

**POWERMATIC®**

MODEL

**30**

COMBINATION  
12" DISC AND  
6" BELT SANDER

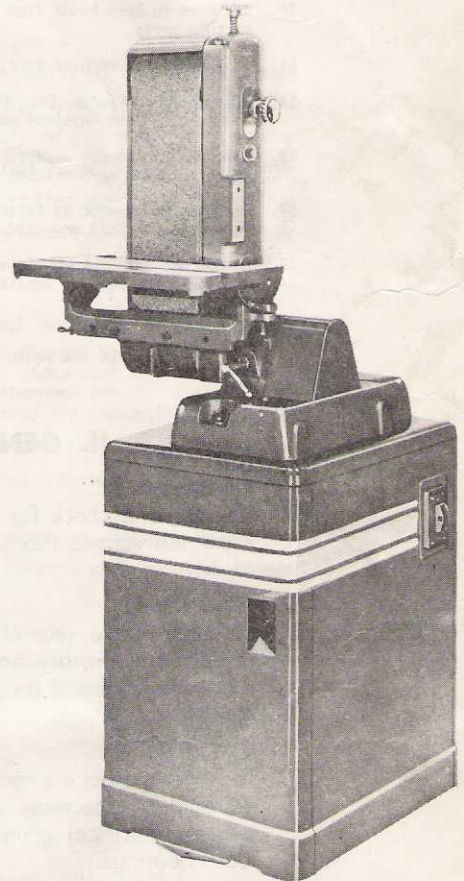
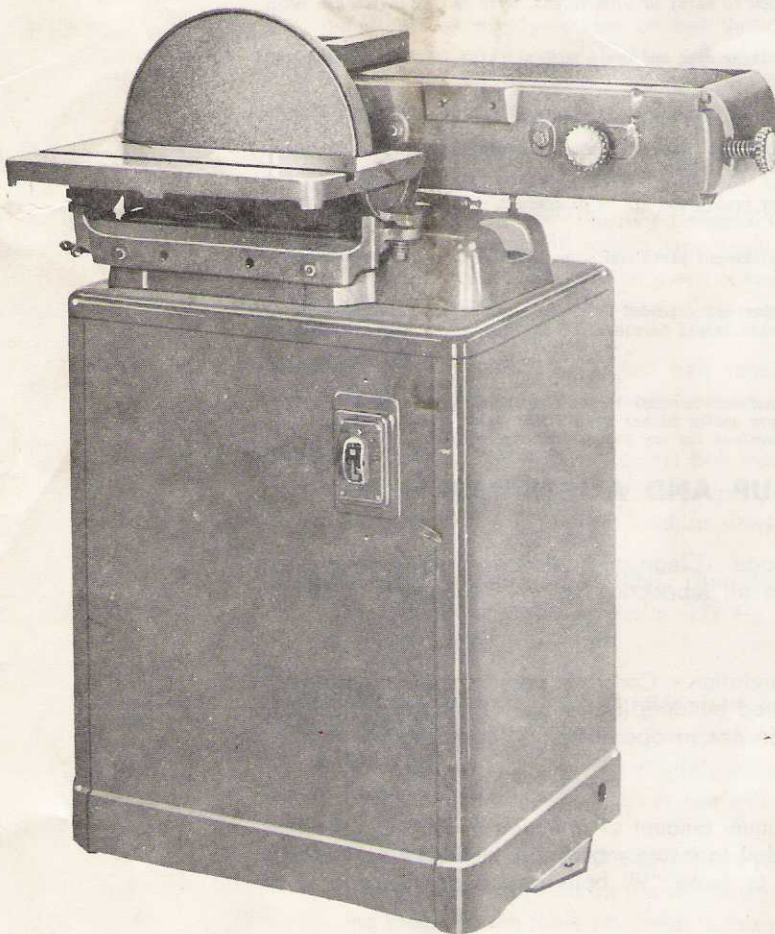
MODEL

**33**

6" BELT SANDER

# OPERATING INSTRUCTIONS AND PARTS LIST

For Serial Numbers From 0-101 Up



**POWERMATIC**  **HOUDAILLE, INC.**

McMinnville, Tennessee 37110

## Operating and Safety Instructions

1. Be sure machine is electrically grounded.
2. Remove or fasten loose articles of clothing such as necktie, sleeves, coat and confine long hair.
3. Remove jewelry such as finger rings, watches and bracelets.
4. Use safety face shield, goggles or glasses to protect eyes.
5. Keep the floor around the machine clean and free from scraps, sawdust, oil or grease to minimize the danger of slipping.
6. Before starting the sander:
  - a. Clear the machine and table area of dust, chips, tools or foreign matter.
  - b. Make sure the belt is tracking properly by manually causing the belt and pulleys to rotate.
  - c. Check belt tension and maintain proper belt tension.
  - d. Make sure all guards are in place and securely fastened.
  - e. If using the table, be sure it is securely locked and adjusted to provide minimum (1/16 or less) space between the belt or disc and the table.
  - f. Check the belt for tears, holes and wear. Do not use a torn or worn belt, it can cause belt breakage and injury.
7. Check for proper rotation of belt or disc under power.
8. Use only light pressure in either belt or disc sanding and move the part back and forth across the belt or the downward moving half of the disc. This maximizes belt or disc life and gives best finishing results.
9. If using the sander with a dust collection unit for both wood and metal sanding, empty the container and clean the filter before switching from wood to metal or vice versa. Fire and explosion can occur if hot metal chips ignite the sawdust.
10. Use care to keep hands from contacting the belt or disc and use a push stick or jig when sanding small or thin parts.
11. If leaving the machine area, turn the machine off and wait until all moving parts stop before departing.
12. Give the work you're doing your undivided attention. Looking around, carrying on a conversation and "horse play" are careless acts that can result in serious injury.
13. Make no adjustments except band tracking under power, and always disconnect power source when changing belts or discs or servicing in order to avoid accidental starting.
14. Use only Powermatic or factory authorized replacement parts and accessories, otherwise the warranty and guarantee are null and void.
15. Do not use this Powermatic sander for other than its intended use. If used for other purposes, Powermatic disclaims any real or implied warranty and holds itself harmless for any injury that may result from that use.

**WARNING:** Do not equip or use this machine with a motor larger than 1 1/2 horsepower at 1800 R.P.M. The use of a larger and/or higher speed motor voids the warranty and Powermatic holds itself harmless for any injury that may result.

## II. GENERAL SET-UP AND ALIGNMENT

1. **RECEIVING**  
Uncrate and check for shipping damage. Clean all coated and greased surfaces. Read instructions thoroughly. Locate all lubrication points; adjustments; methods of drive.
2. **MOUNTING**  
Mount machine securely to solid foundation. Concrete base mounting preferred. Locate in clean, dry and well ventilated building if possible. Motor and electrical connections should be protected when not in operation or if exposed to weather elements.
3. **INSPECTION**  
The above machine requires the minimum amount of attention in service. Periodic or regular inspections are recommended to insure machine is in proper adjustment, positive electrical connections; worn or loose "V" belts and bearings heating or loose bearings.
4. **BEFORE OPERATING**  
Check motor nameplate data or wiring diagram of motor and switch for proper voltage connection before wiring into line. Run motor without load to check the connections and direction of rotation. Always refer to motor nameplate for rotation connections.

**OPERATING INSTRUCTIONS**

**DESCRIPTION:** The Powermatic Model 30 Combination Disc and Belt Sander is ruggedly constructed for all contour, angle and flat sanding jobs. The Sander is designed with a changeable table that can be used with either the sanding disc or the sanding belt. The motor is mounted in the base and is accessible through the door in the base. Proper care of your machine will result in long life and trouble-free operation.

**MOTOR AND WIRING:** Electric wiring for the 220-v motor and the 3-phase motor is connected to motor wiring in switch box mounted in front of the machine. Motor should be inspected and checked for rotation before operating machine (Direction of rotation is counterclockwise). The 110-v, single-phase motor is furnished with an eight foot power cord.

**POWER DRIVE:** The Sander is driven with a motor mounted on an adjustable hinged base in the base of the machine.  $\frac{1}{2}$  HP or  $\frac{3}{4}$  HP, single or 3-phase, 1725 RPM motor is recommended. One A-section belt drives the Sander. (Belt Sander and Disc Sander are driven together.)

**INSTALLING SANDING BELT:** Remove the guard by first removing the two acron screws (13) Fig. 3, then remove belt guard. Loosen the idler drum adjusting screw (1) Fig. 5; slip sanding belt on drive and idler drums. Be sure sanding belt is mounted properly—arrow on belt indicates direction of rotation. Tighten idler drum adjusting screw (1) Fig. 5 to correct tension.

**INSTALLATION OF ABRASIVE DISC:** Remove disc table by removing two cap screws (4) Fig. 2. Remove sanding disc from the disc mounting bracket and pulley by removing the three screws (6) Fig. 2. Use a putty knife to remove the abrasive from the disc. Clean and dry disc plate. Cut three holes in abrasive disc for the three plate mounting screws, apply glue and mount on disc plate. Use a roller (iron pipe or wood) or a flat piece of wood and clamps to prevent wrinkles. Allow the glue to dry—replace disc plate—replace table.

**SANDING BELT TENSION:** Correct belt tension is regulated with the belt adjusting screw (1) Fig. 5. Avoid excessive and inadequate belt tension.

**SANDING BELT ALIGNMENT:** Correct belt tracking is regulated by loosening the inner knurled knob (2) Fig. 5, then properly adjusting the belt by turning the outer adjusting knob (3) Fig. 5. (Adjust slowly). Tighten inner knurled knob.

**SANDING BELT TABLE ADJUSTMENT:** The sanding table can be adjusted by loosening the two table adjusting bolts (17) Fig. 5. Raise or lower the table to correct position—tighten bolts.

**LUBRICATION:** The spindle and idler drum bearings are sealed-for-life bearings and do not require lubrication. The sander belt tilting screws, belt tension screw and fence slide block should be lightly oiled every month. A thin film of oil on the disc sander table when not in use will prevent rusting.

**CHANGE BELT FROM DISC TO BELT:** Remove fence (8) Fig. 3 (if attached) from the sanding belt bed; remove the two cap screws (4) Fig. 1 and change table mounting bracket, with table attached, to the sanding belt mounting bracket (16) Fig. 5. Use the two cap screws (4) to fasten the table mounting bracket to the belt sanding bracket (16).

**REMOVE GUARD:** Remove the two acron nuts (13) Fig. 4 and remove the guard.

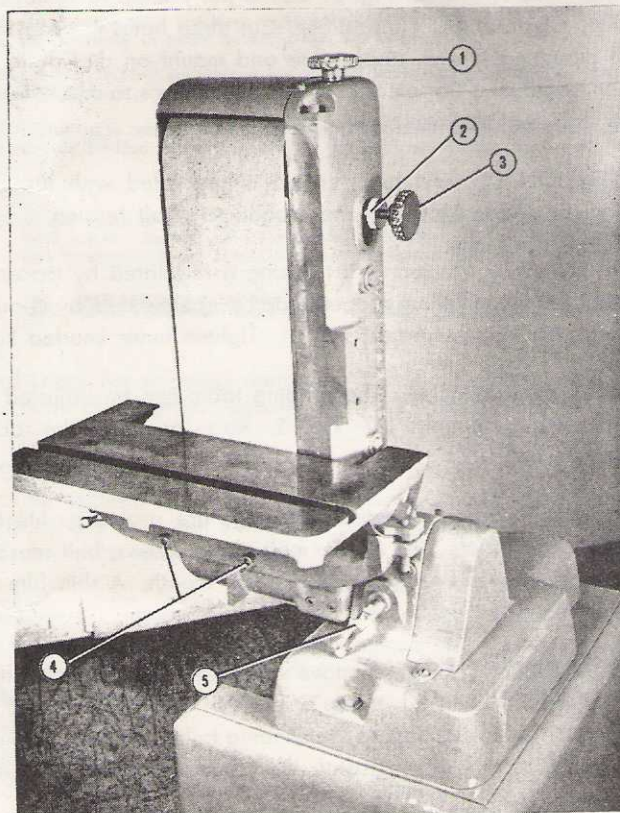
## OPERATING INSTRUCTIONS (Continued)

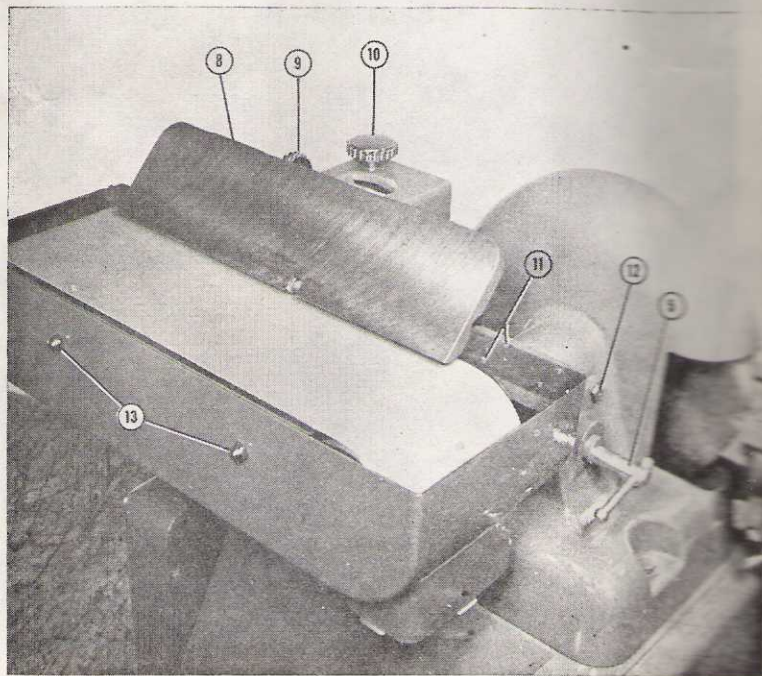
**SANDING BELT FROM HORIZONTAL TO UPRIGHT:** To raise sanding belt to an upright position, loosen the locking quill (5) Fig. 1 and raise the frame to an upright position. Lock in place with locking quill (5).

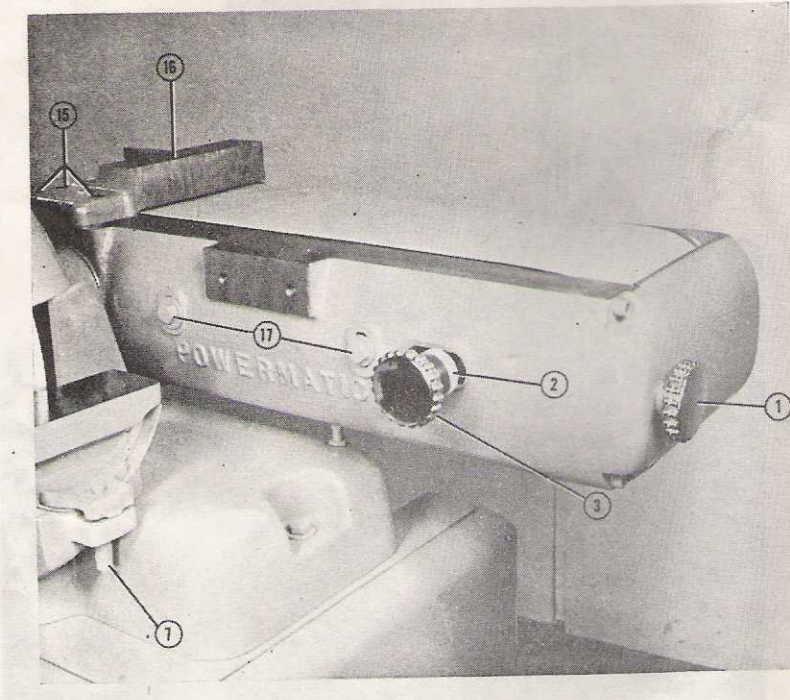
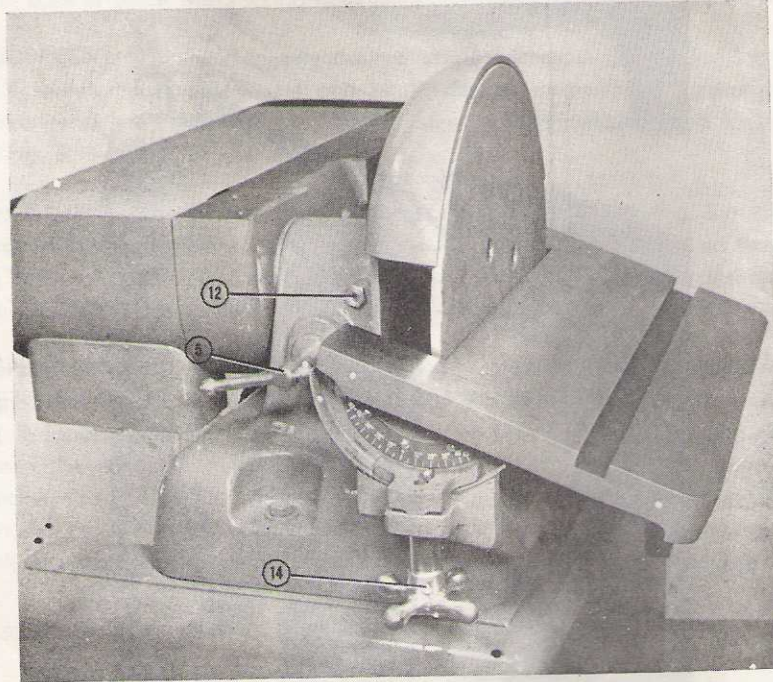
**TABLE ADJUSTMENT:** Tilt table to any desired angle (either in or out) by loosening table trunnion lock (14) Fig. 4 and tilt to desired angle—lock trunnion. Keep correct tension on the right trunnion by adjusting the right trunnion lock screw (7) Fig. 5.

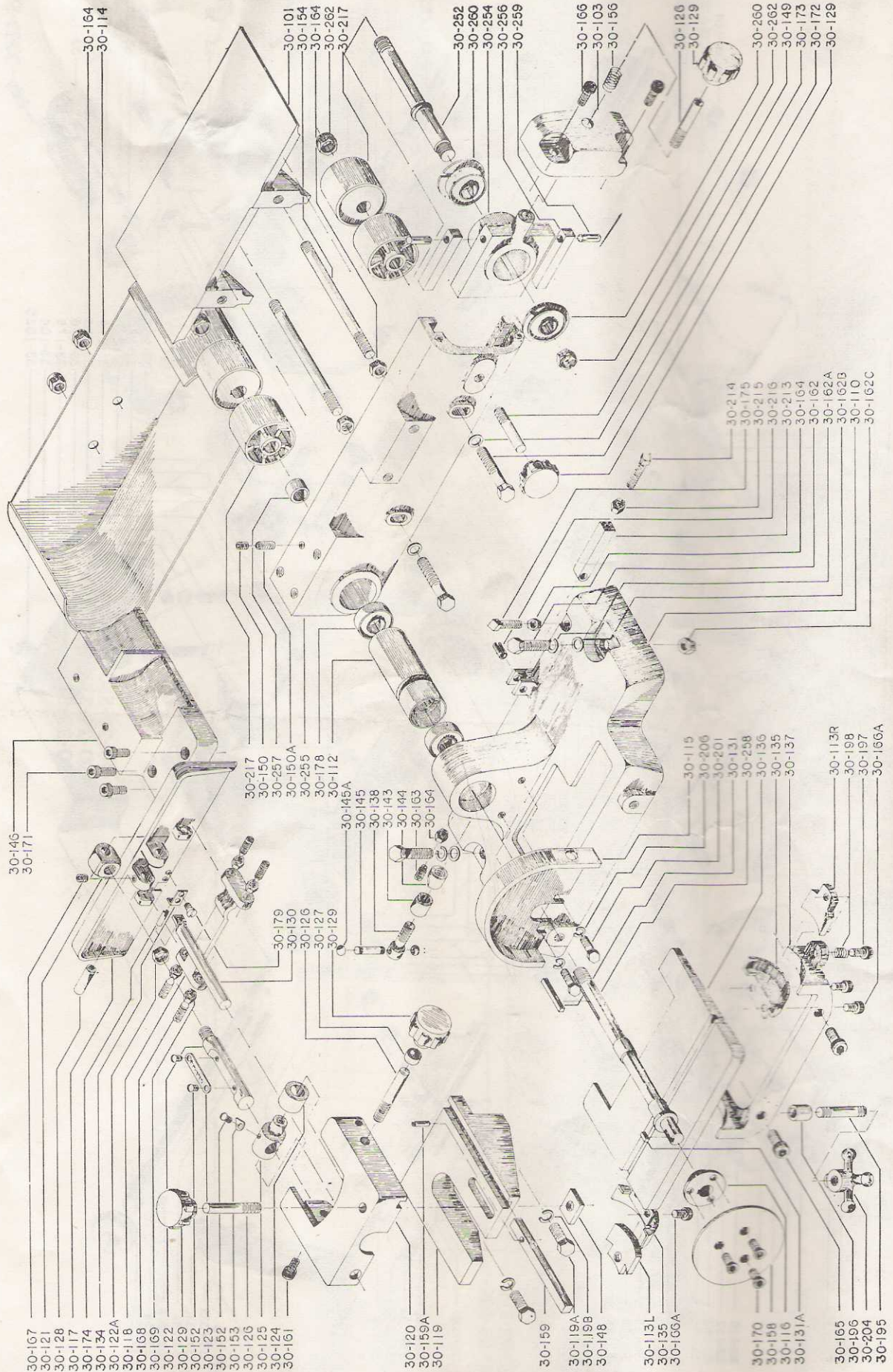
**FENCE ADJUSTMENT:** The fence is tilted by loosening tilting screw (9) Fig. 3 and tilting fence to desired position—lock tilting screw. The fence is positioned on the sanding belt by loosening locking screw (10) Fig. 3 and sliding fence to desired position—lock screw (10). The fence and table cannot be used at the same time.

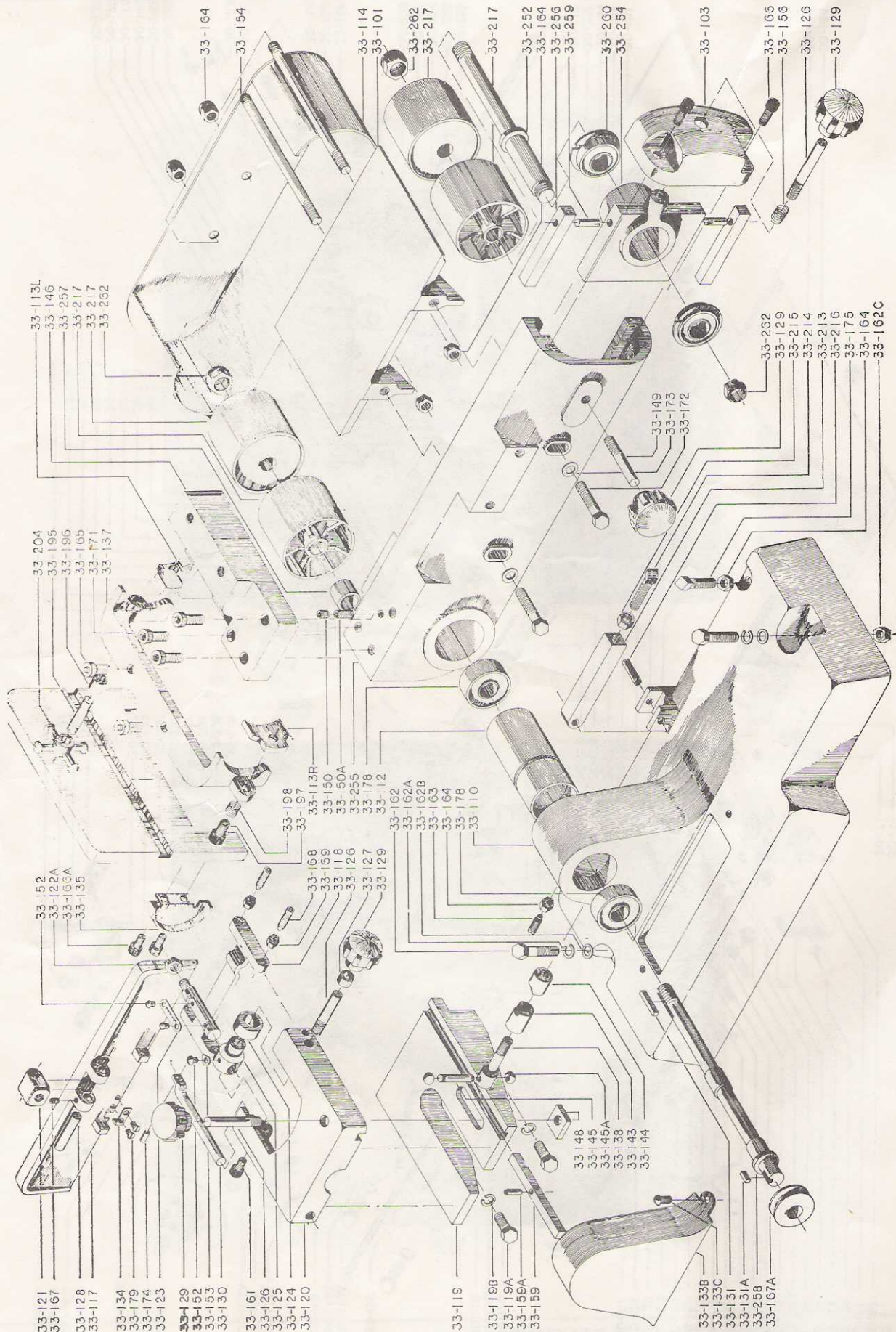
**REMOVE SPINDLE:** Remove spindle in the following manner: Remove table with the two cap screws (4) Fig. 2; dismantle the disc with the three disc mounting screws (6) Fig. 2; loosen the set screw on the disc mounting bracket and pulley and remove; loosen the three table mounting bracket screws (15) Fig. 5 and remove the bracket; loosen the two set screws (11) Fig. 3; remove guard with two acorn nuts (13) Fig. 3; loosen table raising quill lock (5) Fig. 3; remove the driving drum, quill and spindle as a unit—To replace, follow the above steps in reverse.



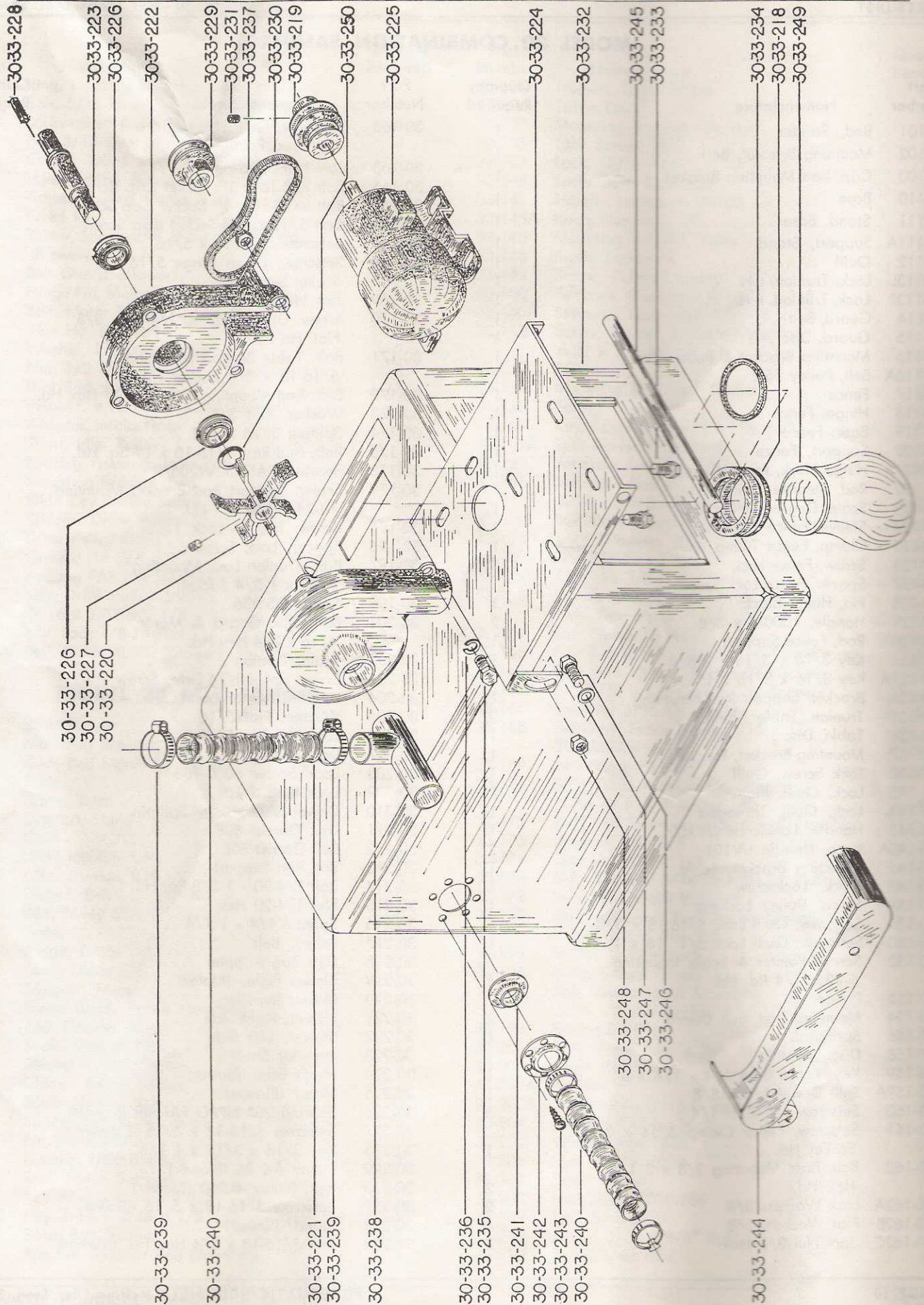












## MODEL 30 COMBINATION SANDER

Part Number	Nomenclature	Quantity Required	Part Number	Nomenclature	Quantity Required
30-101	Bed, Sander	1	30-163	Setscrew, Quill Lock 5/16 x 1"	
30-102	Mounting Bracket, Bed	1		Half Dog Point	1
30-103	Cap, Bed Mounting Bracket	1	30-163	Jam Nut 5/16 Hex.	11
30-110	Base	1	30-165	Bolt 3/8-16 x 1" Socket Cap Screw	2
30-111	Stand, Base	1	30-166	Bolt 5/16-18 x 1" Socket Cap Screw	2
30-111A	Support, Stand	1	30-166A	Bolt 5/16 x 1/2 Socket Cap Screw	4
30-112	Quill	1	30-167	Setscrew 5/16-18 x 5/16	2
30-113L	Lock, Trunion, L.H.	1	30-168	Setscrew, Fence Hinge 5/16 x 1"	
30-113R	Lock, Trunion, R.H.	1		Socket Setscrew	4
30-114	Guard, Belt	1	30-169	Jam Nut 5/16 Hex	4
30-115	Guard, Disc	1	30-170	Screw, Disc Mounting 1/4-20 x 5/8	
30-116	Mounting Bracket & Pulley, Disc	1		Flat Hd.	3
30-116A	Belt, Pulley 55A	1	30-171	Bolt, Table Bracket Mounting	
30-117	Fence	1		5/16-18 x 3/4 Socket Hd.	3
30-118	Hinge, Fence	1	30-172	Bolt, Bed Mounting 3/8-16 x 3" Hex Hd.	2
30-119	Base, Fence	1	30-173	Washer, Flat 3/8	2
30-120	Support, Fence	1	30-174	Splitpin 3/16 x 1/2	3
30-121	Hinge Block, Fence Mounting	1	30-175	Bolt, Bed Rest 5/16-18 x 1" Sq. Hd.	2
30-122	Rod, Degree Tilting	1	30-178	Bearing, FAFNIR W205PP	2
30-123	Scale, Degree Tilting Rod	1	30-179	Screw, Support Rod Bracket Mounting	
30-124	Sleeve, Fence Tilting	1		10-24 x 3/8 Flat Hd.	2
30-125	Clamp, Fence Tilting	1	30-195	Screw, Trunion Lock	1
30-126	Screw, Fence Lock	3	30-196	Spacer, Lock Screw	1
30-127	Spacer, Fence Lock Screw	1	30-197	Bolt, Trunion Lock Mounting	
30-128	Pin, Hinge Block	1		5/16 x 1 3/4 Socket	1
30-129	Handle, 1000-8 x 3/8	2	30-198	Spring DS 936	1
30-130	Rod, Fence Support	1	30-201	Bolt, Disc Guard & Motor	
30-131	Key 3/16 x 3/16 x 2 5/8	1		5/16 x 3/4 Hex Hd.	6
30-131A	Key 3/16 x 3/16 x 1"	1	30-203	Scale, Trunion	1
30-134	Bracket, Support Rod Mounting	1	30-203B	Screw #4 x 3/16 Drive Screw	3
30-135	Trunion, Table Tilting	2	30-204	Handle, Trunion Lock	1
30-136	Table, Disc	1	30-205	Washer, Flat 5/16	8
30-137	Mounting Bracket, Trunion	1	30-206	Lock Washer 5/16	4
30-138	Lock Screw, Quill	1	30-207	Door, Stand	1
30-143	Lock, Quill, Plain	1	30-208	Lock Screw 6000-186	1
30-144	Lock, Quill, Threaded	1	30-209	Lock Ring 5/16	1
30-145	Handle, Lockscrew UV100	1	30-210	Dowel 5/32 x 3/4" Splitpin	2
30-145A	Knob, Handle UV101	2	30-211	Disc Garnet 80E	1
30-146	Mounting Bracket, Table	1	30-212	Belt Garnet 80E	1
30-148	Block, Lockscrew	1	30-213	Bar, Bed Support	1
30-149	Screw, Pulley Locking	1	30-214	Bolt 1/4-20 x 1 3/8 Sq. Hd.	1
30-150	Setscrew, Quill Lock 5/16-18 x 3/8	1	30-215	Nut 1/4-20 Hex.	1
30-150A	Setscrew, Quill Lock 5/16-18 x 1"	1	30-216	Splitpin 1/4 x 1 1/4	1
30-152	Screw, Pointer & Scale Mounting		30-217	Pulley, Belt	2
	6-32 x 1/4 Rd. Hd.	4	30-218	Dust Bag Adapter	1
30-153	Pointer	1	30-219	Blower Pulley (Motor)	1
30-154	Mounting Rod, Belt Guard	2	30-220	Blower Impellor	1
30-156	Spring, S-4	1	30-221	Blower, Right Side	1
30-158	Disc, Sanding	1	30-222	Blower, Left Side	1
30-159	Key, Fence Base 1/4 x 1/4 x 6"	1	30-223	Impellor Shaft	1
30-159A	Split Dowel 1/8 x 5/8	1	30-224	Motor Base (Blower)	1
30-160	Setscrew 1/4-20 x 1/4	5	30-225	Motor (Blower)	1
30-161	Setscrew, Fence Clamp 5/16 x 3/8		30-226	Bearing 203 NPPG FAFNIR (Blower)	1
	Socket Hd.	1	30-227	Setscrew 5/16-18 x 5/16 (Blower)	1
30-162	Bolt, Base Mounting 3/8 x 2 1/2		30-228	Key 3/16 x 3/16 x 1 1/2	1
	Hex Hd.	2	30-229	Pulley AK 25 (Blower)	1
30-162A	Lock Washers 3/8	2	30-230	Belt, Pulley 4L260 (Blower)	1
30-162B	Flat Washers 3/8	6	30-231	Setscrew 5/16-18 x 5/16 (Blower)	1
30-162C	Jam Nut 3/8 Hex.	2	30-232	Stand (Blower)	1
			30-233	Bolt 5/16-18 x 3/4 Hex Hd. (Blower)	2

Part Number	Nomenclature	Quantity Required	Part Number	Nomenclature	Quantity Required
30-234	Ring, Dustbag Adaptor (Blower)	1	33-135	Trunion, Table Tilting	2
30-235	Bolt, 5/16-18 x 1" Hex Hd. (Blower)	4	33-136	Table, Disc	1
30-236	Lockwasher 5/16 (Blower)	4	33-137	Mounting Bracket, Trunion	1
30-237	Nut 5/16 Hex (Blower)	4	33-138	Lock Screw, Quill	1
30-239	Clamp, IDEAL size 32 2" (Blower)	4	33-139	Lock, Quill, Plain	1
30-240	Hose, Intake (Blower)	2	33-144	Lock, Quill, Threaded	1
30-241	Adjusting Ring, Intake Hose	1	33-145	Handle, Lockscrew UV100	1
30-242	Fixed Ring, Intake Hose	1	33-145A	Knob, Handle UV101	2
30-243	Screw, Sheetmetal #8 x 3/8 Rd. Hd. (Blower)	6	33-146	Mounting Bracket, Table	1
30-244	Belt Guard (Blower)	1	33-148	Block, Lockscrew	1
30-245	Hinge Pin, Motor Base	1	33-149	Screw, Pulley Locking	1
30-246	Bolt, Motor Base 1/2-13 x 1" Hex Hd. (Blower)	2	33-150	Setscrew, Quill Lock 5/16-18 x 3/8	1
30-247	Washer, 1/2 Lock (Blower)	2	33-150A	Setscrew, Quill Lock 5/16-18 x 1"	1
30-248	Nut, 1/2 Hex (Blower)	2	33-152	Screw, Pointer & Scale Mounting 6-32 x 1/4 Rd. Hd.	4
30-249	Dust Bag (Blower)	1	33-153	Pointer	1
30-250	Washer, e-12 NYLATRON (Blower)	1	33-154	Mounting Rod, Belt Guard	2
30-251	Adaptor, Intake Hose	1	33-156	Spring, S-4	1
30-252	Shaft, Idler Pulley	1	33-159	Key, Fence Base 1/4 x 1/4 x 6"	1
30-254	Bearing Housing, Idler Pulley	1	33-159A	Split Dowel 1/8 x 5/8	1
30-255	Mounting Bracket, Bed	1	33-160	Setscrew 1/4-20 x 1/4	5
30-256	Slide Key, Pulley Bearing Housing	2	33-161	Setscrew, Fence Clamp 5/16 x 3/8 Socket Hd.	1
30-257	Spacer, Drive Pulley Shaft	1	33-162	Bolt, Base Mounting 3/8 x 2 1/2 Hex Hd.	2
30-258	Drive Pulley Shaft	1	33-162A	Lock Washers 3/8	2
30-259	Groove Pin #4 x 1"	2	33-162B	Flat Washers 3/8	6
30-260	Bearing FAF NIR 205PPG	2	33-162C	Jam Nut 3/8 Hex	2
30-261	Key, Drive Pulley Shaft 3/16 x 3/16 x 2 1/8	1	33-163	Setscrew, Quill Lock 5/16 x 1" Half Dog Point	1
30-262	Nut, Lock 7/8-14 Hex	3	33-164	Jam Nut 5/16 Hex	11
30-225A	Belt, Motor 4L400 (Blower)	1	33-165	Bolt 3/8-16 x 1" Socket Cap Screw	2

**MODEL 33 BELT SANDER**

33-101	Bed, Sander	1	33-166	Bolt 5/16-18 x 1" Socket Cap Screw	2
33-102	Mounting Bracket, Bed	1	33-166A	Bolt 5/16 x 1/2 Socket Cap Screw	4
33-103	Cap, Bed Mounting Bracket	1	33-167	Setscrew 5/16-18 x 5/16	2
33-110	Base	1	33-168	Setscrew, Fence Hinge 5/16 x 1" Socket Setscrew	4
33-111	Stand, Base	1	33-169	Jam Nut 5/16 Hex	4
33-111A	Support, Stand	1	33-171	Bolt, Table Bracket Mounting 5/16-18 x 3/4 Socket Hd.	3
33-112	Quill	1	33-172	Bolt, Bed Mounting 3/8-16 x 3" Hex Hd.	2
33-113L	Lock, Trunion, L.H.	1	33-173	Washer, Flat 3/8	2
33-113R	Lock, Trunion, R.H.	1	33-174	Splitpin 3/16 x 1/2	3
33-114	Guard, Belt	1	33-175	Bolt, Bed Rest 5/16-18 x 1" Sq. Hd.	2
33-116A	Belt, Pulley 55A	1	33-178	Bearing, FAFNIR W205PP	2
33-117	Fence	1	33-179	Screw, Support Rod Bracket Mounting 10-24 x 3/8 Flat Hd.	2
33-118	Hinge, Fence	1	33-195	Screw, Trunion Lock	1
33-119	Base, Fence	1	33-196	Spacer, Lock Screw	1
33-120	Support, Fence	1	33-197	Bolt, Trunion Lock Mounting 5/16 x 1 3/4 Socket	1
33-121	Hinge Block, Fence Mounting	1	33-198	Spring DS 936	1
33-122	Rod, Degree Tilting	1	33-201	Bolt, Motor 5/16 x 3/4 Hex Hd.	6
33-123	Scale, Degree Tilting Rod	1	33-203	Scale, Trunion	1
33-124	Sleeve, Fence Tilting	1	33-203A	Pointer	1
33-125	Clamp, Fence Tilting	1	33-203B	Screw #4 x 3/16 Drive Screw	3
33-126	Screw, Fence Lock	3	33-204	Handle, Trunion Lock	1
33-127	Spacer, Fence Lock Screw	1	33-205	Washer, Flat 5/16	8
33-128	Pin, Hinge Block	1	33-206	Lock Washer 5/16	4
33-129	Handle, 1000-8 x 3/8	2	33-207	Door, Stand	1
33-130	Rod, Fence Support	1	33-208	Lock Screw 6000-186	1
33-131	Key 3/16 x 3/16 x 2 5/8	1	33-209	Lock Ring 5/16	1
33-131B	Key 3/16 x 3/16 x 1/2	1	33-210	Dowel 5/32 x 3/8" Split	2
33-133	Base, Belt Sander	1	33-212	Belt Garnet 8OE	1
33-134	Bracket, Support Rod Mounting	1			