured by the jaws.

#### Rim from 12" to 20":

Position the four jaws so that they are completely closed.

Place the wheel on the four jaws and depress the jaw clamp pedal to open the jaws, thereby locking the wheel rim in place.

Check to make sure the wheel is firmly secured by the jaws.

- 5) Lower the tools shaft (7, Fig.2) until the mounting head (6, Fig.2) rests next to the wheel rim and on top of the tire. Then, lock the tools shaft in position, using the block support.
- 6) Insert the lever between the tire bead and the front section of the mounting head. (Fig.6)

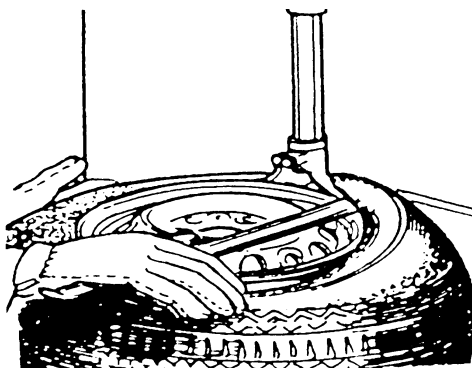


Fig.6

- 7) Move the tire bead over the mounting head by pulling upward on the reverse pedal.(3, Fig.2)
- 8) NOTE: To avoid damaging the inner tube (if there is one), it is recommended to perform this step with the inner tube valve stem positioned about 1" to the right of the mounting head.
- 9) With the lever (14, Fig.2) held in position, rotate the turntable in a clockwise direction by fully depressing the reverse pedal. Continue until the tire is completely separated from the wheel rim.
- 10) Remove the inner tube (if there is one), and repeat the above steps for the other side of the wheel / tire.

#### 5-4 To Mount The Tire Onto The Wheel Rim

- 1) CAUTION: Before carrying out this procedure, deflate the tire fully, and remove all the wheel weights.
- 2) Spread tire grease (or a similar lubricant) liberally on the complete circumference of the tire bead to avoid damage to the tire bead to avoid damage to the tire and to facilitate the mounting procedure.
- 3) Lock the wheel rim, using the inner part of the jaws.(5, Fig.2)
- 4) NOTE: When you are working with wheel rims of the same size, it is not always necessary to lock and unlock the tools shaft. Instead, move the swinging arm (8, Fig.2) sideways with the tools shaft locked.(7, Fig.2)
- 5) Move the tire so that the bead passes below the front section of the mounting head and is brought up against the edge of the rear section of the mounting head. (Fig.7)

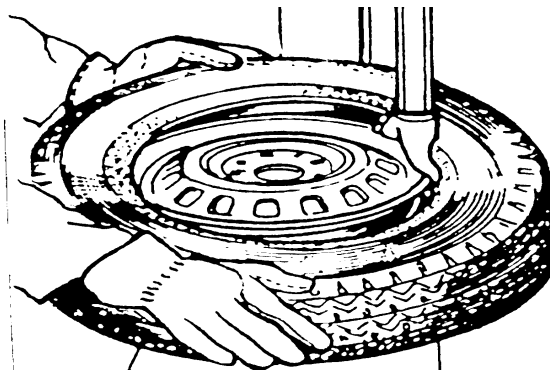


Fig.7

- 6) Keep the tire bead pressed down into the wheel rim channel with your hands. Then, depress the reverse pedal to rotate the turntable clockwise. Continue this process throughout the entire circumference of the wheel and tire.
- 7) Insert the inner tube (if there is one).
- 8) Repeat the steps above the mount the other side of the tire.

#### 5-5 To Inflate The Tire

- 1) CAUTION: A burst tire can cause serious injury or even death to the operator. Always make sure the wheel rim and the tire are of the same size. Check the condition of the tire, and make sure it has no defects before beginning the inflation process. Keep your hands and body as far away from the tire as possible. Inflate the tire with brief jets of air, checking the air pressure frequently.  
Never inflate a tire above and or below the air pressure recommended by the tire manufacturer.
- 2) To inflate the tire, attach the air gauge nozzle (See Fig.4) to the tire valve stem with the locking lever in the "UP" position. Check the condition of the tire, and make sure the nozzle is pressed down completely over the threads of the valve stem.

- 3) When the air gauge nozzle is firmly in place, press the locking lever down to lock onto the valve stem.
- 4) Remember to inflate the tire with brief jets of air, checking the air pressure frequently. Once the proper air pressure has been reached, disconnect the nozzle from the valve stem and screw a valve cap onto the stem. (Fig.8)

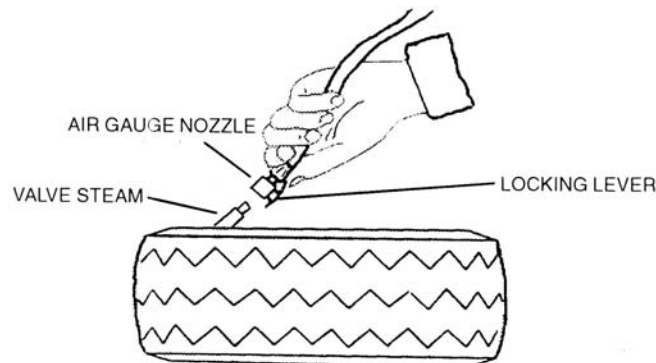


Fig. 8

#### 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 tires.
- 2) If a higher tire inflation pressure is required, remove the wheel from the tire changer and continue the inflation procedure with the wheel inside a special protection cage (commercially available).  
NEVER exceed the maximum inflation pressure given by the tire manufacturer.
- 3) ALWAYS keep hands and entire body back from inflating tire.  
ONLY specially trained personnel are allowed to perform these operations.  
Do not allow other to operate or be near the tire changer

#### 6. Routine Maintenance

- 1) CAUTION: Always disconnects the tire changer from its air supply source. Pump the bead breaker pedal several times to evacuate all compressed air from the machine, and disconnect the unit from its electrical supply source before performing any services or maintenance.
- 2) Before each use, inspect the general condition of the tire changer. Check for loose screws, misalignment, binding of moving parts, broken parts, loose or damaged air supply hose / electric power cord, and any other condition that may affect its safe operation. If abnormal noise or vibration occurs, disconnect the tire changer from its air and electric supply sources immediately and have the problem corrected before further use. Do not use damaged equipment.
- 3) At least once per week, clean the turntable with detergent or a nonflammable solvent. Also, grease the jaw guides.
- 4) At least once per month, check the oil level in the lubricator tank. If necessary, remove the oil cap, fill the tank with SAE 30 oil, and replace the oil cap. Also, make sure that one drop of oil is injected into the tank every 3-4 times the bead breaker pedal is depressed. If necessary, regulate the rate of oil injection with the oil regulator screw.
- 5) After the first 20 days of use, retighten the jaws tightening screws and the screw located on the turntable slides.
- 6) In the event of a loss of power, check to see if the belt is tight. To do so, remove the left



side of the cover by unscrewing the six screws. Tighten the belt, using the adjusting screw located on the motor support.

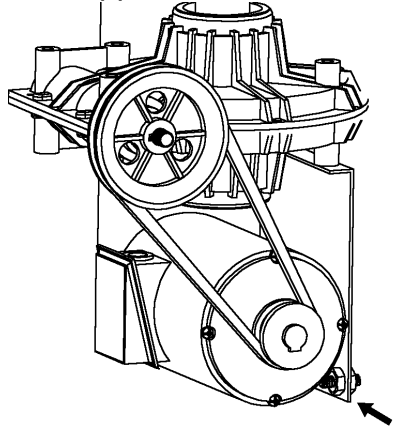


FIGURE 9

- 7) In the event the block support doesn't lock the tools shaft in place, or the mounting head doesn't rise at least 1/8" above the wheel rim which is necessary for working, adjust the nuts as shown in fig.10.

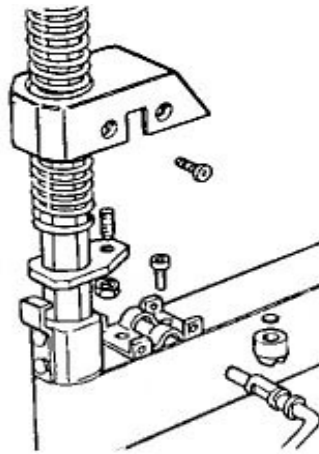


Fig 10

- 8) To clean or replace the center chuck valve, remove the side cover, which is located on the left side of the body assembly, by unscrewing the six screws.  
 9) Remove the air hoses from the center chuck valve.  
 10) Clean the center chuck valve, using a jet of compressed air. Or if necessary, replace the unit.  
 11) For cleaning or replacing the bead breaker valve, follow steps 8, 9 and 10 above.(Fig.11)

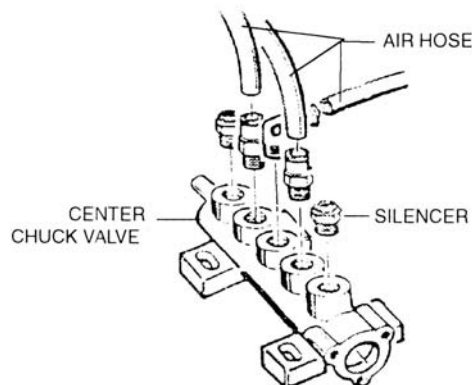



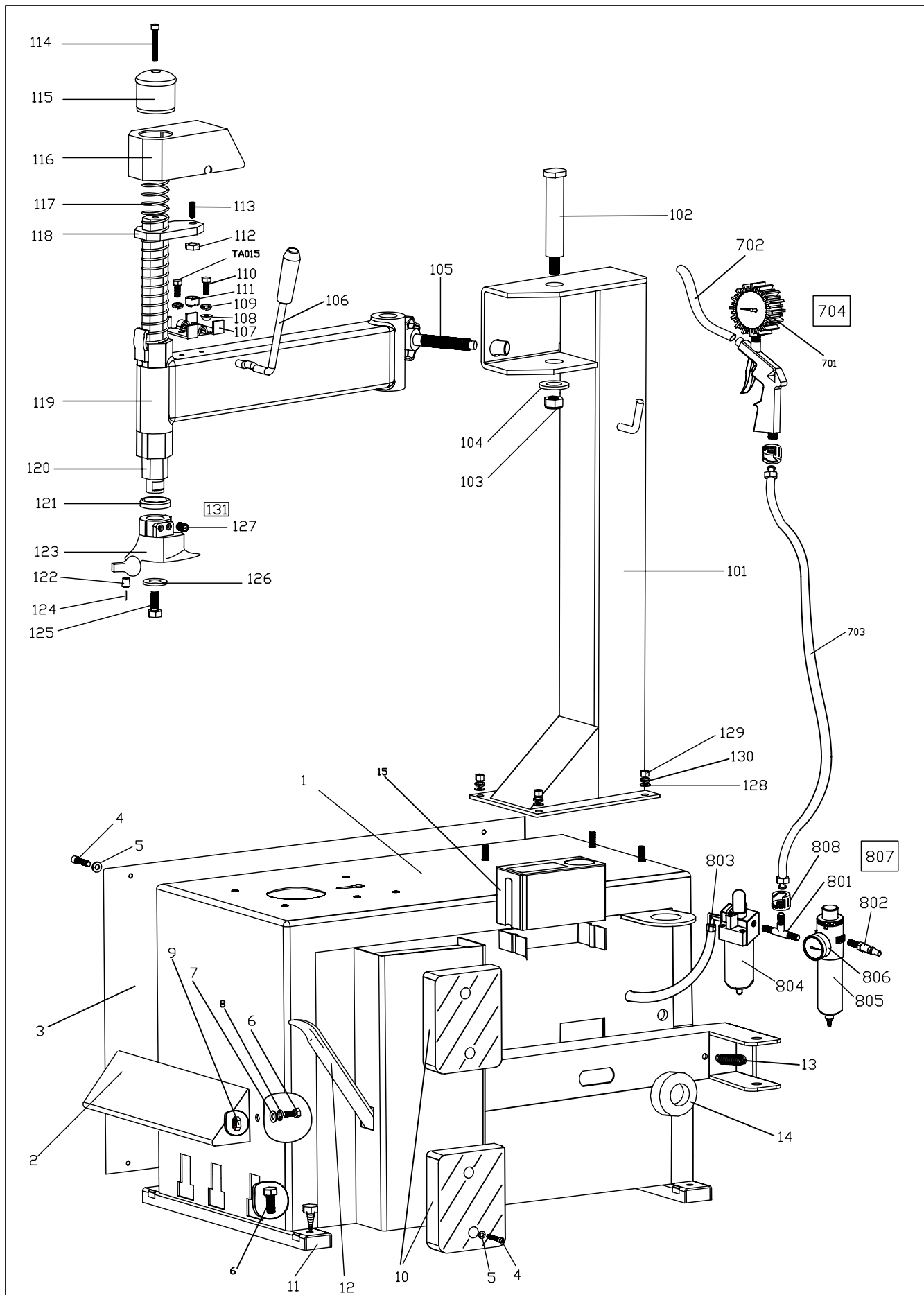
Fig.11

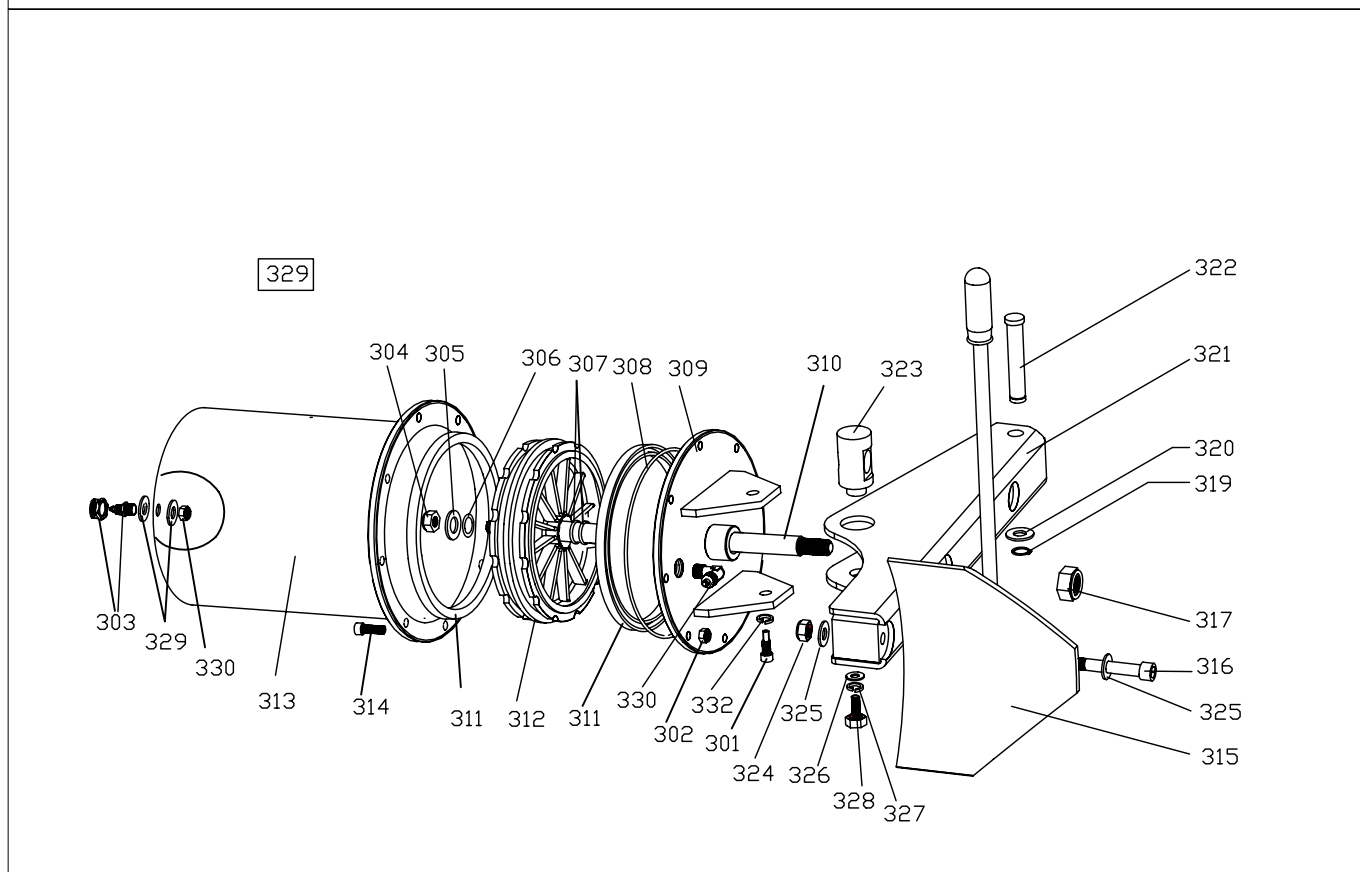
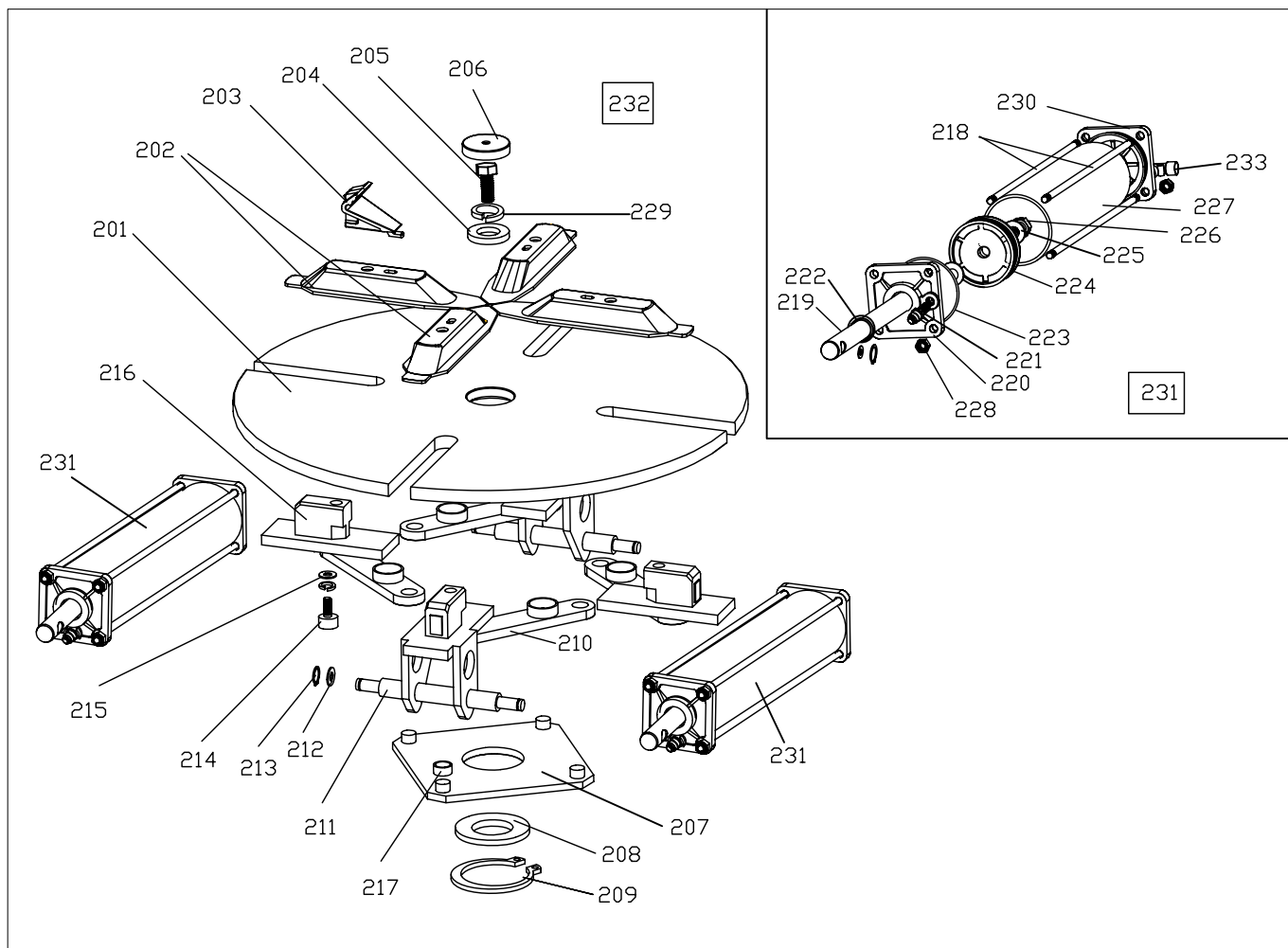
## 7.TROUBLE SHOOTING

- 1)
  - A) Situ.  
Turntable does not rotate.
  - B) Reas.
    - a) The power plug  is not inserted or no power from the mains electric supply.
    - b) The problem with motor.
    - c) Reverse pedal broken.
    - d) Belt loosen or broken.
  - C) Disp.
    - a) Insert the plug correctly and reset the mains electric supply.
    - b) Check for loose wires in the motor.
    - c) Check and repair entire reverse assembly.
    - d) Regulate or replace the belt.
- 2)
  - A) Situ.  
Turntable locks while mounting/removing tire.
  - B) Reas.  
Belt loose.
  - C) Disp.  
Adjust belt tension.
- 3)
  - A) Situ.  
Jaws slow to open/close.
  - B) Reas.  
Silencer clogged.
  - C) Disp.  
Clean or replace silencer.
- 4)
  - A) Situ.  
Turntable does not lock the wheel rim correctly.
  - B) Reas.
    - a) Jaws worn.
    - b) Defective piston
  - C) Disp.
    - a) Replace jaws.
    - b) Replace plate cylinder gasket.
- 5)
  - A) Situ.  
Tool touches the wheel rim during tire mounting/demounting process.
  - B) Reas.
    - a) Locking slide incorrectly adjusted or defective.
    - b) Locking slide screw loose.
  - C) Disp.
    - a) Adjust or replace locking slide.
    - b) Tighten screw.
- 6)
  - A) Situ.  
Bead Breaker Pedal and Jaw clamp pedal lock out of position.

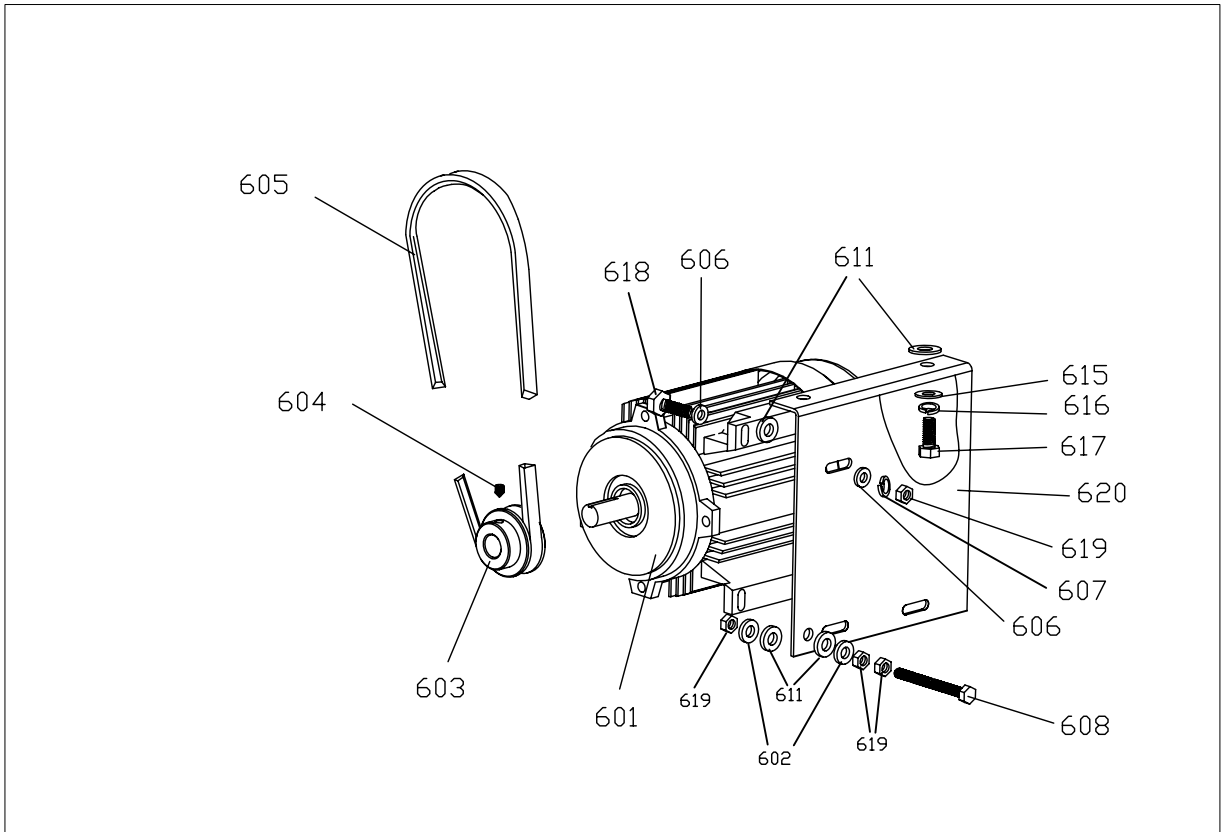
- B) Reas  
Return spring of the pedal broken.
  - C) Disp.  
Replace spring.
- 7)
- A) Situ.  
Bead breaking operation difficult.
  - B) Reas.
    - a) Silencer clogged.
    - b) Valve shaft O-ring broken.
    - c) Cylinder piston V-seal or O-ring broken.
  - C) Disp.
    - a) Clean or replace silencer.
    - b) Replace O-ring.
    - c) Replace V-seal or O-ring

## 8、ExplodedDrawings



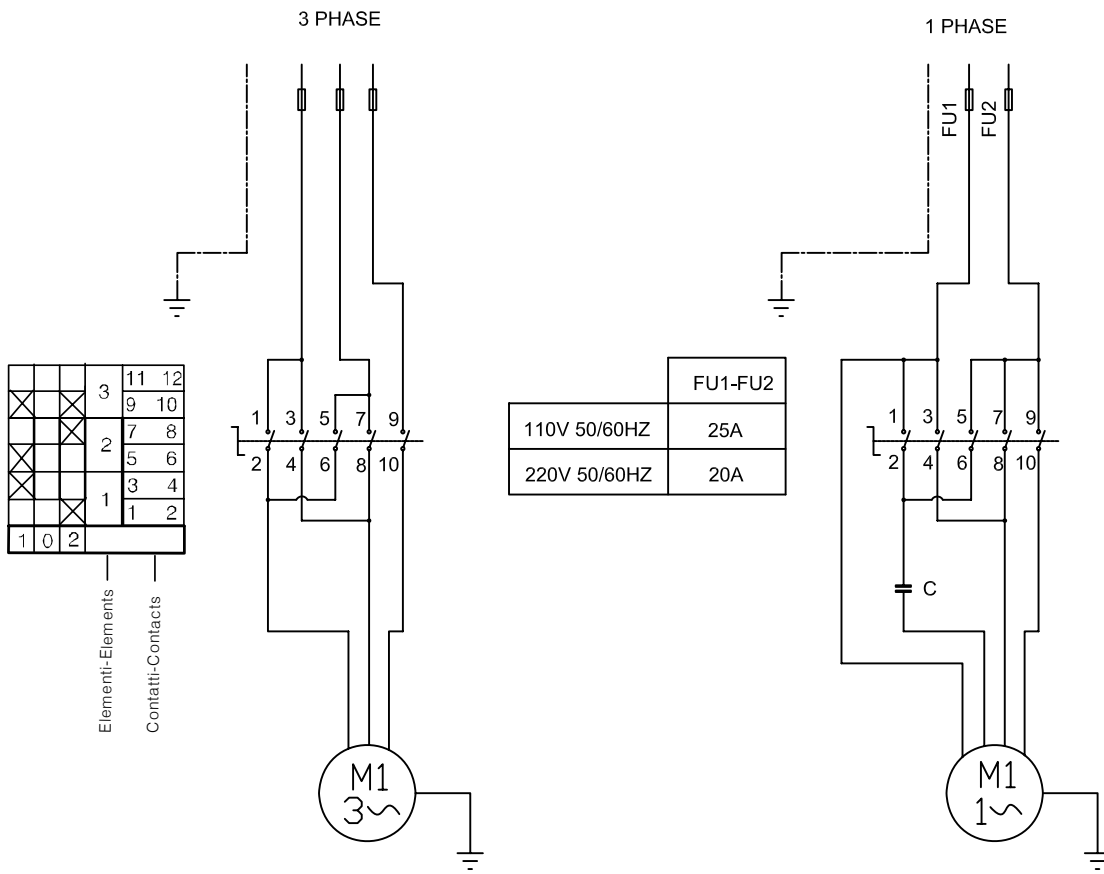




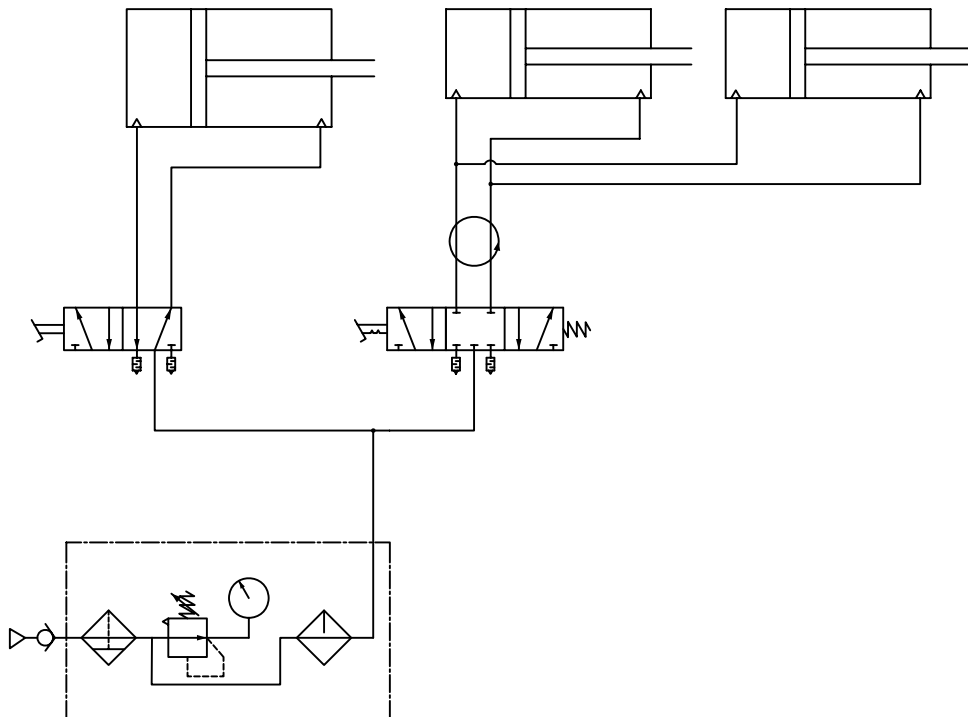


## 9、 Electric And Pneumatic Drawings

### 9-1 Electric Drawing



### 9-2 Pneumatic Drawing





## 10 SPARE PART LIST

No.	Code	Qt.	Description	No.	Code	Qt.	Description
1	C5030101	1	Body	201	C5030122	1	Turntable $\phi$ 540
2	C2110115	1	Front cover	202	C2110145	4	Slide
3	C5030143	1	Left cover	203	C2110144	4	Jaw
4	GB/T 70	8	Screw M6 $\times$ 15	204	C2110120	1	Turntable washer
5	GB/T 95	10	Washer $\phi$ 6	205	GB/T 5781	1	Screw M16 $\times$ 20
6	GB/T 70	3	Screw M8 $\times$ 16	206	C2110163	1	Cap
7	GB/T 95	4	Washer $\phi$ 8	207	C2110147	1	Control plate
8	GB/T 93	2	Spring washer $\phi$ 8	208	C2110120	1	Washer
9	GB/T41	2	Nut M8	209	GB/T 894	1	Seeger ring $\phi$ 65
10	C5030113	2	Rubber wheel support	210	C2110150	4	Connecting rod
11	C211010105	4	Rubber foot	211	C2110121	2	Slide guide with pin
12	C2110158	1	Bead lifting lever	212	GB/T 95	4	Washer $\phi$ 12
13	C2110104	1	Spring	213	GB/T 894.1	4	Seeger ring $\phi$ 12
14	C2110108	1	Rubber support	214	GB/T 80	4	Screw M12 $\times$ 85
15	C2110159	1	box	215	GB/T 95	4	Washer $\phi$ 12
				216	C211012101	2	Slide guide
101	C5030138	1	Vertical column	217	C2110148	4	Flat spacer for chuck
102	C2110135	1	Column pin	218	C211011904	8	Tightener
103	GB/T41	1	Nut M16	219	C211011902	2	Cylinder rod
104	GB/T 95	1	Washer $\phi$ 16	220	C211011901	2	Front flange
105	C2110137	1	Knob	221	C2110336	1	Union 1/8"- $\phi$ 7
106	C2110133	1	Locking block handle bar	222	JB/T 6997	2	V-seal
107	C2110127	1	Locking block support	223	JB1092	4	O-ring $\phi$ 70
108	C2110134	1	Cone washer	224	C211011906	2	Piston
109	GB/T 95	1	Spring Washer $\phi$ 8	225	GB/T 95	2	Washer $\phi$ 12
110	GB/T 70	1	Screw M8 $\times$ 20	226	GB/T 1337	2	Self-locking nut
111	C2110128	1	Locking block	227	C211011905	2	Cylinder casing
112	GB/T 41	1	Nut M12	228	GB/T 95	16	Washer M8
113	GB/T 78	1	Screw M12 $\times$ 30	229	GB/T 95	1	Spring Washer $\phi$ 16
114	GB/T 70	1	Screw M8 $\times$ 40	230	C211011903	2	Rear flange
115	C2110132	1	Knob	231	C2110119	2	Complete clamping cylinder
116	C2110129	1	Plastic cover	232		1	Complete self-centering chuck
117	C2110131	1	Spring	233	C2110331	2	L-Union 1/8"
118	C2110130	1	Locking plate				
119	C2110126	1	Horizontal arm	301	GB/T 70	2	Screw M12 $\times$ 15
120	C2110125	1	Hexagonal vertical arm	302	GB/T 41	12	Nut M6
121	C2110124	1	Buffer bush	303	C2110353	1	Union 1/4"
122	C211012302	1	Pulley	304	GB/T 1337	1	Self-locking nut M12
123	C2110124	1	Munting head	305	GB/T 95	1	Washer $\phi$ 12
124	GB/T 119	1	Pin	306	JB1092	1	O-ring $\phi$ 16
125	GB/T 78	1	Screw M10 $\times$ 25	307	JB1092	2	O-ring $\phi$ 16
126	GB/T 95	1	Washer $\phi$ 10	308	JB1092	2	O-ring $\phi$ 180
127	GB/T 80	2	Screw M12 $\times$ 15	309	C211010606	1	Bead breaker cylinder lid (front)
128	GB/T 95	4	Washer $\phi$ 10	310	C211010601	1	Bead breaker rod
129	GB/T 41	4	Nut M10	311	JB/T 1091	2	V-seal
130	GB/T 78	4	Spring Washer $\phi$ 10	312	C211010602	1	Piston
131	C2110123	1	Complete mounting head	313	C211010603A	1	Bead breaker cylinder
132	GB/T 70	1	Screw M8 $\times$ 16	314	GB/T 70	12	Screw M6 $\times$ 15
				315	C2110114	1	Shovel

316	GB/T 70	12	Screw M12×70	437	C2110348	1	T-union
317	GB/T 1337	1	Self-locking nut M16	438	C2110331	5	L-union
319	GB/T 894.1	1	Seeger ring $\phi$ 16	439	GB/T 973	2	Screw M4X15
320	GB/T 96	1	Washer $\phi$ 16	440		1	switch Protect
321	C2110105	1	Bead breaker arm	441	C2110211	1	Power cable
322	C2110142	1	Bead breaker arm pin (rear)	442	C20200122003	2	valve cover
323	C2110168	1	Rotating pin	443	GB/T 845	2	Cap screw ST2.9×5
324	GB/T 1337	1	Self-locking nut M12	444	C20200122004	10	Spacer
325	GB/T 95	2	Washer $\phi$ 12	445	C211011221	4	Silencer 1/8"
326	GB/T 5287	1	Washer $\phi$ 8	447	C211011220	1	Complete 5-way valve(T-union)
327	GB/T93	1	Spring washer $\phi$ 8	448	C211011220	1	Complete 5-way valve(L-union)
328	GB/T 5783	1	Screw M8×15	449	JB1092	24	O-ring $\phi$ 12
329	C2110106A	1	Complete bead breaker cylinder	450	C20200122002	2	Valve pole
330	C2110343	1	L-union 1/4"	451	GB/T 5287	2	Washer $\phi$ 8
331		1	Nut 1/8"	452	GB/T93	2	Spring washer $\phi$ 8
332	GB/T93	2	Spring washer $\phi$ 12	453	GB/T 70	2	Screw M8×16
333	GB/T 5287	2	Washer $\phi$ 10				
				501	C211015203	1	Bottom cover
401	C211011201	2	pedal	502	GB/T 297	2	Roller bearing 30204
403	C211011202	1	Switch pedal	503	GB/T 10708	1	V-seal
404	C211011213	1	Twist-spring	504	C211015207	1	Gear box pulley
405	GB/T 70	1	Screw M8×15	505	GB/T 41	1	Nut M10
406	GB/T 70	1	Screw M6×15	506	GB/T 1096	1	Key 6×20
407	C211011206	1	Connecting rod	507	C211015206	1	Worm screw
408	C211011207	1	Switch lever	508	GB/T 292	2	Bearing 7010
409	GB/T 845	2	Cap screw ST2.9×5	509	C211015202	1	Worm gear shaft
410	C211011215	1	Cam cover	510	C211015201	1	Worm gear
411	C211011218	1	Switch support	511	C211015208	1	Spacer
412	C211011216	1	Flat spring	512	GB/T 5783	6	Screw M10×55
413	C211011209	1	Cam	513	GB/T95	6	Washer $\phi$ 10
414	C211011211	2	Spring	514	GB/T 117	2	Pin
415	C211011208	1	Pedals support	515	GB/T 70	10	Screw M6×15
416	GB/T 1337	2	Self-locking nut M4	516	GB/T93	6	Spring washer $\phi$ 10
417	GB/T95	6	Washer $\phi$ 4	517	C211015203	1	Upper cover
418	GB/T 973	2	Screw M4X40	518	GB/T 1096	1	Key 10×40
419	GB/T 894.1	2	Seeger ring $\phi$ 12	519	GB/T 1096	1	Key 14×40
420	GB/T95	2	Washer $\phi$ 12	520	JB1092	2	O-ring $\phi$ 34
421	C211011203	1	Pedals shaft	521	C211015205	1	Plastic cap
422	GB/T 1337	2	Self-locking nut M8	522	GB/T 1337	10	Self-locking nut M6
423	GB/T95	2	Washer $\phi$ 8	523	C211011701	1	Rotating union casing
424	GB/T 973	1	Screw M3X16	524	GB/T 71	4	Screw M3x15
425	C211011210	1	Cam connecting rod	525	C2110342	4	Union 1/8"
426	GB/T 70	1	Screw M8×60	526	C211011702	1	Rotating union mandrel
427	GB/T 41	2	Nut M8	527	C2110341	2	T-Union
428	GB/T95	10	Washer $\phi$ 6	528	JB1092	3	O-ring $\phi$ 60X2.65
429	GB/T 70	2	Screw M6×15	529	C2110152	1	Complete gearbox
430	GB/T 70	10	Screw M6×20	530	C2110117	1	Complete rotating union
431	GB/T93	1	Spring washer $\phi$ 3	531	GB/T 70	2	Screw M6×8
432	GB/T95	3	Washer $\phi$ 3				
433	C21101122001	1	5-Way valve	601	C2110201	1	Motor MY8024
434	GB/T 1337	1	Self-locking nut M6	602	GB/T95	2	Washer $\phi$ 8x22
435	GB/T 973	2	Screw M3X10	603	C2110141	1	Motor pulley
436	GB/T 41	2	Nut M4	604	GB/T 71	1	Screw M6×10

605	GB/T 11544	1	Belt A26"	701	C211033001	1	Air gauge
606	GB/T95	8	Washer $\phi$ 8x17	702	C211033002	1	Air outlet hose
607	GB/T 93	4	Spring washer $\phi$ 8	703	C211033003	1	Air inlet hose
608	GB/T 70	4	Screw M8x55	704	C2110330	1	Complete inflating gun
611	C2110154	10	Shock absorber washer				
613	IEC947-3	1	Reverse switch	801	C2110345	1	T-unon 1/4"
615	GB/T95	2	Washer $\phi$ 10	802	C2110351	1	Quick change adapter
616	GB/T 93	2	Spring washer $\phi$ 10	803	C2110343	1	L-union 1/4"
617	GB/T 70	2	Screw M10x16	804	C2110331	1	Lubricator
618	GB/T 70	4	Screw M8x25	805	C2110332	1	Filter and pressure reducer
619	GB/T 41	7	Nut M8	806	C2110333	1	Pressure gauge
620	C2110110	1	Motor support	807	200-03-03	1	Filter and pressure reducer+lubr.
				808	C2110334	2	Indentation nut