

CBX Premium Rebar Bender

Models CBX-25 | CBX-32

Operations Manual



WARNING

Read this manual carefully before starting or operating the machine, and before carrying out maintenance or any other work on it.

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1. Introduction

Read this manual carefully before using the rebar bender. Failure to follow the instructions in this manual may result in accidents and injury. Always operate the machine in accordance with these instructions.

Capital Machinery Sales accepts no liability for damage to the machine, or injury to the operator, resulting from unauthorised modification of the machine or the use of non-genuine parts.

2. Safety Information

2.1 Safety alert symbols

The following callouts are used throughout this manual. Read and follow every one.



WARNING

Indicates a hazard that could result in serious injury, electric shock or death if not avoided.

CAUTION

Indicates a hazard that could result in minor injury or damage to the machine if not avoided.

NOTE

Provides additional information to help you use or maintain the machine correctly.

2.2 General precautions

CAUTION

Do not exceed the machine's rated simultaneous bending capacity (see Section 3.3). Overloading may cause the machine to fail.

- Keep your fingers clear when holding rebar during bending to prevent injury.
- Depending on the material, rebar may fracture during bending and cause an accident. Give the bending operation your full attention at all times.
- Make sure no people or objects are within the swing radius of the bar being bent.
- This machine is electrically powered, and rain or water may cause electrical leakage. Keep the machine in a dry place or cover it with a waterproof sheet.
- Before moving the machine, check that the transport handles are firmly secured.

2.3 Electrical safety

⚠ WARNING

The machine must be earthed.

Unplug the machine from the mains before replacing the carbon brushes or carrying out any internal repair.

Do not use the machine if it has been immersed in water or exposed to rain — there is a risk of electric shock. Contact Capital Machinery Sales for service.

3. Specifications and Features

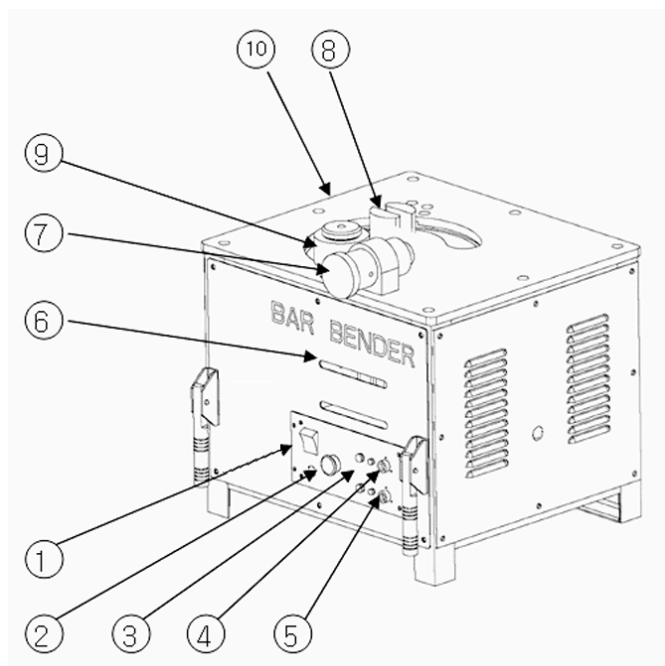
3.1 Specifications

Item	CBX-25	CBX-32
Power supply	Single phase, 240V 50/60Hz	Single phase, 240V 50/60Hz
Current	12 A	12 A
Motor	2.2 kW (3 hp)	2.2 kW (3 hp)
Maximum bar diameter	25 mm	32 mm
Bending angle	1° to 180°	1° to 180°
Bending time	6 seconds (to 180°)	6 seconds (to 180°)
Weight	102 kg	180 kg

3.2 Feature identification

The numbered features below are located on the front and top panels of the machine.

1. Power switch
2. Emergency stop switch
3. Operation switch
4. Foot switch 1
5. Foot switch 2
6. Angle adjustment handle
7. Bar stopper
8. Right-angle roller
9. Rotating roller
10. Spring tension bolt



3.3 Simultaneous bending capacity

Maximum number of bars that can be bent at the same time, by bar size (also shown on the machine's front panel).

Bar size	D10	D13	D16	D19	D22	D25	D32
CBX-25	4	3	2	2	1	1	—
CBX-32	5	4	3	2	2	1	1

3.4 Roller selection

Select the rollers to suit the diameter of the bar being bent.

CBX-25

Bar diameter	Fixed roller	Rotating roller
25 mm	Ø 60 mm	Ø 80 mm
22 mm	Ø 60 mm	Ø 80 mm
19 mm	Ø 60 mm	Ø 95 mm
16 mm	Ø 60 mm	Ø 95 mm
13 mm	Stirrup roller	Ø 110 mm
10 mm	Stirrup roller	Ø 110 mm

CBX-32

Bar diameter	Fixed (centre) roller	Rotating roller
25 to 32 mm	Ø 120 mm	Ø 90 mm
16 to 22 mm	Ø 80 mm	Ø 130 mm
10 to 13 mm	Stirrup jig	Ø 175 mm

4. Installation

4.1 Siting the machine

- Install the machine on a firm, level surface.
- If the ground is not level, use an auxiliary base that can rigidly support the bender.

4.2 Power connection

- The power cable conductor must be at least 5.5 mm².
- The power cable must not be longer than 50 m. For runs over 50 m, use a cable of at least 8 mm².

5. Operation

5.1 Warm-up

- Turn on the power switch. The machine is ready for operation when the power indicator lamp lights up.
- Set the angle adjustment to approximately 135° and let the machine run idle for at least 3 minutes (at least 5 minutes in cold weather).

5.2 Setting up for bending

- Once the machine has warmed up, set the required bending angle.
- Fit the rollers to suit the bar diameter (see Section 3.4).

5.3 Adjusting the roller return

The spring tension bolt controls how the rotating roller returns to its starting position:

- If the rotating roller jolts as it returns, loosen the spring tension bolt slightly.
- If the rotating roller returns too slowly, tighten the spring tension bolt.

6. Maintenance



WARNING

Unplug the machine from the mains before replacing the carbon brushes or carrying out any internal repair.

6.1 Routine inspection and cleaning

- Check periodically that all bolts and nuts are fully tightened.
- Check electrical connections and wiring periodically. Repair any broken or damaged wiring.
- Check that the switches operate freely, and remove any foreign matter.
- Remove dust and bar chips from the machine with a brush. Do not use compressed air.
- Check mechanical parts for cracks or damage. Replace parts or arrange service as required.
- When replacing the rotating roller or fixed roller, clean the surrounding area with a brush.
- After the wet season or rain, remove the cover and dry the machine thoroughly before use.



WARNING

Do not use the machine if it has been immersed in water or exposed to rain — there is a risk of electric shock. Contact Capital Machinery Sales for service.

6.2 Replacing the carbon brushes

Worn carbon brushes cause the motor to lose power, or to stop altogether, until they are replaced. Check the brushes for wear while the machine is not in use.

1. Unplug the machine from the mains.
2. On the motor inside the machine, unscrew the brush cap with a flat-blade screwdriver.
3. Remove the brush together with its spring.

NOTE

Always replace both carbon brushes at the same time.

7. Troubleshooting

If a fault persists after carrying out the remedy below, stop using the machine.

Symptom	Inspection and remedy
Power indicator lamp does not light	Check the power cable connection.
Lamp is lit but the machine does not start	Check the fuse. Check the motor's carbon brushes for wear (see Section 6.2).
Excessive noise	Check the precision of the reduction gear. Check the gears in the gearbox for wear or damage.
Bending angle cannot be adjusted	Remove any foreign matter from the angle adjustment slide. Check that the switch operates freely. Repair or replace as required.
Machine does not rotate	Check the foot switch connection. Check whether the emergency stop switch has been pressed. Check the gear connection and rectify as required.
Motor output is reduced	Replace the motor's carbon brushes (see Section 6.2).

Appendix A — Parts Reference

A.1 Bar bender parts list

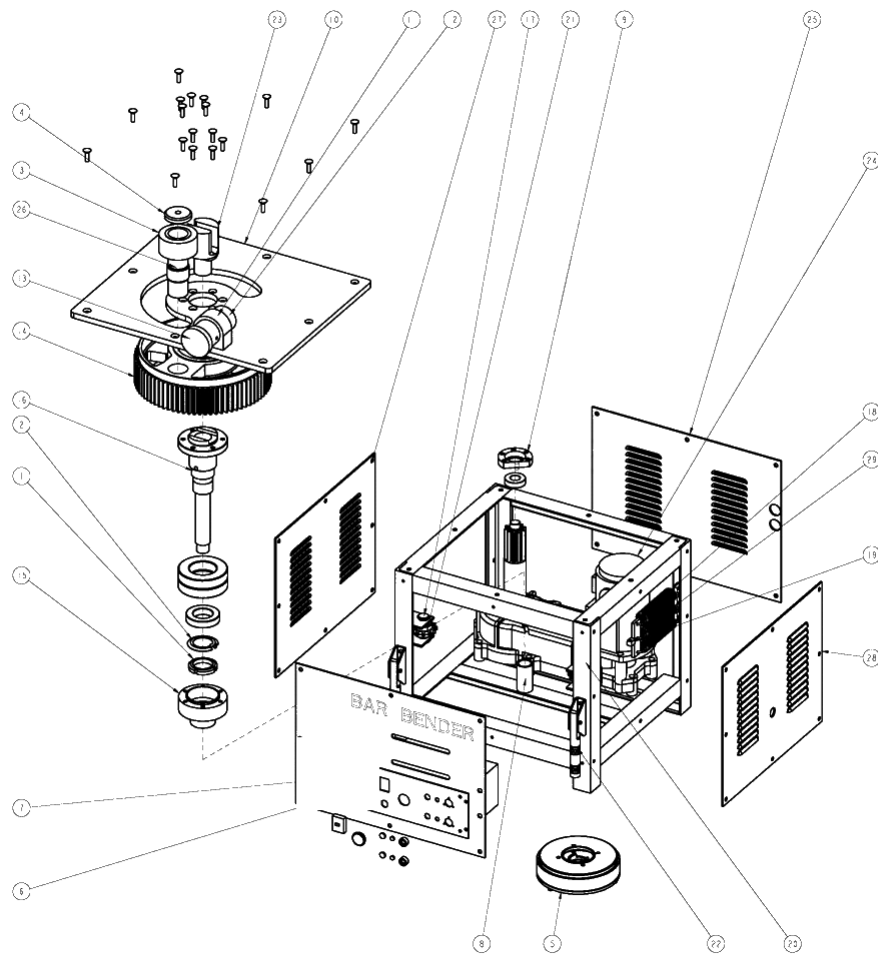


Figure A1 — Exploded view of the bar bender

No.	Part no.	Description
1	AN08_BEARING_NUT	Lock nut
2	AW08_WASHER	Lock washer
3	ROTATION_ROLLER	Rotating roller (105 / 95 / 78)
4	ROTATION_R_COVER	Rotating roller cover
5	CLUTCH	Clutch assembly
6	CONTROL_BOX_ASSY	Control box assembly
7	FRONT_PANNEL_ASSY	Front panel assembly
8	JBA00001	Centre shaft lock
9	JBA00002	Shaft bearing cover
10	JBA11001	Upper plate
11	JBA11002	Jack lock

No.	Part no.	Description
12	JBA11101	Jack nut
13	JBA11102	Jack handle
14	JBA12001	1st gear
15	JBA12002	Centre shaft cover
16	JBA12102	Centre shaft
17	JBA31006	Chain shaft
18	JBA32001	Spring hook
19	JBA32002	Chain hook
20	JBA33001	Frame
21	JBA33002	Chain gear
22	JBA41001	Handle
23	JBA51001	Stirrup
24	MOTOR	Motor
25	REAR_PANNEL	Rear panel
26	ROUND_BAR	Rotating shaft roller
27	SIDE_PANNEL_L	Side panel (left)
28	SIDE_PANNEL_R	Side panel (right)
29	SPRING	Spring
—	FOOT SWITCH	Foot switch

A.2 Gearbox parts list

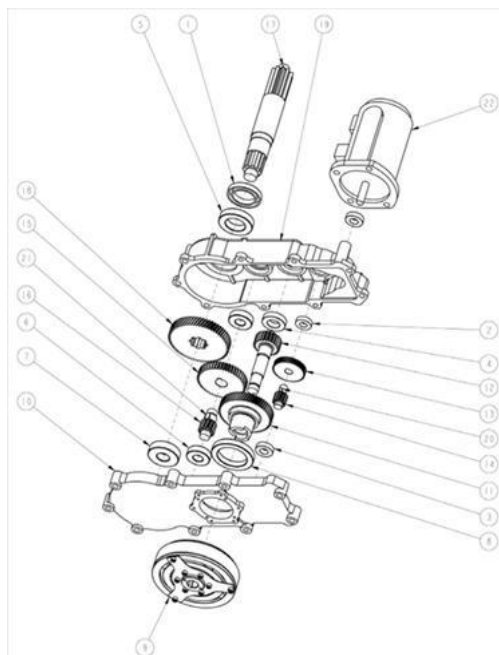


Figure A2 — Exploded view of the gearbox

No.	Part no.	Description
1	68_44_11	Oil seal
2	6002ZZ	Bearing
3	6003ZZ	Bearing
4	6005ZZ	Bearing
5	6008ZZ	Bearing
6	6204ZZ	Bearing
7	6305ZZ	Bearing
8	6912Z	Bearing
9	CLUTCH ASS'Y	Clutch assembly
10	JBA20001	Gearbox lower housing
11	JBA20002	7th gear (clutch gear)
12	JBA20003	6th gear
13	JBA21001	9th gear
14	JBA21002	8th gear
15	JBA22001	5th gear
16	JBA22002	4th gear
17	JBA23001	2nd gear
18	JBA23002	3rd gear
19	JBA24001	Gearbox upper housing

Appendix B — Wiring Diagram

CBX-25 & CBX-32

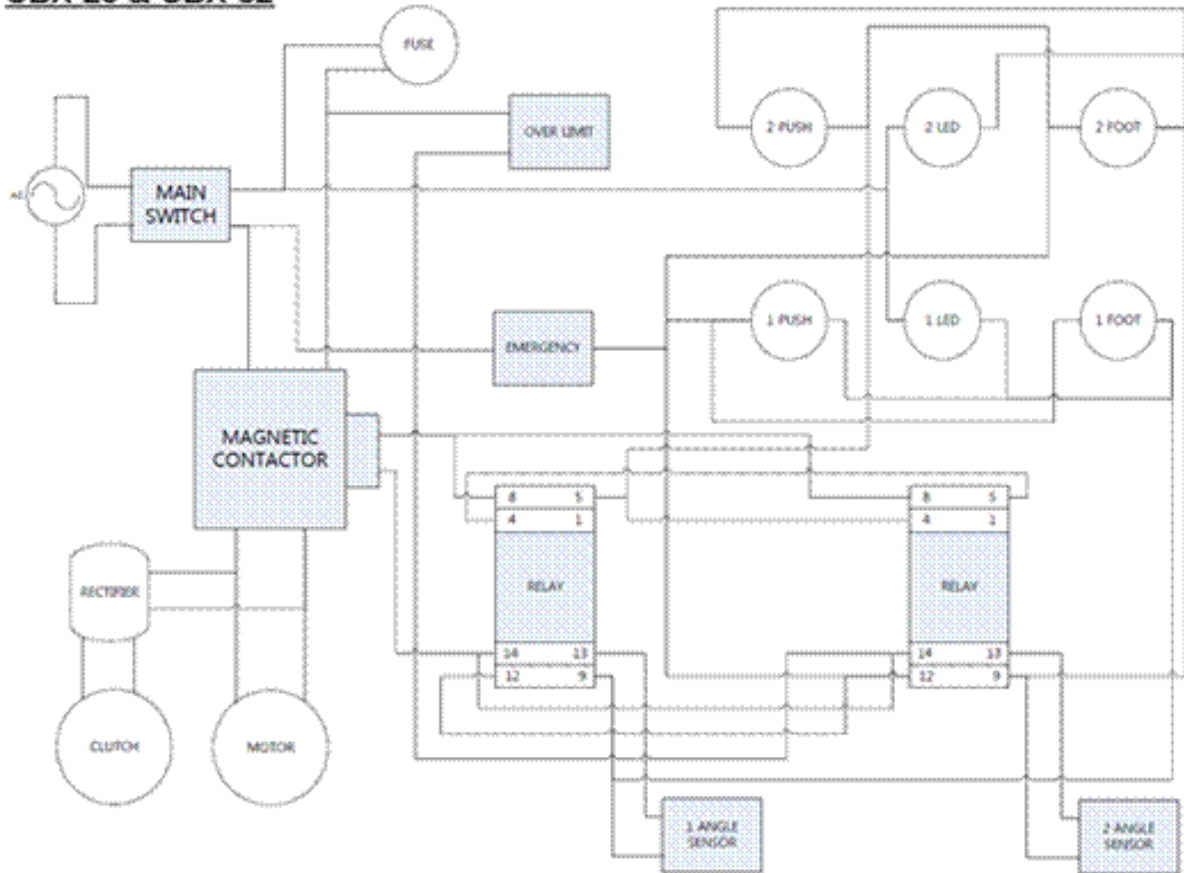


Figure B1 — Wiring diagram, CBX-25 and CBX-32