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L1105

DS-13 DRUM SANDER

**OPERATION MANUAL
&
PARTS LIST**

07-8-09

L1105

DS-13A DRUM SANDER

OPERATION MANUAL AND PARTS LIST

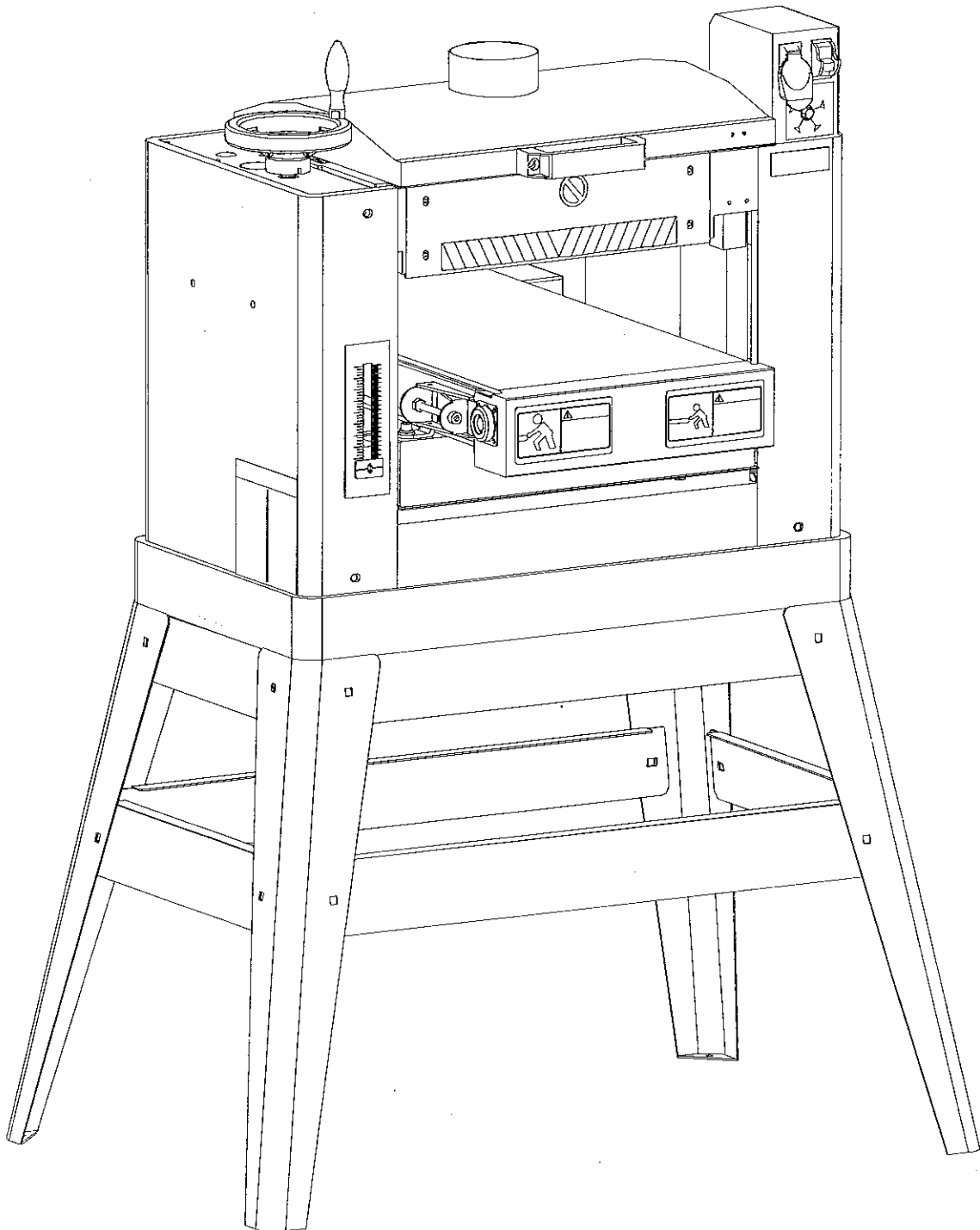


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PREFACE

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.

GENERAL SAFETY RULES FOR WOODWORKING MACHINERY

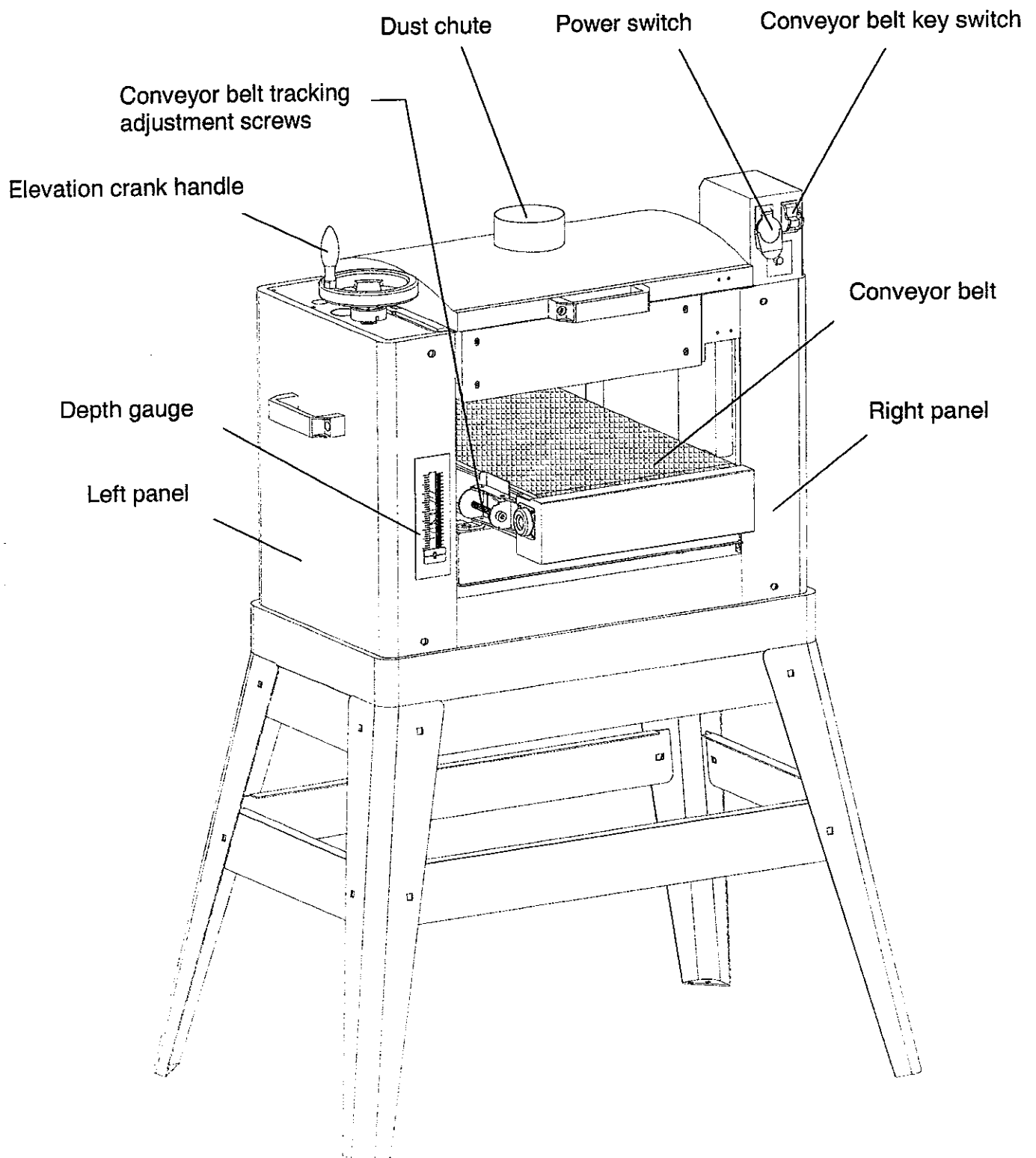
10. Avoid awkward operations and hand positions where a sudden slip could cause your hand to move into the sanding drum.
11. Never leave the machine until it comes to a complete stop, and never leave the machine running unattended.
12. The employer is responsible for selecting competent and qualified 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-13A
Max. sanding width	13"
Max. thickness of workpiece	4"
Min. thickness of workpiece	1/4"
Sanding drum speed	860RPM
Conveyor belt speed	3 ~ 20 FPM
Sanding drum motor	1.5 HP
Feed drive motor	1/15 HP (DC)
Sanding drum diameter	5"
Net weight	114.5 kgs
Gross weight	153 kgs
Machine dimensions	82 x 88 x 74 cm
Packing dimensions	18.9 cuft

※The above specifications are not binding. We reserve the right to amend any specifications or design characteristics without prior notice.

MACHINE LEGEND

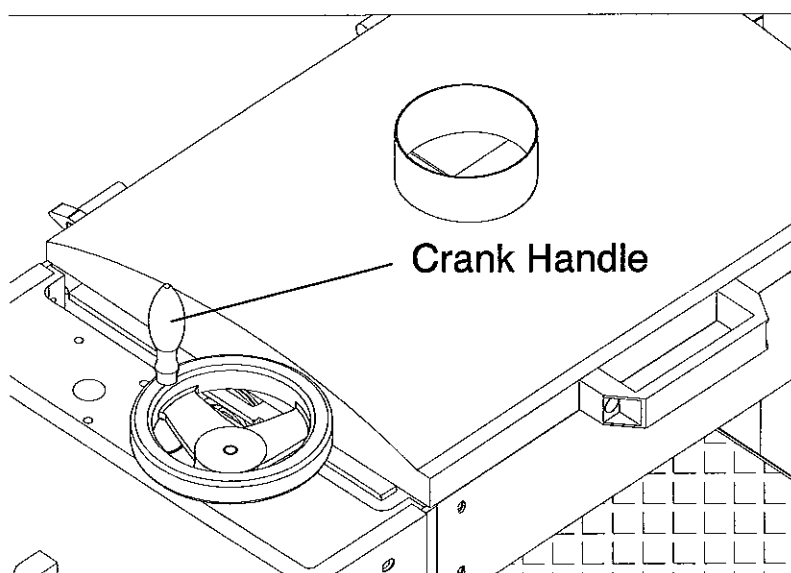


UNPACKING AND ASSEMBLY

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.

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.



ELECTRICAL CONNECTIONS

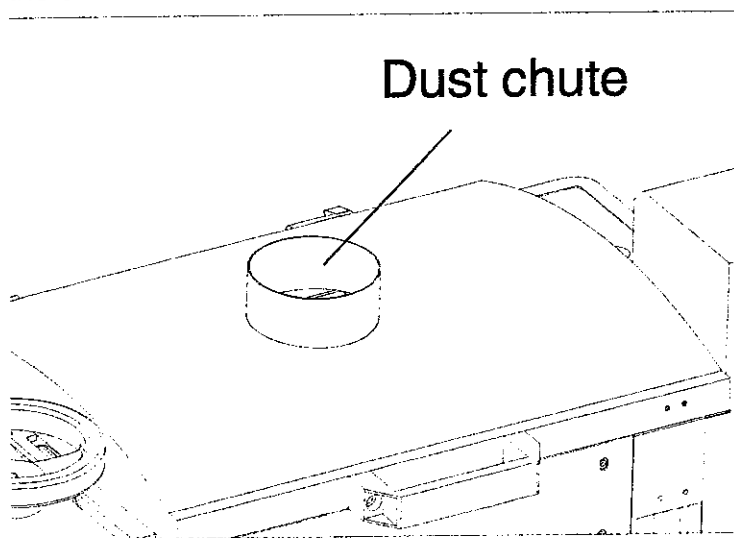
This Sander is rated for voltage and amperage appropriate to the area where it is sold. Confirm that the electrical specifications match your setup before use. Proper grounding is essential. Failure to properly ground the machine may result in electrical shock and injury to the operator or other personnel. 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 4-inch dust chutes. Use ring clamp to attach dust collection hose to the chutes.



WARNING

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

MOUNTING AND REPLACING SANDING BELT

Removing the Sanding Belt

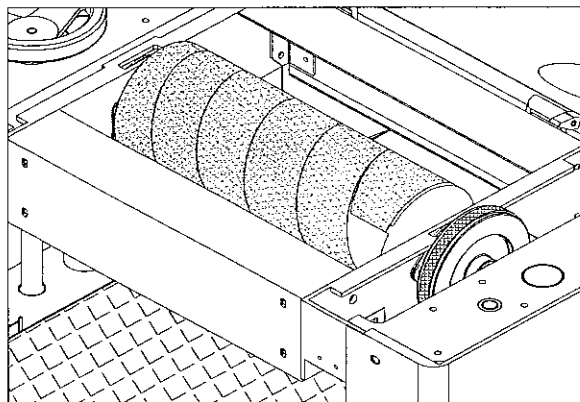
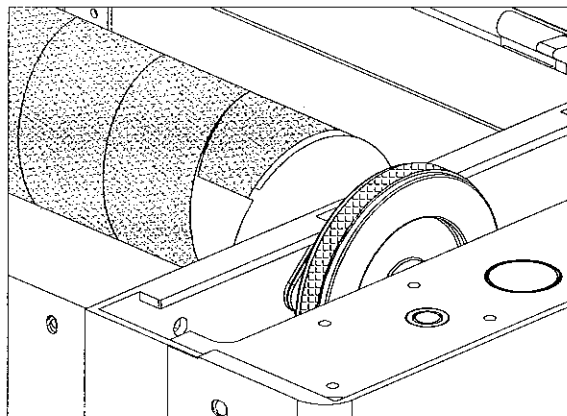
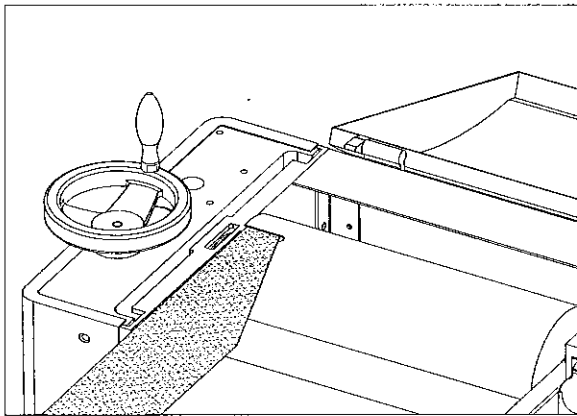
Lift the upper guard and tilt it to the rear, in order to access the sanding drum.

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.

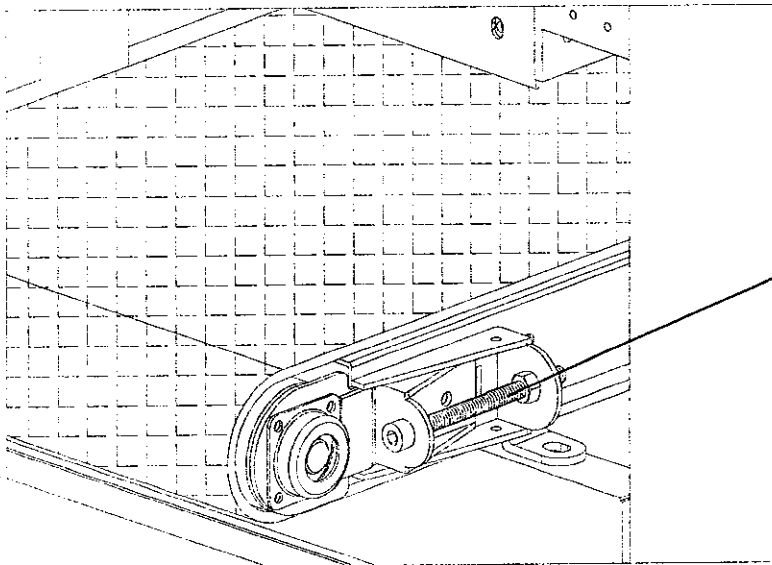


CAUTION

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

ADJUSTING THE CONVEYOR BELT TRACKING & TENSION

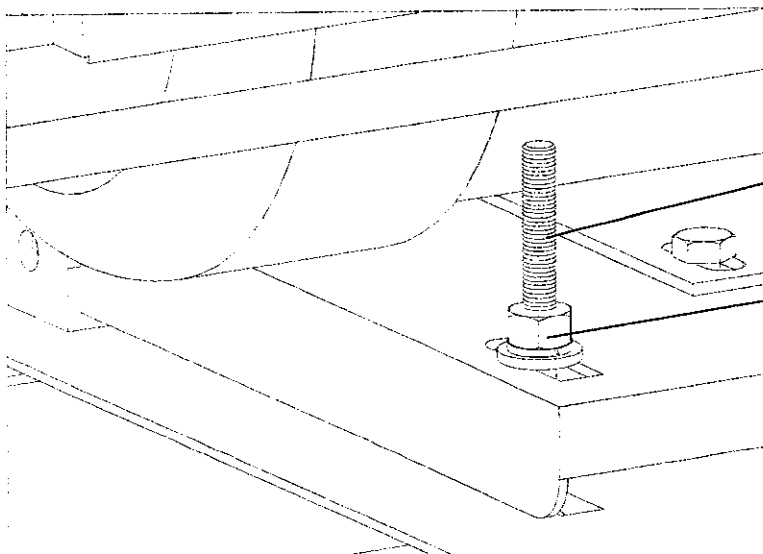
If the conveyor belt runs to the right or left during operation, or the conveyor belt tension is too loose or too tight, adjust it by turning the adjustment nuts on either side of the conveyor table. The conveyor belt should run at the center of the conveyor table, and should be tensioned so that there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



Conveyor
Adjustment Bolt

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 5/16" nuts on the height adjustment bolts (See figure).



Height Adjustment
Bolt

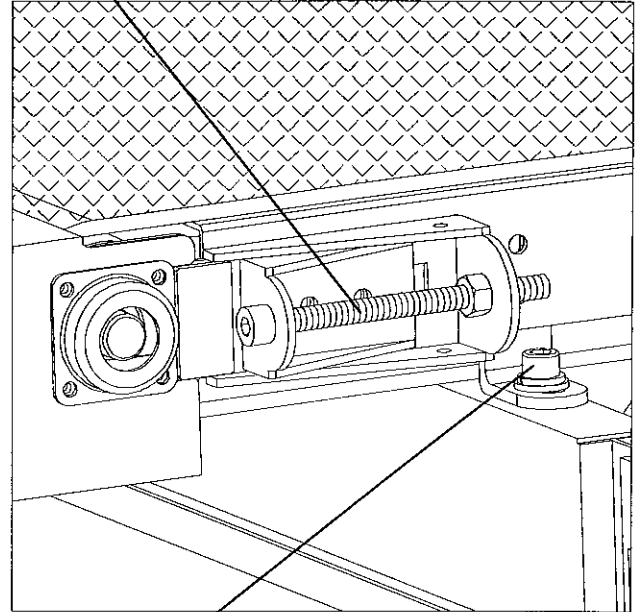
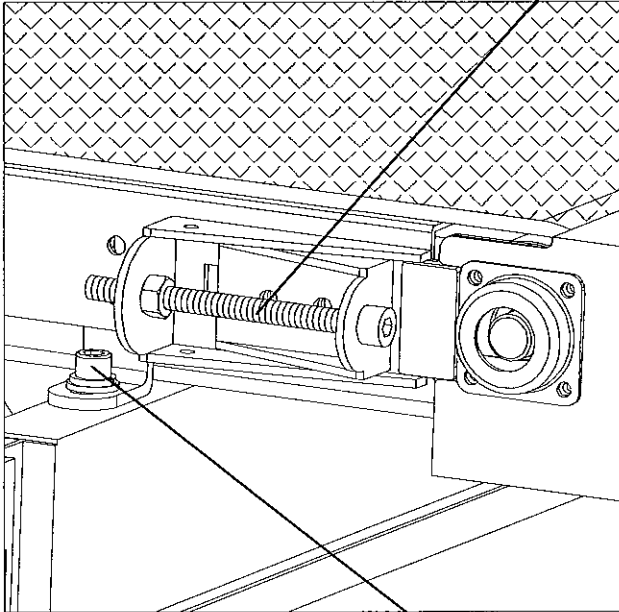
5/16" nut

If the motor becomes damaged and needs to be replaced, remove the bolt 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 two 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)

Screws



Nuts

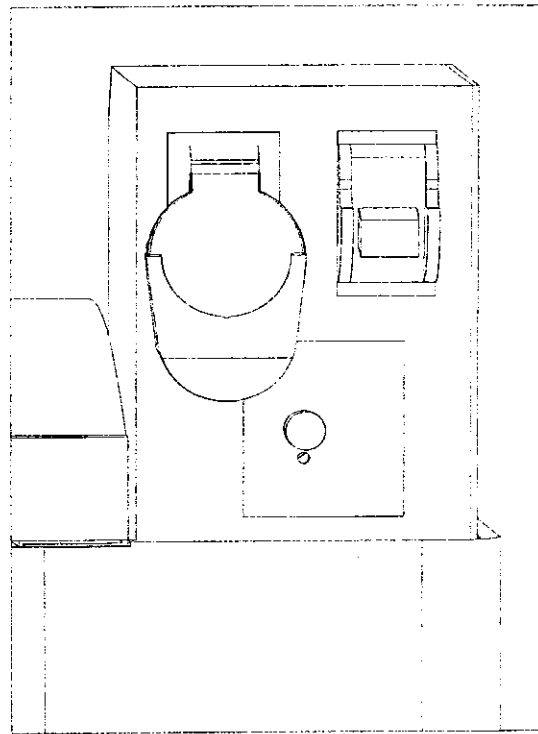
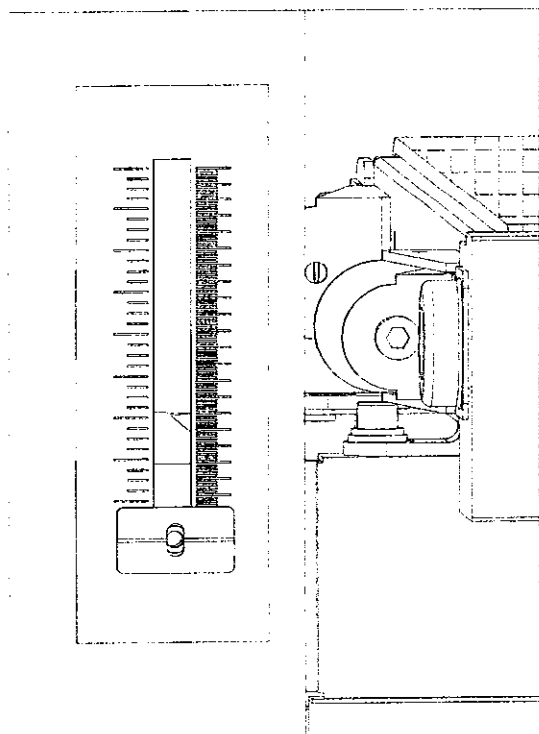
SANDING OPERATION

Start the dust collector before turning on the sander.

To start the machine, press the '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 '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, under the sanding drum, and then raise the conveyor table until the sanding drum 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 4". 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	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.	1. Sanding drum is not parallel to the table. 2. Uneven wear on sanding belt
Stock slips on conveyor belt.	1. Too much material being removed in one pass. 2. Sanding belt grit too fine.
Shiny spots on sanded workpiece.	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.	1. Sanding belt is too worn. 2. Sanding height sets incorrectly 3. Sanding belt is damaged.
Conveyor belt does not run smoothly, or stops.	Insufficient conveyor belt tension.

PARTS LIST

Part No.	Ref. No	Description	Q'ty
1A	22300001	Dust Guard	1
2	22300002	Left & Right Stand	2
4	22300004	Lower Bracket	2
5	22300005	Post	2
6	22300006	Gear Transmission Shaft	1
7	22300007	Front Table Support	1
8	22300008	Rear Table Support	1
9A	22300009A	Left Slide	1
9B	22300009B	Right Slide	1
10	22300010	Table	1
11	22300011	Conveyer Belt Roller	1
12	22300012	Transmission Shaft	1
13	22300013	Electronic Control Box	1
14	22300014	Bottom Cover	1
15	22300015	Chain Roller	2
16	22300016	Left Worm	1
17	22300017	Right Worm	1
18	22300018	Transmission Shaft Fixed Seat	2
19	22300019	Pressure Shaft	2
20	22300020	Drum	1
21	22300021	Left Bearing Housing	1
22	22300022	Right Bearing Housing	1
23A	22300023A	Left Upper Bracket	1
23B	22300023B	Right Upper Bracket	1
24A	22300024	Stopper	1
25	22300025	Rear Stopper	1
26	22300026	Left Cover	1
27	22300027	Right Cover	1
28	22300028	Switch Box	1
29	22300029	Switch Side Cover	1
30	22300039	Motor Bottom Plate	1
31	20900032C	Motor Adjusted Plate	1
32	22300032	Shelter Plate	2
33	22300033	Pulley Guard	1
34	22300034	Cover	1

PARTS LIST

Part No.	Ref. No	Description	Q'ty
35	22300035	Long Stand	4
36	22300036	Long Invertal Plate	2
37	22300037	Short Invertal Plate	2
38	M0000000	Motor 1.5HP	1
39	10105079F	Motor Roller	1
40	20900009	Angle Plate	4
41	20703016	Handle	3
42	J2230001	Scale	1
43	20900081	Spacer	1
44	20900045	Indicator	1
45	20900022	Bevel Gear	4
46	20900023	Gear Shaft Bushing	2
47	20900024	Positioning Collar	2
48	20900028	Bronze Collar Cover	4
49	C5151102	Bearing	2
50	S0520042	C Ring	2
51	20900019	Screw Bushing	2
52	20900053	Pad	2
53	20900048	Micrometric Adjustment Fix Block	4
54	C1106202A	Bearing	4
55	20900049	Bearing Cap	4
56	20900047	Micrometric Adjustment Block	2
57	20900067	Table Stand	4
58	20900051	Positioning Plate	1
59B	M2071211B	Speed Reducing Motor	1
60	20703002	Bearing Cap	2
61	C1206205	Bearing	4
62	20900002	Clamp Block	2
63	20900086	Right Slide Proof Shaft	2
64	20900087	Left Slide Proof Shaft	2
65	20701006	Bearing	4
66	20900008A	Driven Roller	1
67	20701011	Resistance Plate	1
68	40501019	Adjusted Knob	1
69	W0000001	Switch	1
70	40501013a	P.C Board	1
71	40501018	P.C Board Fixed Plate	1

PARTS LIST

Part No.	Ref. No	Description	Q'ty
72	S0030306	Philip Hd. Scr.	4
73	S0040308	Flat Hd. Scr.	2
74	S0040510M	Flat Hd. Scr.	2
75	S0020424	Hex. Hd. Scr.	6
76	S0230400	Spring Washer	52
77	S0210401	Flat Washer	52
78	S0020512L	Hex. Hd. Scr.	1
79	S0230506	Spring Washer	50
80	S0210500c	Flat Washer	57
81	S0060510	Wing Scr.	4
82	S0120500	Hex. Nut	48
83	S0030580M	Philip Hd. Scr.	4
84	20900069	Trimming Spring	4
85	S0120500M	Nylon Nut	4
86	S0030405	Philip Hd. Scr.	16
87	S0040307	Flat Hd. Scr.	8
88	S0040310	Flat Hd. Scr.	12
89	20702019	Fixed Plate	2
90	20900068	Pad	2
91	22300044	Top Long Bracket	2
92	22300045	Short tie rod plate	2
93	S0010502	Cap Scr.	14
94	S0010503a	Cap Scr.	2
95	S0010615M	Cap Scr.	18
96	S0030304	Philip Hd. Scr.	16
97	S0230500M	Spring Washer	2
98	S0430630	Key	1
99	S0120200	Nylon Nut	16
100	S0010500	Cap Scr.	8
101	S0010510M	Cap Scr.	4
102	22300046	Body tube	4
103	S0050306n	Soc. Set. Scr.	2
104	S0010501	Cap Scr.	8
105	S0050406	Soc. Set. Scr.	14
106	S0060509	Wing Scr.	16
107	S0400530	Key	1
108	S0010501	Hex. Hd. Scr.	8

PARTS LIST

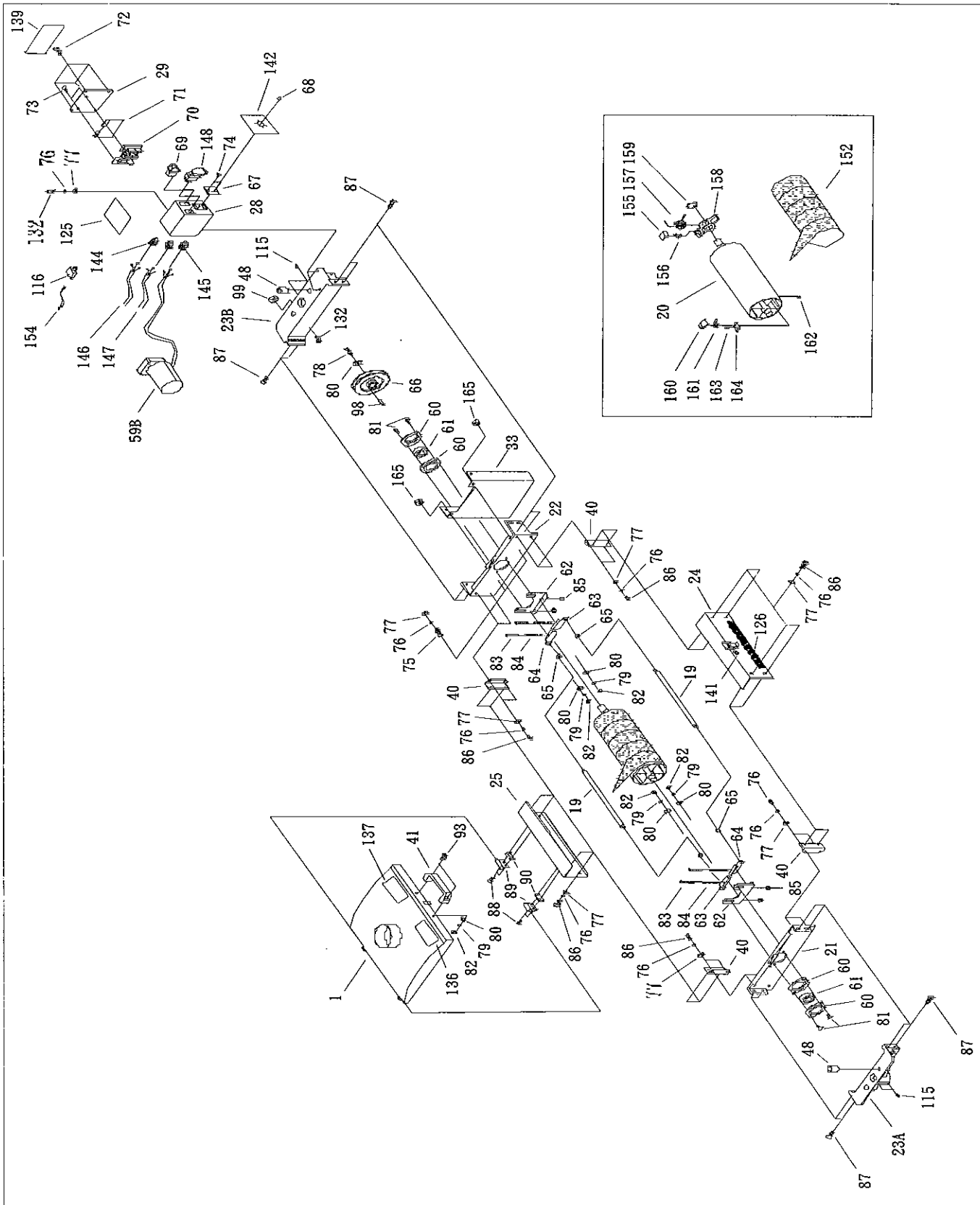
Part No.	Ref. No	Description	Q'ty
109	S0030310	Philip Hd. Scr.	1
110	S0210300	Flat Washer	2
112	11107098a	Leveling Foot	4
113	22300038	Screw Holder	2
114	S0050405	Soc. Set. Scr.	4
115	S0050500	Soc. Set. Scr.	8
116	W0000015C	Switch	1
117	S0030403	Philip Hd. Scr.	12
118	20900034	Position Shaft	1
119	22300040	Scr.	2
120	20900035	Position Shaft	2
121	S05ETW06	E Ring	6
122	22300041	Conveyer Belt	1
123	VF7J2026	Chain	1
124	V0017395	Belt	1
125	J2230002G	Switch Label	1
126	J2230003	Warning Label	1
127	S0090512	Round Head Scr.	4
128	10401029	Rubber Foot	4
129	10108003	Hand Wheel	1
130	10108004	Handle	1
131	S0310420	Pin	1
132	S0010415	Cap Scr.	4
135	JG000006	General G card Warning Label	1
136	JG000008	Direction Label	1
137	JG000009	Pulley Warning Label	1
138	JG000010	Table raising Warning Label	1
139	JG000011	Electtric Warning Label	1
140	JG000012	Table Warning Label	1
141	JG209002	Prohibition Lable	1
142	JG209004	Speed Lable	1
144	S100PG13	Fix Nut	3
145	S100PG11	Fix Nut	2
146	L0000000	Power Cord	1
147	LC000000	Motor Cord	1
148	W0000000	Switch	1
149	21700029	Spring	1

PARTS LIST

Part No.	Ref. No	Description	Q'ty
150	22300042	Stop Plate	2
151	S0010305	Cap Scr.	2
152	22300043	Sanding Belt	1
154	LC141011B	Terminal	1
155	20703010B	Pull Clamp	1
156	20703014A	Small Spring	1
157	20703010A	Big Spring	1
158	20703010	Pull Clamp Base	1
159	S0520028	Ring	1
160	20703014B	Pull Clamp	1
161	20703014C	Small Spring	1
162	S0040300	Flat Hd. Scr.	1
163	S0110300	Hex. Nut	1
164	20703014	Fixed Clamp Bracket	2
165	S0110400	Hex. Nut	2
166	S0910103	Hex Wrench	1
167	S0911214	Open Wrench	1
168	S1202100	T Wrench	1
169	S1206150	T Wrench	1

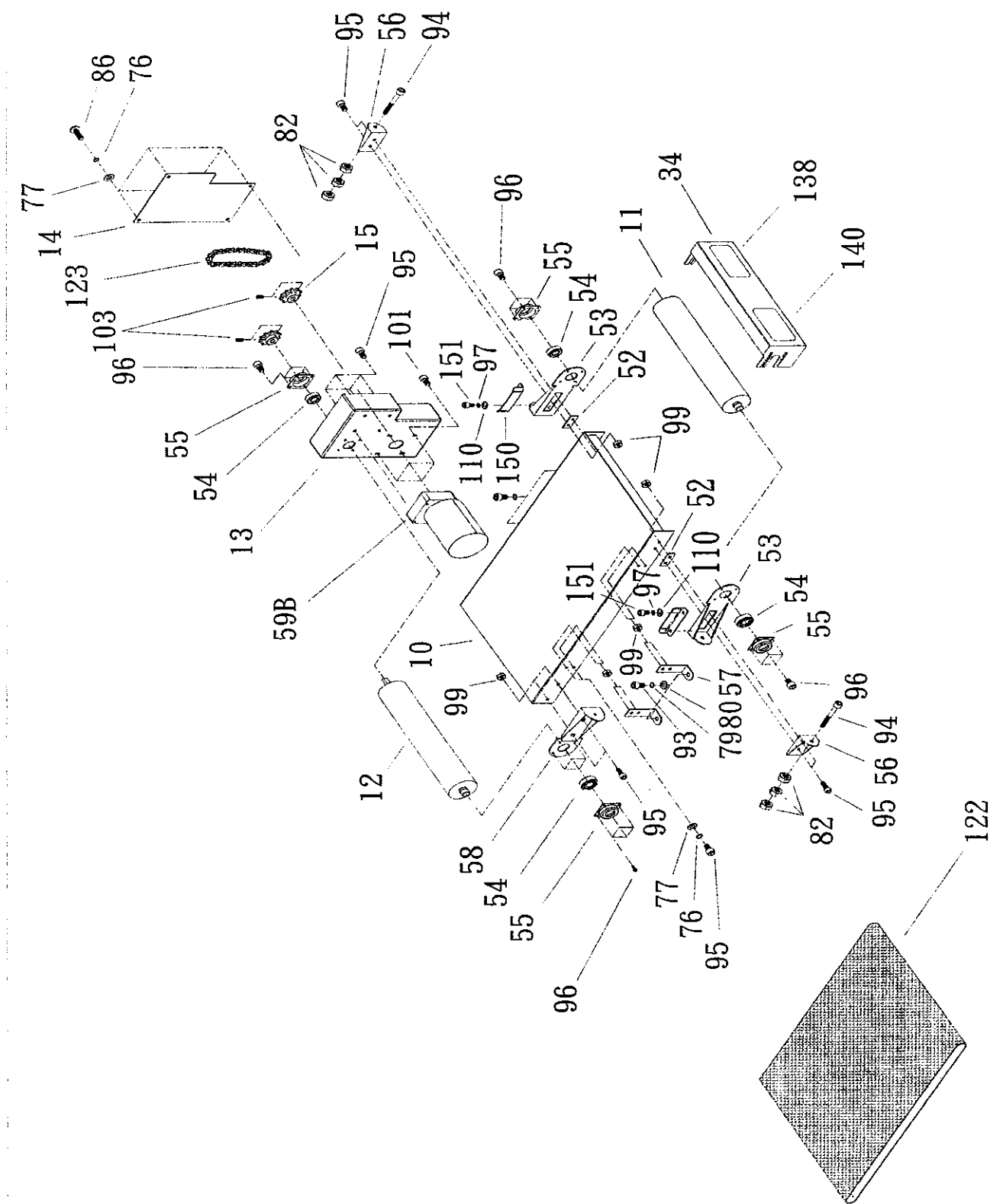
ASSEMBLY DIAGRAM

MODEL:DS-13A



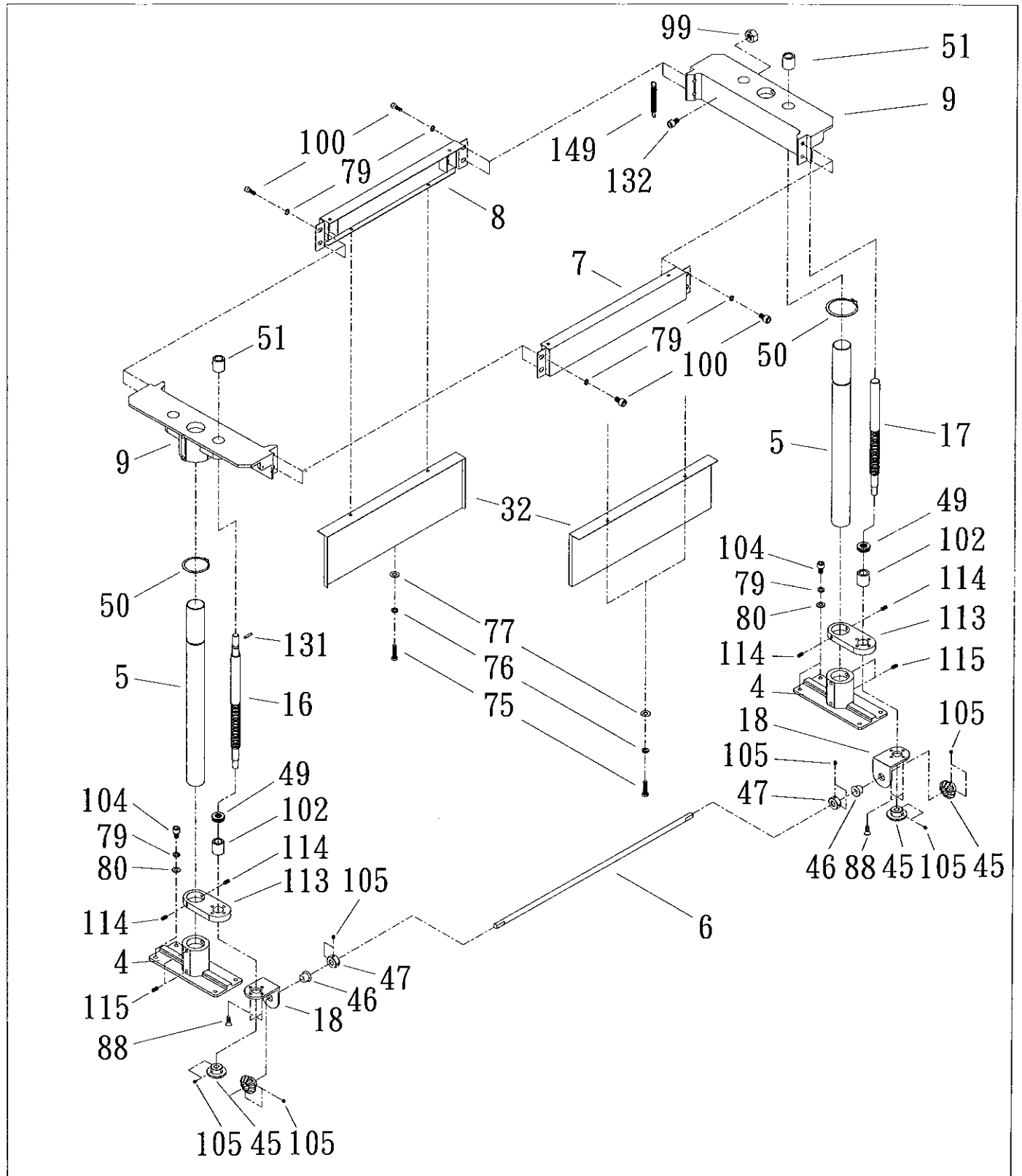
ASSEMBLY DIAGRAM

MODEL:DS-13A



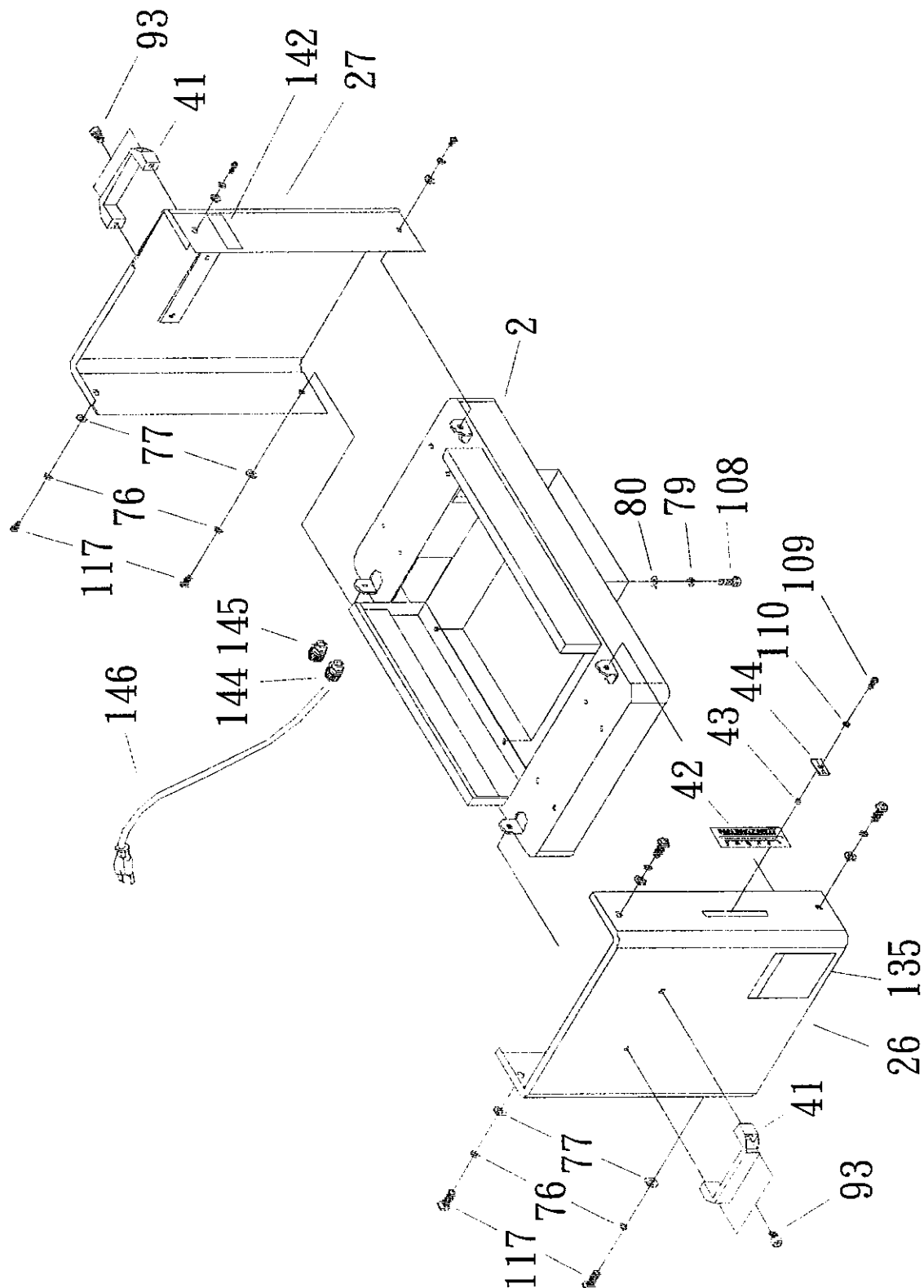
ASSEMBLY DIAGRAM

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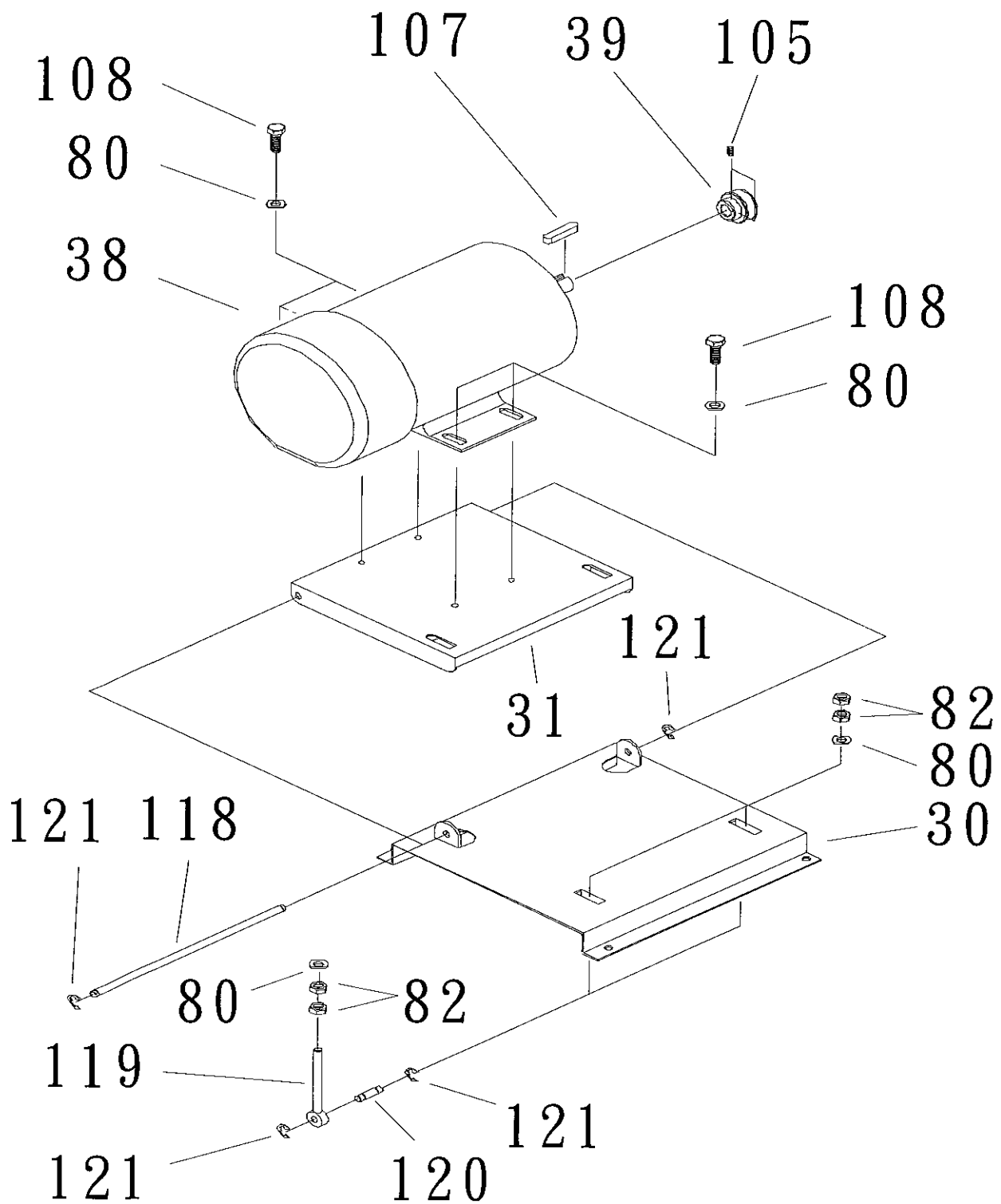
ASSEMBLY DIAGRAM

MODEL:DS-
13A



ASSEMBLY DIAGRAM

MODEL:DS-13A



ASSEMBLY DIAGRAM

MODEL:DS-13A

