



Semi-automatic Strapping Machine

Use, Maintenance And Spare Parts Handbook

AS-50C, AS-50F, AS-50L



AS-50L



AS-50C



AS-50F

Foreword

Thanks very much for purchasing our semi-automatic strapping machine. For your safe and correct use of this machine, please read this detailed instructions carefully before using. When finish reading, please keep this manual well for next time use when necessary.

Note: if there is change of machine appearance and spare parts, Please refer to customer actual purchased machine.

CONTENT

1.	STRAPPING MACHINE DESCRIPTION INSTRUCTION AND SPECIFICATION.....	5
1-1	Machine general description.....	5
1-2	Machine specification (standard)	5
1-3	Warning mark.....	6
1-4	Fix and installation.....	7
1-5	Space required for machine installation	7
1-6	Transportation and storage	8
1-7	Movement.....	8
2	PREPARATION BEFORE RUNNING	9
2-1	Install strap coil	9
2-2	Strap threading step.....	9
2-3	Description of control panel button	10
2-4	Instruction of adjustment	12
3	START AND RUNNING.....	13
3-1	Introduction of control system	13
3-2	Clean and adjustment.....	13
4.	MAINTENANCE AND LUBRICATION	16
4-1	Once a week maintenance regulation.....	16
4-2	Once a month (strapping 100000 cycles) maintenance regulation	16
4-3	Once half a year (strapping 600000 cycles) maintenance regulation	16
4-4	Once a year (strapping 1200000 cycles) maintenance regulation	16
4-5	Parts list	16
5.	TROUBLE EXAMINE AND REPAIR.....	17
6.	AS-50F,AS-50C,AS-50L PARTS DRAWING AND LIST	19
6-1	Knife and skateboard assemble.....	19
6-2	Cam and reduction gear box assembly	21
6-3	Send and retreat strap assembly	23
6-4	AS-50F, AS-50C, AS-50L machine frame	25
6-5	Strap reel and brake assembly.....	31
6-6	AS-50F,50C,50L electrical parts.....	38
7.	ELECTRICAL SCHEMATIC DIAGRAM	40

Warnings:

- * In order to use the machine safely, please read following warnings before operation.

Warning: Be sure to follow WARNING words in each page in this manual. Failure to observe the WARNING, It will damage the machine or cause serious injury and even death.

Attention: Be sure to follow WARNING words in each page in this manual. Failure to observe the WARNING, It will damage the part of machine or make the machine goes wrong.

Please read the following warnings and attention carefully

Attention:

Customers do not install and try to operate the machine without the presence of the staff from our company or our agent.

Attention:

Please do not place the machine on slope and do not move the machine while it is running.

Warning:

Please do not place the machine on the wet floor or the room with much dust.

Warning:

If power branch runs with other machines in the meantime, it will not only damage the machine's function but also damage plugs. If sockets excessive heat, posing a fire hazard. Special attention: be sure to ready for special voltage and capacity of the machine used.

Warning:

The earth terminal must connect to the earth. If not connect to earth or not full connected, it will happen shock danger.

Warning:

If use extended wire, the cut area must above 2mm² and length less than 10m. Otherwise, it will not only damage the machine, and also cause hazard of fire because of overheat of plug and socket.

Warning:

Please wear a glove, eye protections and breathing mask while installing and operating the machine.

Warning:

The machine is used for strapping products or packages. Please do not put your hands or body close to the main machine body.

Warning:

Please do not take off the panel, cover, door and other parts to use the machine. Taking off the parts will cause machine faulty and easy to cause human injury.

Warning:

Please do not remake the machine. Use the remade machine will cause human injury.

Warning:

Please do not put the wire on the passageway of forklift. Once the coat of wire is damaged or the wire is broken, it will cause danger.

Warning:

Please do not insert or pull out attaching plug with wet hand. Avoid shocking danger.

Warning:

It has shocking danger while strapping water or wet products.

Warning:

Please make sure pull out the plug if do not use the machine.

Warning:

Insulation degradation, will result in electric shock or fire due to leakage.

Warning:

Please do not put inflammable materials around the machine if the heater is in high temperature. It will cause fire risk.

1. STRAPPING MACHINE DESCRIPTION INSTRUCTION AND SPECIFICATION

1-1 Machine general description

It is a semi-automatic machine that applies strap on packaged.

It is with following accessories:

Operation manual: it is for you to use the semi-automatic strapping machine safely and correctly. And it describes how to solve problem when it has troubles.

Tools: for simply repair and clean the machine.

! Warning: Do not use the affiliate tools to remake the machine.
!Warning: Before operate the machine, please turn the power switch to『O』(OFF) position. Pull out the power plug and cutoff the power supply. Otherwise it may happen hazards of shock, burning and been drawn into machine

1-2 Machine specification (standard)

Machine	Strapping machine
Strapping speed	<3s/cycle
Min. packing size	60mm
Max. packing size	Unlimited
Tension	5kg-50kg
Strap applicable (PP)	Width 6mm-15mm; thickness 0.5mm-0.85mm
Power supply	AC100-240V, 50Hz/60Hz, 1Ph
Power	0.25kW
Machine weight	80kg
Environment temperature	5°C-40°C
Environment moisture	35%-85%RH
Height above sea level	<1000m
Transportation/storage temperature	-25°C-55°C

1-3 Warning mark

The following mark cannot be removed or replaced. It is located where may be dangerous to human body. The power supply must be cut off before repair the machine.

- ① The mark as fig as 1-3-1 cannot be removed or replaced randomly. It is on the heating parts of machine. Please do not touch the parts that have this mark to avoid scald.



Fig 1-3-1

- ② The mark as fig as 1-3-2 cannot be removed or replaced randomly. Generally it is in the position of electrical parts.

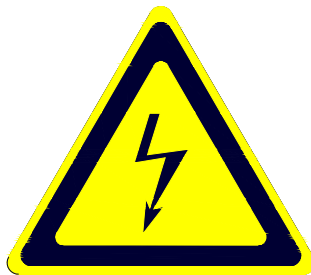


Fig 1-3-2

- ③ It has clamping hazard on the transition device part. Do not repair the machine while it is running. Do not stretch hands into the parts where have the mark as fig 1-3-3.



Fig 1-3-3

Note: while working please make sure recognize other marks to operate the machine safely and avoid danger.

1-4 Fix and installation

The machine must be installed on the dry, flat, strong ground and near to power supply.

The power supply should be conform with that on the machine nameplate.

The installation place should accord with following conditions:

Temperature -20°C-40°C

Moisture ≤90%RH

Base Max load 350kg/m²

Space Min: 2000mm×1500mm

Other Dry and ventilated, far away from smoke and corrosive materials.

1-5 Space required for machine installation

1-5-1 AS-50F dimension (Fig.1-5-1)

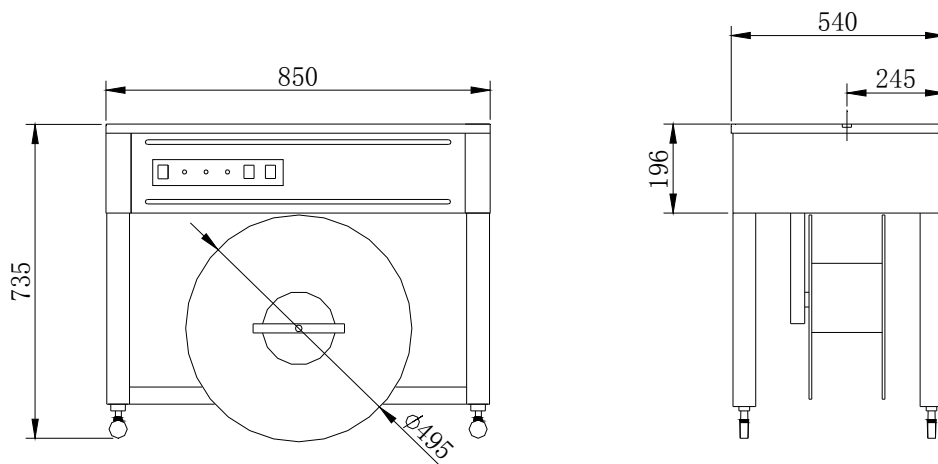


Fig. 1-5-1

1-5-2 AS-50C dimension (Fig.1-5-2)

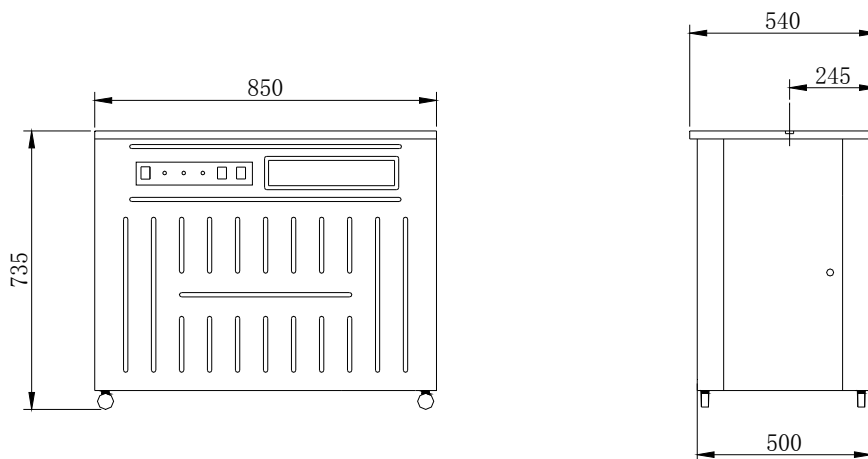


Fig. 1-5-2

1-5-3 AS-50L dimension (Fig.1-5-3)

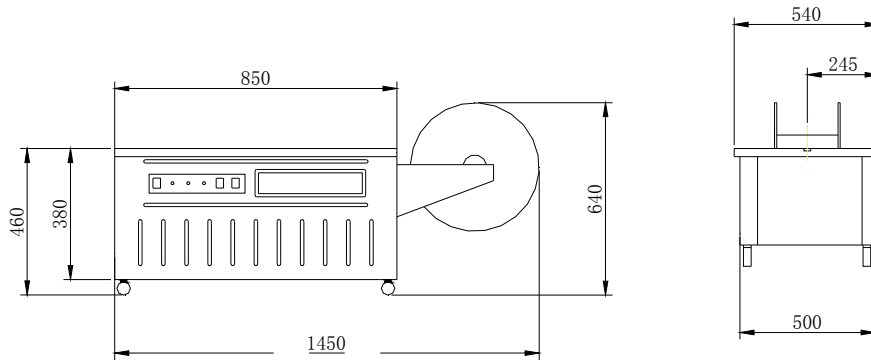


Fig. 1-5-3

1-6 Transportation and storage

If long-distance transport or long-term store the machine, it should be packaged by wooden case or strong carton and fixed on the hard backing board. Put absorption of moisture and coat rust inhibitor in the machine. Do not place any heavy goods on top of the case. Do not put the machine inverted during transportation and storage.

After long-distance transport or long-term storage, please check all the moving parts before connect to the power supply.

1-7 Movement

Moving by forklift (see Fig. 1-7-1). Make sure that no violent collision occurs and the center of the gravity is steady while moving, in case the machine is damaged or the parts are loose leading to the failure of machine.

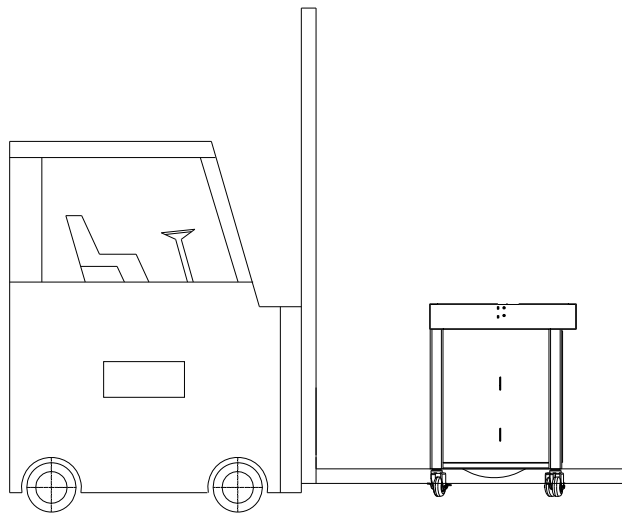


Fig.1-7-1

2 PREPARATION BEFORE RUNNING Install strap coil

The installation method accord to Fig. 2-1-1:

Step:

- 1) Screw off the hand wheel.
- 2) Quit the front strap reel.
- 3) Put in the PP strap with correct direction.
- 4) Close the front strap reel.
- 5) Tighten the hand wheel clockwise.

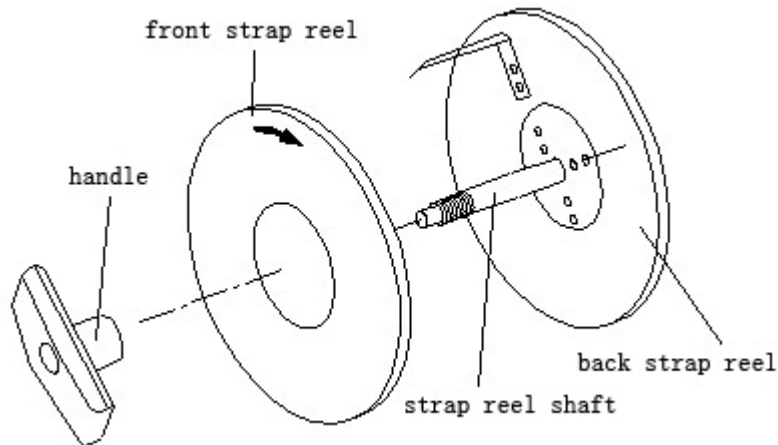
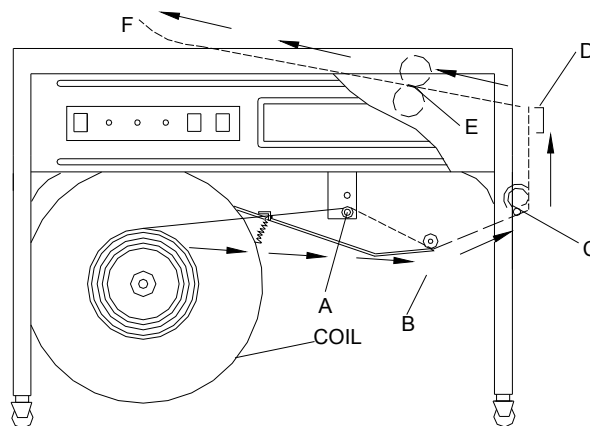


Fig. 2-2-1 chart of strap reel

2-2 Strap threading step

2-2-1 Diagrammatic sketch of threading strap for AS-50F

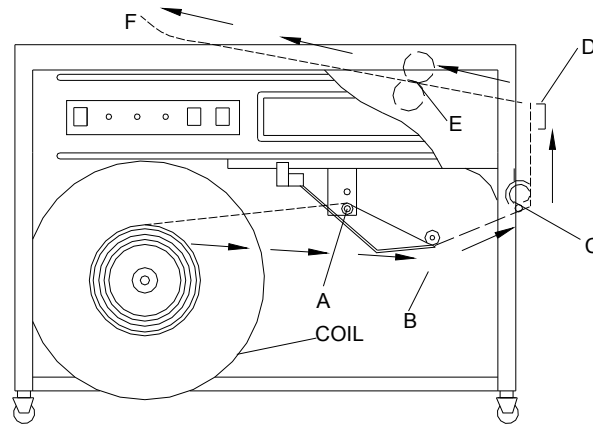


Step:

- 1) Pull the PP straps from the strap reel about one meter.
- 2) Pass the straps through ring (A) and (B), then to transition wheel (C), and come out from the side.
- 3) According to the indication, insert the head of the straps to (D)
- 4) Continue to feed straps until it pass through the rollers (E) .

- 5) Press the feeding straps button which can feed straps. The strap comes out from (F) point. Then finish threading strap.

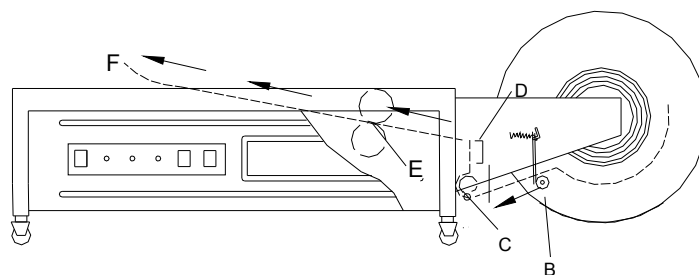
2-2-2 Diagrammatic sketch of threading strap for AS-50C



Step:

- 1) Open the left side door and put the loaded strap reel in the case according with the right direction.
- 2) Close the left side door and open the right side door. Pull the PP straps from the strap reel about one meter.
- 3) Pass through ring (A) and (B), to transition wheel (C) , out from the side face, and then close the right side door.
- 4) According to the indication insert the head of the straps to (D) .
- 5) Continue to feed straps until it pass through the rollers (E) .
- 6) Press the feeding straps button which can feed straps. The strap comes out from (F) point. Then finish threading strap.

2-2-3 Diagrammatic sketch of threading strap for AS-50L



Step:

- 1) Pull the PP straps from the strap reel.
- 2) Pass the straps through ring (B), then to transition wheel (C) .
- 3) According to the indication, insert the head of the straps to (D) .
- 4) Continue to feed straps until it pass through the rollers (E) .
- 5) Press the feeding straps button which can feed straps. The strap comes out from (F) point. Then finish threading strap.

2-3 Description of control panel button

2-3-1 The control panel is at the left part of front board. See Fig. 2-3-1

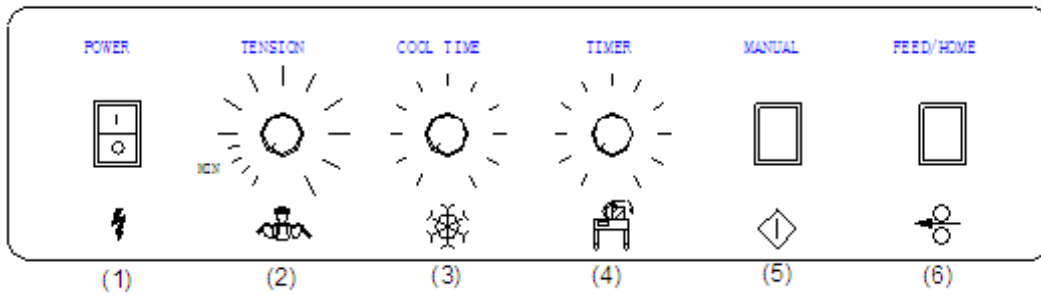


Fig. 2-3-1

(1) Power switch (POWER)

Turn on the switch, the red light is on and the machine can operate. Turn off the switch, cut off the power, the machine stop running.

(2) Tension adjusting button (TENSION)

Rotate the button and the tension force will change accordingly. When the tensioning is small, the speed of retreat strap is slow. If the tensioning is big, the speed of retreat strap is faster.

(Note: when the tensioning is big, please careful to operate and avoid hurt from PP strap.)

(3) Cooling adjustment button (COOL TIME)

Rotating the knob can avoid the strap burst when the tension force is too big or PP strap too thin.

(4) Length adjustment button (TIMER)

Each scale is about 500 mm, clockwise adjustment, the tie will be more long; otherwise, it will be much shorter.

(5) Manual start button (MANUAL)

You can manually start LS4 switch, with the same function Of PP band interpolation

(6) Manually send back with buttons (FEED/HOME)

The machine shows “zero” (green light is bright), You can press the button and manually into the PP band. At the same time press the button in the back with a belt can also be zero .

2-3-2 The function of potentiometer on PCB

RV1

Adjust RV1, measure the voltage between two ends of capacitance C17. Adjust it clockwise, the voltage will increase and then the minimum tension increase. Adjust it anti-clockwise, the voltage will decrease and then the minimum tension decrease. (Usually it is adjusted before deliver and no need to adjust again.)

RV2

When the machine starts, it has 15 second to warm up. When it warms up, the indicator on the PC board flickers. The warm up process stops if the indicator not flickers. Adjust RV2 clockwise, the heating voltage between two ends of the heater increase. Adjust it anti-clockwise, the heating voltage between two ends of the heater

decrease. (Usually it is adjusted before deliver and no need to adjust again if the temperature can reach requirements.)

2-4 Instruction of adjustment

1. Temperature adjustment: You can see clearly on the distribution box, temperature increase when turn clockwise. The adhesive effect will be not very good if the temperature too is high or too low. So do not adjust too much for one time. Adjust it is between 4-6 will be OK.

2. Width adjustment: This machine is designed specially. Users can adjust (2) (3) (4) and benchmark' width (1) or (2) to use 6mm-15mm width PP straps. Generally, it will be 1mm longer than actual width. If the PP with poor quality, the width should be longer. Otherwise send back will be a failure. See Fig. 2-4-1:

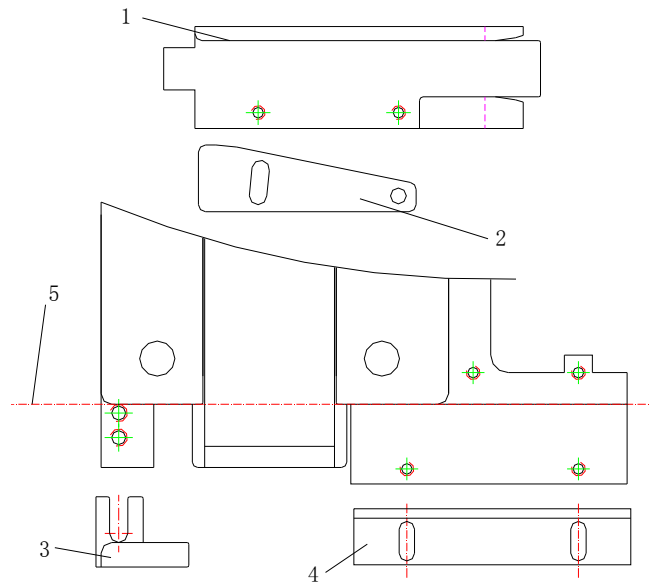


Fig. 2-4

3 START AND RUNNING Introduction of control system

There is intact electrical diagram in this manual. Now introduce the function of some micro switch and quick heater system. See Fig. 3-1-1.

LS1: In the LS2. When it is in home position, its contact point is hold out against by the cam of micro switch. After on cycle strapping, the program will control to send out PP strap automatically.

LS2: Outside of LS1. It is controlled by program to tension and cool.

LS4: Under the sliding board. When begin to strap, the strap head insert through the chute. A shrapnel makes it touch the contact point of switch and then begin to strap.

HL1: Quick heat piece is at the right side of fan. When the machine starts, it can reach the proper temperature within 20 second.

Fan1: Fan, it can exhaust smoke while strapping.

M1: Main motor controls the cam, cut strap and adhesive PP strap.

M2: Send and retreat strap motor. It controls sending strap and tensioning work.

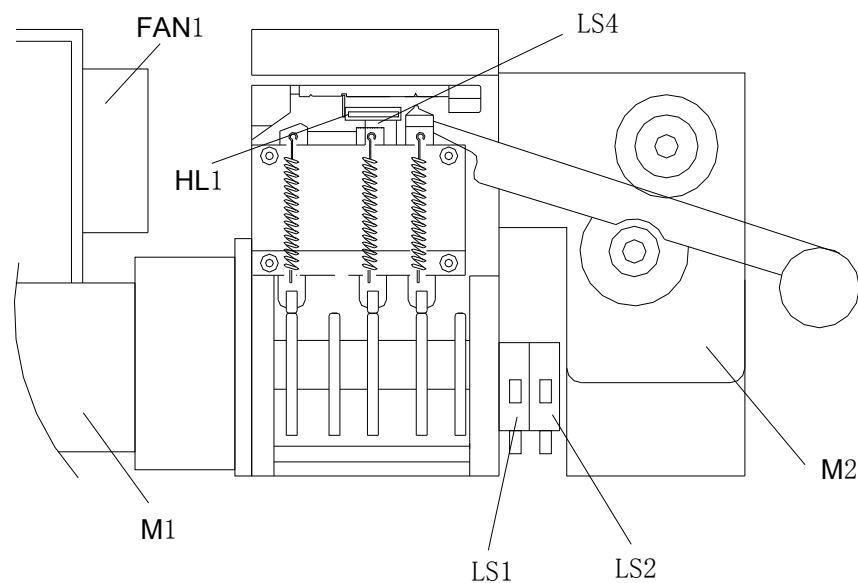


Fig. 3-1-1

3-2 Clean and adjustment

1.) Up skateboard

The up skateboard should be exactitude cooperate with left and right press bar. And we must keep the skateboard move up and down, left and right freely. So this part must keep clean and often maintain. See Fig. 3-2-1 and the process as following:

- A. Take away the pull spring which is on the sway rocker that under the skateboard.
- B. Move backward the up skateboard and take out.
- C. Wipe clearly the slot part between up skateboard and left right press bar.

- D. Moving the up skateboard forward and backward to check whether it moves smoothly or not. If need adjust, skate on the right aim at front top slot, left slot aim at back top slot, assure middle knife can drop and cut.
- E. Add some lubrication oil in the gap between skateboard and press bars.

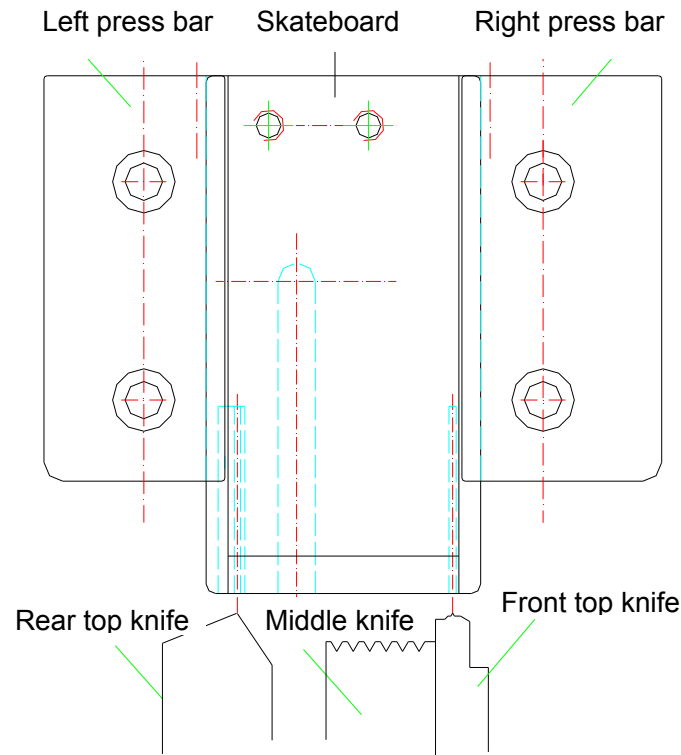


Fig. 3-2-1

2.)Micro-switch cam

The position of micro-switch cam related to the action of micro switch LS1 and LS2. When the machine is zero set, LS1 is close circuit and LS2 is open circuit. Because LS1 and LS2 join together, do not need to consider the adjustment method of LS1 and LS2. Loosen the fixed screw. The cam have three faces, one high, one concave and one normal. When LS1 adjust to the highest face, it is close circuit. When LS1 adjust to the normal face, it is open circuit.

3.)Middle knife and front top knife

The middle knife and front top knife must cooperate exactly to cut off strap. So the clear and maintenance are very important. See Fig. 3-2-2, the step as following:

- A. Take away the pull spring of middle knife and front point knife.
- B. Move the up skateboard backward, take out the middle knife and then take out the front point knife.
- C. Wipe the middle knife, front top knife and knife groove clearly.
- D. Fit on the front top knife, and then install the middle knife and spring.
- E. Add some lube to around the middle knife, front top knife and back top knife.

- F. If the middle knife and front top knife cannot cut off the strap after long-term usage, take out the middle knife, take out the spring fixing screw and fit to the other side. And then install the middle knife. So that changes to the sharp incision.

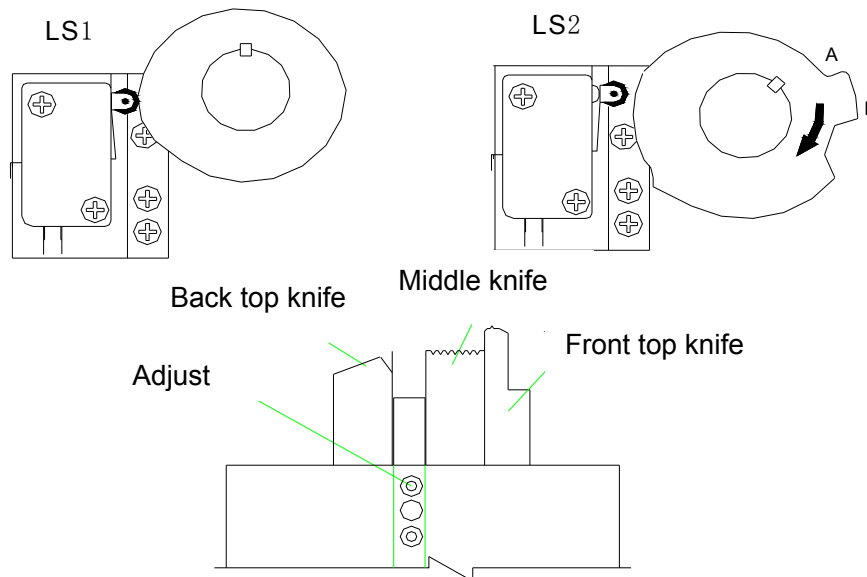


Fig. 3-2-2

4 MAINTENANCE AND LUBRICATION

The material of the strap is PP, which is easily out of shape if in high temperature and fire. Please do not place the strap near the inflammable and explosive products. If the strap is bend or out of shape, the machine may appear trouble and cannot strap normally. Cleaning and lubricating is important measures to prolong its service life. The strap powder and slices can be caused by friction during the strapping and usually gather in space between machine head and electrical component. The powders must be cleaned up in time, at least once a week. (Cut off the power supply during cleaning.)

4-1 Once a week maintenance regulation

Open the table panel, use air gun to blow the powder and clean inside of the machine with lubrication oil.

1. Movement part of up and down skateboard.
2. Movement part of heater.
3. Holes of the three knives .

Check the force of all spring. Check whether the strap store balance pole is flexible through simple movement.

Strap several cycles, check the visible and audible trouble.

4-2 Once a month (strapping 100000 cycles) maintenance regulation

Check whether bearing of machine head is flexible.

Whether the strap sending roller is flexible

Whether the temperature of heater changes

Whether the gear wheel has been worn

The force of spring is correct.

4-3 Once half a year (strapping 600000 cycles) maintenance regulation

Check the heating device. If necessary, replace it.

Check the joint piece of PC board.

Check the function of every switch,

4-4 Once a year (strapping 1200000 cycles) maintenance regulation

Clean the inside parts and adds lubrication oil.

4-5 Parts list

Code	Description	Quantity	Remark
GB25	Inner hexagon spanner	1	M2.5
GB30	Inner hexagon spanner	1	M3
GB40	Inner hexagon spanner	1	M4
GB50	Inner hexagon spanner	1	M5
GB0810	Open spanner	1	8x10
GB1214	Open spanner	1	12x14
GA04	Cross screwdriver	1	4

5 TROUBLE EXAMINE AND REPAIR

Here list some common trouble. Users can solve it refer to the following list.

Warning:

Please make sure turn the switch to [O] (OFF) position. Pull out the plug and screwing out the bolts that fix the table panel. Open the panel to adjust. It may occur shock or hurt caused by machine start. Screw up the bolt and then get through power supply.

Warning:

When repair the machine must be our company's serviceman, or trainee who has accept "service and technical lecture" to repair it. Non-electrical machinery person is strictly prohibited to disassemble and repair.

Trouble, cause and troubleshooting

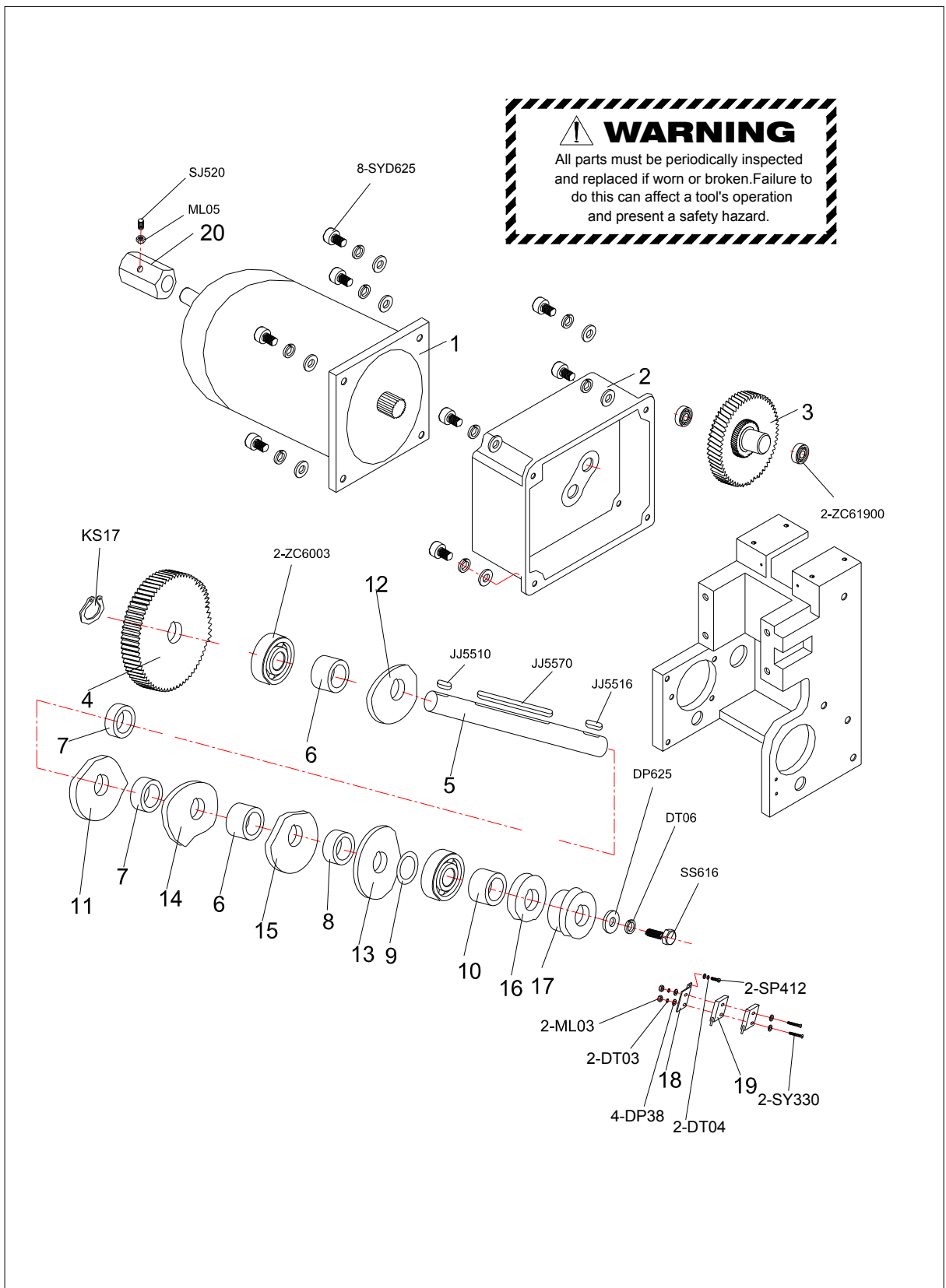
No	Trouble	Cause	Troubleshooting
1	No action after insert the strap	LS4 micro switch fault	LS4 micro switch fault or shrapnel is blocked by foreign material and cannot touch connect point.
		PC board or switch power not good	Replace PC board or switch power
2	Not send strap automatically	The potentiometer that control the length on null line	Adjust the feed strap knob, every scale about one meter. Adjust clockwise, adjust scope bigger send strap longer. No sending strap when it is in zero position
		Thread strap incorrectly	Thread the strap according to the manual or the diagrammatic sketch at the right side of the door.
		There is foreign material in the up and down extension.	Clean the machine periodically.
3	Not cut strap	The bearing of middle knife is broken	Cause by improper operation. Replace the bearing
		Cutter of the middle knife is worn	There are two cutter sides. Change to another side to continue.
4	Adhesive not good	Temperature adjust improper	If the max temp. can no adhesive well, adjust the W2 on the PCB to increase the temp.

		The spring on the heater fault	The spring is exhausted. Replace it.
		Heater piece adjust improper	Heater piece is not in right position and touch the PP strap or knife, so that it cannot heat. Adjust it accordingly.
		The bearing of middle knife is broken	Replace the bearing
		The temperature is too high	Check whether the fan is faulty. Repair or replace it.
		The tension force is too large	Adjust to make the tension smaller. Or increase the cooling time.
5	Cannot reset	LS4 micro switch fault	LS4 contact point cannot release. Adjust the shrapnel gap. Check if there anything blocks the shrapnel.
		LS1 not good	Cannot detect the position. PCB faulty lamp flicker. Replace LS1
6	Cut strap while no tension	LS2 not good	Retreat strap cannot detect the position. PCB faulty lamp flicker. Replace LS2
		Tension is too small	Adjust to make the tension bigger. Adjust W1 on PCB to make it bigger.

Detailed parts list

No	Code	Description	Qty
01	AS1-11	1# knife combination	1
02	AS1-12	2# knife combination	1
03	AS1-13	3# knife combination	1
1	A0200	Mechanism base	1
2	A0173	Right press bar	1
3	A0172	Left press bar	1
4	A0171	Up skateboard	1
5	A0191	Up skateboard barrier sheet	1
6	A0192	Skateboard pull rod	1
7	A0205	adjusting block	1
8	A0214	Spring drawing board	1
9	A0204	Skateboard arm	1
10	A0201	Electric heating arm	1
11	AS1-114	1# knife	1
12	AS1-117	2# knife	1
13	AS1-118	3# knife	1
14	A0107	Cross bar	1
15	A0131	Contacts copper sleeve	1
16	A0130	Bottom slide contact	1
17	EW001	Micro switch, no roller	1
18	A0107	Cross bar	1
19	A0206	Heat-resistant cover	1
20	A1079	Electric heating head	1
21	A1081	Electric heating press sheet	1
22	A1080	Electric heating bakelite sheet	1
23	A0202	Electric head fixed block	1
24	A0203	Electric heating fixing board	1
25	A0209	Rocker arm shaft	1
26	A0210	Rocker arm shaft sleeve	1
27	AS1-115	Knife neck	3
28	AS1-116	Knife screw	3
29	AS1-513	Cross bar screw	1
30	HL101122	Long extension spring $\phi 1.0 \times \phi 10.8 \times 22$	2
31	A0211	Send with spring	2
32	A1100	Tensioning press spring	1
33	HY231042	Spring in knife $\phi 2.3 \times \phi 10 \times 42$	3
34	A0132	Skateboard extension spring	2
35	A1094	Electric tension spring	1
36	HL121020	Short extension spring $\phi 1.2 \times \phi 10 \times 20$	1

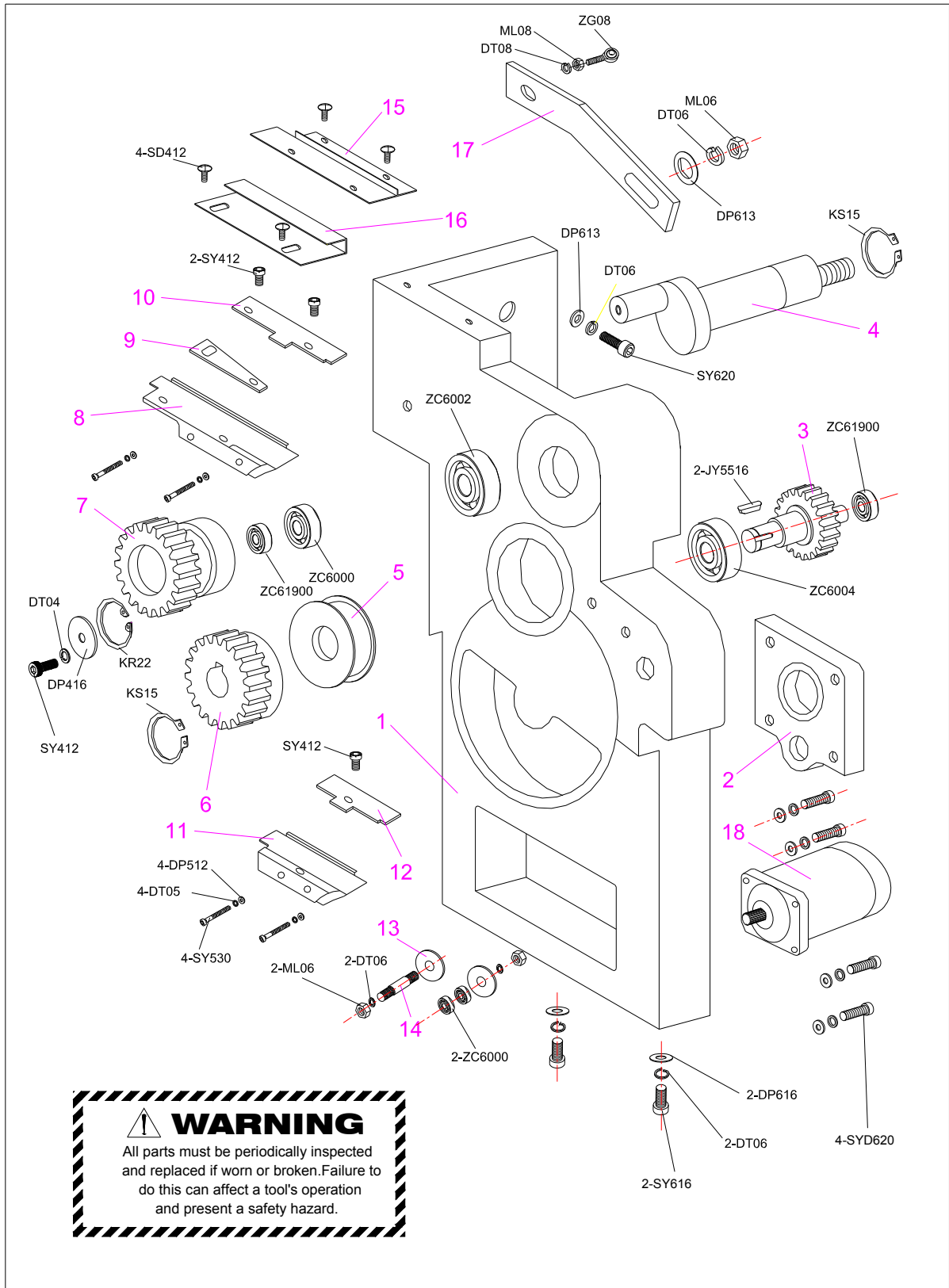
6-2 Cam and reduction gear box assembly



Detailed parts list

No	Code	Description	Qty
1	EA012	DC cam motor	1
2	A0150	Gear box cover	1
3	A0152	Transition gear wheel	1
4	A0151	Output gear wheel	1
5	A0207	Cam shaft	1
6	DJ172912	Cushion ring $\phi 17*29*12$	2
7	DJ17298	Cushion ring $\phi 17*29*8$	2
8	DJ17296	Cushion ring $\phi 17*29*6$	1
9	DW17295	Cushion ring $\phi 17*29*0.5$	1
10	A0208	Cam spacer	1
11	A0139	Skateboard cam	1
12	AS1-207	3# knife cam	1
13	AS1-208	Electric heating cam	1
14	A0140	2# knife cam	1
15	AS1-205	1# knife cam	1
16	AS1-210	Cross bar reset cam	1
17	A0137	Retreat strap cam	1
19	AS1-215	Micro switch base sheet	1
21	EW002	Micro switch, with roller wheel	2
24	A0153	Motor fixing sleeve	1

6-3 Send and retreat strap assembly



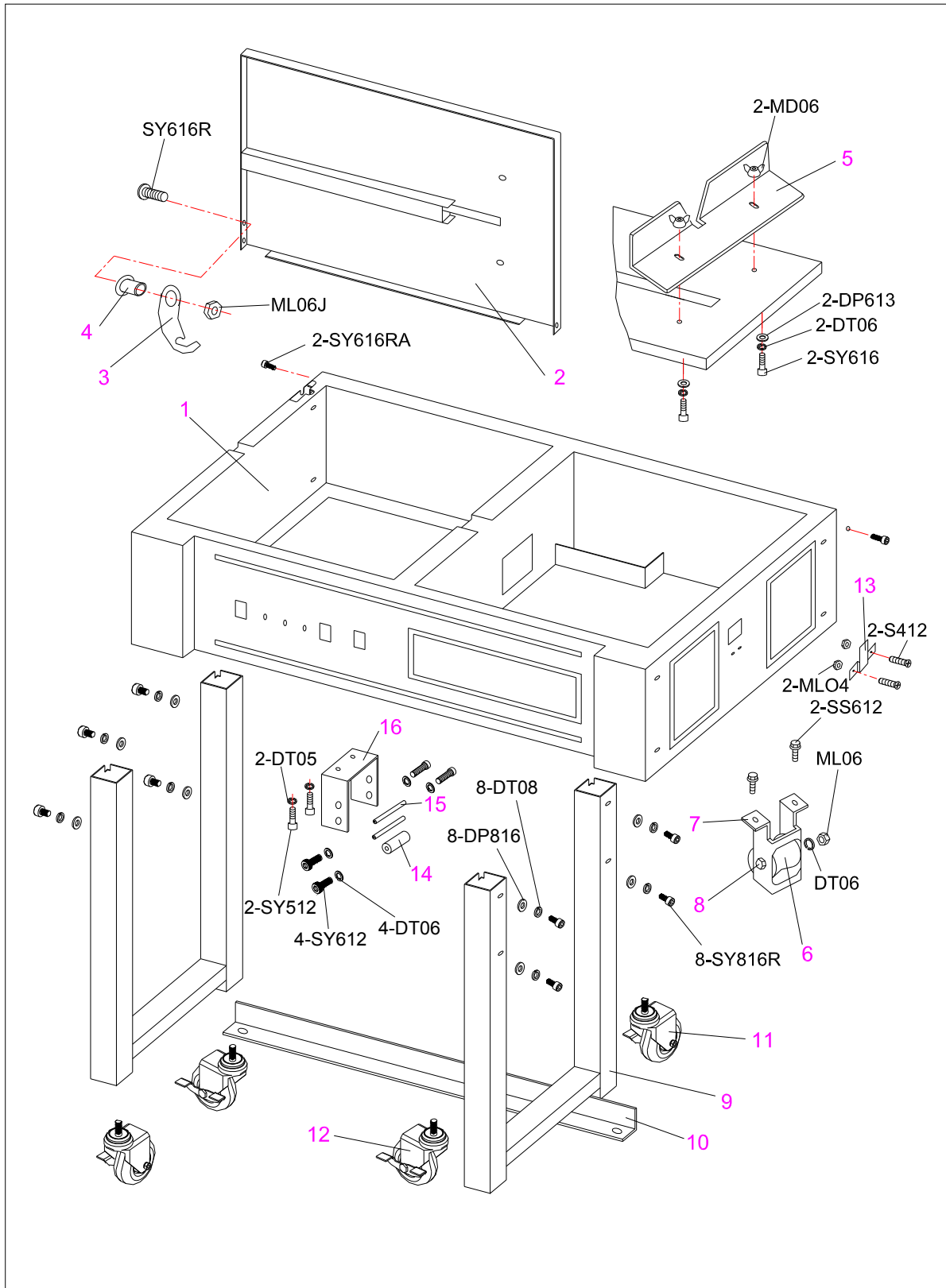
WARNING
 All parts must be periodically inspected and replaced if worn or broken. Failure to do this can affect a tool's operation and present a safety hazard.

Detailed parts list

No	Code	Description	Qty	Remark
1	A0180	Belt sending base	1	
2	A0181	Gear cover	1	
3	A0182	Reduction gear	1	
4	A0184	Eccentric shaft	1	
5	A0183	Send pulley	1	
6	A0220	Iron gear	1	
7	A0221	Driven wheel	1	
8	A0186	Upper strap way	1	
9	A0105	Adjustment board	1	
10	A0188	Upper strap way cover	1	
11	A0187	Lower strap way	1	
12	A0189	Lower strap way cover	1	
13	A0170	Pulley gasket	2	
14	A0190	Pulley shaft	1	
15	A0222	Insert aluminum plate	1	
16	A0223	Insert belt adjustment board	1	
17	A0185	Tighten rod	1	
18	EA013	DC motor retreat	1	

6-4 AS-50F, AS-50C, AS-50L machine frame

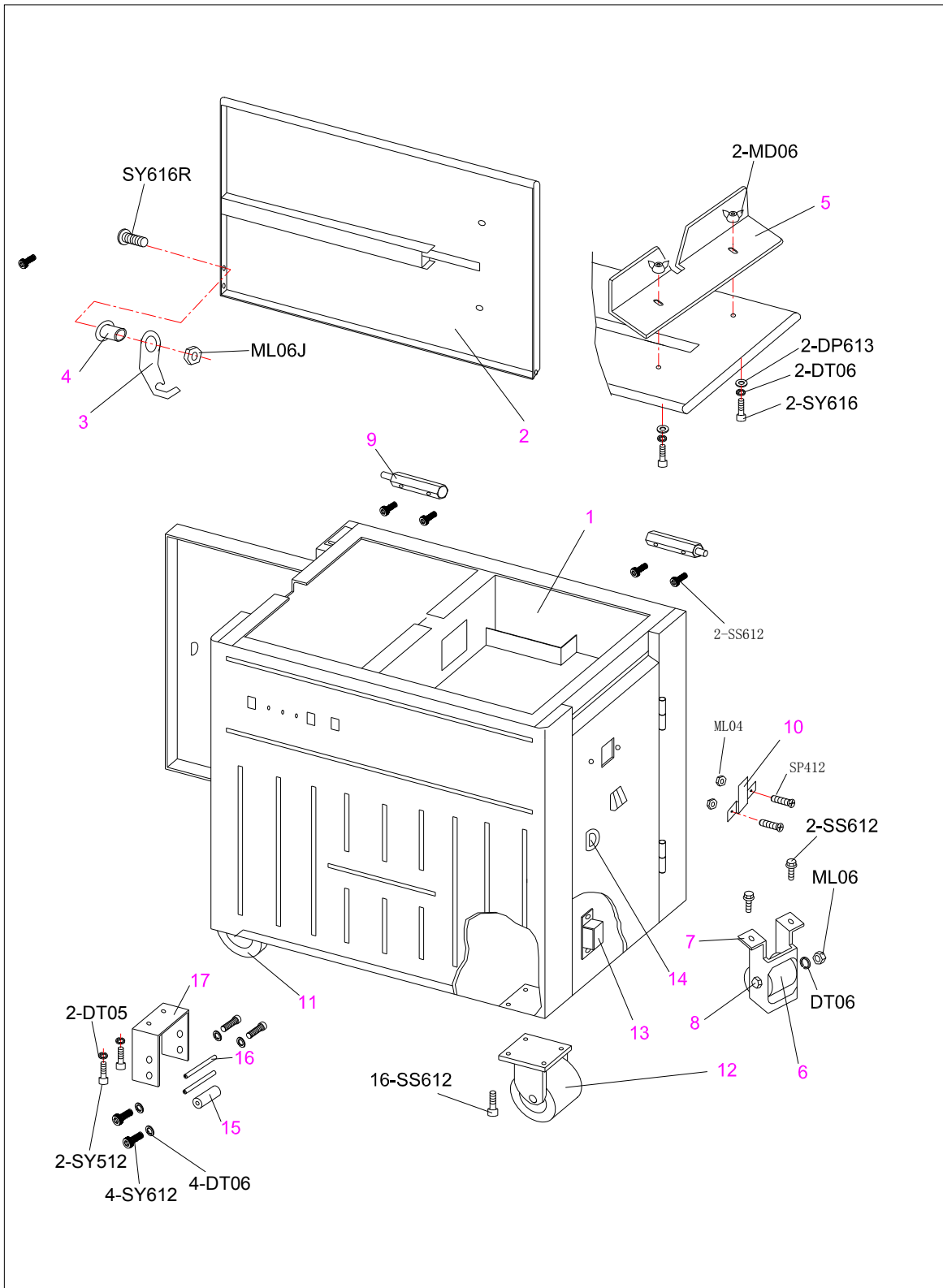
6-4-1 AS-50F machine frame



Detailed parts list

No	Code	Description	Qty
1	A0010	AS-50 frame	1
2	A0011	AS5 stainless steel table panel	1
3	AS1-611	Arch support	1
4	AS1-612	Cover support punch sleeve	1
5	A0090	Stainless steel iron blocking device	1
6	AS1-614	Guide strap pulley	1
7	A0014	Pulley rack	1
8	AS1-615	Guide strap pulley shaft	1
9	A0016	Angle iron legs tube	0-2
	A0018	Square tube legs tube	0-1
10	A0017	Angle iron beams strengthened	0-2
	A0019	Square tube beams strengthened	0-1
11	LA1675	Screw stem universal castor	2
12	LB1675	Screw stem universal castor with brake	2
13	AS1-601	Door Strap way	1
14	A0027	Strap way pulley	1
15	A0028	Strap way pulley shaft	2
16	A0029	Strap way pulley rack	1

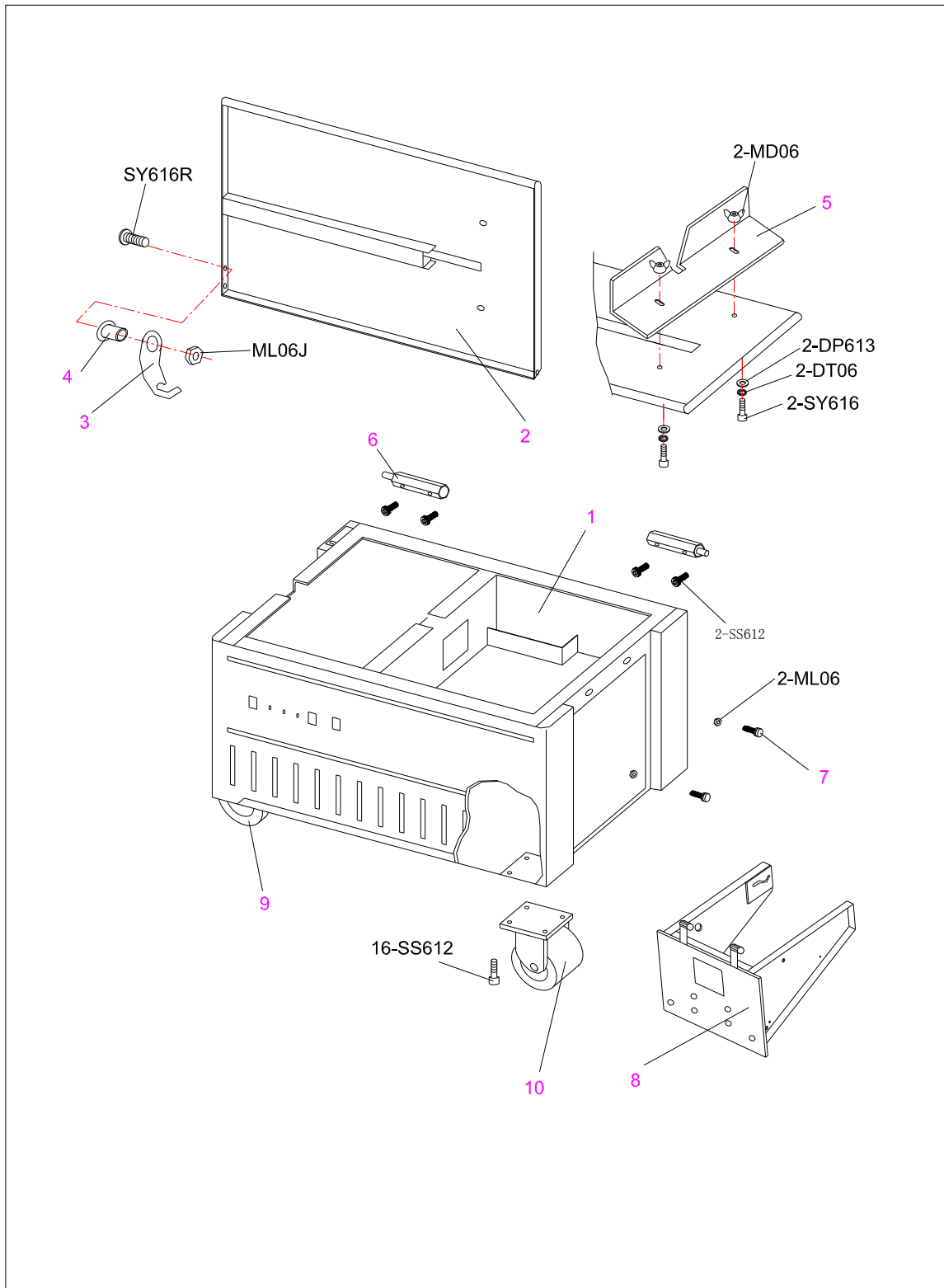
6-4-2 AS-50C Machine frame



Detailed parts list

No	Code	Description	Qty
1	A0020	AS-11 frame	1
2	A0021	AS5 Stainless steel panel	4
3	AS1-611	Arch support	1
4	AS1-612	Cover support punch sleeve	1
5	A0090	Stainless steel iron blocking device	2
6	AS1-614	Strap way pulley	2
7	A0014	Pulley rack	2
8	AS1-615	Strap way pulley shaft	1
9	A0025	Panel support shaft	2
10	AS1-601	Door Strap way	1
11	LA75	Flattop universal castor	2
12	LB75	Flattop universal castor with brake	2
13	CD50	Door magnet	4
14	AS1-608	Door holder plastic cement	2
15	A0027	Strap way pulley	1
16	A0028	Strap way pulley shaft	2
17	A0029	Strap way pulley rack	1

6-4-3 AS-50L Machine frame parts

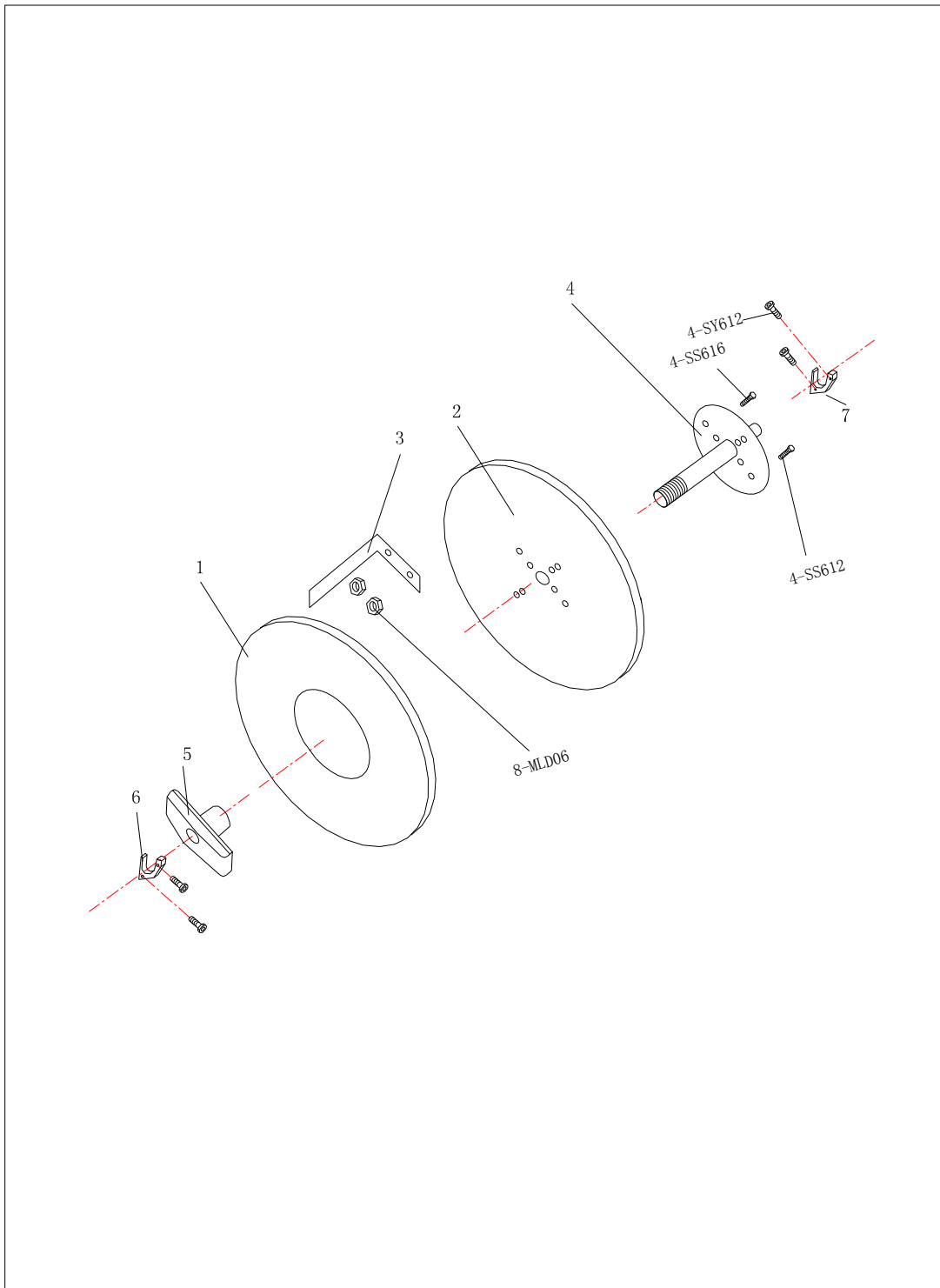


Detailed parts list

No	Code	Description	Qty
1	A0030	AS-53 low table frame	1
2	A0021	AS5 Stainless steel panel	4
3	AS1-611	Arc support	1
4	AS1-612	Cover support punch sleeve	1
5	A0090	Stainless steel iron blocking device	2
6	A0025	Panel support shaft	2
7	A0033	knapsack hanging column	1
8	A0031	AS-53 knapsack	1
9	LA75	Flattop universal castor	2
10	LB75	Flattop universal castor with brake	2

6-5 Strap reel and brake assembly

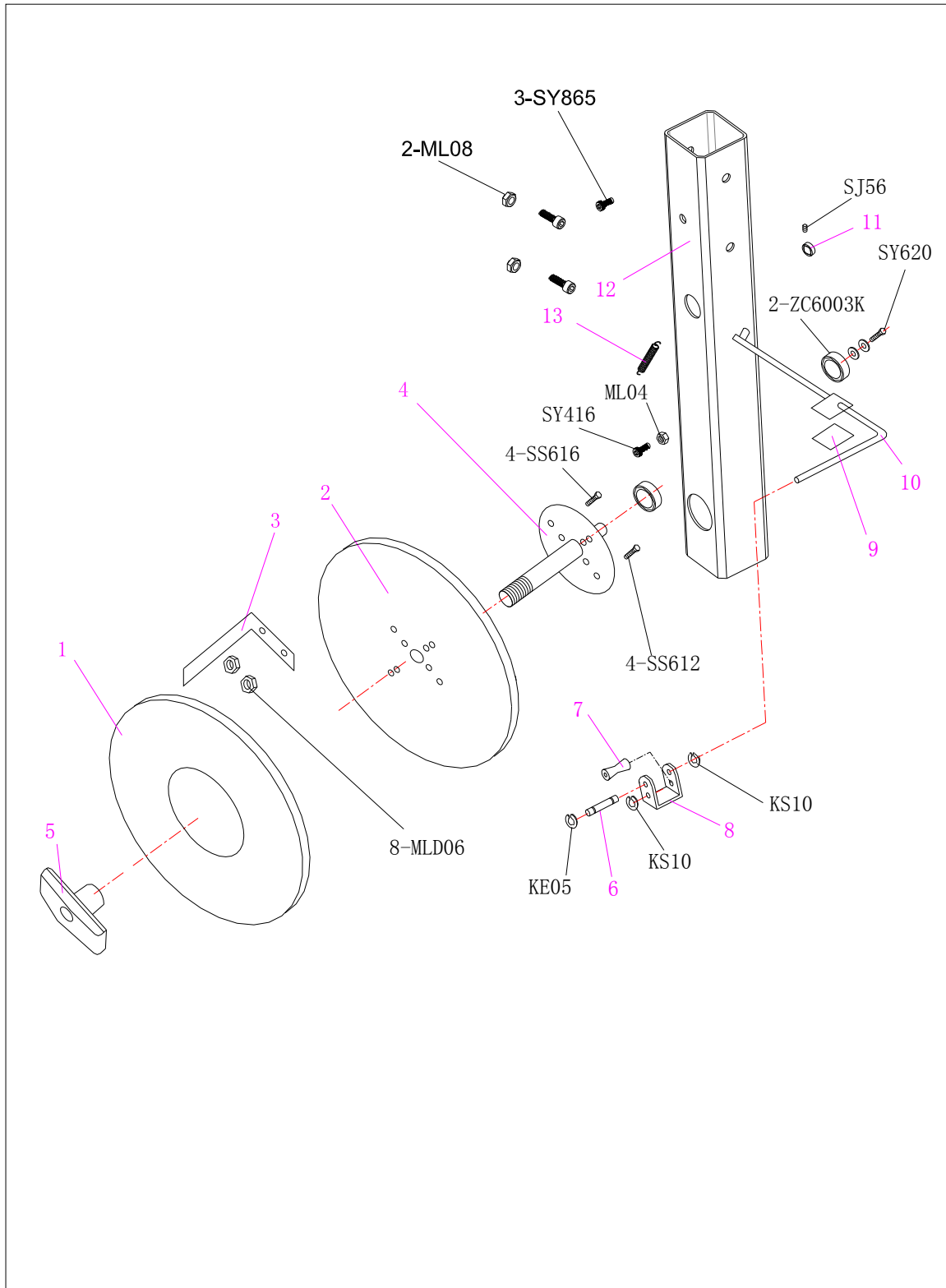
6-5-1 AS-50C, 50L strap reel assembly



Detailed parts list

No	Code	Description	Qty
1	A0061	Outside strap reel	1
2	A0060	Inside strap reel	1
3	A0402	Brace claw	4
4	A0051	AS-11 strap reel shaft	1
5	AS1-709	Handle	1
6	AS1-710	Nylon bracket (left)	1
7	AS1-711	Nylon bracket (right)	1

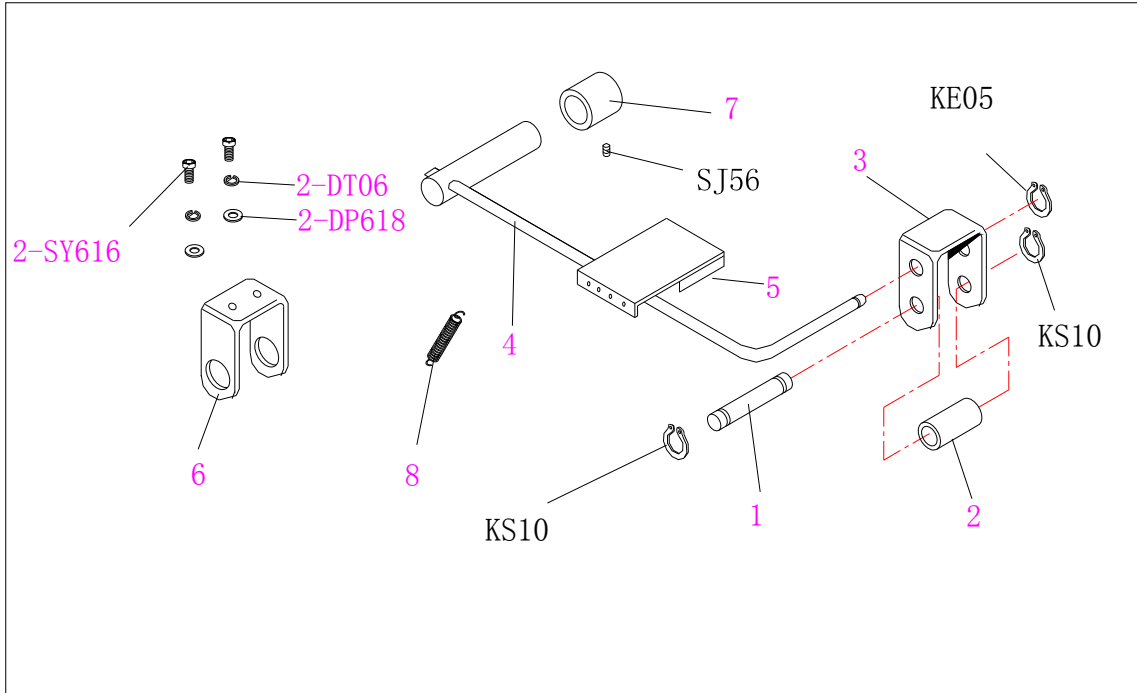
6-5-2 AS-50F Strap reel and brake assembly



Detailed parts list

No	Code	Description	Qty
1	A0061	Outside strap reel	1
2	A0060	Inside strap reel	1
3	A0402	Brace claw	4
4	A0050	AS-10 strap reel shaft	1
5	AS1-709	Handle	1
6	AS1-801	Brake rod pulley Shaft	1
7	AS1-802	Brake pulley	1
8	AS1-803A	Brake rod roller wheel support	1
9	AS1-814	Brake belt	1
10	A0015	AS-10 brake rod	1
11	A0064	Small fixed sleeve	1
12	A0404	Reel support tube	1
13	A0400	Brake spring	1

6-5-3 AS-50C brake parts



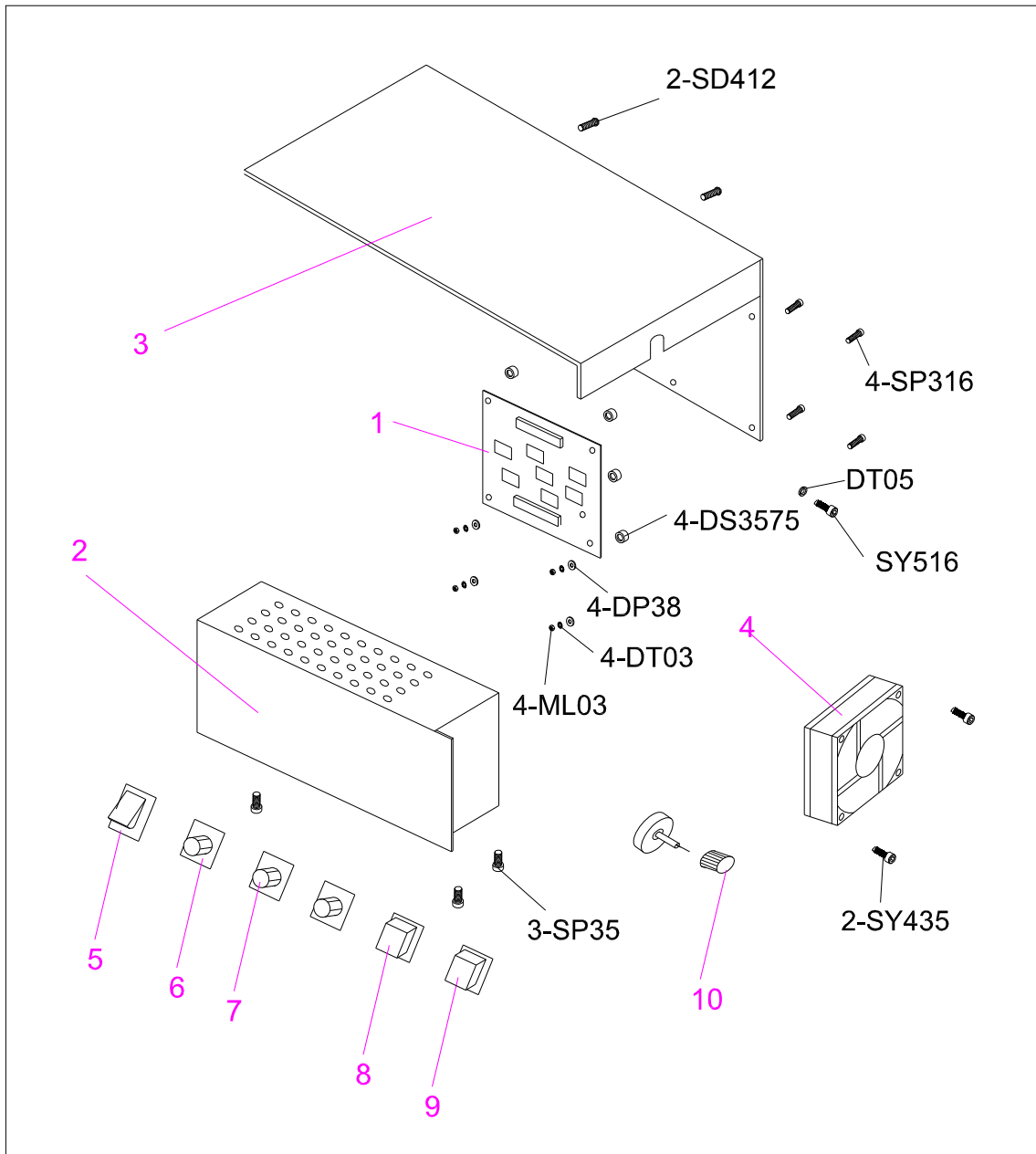
Detailed parts list

No	Code	Description	Qty
1	AS1-801	Brake rod pulley shaft	1
2	AS1-802	Brake pulley	1
3	AS1-803	Brake rod roller wheel rack	1
4	A0024	AS-11 brake rod	1
5	AS1-814	Brake belt	1
6	A0023	AS-11 brake support	1
7	A0064	Small fixed sleeve	1
8	A0400	Brake spring	1

Detailed parts list

No	Code	Description	Qty
1	AS1-801	Brake rod pulley	1
2	AS1-802	Brake pulley	1
3	AS1-803	Brake rod roller wheel rack	1
4	AS1-814	Brake belt	1
5	AS1-827	Low table brake rod	1
6	AS1-828	Fixed strengthen rod	1
7	AS1-829	Spacer ring	2
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9	AS1-601a	Door strap way	1
10	A0034	Pulley bracket	1
11	AS1-614	Guide strap pulley	1
12	AS1-615	Guide strap pulley shaft	1
13	HL1195130	Low table spring $\phi 1.1 \times \phi 9.5 \times 130$	1

6-6 AS-50F,50C,50L electrical parts



Detailed parts list

No	Code	Description	Qty
1	APC-10N1	PC board combination, APC-10N1	1
2	ED001	250W switch power supply	1
3	A0013	Electrical box cover	1
4	EF001	Micro fan 24VDC	1
5	EK002	Red switch	1
6	EP002	Potentiometer 250K	4
7	UN001	Rotate button (black)	3
8	EN001	Yellow button	1
9	EN002	Green button	1
10	UN002	Rotate button (red)	1

7 ELECTRICAL SCHEMATIC DIAGRAM

