

INDUPack S-555

SEMI-AUTOMATIC STRAPPING MACHINE



INSTRUCTION MANUAL
SPARE PARTS

INDUPRO

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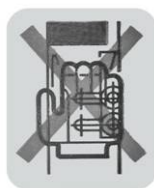
Safety Precautions



ELECTRIC SHOCK

Warning electric shock

- Damager of electric shock.
- In the interior of the cover is electric current.
- Service the machine only after power plug is pulled out.



MECHANISM HAZARDOUS

Warning mechanical hazardous

- Danger of putting finger into sealing mechanism.



HIGH TEMPERATURE

Warning high temperature

- Danger of burning yourself. Do not touch the heater.
- The temperature of heater exceeds 280°C.
- Service only after heater cools down.

Safety Rules:

1. It is dangerous for use by untrained personnel.
2. Read the manual carefully before start operating the machine.
3. Observe all warnings and safety procedures.
4. Do not remove or disable features.
5. Do not touch welding 'tongue" (Operating temperature exceeds 280°C)
6. Do not clean or repair machine while it is "on".
7. Turn off the machine when not in use.
8. Never put heavy articles on the power cord that could cause fire or electric shock.
9. Install the machine in level position and fix it sufficiently.
10. In case of fire DO NOT use water.
11. Be sure not to put the finger in the sealing mechanism.
12. When turning the dispenser manually, be careful not to get your finger stuck between the dispenser and machine's body.
13. Do not put finger between slide table and press bar.
14. Smoke of polypropylenes is not toxic, the smoke is well exhausted through the fan beside the heater tongue.

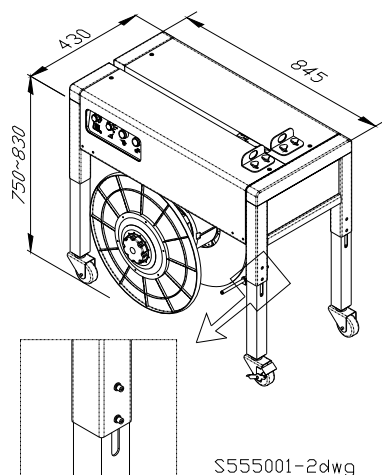
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Technical Data

👉 Semi-automatic strapping machine

1. Capacity: 2.3 sec/cycle (60HZ)
2. Min. Package size: 45W*25H mm
3. Strap tension: 2-50Kgs
4. Dimension: see drawing
5. Strapping Material: Polypropylene band
6. Strap width: 5、6、9、12、15.5mm
7. Strap dispenser:
Inside diameter of core: 200mm, 230mm, 280mm
outside diameter of core: 490mm.
8. Strap feeding speed: about 1.0 meter/sec. (60HZ)
9. Weight: approx. 65Kgs
10. Noise emission: 76 db(A) at 50cm distance.
11. Heater: Quick heating within 40sec.
12. Power consumption: 400 Watts
13. Power connection: 230V 1/N/PE 50HZ
14. Options of other power connections:
240V 1/N/PE 50HZ
230V 1/N/PE 50HZ
220V 1/N/PE 50HZ

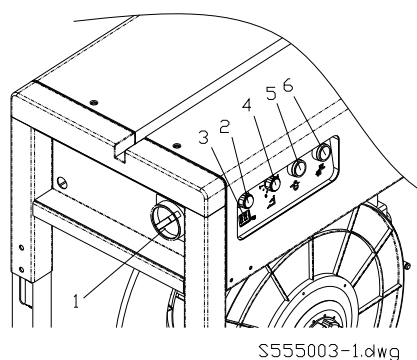
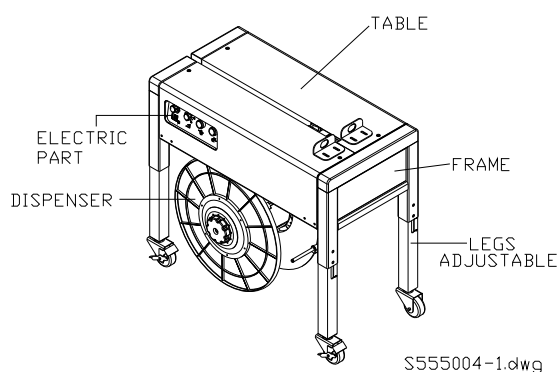
220V 1/N/PE 60HZ
110V 1/N/PE 60HZ
100V 1/N/PE 50HZ



3

Operating Instructions

👉 3.1 Introductions

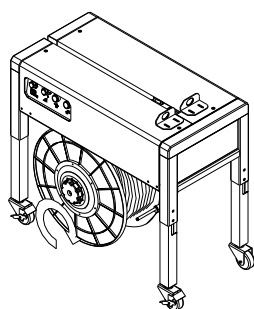
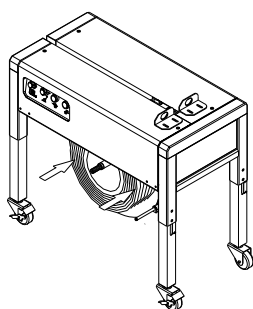
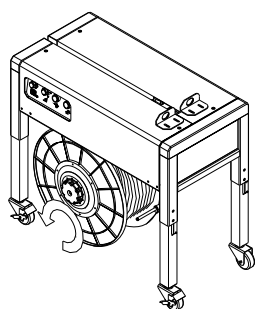


👉 3.2.1 Operator controls and indicators

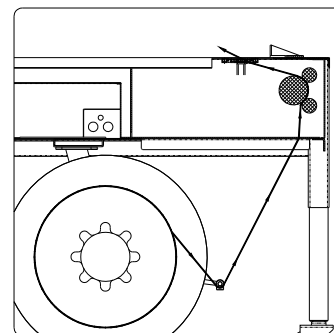
1. Main power switch: "1"=on, "0"=off
2. Tension dial: Strap tension is to be adjusted by this dial.
3. Tension display.
4. Strap feeding dial
 - Setting the feeding length of strap.
 - Turn clockwise for longer strap.
5. Feeding push button: To feed the strap.
6. Reset push button: Pressing and holding the push button will retract the strap; and to cut the strap once releasing the push button.
- Counter clockwise for shorter strap.



3.2.2 Loading and ejecting the strap



S555005-1.dwg



S555002.dwg

● **Instruction of power supply:**

1. Locate machine within easy access of power supply.
2. Input supply must match machine requirement.
3. Lock wheel-brakes once machine is placed.
4. If the machine is installed in voltage fluctuated area, the machine is liable to drop its capacity, and will have adverse effect on the machine and the parts as well.
5. Power must be supplied directly from an independent socket without putting many loads on one electric outlet. If power cord on machine is to be connected to extension cord, the section diameter size should be 1.5 mm² or larger.

● **Insert strap coil:**

1. Loosen the reel handle counter clockwise and pull it out.
2. Remove the front flange.
3. Mount a new roll of strap.
4. Mount the front flange.
5. Put the reel handle in and fasten it.
6. Make sure that the strap is mounted in the right direction - clockwise.

● **Steps of threading strap:**

1. Pull strap through roller of brake shaft, then pull strap up to top feed roller.
2. Turn reset/feeding select switch left, strap will come out from slide table.
3. Pull out strap.



3.3 Starting the strapping machine

● **Strapping:**

Place a package on the top of the machine. And pass the free end around the package. Insert the leading end of the strap into the strapping inlet until the leading end is detected.

● **Feeding length:**

Tightening of strapping starts as soon as the strap is detected and the heat sealing process automatically takes place after completion of tightening. After these process have been completed, a preset length of strapping is dispensed automatically. This is one complete cycle.

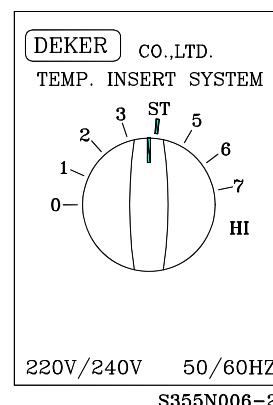
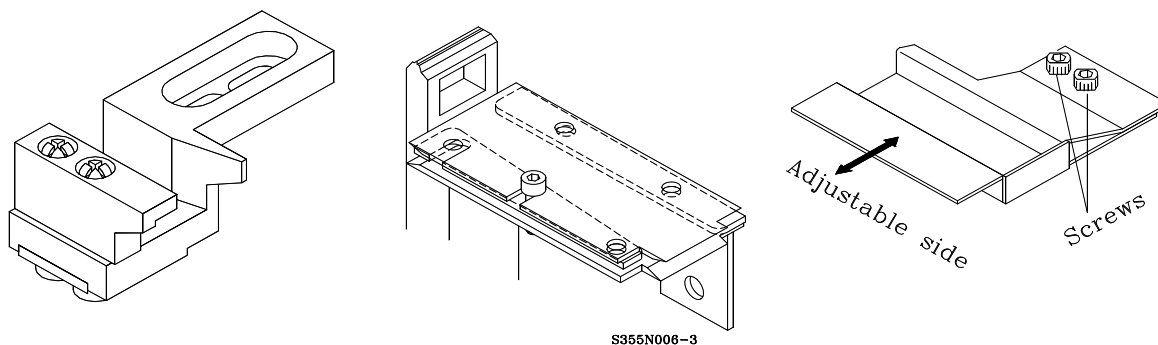
- ***Be sure to turn off the main power switch after operation is completed for the day.***

4

Adjustments

**4.1 Welding temperature adjustment**

1. The dial is provided with 7 graduations which range from 0 to 7.
2. The heater temperature might be affected by variation of voltage or temperature of atmosphere.
3. The temperature is setting around 310 $\pm$ 30°C ex work. (on the dial "ST").
4. The temperature can be adjusted when the heater does not reach the working temperature.
5. Turn the dial clockwise for higher temperature. Counter clockwise for lower temperature.
6. The heater will reach workable temperature about 40 seconds after power on.

**4.2 Setting strap width**

1. Adjustment for straps of different width can be done with Philip screw driver.
2. The two strap guides have to be adjusted so there is a clearance between strap and guide of 0.5mm to 1.0mm.
3. Make both adjustments by loosening two screws and moving the guide to fit the strap which is to be used.

**4.3 Basic setting of the strap tension**

Turn the dial clockwise, the tension will be getting bigger and bigger.
Tension rang (2-50kgs).

Tension dial



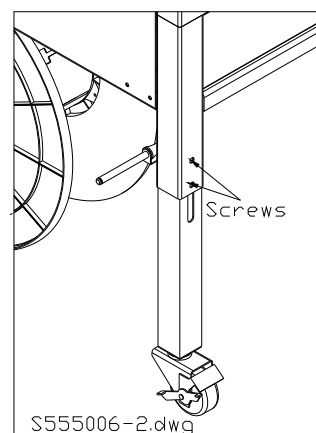
4.4 Adjusting machine height

The table height is adjustable from 750 to 830 mm

- Hold machine and loosen two cylinder screws on one of the legs.
- Adjust leg to required height and tighten up cylinder screws again.

Notice: Never loosen two legs at the same time (risk of tipping over)!

- Adjust the other legs to the same height.
- Lock both brake casters before strapping.



4.5 PCBVR Adjustment

- VR4 is recommended to be adjusted toward 1'o clock direction (when standing at normal operation position).

5

Preventive Maintenance

Task	Weekly	Monthly	After approx. 100000 strapping
1. Blow out sealing head, strap guides and fan with compressed air.	√		
2. Clean heating element with fine cleaning cloth (do not bend heating element.) Notice: First allow heating element to cool down.		√	
3. Clean clamp, strap separator and slide plate		√	
4. Replace tension belt			√

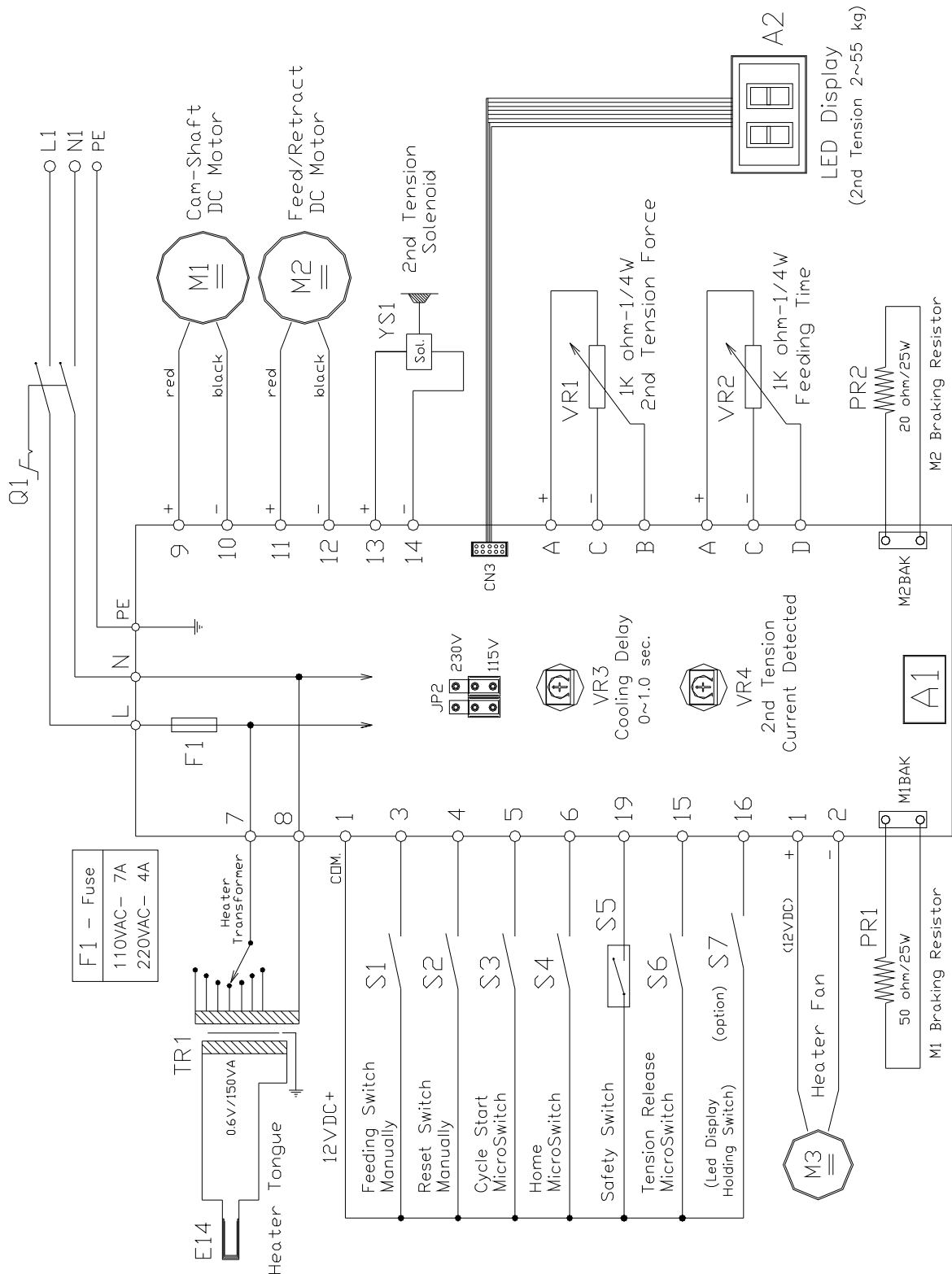
6

Trouble Shooting

Fault	Action
1. Drive motor does not run	⇒ Check whether the machine is connected to the power. ⇒ Check whether the main switch is on. (See table 3.2.1) ⇒ Check whether the table top is correctly closed. ⇒ Check F1 fuse.
2. Machine does not run, drive motor "buzzes"	⇒ Close table top, turn main switch off and then on again, activate selector to "reset" (See table 3.2.1)
3. Drive motor runs, strap does not advance	⇒ Activate selector to "reset". Remove strap remnants. (See table 3.2.1) ⇒ Check whether there is still strap on the coil. ⇒ Check whether strap is correctly inserted. ⇒ Check functioning of M2 DC motor.
4. Strap feeding malfunction	⇒ Check the contact of selector. ⇒ Activate selector to "feeding". (See table 3.2.1)
5. Strap take-up does not function	⇒ Activate push-button "reset". Remove strap remnants. (See table 3.2.1) ⇒ Check control board. ⇒ Check functioning of M2 Dc motor.
6. No welding	⇒ Check height setting of the heating element. ⇒ Check heating element ⇒ Check knife. (See drawing 8.1 NO.29) ⇒ Check fuse F1
7. Welding insufficient	⇒ Check setting of welding temperature (temperature range from 320° to 360°) (See table 3.2.1) ⇒ Heating element bent: exchange.

7.1

Main circuit



The diagram illustrates the electrical control system for a machine, featuring a central control unit with multiple terminal blocks (TB1, TB2, CN1, CN2, CN3, CN4, CN5) and various sensors and actuators.

Key Components and Connections:

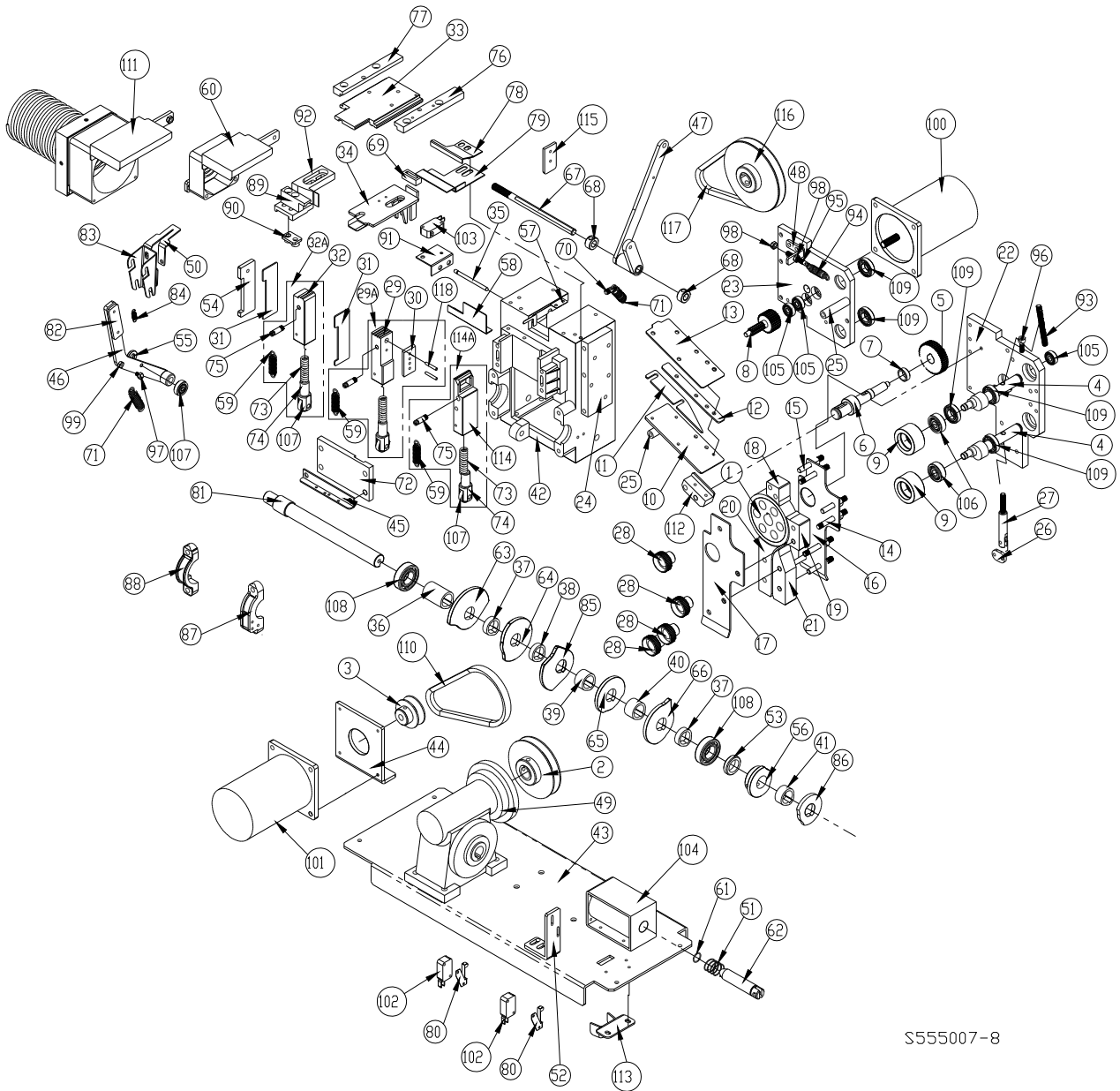
- Power Supply (A1):** 110VAC (or 220VAC) input to TB1.
- Heater Transformer (T1):** Connected to TB1, providing 110VAC to the Heater.
- DC Motors (M1, M2):** Connected to TB2. M1 is a 50W/90VDC motor, and M2 is a 80W/90VDC motor.
- Solenoid (S1):** Connected to TB2, providing 50W/180VDC (or 50W/180VDC) output.
- Fan (M18):** Connected to CN2, providing 12VDC+ output.
- LED Display (A2):** Connected to CN4, providing 2nd Tension 2~50 kg output.
- Control Unit:** Features multiple terminal blocks (TB1, TB2, CN1, CN2, CN3, CN4, CN5) and internal components like relays (RY1A, RY1B, RY2), switches (S1, S2, S3, S4, S5, S6, S7), and sensors (VR1, VR2, VR3, VR4).
- Relays (RY1A, RY1B, RY2):** Control the DC motors and solenoid.
- Switches (S1, S2, S3, S4, S5, S6, S7):** Provide manual control and safety features.
- Sensors (VR1, VR2, VR3, VR4):** Monitor tension and provide feedback to the control unit.

Legend:

- 1. VR1--2nd Tension
- 2. VR2--Feeding
- 3. S1--Feeding
- 4. S2--Reset
- 5. S3--Cycle Start Sw.
- 6. S4--Home Switch
- 7. S5--Safety Switch

8.1

Seal Unit



S555007-8

8.1 Seal Unit

No.	Part No.	Part Name	Description	Q'Ty	Remark
1	S55-100001-0	Main Roller		1	
2	S55-100003-0	Pulley		1	
3	S55-100004-0	Motor Pulley		1	
4	S55-100005-0	Feed Upper Roller Shaft		2	
5	S55-100006-0	Transmission Roller		1	
6	S55-100007-1	Main Shaft Roller		1	
7	S55-100008-0	Collar		1	
8	S55-100009-0	Transmission Shaft		1	
9	S55-100010-0	Feed Upper Roller		2	
10	S55-101020-1	Guide Plate(Lower)		1	
11	S55-101029-0	Adjustable Plate(L)		1	
12	S55-100013-0	Adjustable Plate(R)		1	
13	S55-101030-0	Guide Plate (Upper)		1	
14	S55-100015-0	Fixed Position Shaft		4	
15	S55-100016-0	Support		4	
16	S55-100017-0	Guide Plate (Lower)		1	
17	S55-100018-0	Guide Plate (Upper)		1	
18	S55-100019-0	Guide (Upper)		1	
19	S55-100020-0	Guide (Side)		1	
20	S55-100021-0	Inlet Left Guide		1	
21	S55-100022-0	Inlet Right Guide		1	
22	S55-100023-0	Front Plate		1	
23	S55-100024-0	Rear Plate (230V)		1	
	S55-101012-0	Rear Plate (110V)		1	
24	S55-100025-1	Side Plate		1	
25	S55-100034-0	Right Plate		2	
26	S55-100028-0	Pull Shaft		1	
27	S55-100029-0	Adjustable Screw		1	
28	S55-100032-0	Nut		4	
29	S55-101024-1	Press Bar		1	
29A	S55-101024-1A	Press Bar Set		1	
30	S55-101027-0	Press Bar Plate		1	
31	S55-100038-0	spacer		2	
32	S55-101015-3	Rear Clamp Bar		1	
32A	S55-101015-3A	Rear Clamp Bar Set		1	

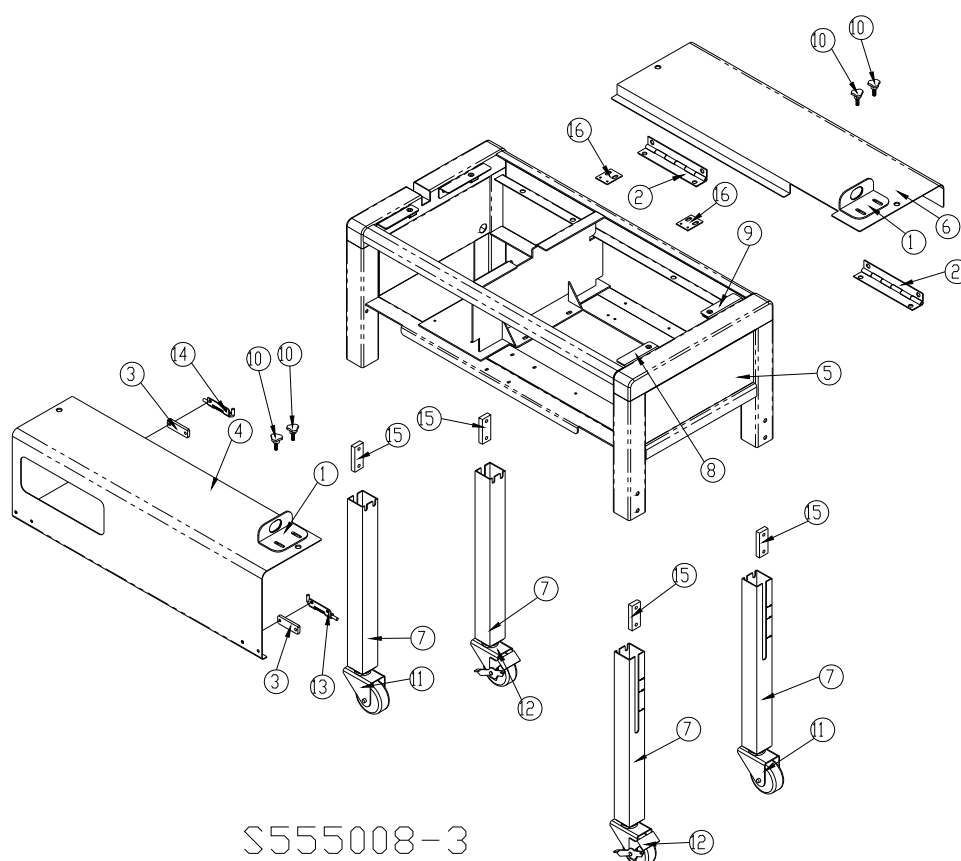
33	S55-101016-1	Slide Table		1	
34	S55-100041-0	Separator		1	
35	S55-100042-0	Limit Switch Pin		1	
36	S55-100044-0-A	Collar		1	
37	S55-100044-0-B	Collar		2	
38	S55-100044-0-C	Collar		1	
39	S55-100044-0-D	Collar		1	
40	S55-100044-0-E	Collar		1	
41	S55-100044-0-H	Collar		1	
42	S55-100045-0	Cam Bracket		1	
43	S55-100046-0	Base		1	
44	S55-100048-0	Motor Bracket		1	
45	S55-100049-0	Spring Hook		1	
46	S55-100050-0	Heater Arm Assembly		1	
47	S55-100150-0	Separator Arm		1	
48	S55-101001-0	Spring Fixed Plate		1	
49	S55-101002-0	Reduction Gear Box		1	
50	S55-101004-0	Heater Assembly		1	
51	S55-101005-0	Solenoid Spring		1	
52	S55-101006-3	Limit Switch Bracket		1	
53	S55-101007-0	Collar		1	
54	S55-101008-1	Outer Separator		1	
55	S55-101011-1	Washer		1	
56	S55-101013-0	S-6 Cam		1	
57	S55-101014-1	Switch Lever		1	
58	S55-101017-0	Rear cover		1	
59	S55-101018-0	spring		3	
60	S55-200200-0	Fan Holder		1	
	E01-040004	Fan 80*80*40 110V		1	
	E01-040001	Fan 80*80*40 220V		1	
	E01-040018-5	Fan SD-6025-12HS;DC12V/0.15A		1	
61	S13-110008	O-Ring		1	
62	S13-110009	Solenoid Shaft		1	
63	S13-121201-1	Rear Grip Cam		1	
64	S13-121202	Heater Cam		1	
65	S13-121204-1	Front Grip Cam		1	
66	S13-121205	Separator Cam		1	
67	S55-101010-0	Pin		1	

68	S13-122005	Collar		2	
69	S13-122007	Gum		1	
70	S13-122008	Spring Hook		1	
71	S55-101019-0	Slide Table Spring		2	
72	S13-123003	Clamp Bar Guide Lid		1	
73	S13-123102	Plunger Spring		3	
74	S13-123103	Plunger		3	
75	S13-123105	Spring Hook		3	
76	S13-125002	Base Guide (A)		1	
77	S13-125003	Base Guide (B)		1	
78	S13-172029	Front End Guide		1	
79	S13-172030	Front End Adjustment Plate		1	
80	S13-210009	Switch Trigger		2	
81	S55-101031-0	Cam Shaft		1	
82	S23-190004-1	Plate		1	
83	S23-190006	Heater Holder		1	
84	S23-190019-0	Spring	SWP-B	1	
85	S23-190016	Press Grip Cam		1	
86	S55-101032-0	LS3/LS-4 Cam		1	
87	S35-125005	Bearing Cover		1	
88	S35-125006	Bearing Cover		1	
89	S35-125008	Strap Guide Adjustment Plate		1	
90	S35-125009	Strap Guide Fixed Plate		1	
91	S35-125010	Micro Switch Support		1	
92	S35-125011	Rear End Guide		1	
93	A20-173003	Upper Adjust Spring Rod		1	
94	SK60104	Spring		1	
95	1A14-B0116-00	Post		1	
96	W01-210520	SCREW M5*20L		1	
97	W03-110407	Hex Head Screw		1	
98	W15-110500	Nut		2	
99	W15-110400	Nut		1	
100	E01-010161	Dc Motor (110V) (DM5230S-TS-JI-DC90-3400)		1	
	E01-010160	Dc Motor (230V) (DM5030S-TS-JI-DC180-3400)		1	
101	E01-010157	Dc Motor (110V) (DM5030S-A-JI-DC90-3000)		1	

	E01-010158	Dc Motor (230V) (DM5030S-A-JI-DC180-3000)		1	
102	E07-040004-R1	Micro Switch (VK-06H-00D1-Z)		2	
103	E07-040005-R1	Micro Switch (VMN-06D-00D0-B)		1	
104	E21040003	Solenoid(110V)		1	
	E21040002	Solenoid(230V)		1	
105	G04-210606	Ball Bearing	606ZZ	3	
106	G04-210628	Ball Bearing	628ZZ	2	
107	G04-210635	Ball Bearing	635	5	
108	G04-216003	Ball Bearing	6003ZZ	2	
109	G04-216901	Ball Bearing	6901ZZ	5	
110	G16-010015	V-type belt-15		1	
111	S55-200400-0	Fan Holder		1	
112	S55-101021-1	Fixed Base		1	
113	S55-101022-0	Inner Guide		1	
114	S13-123101-1	Front Clamp Bar		1	
114A	S13-123101-1A	Front Clamp Bar Set		1	
115	S55-101025-0	Press Bar Plate		1	
116	S55-101028-0	Pulley		1	
117	G16-010015	V-type Belt-15		1	
118	S55-101009-0	Spring Pin		2	

8.2

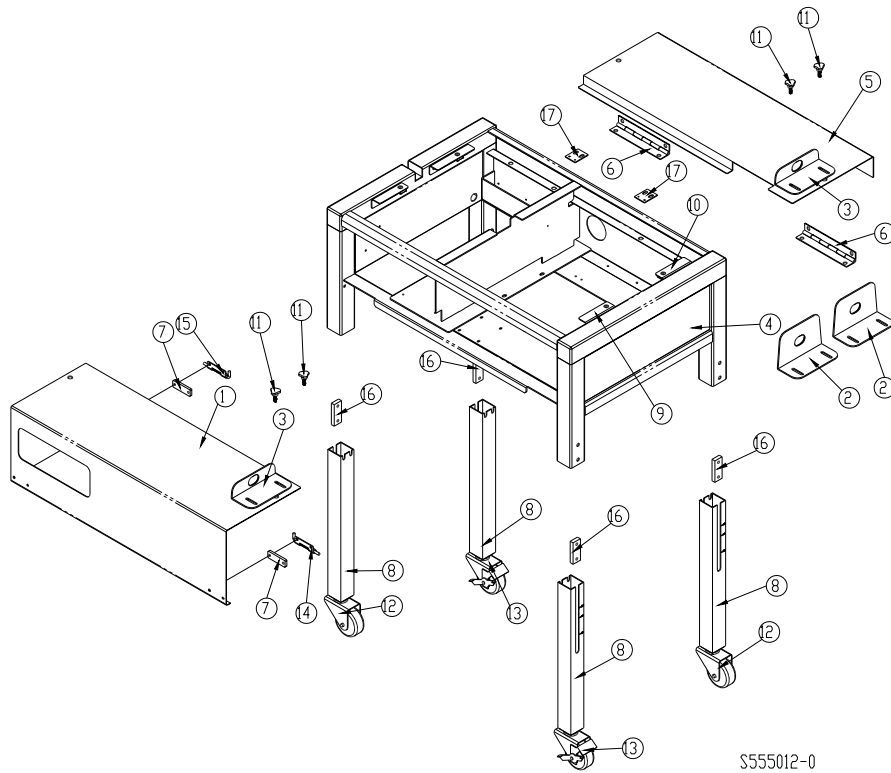
Frame (S-555 Standard)



No.	Part No.	Part Name	Description	Q'Ty	Remark
1	S55-300003-0	Package Guide		2	
2	S55-300005-0	Hinge		2	
3	S55-300007-0	Front Panel Pad		2	
4	S55-300008-0	Front Panel		1	
5	S55-300350-0	Semi-Frame		1	
6	S55-300550-0	Rear Panel Set		1	
7	S55-300650-0	Adjustable foot		4	
8	S55-300750-0	Stop plate (front)		1	
9	S55-300850-0	Stop plate (rear)		1	
10	S13-300009-0	Knob M6x20L		4	
11	S23-300011	Caster With Brake		2	
12	S23-300012	Caster W/O Brake		2	
13	A77-300005-0	Spring Hinge (R)		1	
14	A77-300006-0	Spring Hinge (L)		1	
15	2954.100.020	Fixed pad		4	
16	S15-330062	Safety Switch Fixed Plate		2	

8.2-1

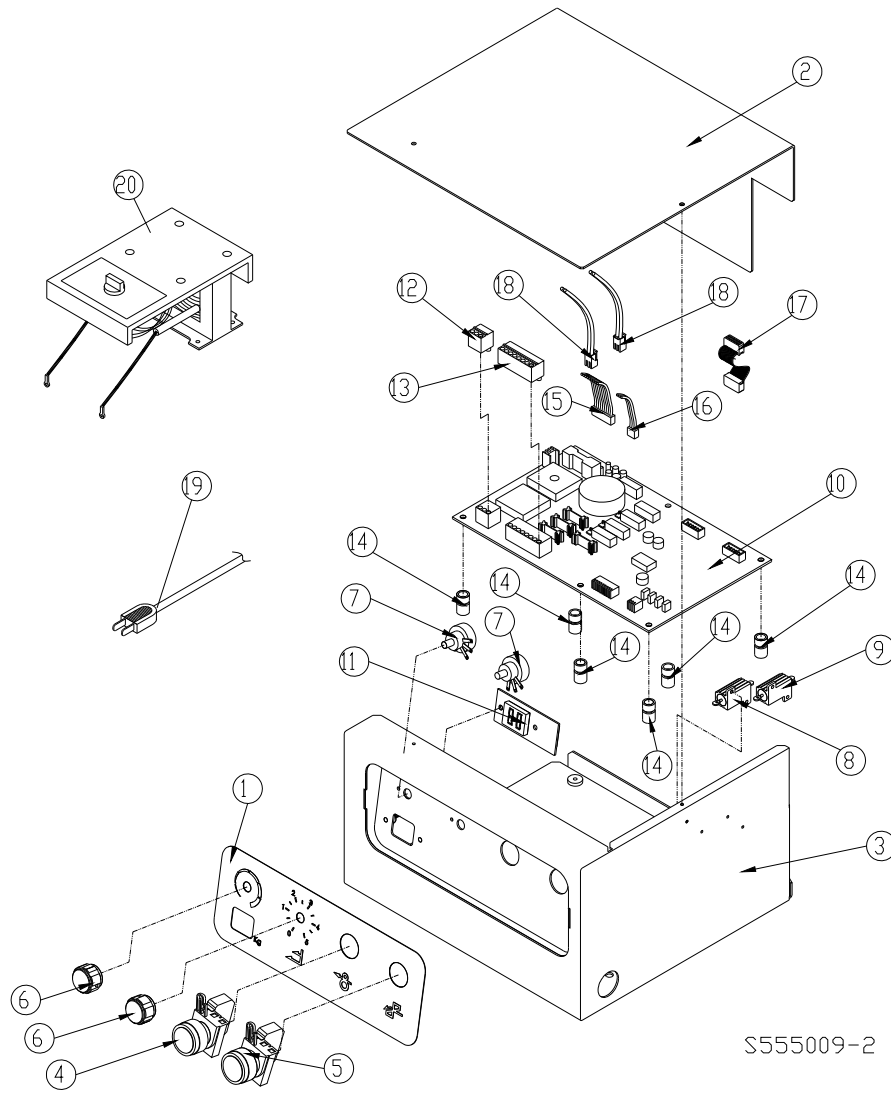
Frame(S-555B Special)



No.	Part No.	Part Name	Description	Q'Ty	Remark
1	S55-310003-0	Front Panel		1	
2	S55-310004-0	Package Guide		2	
3	S55-310006-0	Package Guide		2	
4	S55-310250-0	Semi-Frame		1	
5	S55-310350-0	Rear Panel Set		1	
6	S55-300005-0	Hinge		2	
7	S55-300007-0	Front Panel Pad		2	
8	S55-300650-0	Adjustable Foot		4	
9	S55-300750-0	Stop plate (front)		1	
10	S55-300850-0	Stop plate (rear)		1	
11	S13-300009-0	Knob M6x20L		4	
12	S23-300011	Caster With Brake		2	
13	S23-300012	Caster W/O Brake		2	
14	A77-300005-0	Spring Hinge (R)		1	
15	A77-300006-0	Spring Hinge (L)		1	
16	2954.100.020	Fixed pad		4	
17	S15-330062	Safety Switch Fixed Plate		2	

8.3

Electric Unit



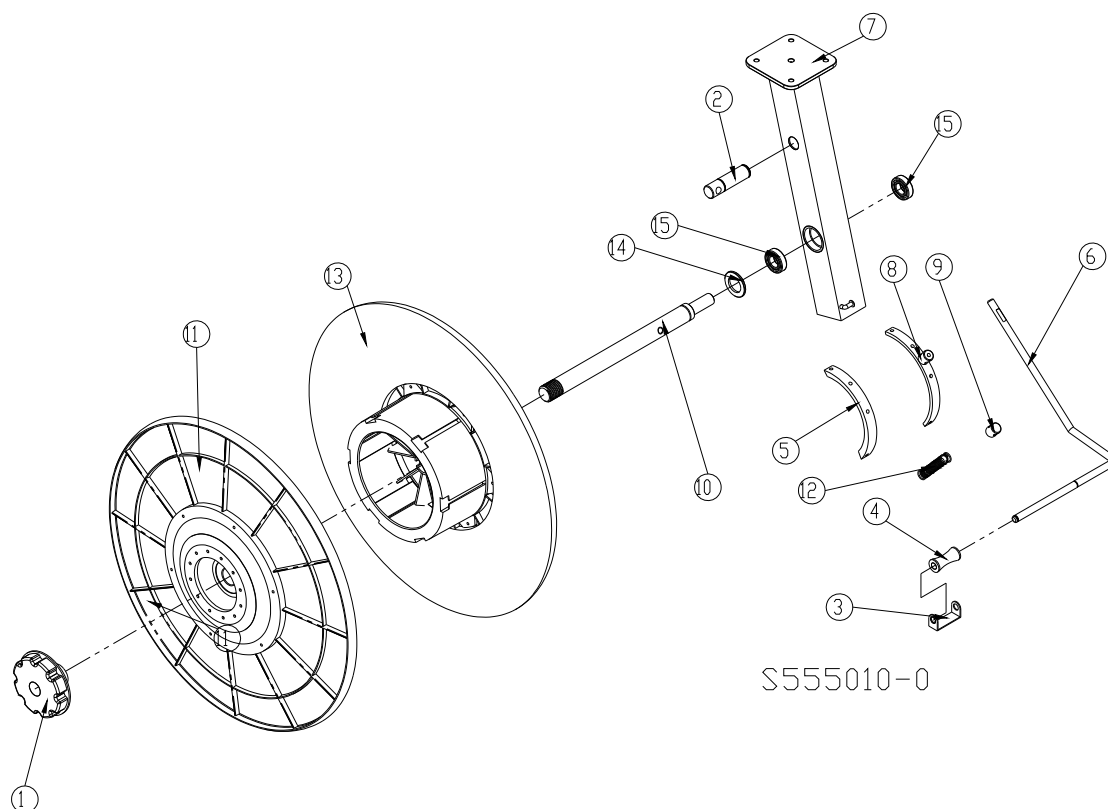
8.3

Electric Unit

No.	Part No.	Part Name	DESCRIPTION	Q'Ty
1	S55-200101-0	Control Panel		1
2	S55-200102-0	Electric Control Box Cover		1
3	S55-200150-0	Electric Control Box C		1
4	E07020028	Press Button-Green		1
5	E07020043	Push Button-Yellow		1
6	E07070011	Knob	(42001-5)	2
7	E13020015-1	Variable Resistor	(B1K Ω -D24)	2
8	E13030002	Power Resistor	(50 Ω -25W)	1
9	E13030001	Power Resistor	(20 Ω -25W)	1
10	E25101121	Control/Driven Pc Board	(S555-A1-110V) Standard	1
	E25-101126-1	Control/Driven PC Board	(S555-A1-230V) Standard	1
	E25-101156	Control/Driven PC Board	(S555-A1-110V) Elec.	1
	E25-101162-1	Control/Driven PC Board	(S555-A1-230V) Elec.	1
11	E25101122	LED Display		1
12	E53412508	PCB Plug Terminal	(2EHDVC-03P)	1
13	E53412513	PCB Plug Terminal	(2EHDVC-08P)	1
14	E57205010	PCB Space Holder	(RL-1/RL-10)	6
15	E66S55001	Wire Set	(CN1/XH-09)	1
16	E66S55002	Wire Set	(CN2/XH-08)	1
17	E66S55003	Gray Wire Set	(CN3-35cm)	1
18	E66S55004	Wire Set	VH-02/38cm)	2
19	E61125321	Wire	(UL 18AWG-3P)	1
20	S55-214000-1	Heater Transformer	(SE-575 (110V))	1
20	S55-214000-2	Heater Transformer	(SE-675-JIS (220V))	1

8.4

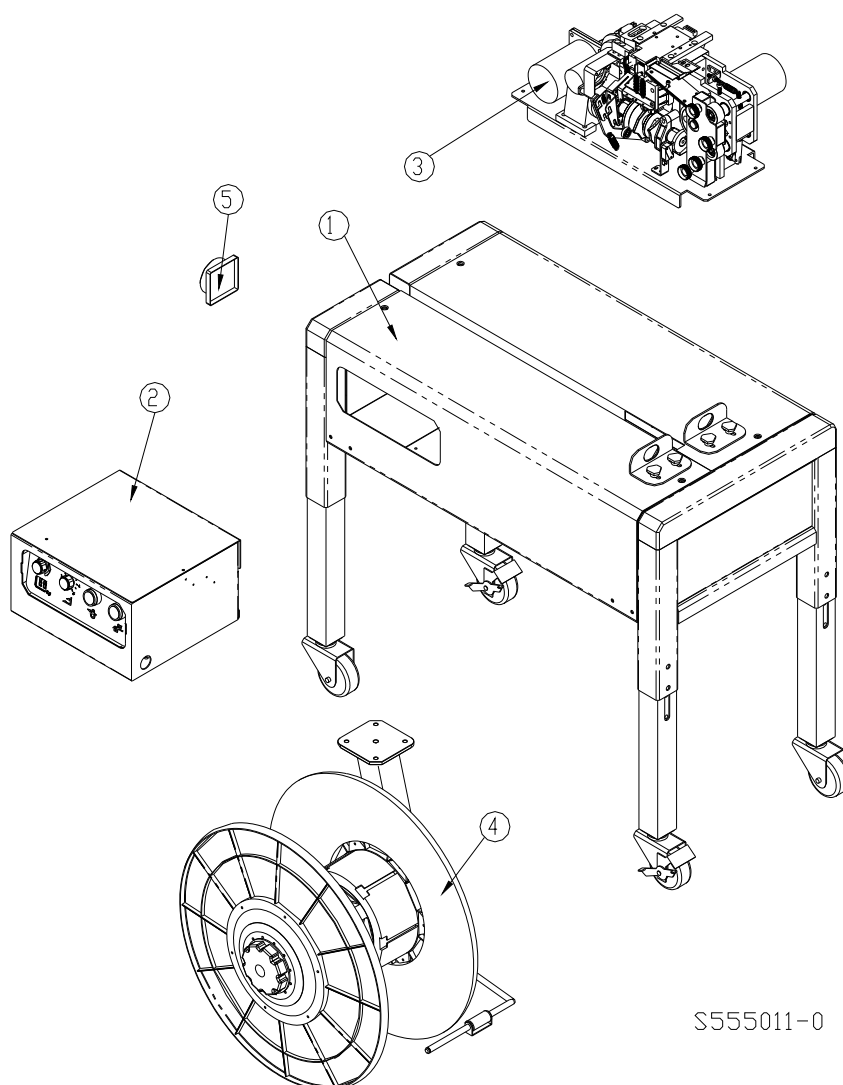
Dispenser Unit



No.	Part No.	Part Name	Description	Q'Ty	Remark
1	S13-450001	Reel Nut Handle(R)		1	
2	S14-420003	Brake Shaft		1	
3	S14-423001	Roller Holder		1	
4	S14-423002	Roller		1	
5	S23-421002-0	Brake Lining		1	
6	S23-421003-0	Arm		1	
7	S23-421450-0	Reel Support		1	
8	S23-421550-0	V-Belt Fixed Bracket		1	
9	S23-423005-1	Brake Adjuster		1	
10	S23-430002	Reel Shaft		1	
11	S23-430003-120	Reel Side Plate		1	
12	S55-400003-0	Spring		1	
13	S23-431050-120	Reel Side Plate		1	
14	A20-630007-1	Washer		1	
15	G04-216003	Ball Bearing	6003zz	2	

8.5

General Assembly



S555011-0

No.	Part No.	Part Name	Description	Q'Ty	Remark
1		Frame Unit		1	
2		Electric Control Unit		1	
3		Control Unit		1	
4	S55-450000-120	Reel Unit		1	
5	E07010057	Main Power Switch		1	