PALMGREN®

6″ × 9″ Belt & Disc Sander with stand

Read carefully and follow all safety rules and operating instructions before first use of this product.

9644967.01-0320

DESCRIPTION

Palmgren Belt & Disc Sander/Grinder is used for grinding, deburring, squaring, polishing and finishing metals, woods and plastics. The Belt & Disc Sander/Grinder has a totally enclosed, fan-cooled direct drive motor, fully adjustable tool rests and OSHA compliant safety guards. Belt housing swivels from vertical to horizontal for grinding long workpieces features and a quick release belt tension and tracking mechanism.

UNPACKING

Check for shipping damage. If damage has occurred, a claim must be filed with the carrier immediately. Check for completeness. Immediately report missing parts to dealer.

WARNING: If you suspect a belt or disc of being damaged, replace it immediately.

UNPACK

Do not discard packing materials until after machine has been inspected for damage and completeness. Locate loose parts and set aside.

INSPECT

After unpacking the unit, carefully inspect for any damage that may have occurred during transit. Check for loose, missing or damaged parts. Shipping damage claims must be filed with the carrier.

All tools should be visually inspected before use, in addition to regular periodic maintenance inspections.

Be sure that the voltage labeled on the unit matches your power supply.

SPECIFICATIONS

Belt Size	6×48″
Belt Platen Area	$7^{1}/_{8}$×17″
Belt Drum Dimensions	3×$6^{1}/_{8}$″
Belt Table Dimensions	$5^{7}/_{8}$×$9^{13}/_{16}$″
Belt Table Tilts	0 To 60º
Belt Dust Chute Diameter	2″
Belt Speed	2700 SFPM
Disc Diameter	9″
Disc Table Dimensions	$5^{7}/_{8}$×$11^{13}/_{16}$″
Disc Table Tilts	0 to 45º
Disc Dust Chute Diameter	$1^{1}/_{4}$″
Disc Speed	3450 RPM
Base Dimensions	$14^{1}/_{2}$×$14^{1}/_{2}$″
Switch	SP, Locking rocker
Motor	1 HP, 120/240 V, 9/4.5 Amps
Weight	100 lbs
Shipping Weight	110 lbs

SAFETY RULES

WARNING: For your own safety, read operating instructions manual before operating tool.

PROPOSITION 65 WARNING: Some dust created by using power tools contain chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

Some examples of these chemicals are:

Lead from lead-based paints

Crystalline silica from bricks and cement and other masonry products.

Arsenic and chromium from chemically treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals; work in a well ventilated area and work with approved safety equipment. Always wear **OSHA/NIOSH** approved, properly fitting face mask or respirator when using such tools

BE PREPARED FOR JOB

Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts of machine.

Wear protective hair covering to contain long hair.

Wear safety shoes with non-slip soles.

Wear safety glasses complying with United States ANSI Z87.1. Everyday glasses have only impact resistant lenses. They are **NOT** safety glasses.

Wear face mask or dust mask if operation is dusty.

Be alert and think clearly. Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.

PREPARE WORK AREA FOR JOB

Keep work area clean. Cluttered work areas and work benches invite accidents.

Do not use power tools in dangerous environments. Do not use power tools in damp or wet locations. Do not expose power tools to rain.

Work area should be properly lighted.

Proper electrical plug should be plugged directly into properly grounded, three-prong receptacle.

Extension cords should have a grounding prong and the three wires of the extension cord should be of the correct gauge.

Keep visitors at a safe distance from work area.

Keep children out of the workplace. Make workshop childproof. Use padlocks, master switches or remove switch keys to prevent any unintentional use of power tools.

TOOL SHOULD BE MAINTAINED

Always unplug tool prior to inspection.

Consult manual for specific maintaining and adjusting procedures.

Keep tool clean for safest operation.

Remove adjusting tools. Form habit of checking to see that adjusting tools are removed before turning machine on.

Keep all parts in working order. Check to determine that the guard or other parts will operate properly and perform their intended function.

SAFETY RULES (CONTINUED)

Check for damaged parts. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other condition that may affect a tool's operation.

Replace worn or damaged cord immediately.

A guard or other part that is damaged should be properly repaired or replaced. Do not perform makeshift repairs. (Use the parts list to order replacement parts.)

Maintain tools with care. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

KNOW HOW TO USE TOOL

Use right tool for job. Do not force tool or attachment to do a job for which it was not designed.

Disconnect tool from power when changing accessories such as grinding wheels, buffing wheels and the like.

Avoid accidental start-up. Make sure that the switch is in the off position before plugging in.

Do not force tool. It will work most efficiently at the rate for which it was designed.

Keep hands away from moving parts and grinding surfaces.

Never leave a tool running unattended. Turn the power off and do not leave tool until it comes to a complete stop.

Do not overreach. Keep proper footing and balance.

Never stand on tool. Serious injury could occur if tool is tipped over.

Know your tool. Learn the tool's operation, application and specific limitations.

Use recommended accessories. Understand and obey all safety instructions supplied with accessories. The use of improper accessories may cause risk of injury to persons.

Turn machine off if it jams. Belt or disc jams when it digs too deeply into workpiece. (Motor force keeps it stuck in the work.)

Maintain 1/16″ maximum clearance between tool rest and abrasive belt/disc.

Handle the workpiece correctly. Whenever possible, use tool rest to support workpiece during grinding operation. Turn tool off if it jams.

Make sure the tool is secured to a steady, flat working surface. When used with a stand, make sure the stand is bolted to a flat surface to prevent tipping over.

Support workpiece with tool rest.

Clean sanding dust from beneath tool frequently.

ASSEMBLY

Refer to Figures 1, 2, 5, and 6.

WARNING: Do not attempt to operate tool until it is completely assembled according to instructions.

CAUTION: Do not attempt assembly if parts are missing. Use this manual to order repair parts.

ASSEMBLE STAND

Refer to Figure 1.

NOTE: Finger tighten bolts and nuts until assembly is complete. Then tighten all fasteners securely.

1. Install foot by pressing onto all four legs.
2. Attach one top frame to one pair of legs using carriage bolts, flat washers and hex nuts. Repeat for second pair of legs.
3. Attach one brace to each pair of legs using carriage bolts, flat washers and hex nuts.)
4. Connect the two leg sets with the two remaining top frames. Make sure that the square holes in the legs align with the square holes in the top frame. Also make sure that the slots on top of the frame members are aligned at each corner. Secure frames to legs using carriage bolts, flat washers and hex nuts.
5. Attach the two remaining braces by aligning the square holes in the legs and the braces. Insert carriage bolts, flat washers and secure with hex nuts.

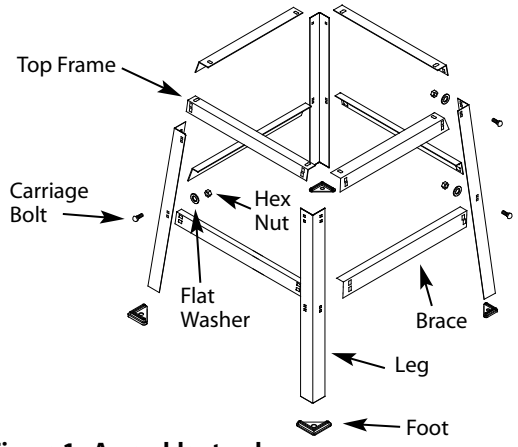

Figure 1 - Assemble stand.

MOUNT SANDER TO STAND

1. Place sander on the stand.
2. Align mounting holes of sander with slots on top frame.
3. Secure sander to stand on all four corners using four 5/16-18 x 2″ hex head bolts, eight 5/16″ flat washers and four 5/16-18 hex nuts.

ASSEMBLE DISC TABLE

Refer to Figure 2.

1. Attach disc guard to end shield using three pan head screws, three flat washers and three lock washers.
2. Remove tape from key and armature. Slide aluminum disc with abrasive disc onto armature with keyway in disc aligned with key in armature. Secure disc to armature using set screw.
3. Slide disc dust chute onto disc guard from below the 9″ disc with exhaust port to rear of tool. Secure dust chute to disc guard with two pan head screws.
4. Slide disc table with attached trunnions onto the raised bosses on each side of disc guard. Mount two handles and flat washers through trunnions into threaded holes on each side of disc guard.
5. Locate table in desired position and secure with handles.

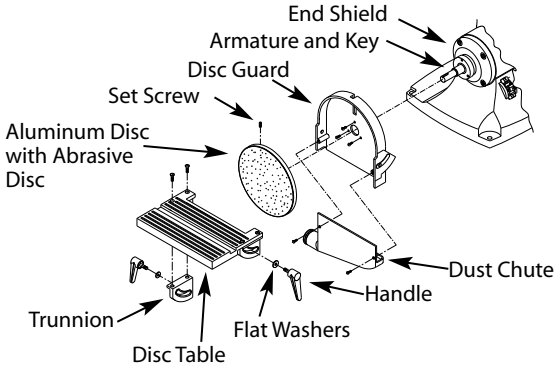

Figure 2 – Assemble disc table.

ASSEMBLY (CONTINUED)

6. Be sure the gap between the disc and disc table is 1/16˝ or less.
7. If adjustment is necessary, loosen set screw in aluminum disc through the opening at top-rear of disc guard. Position disc 1/16˝ or less from edge of table. Secure disc with set screw.

ASSEMBLE BELT TABLE

Refer to Figure 6, page 10.

Slide belt table assembly (Ref. No. 76) into trunnion groove of pivot bracket (Ref. No. 47). Mount using socket head bolt and flat washer (Ref. Nos. 2 and 75). Locate table in desired position. Be sure that gap between belt table and belt is 1/16˝ or less. Tighten bolt securely.

INSTALLATION

Refer to Figures 3, 4 and 5.

WARNING: All electrical connections must be performed by a qualified electrician.

POWER SOURCE

The motor is designed for operation on the voltage and frequency specified. Normal loads will be handled safely on voltages not more than 10% above or below the specified voltage.

Running the unit on voltages which are not within the range may cause overheating and motor burnout. Heavy loads require that voltage at motor terminals be no less than the voltage specified on nameplate. Power supply to the motor is controlled by a single pole locking rocker switch. Remove the key to prevent unauthorized use.

GROUNDING INSTRUCTIONS

WARNING: Improper connection of equipment grounding conductor can result in the risk of electrical shock. Equipment should be grounded while in use to protect operator from electrical shock.

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

This tool is equipped with an approved 3-conductor cord rated at 300V and a 3-prong grounding type plug (See Figure 3) for your protection against shock hazards.

Grounding plug should be plugged directly into a properly installed and grounded 3-prong grounding-type receptacle, as shown (Figure 3).

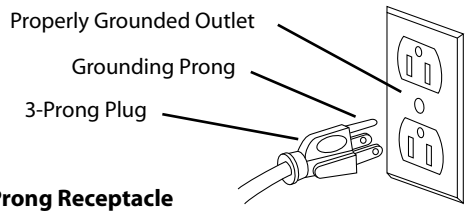

Figure 3– 3-Prong Receptacle

Do not remove or alter grounding prong in any manner. In the event of a malfunction or breakdown, grounding provides a path of least resistance for electrical shock.

WARNING: Do not permit fingers to touch the terminals of plug when installing or removing from outlet.

Plug must be plugged into matching outlet that is properly installed and grounded in accordance with all local codes and ordinances. Do not modify plug provided. If it will not fit in outlet, have proper outlet installed by a qualified electrician.

Inspect tool cords periodically, and if damaged, have repaired by an authorized service facility.

Green (or green and yellow) conductor in cord is the grounding wire. If repair or replacement of the electric cord or plug is necessary, do not connect the green (or green and yellow) wire to a live terminal.

Where a 2-prong wall receptacle is encountered, it must be replaced with a properly grounded 3-prong receptacle installed in accordance with National Electric Code and local codes and ordinances.

WARNING: This work should be performed by a qualified electrician.

A temporary 3-prong to 2-prong grounding adapter (See Figure 4) is available for connecting plugs to a two pole outlet if it is properly grounded.

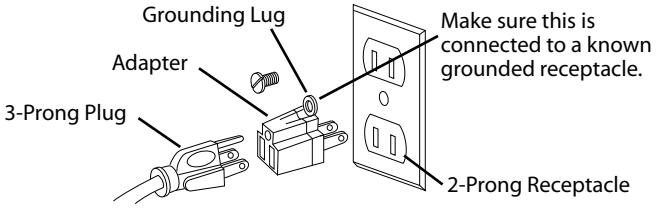

Figure 4 – 2-Prong Receptacle with Adapter

Do not use a 3-prong to 2-prong grounding adapter unless permitted by local and national codes and ordinances.

(A 3-prong to 2-prong grounding adapter is not permitted in Canada.) Where permitted, the rigid green tab or terminal on the side of the adapter must be securely connected to a permanent electrical ground such as a properly grounded water pipe, a properly grounded outlet box or a properly grounded wire system.

Many cover plate screws, water pipes and outlet boxes are not properly grounded. To ensure proper ground, grounding means must be tested by a qualified electrician.

EXTENSION CORDS

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 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.

Extension Cord Table

		Volts	Total Length of Cord in Feet			
Ampere Rating		120	25	50	100	150
More Than	Not More Than	240	50	100	150	300
			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	

INSTALLATION (CONTINUED)

ELECTRICAL CONNECTIONS

WARNING: All electrical connections must be performed by a qualified electrician. Make sure tool is off and disconnected from power source while motor is mounted, connected, reconnected or anytime wiring is inspected.

Motor and wires are installed as shown in wiring diagram (See Figure 4). Motor is assembled with approved, 3-conductor cord to be used at 120/240 volts. Motor is prewired at the factory for 120 volts.

To use the grinder with a 240V power supply, have a qualified electrician rewire motor and attach a 240 volt, 15A three-prong plug onto grinder line cord.

Recommended Dayton plugs, connectors and receptacles for 240 volts:

20 Amps Plug	250 Volts Connector	NEMA L6-20 Receptacle
5A081	5A082	5A080

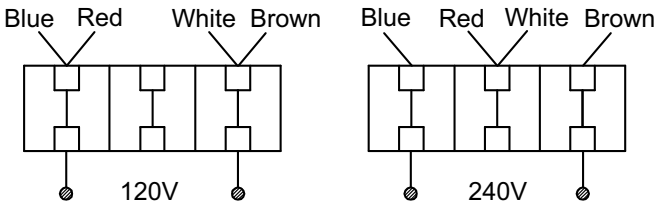

Figure 5 – Wiring diagram.

OPERATION

WARNING: Operation of any power tool can result in foreign objects being thrown into eyes which can result in severe eye damage. Always wear safety goggles complying with United States ANSI Z87.1 (shown on package) before commencing power tool operation.

CAUTION: Always observe the following safety precautions:

Whenever adjusting or replacing any parts on the sander turn power off and remove the plug from power source.

Recheck tool rest bolts, they must be tightened securely.

Make sure all guards are properly attached. All guards should be securely fastened.

Make sure all moving parts are free and clear of any interference.

Make sure all fasteners are tight and have not vibrated loose.

With power disconnected, test operation by hand for clearance and adjust if necessary.

Always wear eye protection or face shield.

Make sure abrasive belt tracks properly. Correct tracking gives optimum performance.

After turning switch on, always allow belt and disc to come up to full speed before sanding or grinding.

Abrasive belt must travel towards tool rest.

Avoid kickback by grinding in accordance with the directional arrows.

Keep your hands clear of abrasive belt/disc and all moving parts.

For optimum performance do not stall motor or reduce speed. Do not force the work into the abrasive.

Support workpiece with tool rest when grinding with belt/disc.

Never push a sharp corner of workpiece rapidly against belt/disc. Abrasive backing may tear.

Replace abrasives when they become loaded (glazed) or frayed.

When grinding metal, move workpiece across abrasive to prevent heat build-up.

Never attempt wet sanding. If work-piece becomes too hot to handle, cool it in water.

Do not expose to rain or use in damp locations.

REPLACING ABRASIVE BELT

Refer to Figure 6, page 8.

Abrasive belt should be replaced when worn, torn, or glazed. Loosen belt cover knobs (Ref. No. 18) and open belt cover.

1. Release belt tension by pushing tension lever (Ref. No. 35) towards idler drum. Slide old belt off the idler and drive wheels.

NOTE: There may be an arrow on the inside of the belt. The arrow should point down toward the belt table to ensure that the splice in the belt will not come apart.

2. Slide new belt over the drive and idler drums; center belt on drums.
3. Push tension lever towards drive drum to tension belt.
4. Rotate belt by hand to check tracking. Belt should ride centered on drive and idler drums. Adjust thumb nut (Ref. No. 29) as needed to center belt on drums. When belt tracks properly, tighten hex nut. (Ref. No. 28) If adjustment of thumb nut does not provide desirable tracking, adjust the stud (Ref. No. 30) using a flat screwdriver. To adjust stud, loosen hex nut and turn stud counterclockwise to move belt to the right or clockwise to move belt to the left until belt rides centered on drive and idler drums. Tighten hex nut while holding the stud in place.
5. Close belt cover and tighten knobs.

ADJUST BELT ASSEMBLY POSITION

Refer to Figure 6, page 8.

Sanding belt assembly can be adjusted from horizontal to vertical position.

1. Loosen socket head bolt (Ref. No. 37 is threaded into pivot bracket.
2. Tilt belt assembly to desired position (from horizontal to vertical). Secure belt assembly position by tightening socket head bolt in pivot bracket.

ADJUST BELT TABLE

Refer to Figure 6, page 8.

1. To adjust belt table angle, loosen socket head bolt (Ref. No. 75).
2. Tilt belt table to desired position. Adjust for 1/16˝ maximum clearance between the belt and the table. Secure by tightening socket head bolt.

HORIZONTAL BELT SANDING

Refer to Figure 6, page 10.

The belt platen can be tilted from a vertical to a horizontal position.

1. Remove the belt table by removing the socket head bolt and flat washer (Ref. Nos. 2 and 75). Loosen the socket head bolt (Ref. No. 37) in the pivot bracket; tilt the belt platen assembly to the horizontal position and tighten the socket head bolt to secure position.

OPERATION (CONTINUED)

WORK STOP

Refer to Figure 6, page 8.

The work stop (Ref. No. 74) can be used instead of the belt table.

1. Remove socket head bolt and flat washer (Ref. Nos. 2 and 75) holding belt table on pivot bracket. Remove belt table.
2. Mount work stop to pivot bracket using the socket head bolt and washer.

ABRASIVE BELT FINISHING

WARNING: Excessive force on the belt will shorten the life of the belt and the motor.

Finishing flat surfaces: Hold workpiece firmly with both hands; keep fingers away from abrasive belt.

Use work stop. Work stop is used to position and secure work being sanded. Keep end butted against work stop and move work evenly across abrasive belt. Use extra caution when finishing very thin pieces.

Finishing long pieces: remove work stop. Apply only enough pressure to allow abrasive belt to remove material.

Finishing curved edges: Finish outside curves on flat portion of abrasive belt. Finish inside curves on idler drum portion of abrasive belt.

Finishing end grain: It is more convenient to finish ends of long workpieces with the abrasive belt in a vertical position.

Position table on belt side of sander. Lock into position with socket head bolt and washer. Move work evenly across abrasive belt. For accuracy, use miter gauge. Table may be tilted for beveled work.

REPLACING ABRASIVE DISC

Refer to Figure 6, page 8.

1. Remove disc table and dust chute (Ref. Nos. 4 and 8). Remove old abrasive disc by peeling it from the aluminum disc. Removing aluminum disc from motor shaft is not necessary.
2. Clean aluminum disc if necessary. Select the proper abrasive disc and apply to aluminum disc.
3. Replace dust chute and disc table.

ADJUSTING DISC TABLE ANGLE

Refer to Figure 6, page 8.

Disc table is adjustable from 0 to 45° for beveled work.

1. To adjust the disc table, loosen the two handles (Ref. No. 1) and pivot to the desired angle.
2. Use the scale on disc table trunnions to set table from 0 to 45° from abrasive disc.
3. When disc table is at desired angle, lock it into position by securely tightening the handles.

ABRASIVE DISC FINISHING

WARNING: Excessive force on the disc will shorten the life of the disc and the motor.

Abrasive disc sanding is well suited for finishing small flat surfaces and convex edges.

Move workpiece across down side (right) of abrasive disc.

Abrasive disc moves fastest and removes more material at outer edge.

For accuracy, use miter gauge.

USING MITER GAUGE

The miter gauge is used on both belt and disc tables. Use the miter gauge for securing the work and holding the proper angle while sanding.

Adjust angle by repositioning the miter gauge scale and locking it into place with knob.

Check accuracy of miter gauge scale.

Use a combination square to adjust miter gauge square to disc. Indicator should be at zero. Loosen screw and reposition indicator if necessary.

MAINTENANCE

WARNING: Make certain that the unit is disconnected from power source before attempting to service or remove any component.

CLEANING

Keep machine and workshop clean. Do not allow sawdust to accumulate on the tool.

Keep the drums clean. Dirt on drums will cause poor tracking and belt slippage.

Operate tool with dust collector to keep dust from accumulating.

WARNING: After sanding wood or non-metallic material, always clean dust collector and guards of sawdust before grinding metal. Sparks could ignite debris and cause a fire.

Be certain motor is kept clean and is frequently vacuumed free of dust.

Use soap and water to clean painted parts, rubber parts and plastic guards.

LUBRICATION

The shielded ball bearings in this tool are permanently lubricated at the factory. They require no further lubrication.

When operation seems stiff, a light coat of paste wax applied to the belt table and disc table will make it easier to feed the work while finishing.

Do not apply wax to the belt platen. Belt could pick up wax and deposit it on wheels causing belt to slip.

KEEP TOOL IN REPAIR

If power cord is worn, cut or damaged, have it replaced immediately.

Replace worn abrasives when needed.

Replace any damaged or missing parts. Use parts list to order parts.

Any attempt to repair motor may create a hazard unless repair is done by a qualified service technician.

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Motor will not start.	1. Blown line fuse or tripped circuit breaker.	1. If fuse is blown, replace with fuse of proper size. If breaker tripped, reset it.
	2. Low line voltage.	2. Check power supply for voltage and correct as needed.
	3. Defective switch.	3. Replace switch.
	4. Defective, blown capacitor.	4. Replace capacitor.
Motor will not start; fuses blown or circuit breakers tripped.	1. Overloading due to binding.	1. Clean around wheels and shaft and/or replace bearings.
	2. Defective plug.	2. Replace plug.
	3. Defective cord.	3. Replace cord.
	4. Defective switch.	4. Replace switch.
	5. Motor wired for different line voltage.	5. Rewire motors as per line voltage (See Electrical Connections, page 5).
	6. Faulty internal wiring.	6. Have a qualified electrician service unit.
Motor fails to develop full power (power output of motor decreases rapidly with decrease in voltage at motor terminals).	1. Power line overloaded with lights, appliances and other motors.	1. Reduce load on power line.
	2. Undersized wires or circuits too long.	2. Increase wire sizes, or reduce length of wiring.
	3. General overloading of power company's facilities.	3. Request a voltage check from power company.
Motor overheats	Motor overloaded	Reduce load on motor.
Motor stalls (resulting in blown fuses or tripped circuit breakers).	1. Short circuit in motor or loose connections.	1. Inspect connections in motor for loose or shorted terminals or worn insulation on lead wires.
	2. Low voltage.	2. Correct the low line voltage conditions.
	3. Motor wired for different line voltage.	3. Rewire motor as per line voltage.
	4. Incorrect fuses or circuit breakers in power line.	4. Install correct fuses or circuit breakers (See Electrical Connections, page 5).
	5. Motor overloaded.	5. Reduce load on motor.
Machine slows down while operating.	Applying too much pressure to workpiece.	Ease up on pressure.
Abrasive belt runs off top wheel.	Not tracking properly.	See operation section.

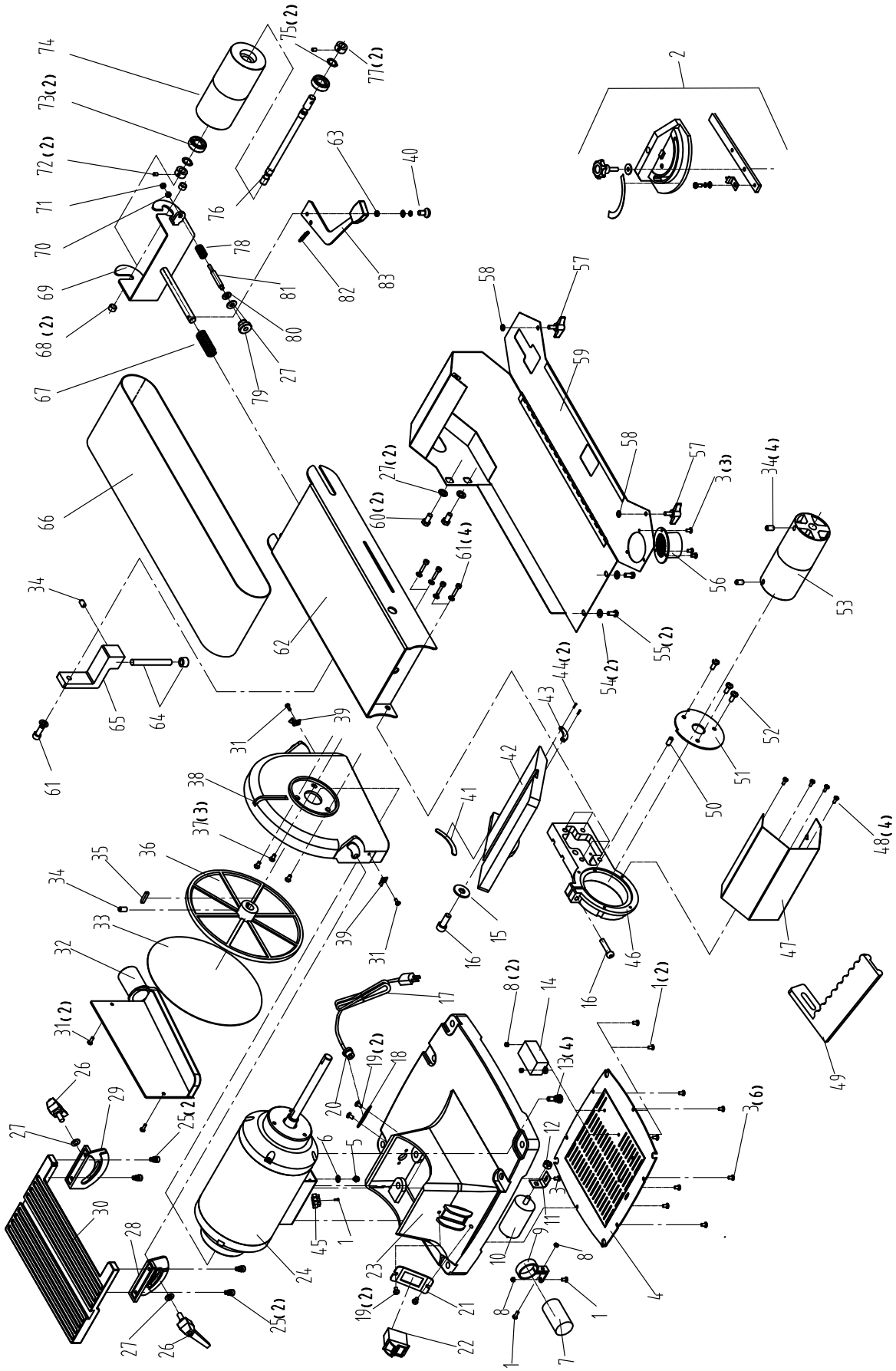

Figure 6 — Replacement Parts Illustration for Sander

REPAIR PARTS LIST FOR SANDER

Ref. No.	Description	Part No.	Qty.
1	Star-Head Screw w/ Flat Washer M4x15	*	5
2	Miter Gauge Assembly	9636340.01	1
3	Star-Head Screw w/ Flat Washer M4x8	*	10
4	Base Cover	9616919.01	1
5	Star-Head Screw w/ Washers M4x8	*	1
6	External Teeth Lock Washer M4	*	1
7	Starting Capacitor 200uf/125V	9636349.01	1
8	Hex Nut M4	*	4
9	Capacitor Support	9616918.01	1
10	Running Capacitor 20uf/300V	9616639.01	1
11	Capacitor Support	9616918.01	1
12	Hex Nut M8	*	1
13	Philips Screw w/ Lock Washer M8x20	*	4
14	Electronic Centrifugal Switch	9643070.01	1
15	Lock Washer M8	*	1
16	Hex Head Screw M8x25	*	2
17	Power Cord	9624671.01	1
18	Clip Plate	9608172.01	1
19	Philips Screw M5x8	*	4
20	Cord Clip	*	1
21	Switch Plate	9636282.01	1
22	Switch	9608066.01	1
23	Base	N/A	1
24	Motor	N/A	1
25	Hex Head Screw w/ Washers M6x12	*	4
26	Locking Knob	9642863.01	2
27	Flat Washer M8	*	5
28	Work Table Right Support	9642900.01	1
29	Work Table Left Support	9642897.01	1
30	Work Table for Disc	9642870.01	1
31	Star-Head Screw M4x10	*	4
32	Dust Chute	9608372.01	1
33	Abrasive Disc, 9", 80 Grit	9616731.00	1
34	Hex Position Screw M8x12	*	6
35	Key A5x15	*	1
36	9" Disc Plate	9621446.01	1
37	Star-Head Screw w/ Washers M6x16	*	3
38	Disc Cover	9608371.03	1
39	Pointer	9644128.01	2
40	Philips Screw w/ Washers M5x16	*	1
41	Table Scale	9644129.01	1
42	Belt Worktable	9608387.02	1
43	Guide Block	9644130.01	1
44	Spring Column Pin M4x10	*	2
45	Wire Block	9616899.01	1
46	Pivot Bracket	9636342.01	1
47	Lower Guard	9636339.01	1
48	Philips Screw M5x10	*	4
49	Work Stop	9608381.01	1
50	Spring Column Pin M5x15	*	1
51	Pivot Stop Bracket	9636341.01	1
52	Philips Screw w/ Lock Washer M6x10	*	3
53	Drive Pulley	9621434.01	1
54	Flat Washer M6	*	2
55	Hex Screw M6x10	*	2
56	Dust Port	9628678.01	1
57	Knob	9628677.01	2
58	Clamping Pad M5	9631460.01	2
59	Belt Guard	9636337.01	1
60	Hex Screw M8x10	*	2
61	Hex Screw w/ Flat Washer M8x16	*	5
62	Platen	9608392.01	1
63	Powder Metallurgical Jacket	9644135.01	1
64	Support Rod w/ Bumper	9636344.01	1
65	Support	9636343.01	1
66	Abrasive Belt 6" X 48" 80 Grit	9622173.00	1
67	Tighten Spring	9608397.03	1
68	Bushing	9608402.00	2
69	Idler Drum Bracket	9608396.03	1
70	Hex Screw M5	*	3
71	Non-Metallic Insert Nut M5	*	1
72	Hex Screw M5x6	*	2
73	Bearing 6201ZZ	*	2
74	Idler Drum	9608400.01	1
75	External Circlip M12	*	2
76	Driven Shaft	9608401.01	1
77	Driven Shaft Positioning Sleeve	9608403.01	2
78	Spring	9644131.01	1
79	High Top Knurled Nut	9644132.01	1
80	Rubber Pad	9644133.01	1
81	Adjusting Screw	9608412.01	1
82	Tension Spring	9644134.01	1
83	Tension Handle	9636338.01	1
Δ	Owner's Manual	9644967.01	1

(Δ) Not shown.
(▲) Not included.
(N/A) Not available as replacement part.
(*) Standard hardware item, available locally.

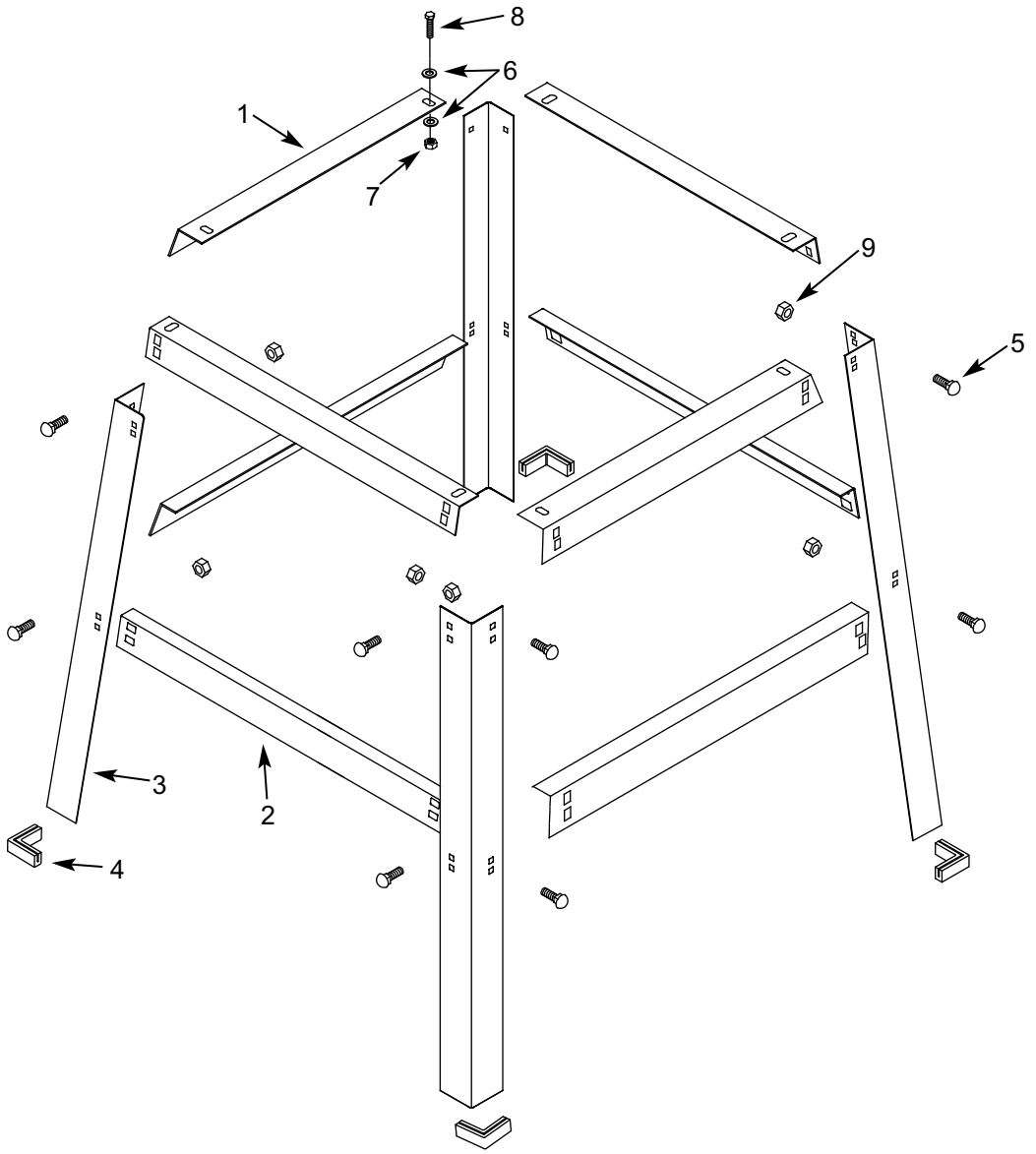

Figure 4 – Replacement Parts Illustration for Stand

REPLACEMENT PARTS LIST FOR STAND

Ref. No.	Description	Part Number	Qty.
1	Top Frame	9636351.00	4
2	Brace	9636352.00	4
3	Leg	9636353.00	4
4	Foot	9636354.00	4
5	Carriage bolt M6×12	*	32
6	Flat washer M8	*	8
7	Hex Nut M8	*	4
8	Hex head bolt M8×55	*	4
9	Flange Nut M6	*	32

(Δ) Not shown.
(▲) Not included.
(N/A) Not available as replacement part.
(*) Standard hardware item, available locally.

PALMGREN WARRANTY

C.H. Hanson / Palmgren warrants their products to be free of defects in material or workmanship. This warranty does not cover defects due directly or indirectly to misuse, abuse, normal wear and tear, failure to properly maintain the product, heated, ground or otherwise altered, or used for a purpose other than that for which is was intended.

The warranty does not cover expendable and/or wear part (i.e. v-belts, screws, abrasives, jaws), damage to tools arising from alteration, abuse or use other than their intended purpose, packing and freight. The duration of this warranty is expressly limited to the terms noted below beginning from the date of delivery to the original user.

The Palmgren branded items carry the following warranties on parts:

All vises, clamps, positioning tables, tombstones, jack screws and vise accessories - LIFETIME.

All bench grinders, drill presses, tapping machines, band saws, lathes, milling machines, arbor presses, abrasive finishing machines and work stands - 3 YEARS.

The obligation of C.H. Hanson / Palmgren is limited solely to the repair or replacement, at our option, at its factory or authorized repair agent of any part that should prove inoperable. Purchaser must lubricate and maintain the product under normal operating conditions at all times. Prior to operation become familiar with product and the included materials, i.e. warnings, cautions and manuals.

Failure to follow these instructions will void the warranty.

This warranty is the purchaser's exclusive remedy against C.H. Hanson for any inoperable parts in its product. Under no circumstances is C.H. Hanson liable for any direct, indirect, incidental , special or consequential damages including loss of profits in any way elated to the use or inability to use our products. This warranty gives you specific legal rights which may vary from state to state.

PALMGREN®

Palmgren - a C.H. Hanson Company
2000 N. Aurora Rd., Naperville, IL 60563 U.S.A.
or call ***1-800-827-3398***