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Warnings: In order to use the machine safely, please read following warnings before operation.

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

Warning: 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: 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 wet products.

Warning: please make sure pull out the plug if do not use the machine.

Warning: please do not put inflammable materials around the machine if the heater is in high temperature.

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 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	60mmx60mm
Max. packing size	Unlimited
Tension	5kg-50kg
Strap applicable (PP)	Width 6mm-15mm; thickness 0.5mm-0.85mm
Power supply	1p AC100-240V, 50Hz/60Hz
Power	0.25kW
Machine weight	90kg
Environment temperature	5-40
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

AS-10N overall dimension (fig1-5-1)

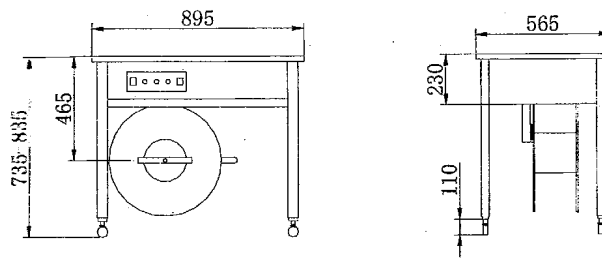


Fig 1-5-1

AS-11N overall dimension (fig1-5-2)

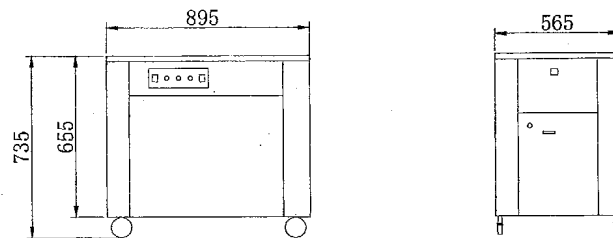


Fig 1-5-2

AS-13N overall dimension (fig1-5-3)

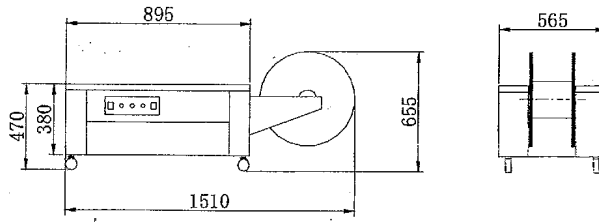


Fig 1-5-3

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.

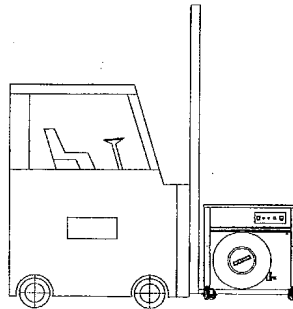


图 1-7-1

2. Preparation before running

2-1 Install strap coil

The installation method accord to fig 2-2-1 and 2-2-2:

Step:

- 1) Screw off the handwheel.
- 2) Quit the front strap reel.
- 3) Put in the PP strap with correct direction. Let the inner diameter clip in strap reel claw, if the inner diameter is wrong, adjust it.
- 4) Close the front strap reel.
- 5) Tighten the handwheel

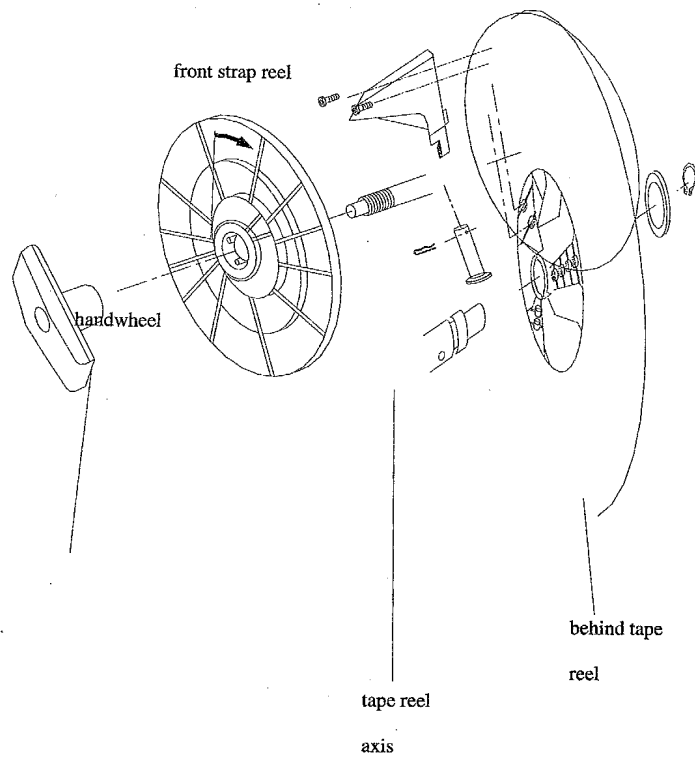


Fig 2-2-1 chart of strap reel

Please adjust strap reel's center claw according the following instruction, for different size of PP strap inner diameter.

- 1) Inner diameter of 200mm, up hole of plastic flange A to #1 and #3 .
- 2) Inner diameter of 230mm, up hole of plastic flange A to #2 and #4 .
- 3) Inner diameter of 80mm, up hole of plastic A to #3 and #5 .

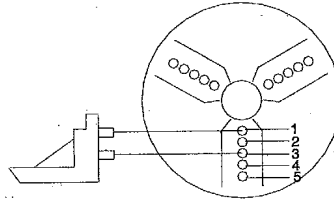
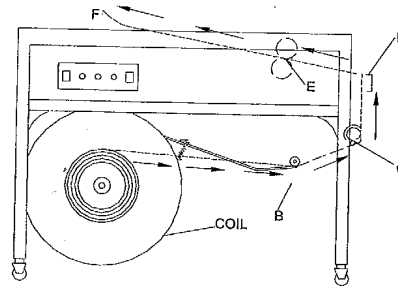


Fig 2-2-2 Chat of strap reel hole

2-2 Strap threading step

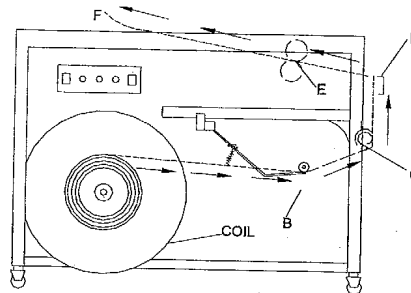
2-2-1 Diagrammatic sketch of threading strap for AS-10N



Step:

- 1) Pull the PP straps from the strap reel about one meter.
- 2) Pass the straps through ring (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-11N

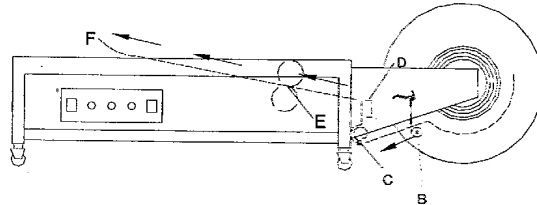


Step:

- 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 (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-13N



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

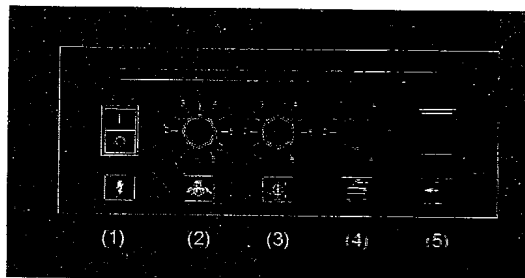


Fig 2-3-1

(1) Power switch

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

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) Manual feed/reset

When the machine is in home position, users can press the button to feed the PP strap manually. And press the button while retreating strap, it also can back to home position and send strap.

(4) Cooling adjustment button

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

(5) Length adjustment button

Rotating the button can make the PP strap sending out longer automatically.

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

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 between 4-8 will be ok.

Width adjustment: This machine is designed specially. It can use 6mm-15mm width PP straps. Users can adjust the relative width between adjustable guide strap groove adjusting block 1, the adjustable mainbody 2 and the adjustable insert band grooved up piece 3 and down piece 4 to reach width adjustment. A and B both are the middle model hole. See fig 2-4-1:

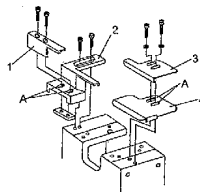


Fig 2-4-1

3. Start and running

3-1 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.

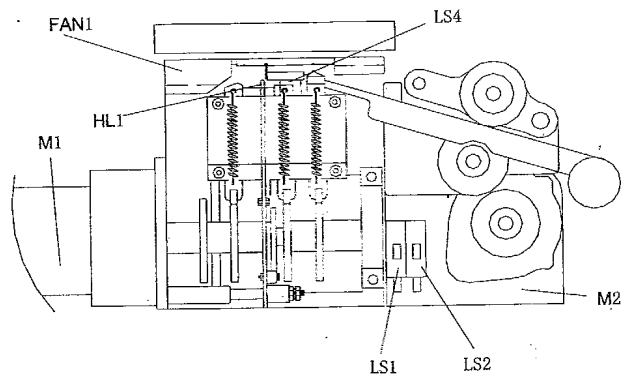


Fig 3-1-1

3-2 Clean and adjustment

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. Put the down skateboard into up skateboard; fix the screw of up skateboard in the slot of down skateboard.
- E. After fixed the up skateboard, install them in the slot of left and right press bar. And move forward a little, claw slot of up skateboard fix the spring pin of sway rocker.
- F. Move the up skateboard forward to fixed position. Install the spring into the screw of up sway rocker.
- G. Moving the up skateboard forward and backward to check whether it moves smoothly or not. If need adjust, do not move right press bar, only adjust the left press bar.
- H. Add some lubrication oil in the gap between skateboard and press bars.
- I. If the up skateboard can move smoothly, but still cannot back to home position, check whether the pull spring is fatigue. If it is, change it or cut short.

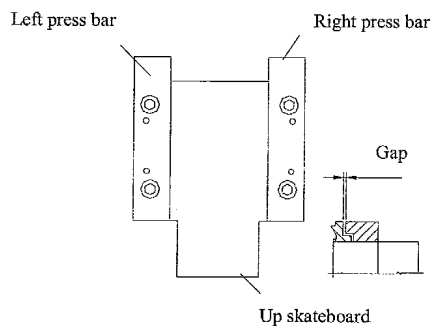


Fig 3-2-1

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.

Middle knife and front top knife

The middle knife and front top knife must cooperate exactitudly to cut off strap. So its clear and maintenance is 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 lite 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.

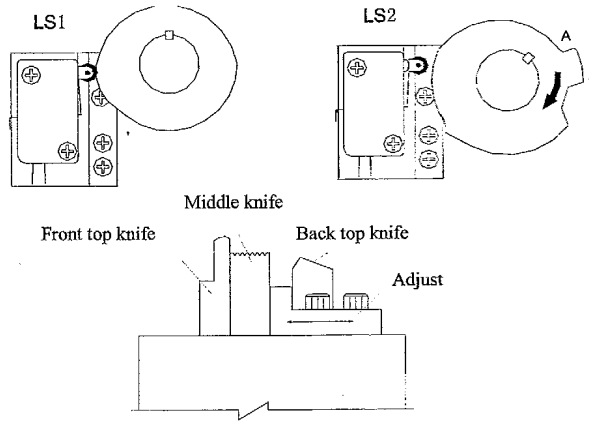


Fig 3-2-2

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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	Part no.
GQ11	Desiccant	1	
GB25		1	
GB30	Inner hexagon spanner	1	M3
GB40		1	
GB50	Inner hexagon spanner	1	M5
GB60		1	M10
GB1214	Open spanner	1	12x14
GB1215		1	

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.

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.

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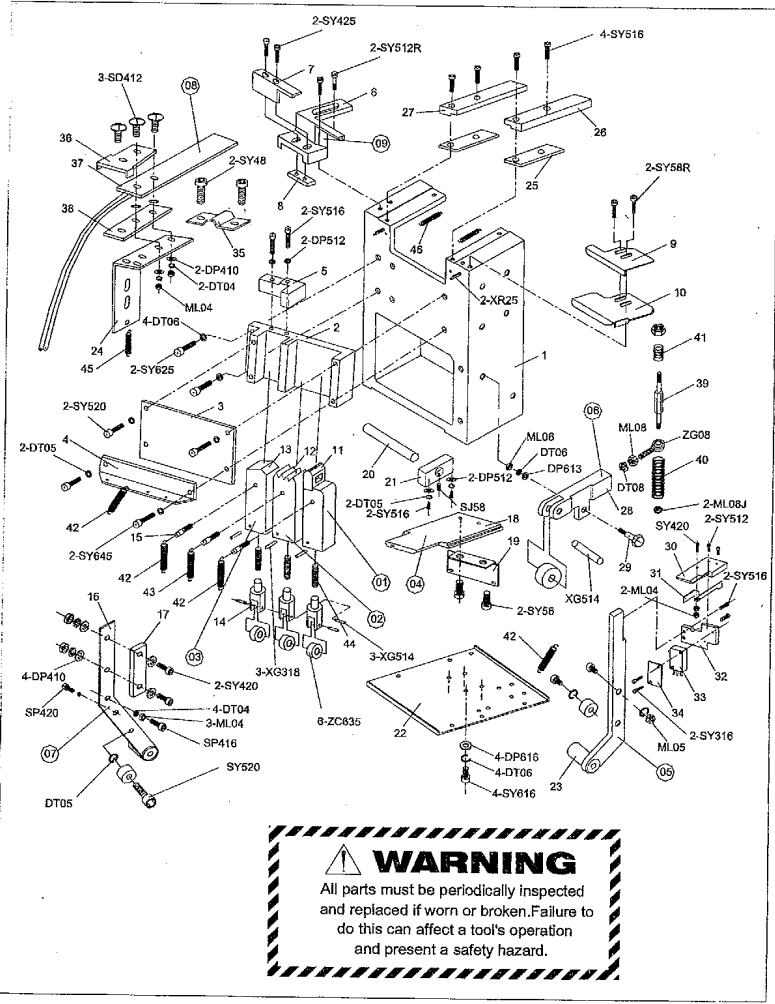
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6. AS-10N,AS-11N,AS-13N parts drawing and list
6-1 Knife and skateboard assemble

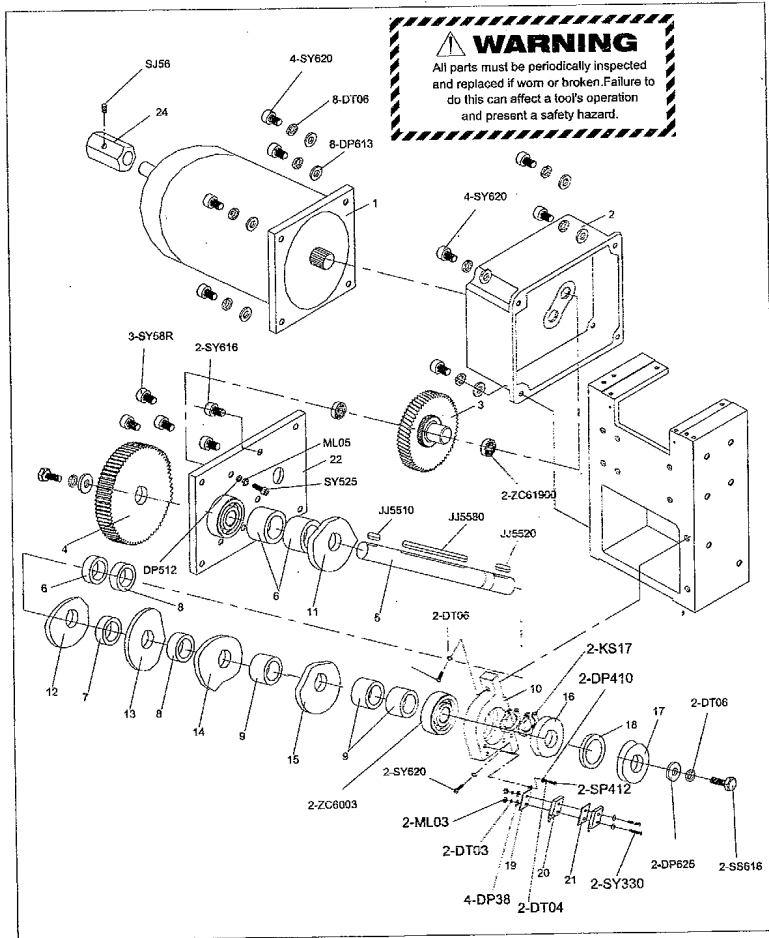


Detailed parts list

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
04	AS1N-16	Up skateboard combination	1
05	AS1N-15	Skateboard arm down skateboard combination	1
06	AS1-55	Cross bar combination	1
07	AS1N-51	Electric heating arm combination	1
08	AS1N-52	Electric heating head combination	1
09	AS1-55	Adjustable guide strap slot combination	1
1	A0082	Mechanism base	1
2	AS1-110	Knife base	1
3	AS1-111	Knife base press plate	1
4	AS1-113	Knife base spring rack	1
5	AS1-112	L type knife adjustment	1
6	AS1-516	Adjustable guide strap slot main body	1
7	AS1-517	Adjustable guide strap slot adjusting block	1
8	AS1-518	Adjustable guide strap slot fix slice	1
9	AS1-519	Adjustable insert strap slot slice	1
10	AS1-520	Adjustable insert strap slot down slice	1
11	AS1-114	1# knife	1
12	AS1-117	2# knife	1
13	AS1-118	3# knife	1
14	AS1-115	Knife neck	3
15	AS1-119	Knife screw	3
16	A0123	Electric heating arm	1
17	A0111	Electric heating arm head block	1
18	AS1-104	Up skateboard	1
19	A0115	Up skateboard barrier sheet	1
20	A0119	Rocker arm shaft base	1
21	A0121	ensioning adjust spring	1
22	A0082	Mechanism base board	1
23	A0122	Skateboard arm	1
24	A0112	Electric heating fixing board	1
25	A0118	Up skateboard backing board	1
26	AS1-102	Right press bar	1
27	AS1-103	Left press bar	1
28	A0107	Cross bar	1

29	AS1-513	Cross bar screw	1
30	A0116	Down skateboard	1
31	A1027	Down skateboard shrapnel	1
32	A0117	Down skateboard base	1
33	EW001	Micro switch, no roller	1
34	AS1-215	Micro switch base sheet	1
35	A1082	Wire press sheet	1
36	A1081	Electric heating press sheet	1
37	A1079	Electric heating head	1
38	A1080	Electric heating Bakelite sheet	1
39	A0108	Connecting nut	1
40	A1100	Tensioning press spring	1
41	A1091	Tensioning adjusting spring	1
42	HL101122	Long extension spring $\phi 1.0 \times \phi 10.8 \times 22$	4
43	HL121020	Short extension spring $\phi 1.2 \times \phi 10 \times 20$	1
44	HY231042	Spring in knife $\phi 2.3 \times \phi 10 \times 42$	3
45	HL050565	Electric heating small spring $\phi 0.5 \times \phi 5 \times 6.5$	1
46	A1092	Skateboard extension spring	2

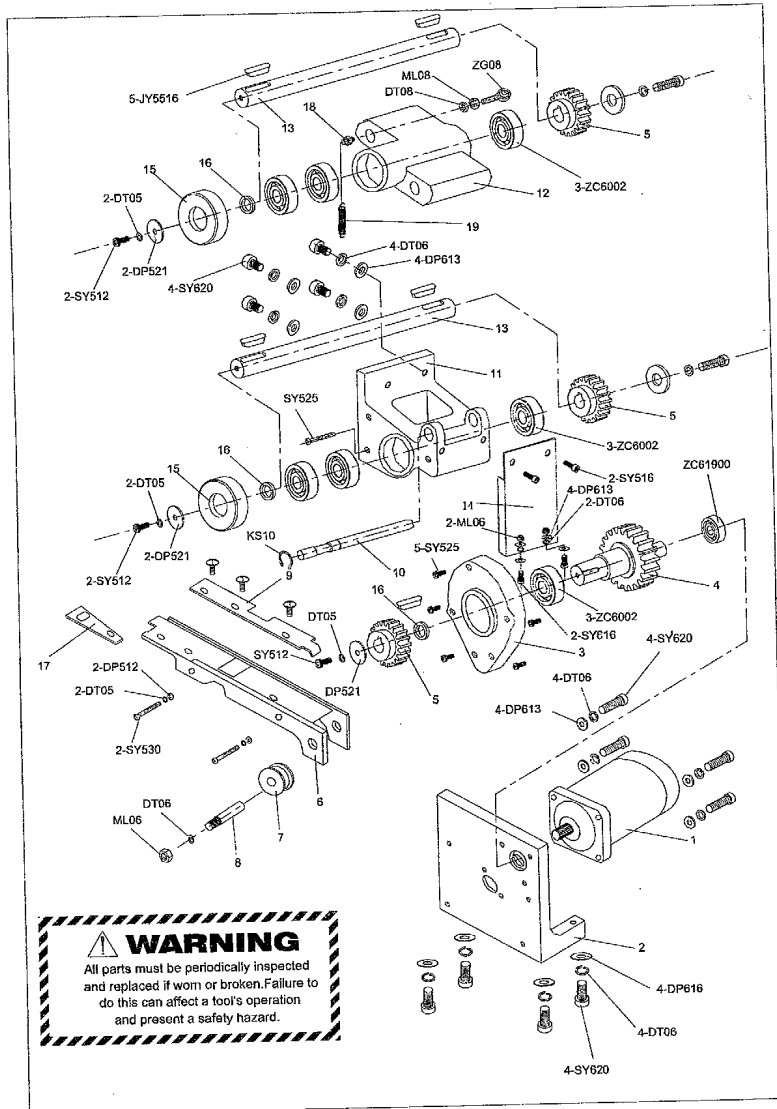
6-2 Cam and reduction gear box assembly



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	A0135	Cam shaft	1
6	DJ17298	Cushion ring $\phi 17 \times 29 \times 8$	3
7	DJ172910	Cushion ring $\phi 17 \times 29 \times 10$	1
8	DJ17296	Cushion ring $\phi 17 \times 29 \times 6$	2
9	DJ172912	Cushion ring $\phi 17 \times 29 \times 12$	3
10	AS1-212	Small bearing base	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
18	A1045	Spacer sleeve 3.5mm	1
19	AS1-215	Micro switch base sheet	1
20	AS1-217	Micro switch cushion sheet	1
21	EW002	Micro switch, with roller wheel	2
22	A0125	Cam motor plate	1
23	A0143	Extension fixing plate	1
24	A0153	Motor fixing sleeve	1

6-3 Send and retreat strap assembly



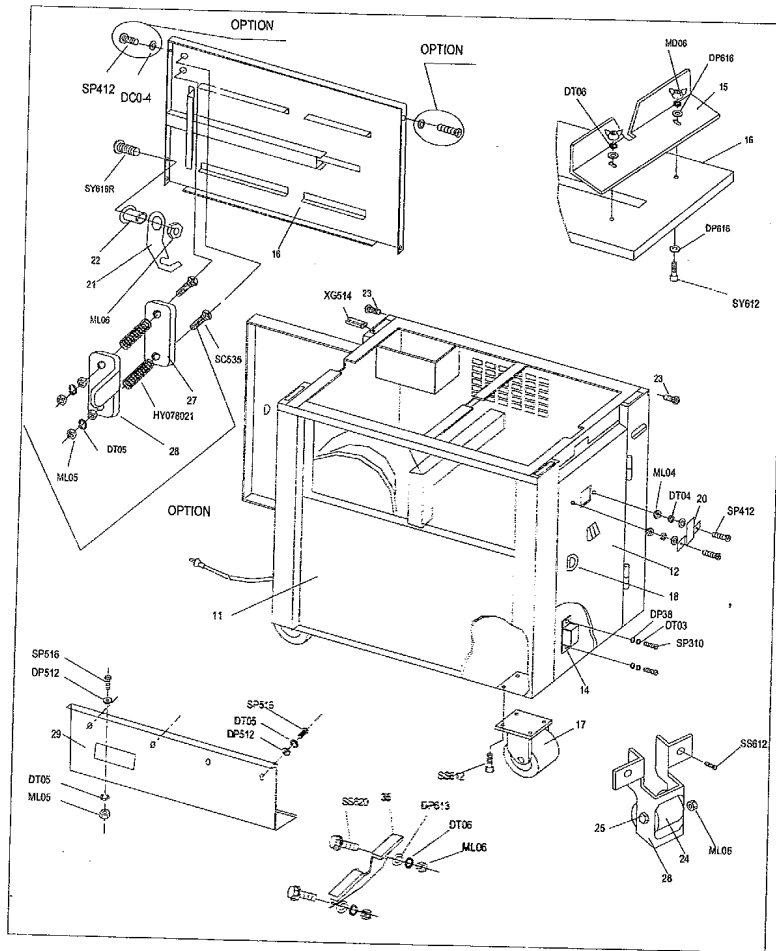
Detailed parts list

No	Code	Description	Qty
1	EA013	DC advance and retreat motor	1
3	A0141	Reduction gear box	1
2	A0142	Motor fixing base	1
4	A0138	Reduction gear	1
5	AS1-317	Down extension deep rubber gear wheel	3
6	A0102	Strap chute	1
7	AS1-318	Turbine rubber pulley	1
8	A0106	Pulley shaft	1
9	A0103	Strap channel cover	1
10	A0110	Connect shaft	1
11	A0101	Down extension	1
12	A0100	Up extension	1
13	A0104	Extension shaft	2
14	A0143	Extension support board	1
15	AS1-304	Roller 40mm	2
16	DJ15224	Cushion ring $\phi 15 \times 22 \times 4$	3
17	A0105	Adjust board	1
18	A0109	Spring shaft	1
19	A1105	Send and retreat spring	1

Detailed parts list

No	Code	Description	Qty	remark
11	AS1-1001	AS-10 frame	1	
12	AS1-1004	AS-10 small door	1	
15	AS1-605	Barrier plastic	1	
16	AS1-1006	AS-10 stainless steel table panel	1	
17	LA1675	Screw stem universal castor	2	
17.1	LB1675	Screw stem universal castor with brake	2	
18	AS1-608	Door holder plastic cement	1	
20	AS1-601	Guide strap slot for door	1	
21	AS1-610	Arch support, with barrier foot	1	
22	AS1-612	Cover support protruding sleeve	1	
23	SY613RA	Cup head hexagonal screw M6*13	2	
24	AS1-614	Guide strap pulley	1	
25	AS1-615	Guide strap pulley shaft	1	
26	AS1-616	AS-10 guide strap pulley rack	1	
27	AS1-617	Interrupt micro switch cushion	1	option
28	AS1-618	Interrupt micro switch contact sheet	1	option
29	AS1-1002	AS-10 control panel	1	
30	AS1-1003	AS-10 leg tube	4	
35	AS1-625	AS-10,11,13 center support	1	

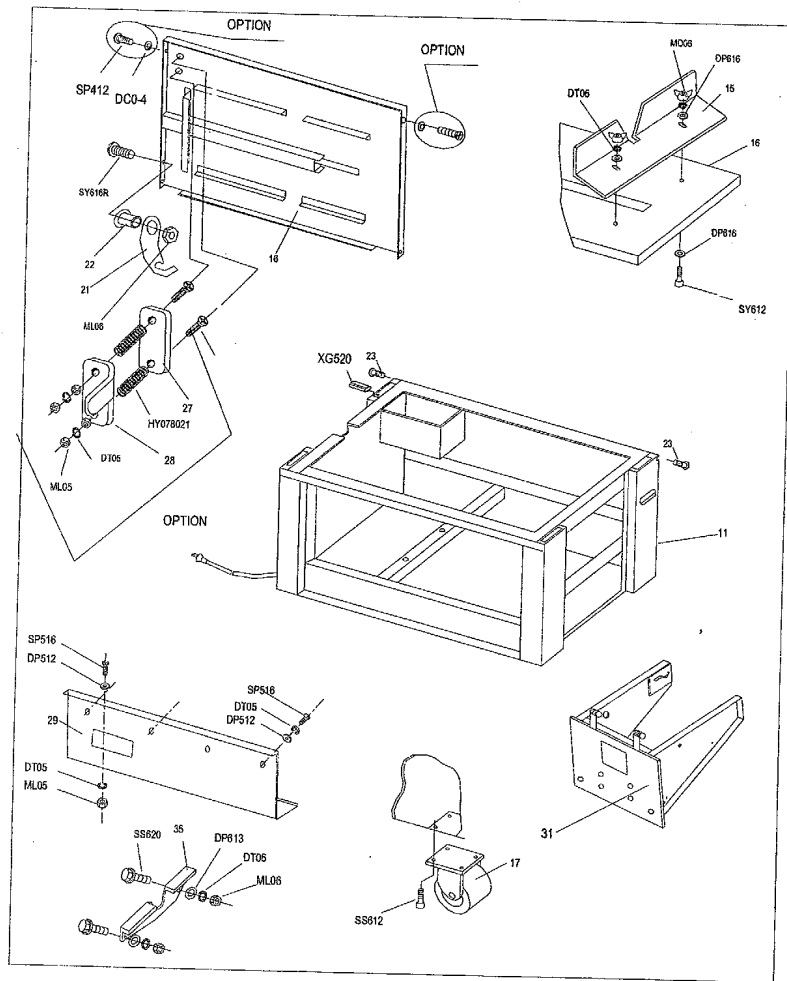
6-4-2 AS-11N machine frame



Detailed parts list

No	Code	Description	Qty	Remark
11	AS1-1101	AS-11 frame	1	
14	CD50	Door magnet	4	
15	AS1-605	Barrier plastic	1	
16	AS1-1106	AS-11,13 stainless steel up cover	1	
17	LA75	Flattop universal castor	2	
17	LB75	Flattop universal castor with brake	2	
18	AS1-608	Door holder plastic cement	2	
19	AS1-609	Mechanism base plate	1	
20	AS1-601	Guide strap slot for door	1	
21	AS1-611	Arch support	1	
22	AS1-612	Cover support protruding sleeve	1	
23	SY613RA	Cup head hexagonal screw M6*13	2	
24	AS1-614	Guide strap pulley	1	
25	AS1-615	Guide strap pulley shaft	1	
26	AS1-624	AS-11,12 guide strap pulley rack	1	
27	AS1-617	Interrupt micro switch cushion	1	option
28	AS1-618	Interrupt micro switch contact sheet stainless iron	1	option
29	AS1-1102	AS-11,13 front panel	1	

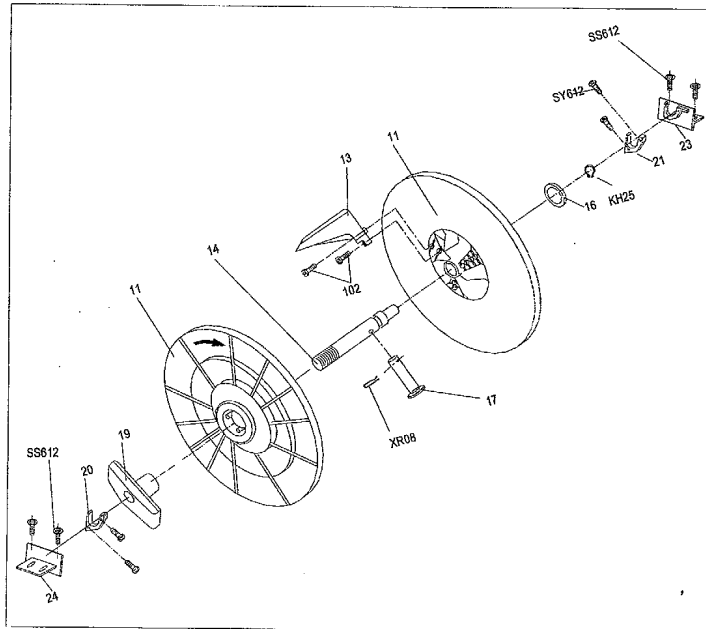
6-4-3 AS-13N machine frame parts



Detailed parts list

No	Code	Description	Qty	remark
11	AS1-1301	AS-13 low table frame	1	
15	AS1-605	Barrier plastic	1	
16	AS1-1106	AS-11,13 stainless steel up cover	1	
17	LA75	Flattop universal castor	2	
17	LB75	Flattop universal castor with brake	2	
19	AS1-609	Mechanism base plate	1	
21	AS1-611	Arc support	1	
22	AS1-612	Cover support protruding sleeve	1	
23	SY613RA	Cup head hexagonal screw M6*13	2	
27	AS1-617	Interrupt micro switch cushion	option	
28	AS1-618	Interrupt micro switch contact sheet stainless iron	option	
29	AS1-1102	AS-11,13 front panel	1	
31	AS1-1302	AS-13 strap rack	1	

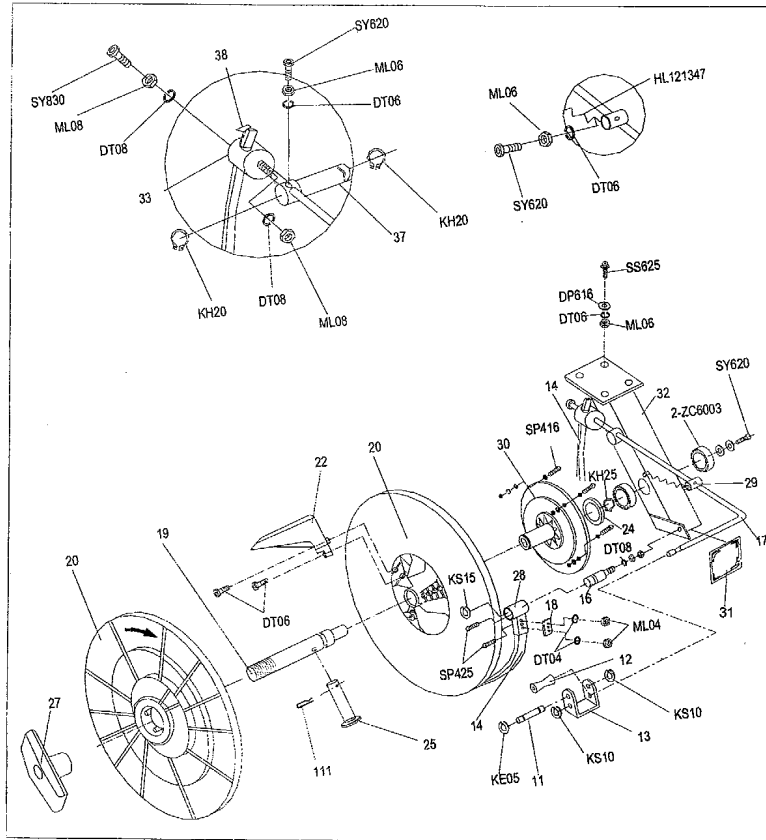
6-5 Strap reel and brake assembly
6-5-1 AS-11N strap reel assembly



Detailed parts list

No	Code	Description	Qty	Remark
11	AS1-700	Plastic strap reel	2	
13	AS1-703	Strap reel claw	3	
14	AS1-809	AS-11N, 13N strap reel shaft	1	
16	AS1-706	Strap reel cushion ring	1	
17	AS1-707	Round head strap reel pin shaft $\phi 8$	1	
19	AS1-709	strap reel handle	1	
20	AS1-710	Nylon bracket (left)	1	
21	AS1-711	Nylon bracket (right)	1	
23	AS1-1110	AS-11 strap reel left support	1	AS-11
23	AS1-1210	AS-12 strap reel left support	1	AS-12
24	AS1-1111	AS-11 strap reel right support	1	AS-11
24	AS1-1211	AS-12 strap reel right support	1	AS-12

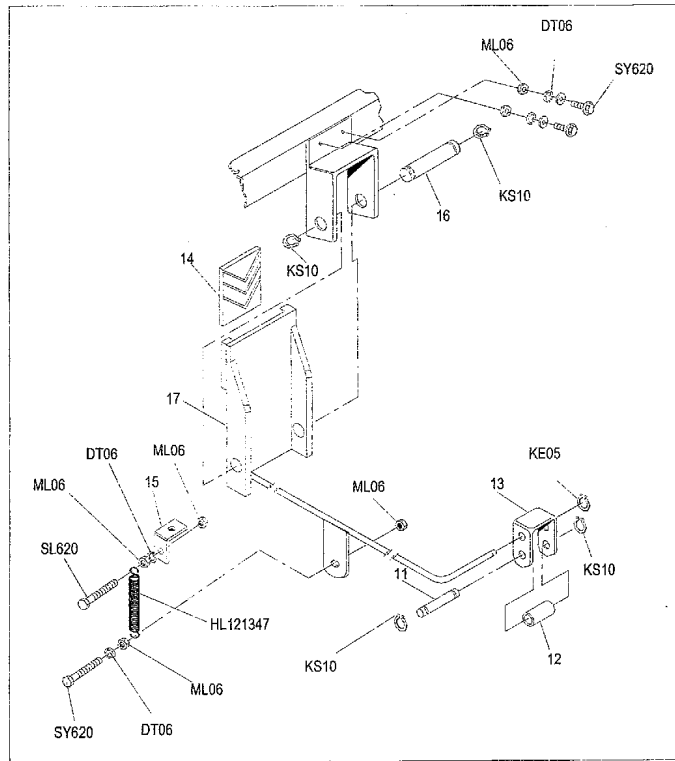
6-5-2 AS-10N Strap reel and brake assembly



Detailed parts list

No	Code	Description	Qty
11	AS1-801	Brake rod pulley	1
12	AS1-802	Brake pulley	1
13	AS1-803A	Brake rod roller wheel support	1
14	AS1-804	Brake belt	1
16	AS1-806	Brake belt small shaft	1
17	AS1-807	AS-10 brake rod	1
18	AS1-808	Brake belt press plate	1
19	AS1-704	AS-10 strap reel shaft	1
20	AS1-700	Plastic strap reel	2
22	AS1-703	Strap reel claw	3
24	AS1-705	Strap reel cushion Y type	1
25	AS1-707	Round head strap reel pin shaft $\phi 8$	1
27	AS1-709	Strap reel handle	1
28	AS1-818	Brake U type joint	1
29	AS1-823	Brake small shaft	1
30	AS1-820	Brake wheel	1
31	AS1-623	Plastic square cover	1
32	AS1-822	AS-10 brake belt wheel support	1
33	AS1-819	Belt joint	1
37	AS1-826	Brake rod fixing shaft	1
38	AS1-800	L type cushion sheet	1

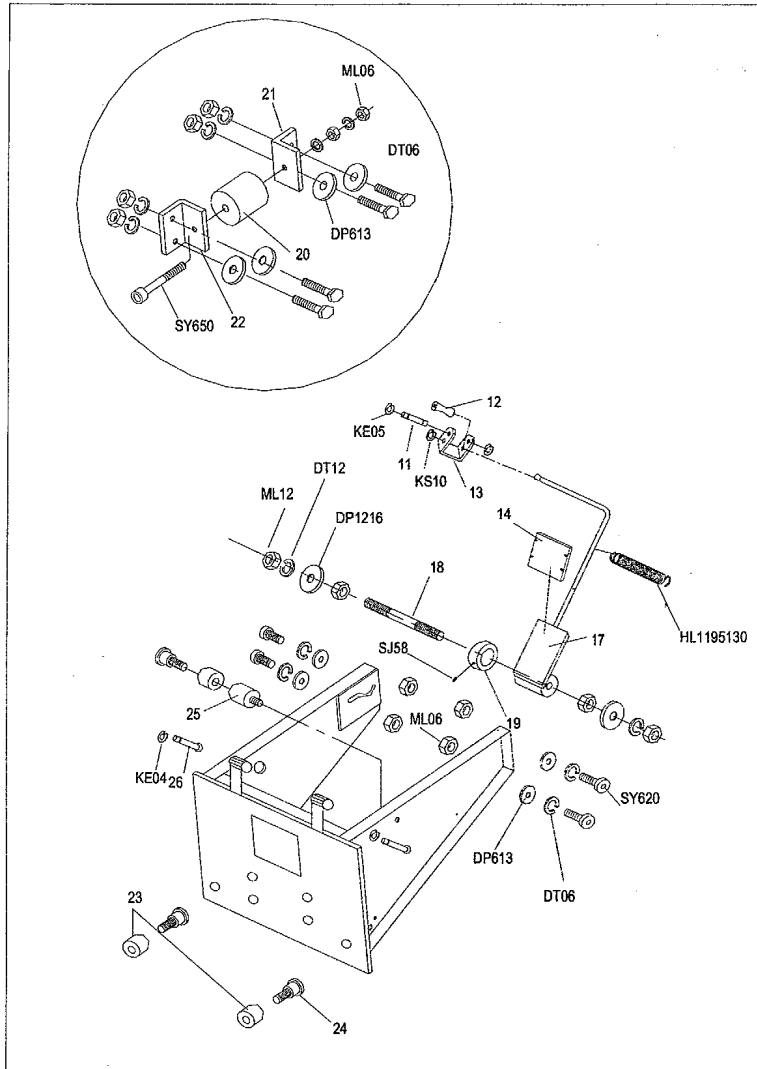
6-5-3 AS-11,12,11B,12B brake parts



Detailed parts list

No	Code	Description	Qty
11	AS1-801	Brake rod pulley	1
12	AS1-802	Brake pulley	1
13	AS1-803	AS-11,12, 13 Brake rod roller wheel rack	1
14	AS1-814	Brake belt	1
15	AS1-815	Spring base	1
16	AS1-816	Brake rod shaft	1
17	AS1-817	AS-11, 12 brake rod	1
18	AS1-811	AS-11,12 brake support	1

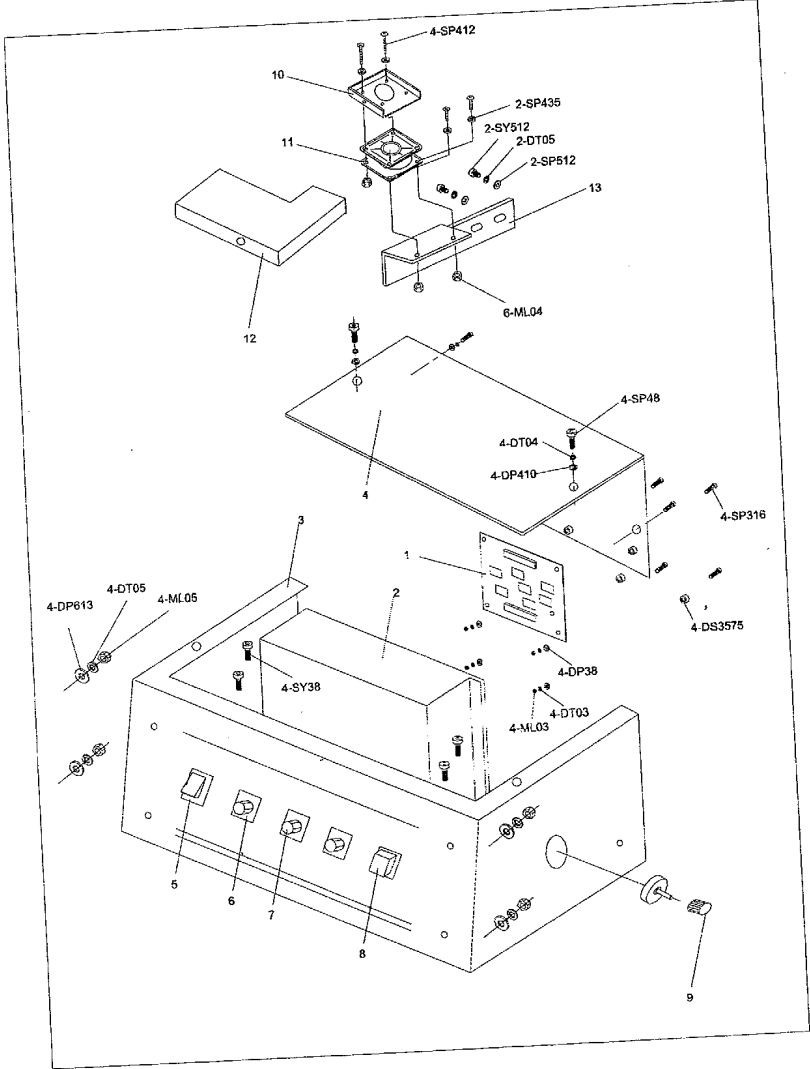
6-5-4 AS-13,13B brake parts



Detailed parts list

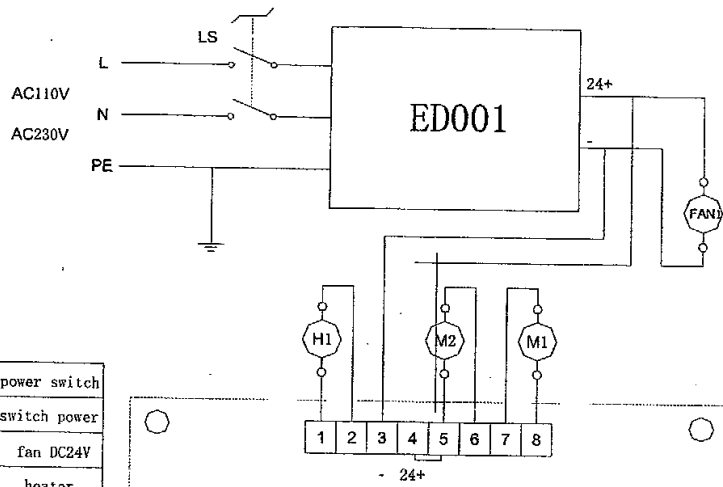
No	Code	Description	Qty
11	AS1-801	Brake rod pulley	1
12	AS1-802	Brake pulley	1
13	AS1-803	AS-11, 12, 13 Brake rod roller wheel rack	1
14	AS1-814	Brake belt	1
17	AS1-827	AS-13 low table brake rod	1
18	AS1-828	Fixed strengthen rod	1
19	AS1-829	Spacer ring	2
20	AS1-810	AS-13 guide belt pulley nylon	1
21	AS1-833A	AS-13 pulley rack(left)	1
22	AS1-833B	AS-13 pulley rack (right)	1
23	AS1-813	Strap rack cushion block	3
24	AS1-824	AS-13 adjust screw bolt	3
25	AS1-812	Guide pole	1
26	AS1-812	Insert pin $\Phi 5 \times 65$	2

6-6 AS-10N,11N,13N electrical parts



Detailed parts list

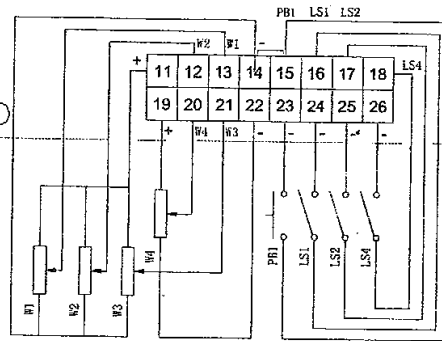
No	Code	Description	Qty
1	APC-10N1	PC board combination ,APC-10N1	1
2	ED001	250W switch power supply	1
3	A0080	Electrical box	1
4	A0081	Electrical box cover	1
5	EK002	Red switch	1
6	EP002	Potentiometer 250K	4
7	UN001	Rotate button (black)	3
8	EN002	Green button	1
9	UN002	Rotate button (red)	1
10	AS1-905	Heat proof cover rack	1
11	EF001	Micro fan 24VDC	1
12	AS1-904	Heat proof cover	1
13	A0134	Fan rack	1



LS:	power switch
ED001:	switch power
FAN1:	fan DC24V
H1:	heater
M1:	cam motor
M2:	send & retreat motor
W1:	cool adjust
W2:	tension adjust
W3:	send strap adjust
W4:	temp. adjust
PB1:	send strap button
LS1:	reset detect switch
LS2:	retreat strap detect
LS4:	start detect switch

APC-10N1
electrical control board

switch power DC24V, 150W
cam motor DC24V, 60W
send & retreat strap motor DC24V, 90W



electrical diagram