



REDBACK RB202 ASSIST ARM

INSTRUCTION & MAINTENANCE MANUAL



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

INDEX**PAGE**

1. Technical data:	2
2. Safety Warnings:	2
3. Transport and installation:.....	2
3.1. Transport	2
3.2. Unpacking & Inspection:	2
3.3. Main parts	3
3.4. Installation site	3
3.5. Assemble	4
4. Necessary condition for the test	5
5. Operation.....	6
5.1. Components	6
5.2. Operation.....	6
6. Maintenance:	7
7. Exploded drawing	9

098D simple help arm

The 098D simple help arm is the auxiliary device for the tyre changer; it is also a unique patent design with high cost performance and super practical. It will reduce the labor intensity of the operator greatly, while reducing the risk of the injured tyre and rim after use this device. Correct and skilled operation will have the effect which half the work with double results.

Please read carefully before installation and use; Manufacturer shall not be liable for any damage or injury caused by failure to comply with these regulations. Please put this manual in a convenient spot.

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

1. Technical data:

Working Pressure	8~10 bar
Assembly weight	About 15kg
Package size L*W*H	670*260*245 mm
Noise Level	LpA<75dB

2. Safety Warnings:

Use of this machine is especially reserved to trained and qualified professional persons, those who already read the introduction manual carefully, or someone have the experience for operating similar machinery.

Please use this device in the special tyre changer of our company, we do not guarantee that the auxiliary device will be used normally on other tyre changer. The company is not liable for any changes in the use of machines that are not authorized by the manufacturer.



3. Transport and installation:

Notice!
The device must be assembled by a professional.
Before assembling the device, please confirm that the electricity and gas source are cut off.

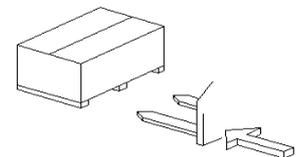


Fig 1

3.1. Transport

Please use suitable forklift for handling as fig 1.

3.2. Unpacking & Inspection:

Please pay attention to damage of the machine when opening the package. If any, please contact the dealer or manufacturer in time, and check the packing list according to the packing list.

Caution: Please keep the packing box and other accessories for future use and place where the child cannot reach.

3.3. Main parts

The 098D simple help arm is structure simple; with analysis of engineering mechanics, the strength of the structure is completely satisfied with the needs of different tires.

The main parts as Fig 2, the details of the parts please refer to the exploded drawing and BOM.

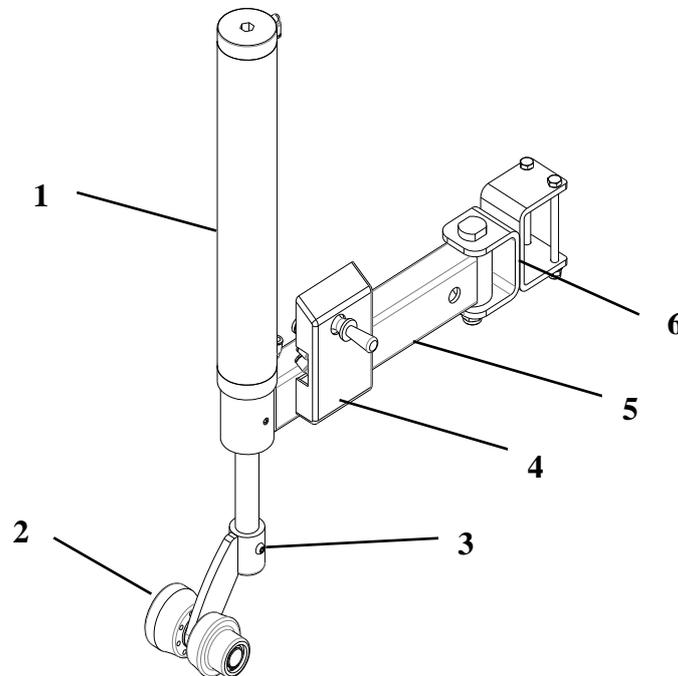


Fig 2

1	Complete right help arm cylinder
2	Tire pressing roller assembly
3	Tire pressing roller support
4	Rise-fall control valve assembly
5	Right pressing arm
6	Mounting bracket

Note: please contact the manufacturer or designated distributor to purchase the accessories if the above parts need to be replaced. The company does not guarantee the reliability of accessories which from any other source other than the original parts of our factory, if the production accidents and personal injury caused by the replacement of other source, our company is not responsible for it.

3.4. Installation site

Figure 3 shows the installation position; please choose the suitable space to install the 098D auxiliary arm to the swing arm.

The position of the 098D auxiliary arm which installed in the swing arm is not fixed; the user can adjust the position according to the actual needs. According to the manufacturers' calculation and analysis, it is recommended that the distance between the mounting bracket and the center line of the hex end is the best 230mm, and the positioning block is the best 35mm. (shown as fig 3)

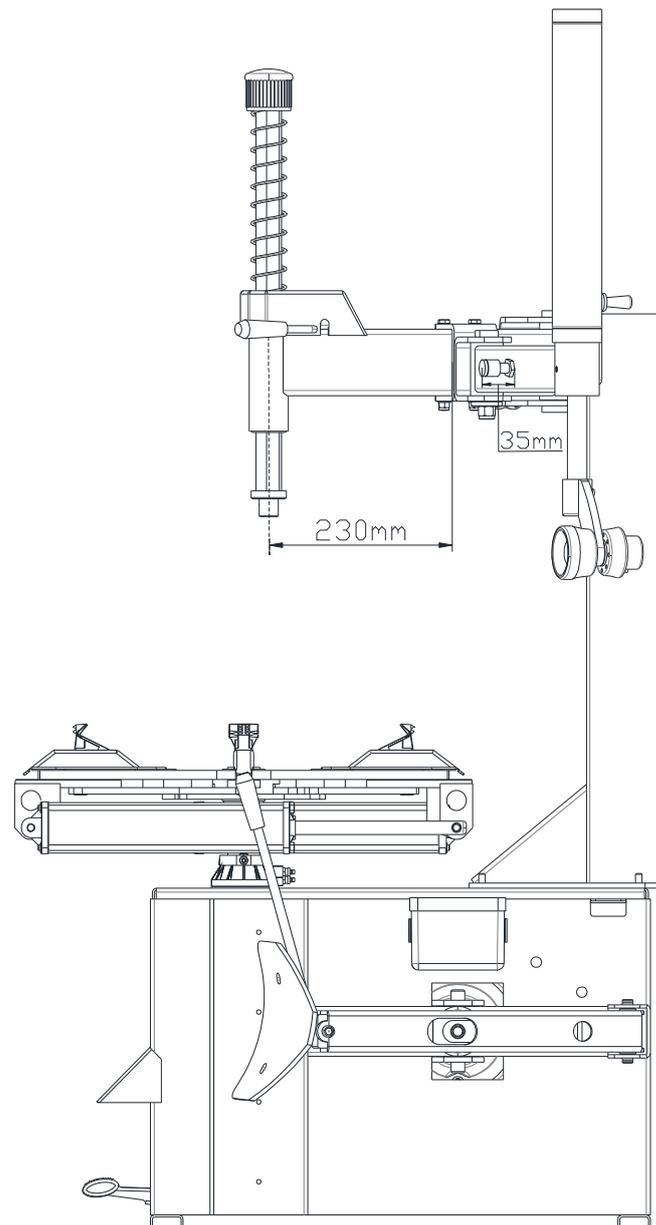


Fig 3

3.5. Assemble

- 1) Please disconnect the machine from electric power supply and pneumatic power supply;
- 2) Install the mounting bracket 2 of the 098D auxiliary arm on the swing arm which is 260mm from the centerline of the hexagon; (fig 3 and fig 4)
- 3) Use the M10*130 outer hex bolt 1、 M10 flat washer 3 and M10 outer locking nut 4 to installed the mounting bracket 2 on the swing arm;
- 4) Fix the tyre pressing arm 9 with tyre pressing arm pin 5、 big washer 6 and M16 locking nut 7;
- 5) Install the rise-fall control valve assembly on the pressing arm 9, fixed the control valve protect cover 8 on the control valve assembly with the cross head screw 11.
- 6) Install the complete help arm cylinder 14 on the pressing arm 9 with hex socket head screw 13, and then installed the parts of 15-19 in place.
- 7) Cut the outlet hose of the oil-fog make in a suitable position, connect the hose with quick insert T-union , and connect the hose to the control valve through hole H1and hole H2, then connect the control valve and the complete help arm cylinder with the hose, shown as fig 5.

8) Arrange and fix the hose to avoid the accidents caused by the clutter of the hose in the process of use.

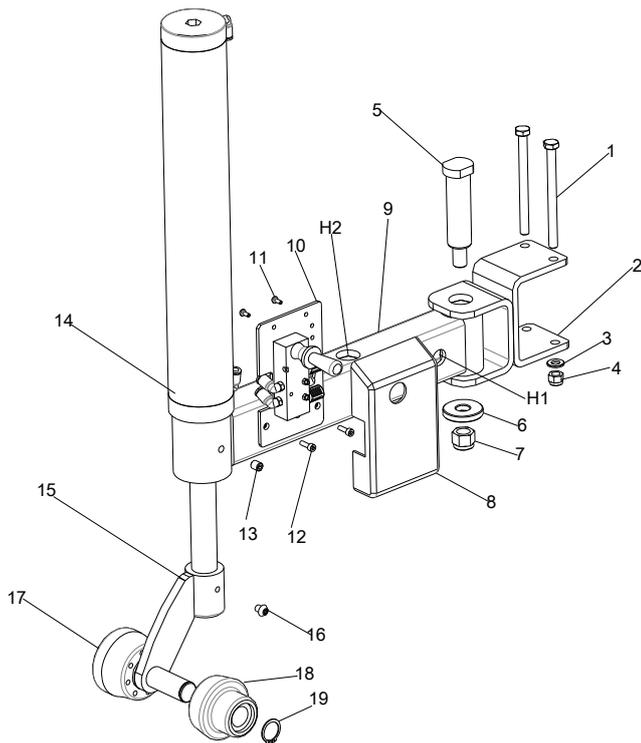


Fig 4

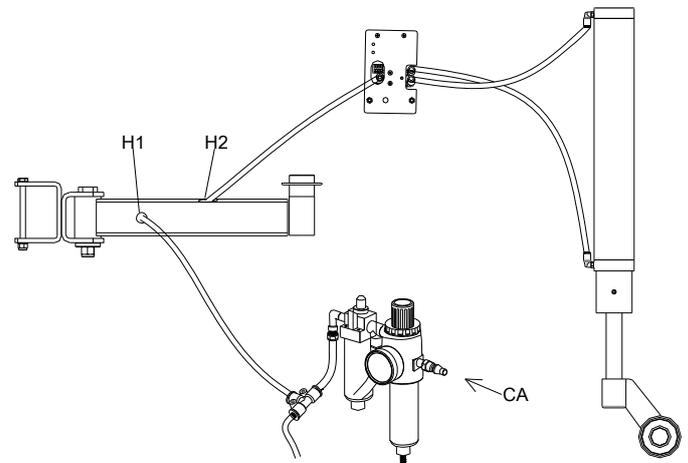


Fig 5

4. Necessary condition for the test

Operate the 098D auxiliary arm must make the tyre changer and air compressor connect well, and ensure input the compressed air of 8-10bar steady pressure.

The connection of the tyre changer and air compressor is as below:

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

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

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

5. Operation

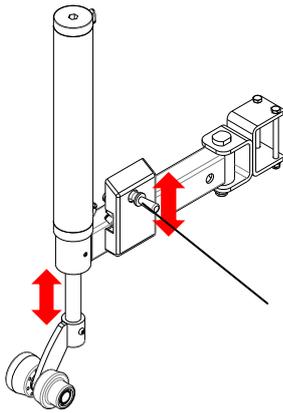


Fig 6

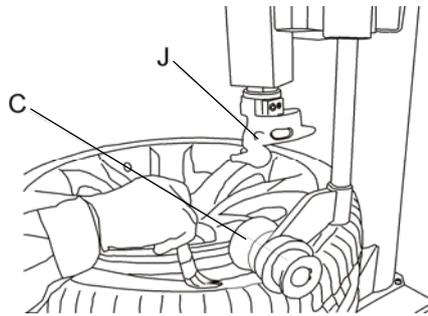


Fig 7

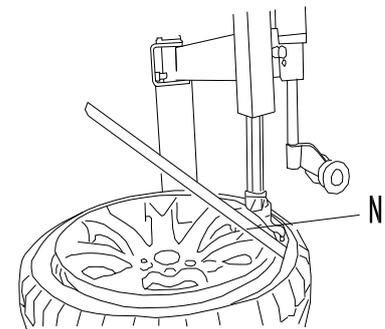


Fig 8

Helping arm at right side is auxiliary device of tyre changer for helping operator to demount and mount tyre.

5.1. Components

The operation component of the auxiliary arm is the rise-fall control valve D, the function as below:

The rise-fall control valve D is used for lifting the tire pressing roller assembly to suit all the required height of demount/mount tyre changer.(fig 2) The control valve D up, then the tire pressing roller rise; the control valve D down, then the tire pressing roller fall.(fig 6)

5.2. Operation

It is difficult to demount and mount big low profile tyre. If operation is proper, it is very easy to use helping arm device to demount and mount tyre from rim. The helping arm device may also be used when demounting and mounting normal tyre with resistance.

a. Clamp rim

Firstly, press both side tyre loose as per operation instruction in user's manual. Force of demounting and mounting is big when helping arm device is used. And rim may be damaged easily. It is recommended that to clamp rim

from outside (jaw protector may be installed on jaws) . Tread relevant pedal to make jaws open to clamp edge of rim, move helping arm's rotary arm to far-end. Put on tyre, tread relevant pedal to make jaws close and to approach rim

b. Demount tyre

1. Press tyre with tire pressing roller assembly to a position 3cm lower than rim edge, lubricate tyre bead, rotate turntable, lift tire pressing roller assembly. (Fig 7)

2. Move demounting/mounting head close to edge of rim, keep a 2-3mm gap between demounting/mounting head and rim plane, operate locking handle (K, Fig 9) to lock vertical arm, adjust screw bolt in column to position swing arm, make sure 2-3mm gap between demounting/mounting head and rim edge side

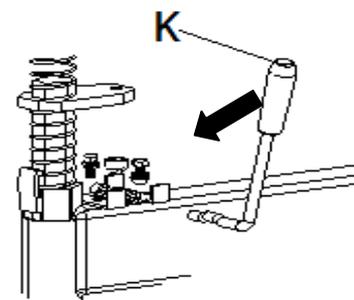


Fig 9

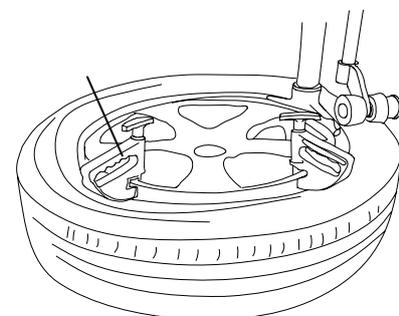


Fig 10

3. Nearby demounting/mounting head, insert lift lever N into tyre, use lift lever to lift bead upon knob of demounting / mounting head. Manually rotate roller C to inner side, pull handle D down, make roller C to press rim, keep 3-5mm gap between demounting/mounting head and rim, make sure demounting/mounting head not damage rim, rotate turntable, demount tyre upper bead (Fig 8).

4. Push handles D up, lift tire pressing roller assembly, loosen right pressing arm.

Lift tyre up, insert lifting level into bottom tyre bead nearby demounting/mounting head, lift bead upon knob of demounting / mounting head and rotate turntable to demount down tyre bead.

c. Mount tyre

1. Lubricate tyre and rim edge with lubricant to avoid damage of tyre. Adjust height of demounting/mounting head and make tyre bottom bead upon rear of demounting/mounting head and below front of demounting/mounting head. Rotate turntable to mount bottom bead.

2. Make tyre top bead upon rear of demounting/mounting head and below front of mounting/mounting head, move right pressing arm and make sure it is locked, pull handle D down to make tire pressing roller assembly to press top bead to position below demounting/mounting head. Lock tyre pressing head of 098D help arm on rim edge, rotate turntable, finish tyre mounting (Fig 10).

6. Maintenance:

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

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

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

The specific maintenance please refers to the corresponding section of the tyre changer. If there are any questions, please contact the manufacturer.

Trouble shooting table:

The Bead Breaker shovel operates difficultly.	Jammed silencer	Clean it or replace it.
	The seal rings on the Bead Breaker cylinder are broken.	Replace it.
	Leakage of Air network	Check all the parts on the air network.
	The rise-fall control valve is broken.	Replace it.

Note: In order to ensure the rise-fall control valve and the cylinder are reliable, the rise-fall control valve should kept clean; the following instructions can be maintained.

1. Disconnect the machine from electric power supply and pneumatic power supply, dismount the two screw 11 in fig 4, remove the rise-fall control valve protect cover;
2. Dismount the two mufflers which are on the rise-fall control valve; (the A in fig 11)
3. Use the compressed air to clean the dirt on the muffler, if damaged, refer to the exploded drawing and list to replaced it.(chapter 8)

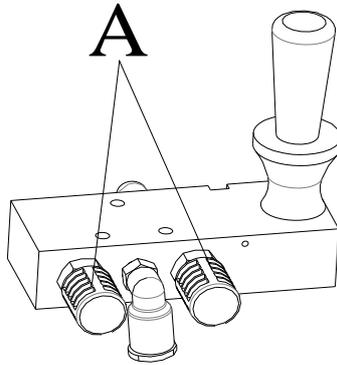
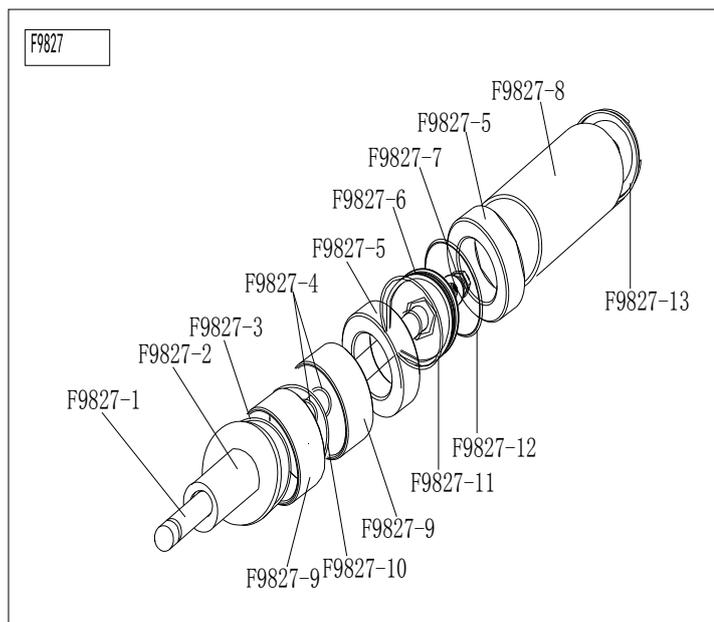
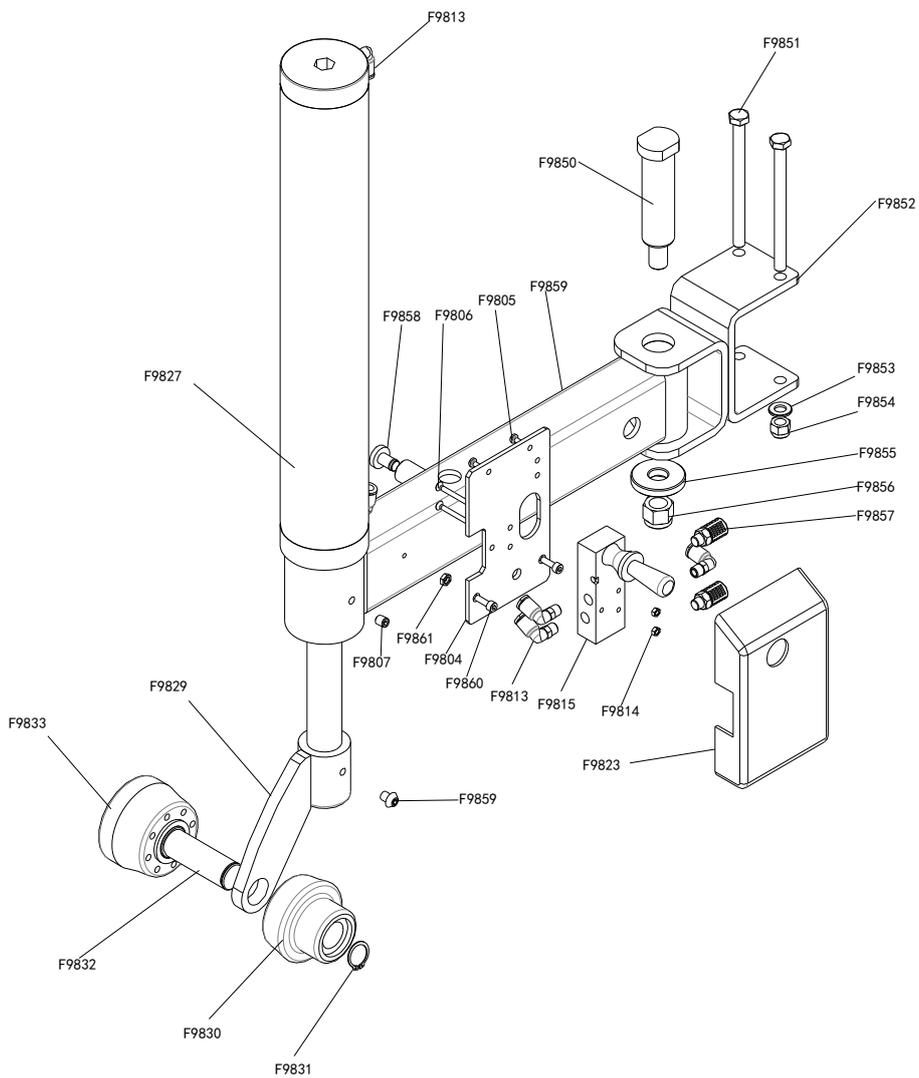


Fig 11

7. Exploded drawing



F9804	CX-005-200000-0	Rise-fall switch base plate	F9858	C-098-020400-D	Crash pad
F9805	B-017-040161-0	Cross flat head screw M4*16	F9858	CX-098-020300-D	Cushion connection seat
F9806	B-017-040301-0	Cross-round head screw M4X30	F9858	B-004-120071-1	Hex nut(white) M12*1.75*6
F9807	B-007-100121-0	Hex socket head bolt M10*12	F9859	B-025-080101-0	Round head hex screw
F9813	S-012-010406-0	L-union 1/4- φ 6	F9860	B-024-050101-1	Hex socket head bolt M5*10
F9814	B-004-040001-1	Nut (silver) M4	F9861	B-004-060001-1	Nut M6
F9815	S-030-010818-0	Handle valve	F9862	CX-098-020000-D	098D pressing arm(right)
F9823	C-007-181000-0	Control valve protection cover	F9827-1	C-098-070400-2	Help arm cylinder piston rod
F9827	CW-105-209800-2	Complete 098 cylinder	F9827-2	C-098-070100-0	Help arm cylinder front cover
F9829	CX-098-040000-0	Pressing roller bracket support	F9827-3	B-055-400002-0	Snap ring φ 40
F9830	C-098-060100-0	Tire pressing roller 1	F9827-4	S-000-030265-0	O-seal φ 30*2.65
F9831	B-055-300002-0	Snap ring Ø30(hole)	F9827-5	C-098-070600-0	Cylinder washer Φ 31*50*15
F9832	CX-098-050000-0	Tire pressing roller shaft	F9827-6	C-098-075400-0	009 help arm cylinder piston Φ 70
F9833	C-098-060200-0	Tire pressing roller 2	F9827-7	B-001-120001-0	Self-locking nut M12
F9850	CX-098-030000-0	Pressing arm pin (right)	F9827-8	CX-009-070300-0	Help arm cylinder barrel
F9851	B-014-101301-0	Outer hex bolt M10*130	F9827-9	C-098-070500-0	Guide cover φ 30*33*15
F9852	CX-098-110000-D	Mounting bracket seat -D	F9827-10	S-000-063265-0	O-seal φ 63*2.65
F9853	B-040-102020-1	Flat washer φ 10	F9827-11	S-000-063355-0	O-seal φ 63*3.55
F9854	B-001-100001-0	Locking nut M10	F9827-12	U-006-000001-0	Guide belt 4*2
F9855	CX-200-140000-0	Big washer	F9827-13	CX-098-070200-0	Cylinder rear cover
F9856	B-001-160001-0	Self-locking nut M16			
F9857	S-023-010801-6	Muffler 1/8			