

INSTRUCTION MANUAL

DS-25

Twin Drum Sander (240V)

635 x 127mm (W x H) Material Capacity



L129

DS-25 Drum Sander

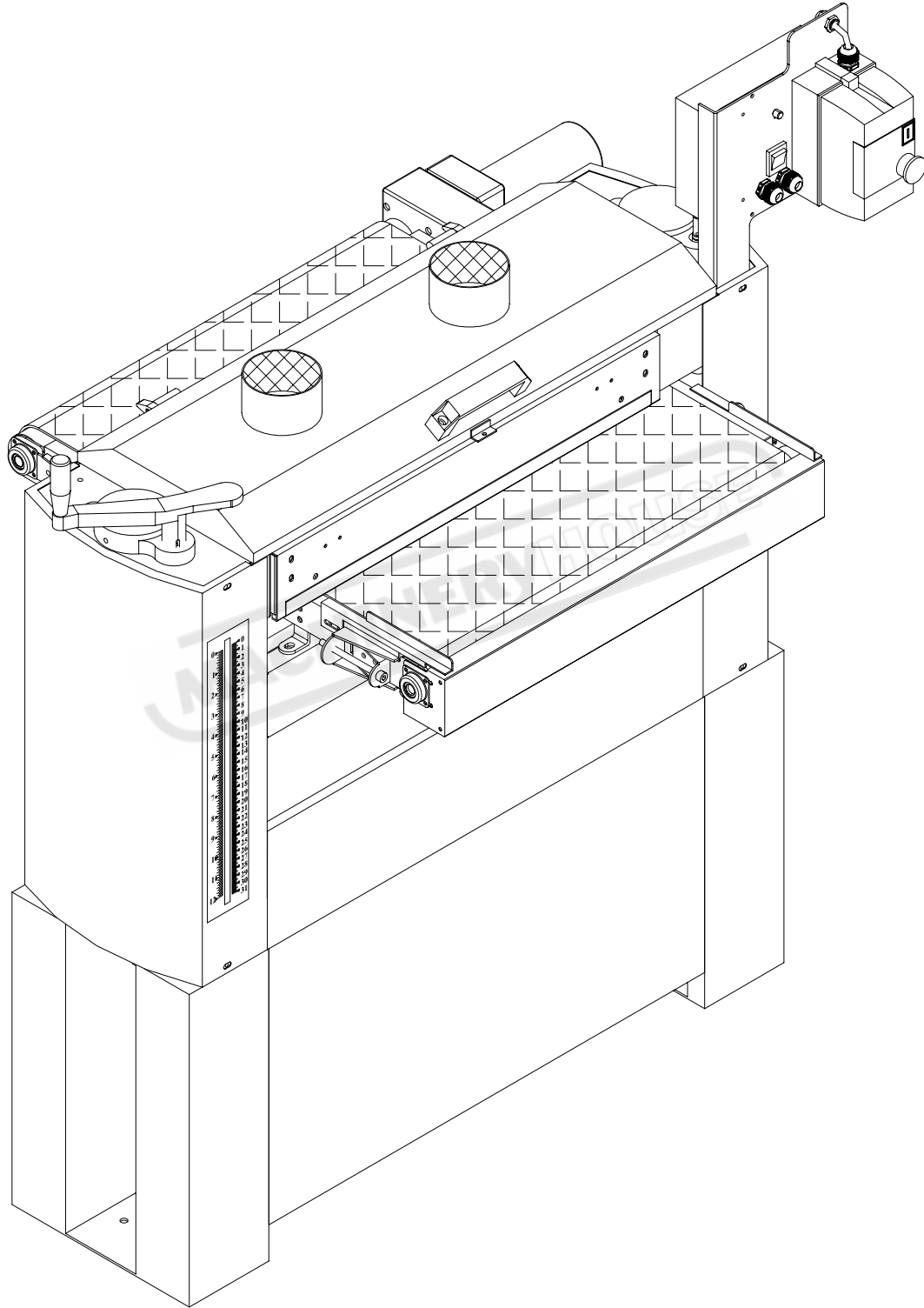


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PREFACE

Thank you for choosing this Drum Sander. We are pleased to offer you our best machinery and service, and trust that you will find our machinery economical, productive and easy to operate.

This manual covers the proper operation, safety and maintenance of the machine. It is important that this manual be read in its entirety before operating the machine. Although the machine has been checked and inspected in compliance with relevant safety regulations, the machine's safety and best performance are dependent on proper maintenance and operation. Hazards that arise due to improper operation and maintenance are solely the responsibility of the operator.

We thank you again for your choice, and for your careful reading of this manual.

GENERAL SAFETY RULES FOR WOODWORKING MACHINERY

There is a certain amount of hazard involved with the use of woodworking machinery. Using the machine with the respect and caution demanded as far as safety precautions are concerned will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, severe personal injury to the operator can occur.

1. Read the operation manual before operating this machine.
2. The machine should be disconnected from the power source before performing maintenance or adjustments to the internal mechanisms, or when making repairs.
3. Before leaving the machine, make sure the work area is clean.
4. Check timber for loose knots, nails, or other items which may cause a hazard or affect the machine's performance.
5. Keep all guards in place and in working order.
6. Do not force the machine. It will do the job better and be safer working at the rate for which it was designed.
7. All children and visitors should be kept a safe distance from the working area.
8. The operator should keep proper footing and balance at all times.
9. Do not operate the machine while under the influence of drugs, alcohol, or any other medication.
10. Avoid awkward operations and hand positions where a sudden slip could cause your hand to move into the sanding drum.

GENERAL SAFETY RULES FOR WOODWORKING

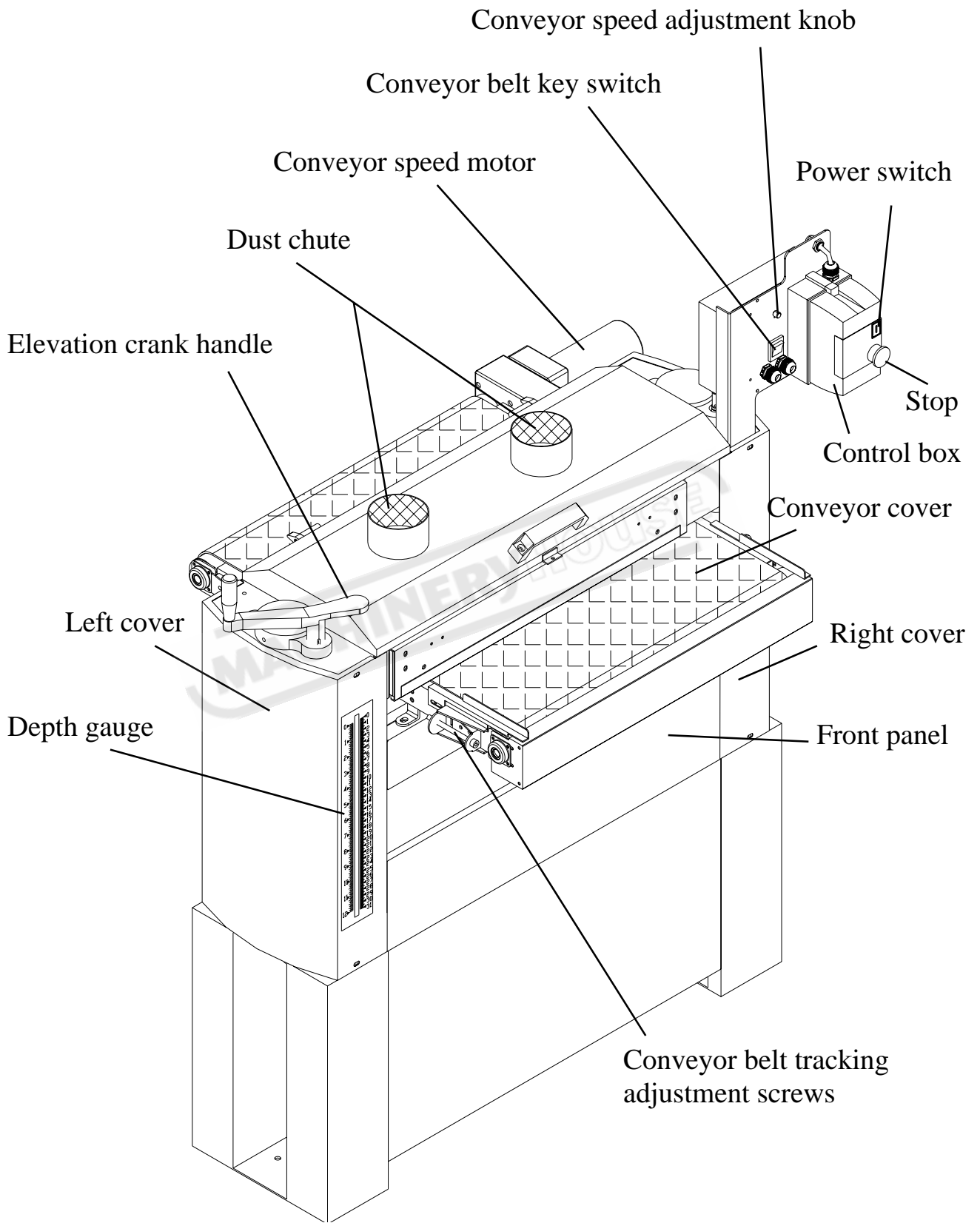
11. Never leave the machine until it comes to a complete stop, and never leave the machine running unattended.
12. The employer is responsible for selecting competent and qualified employees.
13. Safety shoes should be worn to provide protection against rolling objects, falling objects, and sharp edges in the workplace.
14. Eye protection should be worn and such devices should be carefully selected, fitted and used. Compulsory wearing of glasses with impact resistant lenses and side shields is a good safety policy.
15. Wear hearing protection when operating the machine.
16. Do not wear rings, necklaces or jewelry around moving machinery.
17. Do not wear loose fitting clothes. Clothing should be comfortable, but long sleeves, neckties, etc. should not be worn.
18. Do not wear gloves or other hand covering articles around moving machinery.
19. Cover long hair with a hair net or cap.
20. Protective guards and shields must be in place at all times unless they must be removed for specific service or maintenance. They should be immediately replaced when service or maintenance is completed.
21. Make sure that operator clearly knows how to stop the machine before starting work.
22. Never clean or remove chips while the machine is running.
23. Do not alter or remove guards and warning labels.
24. Keep the immediate area clean. Do not allow the floor to become slippery, or covered with dust or obstacles. Dust that accumulates in the work area is a hazard that can cause you to fall or slip against the machine or its controls.

SPECIFICATIONS

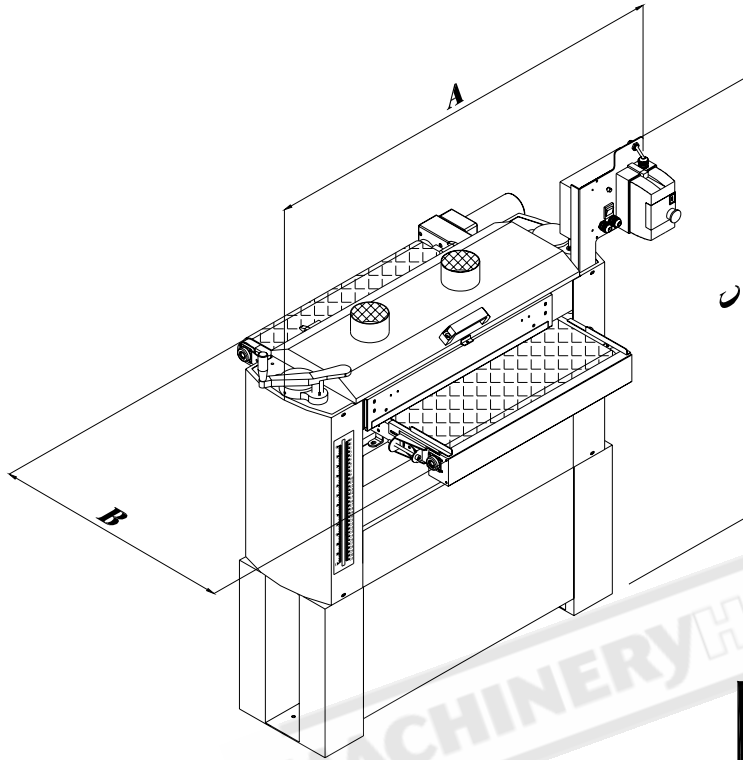
MODEL	DS-25
Max. sanding width	25"
Max. thickness of workpiece	5"
Min. thickness of workpiece	1/4"
Sanding drum speed	1600RPM
Conveyor belt speed	6 ~ 24 FPM
Sanding drum motor	3 HP
Feed drive motor	1/6 HP (DC)
Sanding drum diameter	5"
Net weight	180 kgs
Gross weight	210 kgs
Machine dimensions	45" x 28" x 52"
Voltage	220V
Number of sanding drums	2
Noise level	76dB

The above specifications are not binding. Mao Shan reserves the right to amend any specifications or design characteristics without prior notice.

MACHINE LEGEND



APPERANCE STANDARD SIZES



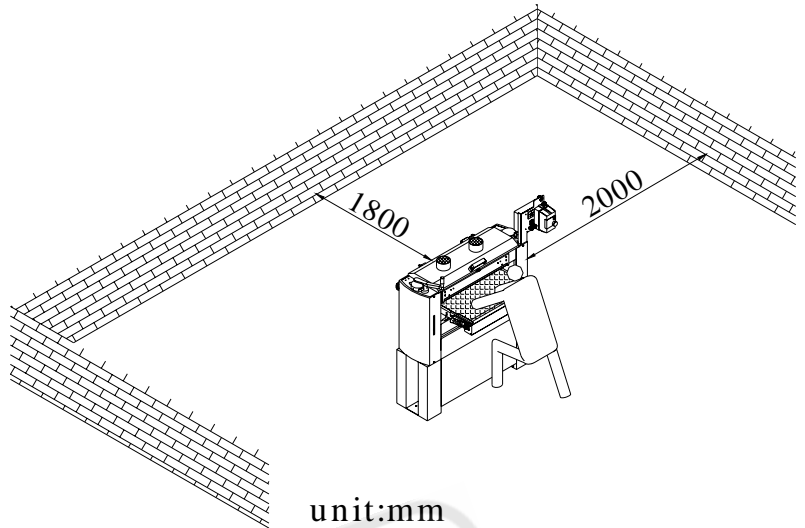
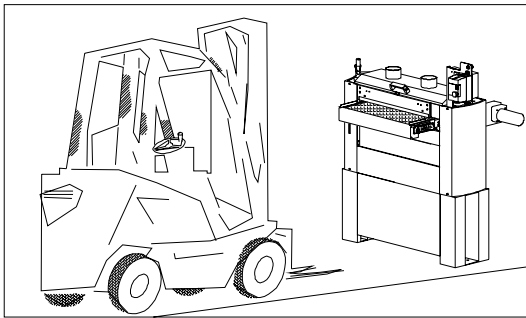
Model	A	B	C
DS-25	1143	711	1320
DS-25A	1092	560	1270
DS-26	1168	711	1320
DS-26A	1220	838	1397
DS-380	1473	890	1220
DS-38A	1473	838	1320
DS-13	685	635	609
DS-13A	685	635	609

unit:mm

Title	Apperance Standard Sizes	Page	1/1
Model	DS- 25、 25A、 26、 26A 、 380、 38A、 13、 13A		

THE MOVE AND DIMENSION OF LOCATION

1. Using pallet truck or forklift while moving the machine
2. The center of gravity is in the first half of the machine. Using assistant to support and stable the machine, to prevent the dangerous from fall in.

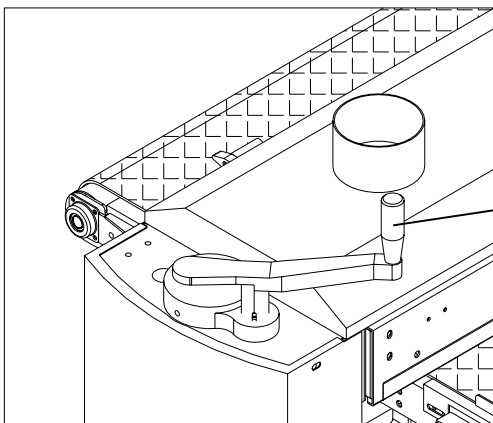


UNPACKING AND ASSEMBLY

Remove the sander and all parts from the container, and check to ensure that all parts are present as indicated. If any parts are damaged or missing, contact your distributor immediately.

Move the sander to the worksite with a forklift or lifting hook. Make sure that the equipment used for transportation of the sander is of adequate capacity.

Mount the table elevation crank handle as shown in figure. Align the slots on the shaft and crank handle, and use the pin supplied to fasten the crank handle to the shaft.



Crank Handle

ELECTRICAL CONNECTIONS

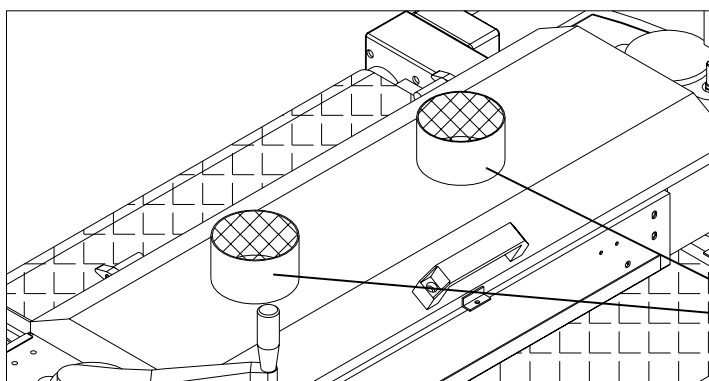
This Sander is rated for voltage and amperage appropriate to the area where it is sold. Confirm that the electrical specifications match your setup before use. Proper grounding is essential. Failure to properly ground the machine may result in electrical shock and injury to the operator or other personnel. If the machine is to be used with other electrical configurations, all connections must be made by qualified service personnel, and the setup must comply with local codes and ordinances. Use of an extension cord is not recommended. If an extension cord must be used, it must be of adequate size and capacity to support the amperage and distance between the machine and the power source.

WARNING

All electrical connections must be done by qualified service personnel!
Failure to comply may result in serious injury and/or damage to the machine!

ATTACHING A DUST COLLECTOR

The machine is provided with two 4-inch dust chutes. Use ring clamps to attach dust collection hoses to the chutes.



Dust Chute

WARNING

Do not operate this machine without a dust collector attached and running.

MOUNTING AND REPLACING SANDING BELT

Removing the Sanding Belt

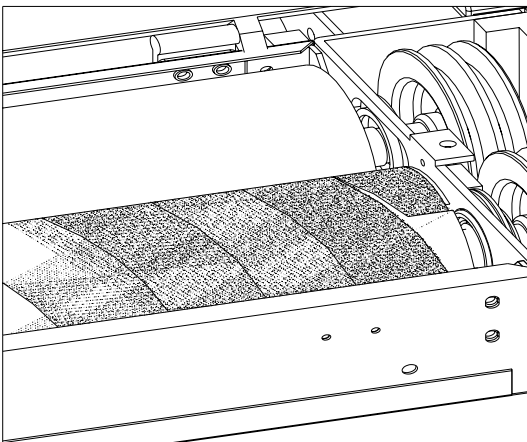
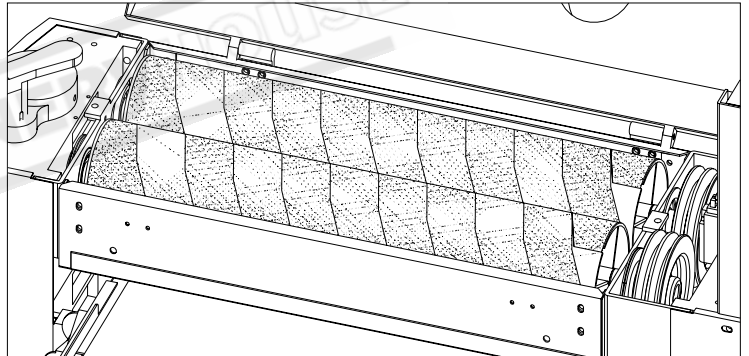
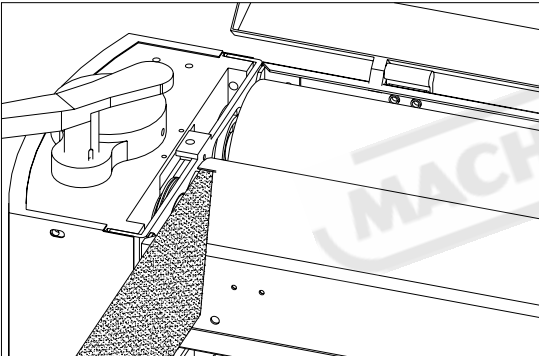
Lift the upper guard and tilt it to the rear, in order to access the sanding drum.

The sanding belt is fixed at either end of the drum by spring loaded clamps. To remove the sanding belt, push the right clamp forward and pull the tab of the sanding belt out of the right drum slot.

Unwind the sanding belt from the drum, and push the clamp forward at the left side of the drum to remove the sanding belt tab from the left drum slot.

Mounting a New Sanding Belt

Insert the tab of the belt on the left end of the drum, and push the left clamp forward so that the tab will slide under the clamp. Releasing the clamp will lock belt tab into place. Roll the sanding belt onto the drum, keeping the edges snug. Tuck the tab at the right end of the sanding belt into the slot at the other end of the drum, pushing the clamp forward so that the tab will slide in. The clamps are spring loaded, and will hold the belt increasingly tightly as the drum revolves. Replace and mount sanding belt on both sanding drum by this method.

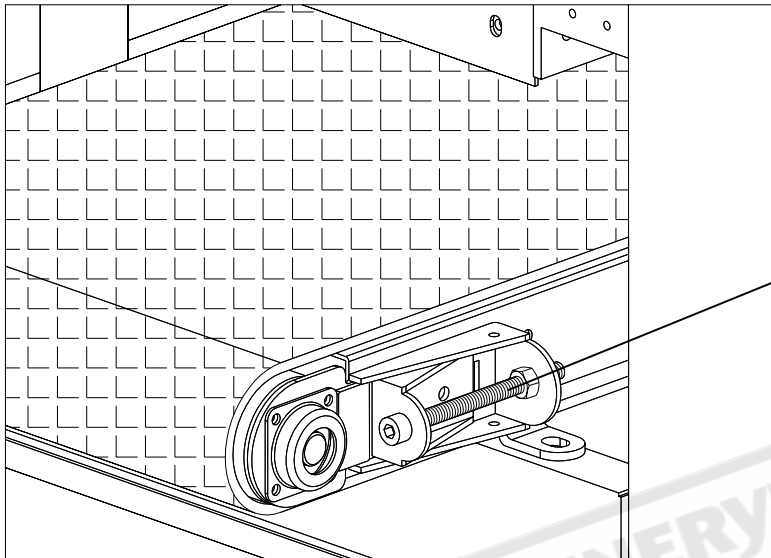


CAUTION

Make sure the machine is disconnected from the power source before mounting the sanding belt.

ADJUSTING THE CONVEYOR BELT TRACKING & TENSION

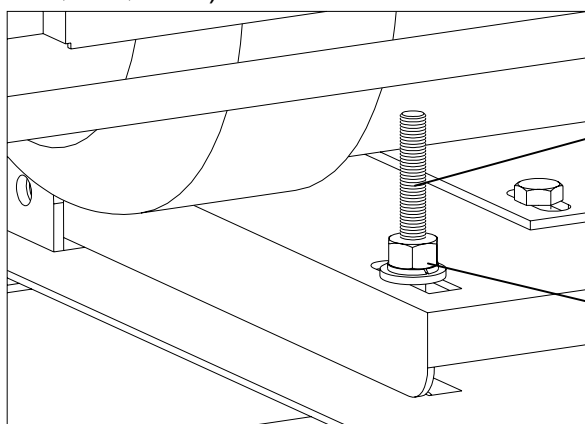
If the conveyor belt runs to the right or left during operation, or the conveyor belt tension is too loose or too tight, adjust it by turning the adjustment nuts on either side of the conveyor table. The conveyor belt should run at the center of the conveyor table, and should be tensioned so that there is good traction during stock feeding.



Conveyor Adjustment Bolts

ADJUSTING THE SANDING DRUM DRIVE BELT

The drum is driven by one belt and powered by the main motor. If the belt become too loose, remove the right end guard, front guard, and then adjust the position of the motor (height) by turning the M12 nuts on the height adjustment bolts (See figure). (for model : DS-25、 26、 380、 38A、 13、 13A)



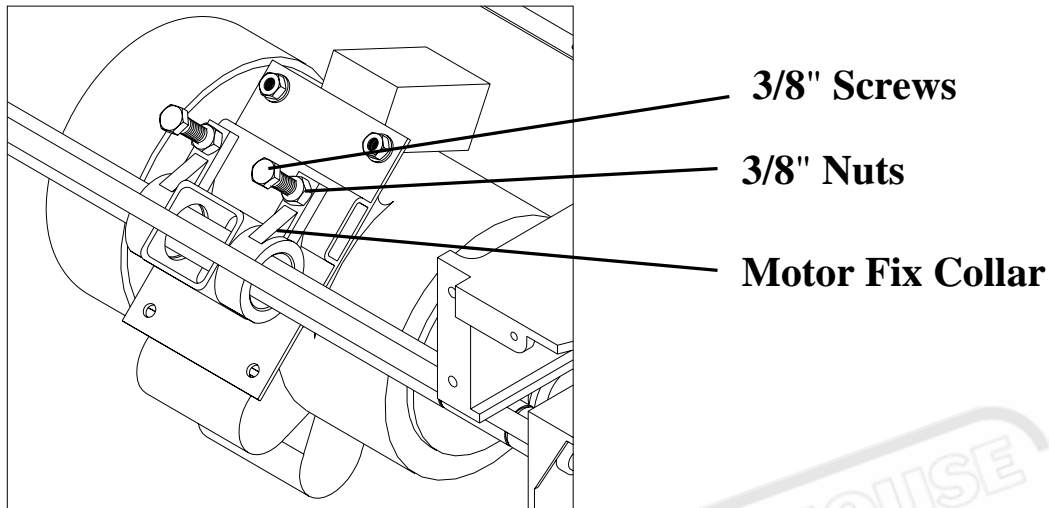
Height Adjustment Bolt

5/16" nut

If the motor becomes damaged and needs to be replaced, remove the bolts on the bottom of the motor base plate, and remove the entire motor assembly.

ADJUSTING THE SANDING DRUM DRIVE BELT

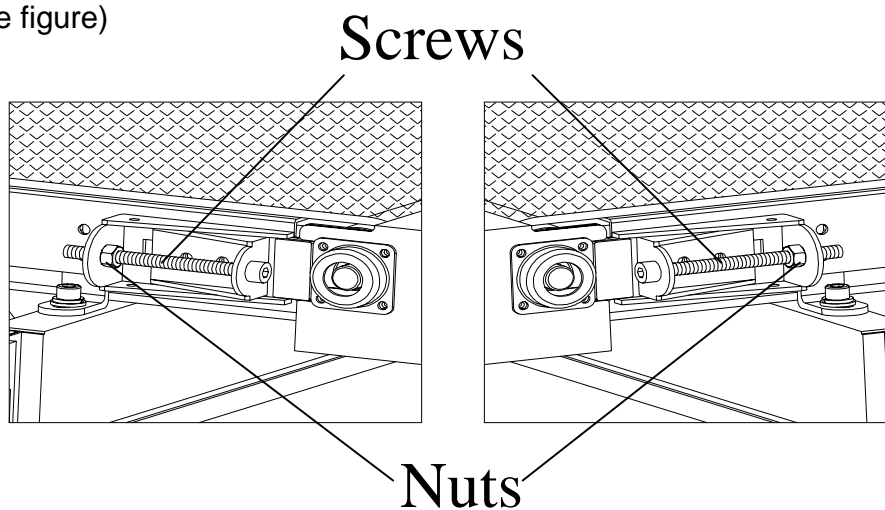
The drum is driven by one belt and powered by the main motor. If the belt become too loose, remove the right end guard, front guard, and then adjust the position of the motor (height) by turning the M12 nuts on the height adjustment bolts (See figure). (for model : DS-25A, 26A)



If the motor becomes damaged and needs to be replaced, remove the bolts on the bottom of the motor base plate, and remove the entire motor assembly.

REPLACING THE CONVEYOR BELT

If the conveyor belt becomes too worn, the workpiece will not be fed effectively. To replace the conveyor belt, remove the guards at both ends of the sander, and remove the four fix screws at the bottom of the feed table assembly. The feed table can then be removed so that the feed belt can be replaced. (see figure)



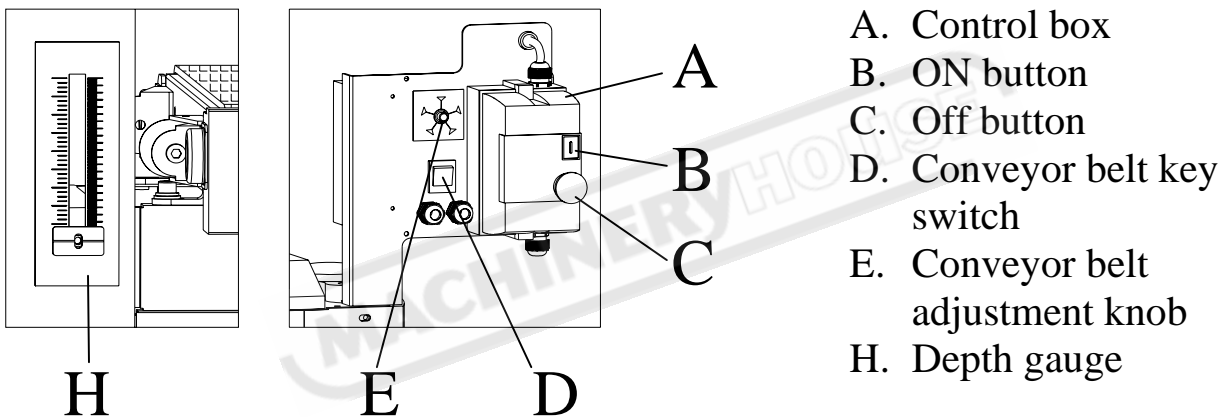
SANDING OPERATIONS

Start the dust collector before turning on the sander.

To start the machine, press the green 'ON' button on the control box. Turn the key switch to start the conveyor belt running. Turn the conveyor speed adjustment knob to the desired stock feeding speed. To stop the machine, press the red 'OFF' button on the control box.

Use the crank handle to set the sanding height to the desired thickness. If the thickness is not known, place the workpiece on the table, where under the sanding drums, and then raise the conveyor table until the sanding drums reach the workpiece. The thickness can be read on the depth gauge located on the front left of the machine. When feeding the workpiece, place it at the center of the conveyor belt. There is centering gauge on the infeed side of the machine frame that indicates the center of the conveyor belt.

The maximum workpiece thickness acceptable for this machine is 5". The minimum workpiece thickness is 1/4". Do not attempt to sand workpieces outside of these specifications.



LUBRICATION AND MAINTENANCE

NOTE

Before performing any maintenance or lubrication, disconnect the machine from the power source.

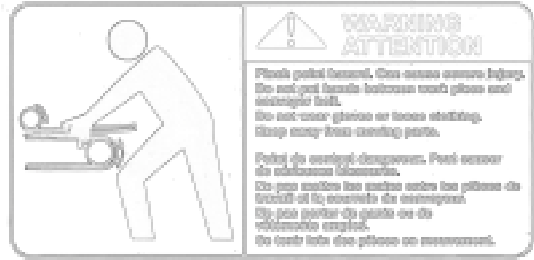
1. The table height adjustment screw shafts located at either end of the machine must be well lubricated with grease.
2. Make sure all nuts and screws are tight before sanding. Check that the sanding belt is mounted properly, and have not become loose or torn.
3. Do not allow excessive dust to accumulate on or in the machine.

TROUBLESHOOTING

TROUBLE	PROBABLE
Sanding belt clogs too quickly	<ol style="list-style-type: none"> 1. Sanding belt grit too fine. 2. Too much material being removed in one pass. 3. Dirty workpiece suction. 4. Insufficient dust suction. 5. Workpiece contains too much moisture.
Rounding occurs at edges or workpiece.	Too much material being removed in one pass.
Uneven thickness of right and left sides of workpiece after sanding.	<ol style="list-style-type: none"> 1. Sanding drum is not parallel to the table. 2. Uneven wear on sanding belt
Stock slips on conveyor belt.	<ol style="list-style-type: none"> 1. Too much material being removed in one pass. 2. Sanding belt grit too fine.
Shiny spots on sanded workpiece.	<ol style="list-style-type: none"> 1. Conveyor belt is too smooth. 2. Conveyor belt tension is insufficient 3. Excessive dust accumulated on conveyor belt surface.
Marks on sanded surface of workpiece.	<ol style="list-style-type: none"> 1. Sanding belt is too worn. 2. Sanding height set incorrectly 3. Sanding belt damaged.
Conveyor belt does not run smoothly, or stops.	Insufficient conveyor belt tension.

WARNING LABELS

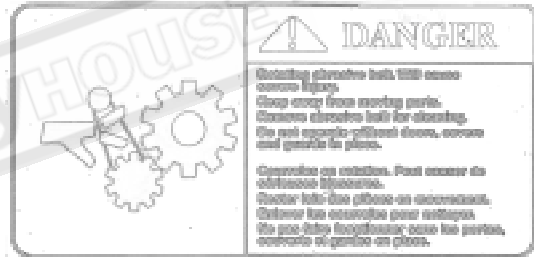
Do not place the hands and fingers between the wood and conveyor belt while the conveyor is running, or hand and fingers can become injured.



Do not open dust cover when machine is running to avoid dangerous.



*Electrocution hazard:
Equipment supplied at high voltage.
Never touch live parts.*



Hand and fingers can become injured if they are pinched between the belt and chain. Don't place your hands and fingers between belt and chain.

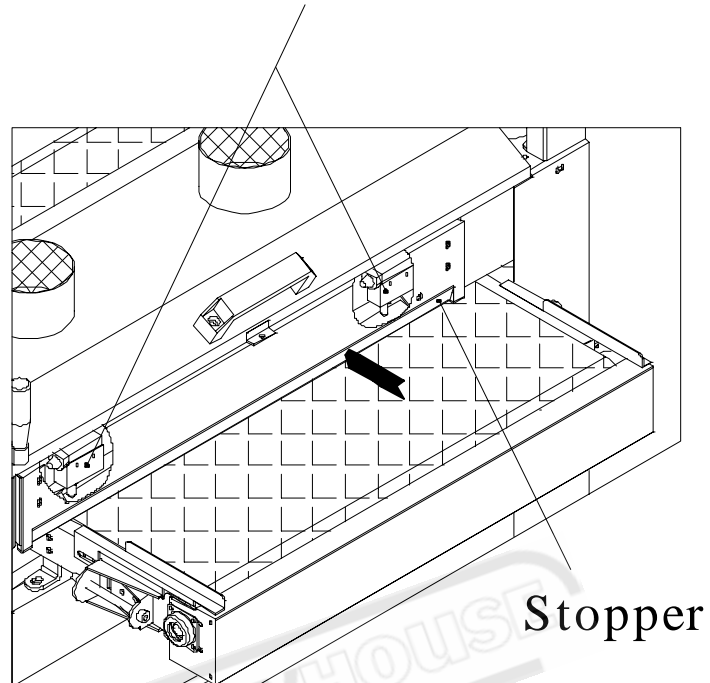


Don't Touch !

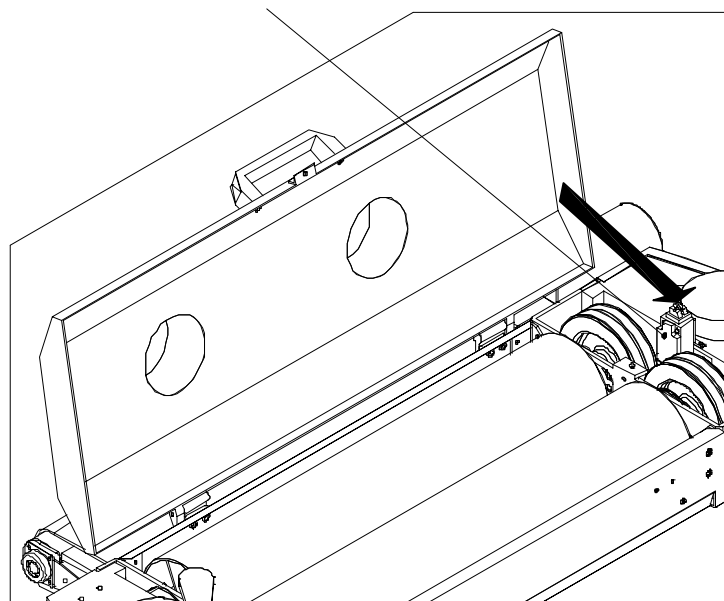


EMERGENCY STOP AND SAFETY DEVICE

Series compact enclosed limit switch

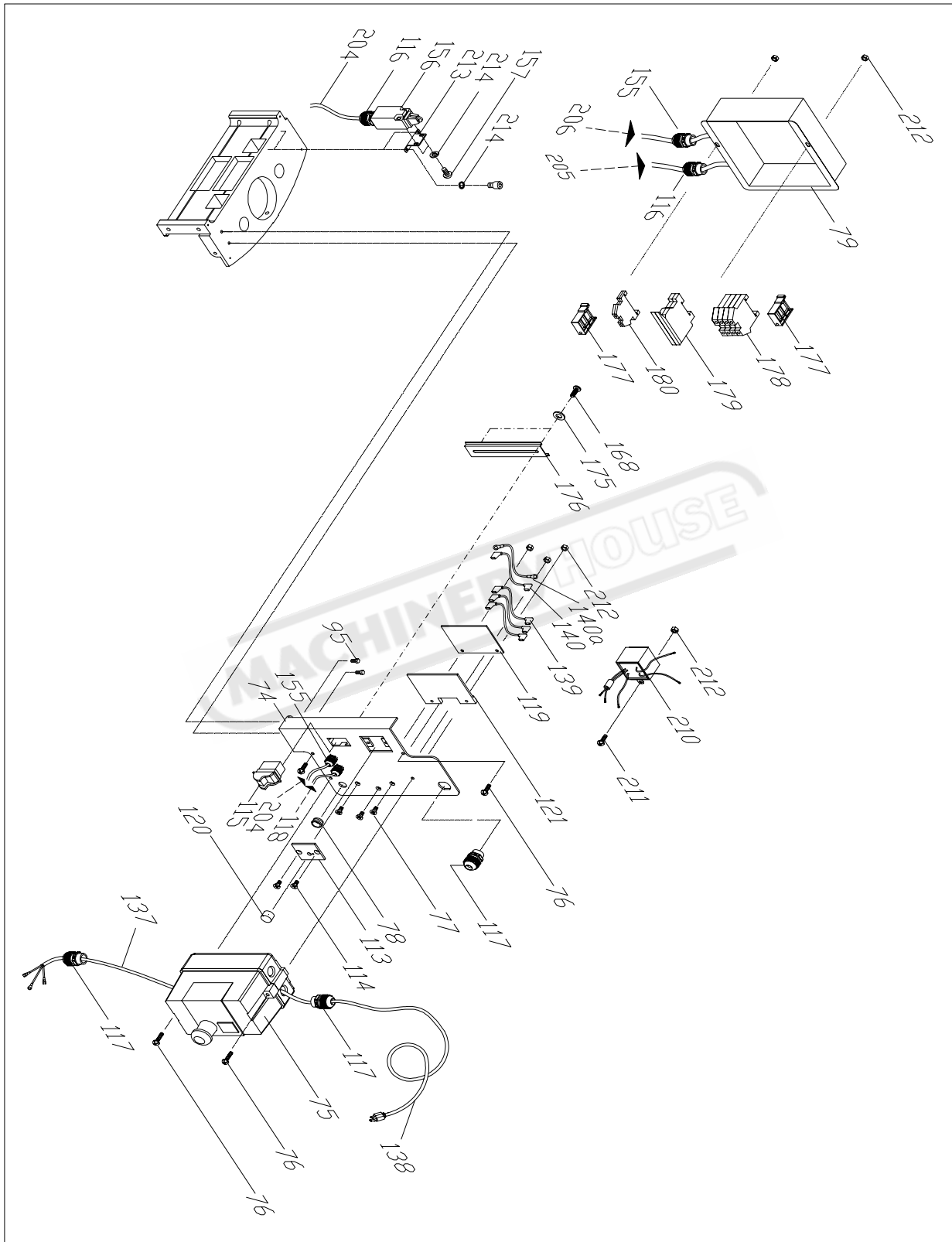


Series safety limit switch



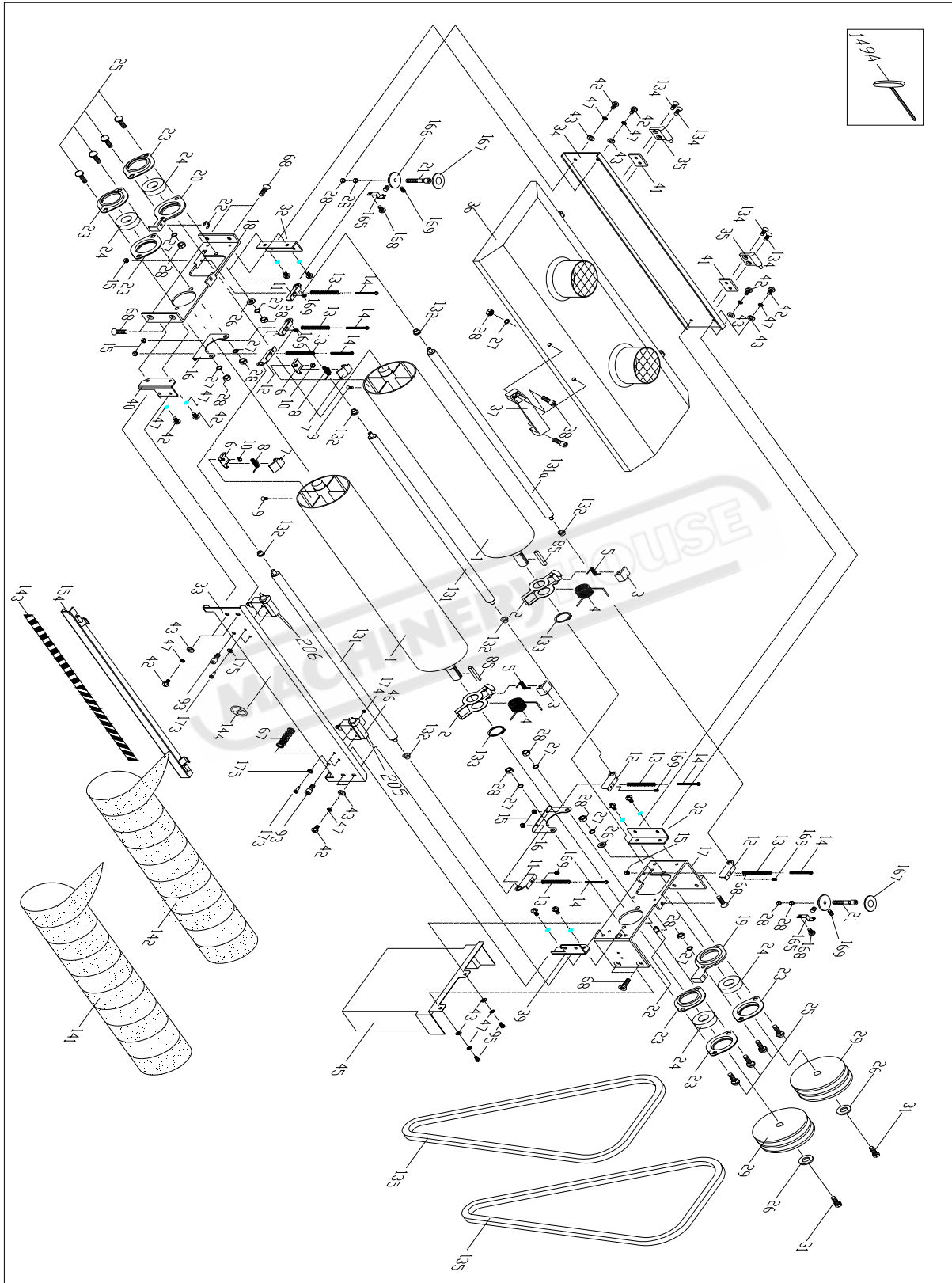
ASSEMBLY DIAGRAM

MODEL:DS-25



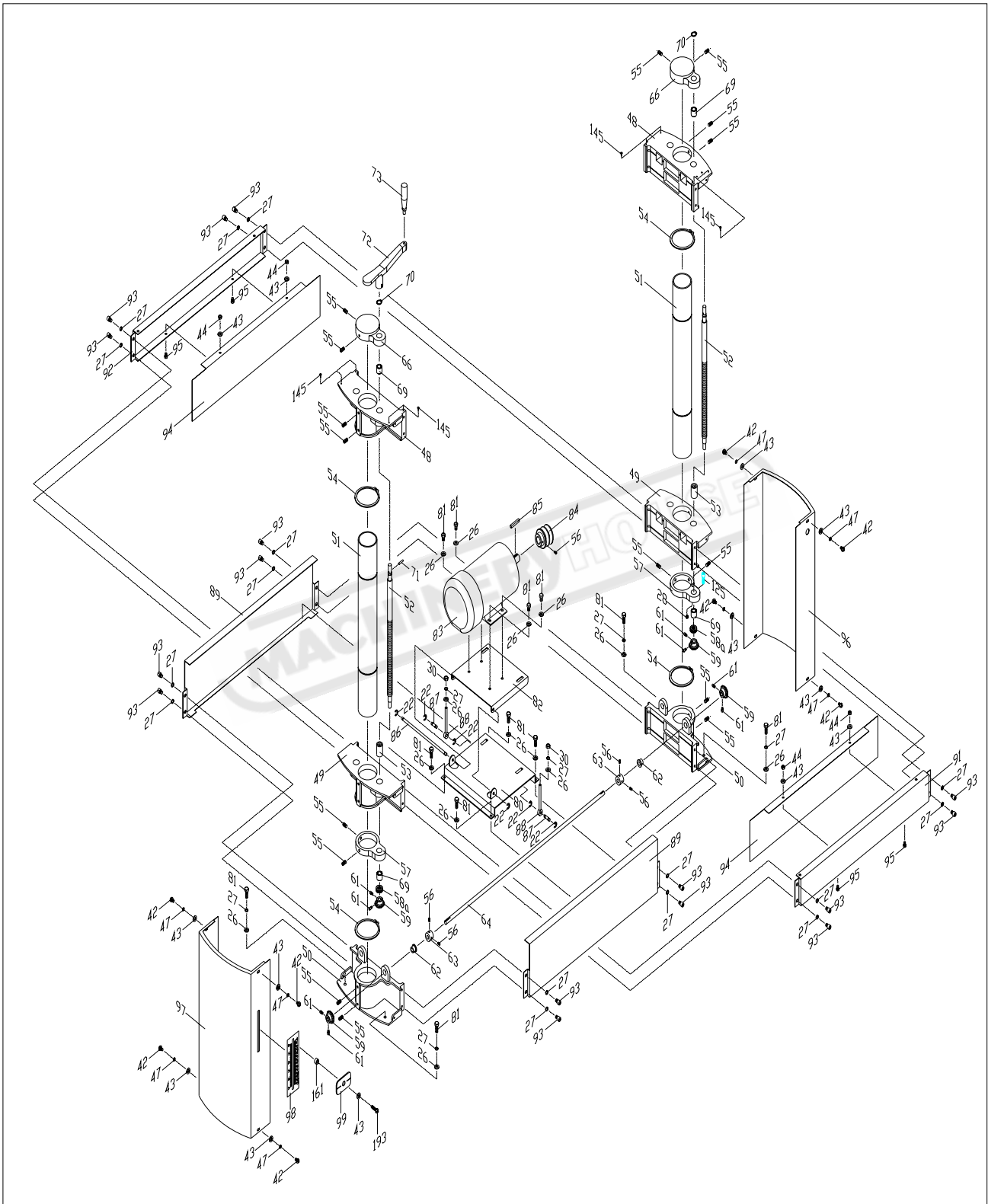
ASSEMBLY DIAGRAM

MODEL:DS-25



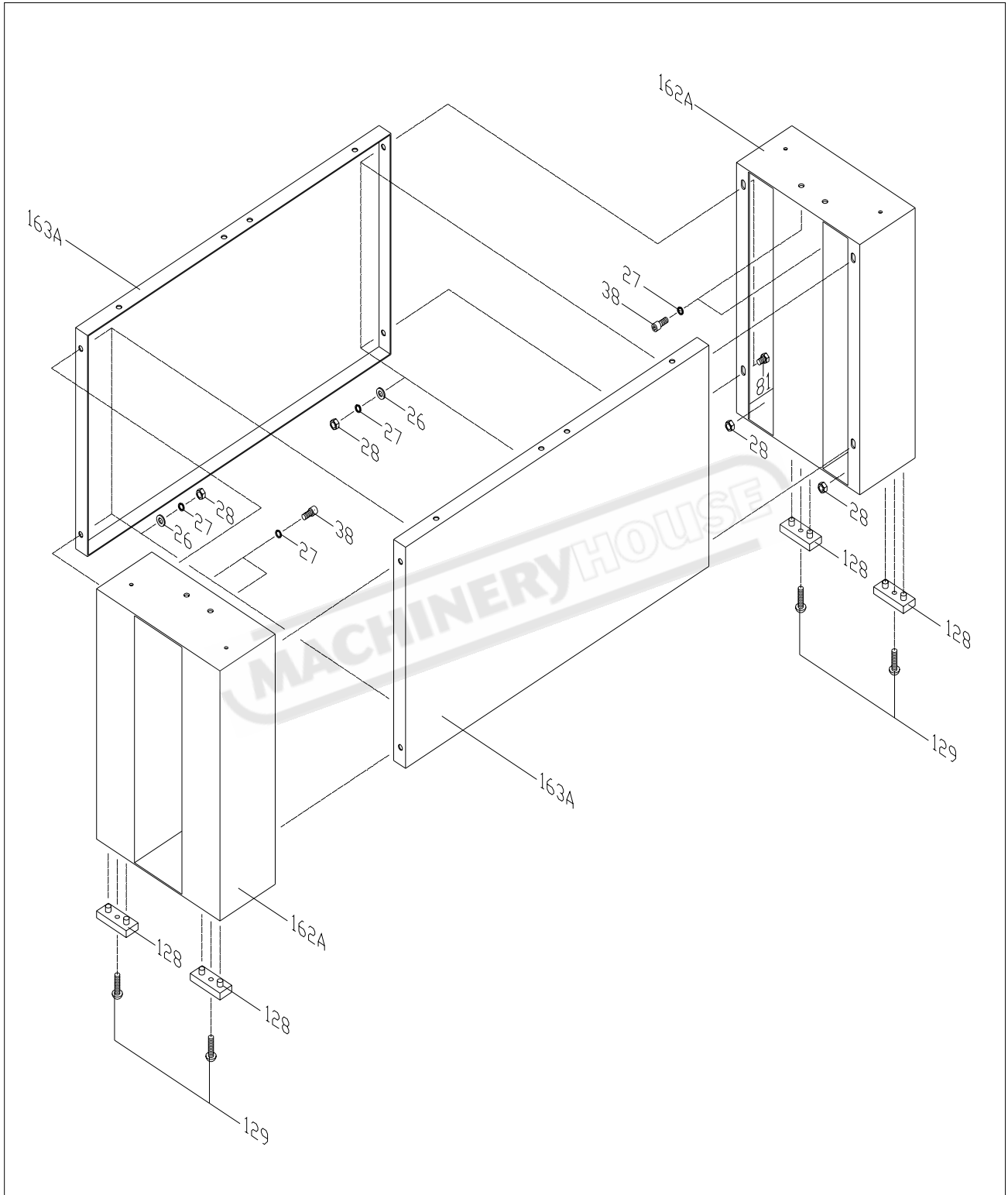
ASSEMBLY DIAGRAM

MODEL:DS-25



ASSEMBLY DIAGRAM

MODEL: DS-25



PART NO.	REFERENCE NO.	DESCRIPTION	QTY
1	20900001	DRUM	2
2	20703010	PULL CLAMP BRACKET	2
3	20703010B	PULL CLAMP	2
4	20703010A	SPRING	2
5	20703014A	SPRING	2
6	20703014	FIXED CLAMP BRACKET	2
7	20703014B	FIXED CLAMP	2
8	20703014C	SPRING	2
9	S0040300	FLAT CROSS HEAD SCREW	2
10	S0110300	NUT	7
11	20900086	RIGHT CLAMP	3
12	20900087	LEFT CLAMP	3
13	20900069	MICROMETRIC ADJUSTMENT SPRING	6
14	S0030580M	CROSS ROUND HEAD SCREW	6
15	S0120500M	NYLON NUT	6
16	20900002	CLAMP BLOCK	2
17	20900003	RIGHT BEARING HOUSING	1
18	20900004	LEFT BEARING HOUSING	1
19	20900005	RIGHT MICROMETRIC ADJUSTMENT BEARING CAP	1
20	20900006	LEFT MICROMETRIC ADJUSTMENT BEARING CAP	1
21	S0020530A	HEX SOCKET HEAD SCREW	2
22	S05ETW06	E RING	8
23	20703002	BEARING CAP	6
24	C1206205	BEARING	4
25	S0060510	WING SCREW	8
26	S0210500c	FLAT WASHER	24
27	S0230506	SPRING WASHER	48
28	S0110500	NUT	35
29	20900008	DRIVEN ROLLER	2
30	S0210532	FLAT WASHER	2
31	S0020512L	HEX HEAD SCREW	2
32	20900009	ANGLE PLATE	2
33	20900010E	STOPPER	1
34	20900011L	DUST HOOD FIX PLATE	1
35	20702019	COVER HINGE	2
36	20900012E	DUST GUARD	1
37	20703016	DUST WOOD HANDLE	1
38	S0010502	HEX SOCKET HEAD SCREW	6
39	20900009a	UPPER BUCKLE	1
40	20900009b	LOWER BUCKLE	1
41	20900068	PAD	2

PART NO.	REFERENCE NO.	DESCRIPTION	QTY
42	S0030405	CROSS ROUND HEAD SCREW	24
43	S0210401	FLAT WASHER	41
44	S0110400	NUT	16
45	20900013	PULLEY GUARD	1
46	WLAZ7110	LIMITED SWITCH	2
47	S0230400	SPRING WASHER	66
48	20900014	UPPER BRACKET	2
49	20900015	SLIDE	2
50	20900016	LOWER BRACKET	2
51	20900017	POST	2
52	20900018	SCREW	2
53	20900019	SCREW BUSHING	2
54	S0520080	RING	4
55	S0050500	SET SCREW	16
56	S0050406	SET SCREW	5
57	20900020	SCREW HOLDER	2
58a	C5151102	BEARING #5102	2
59	20900022	BEVEL GEAR	4
60	S0010616M	HEX SOCKET HEAD SCREW	4
61	S0050306n	SET SCREW	8
62	20900023	GEAR SHAFT BUSHING	2
63	20900024	POSITION COLLAR	2
64	20900025	GEAR TRANSMISSION SHAFT	1
65	20900067	STAND	4
66	20900026	POST COVER	2
67	10102021	SPRING	2
68	S0040307	FLAT CROSS HEAD SCREW	8
69	20900028	BRONZE COLLAR COVER	4
70	S0520015	RING	2
71	S0310420	PIN	1
72	20900029	HANDLE	1
73	10105056a	HANDLE KNOB	1
74	20900030E	SWITCH MOUNTING PLATE	1
75	W0000000	MAGNETIC SWITCH	1
76	S0030318	ROUND CROSS HEAD SCREW	4
77	S0040308	FLAT HEAD SCREW	3
78	10401008	WIRE BUSHING	1
79	20900066E	SWITCH REAR GUARD	1
80	20900031	MOTOR BASE	1
81	S0020501	HEX HEAD SCREW	20
82	20900032	MOTOR ADJUSTMENT PLATE	1

PART NO.	REFERENCE NO.	DESCRIPTION	QTY
83	M0000000	MOTOR	1
84	20900033	DRIVE PULLEY	1
85	S0430640	KEY	3
86	20900034	BASE SHAFT	1
87	20900035	POSITIONING SHAFT	2
88	20900036	SCREW	2
89	20900037	COVER	2
91	20900039	FRONT TABLE SUPPORT	1
92	20900040	REAR TABLE SUPPORT	1
93	S0010500	HEX SOCKET HEAD SCREW	22
94	20900041	SHIELD PLATE	2
95	S0020408	HEX HEAD SCREW	8
96	20900042	RIGHT COVER	1
97	20900043	LEFT COVER	1
98	20900044	GRADUATED SCALE	1
99	20900045	INDICATOR	1
100	20900046	SANDING BELT PLATEN	1
101	20900047	MICROMETRIC ADJUSTMENT BLOCK	2
102	20900048	MICROMETRIC ADJUSTMENT FIX BLOCK	2
103	20900049	BEARING COVER	4
104	20900050	SANDING BELT DRUM	1
105	20900051	POSITIONING PLATE	1
106	20900052	TRANSMISSION ROLLER	1
107	C1106202A	BEARING	4
108	S0120200	NYLON NUT	10
109	20900053	PAD	2
110	20900054	SHAFT JOINT FIX SCREW	2
111	S0050404a	FIX SCREW	2
112	20900055	ELECTRIC CONTROL BOX	1
113	20701011	ELECTRICAL INSULATION BOARD	1
114	S0040510M	FLAT CROSS HEAD SCREW	2
115	W0000001	SAFETY SWITCH	1
116	S100PG11	PLASTIC CLAMP	1
117	S100PG13	PLASTIC CLAMP	3
118	M2090002	SPEED REDUCING MOTOR	1
119	20900073	PC BOARD	1
120	40501019	REGULATOR KNOB	1
121	40501018	PC BOARD FIX PLATE	1
122	20900056	ELECTRICAL CONTROL BOX BOTTOM COVER	1
123	S0030304	ROUND CROSS HEAD SCREW	18
124	S0010620M	HEX SOCKET HEAD SCREW	22

PART NO.	REFERENCE NO.	DESCRIPTION	QTY
125	S0010505	HEX SOCKET HEAD SCREW	1
128	10401029	PAD	4
129	S0090512	ROUND HEAD SCREW	4
130	S0010503a	HEX SOCKET HEAD SCREW	2
131	20900060	PRESSURE ROLLER	2
131a	20900060a	PRESSURE ROLLER	1
132	20701006	BEARING	6
133	S0520028	RING	2
134	S0040410	FLAT CROSS HEAD SCREW	4
135	V0017500	V-BELT	2
136	20900061	CONVEYOR BELT	1
137	L000000M	MOTOR WIRE	1
138	L0000000	POWER WIRE	1
139	LC161151B	SWITCH WIRE	3
140	LC161101B	WIRE WITH TERMINALS	1
140a	LV101151G	GROUND WIRE	2
141	20900062	SANDING BELT	1
142	20900063	SANDING BELT	1
143	J2090001	WARNING LABEL	1
144	J2090002	WARNING LABEL	1
145	10101002	BUFFER	4
147	20900064	COVER HINGE	1
148	S0911214	OPEN END WRENCH	1
149	S1206150	T HANDLE ALLEN WRENCH	1
149A	S1202100	T HANDLE ALLEN WRENCH	1
150	I2090003	MANUEL	1
151	J2090004	SPEED LABEL	1
152	S0910103	WRENCH	1
153	H2090001	WOODEN CASE	1
154	20900010a	FEEDING PLATE	1
155	S100PG09	PLASTIC CLAMP	4
156	WL001122	LIMITED SWITCH	1
157	S0010435M	HEX SOCKET HEAD SCREW	2
161	20900081	RING	1
162A	20900057	STAND	2
163A	20900058	PLATE	2
165	20900100	SCALE POINTER	2
166	20900101	ADJUSTING COLLAR	2
167	J2090012	SCALE POINTER	2
168	S0030305	ROUND HEAD SCREW	6
169	S0050103	SET SCREW	4

PART NO.	REFERENCE NO.	DESCRIPTION	QTY
170	S0050306n	SET SCREW	6
173	S0010430M	HEX SOCKET HEAD SCREW	4
174	S0110400M	NUT	4
175	S0210300	FLAT WASHER	6
176	22300047	TERMINAL	1
177	WE000002	FIX PLATE	2
178	WE000001	TERMINAL	4
179	WF000002	FUSE TERMINAL	1
180	WG000004	CONNECT PLATE	2
192	S0230500M	SPRING WASHER	16
193	S0030310	ROUND HEAD SCREW	9
204	LV1020402	ELECTRIC WIRE	1
205	LV1020503	ELECTRIC WIRE	1
206	LV1026501	ELECTRIC WIRE	1
210	20900098	WAVE FILTER	1
211	S0030512M	ROUND HEAD SCREW	5
212	S0110500M	NUT	1
213	21500060	FIX PLATE	1
214	S0230401	SPRING WASHER	4
215	S0010412M	HEX SOCKET HEAD SCREW	2
216	20900110A	RIGHT FEEDING TABLE PLATE	1
217	20900111A	LEFT FEEDING TABLE PLATE	1
218	S0210303	FLAT WASHER	4
219	S1042501	TUBE	1
220	S107P026	WIRE PROTECT COVER	4
221	LC161101B	WIRE WITH TERMINALS	1