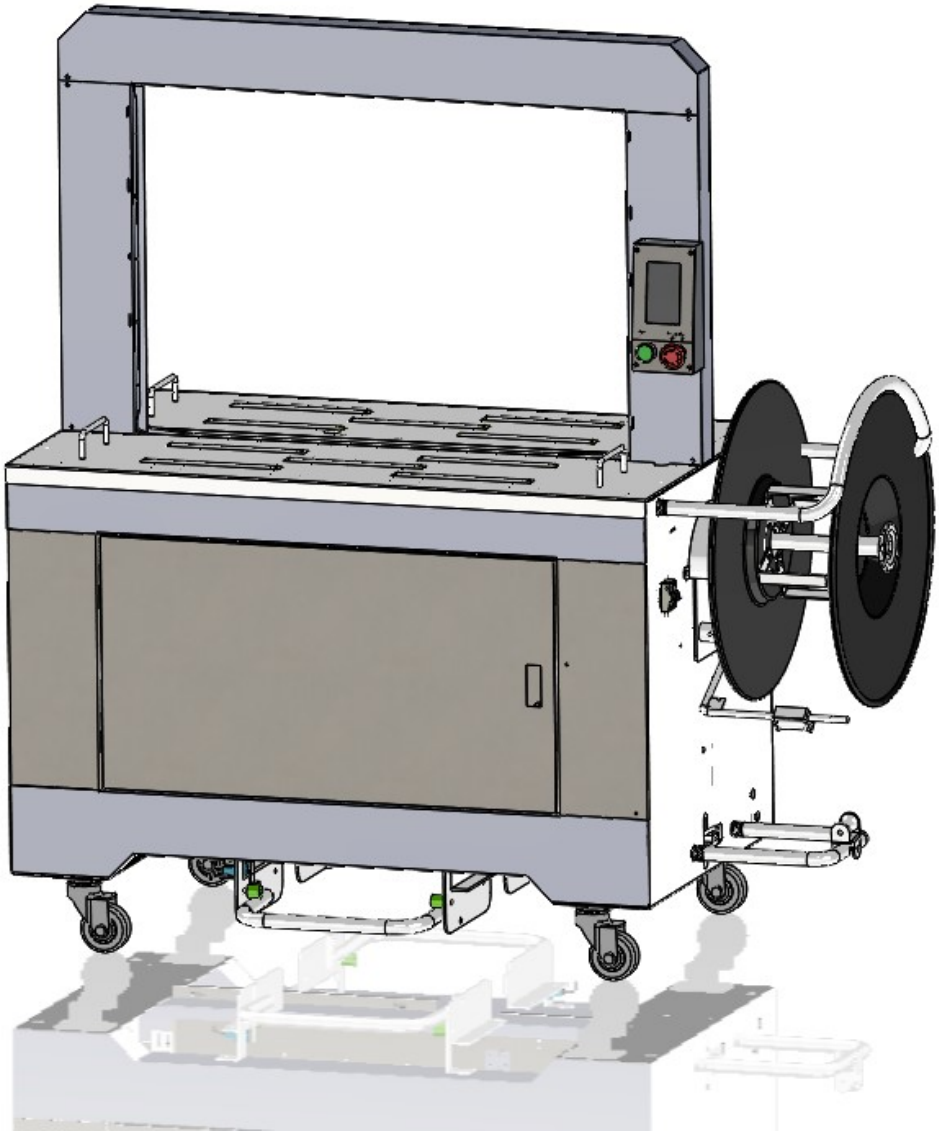


Instruction manual for Model HYB-M25 Automatic Bundling Machine

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Part I Machine Performance and Safety Information----------

1-1 Performance parameter table

Item	Parameter
	Machine model: HYB-M25
Power supply and power	AC220V/50HZ,550W/2.5A
Binding speed	≤ 1. 5 sec/track
Strapping force	0-60KG (adjustable)
Load-bearing capacity	80KG
Requirements of packing tapes	Polypropylene
	The width is (9mm-15mm) ± 1 mm and the thickness is (0.5 mm-1.0 mm) ± 1. 1mm
	Reel size: Width: 160mm, ID: 200mm-210mm, OD: 400mm-500mm
	Tensile force: 150KG max.
Packaging size	Minimum: W60mmxH10mm, maximum in-frame size
Overall dimension	L1350mmxW620mmxH1440
Height of work table	720mm
Weight of machine	100KG
Working noise	≤ 60 dB (A)
Environmental conditions	Relative temperature ≤ 90%, temperature 0 ℃ -40 ℃
Remarks: Standard frame W800mmxH600mm, and it is customizable on request.	

2-1 Safety matters in the use of machines

① Please confirm the power supply (AC220V/50HZ) used by the machine, and do not plug in the wrong one. This machine adopts a two-phase system, with the twisted-pair wiring as the grounding neutral wire for vulnerability protection.

② Do not touch the heating plate directly with your hands.

③ Do not wash the machine with water. If the workplace is humid, the operator should not work barefoot.

④ Do not replace or cultivate the parts on the machine at will.

⑤ Don't stick oil on the surface of the belt wheel.

⑥ Unplug the power when the machine is not in use.

⑦ The main components listed in the manual should be moisturized frequently (see the terms for details)

⑧ The metal frame of the whole product should be reliably grounded.

⑨ If it is used in explosion-proof industry, it must be equipped with explosion-proof motors and other electrical appliances.

Part II Machine Installation and Storage Conditions----------

2-1 Installation of machines

The machine must be installed near the power supply and on a dry and flat hard floor, firmly and not moving. Power supply must be AC220V/50HZ.

Installation location shall meet the following conditions:

Room temperature: 0℃-40℃

Relative humidity: ≤ 90%

Bottom plate: maximum load is 350KG/m^3

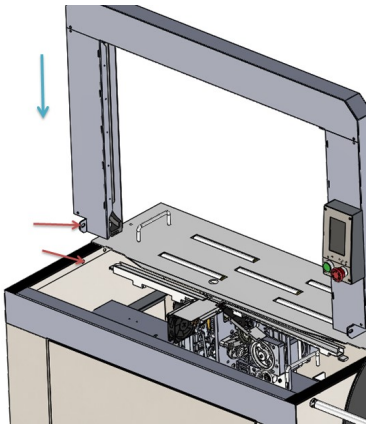
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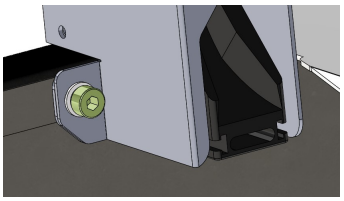
Other: Stay away from fireworks, dry and ventilated, and free from corrosive substances.

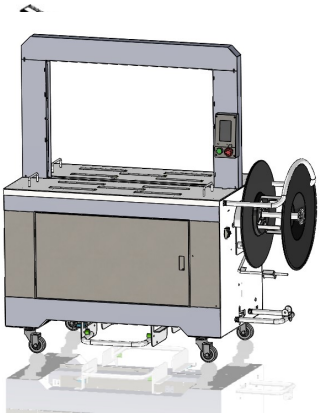
2-2 Installation steps

① Iron frame

As shown in Figure 2-1, put the iron frame in the direction shown in Figure 2-2 (Install the small black right-angle adhesive outlet facing the direction of the disc), then fix it to the screw hole on the casing with 8x20 hex screws See Figure 2-3







② At the end of the left strap, insert into the iron frame groove shown in Figure 2-4 in the direction of the arrow as shown in Figure 2-5. The other end is fixed to the fixing hole of the strapping machine movement as shown in Figure 2-6 with an M5x12 hexagonal screw. See Figure 2-7 for the gap H = 2 mm between the left strap and the guide block.

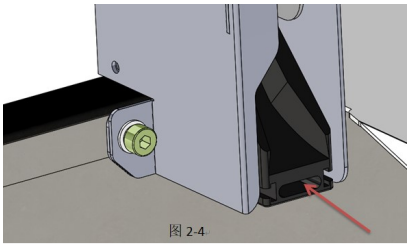


Figure 2-4

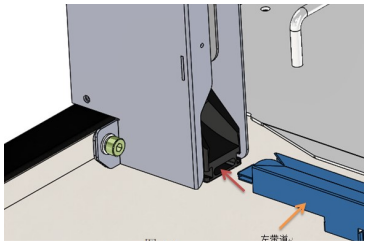


Figure 2-5 Left strap

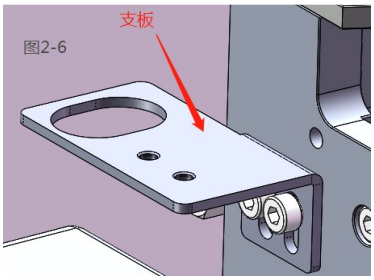


Figure 2-6

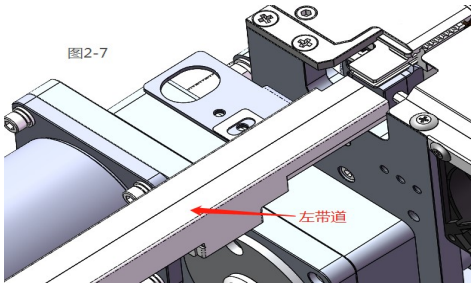
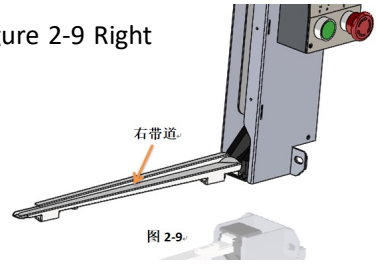


Figure 2-7 Left strap

③ Install right strap

At the end of the right strap, insert into the iron frame groove shown in Figure 2-4 in the direction of the arrow as shown in Figure 2-9. See Figure 2-10 for details.

Figure 2-9 Right



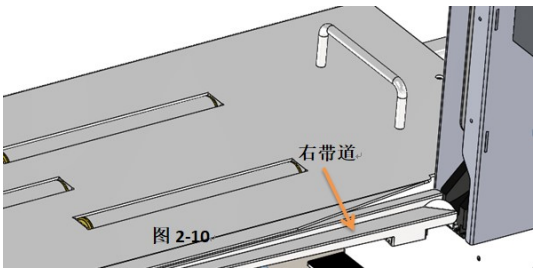
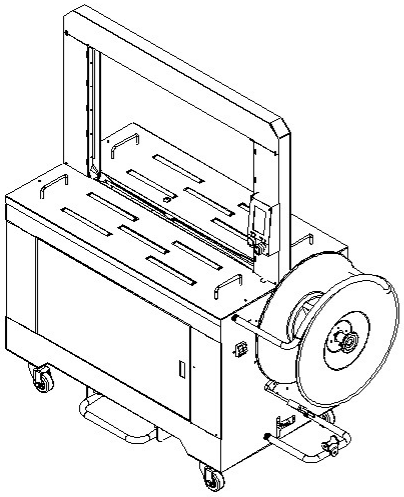


Figure 2-10 Right strap

2-3 Storage conditions

2-3-1 Machine diagram (see Figure 2-11)



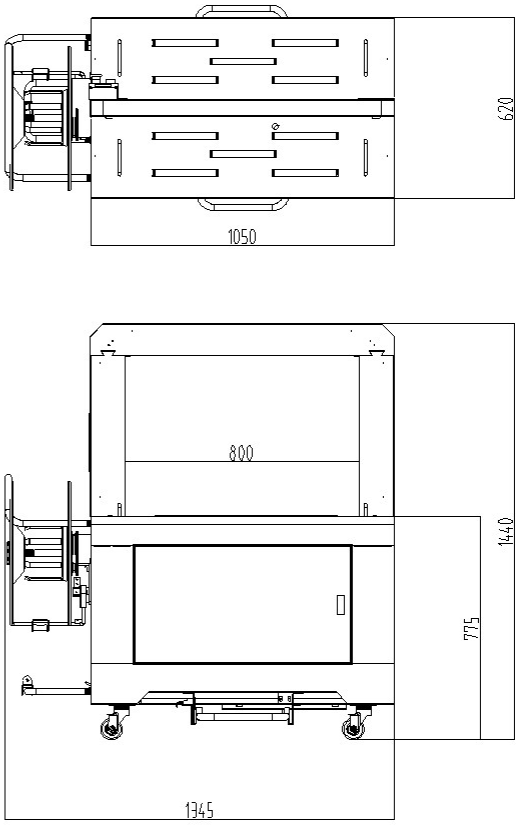


Figure 2-11

For long-term transportation or long-term storage of the machine, it must be packed in wooden cases or hard board boxes, and moisture absorbing agents must be placed inside the packaging box. Anti-rust agents must be sprayed inside the machine. Never stack anything heavy on top of a packing box. Do not turn the machine upside down when transporting and storing.

For long-term transportation or long-term storage of the machine, it is recommended to manually check all moving parts and wiring before the machine is connected to the power supply to avoid leakage or overload of electrical equipment.

Part III Machine Operation----------

3-1 Precautions before operation

1. Check the attachments after the machine is removed from the package:
Standard attachments for random supply:
Allen wrench: 1 Straight screwdriver: 1 Phillips screwdriver: 1
5.5-7 Wrench: 1 8-10 Wrench: 2

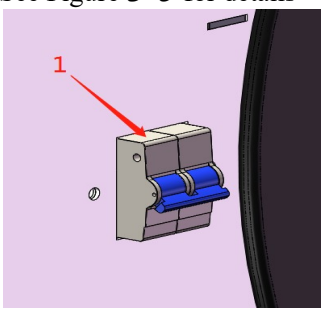
2. Check whether the power supply is 220V/50HZ, whether the motor and electrical appliances are dry, and whether the insulation is sound.

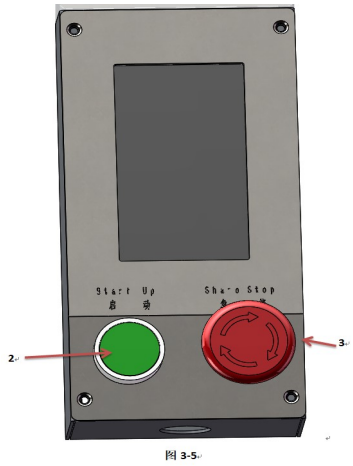
3-2 Installation steps：

① Install the straps as shown in Figure 3-6.

② Turn on the power switch 1 shown in Figure 3-5

See Figure 3-5 for details





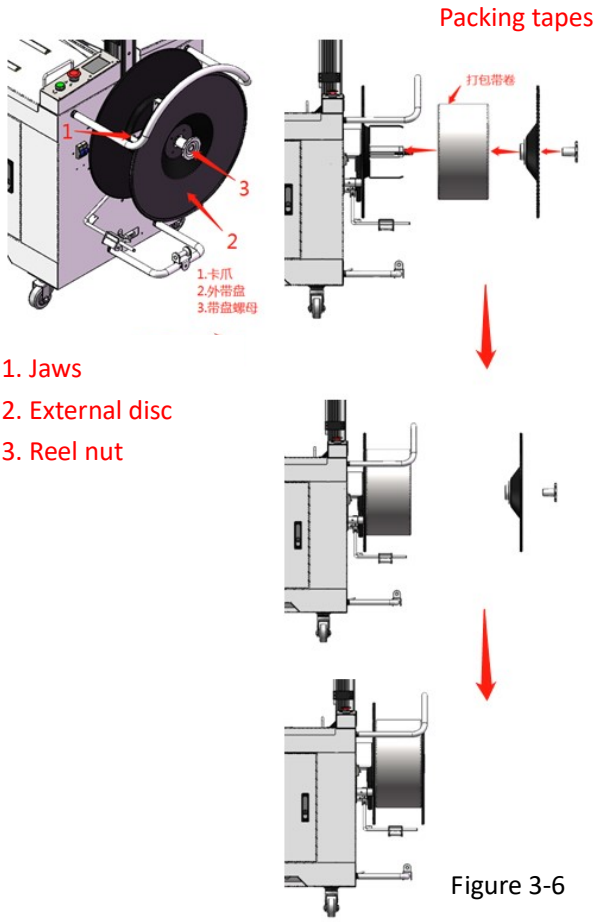


Figure 3-6

3-3 Taping of straps

① Install a strapping belt on the belt

route shown in Figure 3-6, enter the belt insertion opening with the head (note: the head should be downward), and then enter the belt bin through the two belt conveyor pulleys with the head. Pull the lead with your hands, pass the lead through the tension wheel, and then rotate the emergency Stop button 2 in the control panel, and the strap will automatically send the strap into position. If the strap is not sent into position, the machine will alarm. Please press the Start button 3 of the control panel repeatedly. If it is not in place, please check whether the strap has passed through the tension wheel.

Part IV Adjustment----------

4-1 Adjustment of heater

Temperature adjustment: open the cover On the top of the control board cover of the machine, and you can obviously see a potentiometer. The temperature rises in the clockwise direction, and the value of the digital temperature display above becomes larger. The bonding effect is not good if temperature is too high or too low. Therefore, fine-tuning should be made according to the material of the strap, otherwise it should be adjusted between the value 9-11.

4-2 Thickness adjustment of packing strap

Adjustment of thick and thin belts: The adjustment of belt feeding force is the one outside the two electromagnets side by side, mainly adjusting the spring pressure on the electromagnet core of the belt feeding. The pressure of the thick belt and new material belt feeding belt is large, while the pressure of the thin belt feeding belt is small. The upward pressure of the electromagnet core screws is small, while the downward pressure is large.

4-3 Tension adjustment of PP belt

Adjustment of tightness: This part is below the motor of the sending and retracting belt. Press and tighten the pendulum rod by hand until the tension wheel comes into contact with the packaging belt. The distance between the upper groove on the electromagnetic core and the electromagnetic panel is 5mm. The greater the distance, the greater the pressure (not exceeding 10mm). The size of the tightening force is adjusted in F03. The larger the value, the greater the binding force.

4-4 Adjustment function table of machine parameters

CODE	Function
F01	Adjustment of tape feeding time (00.50--01.20)
F02	Untaped time adjustment (00.40--01.00)
F03	Internal adjustment of bundling force(00.05- 00.40)
F04	Adjustment of cooling time (00.10-00.50)
F05	Cycle interval adjustment(00.00- -01.00)
F06	Adjustment of loaded tapes(001.0--002.0)
F07	Time adjustment of preloaded tapes(015.0)
F13	Untaped pulse switch (0000--0001)

4-5 Clearance adjustment of electromagnetic brake

Gap adjustment of electromagnetic brake: The gap between the brake pad and the brake should be controlled between 0.3 mm and 0.5 mm. It will cause poor brake if it is too large or too small.

Part V Troubleshooting----------

Adjustment parameters of HYB-M25 model

CODE	Code interpretation	800x600	900x600	1000x600	1100x600	1200x600
F01	Adjustment of belt-feeding time	00.50--01.20				
F02	Adjustment of releasing time	00.40--01.00				
F03	Internal adjustment of bundling force	00.05-00.40				
F04	Adjustment of cooling time	00.10-00.50				
F05	Cycle interval adjustment	00.00--01.00				
F06	Delay adjustment of preloaded tapes	001.0--002.0				
F07	Adjustment of preloaded tapes	015.0				
F13	Untaped pulse switch	0000--0001				

Remarks: 1. The larger the value of F03, the greater its binding force!
2. The larger the F04 value, the greater the cooldown time!
3.F05 cycle interval adjustment
4.F06 delay adjustment of preloaded tapes
5.F07 adjustment of preloaded tapes

Note: F07 must be greater than F06!

5-1 Fault codes displayed on the screen during alarm

CODE	Code interpretation	Troubleshooting
ETT.0	Feeding belt is not in place	Check the pressure of the charged magnet, whether the size of the binding tape is correct, whether the threading method is correct, whether the binding tape is bent too much, whether the tape compartment is jammed, or whether the strap bin has too many or too few cassette or storage belts.
ETT.5	Motor with compartment timeout protection is activated, jammed disc or with or without strapping	Check if the belt is jammed or not, if the belt roller is worn, and if the tension of the belt spring is too small.

5-2 Faults and troubleshooting methods

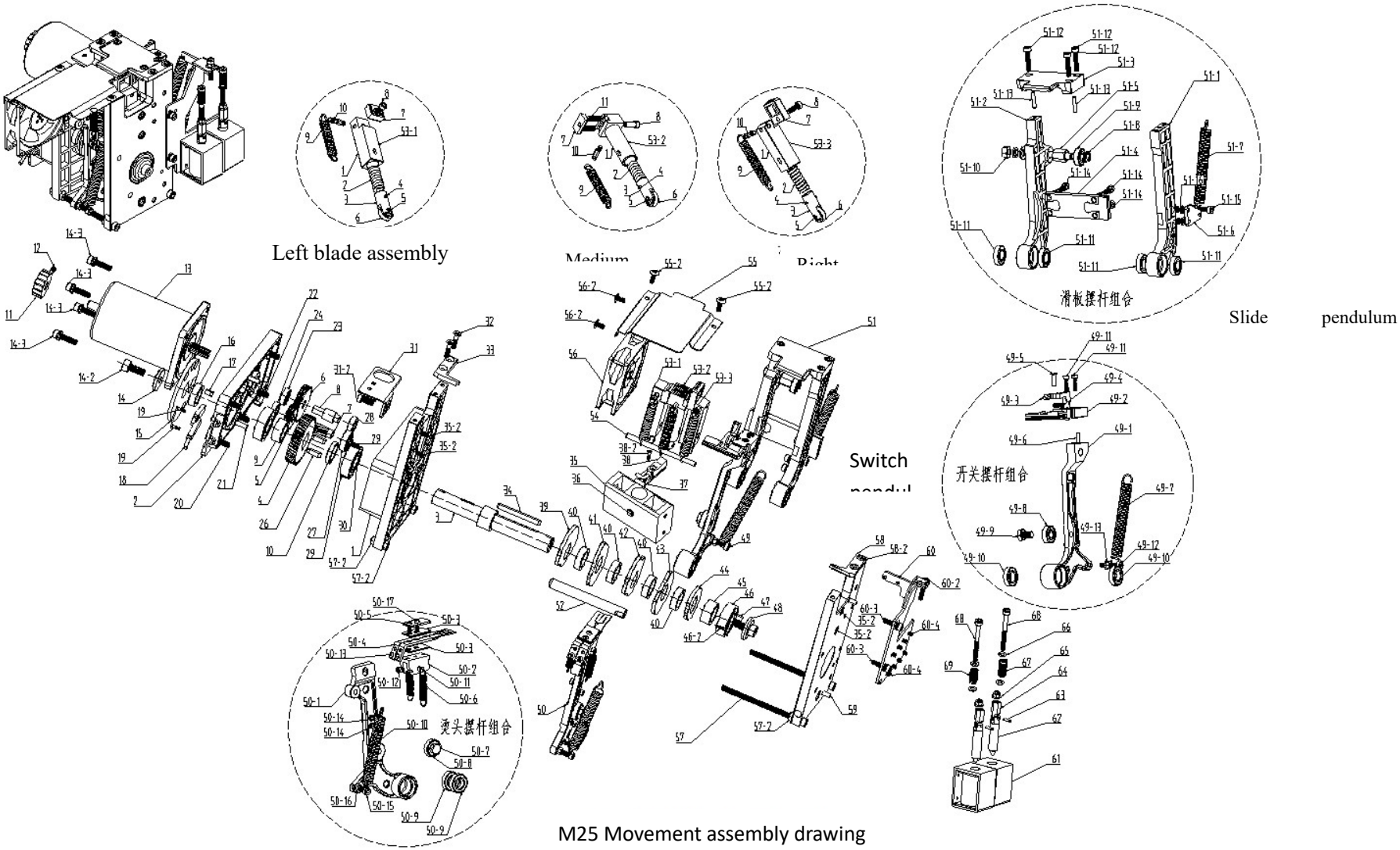
Possible faults and solutions
1. The bonding effect of the packaging tape is not good:
A. The temperature of the heating sheet is too high or too low.
b. Deformation of the heating plate: After the heating sheet is deformed, it cannot be inserted between the two layers of strips, and the upper and lower layers of strips cannot be bonded.
2. The screen will display ETT.E or ETT.0 if the belt is not in place.
A. Whether the binding strap is worn backwards, resulting in unsmooth belt delivery.
b. Whether the tying straps are bent; Too thick or too thin, too wide or too narrow can cause the belt to not be delivered properly.
Judgment method: The quality of the bag belt does not meet the requirements of the machine if the manual belt delivery is not in place.Check for another fault if the manual belt delivery is smooth.
c. Few storage belts: Insufficient belts in the warehouse result in inadequate delivery. Adjust whether the delay time of belt feeding with bin rod spring or F06 belt feeding with bin is too short.
d. Head splitting: After the head splitting, the operation in the belt channel is not smooth, which will easily lead to the belt feeding not in place. Check whether there are foreign objects in the place where the belts pass.
e. Whether the bottom plate of the right belt track is higher than that of the right tool, then adjust the bottom plate of the right belt track to be parallel to the oblique angle of the entrance of the right tool.
f. The middle tool does not return to position: the middle tool is worn out and cannot cut the belt or has no lubricating oil. It is tightly leaned with the other tool and cannot be reset, causing the guide block to not be reset. The lead is not guided and runs around, so the belt is not in place. So it is necessary to add lubricating oil or replace accessories.
g. Untight bundling: ① The bundling time will be extended if the bundling time F03 is adjusted too short.
② The tension of the passive wheel and the driving wheel is too small, which makes the tension slip and increases the tension of the pendulum rod.
h. Make a large circle:
① Insufficient time to withdraw the tape
2. If the untaped force is too large or too small, check that the distance between the untaped electromagnet core and the electromagnet is too large or too small, and the pressure of the untaped compression spring is too small.
③ The frame resistance is too large, and whether there is a foreign body in the groove.
i. Unable to bind: whether the emergency stop button is pressed or not.

Part VI Maintenance and Upkeep----------

6-1 Regular maintenance and upkeep

The bundling machine has a fast bundling speed, and the machine works for a long time in places with heavy workload. Therefore, its parts should always be in a sound lubrication state. The assembly of slider and tool base should be refueled frequently. The oil grade is N68. The parts not listed in this manual should also be refueled regularly and as appropriate.

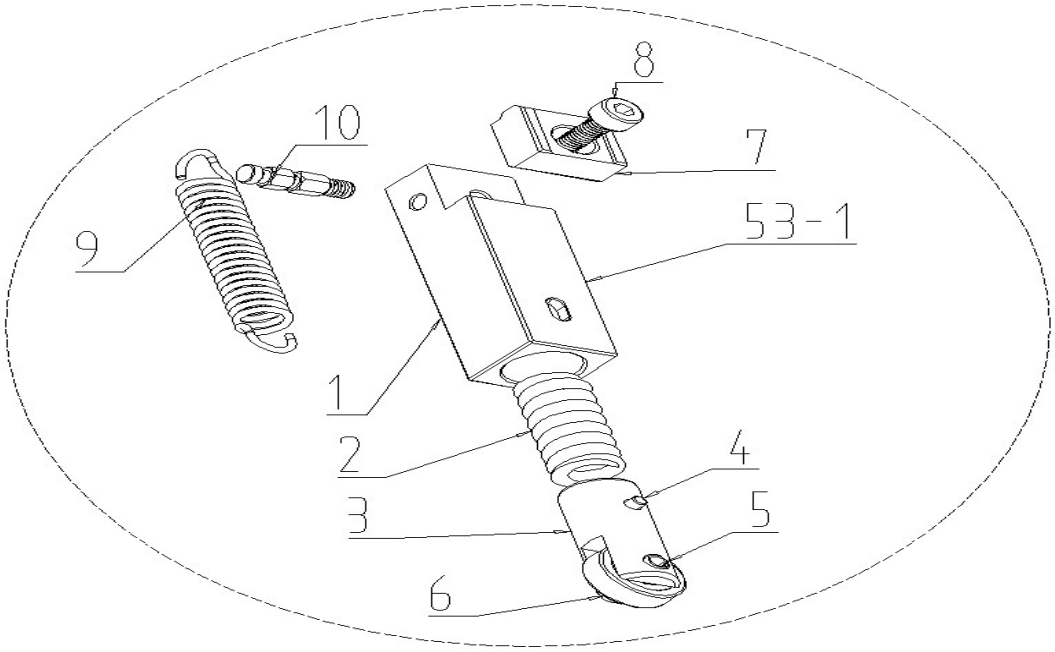
Part VII Mechanical Decomposition Drawings and Accessory Codes ---



M25 Movement assembly drawing

No.	Product codes	Name	Quantity	Remarks
1		Left side plate	1	
2		Main motor plate	1	
3		Spindle	1	
4		Helical gear	1	
5		Spur gear	1	
6		Spur gear	1	
7		Gear shaft	1	
8		Gear arbor	1	
9		Spacer	1	
10		Spacer	1	
11		Motor handle	1	
12		Socket set screw	1	Standard parts
13		Spindle motor	1	
14		Spindle-end gasket	1	
14-2		SHCS + spring washer	1	Standard parts
14-3		SHCS +flat pad + spring washer	4	Standard parts
15		Switch panel	1	
16		Spacer	1	
17		D-shaped button	1	Standard parts
18		LS4 detection switch	2	Standard parts
19		Countersunk screw	2	Standard parts
20		SHCS	6	Standard parts
21		Dowel pin	2	Standard parts
22		Keybar	2	Standard parts
23		Bearing	1	Standard parts
24		Bearing	1	Standard parts
26		Keybar	2	Standard parts
27		Bearing	1	Standard parts
28		Bearing	1	Standard parts
29		Semicircular screw	2	Standard parts
30		Bearing		Standard parts
31		Photoelectric switch bracket	1	
31-2		SHCS	2	Standard parts
32		Cross countersunk screw	2	Standard parts
33		Left parallel block	1	
34		Flat key	1	Standard parts
35		Tool seat	1	
35-2		SHCS		
36		Setting screw for tool seat	1	
37		In-place switch racks	1	
38		In-place switch	1	Electrical components
38-2		Countersunk screw	1	Standard parts
39		Left tool cam	1	
40		Spacer	4	

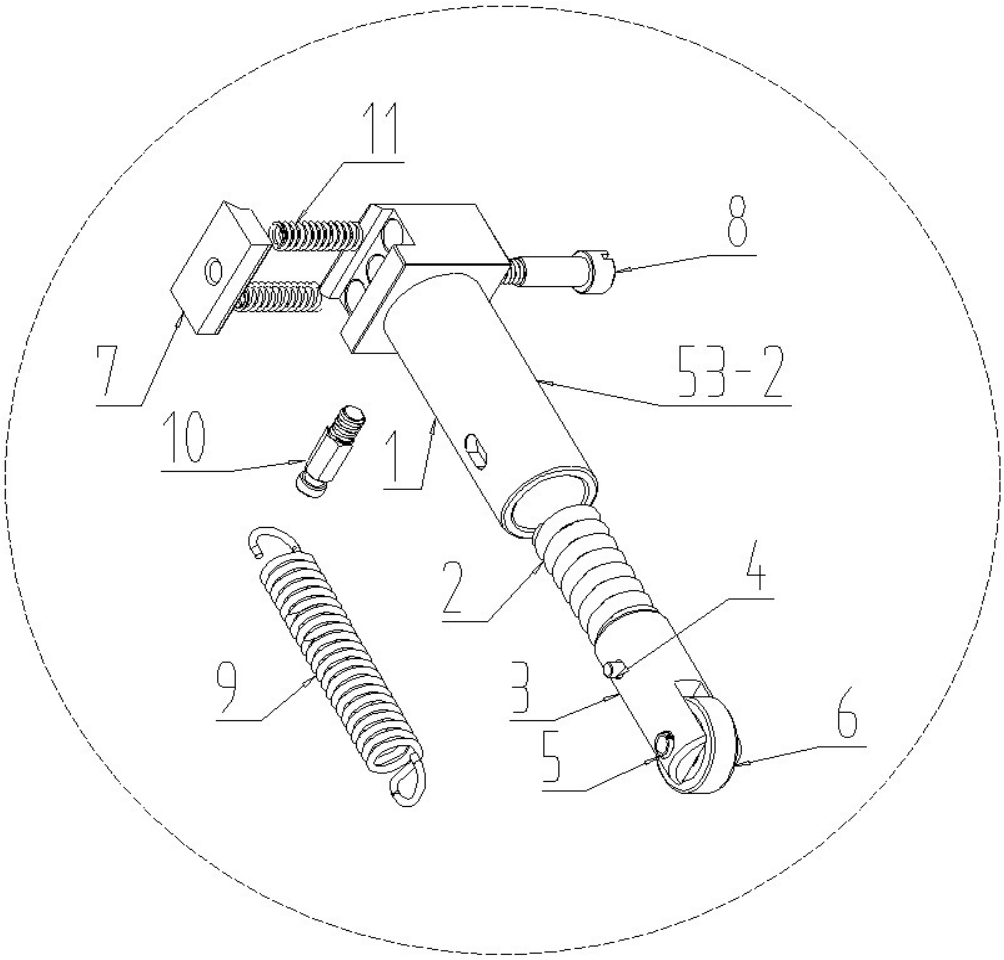
No.	Product codes	Name	Quantity	Remarks
41		Slide pendulum cam	1	
42		Medium tool cam	1	
43		Perm pendulum cam	1	
44		Right tool cam	1	
45		Spacer	1	
46		One-way bearing	1	Standard parts
46-2		Dowel pin	1	Standard parts
47		D-shaped button	1	Standard parts
48		Spindle-end gasket	1	
48-2		SHCS + pad		
49		Switch pendulum assembly	1	See (List of Switch Pendulum Rods)
50		Perm pendulum assembly	1	See (List of Perm Pendulum Rods)
51		Slide pendulum assembly	1	See (List of Slide Pendulum Rods)
52		Pendulum shaft	1	
53-1		Left blade assembly	1	See Left blade assembly
53-2		Medium blade assembly	1	See medium blade assembly
53-3		Right blade assembly	1	See right blade assembly
54		Tool reed lever	1	
55		Perm shield plate	1	
55-2		Circular screw	2	Standard parts
56		Cooling fan	1	Standard parts
56-2		Circular screw	2	Standard parts
57		SHCS	2	Standard parts
58		Right parallel block	2	
58-2		Cross countersunk screw	2	Standard parts
59		Dowel pin	2	Standard parts
60		Delivery and return of electromagnet frame	1	
60-2		Cross-shaped half-round head/SHCS M4	1	
60-3		SHCS +flat pad + pad	2	
60-4		Cross countersunk screw	8	
61		Electromagnet	2	
62		Electromagnetic cylinder core	2	
63		Spring pin	2	
64		Electromagnet joint	2	
65		Flange nut	2	
66		Flat pad	4	
67		Stripping spring	1	
68		SHCS	2	Standard parts
69		Feeding spring	1	



Left blade assembly

53- 1 Table of left blade assembly

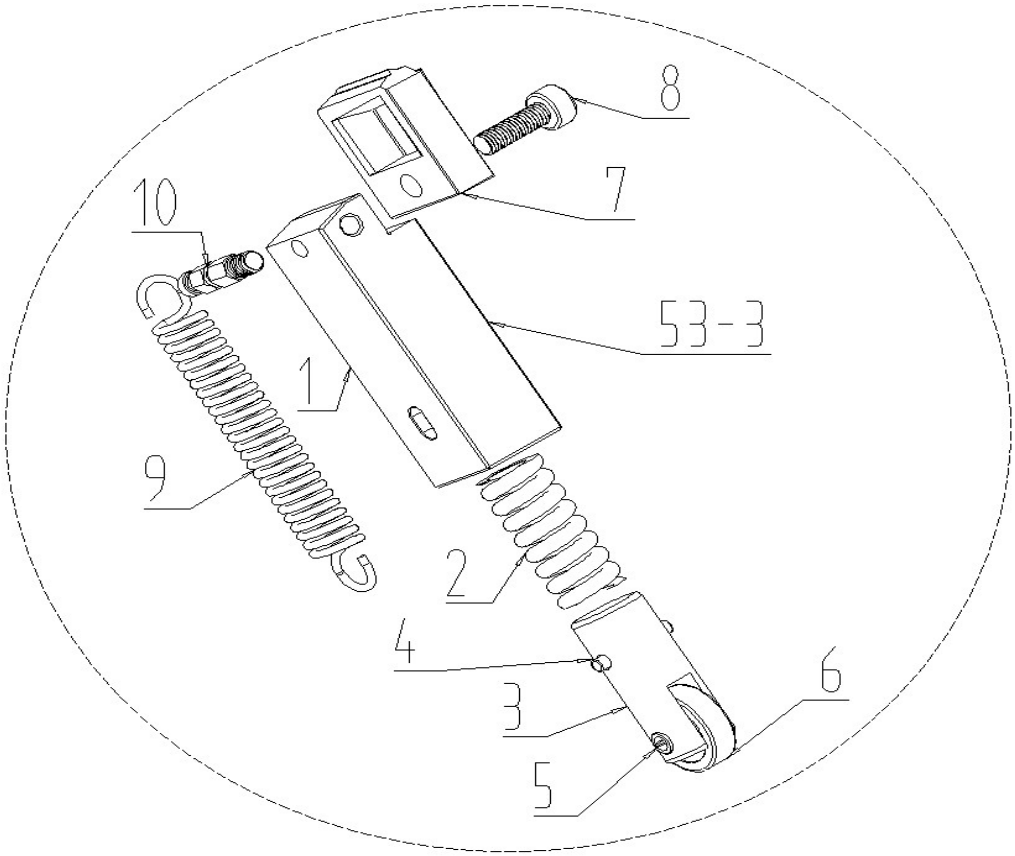
No.	Product codes	Name	Quantity	Remarks
1		Left tool body	1	
2		Left tool spring	1	
3		Tool post	1	
4		Tool post pin	1	
5		Elastic pins of tool column bearing	1	
6		Bearing	1	Standard parts
7		Left tool head	1	
8		SHCS	1	
9		Spring-loaded pins of left and right tools	1	
10		Spring-loaded pins of left tool	1	



Medium blade assembly

53- 2 Table of medium blade assembly

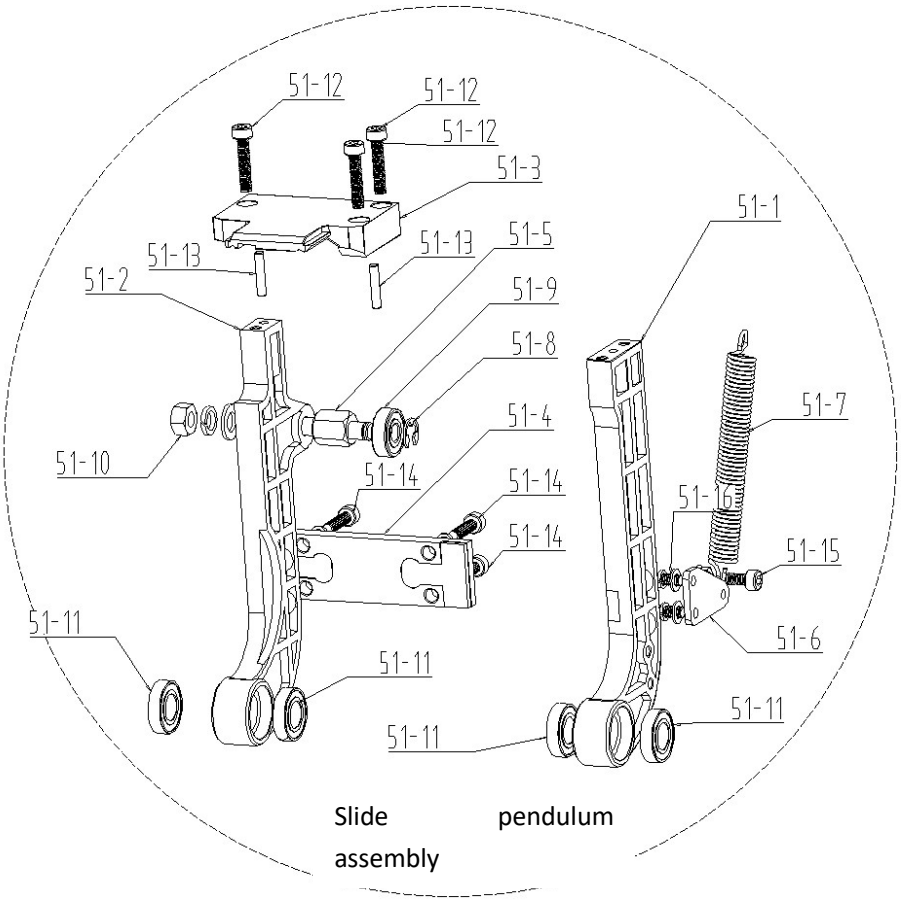
No.	Product codes	Name	Quantity	Remarks
1		Medium tool body	1	
2		Medium tool spring	1	
3		Tool post	1	
4		Tool post pin	1	
5		Elastic pins of tool column bearing	1	
6		Bearing	1	Standard parts
7		Medium blade (with tooth hole)	1	
8		Blade retaining screw	1	
9		Medium tool spring	1	
10		Spring-loaded pins of medium tool	1	
11		Blade compression spring	2	



Right blade assembly

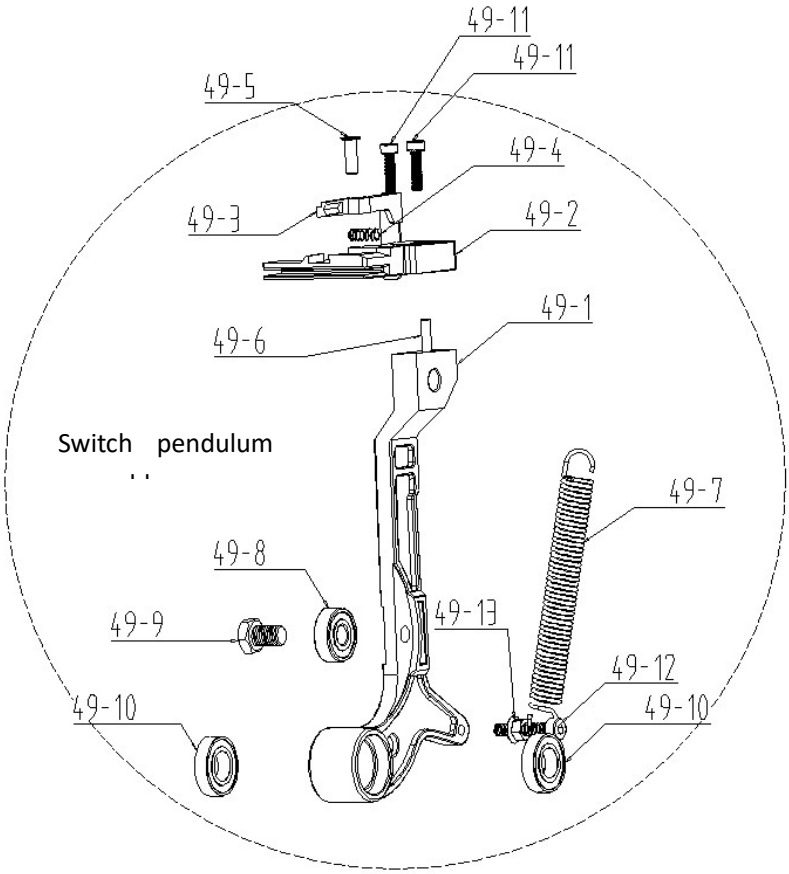
53- 3 Table of right blade assembly

No.	Product codes	Name	Quantity	Remarks
1		Right tool body	1	
2		Right tool spring	1	
3		Tool post	1	
4		Tool post pin	1	
5		Elastic pins of tool column bearing	1	
6		Bearing	1	Standard parts
7		Right tool head	1	
8		SHCS	1	
9		Right tool spring	1	
10		Spring-loaded pins of left and right tools	1	



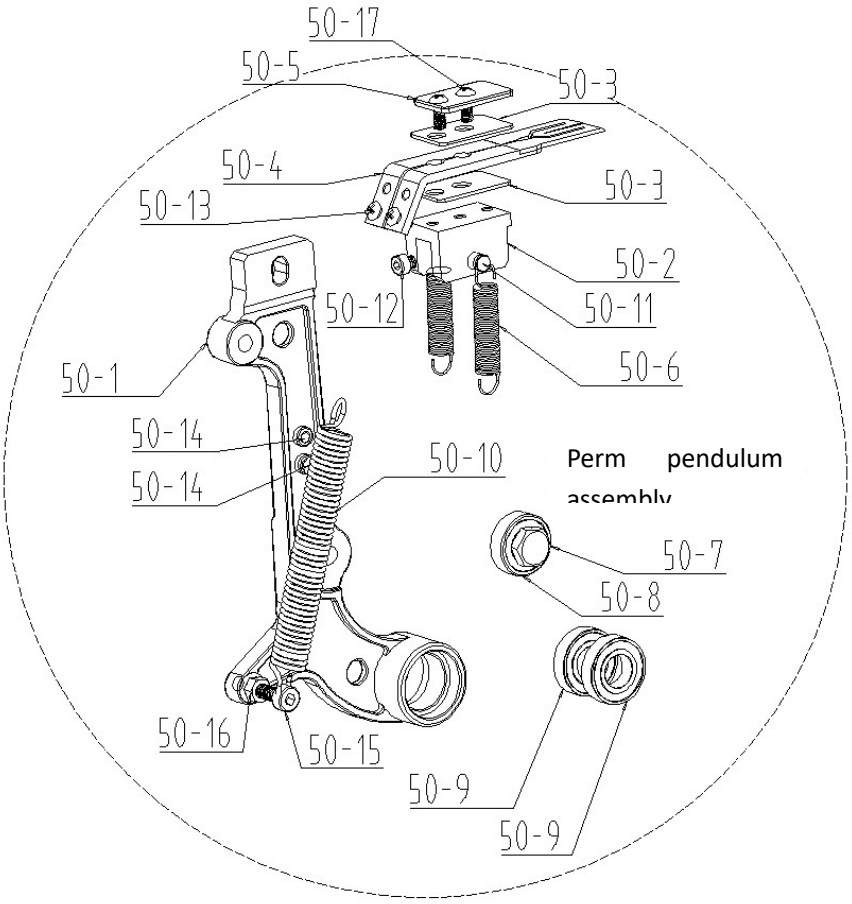
51 Table of slide pendulum assembly

No.	Product codes	Name	Quantity	Remarks
51-1		Right swing arm of slider	1	
51-2		Left swing arm of slider	1	
51-3		Upper slider	1	
51-4		Stop block	1	
51-5		Eccentric shaft of pendulum ejector	1	
51-6		Spring hook plate of swing arm	1	
51-7		Pendulum tension spring	1	
51-8		E-shaft clamp	1	
51-9		Bearing	1	Standard parts
51-10		Nut +flat pad + spring washer	1	Standard parts
51-11		Bearing	4	Standard parts
51-12		SHCS	3	Standard parts
51-13		Dowel pin	2	
51-14		SHCS	4	Standard parts
51-15		SHCS + flange nut	1	Standard parts
51-16		SHCS +flat pad + spring washer	1	Standard parts



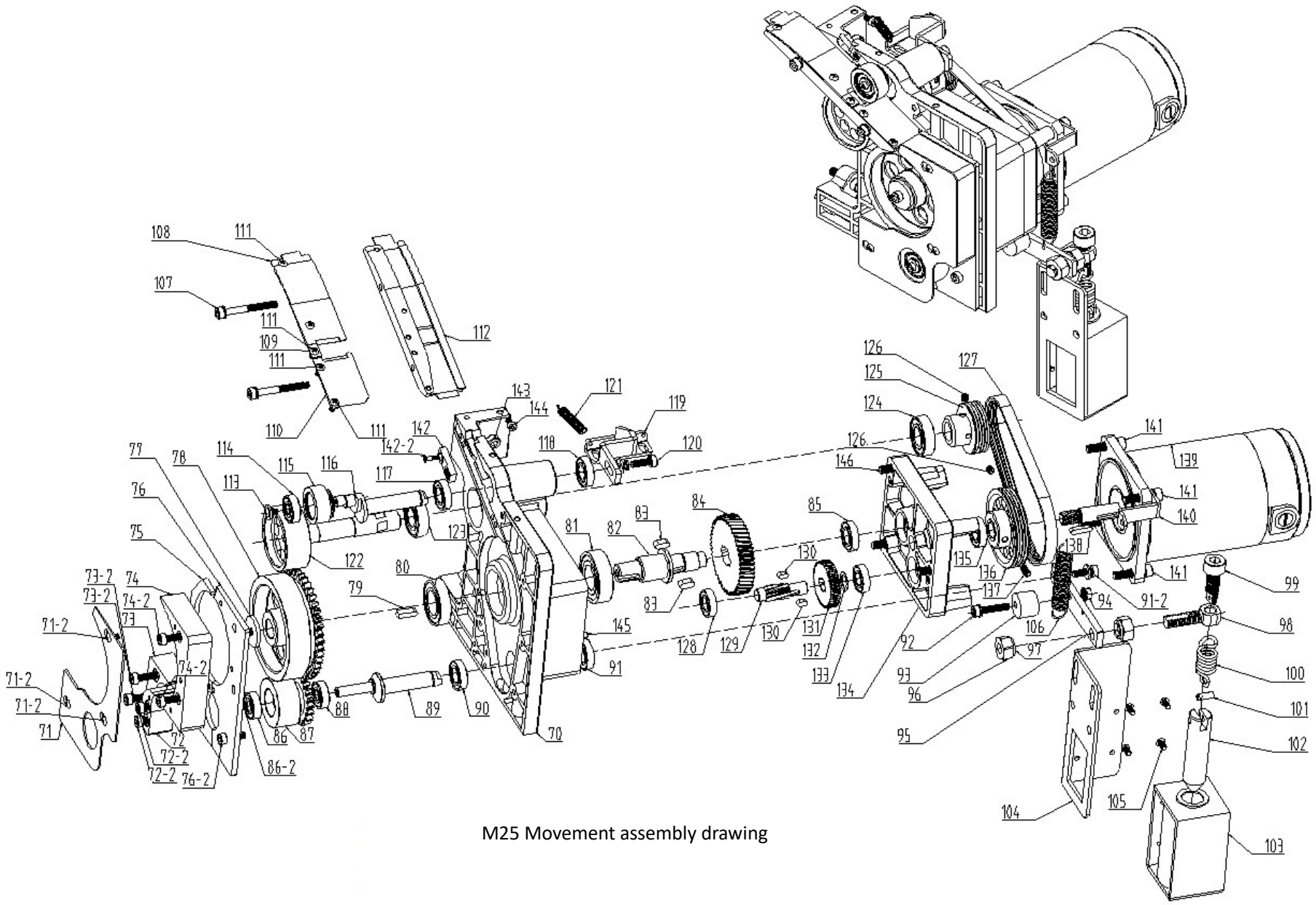
49 Table of slide pendulum assembly

No.	Product codes	Name	Quantity	Remarks
49-1		Switch pendulum rod	1	
49-2		Guide plate	1	
49-3		Actuating lever	1	
49-4		Actuating lever spring	1	
49-5		Actuating lever pin	1	
49-6		Dowel pin	1	
49-7		Spring of switch pendulum rod	1	
49-8		Bearing	1	Standard parts
49-9		Hex screw M8	1	
49-10		Bearing	2	Standard parts
49-11		SHCS	2	Standard parts
49-12		SHCS	1	Standard parts
49-13		Flange nut	1	Standard parts



50 Table of slide pendulum assembly

No.	Product codes	Name	Quantity	Remarks
50-1		Perm pendulum rod	1	
50-2		Slider	1	
50-3		Mica gasket	2	
50-4		Perm plate	1	
50-5		Perm clamp	1	
50-6		Slider return spring	2	
50-7		Hex screw	1	
50-8		Bearing	1	
50-9		Bearing	2	
50-10		Spring of perm pendulum rod	1	
50-11		Spring pin of slider	1	
50-12		SHCS	1	
50-13		Wiring screw of perm plate	2	
50-14		SHCS	2	
50-15		SHCS	1	
50-16		Flange nut	1	
50-17		Semicircular screw	2	



M25 Movement assembly drawing

No.	Product codes	Name	Quantity	Remarks
70		Feed-back band base	1	
71		Disc cover		
71-2		Semicircular screw	3	
72		Right-hand band block	1	
72-2		SHCS	2	
73		Left-hand band block	1	
73-2		SHCS	2	
74		Disc	1	
74-2		SHCS	2	
75		Left clapboard	1	
76		Right clapboard	1	
76-2		SHCS	2	
77		SHCS	1	
78		Tensioning of the driving wheel	1	
79		D-shaped button	1	
80		Bearing	1	
81		Bearing	1	
82		Tension shaft	1	
83		Flat key	2	
84		Helical gear	1	
85		Bearing	1	
86-2		SHCS	1	
86		Bearing	1	
87		Tensioning of the passive wheel	1	
88		Bearing	1	
89		Strap-on eccentric shaft	1	
90		Bearing	1	
91		Bearing	1	
91-2		SHCS + spring washer+ flat pad		
92		SHCS +flat pad	1	
93		Tension buffer	1	
94		Return nut	1	
95		Tension pendulum	1	
96		Nut	2	
97		Spring pad	2	
98		Adjusting screw of tension pendulum rod	1	
99		Adjusting screw of tension force	1	
100		Tension spring	1	
101		Spring pin	1	
102		Electromagnet core	1	
103		Electromagnet	1	
104		Tensioning of electromagnet frame	1	

No.	Product codes	Name	Quantity	Remarks
105		Semicircular screw	4	
106		Return spring of tension pendulum	1	
107		SHCS	2	
108		Front strip plate	1	
109		Front cover retainer	1	
110		Rear cover	1	
111		Semicircular screw	5	
112		Runway base plate	1	
113		Semicircular screw+flat pad	1	
114		Bearing	1	
115		Conveyor passive wheel	1	
116		Eccentric shaft of feed-back belt	1	
117		Bearing	1	
118		Bearing	1	
119		Pendulum rod of feed-back band	1	
120		SHCS + spring washer+ flat pad	1	
121		Return spring of pendulum rod of feed-back band	1	
122		Roller shaft of feed-back band	1	
123		Bearing	1	
124		Bearing	1	
125		Return belt pulley	1	
126		Socket set screw	2	
127		Return belt	1	
128		Bearing	1	
129		Gear shaft	1	
130		Flat key	2	
131		Small helical gear	1	
132		Gear shim	1	
133		Bearing	1	
134		Tensioning of motor seat	1	
135		Bearing	1	
136		Return belt pulley	1	
137		Socket set screw	1	
138		Flat key	1	
139		Tensioning of motor	1	
140		Spring rack of tension pendulum	1	
141		SHCS + spring washer+ flat pad	4	