

SS|24T Oscillation Vertical Spindle Sander Manual



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SAFETY RULES

SAFETY INSTRUCTION MANUAL REQUIREMENTS

The safety instructions shall be as illustrated below or employ equivalent wording.

SAFETY RULES

1. KEEP GUARDS IN PLACE and in working order.
2. REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
3. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.
4. DON'T USE IN DANGEROUS ENVIRONMENT. Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.
5. KEEP CHILDREN AWAY. All visitors should be kept safe distance from work area.
6. MAKE WORKSHOP KID PROOF with padlocks, master switches, or by removing starter keys.
7. DON'T FORCE TOOL. It will do the job better and safer at the rate for which it was designed.
8. USE RIGHT TOOL. Don't force tool or attachment to do a job for which it was not designed.
9. USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table A shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.
10. WEAR PROPER APPAREL Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
11. ALWAYS USE SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
12. SECURE WORK. Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.
13. DON'T OVERREACH. Keep proper footing and balance at all times.
14. MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

15. DISCONNECT TOOLS before servicing; when changing accessories, such as blades, bits, cutters, and the like.
16. REDUCE THE RISK OF UNINTENTIONAL STATING. Make sure switch is in off position before plugging in.
17. USE RECOMMENDED ACCESSORIES. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
18. NEVER STAND ON TOOL Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
19. CHECK DAMAGED PARTS. Before further use of the too., a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function - check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
20. DIRECTION OF FEED. Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
21. NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF. Don't leave tool until it comes to a complete stop.

GROUNDING INSTRUCTIONS

1. All grounded, cord-connected tools:

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Use only 3-wire extension cords that have 3-prong grounding plugs and 3 pole receptacles

that accept the tool's plug.

Repair or replace damaged or worn cord immediately.

- 2. Grounded, cord-connected tools intended for use on a supply circuit having a nominal rating less than 150 volts:

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in Sketch A in Fig. 1. The tool has a grounding plug that looks like the plug illustrated in Sketch A in Fig. 1. A temporary adapter, which looks like the adapter illustrated in Sketch B and C, may be used to connect this plug to a 2 pole receptacle as shown in Sketch B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. **This adapter is not permitted in Canada.** The green-colored rigid ear, lug, and the like, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

- 3. Grounded, cord-connected tools intended for use on a supply circuit having a nominal rating between 150-250V, inclusive:

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in Sketch D in Fig 1. The tool has a grounded plug that looks like the plug illustrated in Sketch D in Fig 1. Make sure the tool is connected to an outlet having the same configuration as the plug. No adapter is available or should be used with this tool. If the tool must be reconnected for used on a different type of electric circuit, the reconnection should be made by qualified service personnel; and after reconnection, the tool should comply with all local codes and ordinances

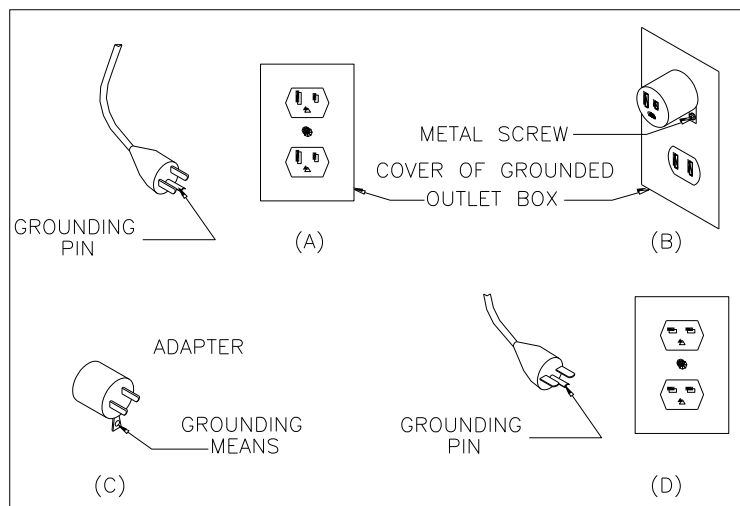


Fig. 1

Table A						
Ampere Rating		Volts	Total length of cord in feet			
		120	25	50	100	150
		240	50	100	200	300
More Than	Not More Than		Minimum gage for cord			
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12
12	16		14	12	Not Recommended	

SPECIFICATIONS

MODEL	OVS-JD
Table size (L x W)	615x613mm
Table tilt	0~45°
Spindle speed	1725rpm
Oscillations	60/min
Oscillation stroke	38mm
Sanding sleeve length	150~230mm
Max. workpiece height	55~160mm
Dust port diameter	101.6mm
Motor	1HP
Table height	975mm
Overall (L x W x H)	615x613x975mm
Net weight	169kg

MACHINE LEGEND

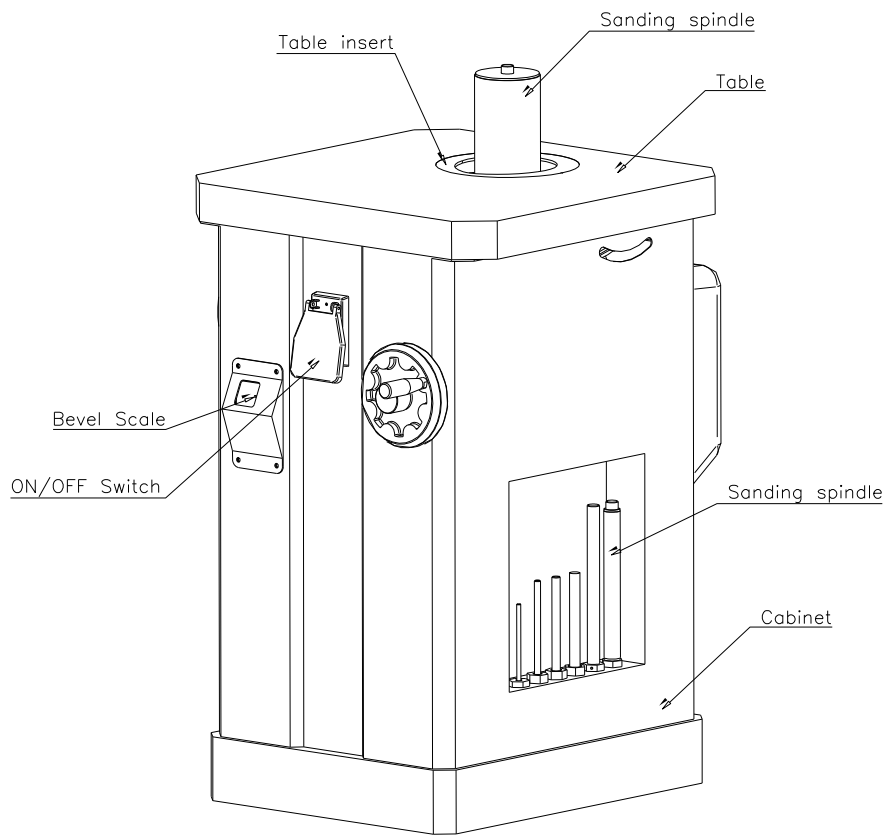


Fig. 2

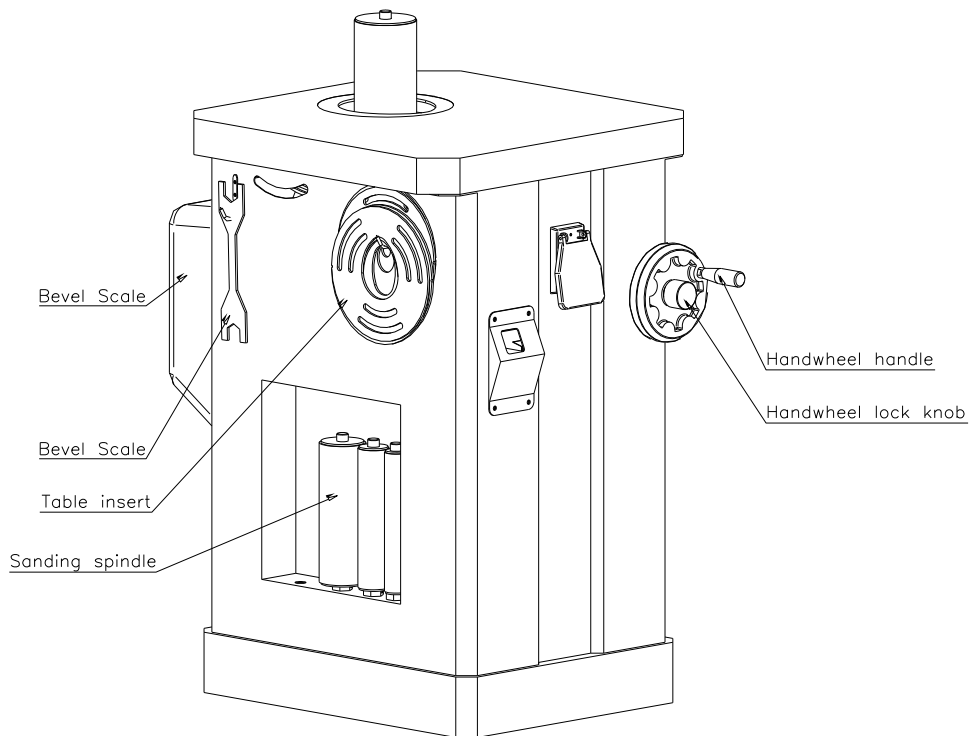


Fig. 3

MACHINE DIMENSION

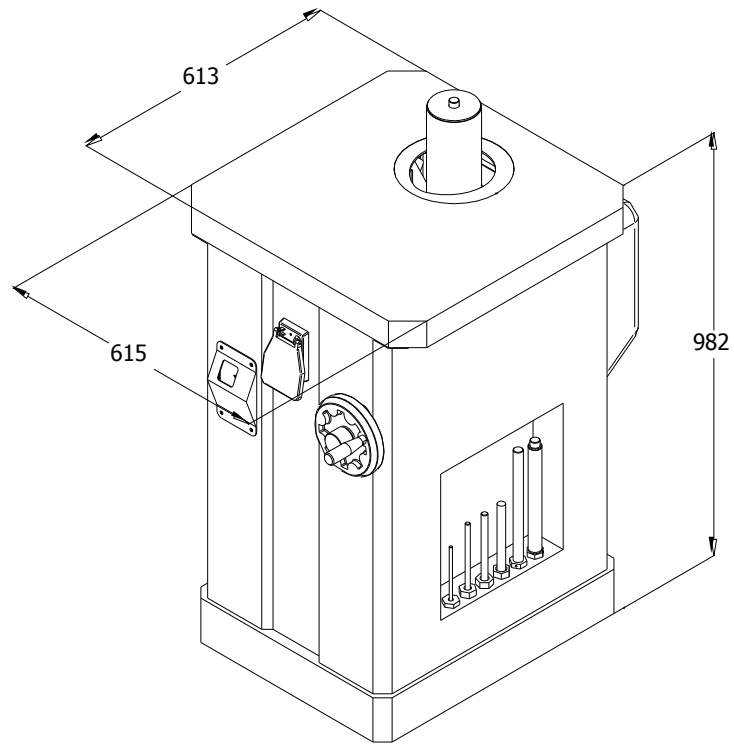


Fig. 4

SAFE OPERATING POSITION

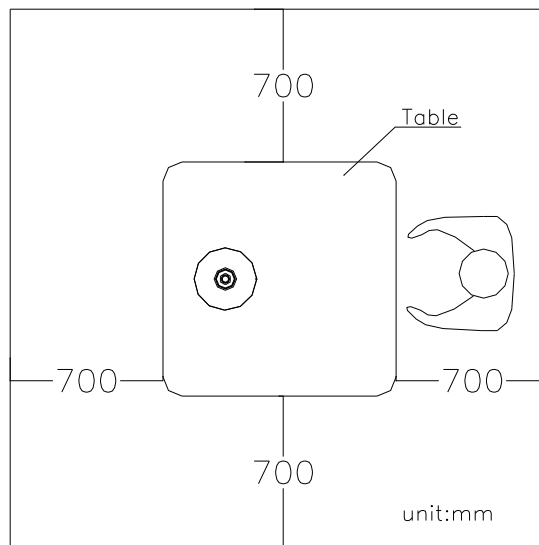


Fig. 5

POWER SWITCH ON / OFF

Sanding machine assembly - power switch which to start and stop the machine. The switch locations on the cabinet. When starts the machine the cover needs to be opened and press the button "ON". If you want to stop the machine, please press the button "OFF". If the machine does not work as usual and it needs to be stopped right away, press the red cover then the machine can stop working.

WARNING!

Make sure the cover of the magnetic switch

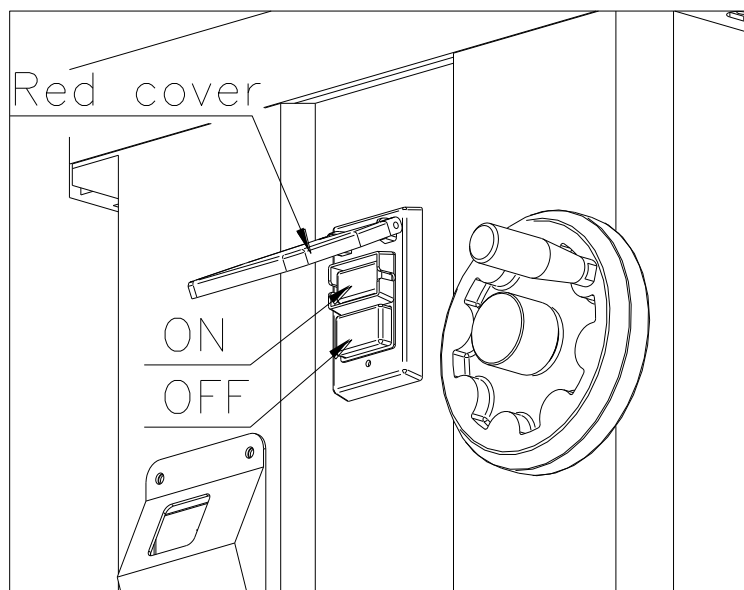


Fig. 6

ON/OFF SWITCH PADLOCK

To avoid accidental starting by young children or others not qualified to use the tool, the use of a padlock is required.

To lock out an ON/OFF Switch :

1. Open the Padlock. See fig. 7.
2. Insert through hole in the star button. See fig. 8.
3. Close the Padlock.
4. Place the KEY in a safe place out of the reach of children.

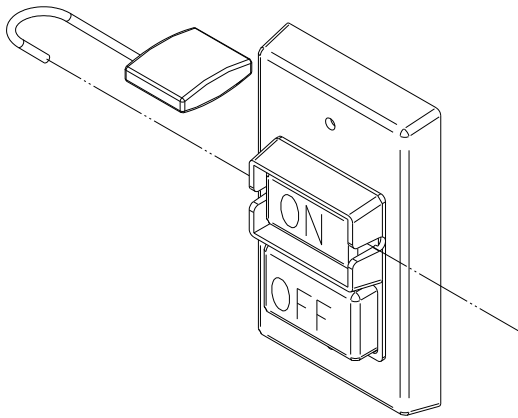


Fig. 7

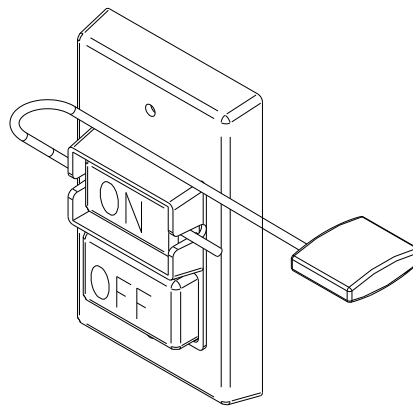


Fig. 8

INSTRUCTIONS FOR OPERATIONS

1. Select spindle that is smaller than the curve to be sanded.
2. Use an insert plate that comes closest to the spindle without touching it.
3. Make sure that spindle is properly positioned in taper sleeve socket. With the wrench provided, tighten the nut. NOTE: Never over tighten; it may be difficult to remove the spindle later.
4. When spindle is set at a 90° angle, sanding may be done from any corner, or location on table around spindle.
5. When spindle is positioned at any angle other than 90°, it is necessary to position the work piece over the centerline, as shown on table surface.
6. Always lock the spindle with the bevel lock handle when setting at any angle, also to prevent movement lock the tilting gear shaft.
7. Always loosen bevel lock handle before changing the angle position of the spindle. Never force the spindle if it does not tilt easily, reason may be that the locks are still engaged. Never attempt to over ride the stop locks, this will cause damage to the tilting performance.
8. A backing board is recommended when sanding thin pieces of metal or any other material. A backing board can be easily constructed by using a piece of wood the length of the table, pushing it into the spindle until a half circle is formed. Clamp each end of the board to the table and proceed to sand the thin material.
9. Before leaving the machine remove any particles or pieces left over, make sure the table in 90°.

TILTING THE SPINDLE

1. Release handwheel lock knob.
2. Adjust spindle to whated angle by rotate handwheel.
3. Lock the handwheel knob when pointer was in the wanted angle.

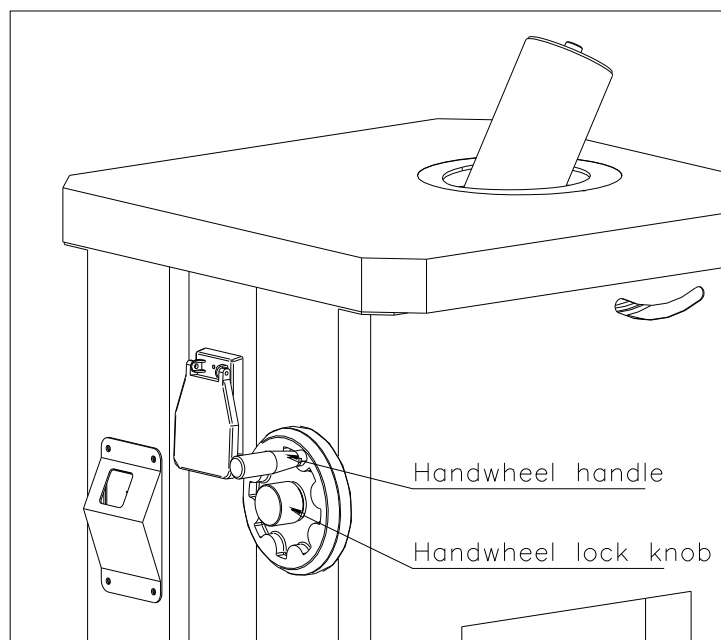


Fig. 9.

MOUNTING SPINDLE DRUM

1. Make sure that the switch is in “OFF” position and that the power cord is unplugged.
2. Take apart the demounted plate located in the back side.
3. Loosen and remove the spindle drum with a wrench.
4. Change the new spindle drum and lock it with a wrench.
5. Mount the demounted plate in place before truning on the machine. Start work when machine works properly.



WARNING!

Disconnect the power source before removing the drum.

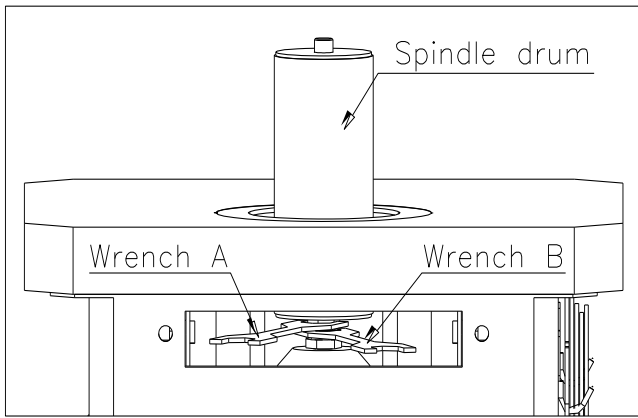


Fig. 10

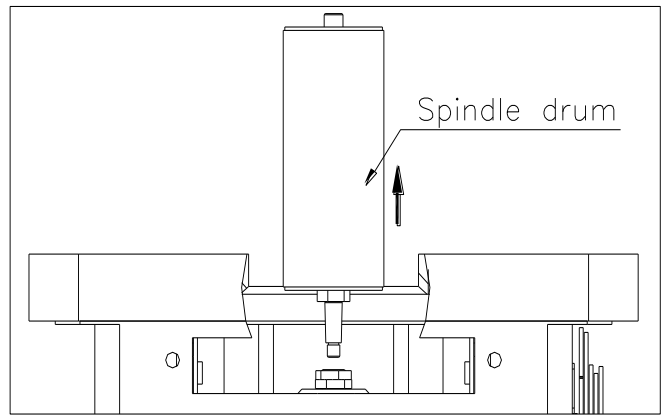


Fig. 11

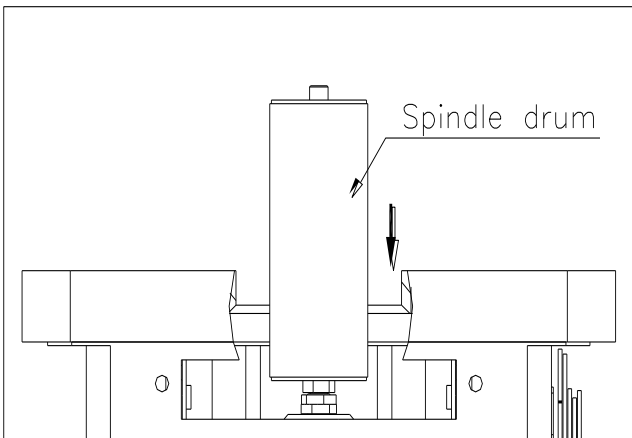
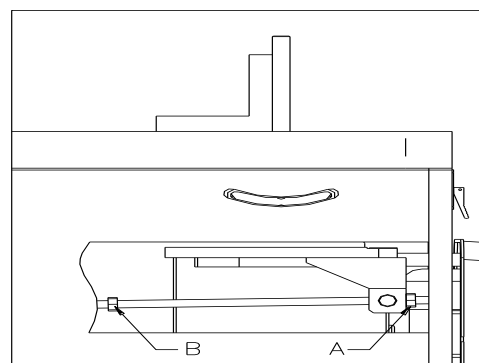
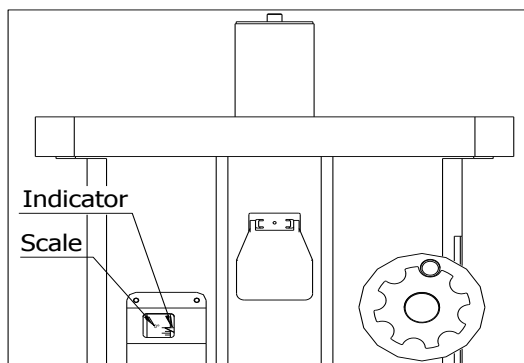


Fig. 12

ADJUST THE VERTICALITY BETWEEN THE TABLE AND DRUM

1. Install the spindle and rotate it to 0° . Use angle measurer to make sure spindle and table are in 0° and pointer also return to zero.
2. If table and spindle are not in 0° , open the motor cover of the back side to adjust the positioned nut (A) of handwheel spindle. Use angle measurer to make sure table and spindle are in zero degree.
3. Adjust positioned nut (B) of handwheel spindle for 45° . The adjusting way is same with 0° .



SELECTION GUIDE FOR DRUM TO TABLE INSERT

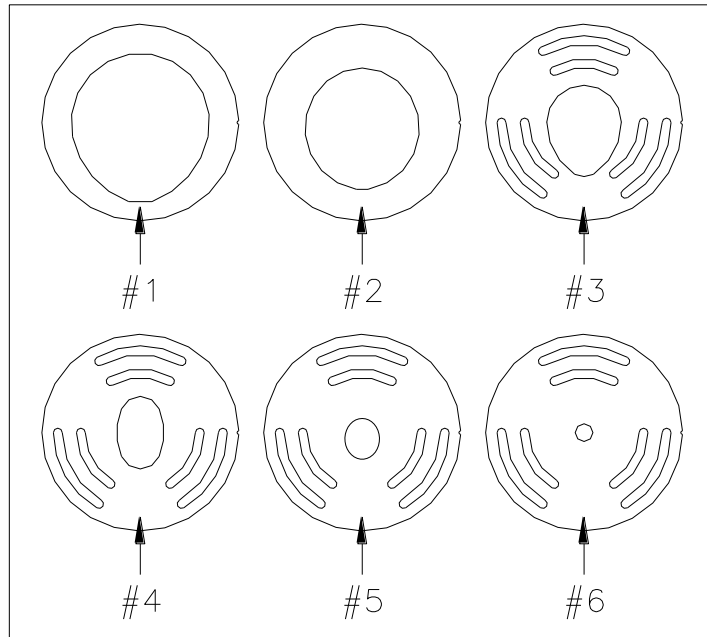
This machine is furnished with 10 drums. The range of drum diameter is from 1/4" to 4". If the drum diameter is changed, the table insert needs to be changed to the proper size.

The table below shows which table insert to use for various drum diameters.



Failure to use the correct insert with the corresponding drum may result in injury!

Drum diameter	Table insert(90°)	Table insert(45°)
# 1 1/4" Dia. x 5" long	# 6	# 5
# 2 3/8" Dia. x 6" long	# 6	# 5
# 3 1/2" Dia. x 6" long	# 6	# 5
# 4 5/8" Dia. x 6" long	# 6	# 5
# 5 3/4" Dia. x 9" long	# 5	# 5
# 6 1" Dia. x 9" long	# 5	# 4
# 7 1 1/2" Dia. x 9" long	# 4	# 3
# 8 2" Dia. x 9" long	# 4	# 3
# 9 3" Dia. x 9" long	# 3	# 2
# 10 4" Dia. x 9" long	# 2	# 1



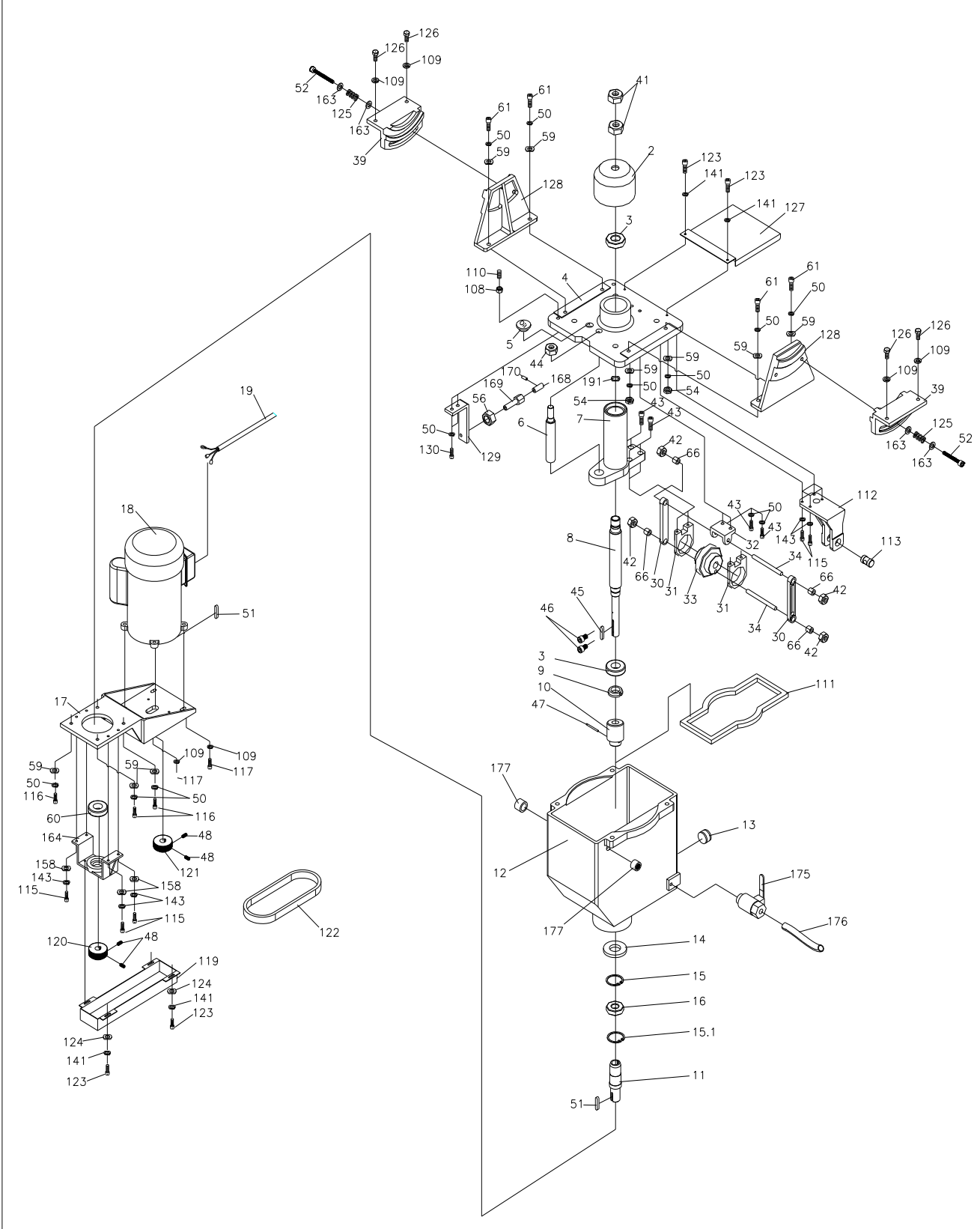
MAINTENANCE OF SPINDLE SANDER

1. To keep spindle sander in perfect condition, clean machine and attachments at all times.
2. Clean tapered sleeves and tapered socket before use, this will protect spindle sleeves from nicks.
3. Bent sleeves are easily straightened by placing them in the tapered socket and slipping a small pipe over the steel shaft. Using a dial indicator check that it is in correct position.
4. Check gearbox for proper oil level (Approx. 1/4 up on sight glass).
5. We recommend that a small amount of grease be applied to table tilting screw once a month.
6. No lubrication is required for the bearings, they are permanently lubricated.

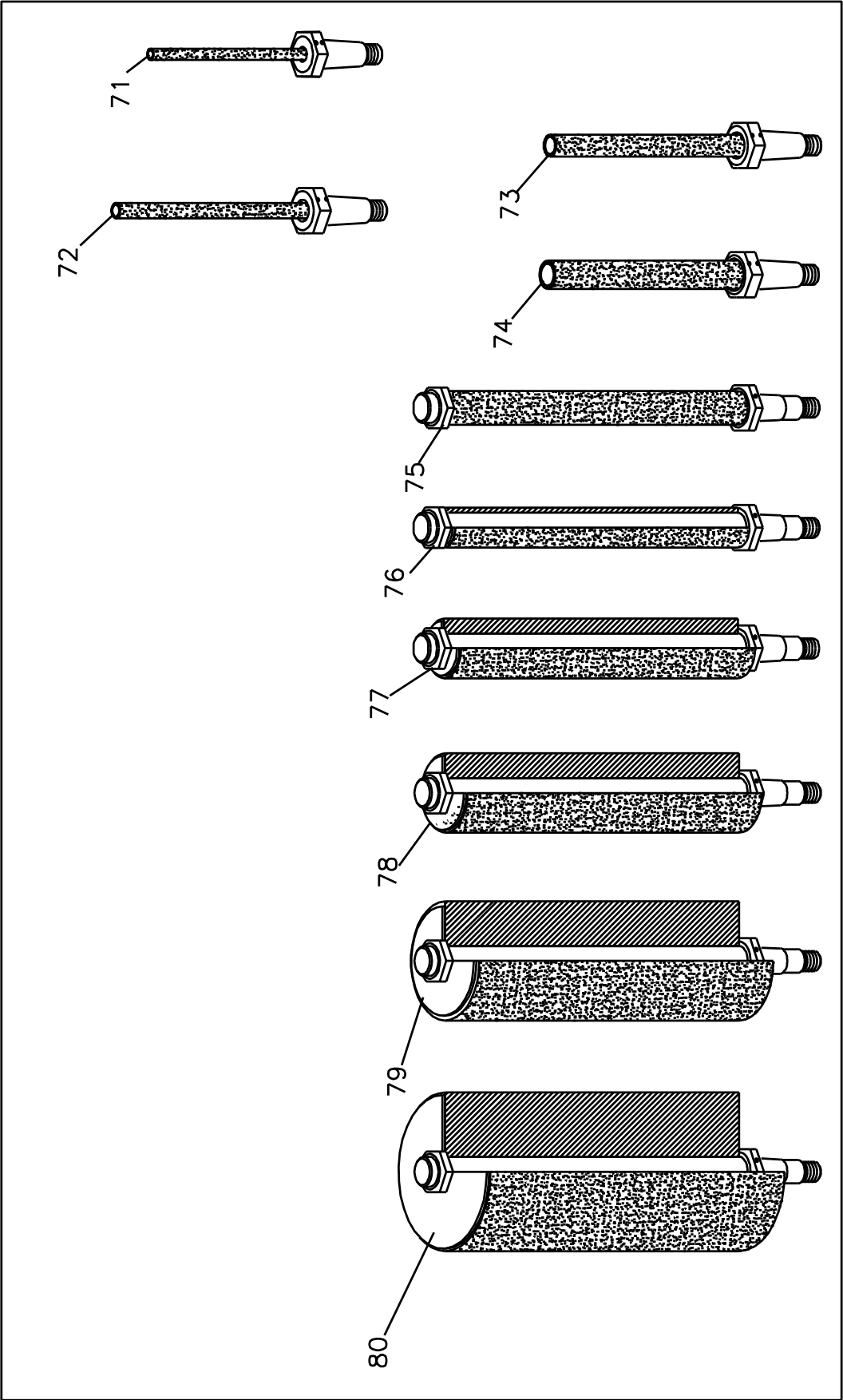
TROUBLESHOOTING

TROUBLE	CAUSES	CORRECTION
Motor does not run when power switch is turned "ON".	<ol style="list-style-type: none"> 1. Switch is burned out. 2. Connection wire is loose or damaged. 	<ol style="list-style-type: none"> 1. Replace the switch. 2. Tighten or replace the wire.
Motor does not run at full speed.	<ol style="list-style-type: none"> 1. Power voltage is too low. 2. Motor is damaged. 	<ol style="list-style-type: none"> 1. Test voltage. 2. Check and repair motor.
Motor does not reach full power.	<ol style="list-style-type: none"> 1. Incorrect power wiring. 2. Overload. 	<ol style="list-style-type: none"> 1. Replace with the correct size power wiring. 2. Reduce sanding load.
Motor overheating	<ol style="list-style-type: none"> 1. Motor is dirty. 2. Motor is damaged. 	<ol style="list-style-type: none"> 1. Clean motor. 2. Check and repair motor.
Excessive machine vibration	Machine is incorrectly leveled.	Adjust machine leveling
Mark on workpiece	<ol style="list-style-type: none"> 1. Sanding drum is damaged. 2. Sanding cloth on drum is worn in some areas. 	<ol style="list-style-type: none"> 1. Replace the sanding drum. 2. Replace sanding cloth
Sanding drum turns in wrong direction	Wrong phase or voltage	Make sure the phase and voltage comply with machine requirement.
Burns on workpiece	Wrong abrasive grit on sanding cloth	Use coarser grit to remove more material from workpiece.

ASSEMBLY DIAGRAM



ASSEMBLY DIAGRAM



OVS-JD SPINDLE SANDER

SEP. 5, 2011

PART NO.	REFERENCE NO.	DESCRIPTION	Q'TY
1	30600002	TABLE	1
2	30101049	CAP	1
3	C1206205	BEARING	2
4	30101013b	OIL TANK LID	1
5	30101035	OIL FILLER COVER	1
6	30103015	GUIDE SHAFT	1
7	30600028	BEARING METAL	1
7A	30103014a	SLEEVE SEAT	1
7B	30600028b	BUSHING	1
8	30103018	MAIN SHAFT	1
9	30103016	FIX NUT	1
10	30103017	WORM (LARGE)	1
11	30600005	CONNECTOR	1
12	30101009a	OIL TANK	1
13	30101011	OIL INDICATOR	1
14	30101014	OIL SEAL	1
15	S0530063	C RING	1
15A	S0530062	C RING	1
16	C1206206	BEARING	1
17	30600003	MOTOR PLATE	1
18	M3060001	MOTOR	1
19	LC1434501	MOTOR CORD	1
20	30101004	OIL PLUG	1
21	60102003a	KNOB	1
22	13200004	MOTOR COVER	1
23	11500045	HOOK	2
24	LC1437502	POWER CORD	1
25	S1006P1	WIRE CLAMP	1
26	10401029	RUBBER FEET	4
27	WG000002	SWITCH BOX	1
28	30600001	CABINET	1
29A	WG0000006A	SWITCH COVER	1
29B	WG000011	SWITCH PLATE	1
29C	WG0000009	SWITCH	1

PART NO.	REFERENCE NO.	DESCRIPTION	Q'TY
30	30103022	TRANSMISSION BAR	2
31	30103020	GEAR BUSH	2
32	30105087	TRANSMISSION BAR BASE	1
33	30103019	GEAR	1
34	30103021	TRANSMISSION SHAFT	2
35	S1017W-2	WIRE CLAMP	2
39	30600009	TRUNNION BRACKET	2
40	30600027	DUST CHUTE	1
41	30101050	CAP NUT	2
42	S0120300	LOCKING NUT 3/8"-16UNC	4
43	S0010510	CAP SCREW 5/16"-18UNCx1"	10
44	S0110503	NYLON NUT 5/8"-11UNC	1
45	S0400550	KEY 5x5x50	1
46	S0010312M	CAP SCREW M3x12L	2
47	S0310530	PIN	1
48	S0050608M	SET SCREW M6xP1.0x8	8
49	S0050605M	SET SCREW M6xP1.0x5	2
50	S0230506	SPRING WASHER	18
51	S0400525	KEY 5x5x25	2
52	S0010865M	CAP SCREW M8xP1.25x65L	2
53	S0030515M	ROUND HEAD SCREW M5xP0.8x15L	6
54	S0110500	NUT 5/16"-18UNC	4
55	S0030324	ROUND HEAD SCREW 3/16"-24UNCx1 1/2"	2
56	S0110800M	MUT M8xP1.25	7
57	S0200820M	ROUND HEAD SCREW M8xP1.25x20L	4
59	S0210500C	FLAT WASHER 5/16"x18x2t	22
60	C1206005	BEARING 6005LLU	1
61	S0010513	CAP SCREW 5/16"-18UNCx1 3/4"	4
62	S0212137	FLAT WASHER 3/4"x37x3t	1
63	J30600001	ANGLE SCALE	1
64	12300167J	DIAL POINTER	1
65	S0030412M	ROUND HEAD SCREW M4xP0.7x12L	4
66	30105088	TRANSMISSION BAR BUSH	4
67	30105054A	OPEN END WRENCH	2
68	30600024	TABLE INSERT (MEDIUM)	1

PART NO.	REFERENCE NO.	DESCRIPTION	Q'TY
69	30600025	TABLE INSERT (SMALL)	1
70	30600023	TABLE INSERT 2"	1
71	30105000A	1/4" SPINDLE ASS'Y	1
71B	30105084	1/4" SANDING PAPER	1
72	30105000B	3/8" SPINDLE ASS'Y	1
72B	30105082	3/8" SANDING PAPER	1
73	30105000C	1/2" SPINDLE ASS'Y	1
73A	30105079	1/2" SANDING PAPER	1
74	30105000D	5/8" SPINDLE ASS'Y	1
74A	30105076	5/8" SANDING PAPER	1
75	30105000E	3/4" SPINDLE ASS'Y	1
75A	30105073	3/4" SANDING PAPER	1
76	30105000F	1" SPINDLE ASS'Y	1
76C	30105071	1" SANDING PAPER	1
77	30105000G	1-1/2" SPINDLE ASS'Y	1
77C	30105068	1-1/2" SANDING PAPER	1
78	30105000H	2" SPINDLE ASS'Y	1
78C	30105065	2" SANDING PAPER	1
79	30105000I	3" SPINDLE ASS'Y	1
79C	30105000J	3" SANDING PAPER	1
80	30600023	4" SPINDLE ASS'Y	1
80C	30105060	4" SANDING PAPER	1
108	S0110600	NUT 3/8"	1
109	S0230308	SPRING WASHER 3/8"	12
110	S0050505a	SOCKET SCREW 3/8"x3/4"L	1
111	30600020	SEAL (LARGE)	1
112	30600006	SCREW HOLDER	1
113	11105064	SCREW CAP	1
114	S0220302	TEETH WASHER	2
115	S0010616M	CAP SCREW M6xP1.0x16L	8
116	S0010504	CAP SCREW 5/16"-18UNCx1 1/2"	4
117	S0011030M	CAP SCREW M10xP1.5x30L	1
118	S0111000M	NUT M10xP1.5	1
119	30600007	BELT COVER	1
120	30600010	SPINDLE PULLEY	1

PART NO.	REFERENCE NO.	DESCRIPTION	Q'TY
121	30600011	MOTOR PULLEY	1
123	S0010510M	CAP SCREW M5xP0.8x10L	6
124	S0210304	FLAT WASHER	7
125	11105080	SPRING	2
126	S0021020M	HEX. SCREW M10xP1.5x20L	4
127	30600013	MOTOR DUST PROOF PLATE	1
128	30600017	TRANSFER	2
129	30600014	PATCH PLATE	1
130	S0010815M	CAP SCREW M8xP1.25x15L	2
131	30600012	ANGLE ROD	1
132	13200040	NUT	2
133	S0310525	SPRING PIN	1
134	13200031	RING	1
135	C1106201	BEARING 6201	1
136	13200032	HANDWHEEL COVER	1
137	11500048	HANDWHEEL	1
138	10105056a	HANDLE	1
139	11305031	LOCKING NUT 1/2"-13UNC	1
140	S0010835M	CAP SCREW M8xP1.25x35	2
141	S0230500M	SPRING WASHER	6
142	S0310322	SPRING PIN	1
143	S0230400	SPRING WASHER 1/4"	12
144	S02103006	FLAT WASHER 4.3x10x1T	4
145	30600015	DIAL COVER	1
146	12300088	DIAL	1
147	12300089	DIAL SPRING	1
148	12300090	STRING	1
149	S0020875M	HEX. SCREW M10x75L	1
150	S0030515M	PHILIP HD. SCREW M6xP1.0x15L	5
151	S0220300	TEETH WASHER 3/16"	2
152	S0220500M	TEETH WASHER	2
153	S0110500M	NUT M5xP0.8	2
154	30600018	DEMOUNTABLE PLATE	1
155	12100038	HANDLE	2
156	S0310318	SPRING PIN	2

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