

m: 691 **SCANNED**

06101

Reo Bender up to

16mm

Instruction Manual

ELECTRIC REBAR BENDER

MODEL: RB-25 RB-32

1. Safety

1.1 SAFETY RULES

1.1.1.GENERAL SAFETY RULES



WARNING

Do not attempt to operate until you have read thoroughly and understand completely all instructions, rules, etc. contained in this manual. Failure to comply can result in accidents involving fire, electric shock, or serious

personal injury. Keep owners manual and review frequently for continuous safe operation.

1. KNOW YOUR MACHINE.

For your own safety, read the owner's manual carefully. Learn its application and limitations as well as specific potential hazards pertinent to this machine.

2. KEEP WORK AREA CLEAN.

Disorder area and working table will cause accident.

3. DO NOT USE IN DANGEROUS ENVIRONMENTS.

Do not use power tools in damp or wet locations, or expose them to rain. Keeps work area well illuminated.

4. KEEP NON-PROFESSIONAL PEOPLE AWAY.

All visitors should be kept at a safe distance from work area.

5. USE THE SUITABLE TOOLS, DO NOT FORCE THE MACHINE.

It will do the job better and be safer at the rate for which it was designed.

6. WEAR PROPER APPAREL.

Avoid loose clothing, gloves, neckties, rings, bracelets, or jewelry, which could be caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.

7. THE MACHINE SETTING

Bender should be on flat and steady ground before starting.

Any shaking may cause imprecise work. To avoid the safety accident, please make sure the machine is not shaking before working.

8. OPERATION IS OFF, MAINTAIN THE MACHINE

Keep the machine clean and safe. After operation, clean and remove dust and scrap iron in the main gear and body

9. USE RECOMMENDED ACCESSORIES.

Before the service, replaces the fitting, or perhaps the assembly and assembles the motor, must cut-off machine's power source from the power source place (the note: Carries on the operation by the specialists).

10. POWER SUPPLY

①. The power source, please connect with the single-phase 220V power source to uses

②. when connects to the power source RB-25 must use 3.5 ~ 5.5sq (cv) the power line, RB-32 must use 4 ~ 6.5sq (cv) the power line. The power line is must maintain can below 30~40m to assure operation normally

※ Reference-----in situation of use extend line

This product is set in the situation of far distance from the power to use the extend line to

connect, according to the thickness of line and the different of current capacity , so must use the above provisions. Extension line. Use line is too long or too thin will make the loss of electric current and overload of the voltage, lead to edge of the wiring insulation rapid turn heat,then insulating ability to reduce ,finally to leak electric poaer or fire.besides will weaken the motor output force, internal electrical circuit easy to failure .

to began using the Line from the power line connect point must suit to the provisions of the above extension line, also do not mean operation near the electric power supply is good, in situation of long distance operation,please refer to the table to using appropriate degree of power line according to distance.

(wire) max. length	RB-25	RB-32
	Diameter of wire / wire size	Diameter of wire/ wire size
15m	2.0sq X 3C	3.5sq X 3C
25m	3.5sq X 3C	4.5sq X 3C
40m	5.5sq X 3C	6.5sq X 3C

1.1.2 Additional safety rules



- ①. When the machine is running, don't clean or remove scraps
- ②. Do not remove or modify the warning signs even not replace or any may cause confusion of marks.
- ③. Carefully reading the mannel before operating the machine.
- ④. The machine on ground correctly, to avoid hazard shock.
- ⑤. Not away till the machine is off.
- ⑥. Before replace the module the machine should stop completely .
- ⑦. before starting, confirm. determine the correct, bending Angle.
- ⑧. Do not to put any tools on platform before starting work, to avoid accidents .
- ⑨. Use appropriate tools to adjust machine.


1.2. Warning signs:


This machine has warning symbols attached on it as shown below to ensure proper and safe operation.

These symbols are used on the machine to indicate points or instance of specific danger to operating personnel.

Do not remove safety symbols from the machine.

The safety have two grade that are  Danger and  Attention in this manual:

 Dangerous—Means the dangerous by the wrong operating and lead death and GBH.

 Attention—Means the dangerous by the wrong operating and lead the hard damage of common or venial harm. Attention can help the user to know the result of ignore the warning and recognize the dangerous and avoid the dangerous.



1. Avoid the damage

Danger

Don't put your hand or head inside the guard fence, if not will harm yourself.
Don't touch the button with wet hand, if not will get the electric shock.
Every work include the installation, test and inspection & maintenance need to be done by the professional technician.

2. Transit and Installation

Attention

Please use the proper rise and fall tools to transit the equipment when transit the equipment to avoid the damage and accident.
Flow the operation manual to install the equipment.
Check and confirm the installation place and the position of the slitting rewriter.
Don't let the machine get the violent strike or hit when transit the machine.
Don't lift or hang the motor when transit as by this will damage the motor.
Don't test the machine if there is lack of or damage any electricelement.

3. Setting Line

Danger

Don't connect the chief power supply to the fan-out of creepage protection button.
Please cut off the power supply and confirm by checking when setting the line or inspect.
Setting the line after installation, if not will lead accident.
Don't press or clamp the cable, not damage or refute arbitrarily, either. Unless will lead the electric shock.

4. Attempt Running

Attention

Check the whole machine and confirm the suddenly start-up can not damage the equipment.
Adjust the three phase relatives between the control tank and each motors to confirm the turning position of each motor is right.

5. Operation

Attention

Don't touch the running part of the slitting folder by your hand in the period of early testing to avoid the hurt.
Don't do any modification for the equipment unless have the technician's help from BS. If not BS will not bear any duty of the result.

6. Other Attention Item

⚠ Attention

The completely inspection and attempt running are needed before using after leave unused for a long time.

It is not allowed to operating or maintain the machine when the operator is not clear-headed by drink or tired.

Please use the spare parts from BS for the maintenance and part change. BS will not guarantee to keep it in good repair if the customer damage the machine by using the spare parts from other company

2.means of operation

2.1 Using methods

① When the power line connection to the 220V power source and the power indicator light shone on namely mean of the machine operation preparation finishes may go on the normal work.

② The fixed idler wheel, the move idler wheel and the steel bar adjustment block's spacing needs to make the corresponding adjustment according to the specification of the steel bar.

③ The foot switch connection to point1,2 will make more convenient to go on work .

Point 1, connect to work - angle set by is point 1, press the START switch or point1 foot pedal switch control to operation.

Point 2,connect to work, The angle setby is point 2, through the foot switch control operation, this time the point1 angle set by handle must establish with point 2 in the same level angle or is bigger than the point 1 angle . while also after the angle handle setting must fix well the handle nut or when the machine operation will become loose.

④ Adjust the angle that you need by through move Left or right, after angle adjustment is set accurately, assure that angle setting handle is fixed .

⑤The operator must stand outside of the rebar bender operation's direction.

⑥ when press the starting switch or the foot switch will bend the rebar to the angle which you have set

⑦when you find some abnormal during the operation you must press down emergency stopped to closes down the machine'operation.

⑧sure to remember, when bending processing, the angle of point 1 must be bigger than point 2, otherwise the machine cannot the normal operation.

⑨ under situation of use foot switch beyond control machine'operation when please through press nearby power light's hand switch test machine whether to revolve judges the foot switch whether to present the breakdown.

Note: ① when press the emergency switch to run the machine,the move idler wheel will return to its position.

② under the work situation of point 2 bending, the point 1 handle'position must be keep the same level angle with point 2 or to set smaller in the angle 5 degrees than the point 1 and then fix the angle handle, so that not to occure the electrical or the machine misoperation.

※matching of different wheel (RB-25) :

Rebar specification	Fixed idler wheel	Gyre idler wheel	Contemporary bending capacity
Ø22- Ø25	Ø78	Ø94	1 pcs
Ø16- Ø20	Ø78	Ø94	1-2 pcs
Ø10- Ø13	Ø78	Ø94	4-5 pcs
Ø6- Ø13	module	Ø94	3-6 pcs
Special situation	Possible customize	Possible customize	

※matching of different wheel (RB-32) :

Rebar specification	Fixed idler wheel	Gyre idler wheel	Contemporary bending capacity
Ø10- Ø13	module	Ø148	5-6 pcs
Ø16- Ø22	Ø78	Ø148	2-3 pcs
Ø25- Ø32	Ø109	Ø99	1 pcs

2.2.attention items

① Must according to Contemporary bending capacity to use this products, surpasses easily to cause this product breakdown.

② when go on steel bar bending work, special attention to avoid injure the finger and so on safety incident.

③ according to the different hardness of reinforced material ,special attention should be paid to avoid the fracture which may lead to safety incidents such as wounding.

④.please do not operate untill you confirm no person and object in the reinforced bending radius.

⑤.the product is electric functional machinery.as encountered by rain or watter lead to leakage,it must be coverd with waterproof membrane after use.

⑥ assure the stationary ring bolt is fixed when transit or move the machine.

⑦,when operating under point 2,fix angle of point 2 same as or no larger than point 1 of 5 degree,to ensure that under the condition when exterior shock attacks the machine itself

will not move to left and right to operate the machine.

⑧ make sure the stationary ring bolt is fixed when transit or move the bender. chains must be inserted into the safety pin to pretend the bender from shaking or waving in transit. when move the bender by fixing handle, 4 bolts can not loose, then move the bender together by 4 handles.

⑨ prohibit to use idler wheel items

If marks according to below (X) the method operation troughing of belt hoop will burst easily. Records the proper operation sincerely!

3. Environment:

Please use it under these kinds of the environment conditions.

Environment	Environment temperature	-10°C~45°C (does not ice up)
	Environment humidity	Below 90%RH (does not congeal dew)
	Storage temperature	-20°C~+65°C
	Environment	In room (non-corrosiveness gas, flammable gas, oil mist and so on)
	Altitude above sea level	Below elevation 1000m

4. Operation

4.1 Operation position

After installed the equipment, the operator can operate the equipment stand on the about 0.5m before operation panel

Notice

- Do not use your hand to touch all the running parts when the equipment is running in case to accident to happened.
- After adjust the quantity to remember lock the nut.
- If have abnormal during the running should to stop the working.

When the container is big the diameter of the filling mouth should not too small in case to protect the filling mouth from damage when filling the pressure is too big.

4.2 Emergency Stop

This machine install one emergency stop button so once you press it the machine will stop wholly. When there are emergency things happen please press this button.

4.3 Power

220V single phase power supply only.

Use 3.5 ~ 5.5sq(CV) wire only. Wire should be no longer than 30-40m in order to keep bender work normally.

Avoid putting bender on wet ground

※For reference--- In case of using longer wire, When power supply is far away from bender, please use standard extended wire according to the diameter and capacitance. Overlong extended wire will cause running out of electrical current and overloading of voltage, and the insulating coat may become hot, which will weaken the insulating capability and finally lead to fire. Moreover, any faulty using of the wire may cause reduction of output energy of the bender and conk out of inner electric loop. Pls use standard extended wire from position of power supply. Distance between the power supply and bender is shorter, not means the machine works better. Pls refer to the following form to use the standard wire.

(Wire) Max. Length	Wire size
15m	2.0sq X 3C
25m	3.5sq X 3C
40m	5.5sq X 3C

4.4 Control panel

1 indicating light: when connecting the power supply, the light should be on.

2 manual switch: if the foot switch could not control the machine operation, replace foot switch 1 by the manual switch near the power light.

3 foot switch 1: press foot switch 1 to complete the operation of angle 1 settled by the "1 point" angle adjustor.

4 foot switch 2: press foot switch 2 to complete the operation of angle 2 settled by the "2 point" angle adjustor.

5 emergency stop switch: during the operation, if there is any trouble, release the button and stop all actions.

6. angle 1: adjust the bended angle by the "1 point" adjustor (corresponding with foot switch 1)

7. angle 2: adjust the bended angle by the "2 point" adjustor (corresponding with foot switch 2)

8. Before bending, please note the angle setting of "1 point" must be bigger than the "2 point", or the machine can't work. please see the below picture.



CORRECT ANGLE SETTING

4.4 operate process

- 1).please connect the power wire to 220V electric and see the indicator light lights up.It means the bender is ready to work.
- 2).please choose the correct size fixed idler wheel and correct size idler wheel according to the rebar diameter.
- 3). Please Connect pedal switches with 1 point and and 2 point holes tightly.
- 4). The 1 point angle setting adjustor is for setting the foot switch connecting with 1 point hole.For example to bend 180 degree by foot swtich 1,you set the angle 180 degree by the 1 point adjustor,then you touch the foot swtich 1 to bend the rebar 180 degree.
- 5).The 2 point angle setting adjustor is for setting the foot switch connecting with 2 point hole.For example to bend 90 degree by foot swtich 2,you set the angle 90 degree by the 2 point adjustor,then you touch the foot swtich 2 to bend the rebar 90 degree.
- 6).please note the angle setting of "1 point" must be bigger than the "2 point",or the machine can't work.please see the below two pictures.
- 7).Fix the angle adjustor by moving to left and right accordingly.
- 8).Operator should work on the outside of the rebar's bending direction.
- 9).Rebar will be bent to set angle when pressing the start switch or pedal switch.

Please use the different sizes wheels for the different sizes rebars according to below specification.

Rebar Diameter	Fixed idler wheel	gyre idler wheel	Rebar quantity for one time bending
22mm or 25mm	Ø78	Ø93	1 pcs
20mm or 16 mm	Ø50	Ø135	1 or 2 pcs
14mm or 10mm	Ø33	Ø165	4 or 5 pcs

Attention: In order to work precisely, Pls set at point 1 when the bending angle is large (90°), and set at point 2 when the bending angle is small(135)

4.Note :

- ① follow the processing capacity while use the product is a must, surpass the product easily lead to failure.
- ②operation gripping bending reinforced material should pay special attention to safety incidents such as bumping fingers.
- ③ According to the different hardness of reinforced material, special attention should be paid to the fracture which may lead to safety incidents such as wounding.
- ④ Please do not operate until you confirm no person and object in the reinforced bending radius.
- ⑤ the product is electrical functioning machinery. As encountered by the rain or water leading to leakage, it must be covered with waterproof membrane after use.

4.5 Movement

1. Move the bender after making sure the handle fixing bolt is tight.
2. When operating under point 2, fix angle of point 2 same as or no larger then point 1 of 5 degrees, to ensure the operator's safety and the normal working.
3. Make sure the stationary ring bolt is fixed when transit or move the bender.
Chains must be inserted into the safety pin to pretend the bender from shaking or waving in the transit. When move the bender by fixing handle,4 bolts can not loose or damaged. Move the bender together by 4 handles.

5. Maintenance

5.1 Check and Change

①Change the carbon brush --- The power must be cut off. If the machine stops operating during the process, please confirm the wearing and tearing intensity of the carbon brush. The carbon brush that electric machinery uses belongs to consumables. If the carbon brush is used beyond the restraining line of the wearing and tearing, the electric machinery will subside, even stop running. Then turn off the machine and resume it. If the machine shuts down automatically after transient running, it proves to be necessary to change the carbon brush. Please do use the machine after the change of the carbon brush as the continuing use accelerates wearing and tearing of the commutator which leading to the damage of the rotor coil.

②Means of changing:

Open the upper brush cap with a screwdriver so that the carbon brush can be taken out in the machine.

Please use the attaching brush while purchasing the machine to clean the internal centre axle and fixed gyro wheel before changing and using.

5.2. Lubrication:

5.2.1. Cycle:

The lubrication should be done by the personnel regularly and also can be maintained during the time that not be used.

PLS put the lubrication every week.

5.2.2. Oil

It adopts the common lithium grease; do not use the different lubrication at the same time, if you choose one because it will influence the life span.

5.2.3. Cleaning the oil mouth

Before put the lubrication grease should clean the oil mouth and do remember to wipe off the remaining.

5.3 Check and maintain

Check the bolts and nuts of every position, if they become flexible.

In moist season or after rainy days, the rain-proof ventilate must be opened to dry. In the case of heavy power shock when turn the gyro wheel go back to the location, round it tight after adjusting the unclamp, bludgonned bolt into the very slow state.

Panel indicator lamp on means the machine is turned round and planned.

Check the power and cable if not bright when putting through the power rear board indicator lamp.

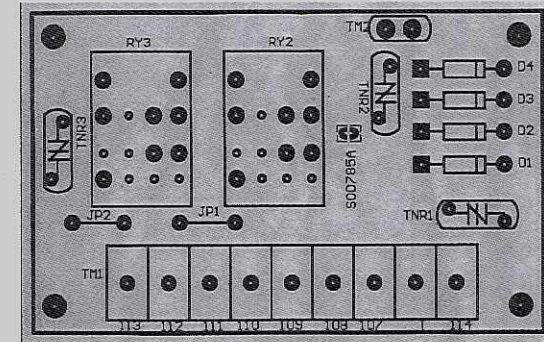
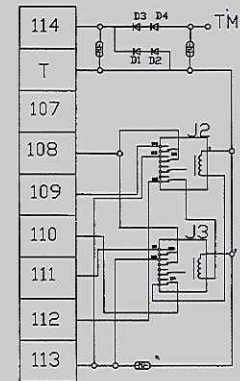
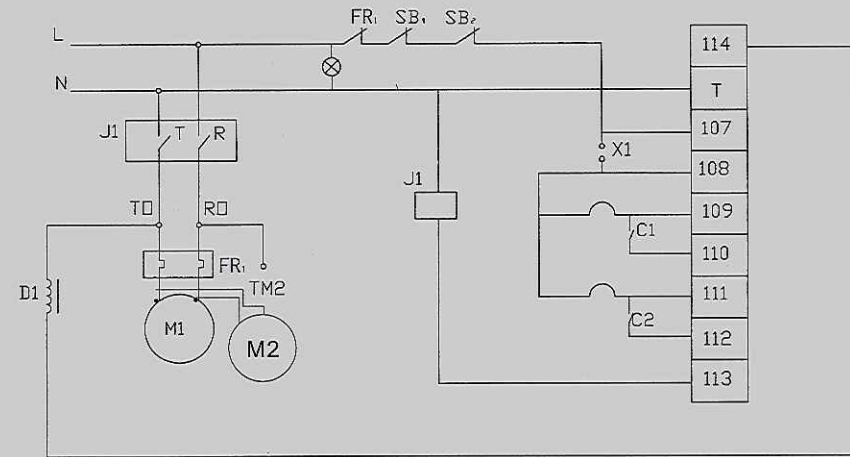
Indicator lamp shows the panel, if it is unable to start the machine when press START switch --- Please confirm the tearing state of wearing or carbon brush .

In addition, please consult each branch and after sale service centre of general headquarters for other items.

6. Electrical safety


6.1. Safety rules of electrical system

1. Only personnel who are properly trained and have adequate knowledge and skill should undertake all electrical troubleshooting and repair.
 2. Do not alter or bypass protective interlocks.
 3. Before starting, read and observe all warning labels
 4. When trouble shooting make sure the power source has been cut-off and main switch has been locked.
 5. Take extra precautions in damp areas area to protect you from accidental grounding.
 6. Before applying power to any equipment it must be established, without a doubt, that all persons are clear.
 7. Do not open the electrical control panel unless it is necessary to check the electrical equipment.
 8. Do not alter the electrical circuits unless authorized to do by the manufacturer
 9. When replacing electrical components, make sure they conform to the manufacturers specifications, including proper color-coding.
 10. Do not wear metal glasses, metallic necklaces or chains while working on any electrical equipment.
- Also do not wear any ring, watch or bracelet while operating electrical equipment.



J1-J3 Electric relay
SB Emergency stop
X1 Travel switch
D1 Electromagnet

C1-C2 Sensors

 Piezoresistor

Remark:RB-25 Suit for M1

RB-32 Suit for M1、M2