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Safety Precautions

- I This manual is a necessary component of the product. Please review carefully.
- I Keep the manual for later use when maintaining the machine.
- I This machine can only be used for the designed purpose. Never use it for any other purpose.
- I The manufacturer is not held responsible for any damage incurred by improper use or use for the purposes other than the intended one.

Before installing and adjusting the equipment, pay attention to the following:

- I Read this manual and all other instructions for the equipment thoroughly. Modification to any components or parts, or use the machine for other purpose without either obtaining the permission from the producer, or observing the requirement of the instructions may lead to direct or indirect damage to the equipment.
- I The installation and adjusting personnel should have a good understanding of electrical devices.
- I The equipment can only be operated by qualified personnel with special training.
- I TWC-502RMB should be installed on the smooth ground.
- I Keep the back panel 0.75M away from the wall for good ventilation. Enough room should be left on both sides of TWC-502RMB for convenient operation.
- I Do not put TWC-502RMB in a place with high temperature or moisture, or near the heating system, water tap, air-humidifier or furnace.
- I Do not install TWC-502RMB near a window with sunlight. Protect the unit with a curtain or shield if necessary.
- I Go through the accessory list carefully before installation. Should there be any questions please contact your agent or Launch Tech Co., Ltd.

Main Structure

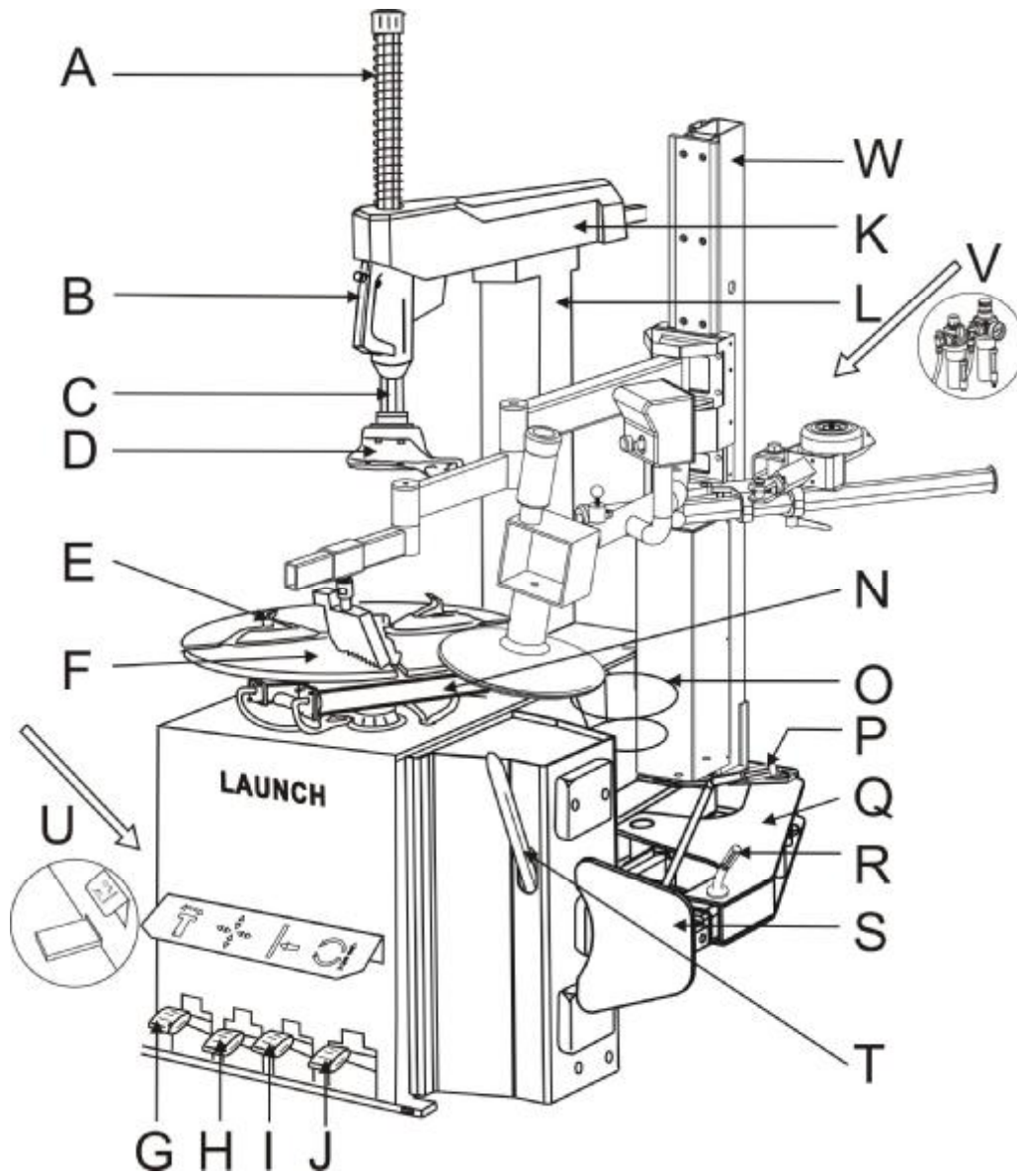


Fig.01-1

A	Return spring	B	Swing arm	C	Hexagonal column	D	Mount/demount head	
E	Clamping jaw	F	Turntable	G	Tilting column control pedal	H	Clamping cylinder control pedal	
I	Bead breaker control pedal	J	Turntable control pedal	K	Hexagonal column locking handle	L	Tilting column	
N	Clamping cylinder assembly	O	Hanger	P	Bead breaker handle	Q	Bead breaker arm	
R	Ajusting pin	S	Bead breaker shoe	T	Tyre lever	U	Inflation pedal	
V	Air Pressure Regulator, Gauge and Lubricator Assembly						W	Supplementary arm assembly

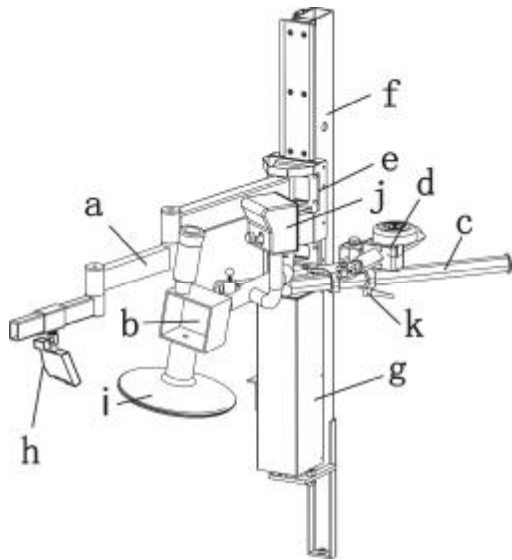


Fig.02-1

The Supplementary arm is shown in Fig. 02-1.

- a- Swivel arm assembly
- b- Disk arm assembly
- c- Slide rod assembly
- d- Lock cylinder assembly
- e- Slide board assembly
- f- Post assembly assembly
- g- Lifting cylinder assembly
- h- Press block
- i- Disk
- j- Control box assembly
- k- Lock bar

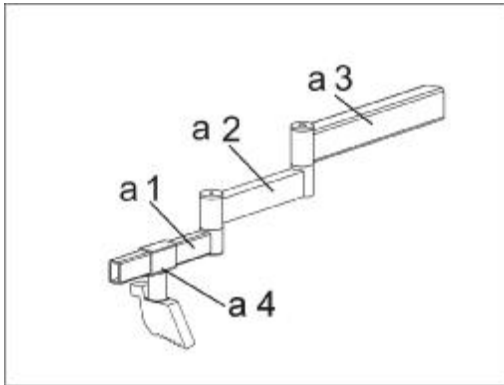


Fig.02-2

Swivel arm assembly is shown in Fig. 02-2

- a1. Fore swivel arm
- a2. Middle swivel arm
- a3. Back swivel arm
- a4. Press slide set

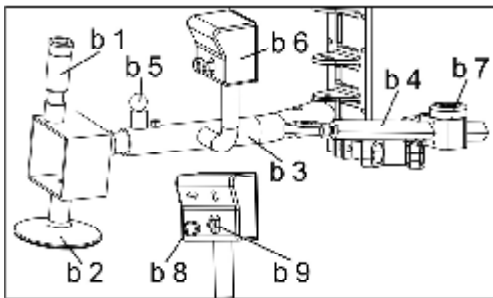


Fig.02-3

Disk arm assembly is shown in Fig. 02-3

- b1. Roller of disk arm
- b2. Disk
- b3. Disk arm
- b4. Locking slide bar
- b5. Knob
- b6. Control box
- b7. Lock cylinder
- b8. Button valve
- b9. Reversing valve

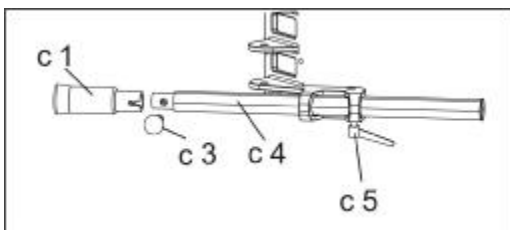


Fig.02-4

Slide rod assembly is shown in Fig. 02-4

- C1. Roller 1
- C 3. Knob
- C4. Slide rod
- C5. Lock bar

Tools

To ensure the correct installation and adjusting, please get the following tools ready:

Two adjustable wrenches, one set of box spanners, one pair of pliers, one set of screwdrivers, one digital multi-meter (for voltage measurement).

Installation

Unpacking

- I Remove packing following the instructions on the package. Remove the packing materials and check the machine for possible damage or loss of accessories during transportation.
- I Keep the packing materials out of the reach of children. Handle them in an appropriate way if the packing materials cause pollution.
- I Remove the cabinet, tilting column t, horizontal arm and accessory box fitted on the bottom plate and put them in safety place.

Installation

Installation of Tilting column (Fig.03)

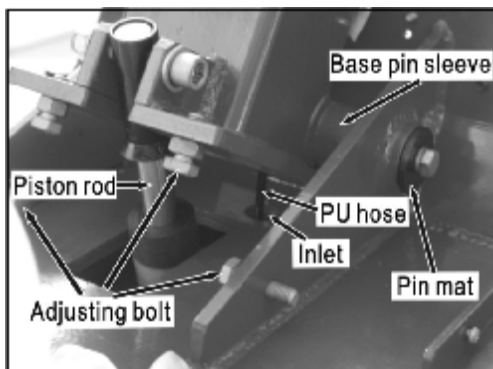


Fig.03

- I Place the cabinet at the right position.
- I Remove the front board and bottom rotation shaft of tilting column with appropriate tools.
- I Apply lubricant on bottom rotation shaft and its sleeve.
- I Lift up the tilting column . Run the PU hose through inlet on the cabinet, and position the tilting column onto the bottom seat.
- I Align the round holes on the bottom rotation sleeve and the side boards of the bottom seat,

then knock the rotation shaft through holes with a hammer. Use a wood block between hammer and the shaft for protection when knocking. Fit gaskets on both sides of the shaft before fastening screws.

- I Remove the bolt and nut from the piston rod of the tilting column cylinder. Get the bolt through round holes on side boards of the tilting column and the piston rod. Lock it with the locking nut.
- I Adjust four adjusting bolts to make the tilting column on the right position (See Tiltting Unit)
- I Mount the front board to original position.



Caution:

Special anti-rust oil is applied on the delicate parts may attract dust. Clean it when necessary.

Installation of Supplementary arm device

- I Take out assembly of back swivel arm, post and lifting cylinder, remove the hood(Fig.04). Then take out disk assembly and relevant fastening parts, apply lubricant on the fastening parts, assemble them as Fig.05, mount back the hood



Fig.04

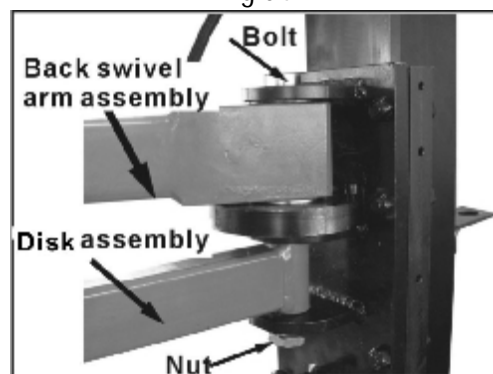


Fig.05

- I Remove the bolts (Fig.06) and washers on right side plate of cabin, place the unit (Fig.05) on the seat vertically,
- I Fit washers and fasten them with bolts. Get the air compressing hose out from the bottom of post

into cabinet through small hole on its right side plate.

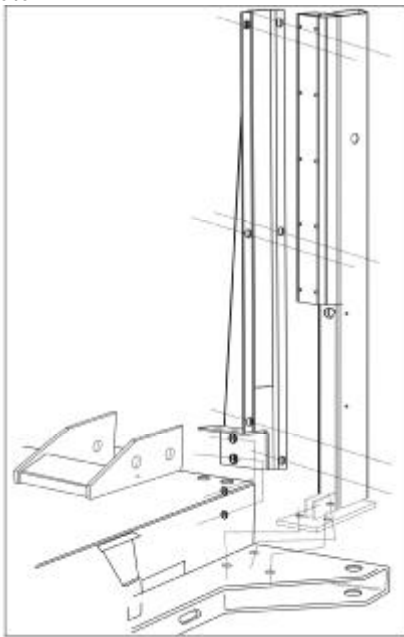


Fig.06

- I Take out Slide rod and relevant fastening parts, brush lubricant on the parts, then assemble them as in Fig.07.

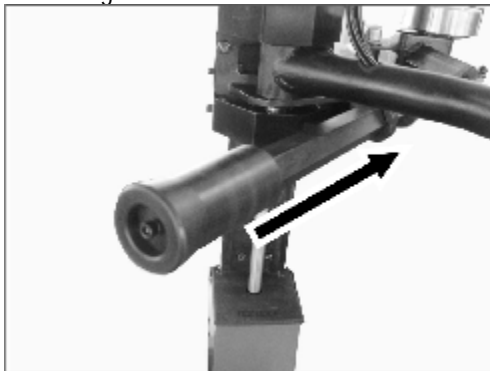


Fig.07

- I Take the bless block on tyre center, assemble it on fore swivel arm as in Fig.08.

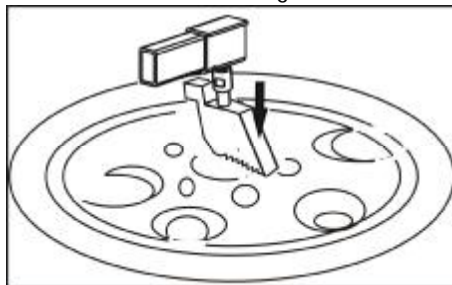


Fig.08

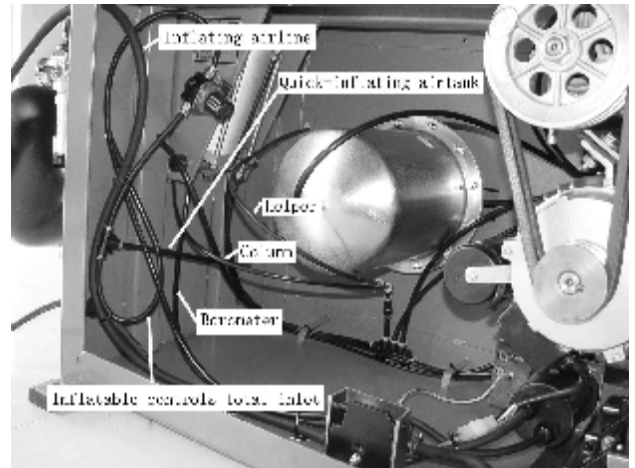


Fig.09

Air Connections

- I After the post and supplementary arm fixed, disassemble the sideboard of the cabinet
- I Find air compressing hoses out from the post , supplementary arm and air-tank, insert them into joint respectively. (Fig.09)
- I Shown in Fig10, get the two outlet airlines of the air pressure regulator, gauge and lubricator assembly through the round holes of the cabinet rear compartment into the cabinet inside, connect the airline1 with tyre-inflating airline group (T-joint),connect the airline2 with the cylinder airline group.



Fig.10

Installation of Air Tank

- I Fix the air tank on the cabinet with two sets of bolts, nuts, spring washers and flat washer (Fig. 11).
- I Connect the rubber hose with the joint on the air tank and fasten the screw of the hose hoop as figure 11



Fig.11



Fig.12

- I connect the airline of the air-tank with one branch of T-joint as Fig12..
- I Assemble the cabinet sideboard

Installation of Barometer

Install the barometer on one side of the tilting post according to figure 13.



Fig.13

please refer to the TWC-502RMB gas road map to find out the specific connection method

Transport

It is advisable to transport the machine with fork lift vehicle.

- I Such movable parts: tray assembly, Bending arm assembly, straight arm assembly, tilting column and horizontal arm must be fastened to the cabinet tightly with rope to avoid damages to machine and injuries to people during

transportation.

- I Avoid excessive tilting in transportation.
- I Don't drive the fork lift vehicle carrying the equipment too fast.
- I Try to keep the machine at the lowest position and make sure it won't overturn in transportation (pay attention to the position of the gravity center).

Positioning

The place to install the machine should be in accordance with safety regulations:

- I The machine should be installed in a place close to the main power and compressed air source.
- I Install the machine on smooth concrete ground or other ground with hard flooring. 4 sets of anchor bolts(M10×150) can be used to fasten the machine onto the ground strongly to avoid vibration and noise.
- I Leave enough space around the machine for proper operation and maintenance. The space should be no less than 1M in front and on the two sides of the machine and 0.5M behind it.
- I If the machine has to be installed outdoors, a protective shelter should be built.
- I Free from flammable gases.

Note:

For the safety and proper operation, keep the machine at least 0.75M away from any wall.

Power and Air Connections

- I Before installation, check if the power source and the compressed air are in accordance with the specifications on the nameplate. Any electrical connection should be done by the specially trained technician.
- I The power socket should be at a place within the sight of the operator. The advisable height is between 0.6 – 1.7M.
- I In case the main voltage is not stable, a voltage stabilizer should be used between power source and the machine.
- I The machine should be well grounded.

⚠ *The tyre changer is not equipped with overload protection. Please connect power according to the circuit diagram included in the User's manual. Otherwise, the manufacturer will not be responsible for any accidents.*

Adjusting



Attention:

Make sure that the power supply, air sources and the oil level in the oil cup are in accordance with the requirements.

Initial Operation (Fig. 01)

Note:

The four pedals must be kept at the original position.

- I Press down the pedal (J) to turn the turntable clockwise;
- I Lift the pedal (J) to turn the turntable counter-clockwise;
- I Press down pedal (I) to move bead breaker; release it to restore;
- I Press down pedal (H) to move the jaws on the turntable outward; pedal again to move them inward;
- I Press down pedal (G), the tilting column will tilt backward. Pedal it again to restore the tilting column upright.
- I When the Rise/fall control lever is lifted, the supplementary arm device will go up.
- I When the control lever is lowered down, the supplementary arm device will go down.
- I When the Inflation pedal U(Fig.01-1) is lightly pressed, air will spout from the air hose connected with the barometer. When the pedal is pressed down to the lowest position, air will quickly spout behind four jaws (the end of the sliding mouse).

Clamping System of the Jaws(Fig.14)

- I The position of the jaw (Fig.15) on the turntable is controlled by the movement of the piston rod, which in turn is controlled by pedal H. There are three levels for pedal H.
- I When pedal H on high, the piston rod will move inward and pull the jaws moving inward until the minimum. At this time the distance of two opposite jaws is 10" for inner rim and 13" for outer rim.
- I When pedal H on low, the piston rod will move outward and pull the jaws moving outward until the maximum. At this time the distance between two opposite jaws is 20" for inner rim and 23" for outer rim.
- I While the jaws in motion, press pedal H lightly to keep it at the middle level, the jaws will stop in response. Do this function flexible to get the jaws anywhere between the maximum and minimum for different wheels.

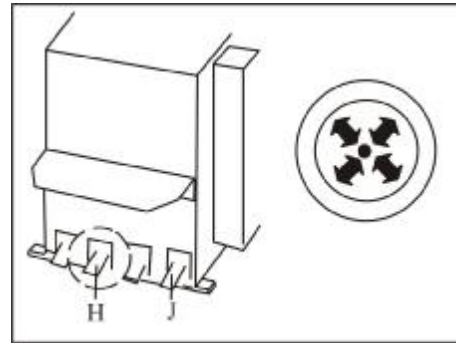


Fig. 14

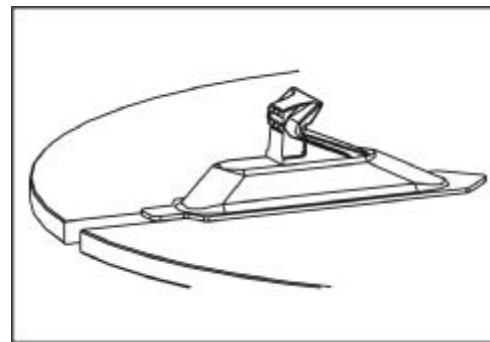


Fig.15

- I The principle of the above motion can be explained by the following: The three positions on the cam control air reaching different holes on the 5-way valve, so piston rod of clamping cylinder is able to move back and forth and stop, so do the clamping jaws.

Drive system

- I The gearing chain: The gearing chain in this machine is made up of motor, pulley, worm reducer, turntable and so on (Fig. 16).

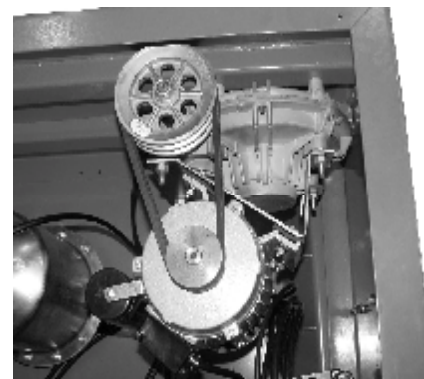


Fig.16

- I The motor RPM is about 1400. The ratio of speed is 200. The rotary direction is controlled by pedal J. Press down the pedal to make the turntable rotate clockwise. Release the pedal to stop the turntable. Lift up the pedal J with foot,

the motor and the turntable will both turn counter-clockwise.

- I If contrary to above, change the phase wire of the motor.
- I Connect the ground wire to ground.
- I In the operation, the turntable generally turns clockwise, only when the operation is obstructed occasionally, it needs to turn counter-clockwise.

Bead Breaker

- I The bead breaker is on the right side of the cabinet. As the procedure requires, press down pedal (I) (Fig.17) to start the bead breaker cylinder, the piston rod will pull the bead breaker moving towards the cabinet, with magnitude around 14075N. Release pedal (I), the bead breaker will retract.
- I The bead breaker is able to swing within a certain range. In case the range of swing is not appropriate, adjust the nut (Fig.18) at the right end of the piston rod.
- I The bead breaker arm is adjustable with two ranges. According to the size of tyre, choose range 1 or range 2. (Fig.19)

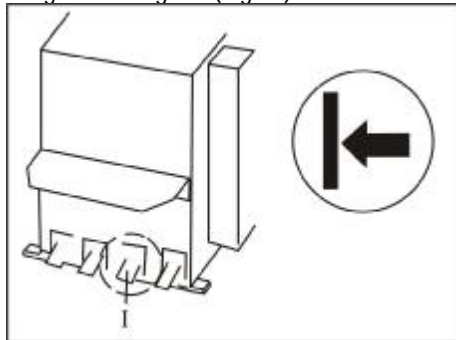


Fig.17

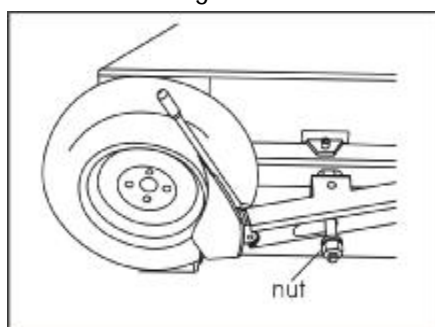


Fig.18

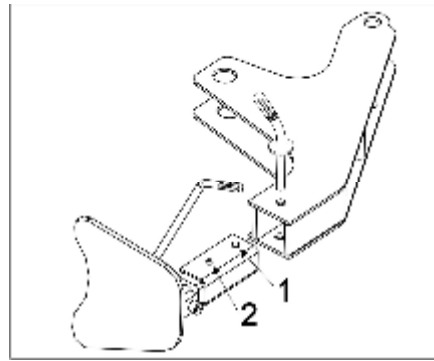


Fig.19

Tilting column Unit

- I The tilting column is under the control of tilting cylinder in the cabinet, so that the column can tilt backward in order to remove the tyre from the turntable easily, and restore to upright position (the working position).
- I The tilting cylinder is controlled by pedal G. When it is pressed, the tilting column tilts backward; and when it is pressed again, the column restore to the upright position (Fig.20)
- I If tilting speed is too fast or too slow, adjust the throttles to change speed. If the speed is too fast, fasten the screw on throttle mouth. If too slow, loose the screw. The 5-way valve has two throttles (Fig.21, of which "a" is for tilting backward while "b" is for back to upright position).

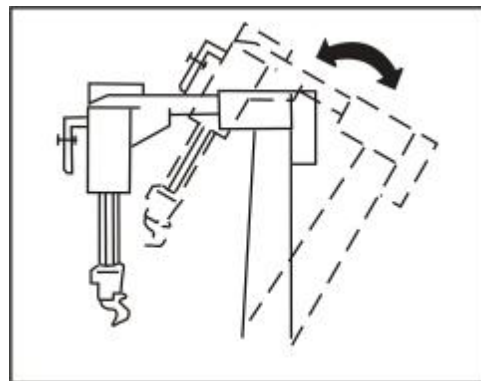


Fig.20

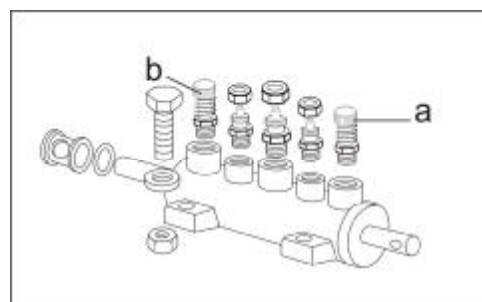


Fig.21

- I There are two bolts on the base plate of the tilting column to adjust the vertical position of the tilting

column. Also, there are two bolts on the side plates of the seat for limiting the horizontal position of the tilting column. Before operation, the two bolts on the base plate of the tilting column should be on the same horizontal level to ensure bearing the same weight. The side ends of two bolts should be away 0.5—1mm from the vertical plates of the tilting column.

Horizontal Arm and Hexagonal Column Clamping Unit

I As shown in the figure 22 use (air valve) locking button J on the handle (k) to control movement of the clamping cylinder. When thumbed down the button, the external shells of clamping cylinders (b and g) are pushed out. Their external shells touch locking boards (c and h). The tilting of the boards will lock the horizontal arm and the hexagonal column.

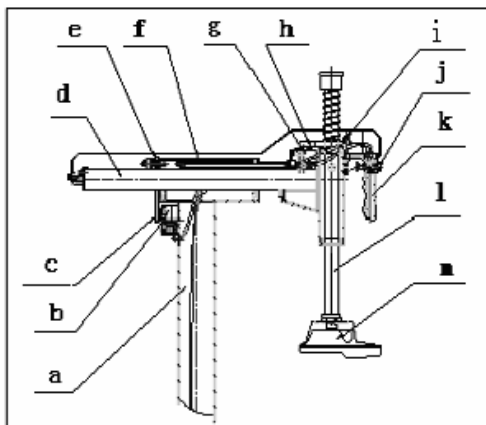


Fig.22

I When the button is pressed out by index finger, the clamping cylinder (b and g) will be drawn back. The tilting boards (c and h) will relax to loose the horizontal arm and the hexagonal column. When it doesn't work, nuts (e and i) can be tightened or loosened for adjustment.

Supplementary Arm

I Figure 02-1 shows structure of the supplementary arm that consists of such three main function units as roller, press block and disk. The horizontal column unit, swivel arm unit, disk unit and sliding sleeve integrate them together and can move up and down along the sliding column under control of rise/fall control lever on the control box. When the rise/fall control lever is lifted, the supplementary arm moves up along

with the sliding sleeve. Contrarily, when the rise/fall control lever is pressed down, the supplementary arm moves down. If it causes flutter when supplementary arm moves up and down, adjust the four locking screws on the side.

I Group a of supplementary arm (fig.23). fore swivel arm (a1) and middle swivel arm(a2) both can turn freely around corresponding axis of back swivel arm(a3). press block (h) can move on fore swivel arm (a1) and fixed on back of fore swivel arm (a1) for centering and pressing rim.

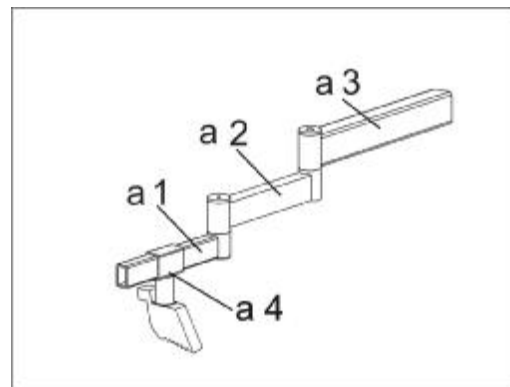


Fig.23

I Group b of supplementary arm (fig24).roller of disk arm(b1), with press block(h) and roller 1(c1) is used to mount upper tyre bead under condition without using mounting head. It also has other functions. disk(b2) is used to demount tyre by lifting tyre. switch between roller of disk arm (b1) and disk (b2) by knob (b5). On control box(b6), there is lock button(b8) and rise/fall control lever(b9). disk arm is controlled by lock button(b8). lock cylinder(b7) can lock by locking slide bar(b4), so to control movement of disk arm. Rise/fall control lever(B9) is to control movement up and down of the supplementary arm.

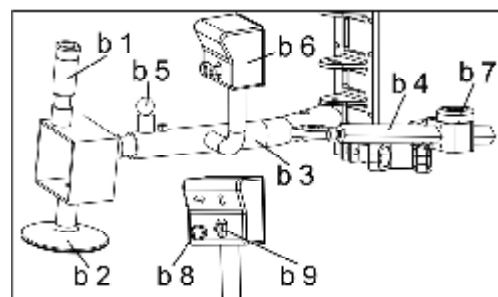


Fig.24

I Group c of supplementary arm as in fig.25.Choose roller 1(c1) according to need and fix it on fore part of slide rod(c4) by knob(c3). Turn lock bar(c5) to lock slide rod (c4.)

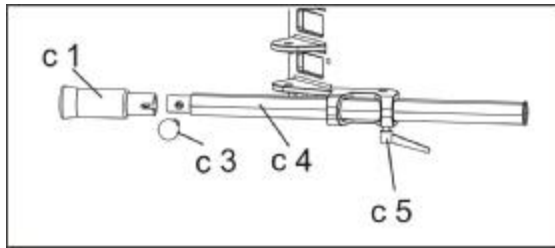


Fig.25

Mount / demount Head

Checking

- I Mount a 15 inch diameter aluminium alloy rim (preferably new) onto the turntable.
- I Lower the mount / demount head onto the rim and lock.
- I By means of the appropriate gauge kit, check measurements as indicated in Fig.26 for mount/demount head with roller) and fig.27(mount / demount head with insert).

If the measurements do not correspond proceed as follows:

Calibration

- I Loosen all screws securing the mount / demount head.
- I Lower the mount / demount head onto the rim and lock.
- I Finger-tighten screws A3-A4(Fig.30 and Fig.31 in order to turn the mount / demount head and obtain the correct position.

- I Tighten screws A1-A2 (Fig.28,32) mount/demount head with roller; Fig.29, 33 mount / demount head with insert) to tilt the mount / demount head and obtain the correct position and then finger-tighten screw B.
- I Unlock and raise the hexagonal column, then lower it onto the rim and lock again.
- I First tighten screws A1-A2-A3-A4 in torque of 50Nm and check by means of gauges that the measurements remain the same.
- I Lastly, tighten screw B to a torque of 50Nm and carry out checks once again with the gauges.

Periodic checks

After use of the machine for half a year, do regular check to ensure correct measurements as stated in Checking. If they are incorrect proceed as follows:

- I Check that the screws(A1-A2-A3-A4-B) are tightened properly and repeat calibration as per Calibration.
- I If measurement 2 (roller, Fig.28) or measurement 1 (insert, Fig.29) are changed, the cause may be that nut i(Fig.25) has loosened.
- I Tighten or loosen nut i to increase or reduce lifting range.
- I If measurement 2 (Fig.30) has changed, this may be due to loose nut e(Fig.22) or deformation of locking plate c (Fig.22).in both case simply adjust the nut, tighten or slacken to increase or reduce movement range. Secure nuts with minimum tightening torque 70Nm.

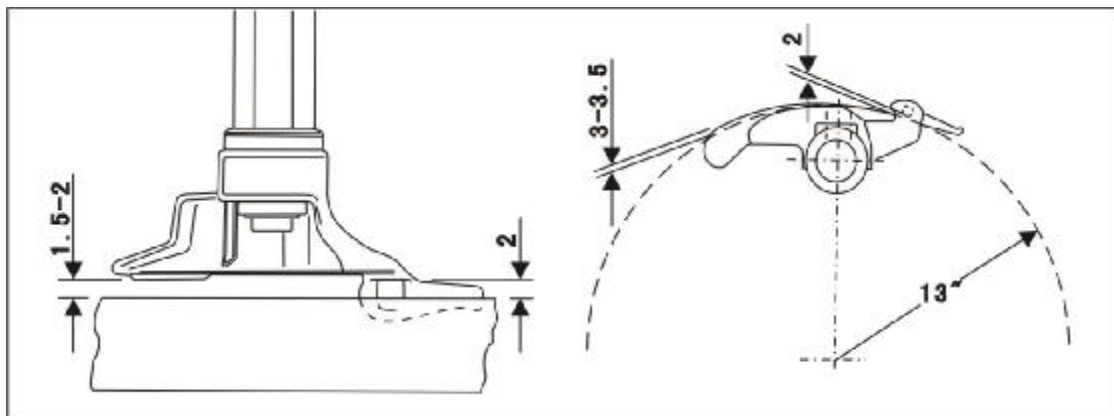


Fig.26

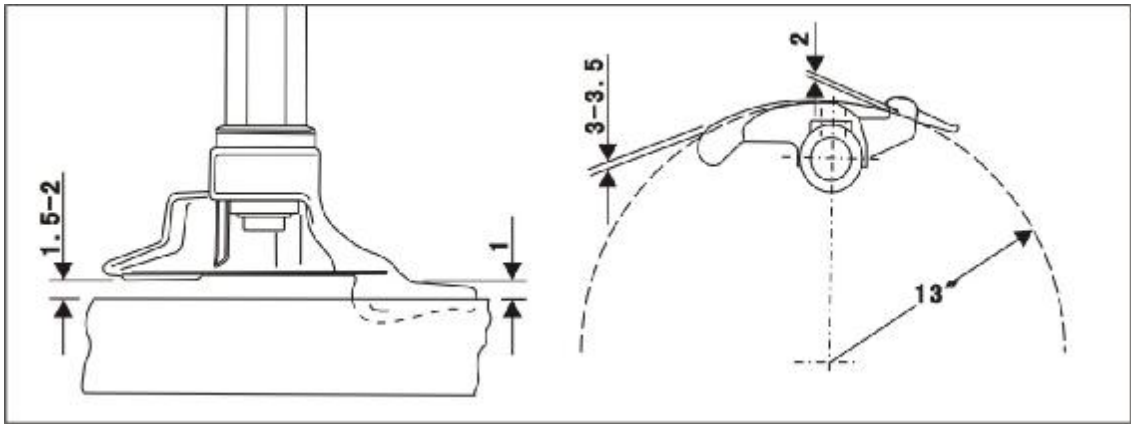


Fig.27

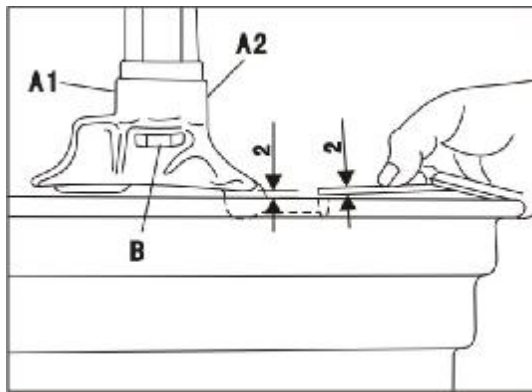


Fig.28

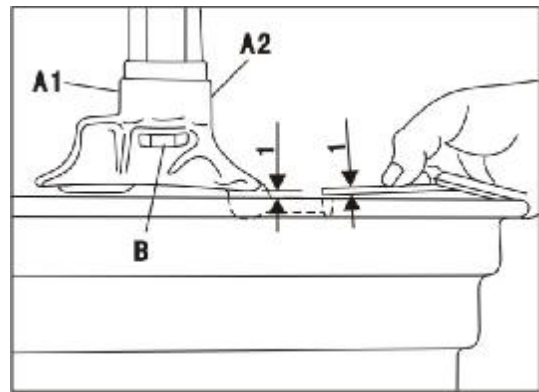


Fig.29

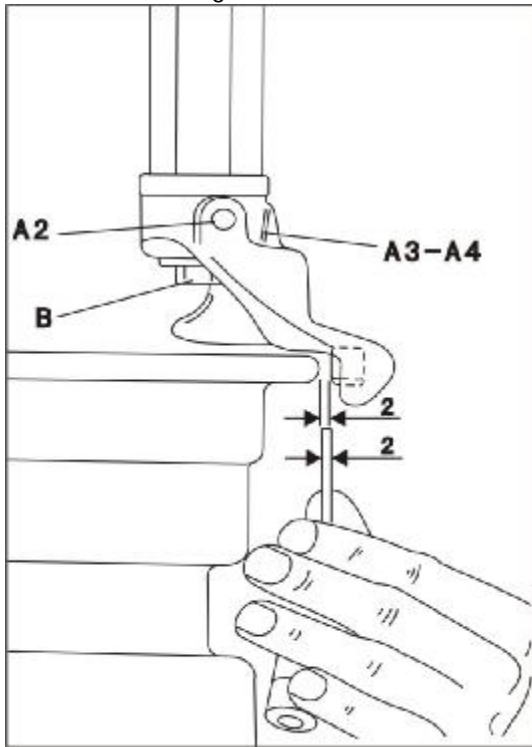


Fig.30

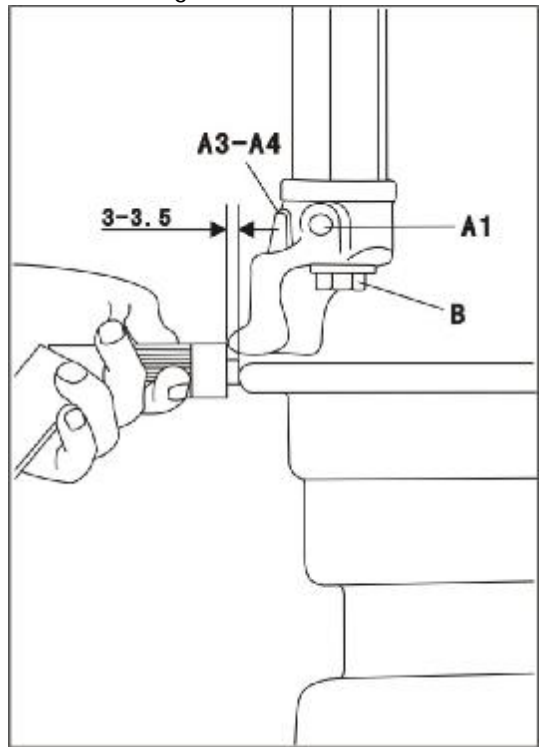


Fig.31

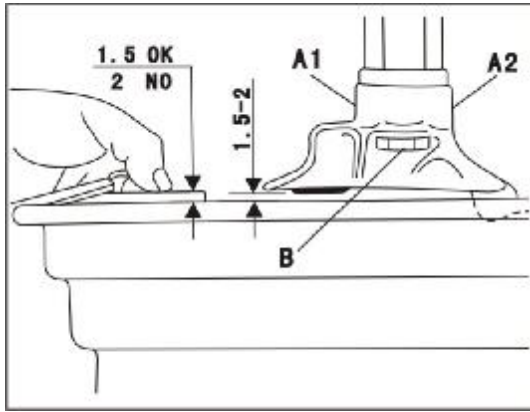


Fig.32

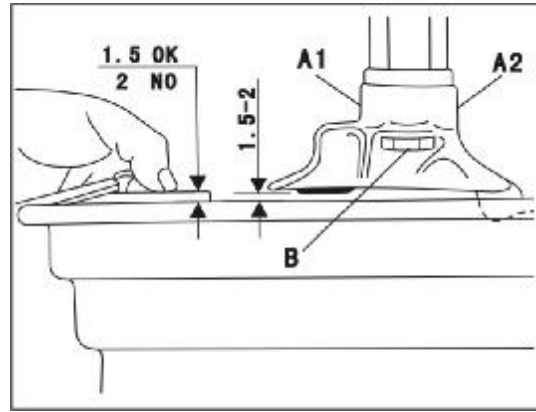


Fig.33

Air Pressure Regulator, Gauge and Lubricator Assembly

- I As shown in Fig.34, there is a button on the regulator. When pulled up, the pressure can be increased or decreased by turn it clockwise or counter-clockwise. After adjusting the operation pressure, press the button down to lock it.
- I The air cleaner works to filter the water and impurity in the compressed air. When water and impurities run beyond the red line, turn open the draining valve to release them.
- I The lubricator is used to add a certain amount of lubricant into gas for the moving parts in the cylinder and regulator. Depress pedal H or J 3~5 times, a drop of lubricant will fall into the cup in the regulator. If it does not happen, the adjusting screw need to be adjusted.

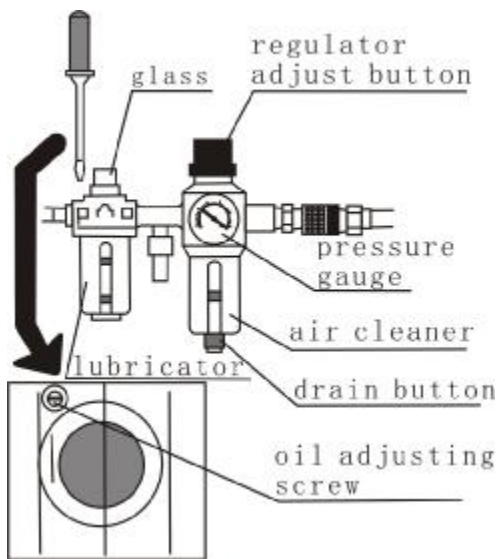


Fig.34

Direction of the switch's installation

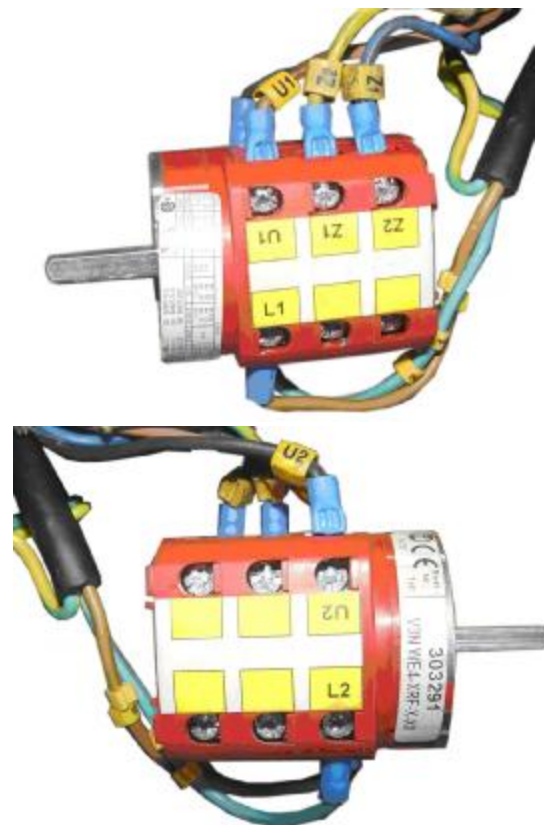


Fig.35

- I Connecting the power line to the switch (fig35)
Markers of two lines are 10 and12。 They are no sequence。
- I Installation of the switch
The switch's position is shown as in fig36,



- I The switch parameter

f

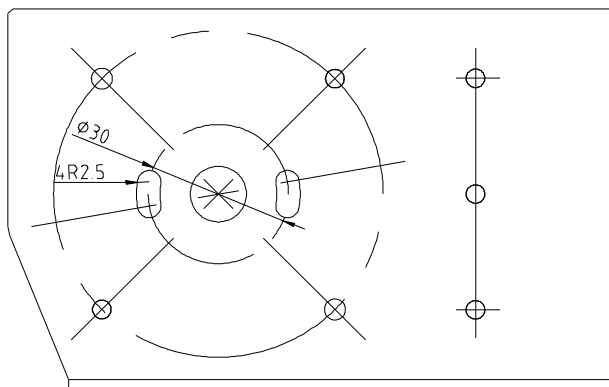


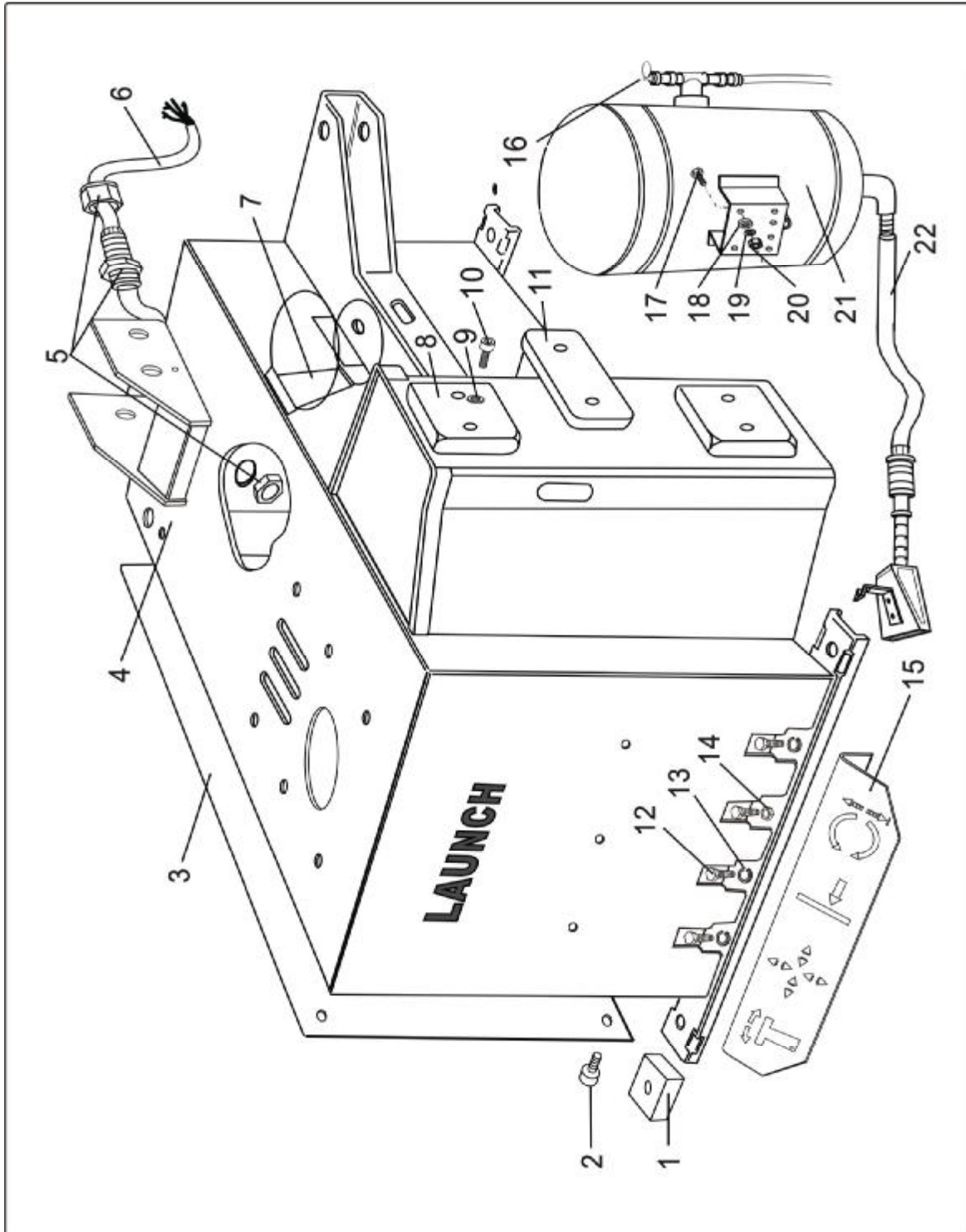
Fig 36

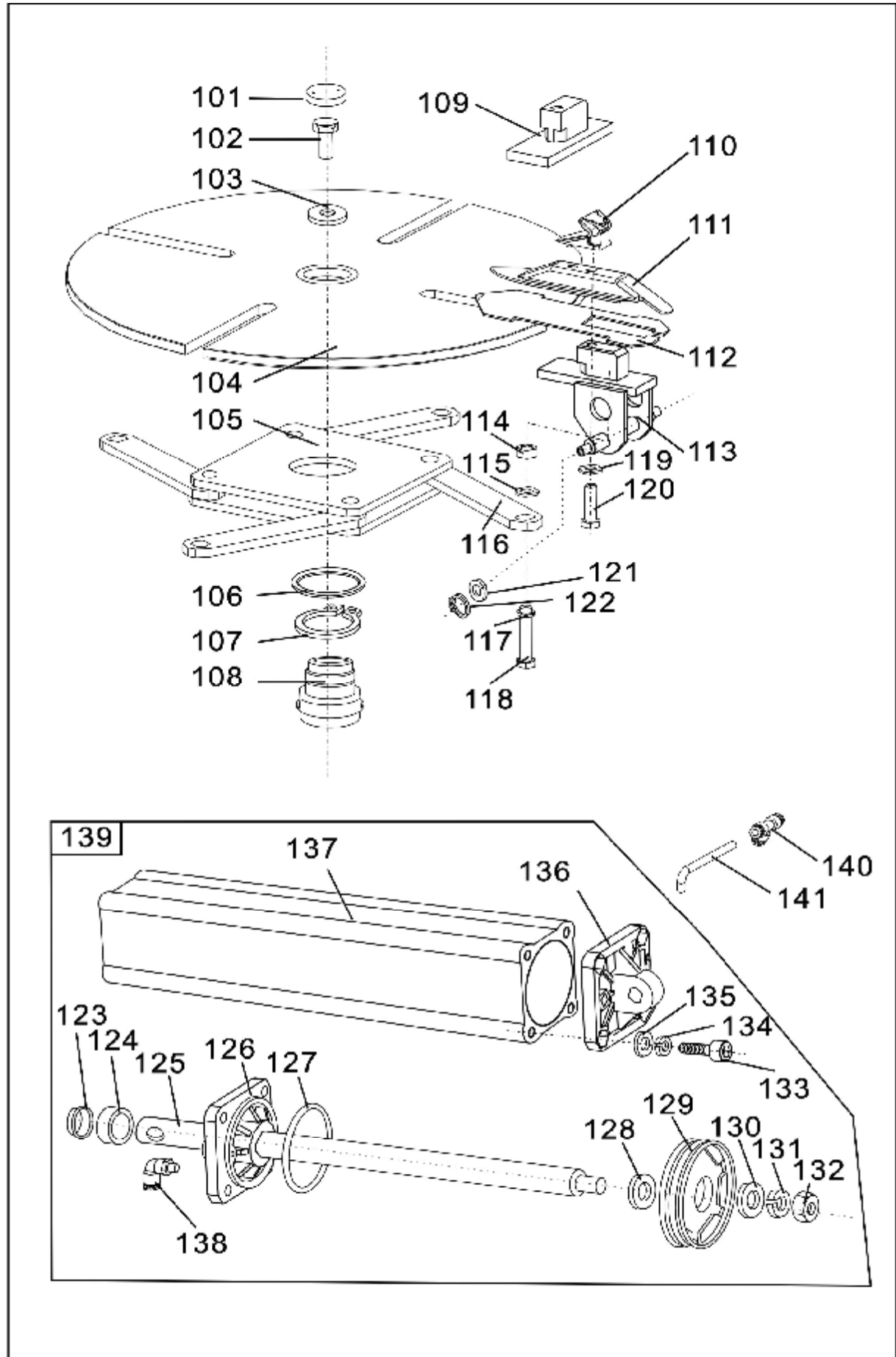
Parts List

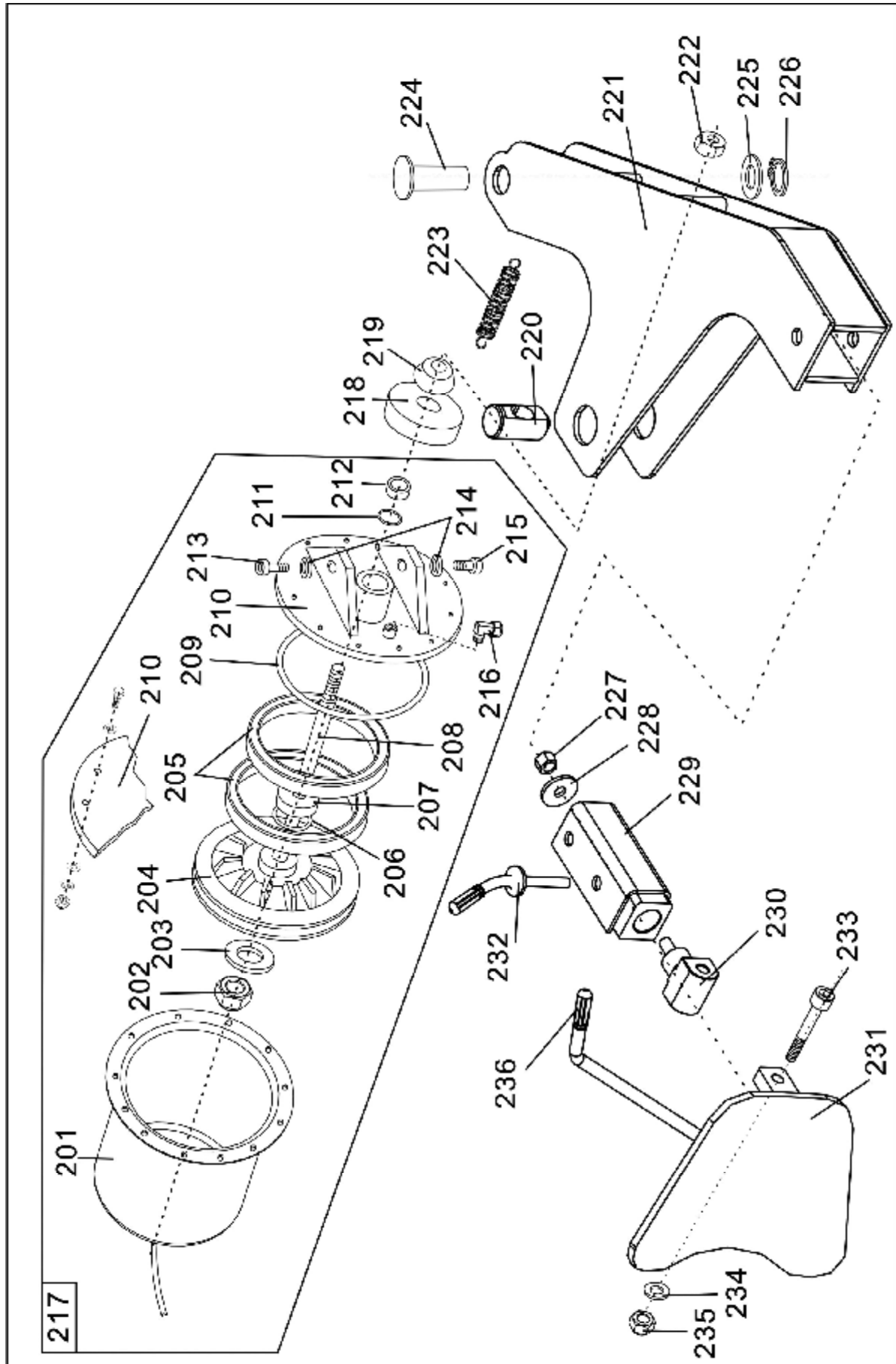
This list is only for the reference of the maintenance personnel. The manufacturer will not be held responsible for any use other than the designed purpose.

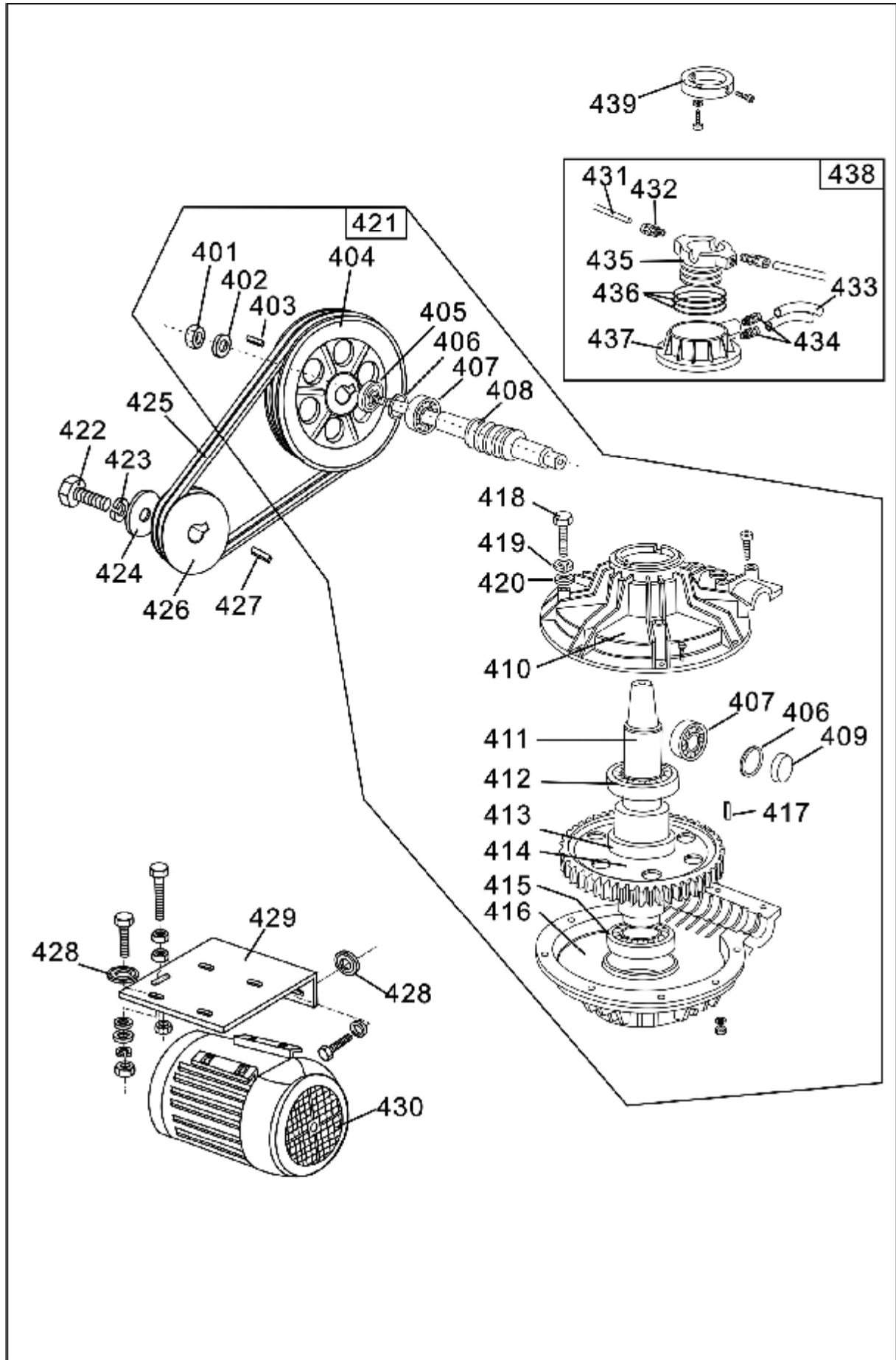
In case any damage occurs, please contact your dealer or LAUNCH with the corresponding codes in the list.

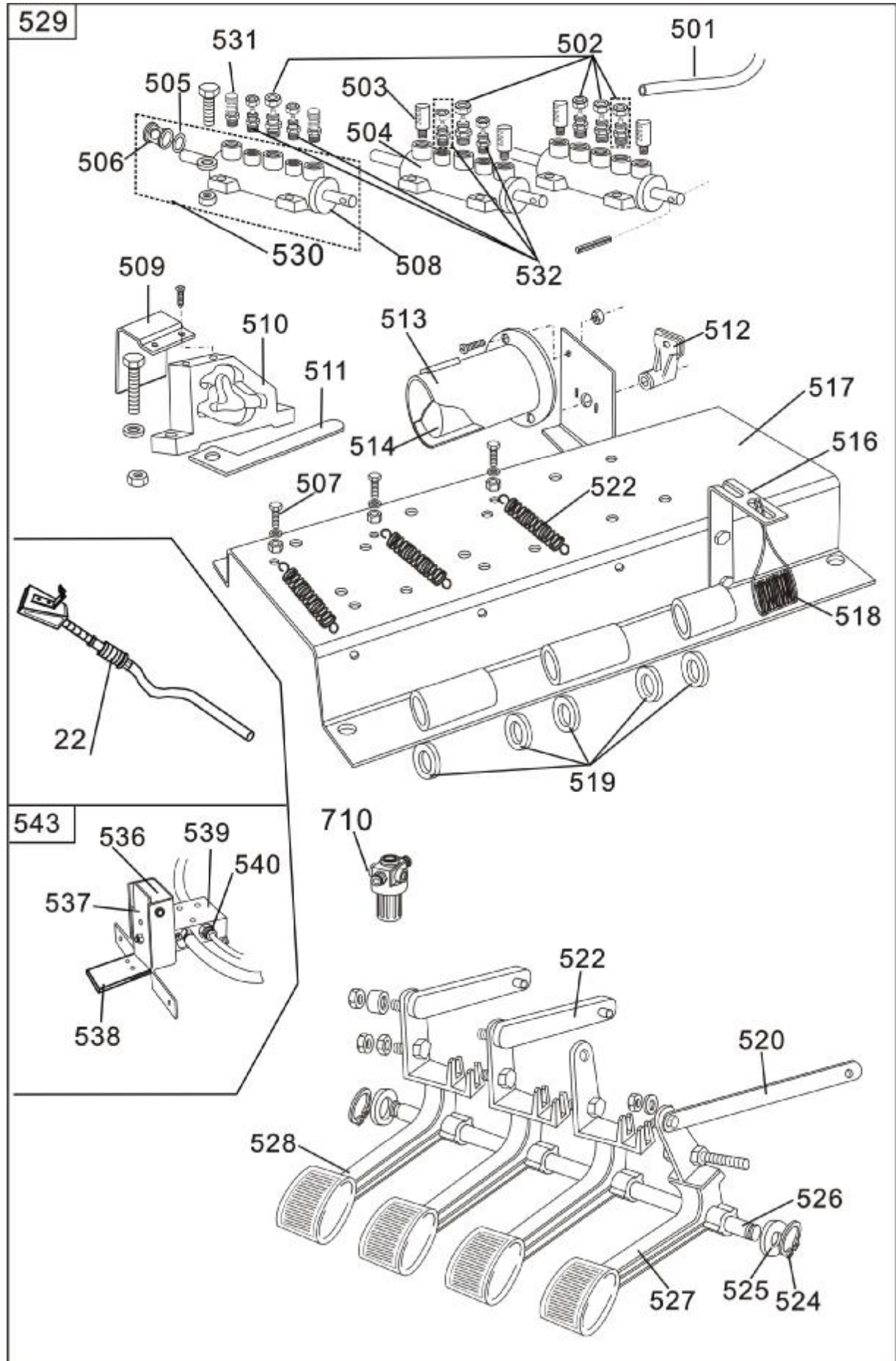
Note: The wearing parts are indicated by *.

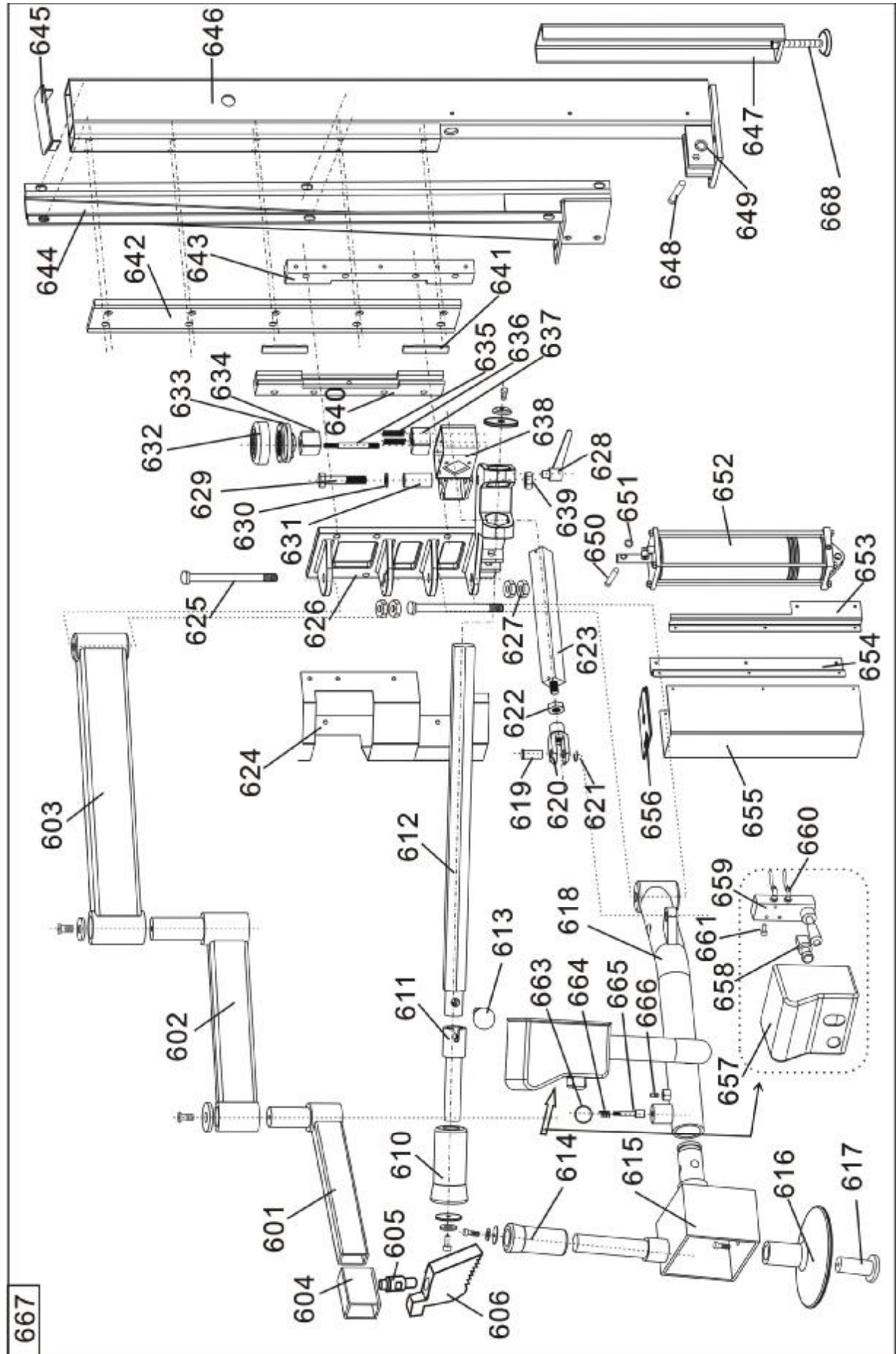


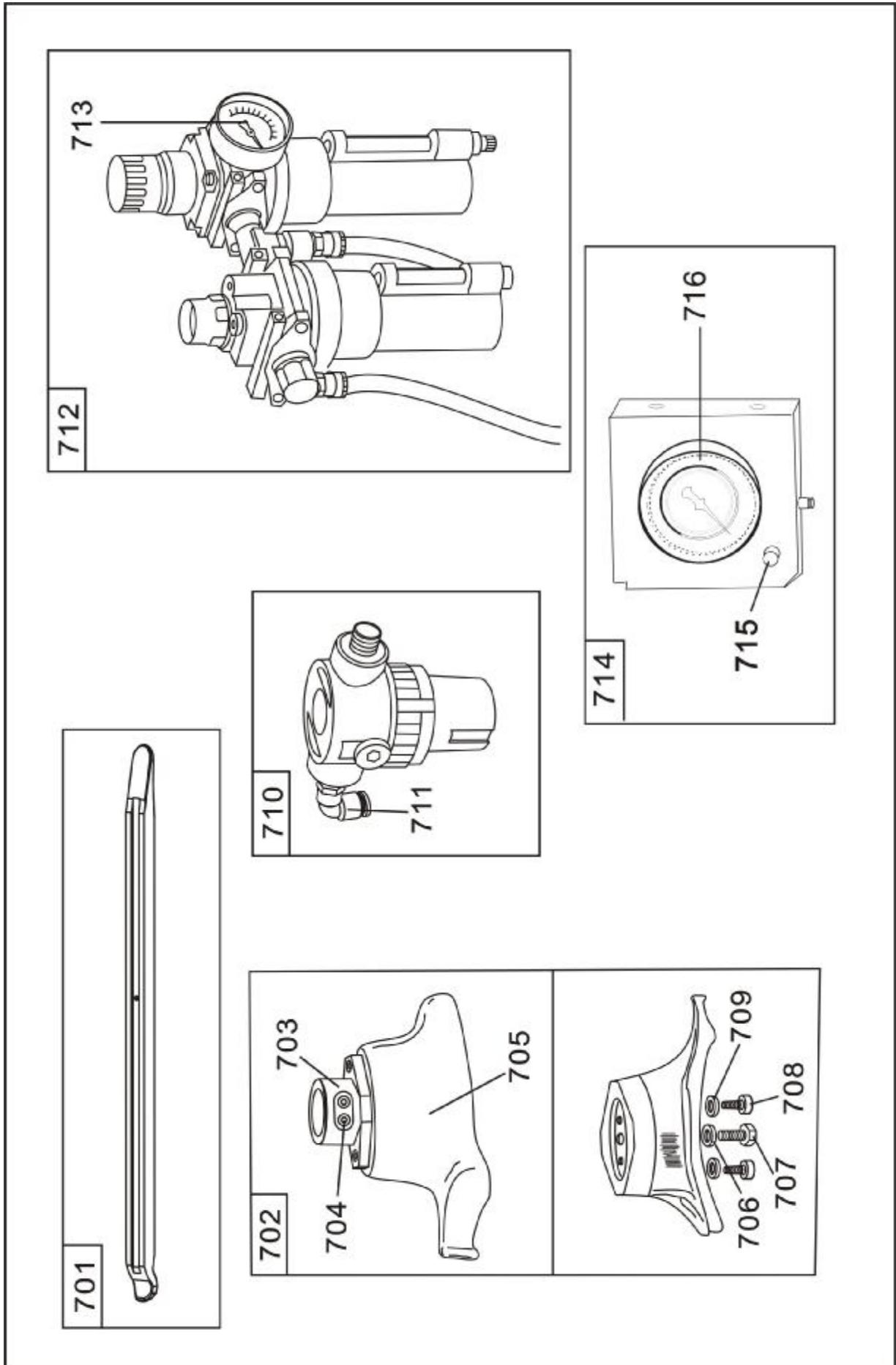












Note:

The wearing parts are indicated by *.

No.	Eer code	Description
1	104130054	Pedal mat
2	103010326	Hexagon socket screw M6×12
3	201011874	Side plate
4	201011913	Cabinet
5	104010003	Cable clip
6	105010019	Cable
7	103202045	Hanger
8	104130246	Rubber pad A
9	103040063	Plain washer φ6
10	103010313	Hexagon socket screw M6×25
11	104130262	Rubber pad B
12	103020075	Hexagon bolt M8×25
13	103040026	Spring washer φ8
14	103030061	Nut M8
15	201012268	Hood
16	103160026	Safe valve
17	103020075	Hexagon bolt M10×25
18	103040064	Plain washer φ8
19	103040026	Spring washer φ8
20	103030061	Locking nut M8
21	103170007	Air tank
22	201020988	Quick deflation valve assembly
101	104130013	Working deck cushion cover
102	103020071	Hexagon Bolt M16×40
103	201010190	Working deck washer
104	201012013	Turntable
105	201011905	Square rotary body
106	Y103200250	Square rotary mat
107	103050018	Circlip for shaft φ65
108	201011907	Working deck taper sleeve
109	Y103220088	Slide carriage B
110	201010211	Clamping jaw
111	Y103220086	Sliding mouse
112	201011909	Sliding plate
113	Y103220087	Slide carriage A
114	103202011	Connecting rod
115	103040112	Plain washer φ12
116	103202009	Connecting rod units
117	103040044	Spring washer φ12
118	103020164	Hexagon bolt M12×35
119	103040044	Spring washer φ12

120	103020062	Hexagon bolt M12×60
121	103040112	Plain washer φ12
122	103050002	Circlip for shaft φ12
123	104100258	Y Sealing ring 28×20×5
124	202010068	Guide sleeve
125	201011915	Clamping cylinder piston rod
126	103220082	Front cover of clamping cylinder
*127	104130081	O Sealing ring φ65×2.65
128	103040112	Plain washer φ12
129	104130053	Clamping cylinder piston
130	103040112	Plain washer φ12
*131	103040044	Spring washer light type φ12
132	103030061	Nut M8
133	103010327	Hexagon socket screw M8×25
134	103040049	Spring washer φ8
135	103040064	Plain washer φ8
136	103230054	Back cover of clamping cylinder
137	103220089	Clamping cylinder body
138	103100244	Nut locking L joint
139	201020987	Clamping cylinder assembly
140	103100242	Nut 3-way pipe joint
141	104050033	Air compressing hose
201	Y103230037	Bead breaker cylinder body
202	103030106	Lock nut M16
203	103040117	Plain washer φ16
204	103230035	Bead breaker cylinder piston
205	104130055	High & low lip ring
206	104130061	O Sealing ring φ16×2.65
207	103040117	Plain washer φ16
208	201010172	Bead breaker cylinder piston rod
209	104130060	O Sealing ring φ180×3.55
210	103230168	Bead breaker cylinder cover
211	104130079	O Sealing ring φ19×2.65
212	202010068	Guide sleeve
213	201010179	Set screw
214	103040112	Plain washer φ12
215	201010179	Set screw
216	103100246	Nut locking L joint
217	201021001	Bead breaker cylinder assembly
218	104130052	Bead breaker cylinder pressure mat
219	202010060	Bead breaker buffer
220	103201998	Guide Roller
221	201012021	Bead breaker shoe arm
222	103030106	Lock nut M16

223	103110013	Tension spring
224	201011649	Shaft arm pin
225	103040097	Plain washer ϕ 22
226	103050004	Circlip for shaft ϕ 22
227	103030089	Nut M12
228	103040112	Plain washer ϕ 12
229	201012489	Extention plate weldment
230	X201010233	Universal joint
231	201010185	Bead breaker shoe
232	201011897	Ajusting pin
233	103010282	Hexagon socket screw M12 \times 85
234	103040112	Plain washer ϕ 12
235	103030089	Lock nut M12
236	104130075	Bead breaker shoe handle cowl
301	103010327	Hexagon socket screw M8 \times 25
302	104010272	Cap
303	103110079	Return spring
304	201011889	Locking board
305	201011891	Horizontal arm
306	201011494	Hexagonal column
307	104070027	Cushion mat
308	104070052	Lock handle units
309	202020029	Lock handle assembly
310	202010053	Cushion cowl
311	202010058	Locking cylinder assembly
312	104050032	Air compressing hose ϕ 6
313	104020066	Protective hood
314	103010401	Hexagon socket set screws with flat point M12 \times 12
315	201020141	Metal Mount/demount head
316	103040077	Mount/demount head mat
317	103020057	Hexagon socket set screws with flat point M10 \times 25
318	103060014	Pin of Mount/demount head roller
319	201010121	Mount/demount head roller
320	104070010	Mount/demount head mat
321	104070009	Mount/demount head slide block
322	201011886	Tilting column
323	201011882	Ajustable block
324	103201989	Ajustable roller
325	201011883	Back locking board
326	201010315	Hook
327	#N/A	Locking cylinder assembly
328	104080004	Lock cylinder body
329	104130085	Sealing mat
330	Y103220077	Lock cylinder cover

331	103100244	L Elbow coupling
332	201011565	Column bottom rotating shaft
333	201010352	Axle pin mat
334	103202053	Cylinder shaft
335	104070028	Buffer block
336	104070066	Cushion mat 2
337	104070028	Buffer block
338	104130258	Y Sealing ring 28×20×5
339	103230146	Front cover of tilting column cylinder body
340	104130296	O Sealing ring φ75×2.65
341	201011641	Cylinder piston lever
342	104130170	Buffer block
344	201011642	Cushion base
345	201011638	Tilting column cylinder piston
346	103230140	Tilting column cylinder body
347	201011640	Cylinder stay stud
348	103230147	Back cover of tilting column cylinder body
349	103010398	Hexagon bolt M16*160
350	202010068	Casing
351	103100211	L Elbow coupling
352	103030066	Lock nut M12
353	104130297	O Sealing ring φ11.8*1.8,GB/T3452.1-1992
354	104130247	Y Sealing ring 80×65×9.5
355	201020847	Tilting column cylinder assembly
356	103100202	Inflating airline spigot
357	201020141	Metal Mount/demount head assembly
401	103030102	Lock nut M14
402	103040097	Plain washer φ14
403	103080002	Key A6×20
404	103230034	Pulley of speed reducer
405	104130083	FB Sealing ring 20×35×7
406	104130080	O Sealing ring φ34.5×3.55
407	103060022	Tapered roller bearing
408	103200291	Worm
409	104990075	Sealing cover units of reduction gear box
410	103230033	Upper cover of worm case
411	201012010	Worm bearing
412	103070007	Angular contact bearing
413	103202048	Casing of reduction gear box
414	103200789	Worm wheel
415	103070007	Angular contact bearing
416	103230052	Lower cover of worm case
417	103080001	Key A14×40
418	103020057	Hexagon bolt M10×25

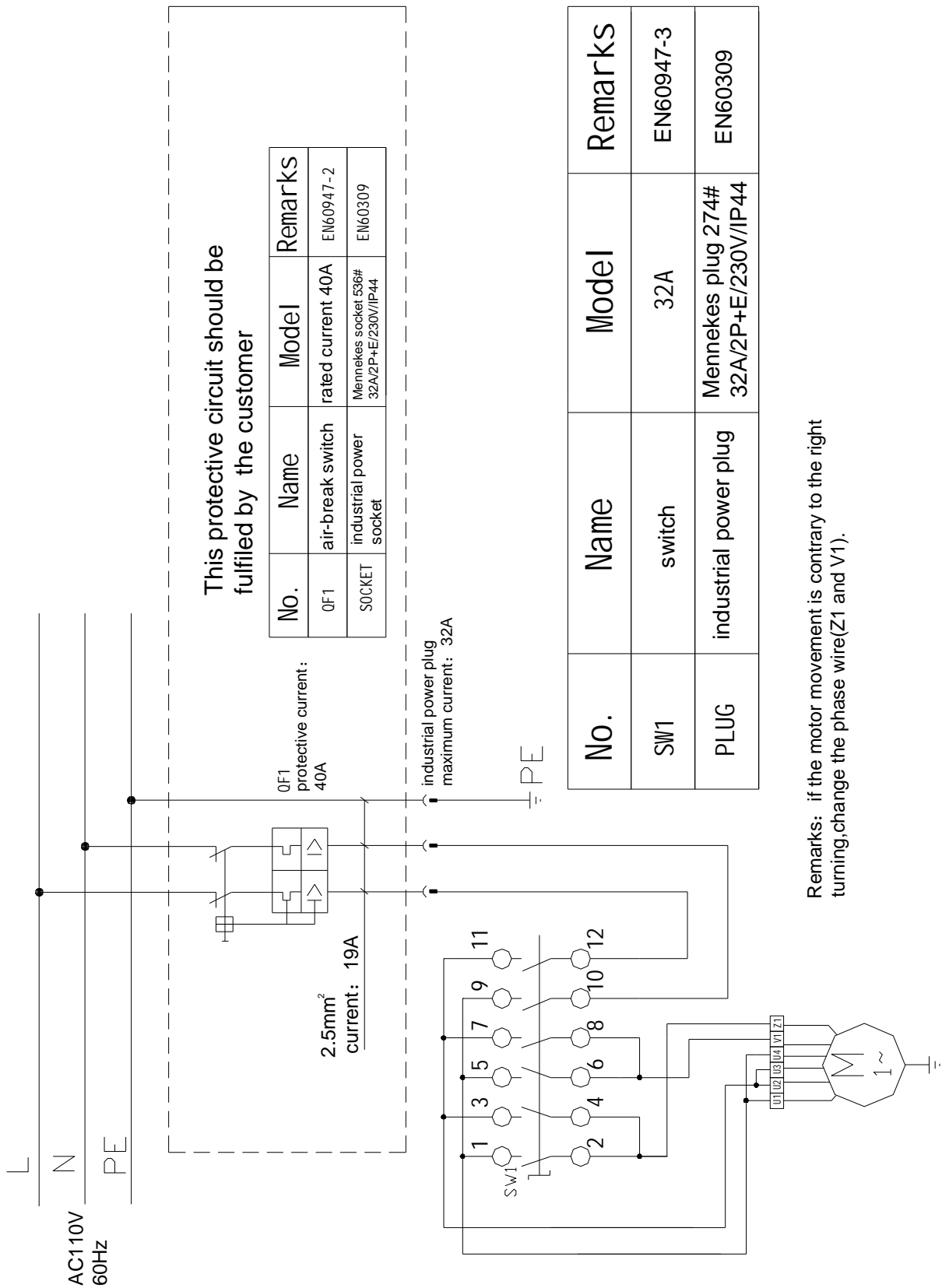
419	103040100	Spring washer ϕ 10
420	103030063	Thin nut M10
421	201020981	Gear reducer assembly
422	103020075	Hexagon bolt M8×25
423	103040026	Spring washer ϕ 8
424	103040064	Motor plain cushion
425	104130255	V Vee belt A28'
426	103220048	Motor pulley
427	103080002	Plain key C5×30
428	202010009	Motor cushion mat
429	201012400	Motor support
430	102990095	Motor ~110V/60Hz 1.1kw
430A		Motor ~230V/50Hz 1.1kw
430B		Motor ~230V/60Hz 1.1kw
430C	102990104	Motor ~220V/50Hz 1.1kw
430D		Motor ~220V/60Hz 1.1kw
430E	102990103	Motor ~110V/60Hz 1.1kw
430F		Motor ~110V/50Hz 1.1kw
431	104050033	Air compressing hose
432	103100248	Male connector
433	104050007	Nozzle of rotary valve
434	103100248	Male connector
435	202010011	Pneumatic spool unit
436	104130062	O Sealing ring ϕ 60×2.65
437	202010010	Pneumatic valve pocket
438	202020008	Rotary pneumatic valve assembly
501	104050033	Air compressing hose
502	103100247	Male branch tee
503	103100003	Muffler
504	104010274	Pentagamma valve units
505	104130074	O Sealing ring ϕ 11.8×4
506	104010271	Pentagamma casing
507	103010120	Cross socket set screws with flat point M4×10
508	104010273	Five-way valve cover
509	201010232	Cam hood
510	104120025	Cam body
511	103110025	Cam spring sheet
512	202010077	Transfer shift bar
513	104020044	Steering switch cover
514	102100101	Motor power switch
515	103110033	Pedal release spring
516	X201010226	Reed type support
517	201010329	Pedal support units
518	103110032	Reed type

519	103040112	Plain washer ϕ 12
520	201010262	Transfer shift connecting rod
521	X201010326	Pedal casing
522	Y103220073	Cam connecting rod
523	103030098	Locking nut M8
524	103050002	Circlip for shaft ϕ 12
525	103040112	Plain washer ϕ 12
526	103200710	Pedal bearing
527	Y103220072	Transfer shift pedal
528	Y103220075	Pentagamma valve pedal
529	201020835	Pedal assembly
530	202020007	Pentagamma valve assembly
531	103100043	Adjustable silencer
532	103100248	Nut locking L joint JSM-Z6-G1/8
536	201010296	Plate 2
537	X201010868	Plate 1
538	#N/A	#N/A
539	103160025	Two position three-way valve
540	103100121	Male connector
541	201020181	Quick deflation valve core
543	201021207	Pedal valve assembly
601	201011975	Fore swivel arm
602	201012006	Middle swivel arm
603	201011951	Back swivel arm
604	201011998	Slide sleeve
605	103201987	Press bar
606	104070063	Press block
610	202010065	Roller 1
611	103201993	Axis of roller
612	201011946	Slide rod
613	103030097	Roundness nut handle, M8
614	202010065	Roller of disk arm
615	201011995	Disk seat
616	104070061	Disk
617	201011990	Axis of disk
618	103201963	Disk arm
619	103202015	Locking pin
620	103202014	Locking connector
621	103050001	Circlip
622	103030149	Nut
623	201011977	Locking slide bar
624	201011952	Slide board hood
625	103202012	Pin of back swivel arm
626	201011953	Slide board weldment

627	103030068	Nut M20
628	104010019	Lock bar
629	103010568	Hexagon socket screw
630	103040135	Plain washer
631	103201985	Sleeve
632	104080004	Lock cylinder body
633	202010066	Lock cylinder piston
634	201011976	Up locking block
635	201011980	Lock cylinder piston lever
636	103110084	Lock spring
637	201011976	Down locking block
638	201011983	Lock support
639	103030106	Nut
640	201010772	Right slider
641	201010771	Regulating chip of slider
642	201010752	Sliding guide
643	201010773	Left slider
644	201011966	Post support weldment
645	201011966	Cover of post
646	201011967	Post assembly
647	201012011	Carriage weldment
648	201010754	Pin on bottom of cylinder
649	103050001	Spring washer15
650	103202013	Pin on cylinder top
651	103050002	Spring washer 12
652	x201020818	Lifting cylinder assembly
653	201012057	Cylinder hood right carriage
654	201011970	Cylinder hood left carriage
655	201011969	Cylinder hood assembly
656	104990080	Cover of cylinder hood
657	104010506	Control box
658	103160090	Button valve
659	103160052	Reversing valve
660	103100282	Quick L end joint $\phi 6 \times M5$
661	103100043	Adjustable silencer
663	103030097	Roundness nut handle, M8
664	103110083	Set pin spring
665	201011984	Set pin of disk arm
666	103010567	Hexagon socket set screws with column end
667	201020995	Supplementary arm assembly
668	103201964	Adjusting base
701	306070016	Tyre lever
702	#N/A	Plastic Mount/demount head and Mount/demount head base assembly
703	201010225	Mount/demount head base

704	103010371	Hexagon socket set screws with flat point M8×20
705	Y104990077	Plastic Mount/demount head
706	103040096	Plain washer φ10
707	103020058	Hexagon bolt M10×50
708	103010327	Hexagon socket screw M8×25
709	103040064	Plain washer φ8
710	103160011	Air pressure regulator
711	103100122	L Elbows
712	103990019	Air Pressure Regulator, Gauge and Lubricator Assembly
713	103990047	variometer φ40
714	201020857	Box variometer assembly
715	201020181	Quick deflation valve core
716	103160032	variometer φ75

TWC-502RMB Circuit Diagram

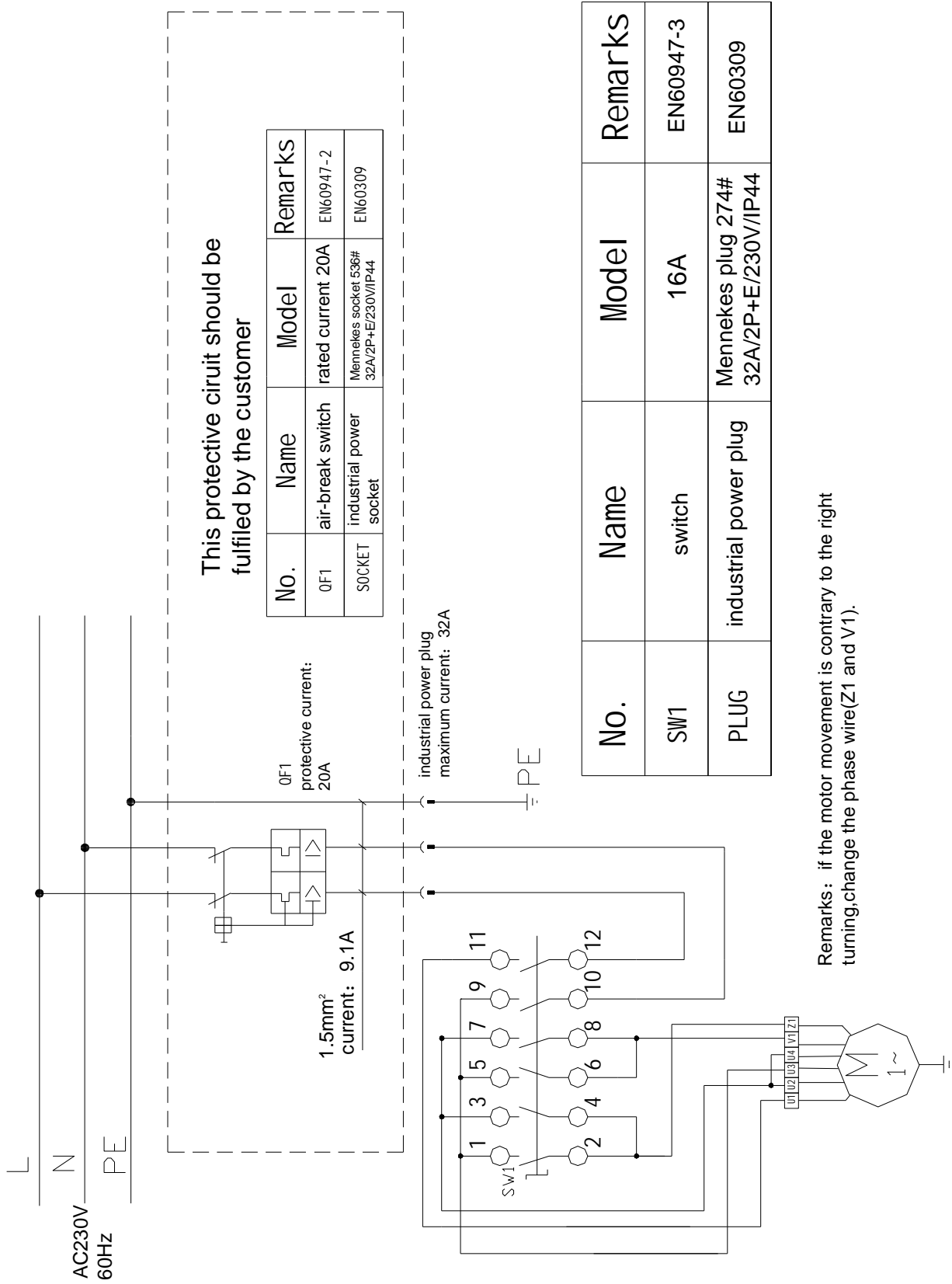


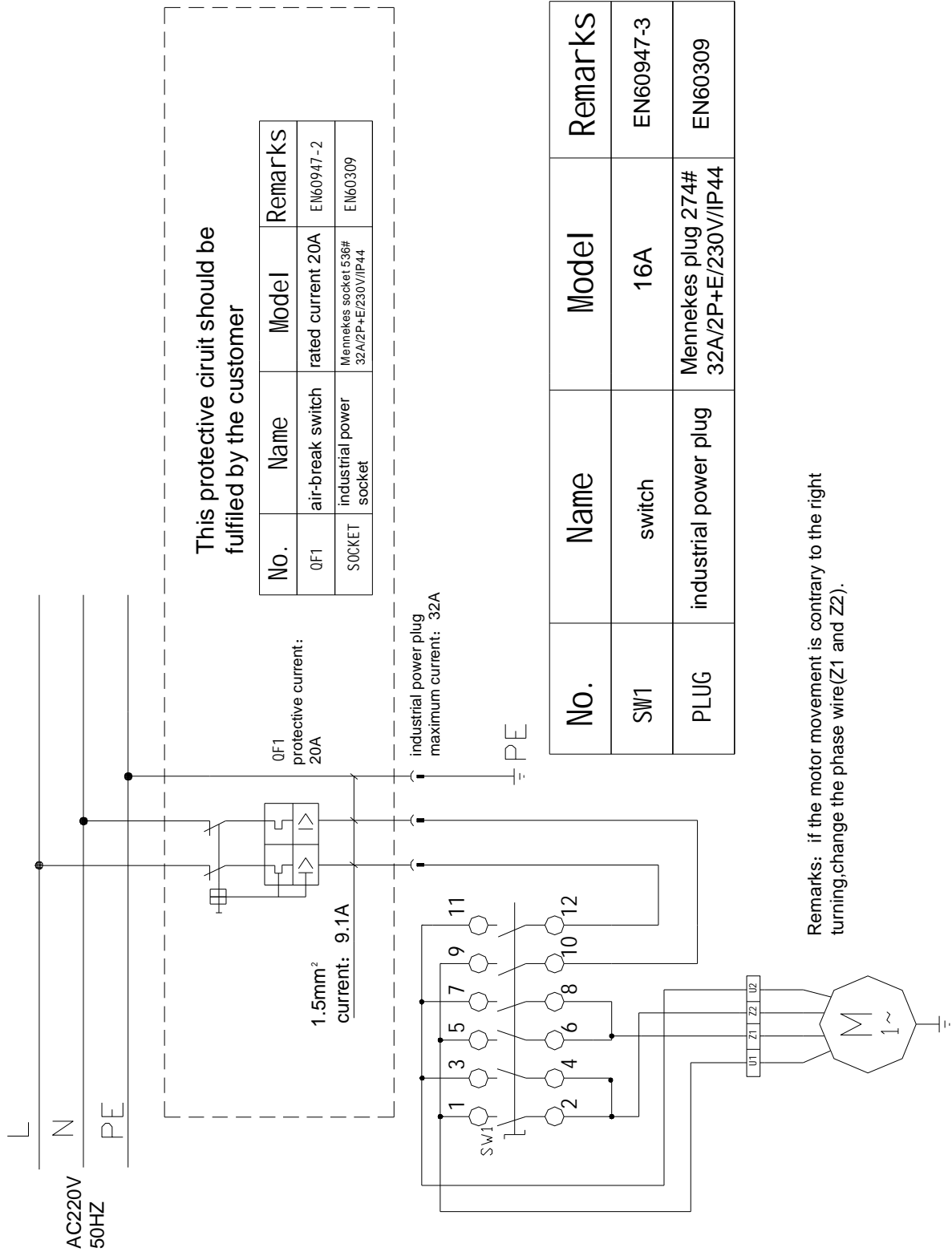
This protective circuit should be fulfilled by the customer

No.	Name	Model	Remarks
0F1	air-break switch	rated current 40A	EN60947-2
SOCKET	industrial power socket	Mennekes socket 536# 32A/2P+E/230V/IP44	EN60309

No.	Name	Model	Remarks
SW1	switch	32A	EN60947-3
PLUG	industrial power plug	Mennekes plug 274# 32A/2P+E/230V/IP44	EN60309

Remarks: if the motor movement is contrary to the right turning, change the phase wire(Z1 and V1).





This protective circuit should be fulfilled by the customer

No.	Name	Model	Remarks
0F1	air-break switch	rated current 20A	EN60947-2
SOCKET	industrial power socket	Mennekes socket 274# 32A/2P+E/230V/IP44	EN60309

No.	Name	Model	Remarks
SW1	switch	16A	EN60947-3
PLUG	industrial power plug	Mennekes plug 274# 32A/2P+E/230V/IP44	EN60309

Remarks: if the motor movement is contrary to the right turning, change the phase wire(Z1 and Z2).

TWC-502RMB Pneumatic Diagram

