

BEAD BENDING MACHINE

**MODEL: ETB-25
ETB-40**

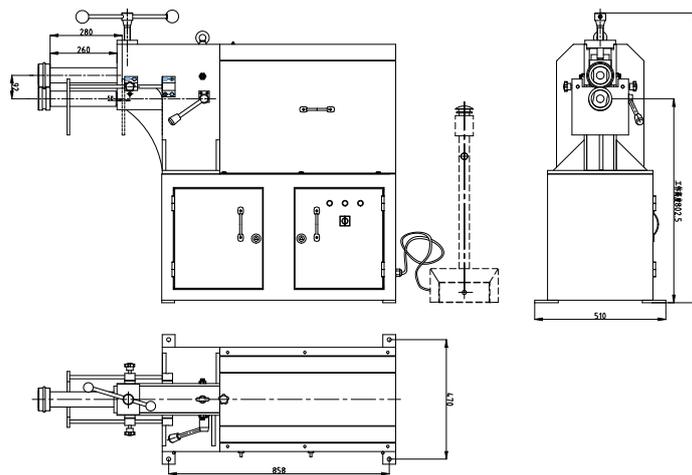


Operation Manual

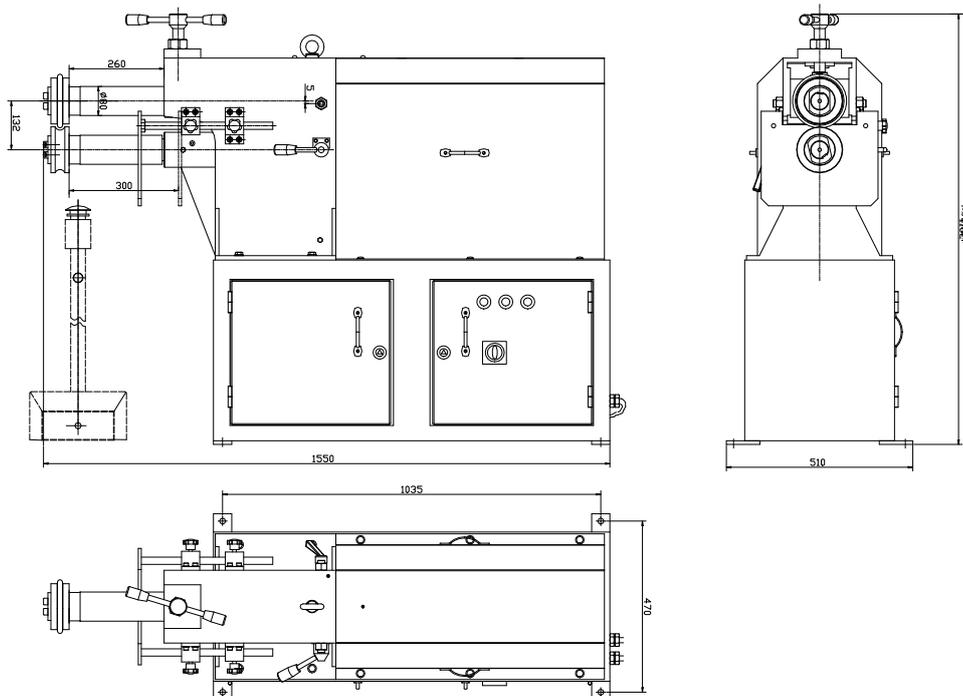
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1. Appearance of the machine



ETB-25



ETB-40

2. Main specification

Model.	ETB-25	ETB-40
Thickness max.	2.5mm/12Ga	4mm/8Ga
Cylinder length	125mm	165mm
Throat depth	280mm/11"	300mm/12"
Cylinder speed	20rpm	15.3 rpm
Motor power	1.5KW/2HP	2.2KW/3HP
Net weight	235kgs/518lbs	341kgs/752lbs
Dimension(cm)	139x51x114	155x51x118

3. Safety warnings

- **Save this manual:** You will need the manual for the safety warnings and precautions, assembly instructions, operating and maintenance procedures, parts list and diagram. Keep your invoice with this manual. Keep the manual and invoice in a safe and dry place for future reference.
- **WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY**
As with all machinery there are certain hazards involved with operation and use of the machine. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result. **Read all instructions before using this tool!**
- **MACHINERY GENERAL SAFETY WARNINGS**
 - 1) Misuse of this machine can cause serious injury. For safety, machine must be set up, used and serviced properly. Read, understand and follow instructions in the operator's and parts manual which was shipped with your machine.
 - 2) Wear proper apparel. No loose clothing or jewelry which can get caught in moving parts. Gloves and rubber soled footwear are recommended for best footing.
 - 3) Always wear protective eye guard when operating machine.
 - 4) Do not overreach. Failure to maintain proper working position can cause you to fall into the machine or cause your clothing to get caught — pulling you into the machine.
 - 5) Keep guards in place and in proper working order. Do not operate the machine with guards removed.
 - 6) Avoid dangerous working environments. Do not use stationary machine tools in wet or damp locations. Keep work areas clean and well lighted.
 - 7) Avoid accidental starting. Make sure switch is in "**OFF**" position before plugging in power cord.
 - 8) Never brush away chips while the machine is in operation.
 - 9) Never leave the machine running while unattended. Machine shall be shut off whenever it is not in operation.
 - 10) Disconnect electrical power before servicing. Whenever changing accessories or general maintenance is done on the machine, electrical power to the machine must be disconnected before work is done.
 - 11) Always be sure machinery must be securely anchored to the floor.
 - 12) Use the right tool. Know the tool you are using — its application, limitations, and potential hazards. Don't force a tool or attachment to do a job it was not designed for.

- 13) Use only recommended accessories and follow manufacturers instruction pertaining to them.
- 14) Stay alert watch what you are doing; use common sense. Do not operate any tool when you are tired. Keep hands in sight and clear of all moving parts and rolling surfaces.
- 15) Keep children away. Children must never be allowed in the work area. Do not let them handle machines, tools, or extension cords.
- 16) All visitors should be kept at a safe distance from the work area. Make workshop completely safe by using padlocks, master switches, or by removing starter keys.
- 17) Store idle equipment. When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
- 18) General Electrical Cautions: This machine should be grounded in accordance with the National Electrical Code and local codes and ordinances. This work should be done by a qualified electrician. The machine should be grounded to protect the user from electrical shock.

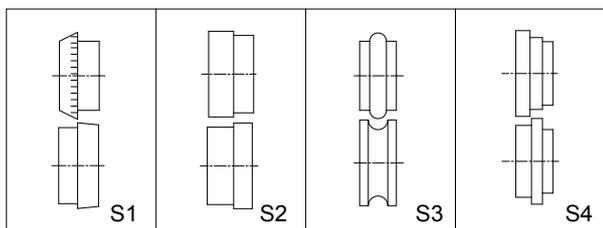
4. Operation instruction

- This kind of bead bending machine with nice appearance can be used to manufacture round tube, plate beading and connecting. It can press plate into a certain ridge to enhance the rigidity of tube, metal plate, or to raise function of connection. It's very easy to operate.

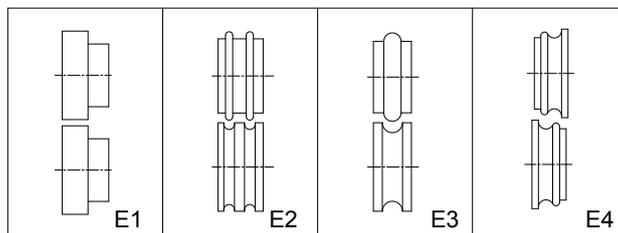
This structure of bead bending machine ETB-25/40 is consist of power component and mechanical component. Power component including motor and reducer, mechanical component including transmission, adjusting, lubrication and the stand. The main movement of this machine is the circumnutation of upper and lower rollers, it runs by the following principle: motor drives reducer, reducer drives reducer gear wheel、big gear wheel and transmission gear, to achieve the upper and lower rollers rotating with the same speed but opposite direction.

- **You can adjust this machine by the following point when working:**
 - a. to adjust the lower shaft (#51) to move the lower roller forward and back;
 - b. to adjust the distance between upper roller (#58) and lower roller (#60) according to the thickness of workpiece by moving the handle lever (#62).
 - c. unscrew the handle(#44); then to adjust the distance between stop plate (#15) and upper/lower rollers (#58/60) according to the position of ridge on the workpiece by eccentric shaft(#19).

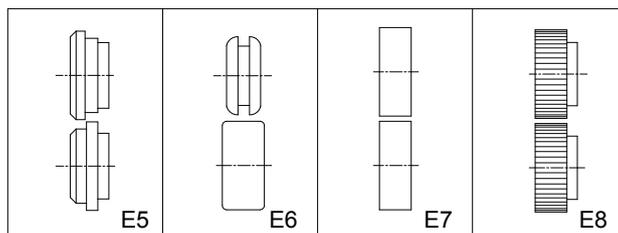
- **STANDARD ROLLERS:**



- **EXTRA ROLLERS:**



Workpiece shape respectively:



5. Lubrication and maintenance

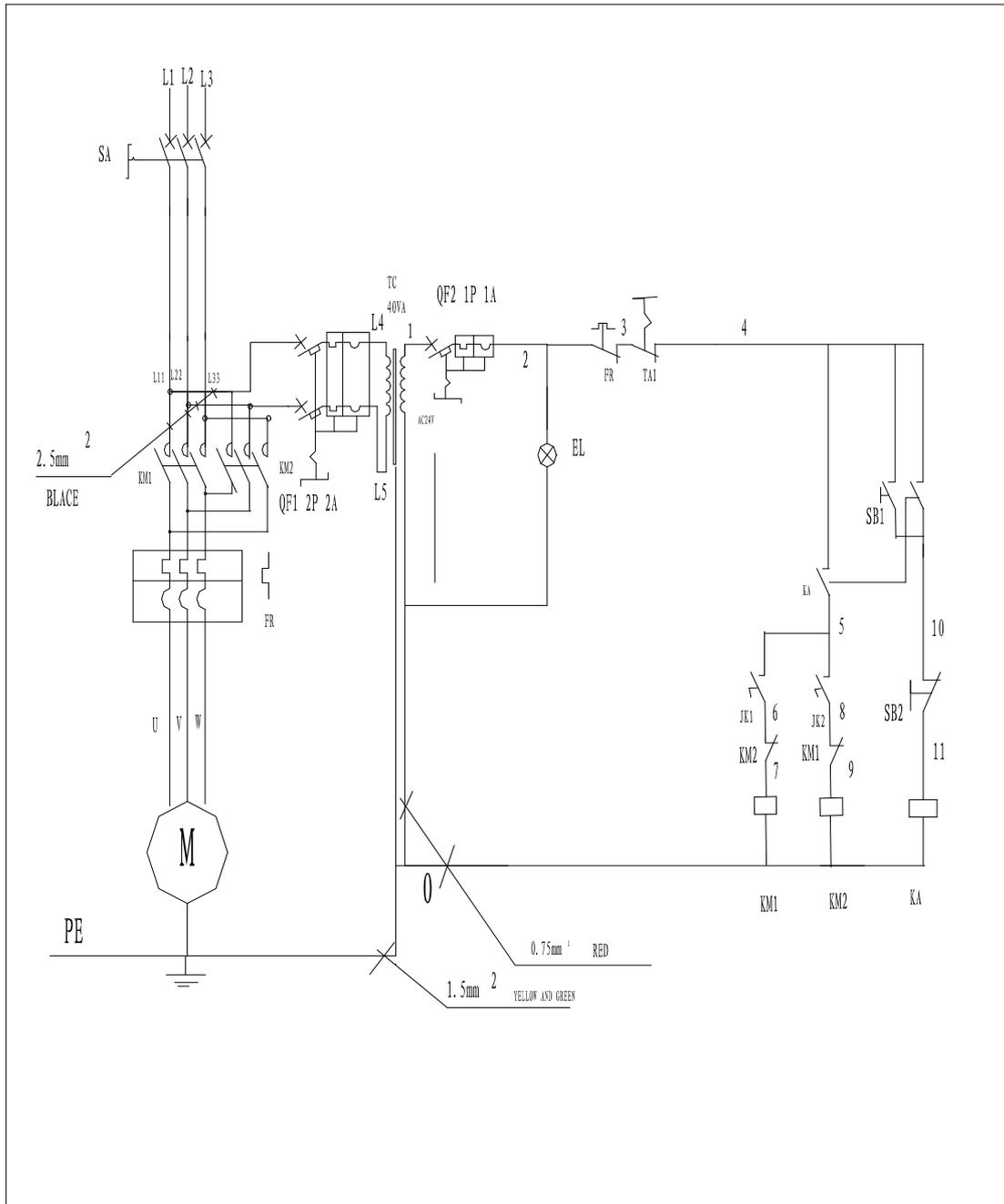
This kind of machine need to be lubricated specially, before using, should unfold the safety guard (#13) and add the lubrication oil (#30) from the oil holes on the reducer (#29). Then install the safety guard, add the lubrication oil from the oil holes on front & back of the body (#22) ,and upper of safety guard.

The other warnings for lubrication and maintenance:

- 1) Please lubricate all the movement parts every week;
- 2) Please check electrical connection and power system every month, make sure the earth wire must be effective;
- 3) To check the rollers and other parts before working every time, please replace them if they are broken.
- 4) Please keep working environment clean and clear when maintenance.
- 5) Must power off before maintenance

6. Electrical parts

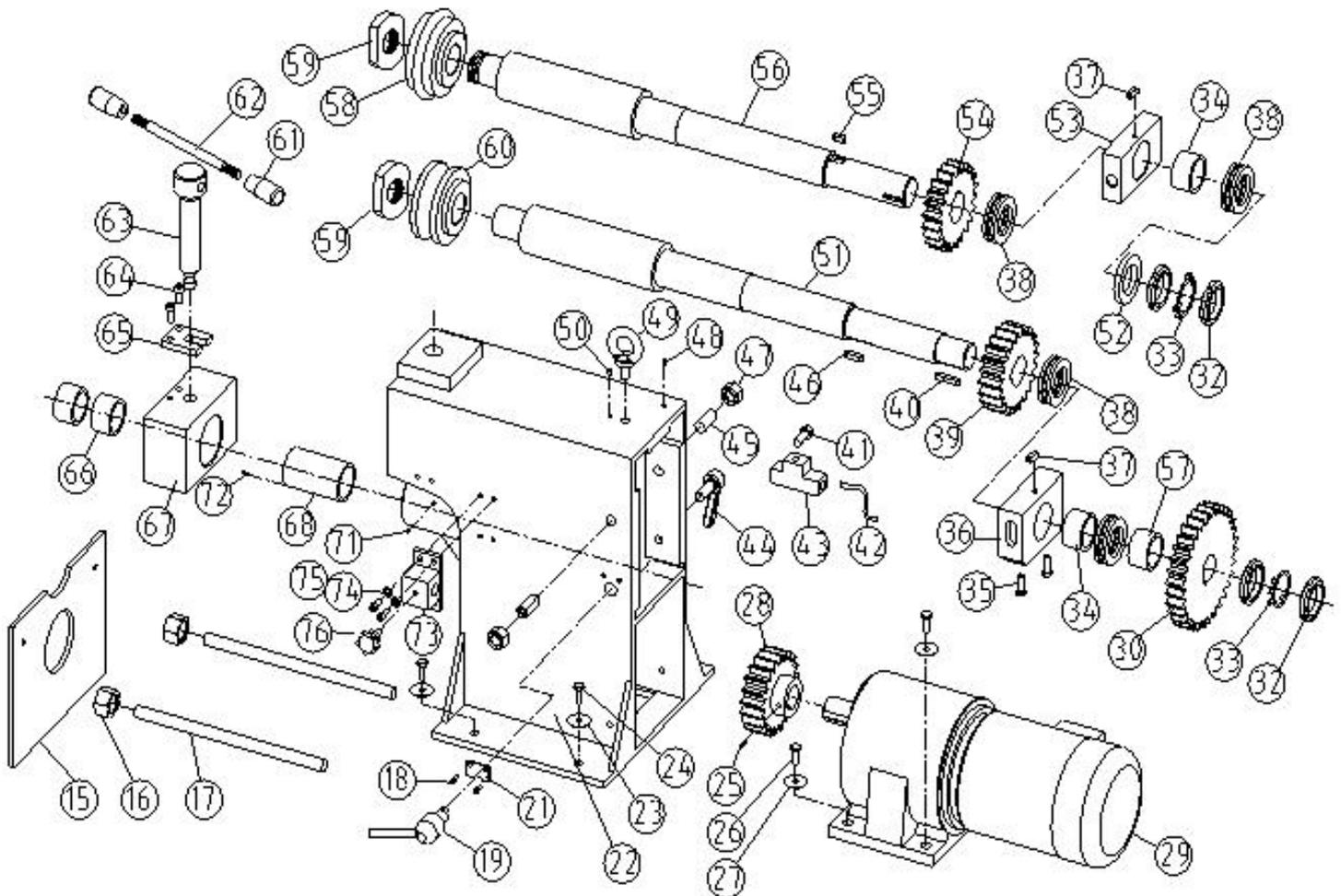
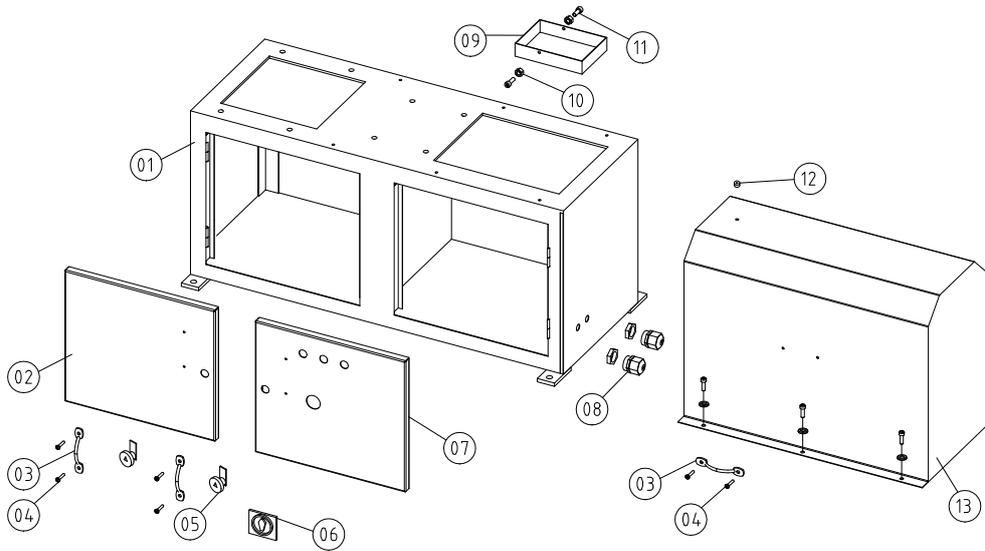
On-off control principle: when step on the foot pedal switch, the motor starts to work and drives the roller to run; when loosen the foot pedal switch, machine will power off and stop running automatically.



6		ETB-25/40	Drawn
5			Checked
4			
3		Circuit diagram	Diagram No.
2			
1			

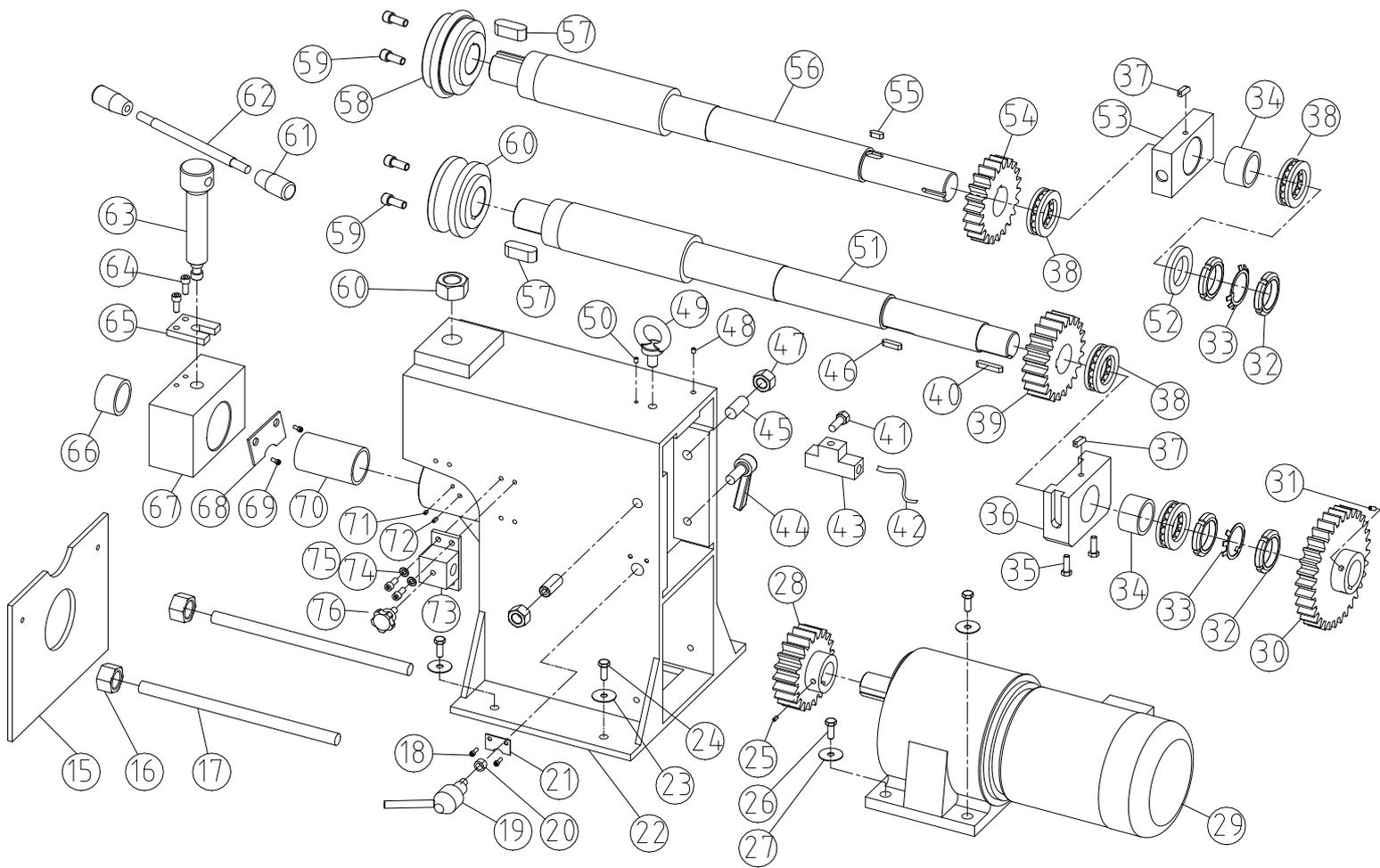
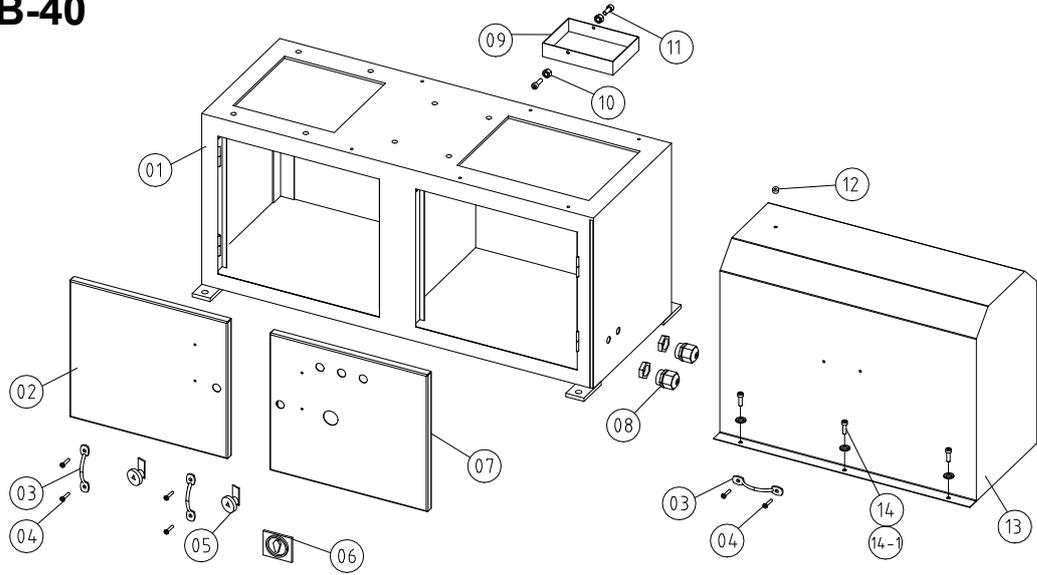
7.Exploded drawing and parts list

- ETB-25



Serial No.	Item No.	Description	Q'ty	Serial No.	Item No.	Description	Q'ty
1	LX25-004	Base	1	38	GB/T301	Bearing	4
2	LX25-005	Left cover	1	39	LX25-025	Gear	1
3	JB/T7274.7	Handle	4	40	GB/T1096	Flat key	1
4	GB/T70.1	Screw	8	41	GB/T5783	Bolt	2
5	MS-75	Safety lock	1	42		Transfer pipe	1
6		Knob	1	43		Block	1
7	LX25-010	Right cover	1	44	JB/T7270.12	Adjusting handle	1
8		Tow	2	45	GB/T78	Screw M20X60	2
9	LX25-029	Oil box	1	46	GB/T1096	Flat key 14X36	1
10		Nut	2	47	GB/T6170	Nut M20	2
11		Bolt	2	48	JB/T7940.3	Oilcup M8	1
12	JB/T7940.4	Oil cup	2	49	GB/T825	Screw M16	1
13	LX25-009	Safety guard	1	50	JB/T7940.4	Oil Cup 8	1
14	GB/T818	Screw	6	51	LX25-015	Lower shaft	1
14.1	GB/T95	Washer	6	52	LX25-027	Pad	1
15	LX25-001-2	Stop plate	1	53	LX25-028	Back seat	1
16	GB/T6170	Nut M10	2	54	LX25-026	Gear	1
17	LX25-001-1	Slide shaft	2	55	GB/T1096	Flat key 14X28	1
18	GB/T70.1	Screw	2	56	LX25-011	Upper shaft	1
19	LX25-017	Eccentric shaft	1	57	LX25-023	Sleeve	1
20		Bush	1	58	LX25-012	Upper roller	1
21	LX25-007	Plate	1	59	LX25-13	Nut	2
22	LX25-008	Body	1	60	LX25-14	Lower roller	1
23	GB/T95	Washer	4	61	JB/T7271.1	Handle ball	2
24	GB/T5783	Bolt M16X35	4	62	LX25-006	Handle lever	1
25	GB/T78	Screw	1	63	LX25-018	Screw rod	1
26	GB/T5783	Bolt M16X35	4	64	GB/T70.1	Screw	2
27	GB/T95	Washer 16	4	65	LX25-019	Stop	1
28	LX25-021	Gear	1	66	GB/T5801	Bearing	2
29		Reducer	1	67	LX25-020	Front seat	1
30	LX25-022	Gear	1	68	LX25-016	Lower sleeve	1
32	GB/T8112	Round nut	4	71	JB/T7940.4	Oil cup 8	1
33	GB/T858	Locking ring	2	72	GB/T889.1	Screw M8X12	2
34	GB/T290	Bearing	2	73	LX25-003	Apron block	2
35	LX25-030	Screw	2	74	GB/T95	Washer 8	4
36	LX25-024	Bearing seat	1	75	GB/T70.1	Screw M8X25	4
37		Block	2	76		Star-handle M10	2

● ETB-40



Serial No.	Item No.	Description	Q'ty	Serial No.	Item No.	Description	Q'ty
1	LX40-005	Base	1	39	LX40-024	Gear	1
2	LX40-006	Left cover	1	40	GB/T1096	Flat key	1
3	JB/T7274.7	Handle A120	4	41	GB/T5783	Bolt M6X30	2
4	GB/T70.1	Screw M8X20	8	42		Transfer pipe	1
5	MS-75	Safety lock	1	43		Block	1
6		Knob	1	44	JB/T7270.12	Adjusting handle	1
7	LX40-007	Right cover	1	45	GB/T78	Screw M20X60	2
8		Tow	2	46	GB/T1096	Flat key 14X36	1
9	LX40-030	Oil box	1	47	GB/T6170	Nut M20	2
10	GB/T6170	Nut M8	2	48	JB/T7940.3	Oilcup M8	1
11	GB/T5783	Bolt M8X25	2	49	GB/T825	Screw M16	1
12	JB/T7940.4	Oil cup	2	50	JB/T7940.4	Oil Cup 8	1
13	LX40-008	Safety guard	1	51	LX40-015	Lower shaft	1
14	GB/T818	Screw	6	52	LX40-027	Pad	1
14.1	GB/T95	Washer 8	6	53	LX12-023	Back seat	1
15	LX40-002	Stop plate	1	54	LX12-022	Gear	1
16	GB/T6170	Nut M10	2	55	GB/T1096	Flat key 14X28	1
17	LX40-002-1	Slide shaft	2	56	LX40-011	Upper shaft	1
18	GB/T70.1	Screw	2	57		Flat key 14X45	2
19	LX40-010	Eccentric shaft	1	58	GB/T1096	Upper roller	1
20	LX40-029	Bush	1	59		Nut	2
21	LX40-009	Plate	1	60		Lower roller	1
22	LX40-018	Body	1	61	GB/T6171	Handle cover M12	2
23	GB/T95	Washer	4	62	JB/T7271.5	Shaft	1
24	GB/T5783	Bolt M16X35	4	63	LX40-001	Screw rod	1
25	GB/T78	Screw	1	64	LX40-020	Screw M8X25	2
26	GB/T5783	Bolt M16X35	4	65	GB/T70.1	Plate	1
27	GB/T95	Washer 16	4	66	LX40-019	Bearing NK50/35	2
28	LX40-028	Gear	1	67	GB/T5801	Front seat	1
29		Reducer	1	68	LX40-016	Back plate	1
30	LX40-026	Gear	1	69	LX40-031	Screw M6X16	2
31	GB/T78	Screw	1	70	GB/T70.1	Sleeve	1
32	GB/T8112	Round nut	4	71	LX40-017	Oil Cup 8	1
33	GB/T858	Locked washer	2	72	JB/T7940.4	Screw M8X12	1
34	GB/T5801	Bearing	2	73	GB/T78	Apron block	2
35	LX25-030	Screw	2	74	LX40-004	Washer 8	4
36	LX40-025	Bearing seat	1	75	GB/T95	Screw M8X25	4
37		Block	2	76	GB/T70.1	Star-handle M10	2
38	GB/T301	Bearing 51210	4	81-88	特殊模轮		

8.Packing list

Ser no.	Model	Description	QTY	Mark
01	ETB-25/40	BEAD BENDING MACHINE	1 pc	
02		Rollers	4 sets	
03		Extra Wrench	1 pc	
04		Hexagon Wrench	1 pc	
05		Oil cup	1 pc	
06		INSTRUCTION MANUAL	1 pc	

Note: This manual is only for your reference. Owing to the continuous improvement of the machine, changes may be made at any time without obligation on notice. And please note the local voltage while operating this electric machine.