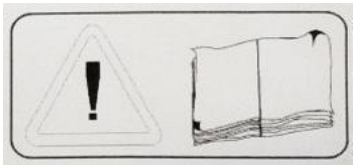
INSTALLATION,OPERATION,MAINTENANCE MANUAL



TYRE CHANGER ITEM NO:VT-960

WARM SUGGESTION:FOLLOW THE INSTRUCTIONS CAREFULLY TO GRANT THE MACHINE A CORRECTFUNCTIONAND LONG SERVICE LIFE.

CONTENT

INTRODUCTION

Thank you for your purchase of this automatic tyre changer.

This guide has been made in order to supply the owner as wellthe user with the basic instructions for a correct use of the machine

Read this guide carefully before using the machine and follow the instructions given by this guide carefully to grant the machine a correct function,efficiency and a long service life

NTENDED USE: This tyre changer has been designed and manufactured specially for mounting and demounting tyres onto/from rims.

Any other use is to be considered incorrect and unreasonable.I will not hold responsibility for any damage caused from using of this tyre changer for purposes other than those specified in this manual and therefore inappropriate,incorrect and unreasonable.

A:Mounting bar
B:Pneumatic locking handle
C:Air inflating gauge
D:Mounting/Demounting head
E:Jaw
F:Turntable
H:Foot pedal,tilting arm
I:Foot pedal,jaw holder control
J:Foot pedal,bead breaker
K:Foot pedal,turntable control
L:Wheel support
M:Bead breaker
N:Soap reservoir
O:Conical tyre pressing tool
P:Round demounting plate
Q:Conical roller
S:Mounting helper control valve
U:Tyre pressing block
V:Soap reservoir
W:Left helper arm control valve
Notice:"U and O"pressing tool has united as one

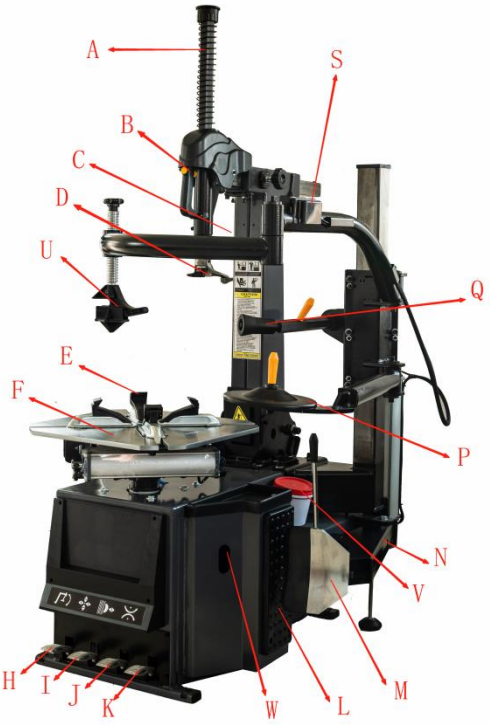


Fig.1

TECHNICAL DATA

External locking rim dimensions	11″-22″
Internal locking rim dimensions:	12” -24”
Max.tyre diameter:	1000mm(39″)
Max.tyre width	380mm/16”
Table top rotation speed	6.5rpm
Bead breaker Force(10bar)	2500kg/5500Lbs
Working pressure	8-10 bar
Power supply voltage:	400/380/220/110V,50/60Hz,1/3Ph
Motor power:	0.75-1.1KW
Machinery dimensions:	1470x1000x2100mm
Net weight:	330Kg
Working noise:	<70 dB

TRANSPORTATION

The tyre changer should be transported in its original packaging and kept in the position shown on the package itself.

The packaged machine may be moved by means of a fork lift truck of suitable capacity.Insert the forks at the points shown in figure 2

UNPACKING

Remove the protective cardboard and the plastic bag.

Check that the equipment is in perfect condition,making sure that no parts damaged or missed.Use fig.1 for reference.

If in doubt do not use the machine and contact your retailer.

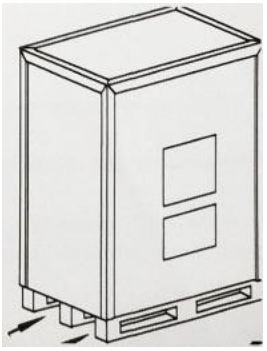


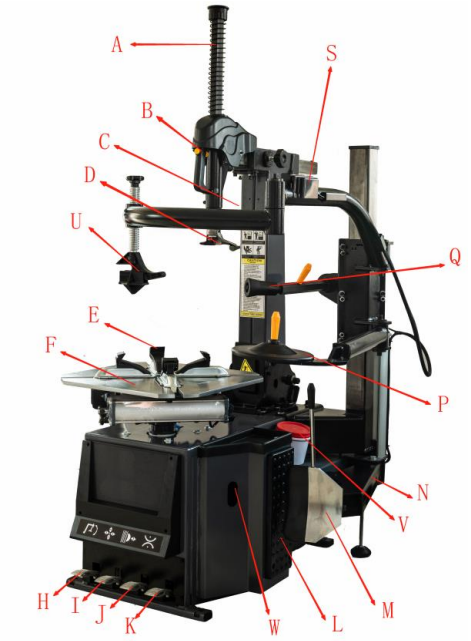
Fig 2.

INSTALLATION

SPACE REQUIRED

·The tyre changer must be connected to the mains electric power supply and the compressed air system. It is therefore advisable to install the machine near these power sources.

·The place of installation must also provide at least the space shown in pictures 4 to ensureallparts of the machine to operate correctly and without any restriction.



POWER&AIR SOURCE CONNECTING

Even small jobs done on the electrical system must be carried out by professionally qualified personnel.

·Connect the machine to the compressed air system by means of the ar connection that protrudes from the rear section.

·Connect the machine to the electric network with the protection device of under-voltage,over-voltage,which must be provided with line fuses,a good earth plate in compliance with regulations in force and it must be connected to an automatic circuit breaker with RCD setting set at 30 mA.

Note:Should the tyre-changer be lacking in electric plug,so the user must set one,which is at least 16 A and which conforms to the voltage of the machine,in compliance with the regulations in force.

TRIAL OPERATION

The turntable should be turn clockwise when foot pedal K pressed down,while rotate anticlockwise when pulled up.

Note:If the turntable turns in the opposite direction to that shown,reverse two of the wires in the three-phase plug.

Make sure that you have known clearly the functions of every foot pedals and other important parts:

Pressing the pedal(H)to tilt the arm;when the pedal is pressed again it returns to its normal position.

Pressing the pedal (1)to opens the four jaws,the jaw holders will close again when pedal pressed again.

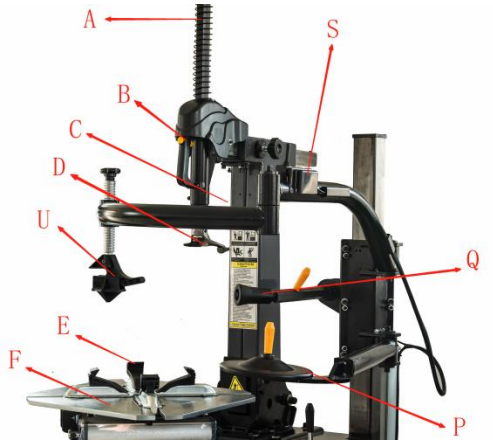
Pressing the bead breaker pedal(J)to operate bead breaker, the breaker returns to its original position when pedal released
Pressing foot pedal K to run the turntable clockwise,while pulling up to run anticlockwise.
The mounting head positions itself automatically at the correct distance from the rim.

FIG 4

MOUNTING HELPER

Pneumatic mounting helper is used to mount/demont low profile wheel The while unit comprises conical tyre pressing toolO, conical tyre demounting plate P,tyre pressing block U, Conical pressing roller Q,Tool cabin,and control valve S to control the whole helper go up and down

Notice:"U and O"pressing tool has united as one



OPERATION

Do not use the machine until you have read and understood the entyre warnings it provides.

The operation of the tyre changer is divded into three parts

a) **BREAKING THE BEAD**
b) **TYRE DEMOUNTING**
c) **TYRE MOUNTING**

Before carrying out any operation,deflate the tyre and take offall the wheel balancing weights.

NOTE:

The motorcycle rims are more and more frequently constructed by using special alloys or materials like carbon or magnesium.

To lock this kind of rims,it is necessary to use the motorcycle wheels adaptors kit,and to limit the pressure exerted by turntable to 5 bar max.,in order to avoid any irreparable damage of deformation

BREAKING THE BEAD

Bead breaking must be done with the utmost care and attention.When the bead breaker pedal is operated,the bead breaker arm moves quickly and powerfully.Anything within its range of action can be in danger of being crushed.

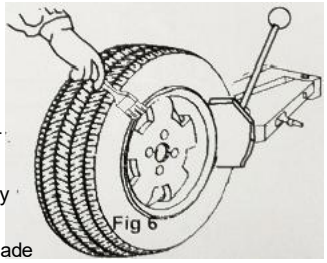


Fig 6

·Check that the tyre is deflated.If not,deflate it.
·Close the turntable clamps completely
·Use the rubber bead breaker protection to protect the wheel rim.
Position the wheel against the rubber stops on the right side of the tyre changer.
·Position the bead breaker blade against the tyre bead at a distance of about 1cm from the rim(fig.6).Pay attention to the blade,which must operate correctly onto the tyre and not onto the rim.
·Press down the pedal J to activate the bead breaker and release it when the blade has reached the end of its travel or in any case when the bead is broken.
·Rotate the tyre slightly and repeat the operation around the entyre circumference of the rim and from both sides until the bead is completely detached from the rim.

TYRE DEMOUNTING

Before any operation remove the old whee balancing weights and check that the tyre is deflated. Failure to use the grease supplied risks causing serious damage to the tyre bead

·Press pedal H to tilt the arm thereby clearing the turntable

·Spread the supplied grease(or grease of a similar type)onto the tyre bead.

During rim locking NEVER keep your hands under the tyre.For a correct locking operation set the tyre exactly in the middle of turntable.

OUTER LOCKING

·Position the clamps according to the reference mark on the turntable by pressing pedal(I)down to its intermediate position.

·Place the tyre on the clamps and,keeping the rim pressed down,press the pedal (I)as far as it will go.

INNER LOCKING

·Position the clamps so that they are completely closed.

·Place the tyre on the clamps and press down the pedal(I)

·Return the arm by pressing the pedal (H).

Position 1 of the locking button locks the mounting bar and arm.

Position 2 of the locking button unlocks the arms.

The mounting head positions itself automatically at the correct distance from the rim.

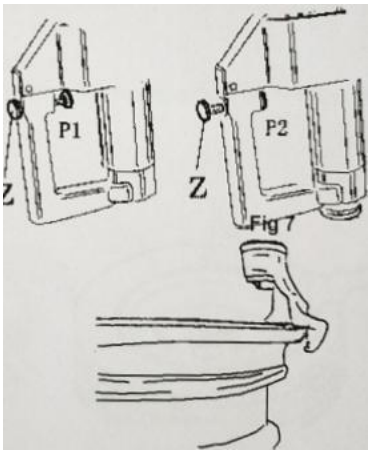


Fig 7

COMMON TYRE DEMOUNTING

-Lowering the mounting bar unit the mounting/demount head lean against the rim edge.

-Lock the mounting arm with pushing locking button and now the mounting/demounting head should be about 2 mm to rim edge.

Fig 8

NOTE:If it is tyre with tube and in order to damage the tube,it is advisable to locate the tyre valve about 10cm away with the mounting/demounting head.

-Insert the crowbar into the tyre as right picture showing

-Press foot pedal K to turn the turntable clockwise until the tyre separated from the rim..

Withdraw the tube,if hasthen repeat the operation with the other side.

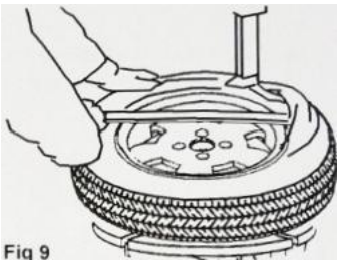


Fig 9

FLAT AND HARD TYRE DEMOUNTING

Locating the tyre on the preset size turntable,placing the Conical pressing tool at the center hole of the rim,operate the control valve the make the helper down to press the tyre as Fig 10 showing.Press the foot pedal I to lock the rim.

-Put the conical pressing roller on the tyre and press down the foot pedal K to make rim separated from tyre.

-Lubricate the rim edge before pressing to avoid damage to tyre.Fig 11

-Making the arm to working condition and lowering down the mounting/demounting head to rim edge,then trigger the pneumatic locking handle.

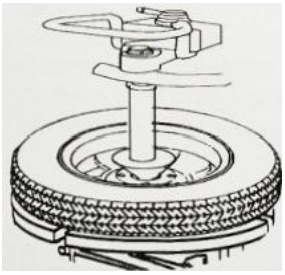


Fig 10

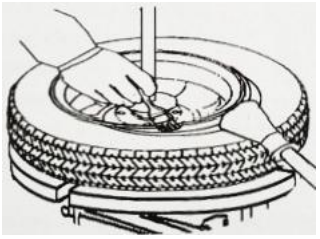


Fig 11

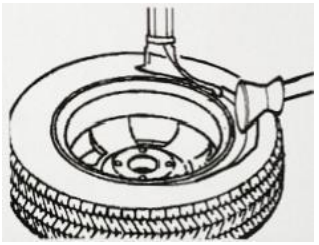


Fig12

-Insert the crowbar into the pressing roller and M/D head(Fig.13),and place the pressing block on the tyre at the opposite side(Fig 12).

-Make the tyre edge onto the M/D head (Fig 14)and press down foot pedal K to turn the turntable clockwise until the tyre edge separated.

NOTE:Stop operation if in case feel very difficult to continue.Put up the foot pedal K to turn turntable anticlockwise to clear the obstacles.Withdraw the tube ifit is tube tyre.

-Demount the other side of tyre with tyre demounting plate (Fig 15).Insert crowbar and put the tyre onto the M/D head,then press turntable control pedal until the other side is separated.

-Take away the tyre from the rim,and lubricate the two sides of rim.

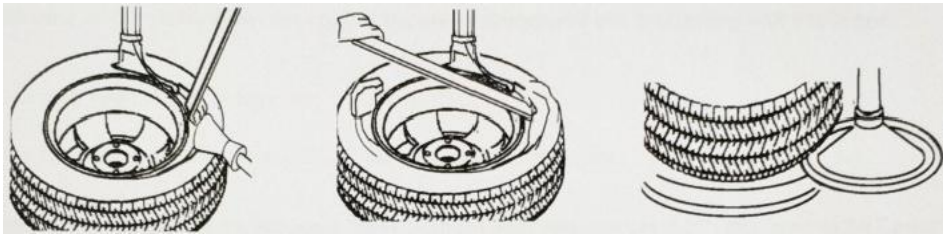


Fig 13 Fig 14 **Fig 15**

TYRE MOUNTING

This checking of tyre and rim is of the utmost importance to prevent tyre explosion during the inflating operations.

Before beginning mounting operation make sure that:
The tyre and the cord fabric are not damaged.

The rim is without dents and is not warped.

Attention with alloy rims,dents cause internal micro-cracks not visible to naked eye.

This can compromise the rim and can also be a source of danger especially during inflation.

The diameter of the rim and tyre are exactly the same.NEVER try to mount a tyre on a rim if you cannot identify the diameters of both.

Lubricate the tyre beads with the special grease in order to avoid damaging them and to facilitate the mounting operations.

Press the foot pedal H to tilt back the arm about 30°backward,operate it back after the rim locked on the turntable.

COMMON TYRE MOUNTING

-Pushing the tyre into the rim groove by hand,press the foot pedal K

to turn the table clockwise,unti the upper part of tyre seated into the rim.(Fig16).

Fig 16

-Locate the M/D head at the rim edge.

-Place one end of tyre over rear part of M/D head,while the other end on the M/D head.

-Press foot pedal K to make turntable run clockwise unit the lower part mounted onto the rim.

Repeat the above operation to mount the upper part of the tyre.

Mounting first the tube if has,then repeat the above operation if you are dealing with a tube tyre.

FLAT AND HARD TYRE MOUNTING

Follow the steps described above to mount well the upper part of the tyre..

Place the pressing block at the position in Fig 17.Turn the table clockwise about 90°,then operate the Conical roller to the position of M/D head.Continue to turn the table unit finish operaion.(Fig 18)。

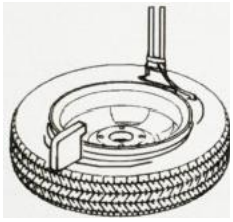


Fig 17

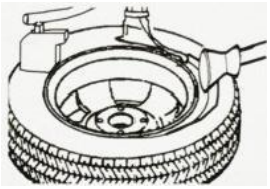


Fig 18

INFLATING

Pay utmost attention when inflating the tyres.Keep strictly to the following instructions.

INFLATION WITH AIRLINE GAUGE

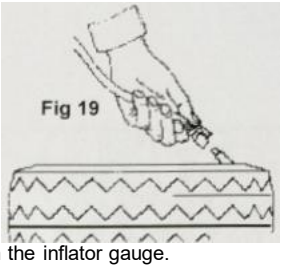


Fig 19

In the standard version our tyre changers are supplied with an airline gauge.To inflate a tyre proceed as follows:

·Connect the airline gauge fitting to the tyre valve.

·Make a last check to be certain that tyre and rim diameter correspond.

·Check to be certain that rim and beads are sufficiently lubricated.If necessary lubricate some more.

·Seat the beads with short jets of air.Between air jets,check the air pressure on the inflator gauge.

·Continue to inflate the tyre with short jets of air and constantly checking the pressure between air jets until the required pressure has been reached.

MAINTENANCE

GENERAL WARNINGS:

Unauthorized personnel may not carry out maintenance work.

·Regular maintenance as described in the instructions is essential for correct operation and long lifetime of the tyre changer.

•If maintenance is not carried out regularly, the operation and reliability of the machine may be compromised, thus placing the operator and anyone else in the vicinity at risk.

Before carrying out any maintenance work,disconnect the electric and pneumatic supplies.

Moreover,it is necessary to break the bead load less 3-4 times in order to let the air in pressure go out of the circuit.

Defective parts must be replaced exclusively by expert personnel using the manufacturer's spare parts.

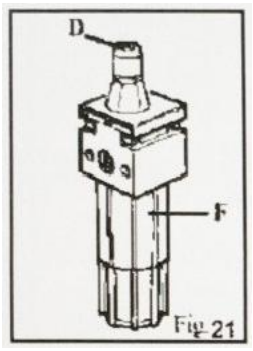


Fig. 21

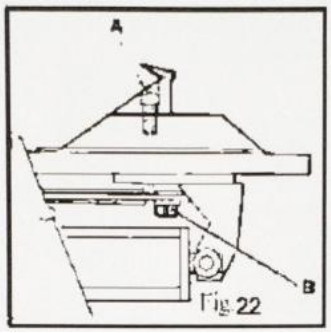


Fig. 22

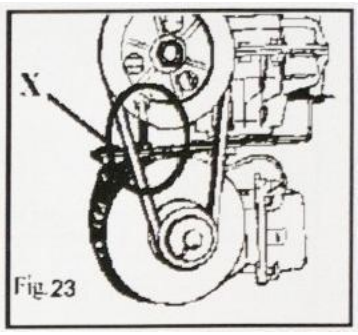


Fig. 23


Fig. 24

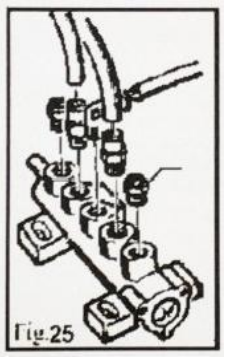


Fig. 25

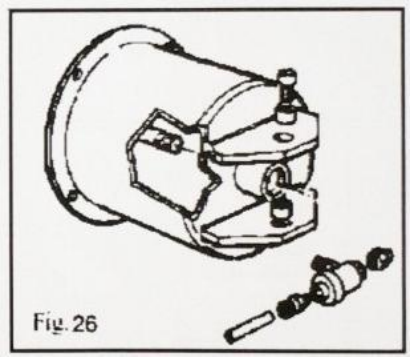
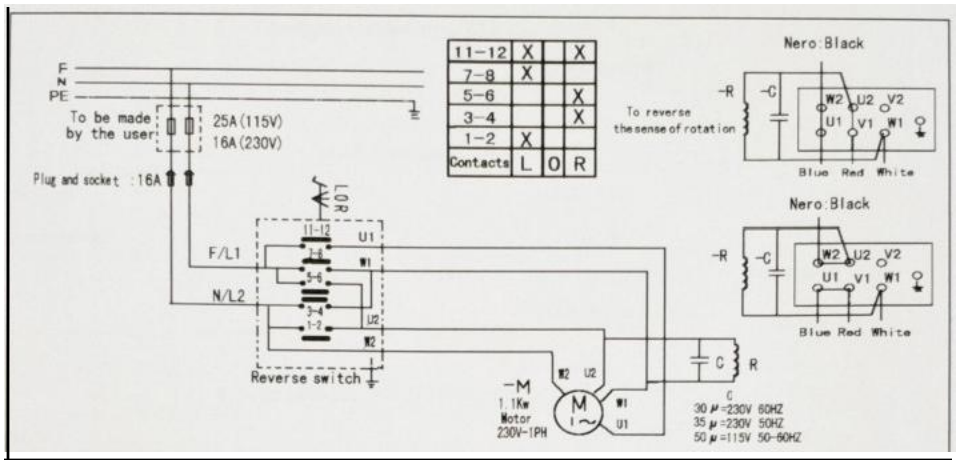


Fig. 26

TROUBLE SHOOTING

Turntable rotates only in one direction		
Reverse broken		Replace reverse
Turntable does not rotate		
Belt broken		Replace belt
Reverse broken		Replace reverse
		Check for loose wires in motor plug or the socket replace motor
Turntable locks while removing /mounting tyres		
Belt loose		Adjust belt tension
Clamps slow to open/close		
Silencer clogged		Clean or replace silencer
Turntable does not lock the wheel rim correctly		
Clamps worn		Replace clamps
Turntable cylinder(s)defective		Replace cylinder gaskets
The tool touches the rim during the tyre removing/mounting operations		
Locking plate incorrectly adjusted or defective		Adjust or replace locking plate
Turntable locking screw losses		Tighten screw
Bead breaker pedal and clamp opening/closing pedal lock out of position		
Return spring broken		Replace spring
Bead breaking operation difficult		
Silencer clogged		Clean or replace silencer
Bead breaker cylinder gaskets broaden		Replace gaskets



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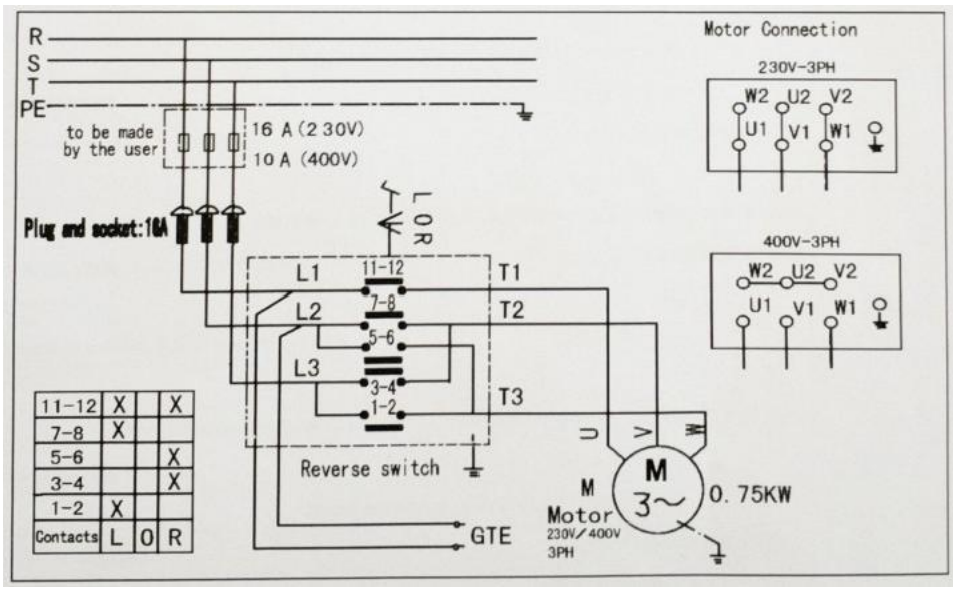
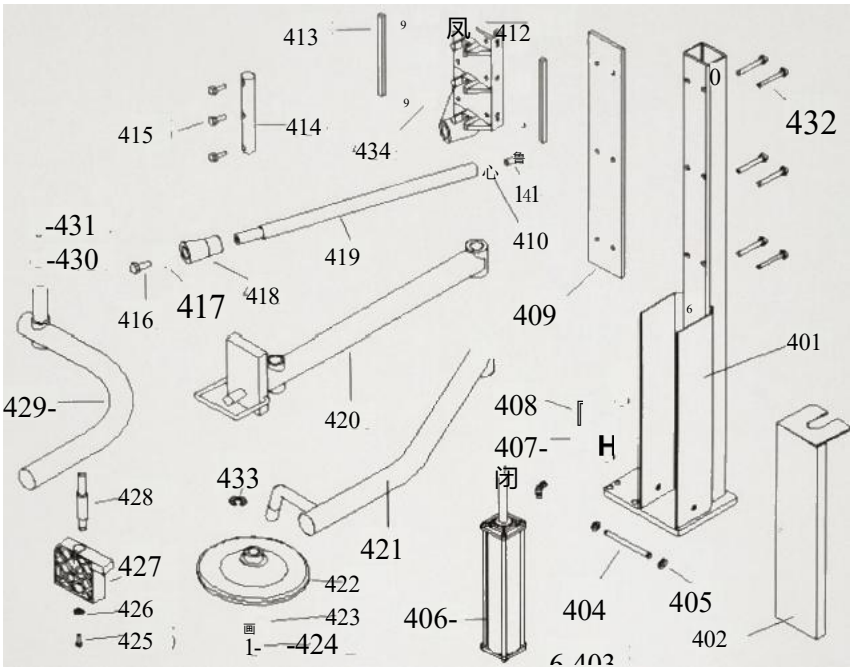
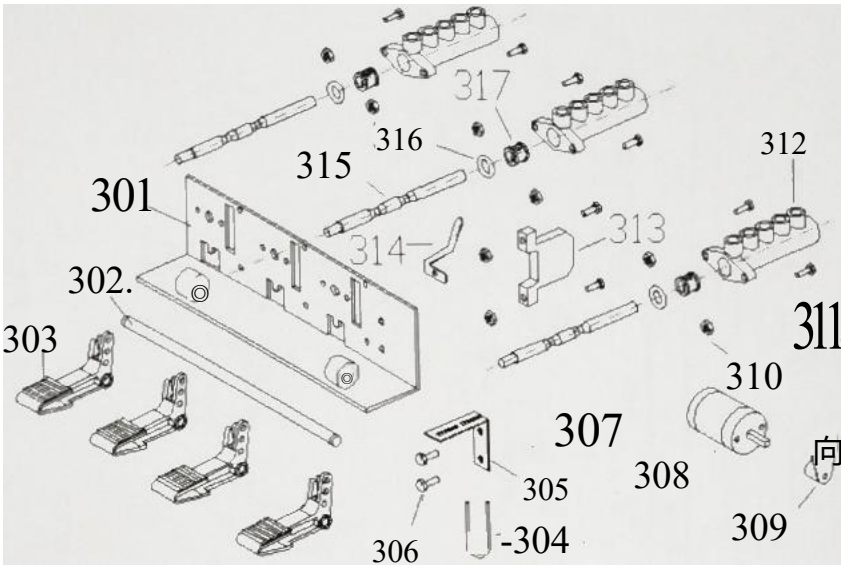


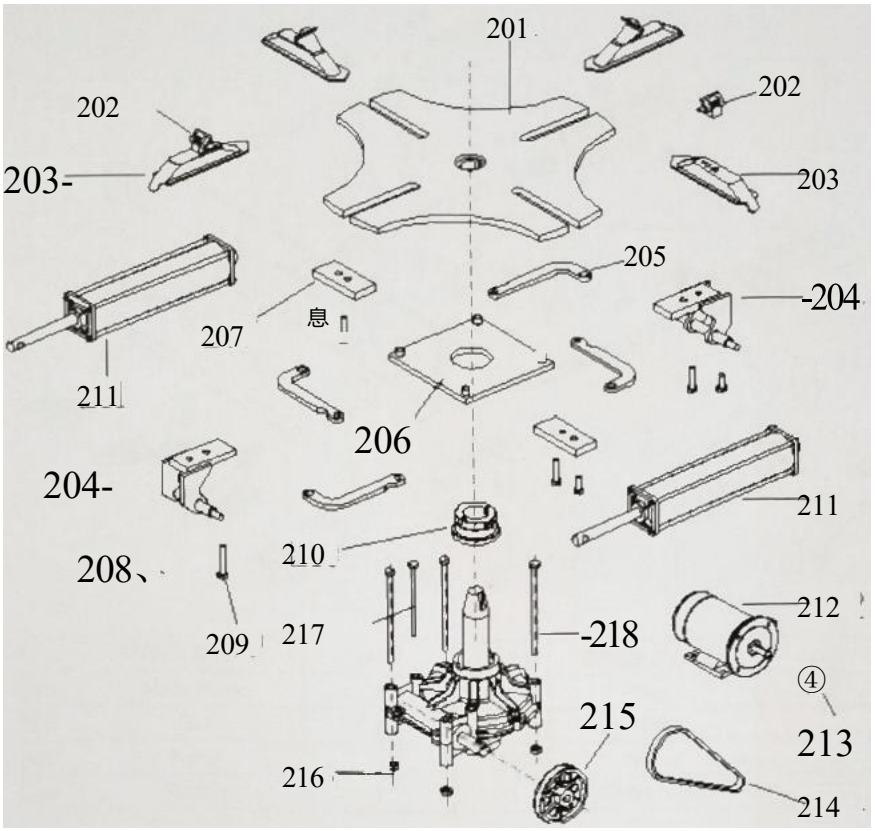
230V/400V-3PH



ITEM	DISCRIPTION	QTY	ITEM	DISCRIPTION	QTY
401	Main post	1	418	Roller	1
402	Front cover	1	419	Press shaft	1
403	Air pipe fitting	2	420	Up arm	1
404	Shaft	1	421	Lower arm	1
405	Circlip 12	2	422	Plastic plate	1
406	Cylinder	1	423	Washer 10	1
407	Washer 12	4	424	Bolt M10X20	1
408	Bolt M12X120	4	425	Bolt M10X20	1
409	Slide plate	1	426	Washer 10	1
410	Washer 6	1	427	Press block	1
411	Bolt M6X15	1	428	Shaft	1
412	Slider	1	429	Up arm B	1
413	Slide plastic	2	430	Washer	1
414	Shaft	1	431	Bolt M10X20	1
415	Bolt M10X50	3	432	Bolt M10X70	6
416	Bolt M10X20	1	433	Circlip 25	1
417	Washer	1	434	Bolt M10X12	6



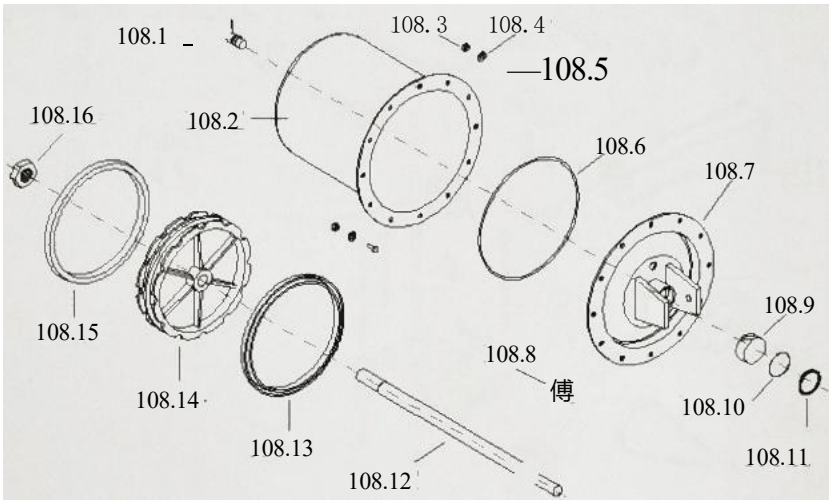
ITEM	DISCRIPTION	QTY	ITEM	DISCRIPTION	QTY
301	Main frame	1	310	Nut	4
302	Bar	1	311	Bolt	4
303	Pedal	3	312	Valve	2
304	Spring	1	313	Slider frame	1
305	Spring fix	1	314	Spring	1
306	Bolt	2	315	Valve rod	2
307	Nut	2	316	O-ring	12
308	Switch	1	317	Spacer	5
309	Switch lever	1	318		



ITEM	DISCRIPTION	QTY	ITEM	DISCRIPTION	QTY
201	Turntable	1	212	Motor	1
202	Jaw	4	213	Small belt wheel	1
203	Jaw holder	4	214	Belt 660/635	1
204	Main slider	2	215	Big belt wheel	1
205	Joint lever	4	216	Nut M10	6
206	Joint plate	1	217	Bolt M10X160	2
207	Slider	2	218	Bolt M10X180	4
208	Nut M12X30	4	219		
209	Nut M12X90	4	220		
210	Air valve	1	221		
211	Cylinder	2	222		

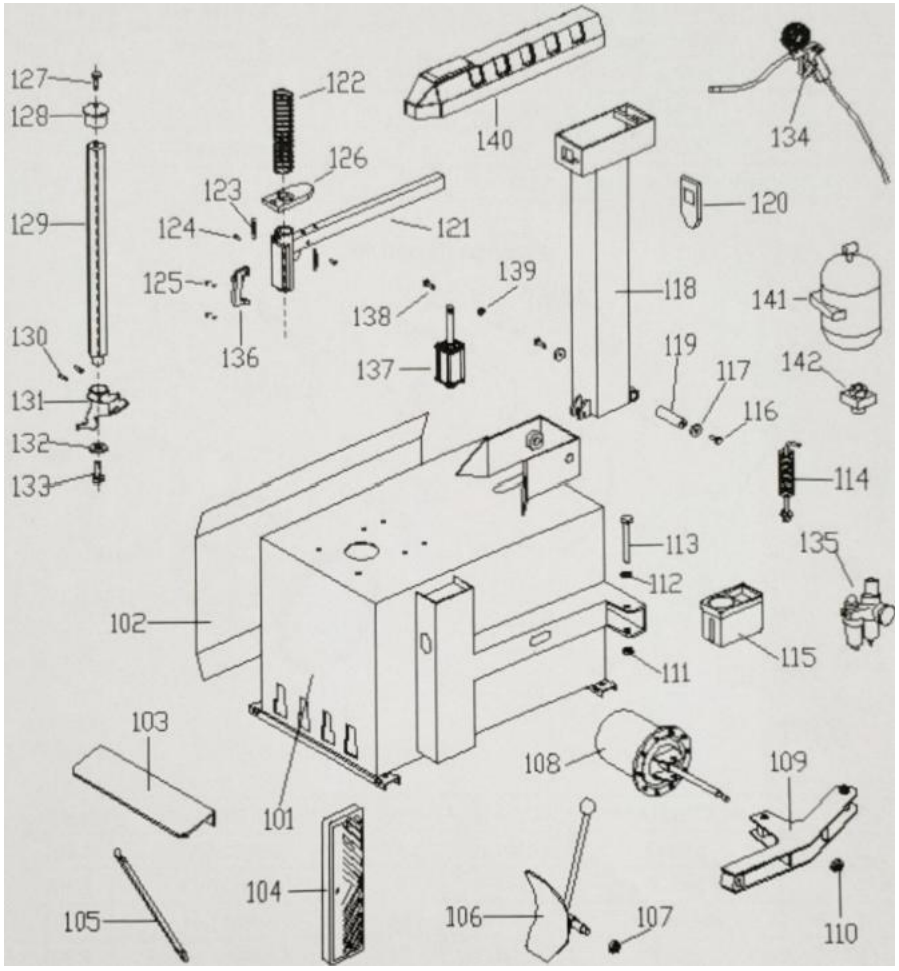
115	Lubr.box	1	136	Handle	1
116	Bolt M12X25	2	137	Cylinder	1
117	Washer 12	2	138	Bolt M12X50	1
118	Column	1	139	Nut M12	1
119	Shaft	1	140	Cover	1
120	Lock plate	1	141	Air tank	1
121	Arm	1	142	Quick release valve	1

108 Big cylinder details



ITEM	DISCRIPTION	QTY	ITEM	DISCRIPTION	QTY
108.1	Air pipe fitting	1	108.10	O-ring	1
108.2	Cylinder	1	108.11	Y-ring	1
108.3	Nut M6	12	108.12	Piston rod	1
108.4	Spring washer 6	12	108.13	Y-ring	1
108.5	Bolt M6X15	12	108.14	Piston	1
108.6	O-ring	1	108.15	Y-ring	1
108.7	Cover	1	108.16	Nut M18	
108.8	Air pipe fitting	1			
108.9	Piston rod support	1			

VT-960



ITEM	DISCRIPTION	QTY	ITEM	DISCRIPTION	QTY
101	Case	1	122	Spring	1
102	Case cover	1	123	Spring	2
103	Pedal cover	1	124	Bolt M6X20	2
104	Support rubber	1	125	Bolt M5X20	4
105	Lever	1	126	Lock plate	1
106	Bead loosen	1	127	Nut M8X25	1
107	Nut M16	1	128	Cap	1
108	Big cylinder(see details)	1	129	Hex bar	1
109	Bead loosen support	1	130	Bolt M10X20	1
110	Nut M18	1	131	Duck head	1
111	Nut M16	1	132	Washer 10	1
112	Washer 16	1	133	Bolt M10X20	1
113	Bolt M16X110	1	134	Air gun	1
114	Wire	1	135	F.R.L	1