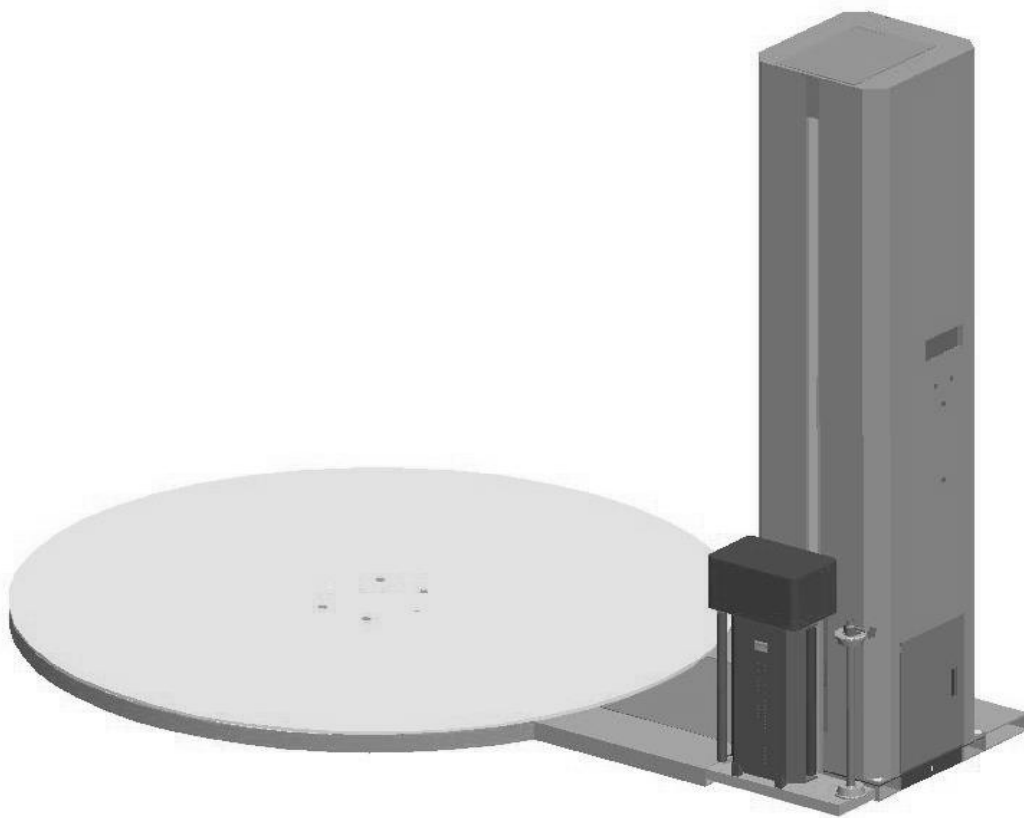


# Pallet wrapping machine operate instruction



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### **1、 Name and model:**

**Name:** Automatic pallet wrapping machine

**Model:** SM-1517R

### **2、 Introduction and application field:**

This machine adopts PLC control, the choose and buy electrical products for the world brand products, "LG" Japan "panasonic", South Korea, France schneider, etc, the machine design is reasonable, the coordination, high reliability, and easy to use, can improve the production efficiency, and can prevent damage of the goods in the process of handling, and dust, moisture and cleaning effect; Application range is wide, suitable for chemical fiber, tobacco, pharmaceutical, publishing, and refrigeration, home appliances, ceramics, hardware, chemical industry, cans, etc.

### **3、 Operation principle:**

The goods on the centre of pallet, First rotary motor rotation, drive wheel rotation, make objects peripheral direction of winding, lifting motor rotate at the same time, drive the lifting assembly do up and down, make the object height direction of the winding.

### **4、 Working station (picture 1-1)**

The worker stand in front of the control panel

The worker stand in front of the control panel

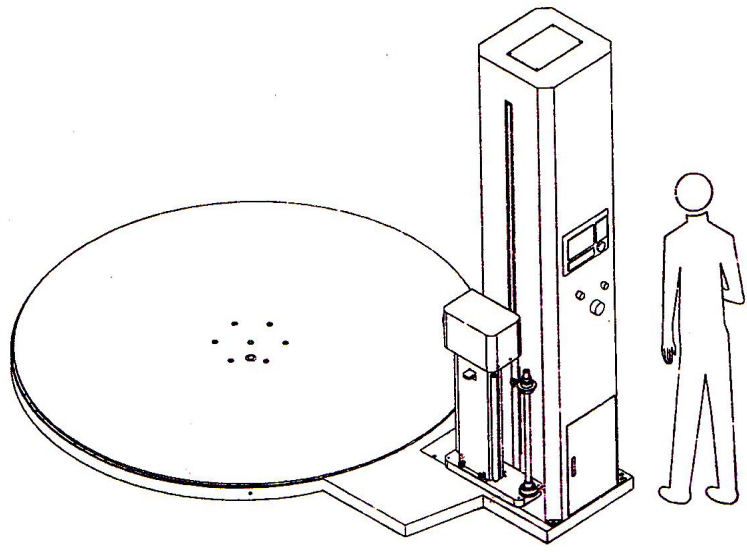


图 1

## 5、Parameter

项目名称	Parameter
Power supply	AC220V、50Hz、0.8KW (standard) ; 1.2KW (pre-stretch)
Pallet speed	0—13r/min
Film frame	Limit or adjust the wrapping height
Stretch device	Frequency conversion, adjust the tightness of film automatically (pre-stretch) Adjust the tightness by hand shank (standard)
film	Max thickness 0.035mm
	Inner diameter $\Phi$ 50—75mm
	Out diameter $\leq$ 250mm
	Width 500mm
package	Max weight 1500kg
	Max packing height: column max height-400mm
optional	ramp
Machine size	Pallet diameter $\Phi$ 1500: 2340 $\times$ 1500 $\times$ H (2000~3000) can be customized
	Pallet diameter $\Phi$ 1650: 2540 $\times$ 1650 $\times$ H (2000~3000) can be customized
	Pallet diameter $\Phi$ 1800: 2630 $\times$ 2000 $\times$ H (2000~3000) can be customized

	Pallet diameter $\Phi$ 2000: 2840×2000×H (2000~3000) can be customized
Machine weight	650kg
noise	≤750dB
condition	moisture≤98%    temprature0—40°C

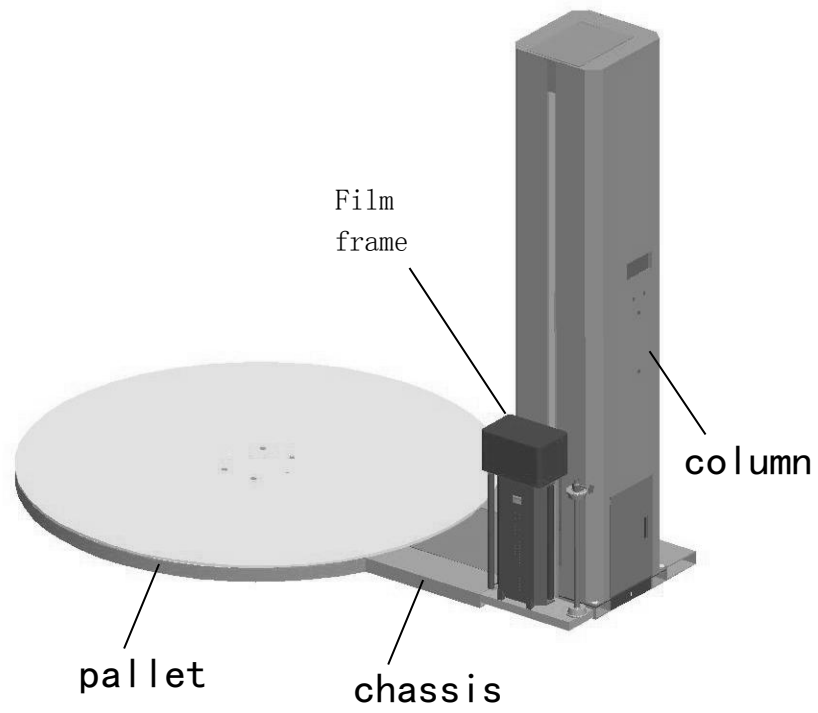
## 6、safety consideration

- 1, please make sure the machine used by power supply, do not put the wrong power supply, the machine adopts single-phase AC220V, double color line for the grounding line, protecting function
- 2, when the machine, it is forbidden to pedal on the machine
- 3, don't allow to install the machine in the soft site
- 4, do not allow will be wrapped object on the wheel edge
- 5, emergency, can according to the urgent stop switch, disconnect the motor power, the machine emergency shut down
- After 6, complete the work, should please clean the machine again
- 7, in order to ensure the safety, please do not arbitrarily open electrical equipment
- 8, only electrical technician for electrical equipment for maintenance

## 7、Installation and debugging

- 1、manufacturing date: certification
- 2、Loading、installation、hauling and

## 2.1 Machine structure



## 2.2 Loading

Before delivery, split into three parts: the base and the turntable, column, film frame. Columns wrapped in foam piece fixed on the wooden board, other parts are fixed on the wooden board, and in a large wooden box.

## 2.3 Installation

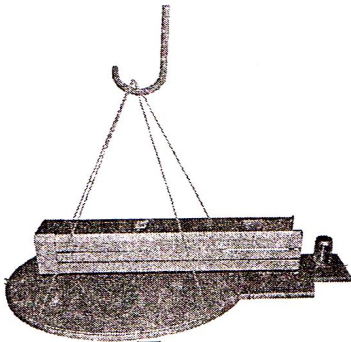


图 2-2

① use lifting machine or forklift, picture 2-2、 2-3

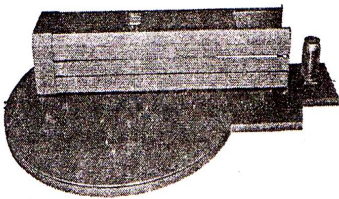
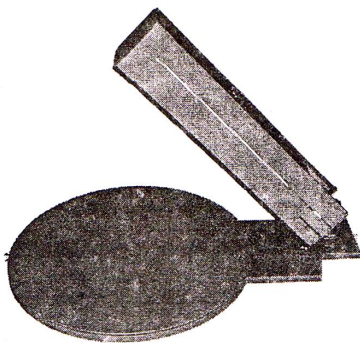


图 2-3



② lift the column by lift machine, one person keep the vertical, then other one install it by 4 M10 screw.

Picture 2-4

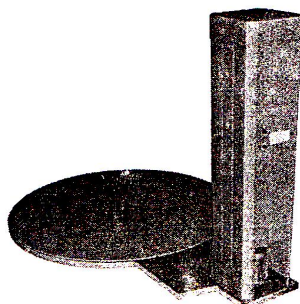


图 2-4



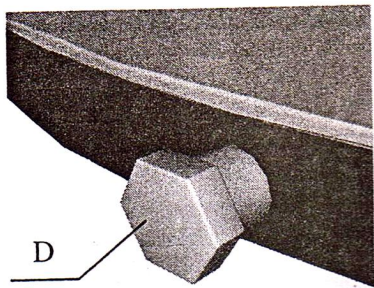


图 2-5

③ picture 2-5, It is screw for ramp

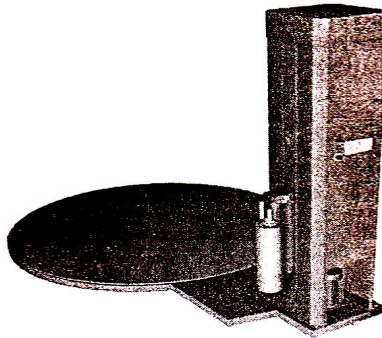


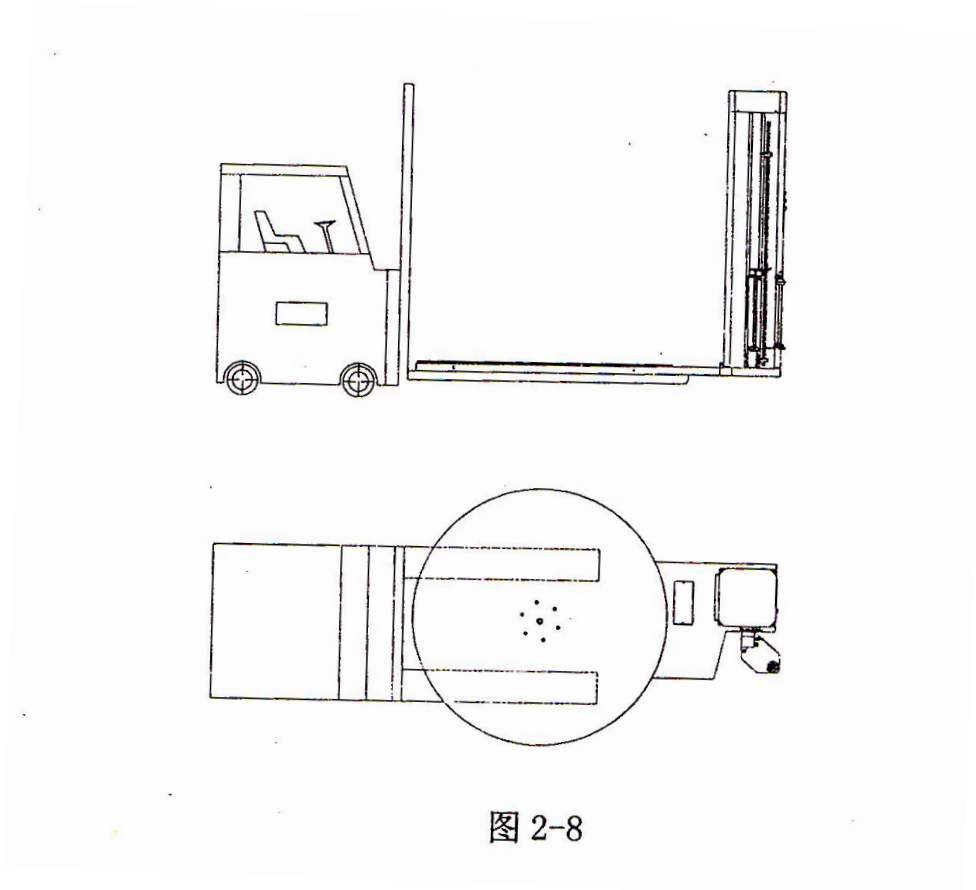
图 2-6

④ picture 2-6: 4 M8 screw for film frame

⑤ picture 2-7: After all the wires connected, with 4 of the M5 screw motor cover has fixed in the position of pillar corresponding check whether all the screws tightened, turning on the power supply when confirmed on electric control switch, the power indicator is on, whether the text screen display, if not, check whether the text power socket is off.

2.4 carry

Use crane or fork lift (picture2-8)



## 2.5 working condition

Working environment should be far away from the fireworks, dry ventilation and non-corrosive material erosion, humidity 98%, or less normal ambient temperature within the temperature range of 0 to 40 °C, the electromagnetic radiation, no special requirements.

## 2.6 debugging

### 2.6.1 check before operation

- ① check the tight solid loose or not
- ② Check whether dry, motors and electrical equipment insulation are in good condition
- ③ Check whether external power can meet the demands

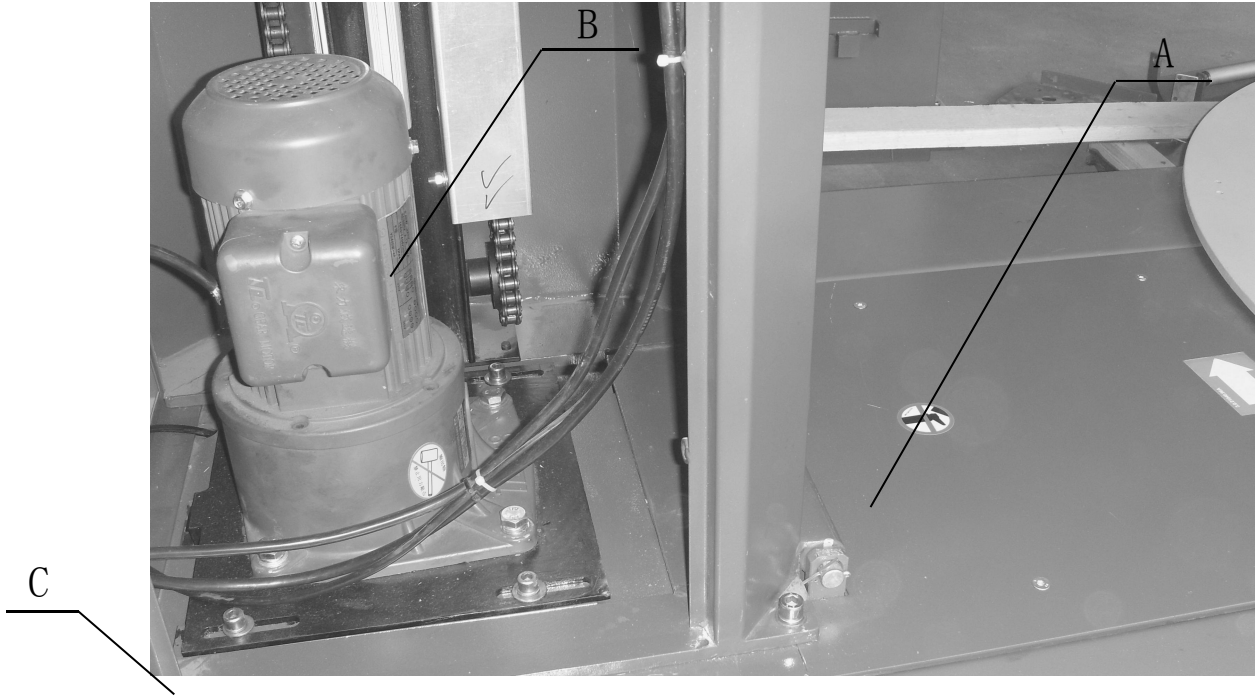
## of the power of the machine

### 2.6.2 Idle running

After power on, turn to the manual screen, press the dial key rotating wheel, check the tightness of the chain, chain swinging shall not exceed + 6 mm or so commonly, such as beyond the need to adjust, then press "up" or "down" button, check whether the combination lift lifting body is continuous, if discontinuous, check whether the lifting chain is stuck, A, B, C in figure 2-9 chain plate respectively, and the rotary motor and chain adjustment screw, specific adjustment method is as follows:

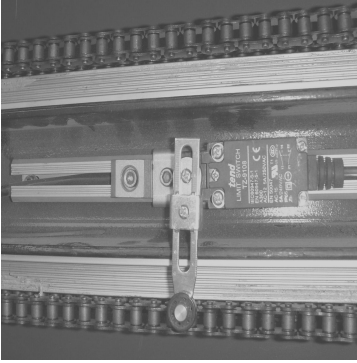
Open the chain cover A, to check whether there is loose phenomenon, the chain such as welcome to adjust

B's four fastening screws loosen the rotary motor, adjust the chain adjustment screw C, clockwise to adjust as tight chain, counterclockwise to loosen the chain, adjust the appropriate location, (the motion of the chain is in commonly around  $+ / - 3$  mm), and then tighten the four screws motor base plate.



## 8、Operation

### 1、Film installation



① Before starting the machine, please will stop button (switch) and the stop (off) position.

(2) turned on, before the lower stroke switch mounting screw, and adjust it to their highest, the goods need to coil size for points, and fixed (figure 4-1).

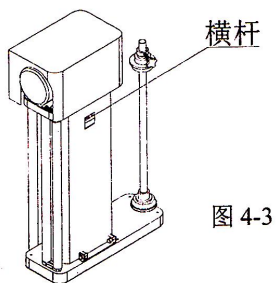
(3) to conceal objects to the turntable central dividend.

(4) membrane installation method (figure 4-2)

A, loosen the fastening screws A, and remove the ring B and film location on disk C.

B, the entire tube film loading film positioning plate under D, pack up and positioning disk C.

C, B to tighten the ring and fixed.



⑤ Wear membrane method, the adjustment of film tension force

I. Type of pretension

As shown in figure 4-3, add to press bar as the transition roller flip Angle, then put the film through in the direction shown by the arrow (as shown in figure 4-4) and then the transition roller can be closed, by adjusting the rotary speed and adjustment of pretension motor speed to achieve the degree of film tension; Specific need to adjust the control wheel and the pre-tension of frequency converter on the black knob. Rotary speed faster, the slower the pre-drawn motor, membrane tight; Conversely, the more loose.

## II. Resistance type (figure 4-5, 6) 4 -

Pull the main roller to adjust to the appropriate level of resistance against, eccentric handle (1) pushed down, and then adjust the adjusting screw (2); Dial on the eccentric wheel handle, pull the film from mounting shaft, bypass resistance to pull roller (3), to bypass the transition roller (4) and then film on the haunted objects, sowed the eccentric wheel handle.

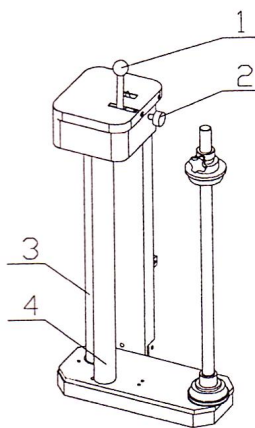


图 4-5

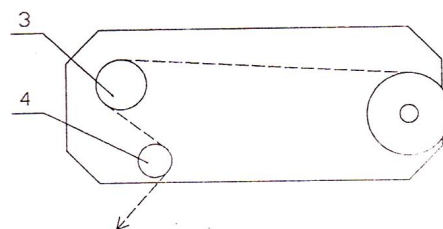
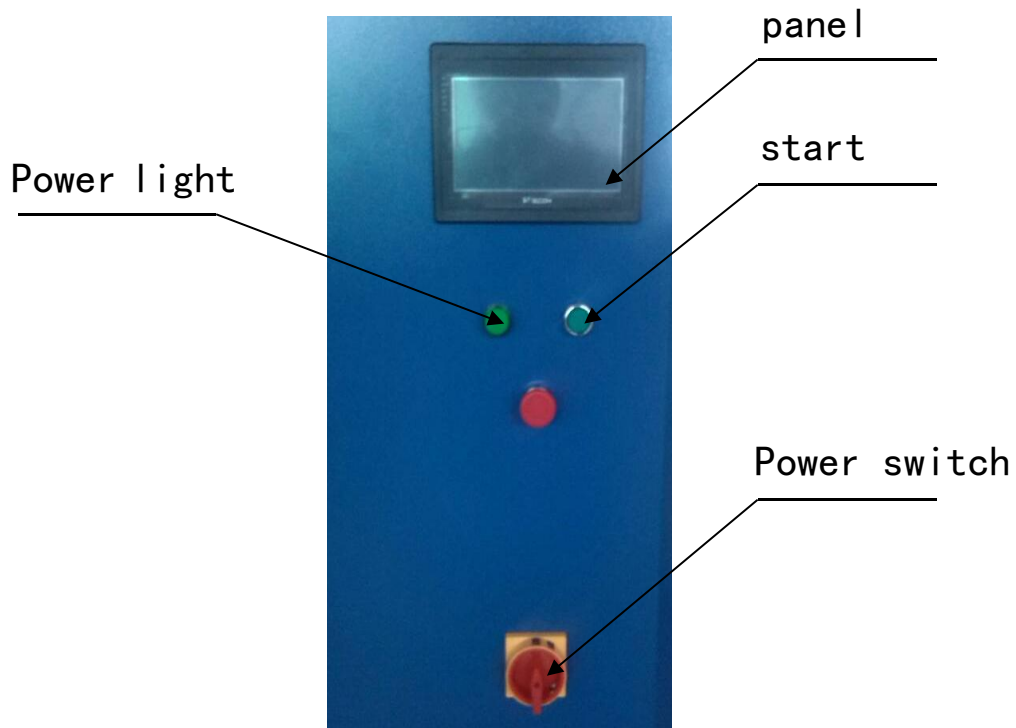


图 4-6

## 2、Control panel



## 3、operation instruction

Note: column on the front panel has a green button "start" button for automatic mode, the automatic screen with touch screen the "start" button in the same function.

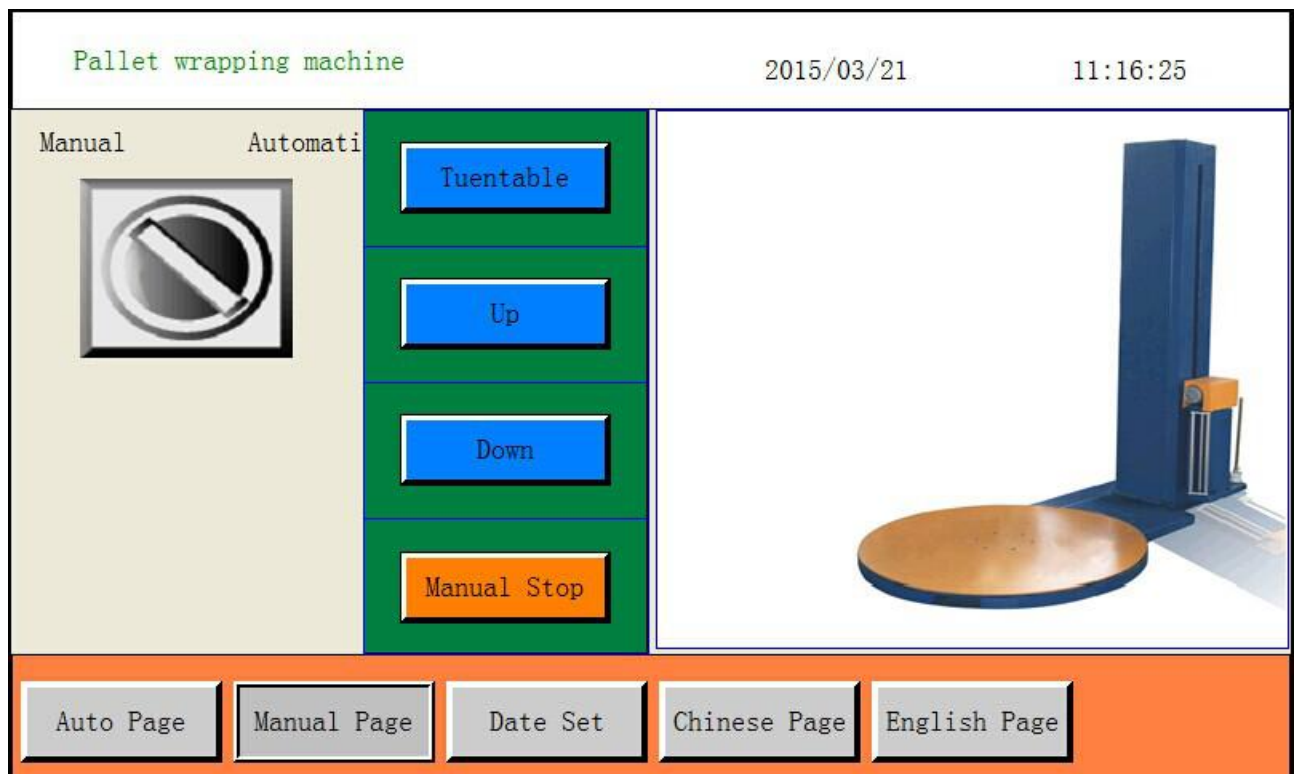
Open the power supply, touch on any position into the automatic screen picture.

Starting

page



Manual wrapping type:



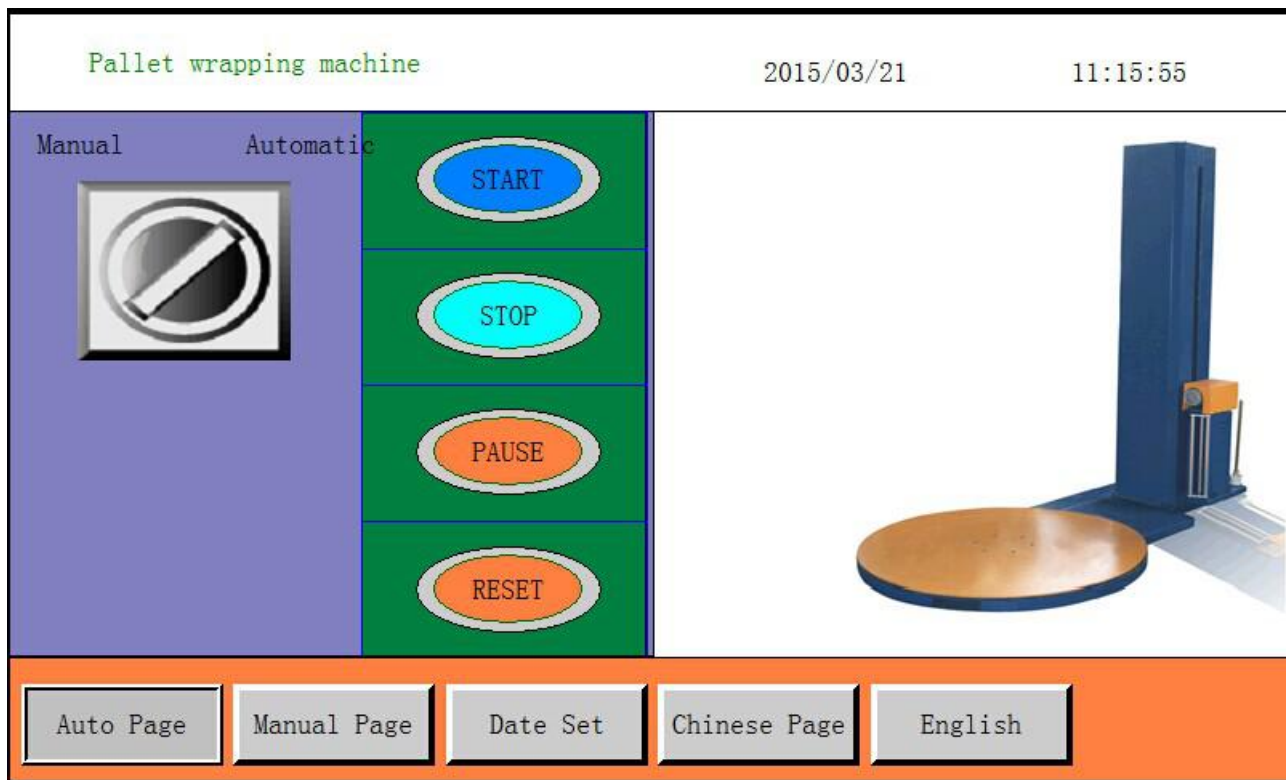
① . Open the power supply, according to the screen display, according to the "manual screen" button at the bottom of the touch screen to enter manual work mode, then



confirm the manual/automatic switch in manual gear, if not, manual switch to its location manually. Pull the film right long (1). Degrees, according to the wheel rotation direction on the film winding to the entanglement, press the dial key again for wheel rotation, after the right circle number of twisting, press the "up" button, can be continuous overlapping winding up. To winding to the required level and then press the "up" key to stop, winding turns right at the top after press the "decline" button, can be continuous overlapping winding down. After the completion of the winding, can press the "manual stop" button to stop all, but one point is also the function of the run button to make it stop.

② . Winding thickness to adjust: proper reel and lifting motor speed, to the appropriate circle around the thickness. The faster the rotary, lifting the slower, winding thickness is thicker, whereas the thinner (other similar patterns).

②. Automatic :



After entering the automatic screen, confirm the manual/automatic switch in the automatic position, if not, the manual switch to automatic position, it will pull film suitable length, according to the direction of rotary film coil to coil object, press the "auto" button again can work automatically. After winding, cut off the film. If film tensile braking device is tight, easy to make the film break, (resistance to pull type) adjust the brake adjustment screw, relax the tension force; (pre-drawn type), please adjust the pre-tension motor speed before the next wrapped object, achieve satisfied effect of twisting.

⑤. Parameter setting:



According to the picture "parameter setting" button to enter parameter setting, such as the need to adjust the top laps, touch the location of the current digital change its value, up and down at the bottom of the circle number, amount of time and a top (overhead time: a membrane from the photoelectric, continue to run after the unit ms) adjust method.

⑥. language:

Choose "Chinese page" or "English page"



## 9、Maintenance

To correct the machine maintenance, often can not only prolong the service life and can also be less out of order, thereby improving production efficiency.

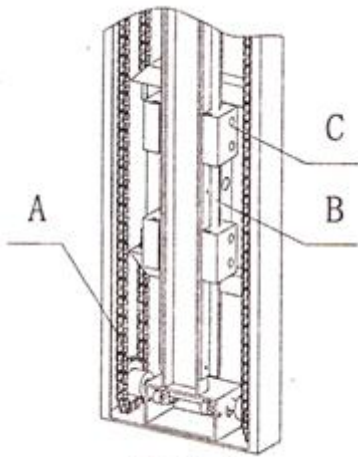


图 5-1

(1) open the machine cover, carefully in the chain (round) painted A proper lubricating oil (generally for butter), and the lubricating oil with the chain transmission mechanism (FIG. 5-1), suggest that once every three months maintenance. (2) in the elevator slippery course B (slider C range of contact) coated with a suitable amount of lubricating oil, will be subject to not drip lubrication (FIG. 5-1) recommended maintenance once every month.

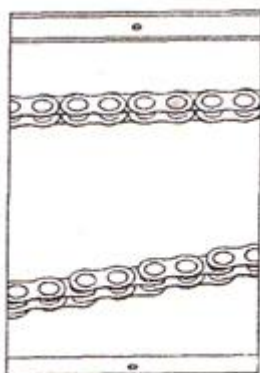


图 5-2

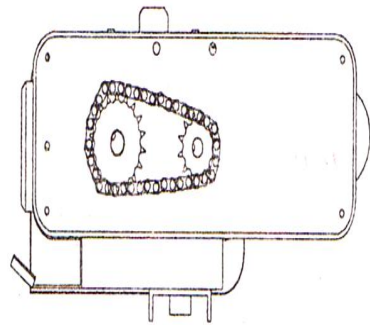
(3) open between wheel and post a piece of flat single screw (c) carefully on the wheel drive chain with just the right amount of lubricating oil, and lubricating oil painted

the entire drive chain machine hook (FIG. 5-2) suggest maintenance every three months at a time.

④ (4) when the winding machine for pretensioning mechanism, open the cover plate at the bottom of the lift combination, carefully in lifting combination at the bottom of the transmission

Chain with just the right amount of lubricating oil (FIG. 5-3) recommended maintenance once every

month.



(5) when the winding machine for resistance to pull agency, if the tensile mechanism of brake adjustment strength is reduced, the need to check with the triangle rubber belt wear serious, if already wear open elevator combination at the bottom of the cover plate, carefully on the hoist drive chain at the bottom of the combination with the right amount of lubricating oil (FIG. 5-3) recommended maintenance once every month.

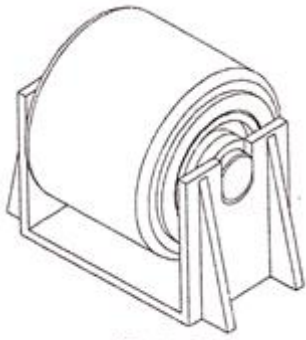


图 5-5

6. Check and tighten the machine start elastic

nail

Tray rotation of the wheel, guide wheel, 12 of the roller body, if has been less than 53 mm in diameter, or turn the abnormal noise should replace the roller body (available iron bars to the roller body from under the wheel rack lever).

## 十、Maintenance instructions

1、 safety warning

1) ensure that has cut off the total power

(2) maintenance personnel do not barefoot for repair

2, regular maintenance and cleaning

(1) Loosen screw and components should be inspected

regularly for

(2) regularly for important part of the machine oil lubrication

3. Keep the machine surface clean

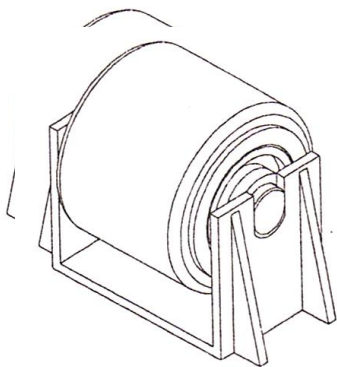


图 5-5

## 十一、problem and solution

1, the light is not bright

(1) the power show open: open the power supply

(2) the light is bad: replace the lamp

(3) not plugged in good: insert the plug

2, guy don't turn

1) don't plug in or lack of phase: check the power supply

(2) the motor is bad: replace the motor

(3) the chain break or fall off: good reinstall chain

(4) control button is bad: replacement

Adjustment: at least 5) inverter adjusting knob to adjust to the appropriate frequency

6. Urgent stop switch in stop position: open the abrupt stop switch

3, the lifting body don't lift

(1) limit switch bad: bad or rotary table counting travel switch replacement

(2) the power supply is not connected or lack of phase: check the power supply

(3) motor bad: replace the motor

(4) the chain break or stuck: replacement

Bad: (5) the lifting body slider or PLC to replace

Adjustment: at least 6 inverter adjusting knob to adjust to

the appropriate frequency

All landowners urgent stop switch in stop position: open the abrupt stop switch

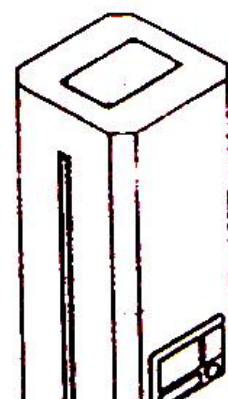
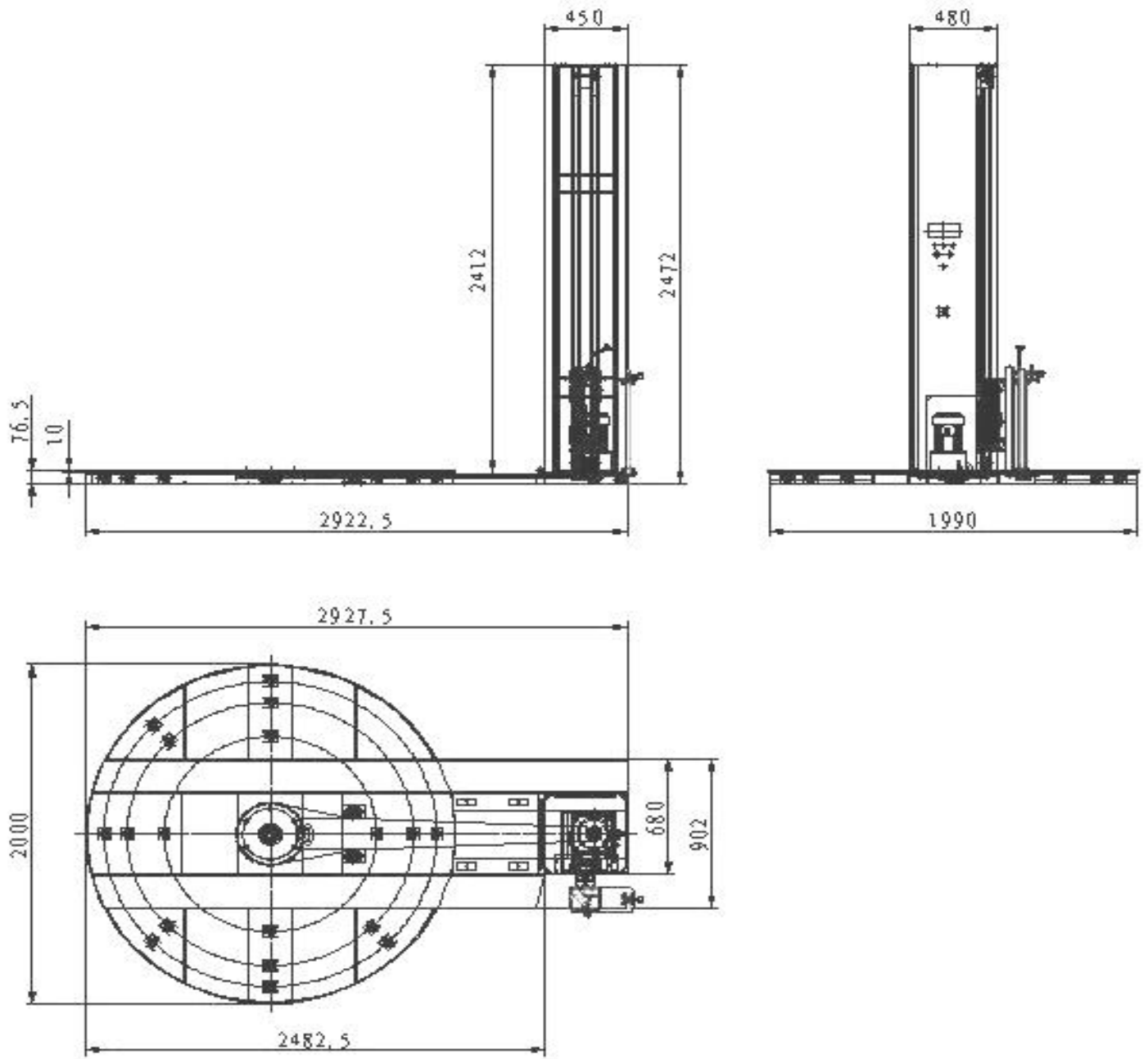
4、film was snap

- (1) wrap film the fracture or quality is bad, to replace
- (2) the pre-tension motor is bad: replace the motor
- (3) micro switch bad or tension spring fatigue: replacement
- (4) the pre-tension chain loose fall off or sprocket: good reinstall the chain sprocket or tightened
- (5) of pretension motor speed and rotary speed did not match good, adjust the speed between the two motor, make it match.

**十二、drawing**

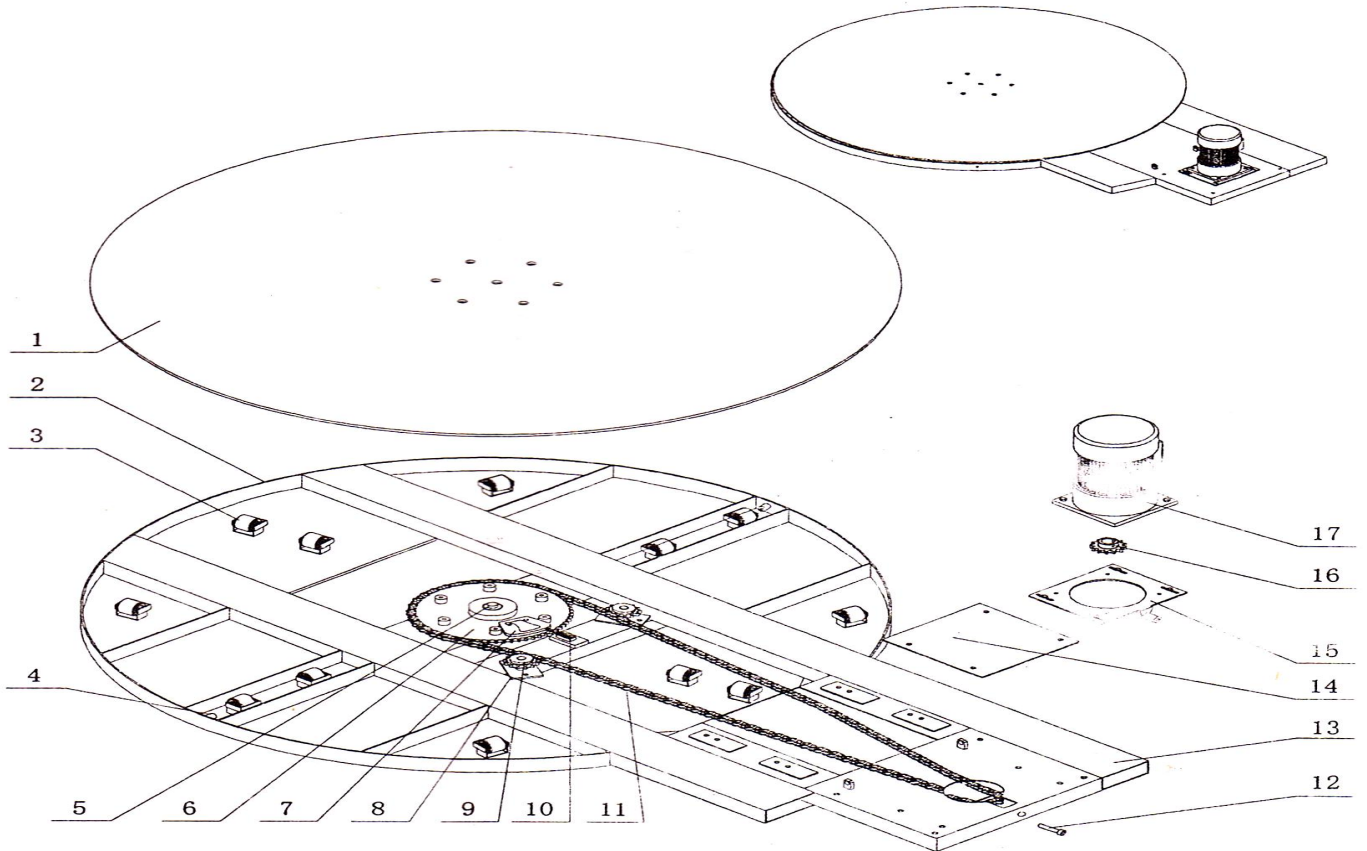


1、



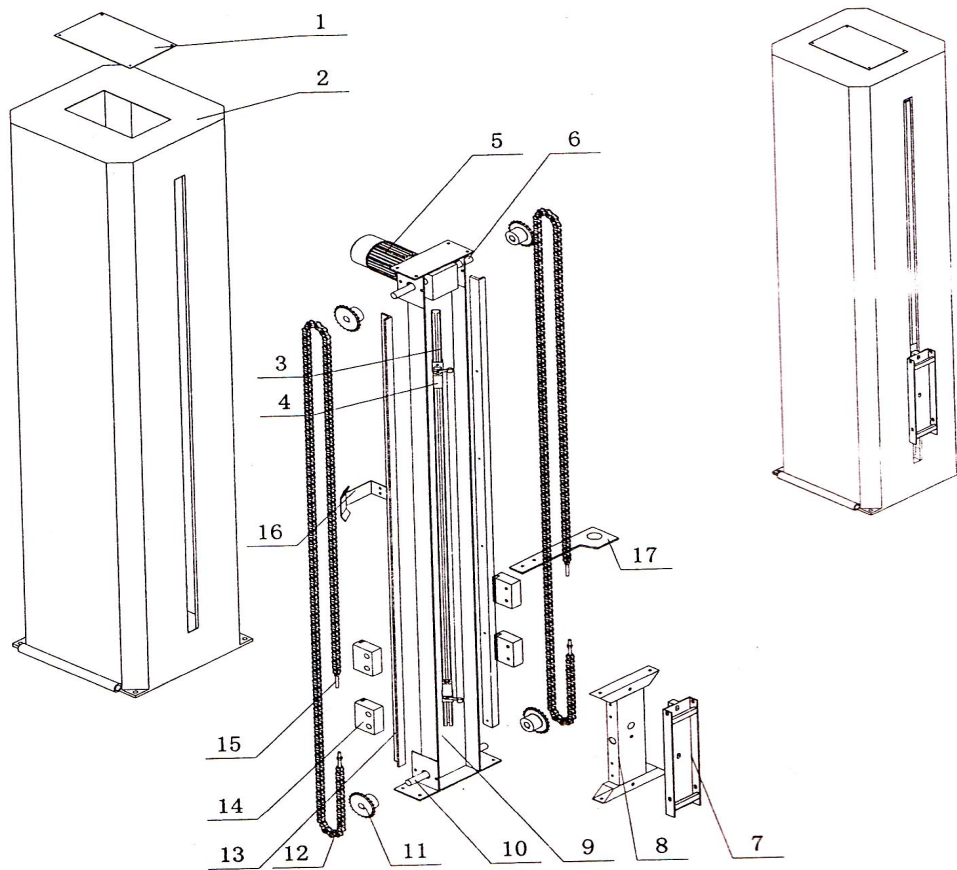
序号	name	note
1	Chassis unit	Include turntable and chassis
2	Column unit	including columns and lifting manipulator device
3	Film frame unit	Film frame

2、



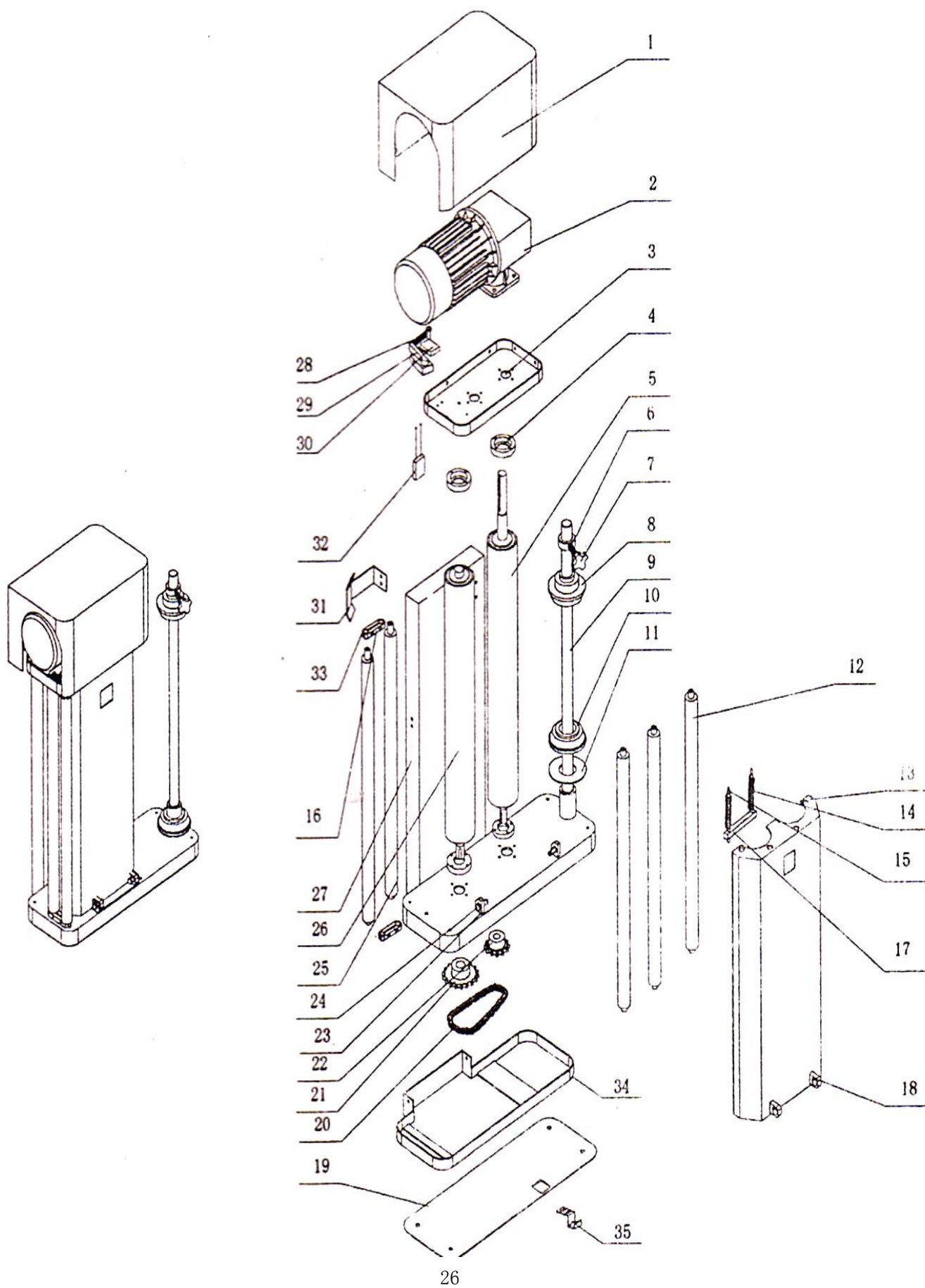
序号	name	Number in figure	Q	序号	name	Number in figure	Q
1	turntable	DZ-1000-02-01	1	10	<b>Travel switch</b>	TZ-9108	1
2	chassis	DZ-1000-01-02	1	11	chain	12A-1	1
3	wheels	DZ-1000-01-08	12	12	<b>Adjust the screw</b>	M10×50	1
4	nut	DZ-1000-01-02-02	3	13	cover-1	DZ-1000-01-11	1
5	<b>Axis positionin</b>	DZ-1000-01-06	1	14	cover-2	DZ-1000-01-12	1
6	<b>Driven sprocket</b>	DZ-1000-01-04	1	15	Motor seat	DZ-1000-01-03	1
7	<b>Collision block</b>	DZ-1000-01-10	1	16	<b>Drive sprocket</b>	DZ-1000-01-07	1
8	<b>Tension wheel</b>	DZ-1000-01-09-02	2	17	Turntable motor	CV400-30S	1
9	<b>Tension sprocket</b>	DZ-1000-01-09-01	2				

3、



序号	name	Number in figure	Q	序号	name	Number in figure	Q
1	Top cover	IZ-1000-02-05	1	10	driven shaft	SZ-1000-03-06	1
2	column	IZ-1000-02-01/02	1	11	Driven sprocket	SZ-1000-03-11	2
3	Fixed chute	SJ-1000-01-14	1	12	chain	08A-1	1
4	Travel switch	TZ-9108	2	13	Slippery course	SZ-1000-03-12	2
5	Lift motor	NMRV040-YS6334	1	14	slider	SZ-1000-03-13	2
6	Motor shaft	SZ-1000-03-01	1	15	Adjust the screw	M8×45	4
7	Transition support	SZ-1000-03-03	1	16	Collision block	SZ-1000-03-15	1
8	Lifting bracket	SZ-1000-03-02	1	17	Slider frame	SZ-1000-03-16	1
9	Support steel	DZ-1000-03-04	1				

4、



序号	name	Number in figure	Q	序号	name	Number in figure	Q
1	<b>Motor cover</b>	YLMZ-1000-04-05	1	17	rail	YLMZ-1000-04-26	1
2	Pre-stretch motor	NMRV025-YS6334	1	18	<b>Connection piece-1</b>	YLMZ-1000-04-14	2
3	Frame roof	YLMZ-1000-04-03	1	19	<b>bottom plate</b>	YLMZ-1000-04-02	1
4	Bearing block	YLMZ-1000-04-19	3	20	chain	06B-1	1
5	Prestretch roller	YLMZ-1000-04-16	3	21	<b>Driven sprocket</b>	3/8" -39T	1
6	<b>Locking collar</b>	SJZH-1000-04-16	1	22	<b>Drive sprocket</b>	3/8" -12T	1
7	<b>handle screws</b>	M10×40	1	23	<b>Connection piece-2</b>	YLMZ-1000-04-13	2
8	<b>Positioning plate</b>	SJ-1000-04-11	2	24	<b>Connecting pin</b>	YLMZ-1000-04-22	2
9	Film shaft	1/2"	2	27	<b>Lifting connecting</b>	YLMZ-1000-04-01	1
12	<b>transition roller</b>	LHZJGT-1000-00	1	28	<b>Tension spring</b>	01-162	1
13	Roller seat	SJ-1000-04-04	1	29	<b>Rocker arm</b>	LXW5-11	1
14	<b>Compression spring</b>	Φ2.5×13	1	30	microswitch	optional	1
15	bolt	Φ6×110L	1	33	<b>clamping block-1</b>	YLMZ-1000-04-11	2
16	<b>Connection piece</b>	YLMZ-1000-04-08	1	34	Frame plate	YLMZ-1000-04-02	1