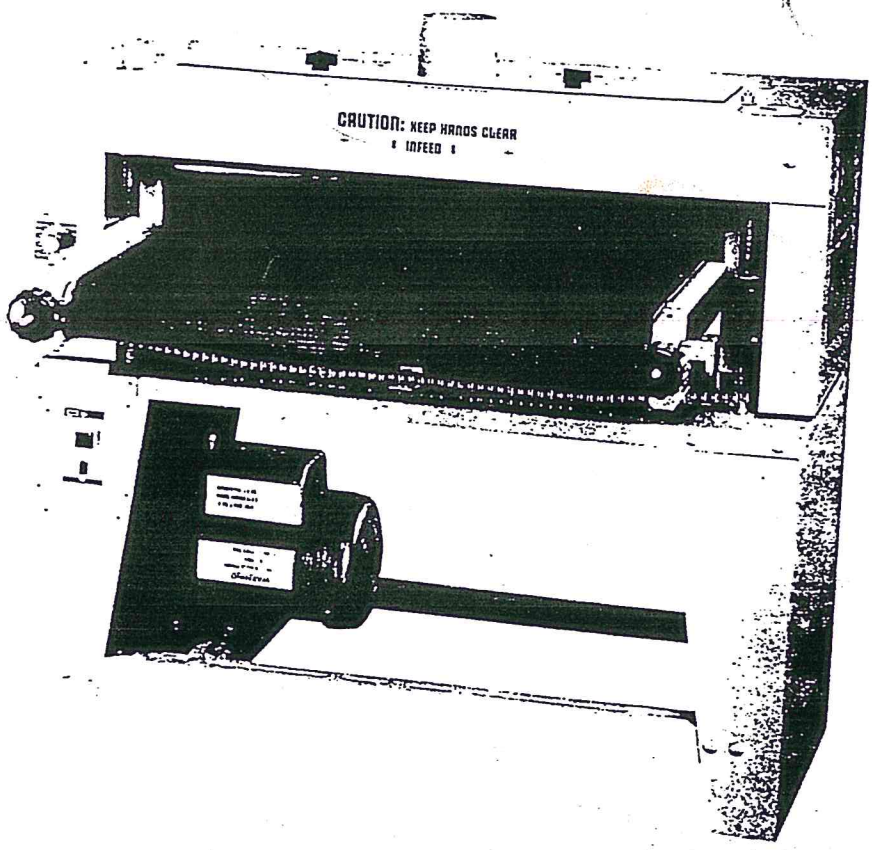
rbi

OPERATORS MANUAL

FOR MODEL 426 DRUM SANDER



READ THOROUGHLY BEFORE OPERATING

CODE #: 0894

MANUAL #: 703-0426

We guarantee each R.B.I. machine to be free from defects in material and workmanship for 5 years from the date of shipment to the original owner. This warranty does not cover damage sustained in transit or from misuse of this piece of equipment.

This warranty does not obligate us to bear the cost of labor or transportation charges in connection with the repair or replacement of defective parts, nor shall it apply to any machine upon which repairs or alterations have been made unless authorized by us.

We make no warranty in respect to components not of our manufacture, each being subject to the warranties of their respective manufacturer.

We shall in no event be liable for consequential damages or contingent liabilities arising out of the use of any machine, or out of the failure of any machine to operate properly. No express, implied or statutory warranty other than herein set forth is made or authorized to be made by us.

THE ENCLOSED WARRANTY REGISTRATION CARD MUST BE RETURNED TO VALIDATE YOUR WARRANTY.

TO VALIDATE WARRANTY: CUSTOMERS MUST MAIL IN WARRANTY CARD UPON RECEIPT OF MACHINE.

Note: Before calling the factory for assistance please consult your operators manual. If you still have questions after consulting your operators manual our customer service department will be glad to assist you.

rbi industries, inc.
1801 Vine Street
P.O. Box 369
Harrisonville, MO 64701
1-800-487-2623
(816) 884-3534
FAX: (816) 884-2463

TABLE OF CONTENTS (MODEL 426 DRUM SANDER)

FORWARD

The Model 426 Drum Sander is designed for the professional. It is designed for ease of operation, maintenance, and adjustment by the operator with his safety in mind. As with any piece of equipment the operator should become familiar with it. To do this, the operators manual should be thoroughly read and understood.

CAUTION: Safety doesn't just happen, it is planned!
Accidents don't just happen, they are caused!

Read and practice the safety precautions. Follow the instructions provided in the operator's manual.

SPECIFICATIONS (MODEL 426 DRUM SANDER)

Sanding	Max. Depth of Cut Per Pass (3HP Motor, 80 Grit)	1/128"
	Max. Width of Stock	26"
	Max. Thickness of Stock	4"
	Shortest Piece of Stock	5"
	Feed Rate (Self Feeding)	6-19 ft/min
Machine Size	Machine Width	38-1/2"
	Machine Length	43"
	Machine Height	39"
	Machine Weight (without motor)	385 lbs
Sanding Drum	Diameter (Single Drum)	4"
	Ball Bearings (Self Aligning)	1" I.D.
	Speed	1190 RPM
Std. Motor	Horsepower	3 HP
	Voltage	230 V
	Phase	1 Ph
	Speed	3450 RPM
	Weight	52 lbs
	Motor Pulley (Diameter for 3450 RPM Motor)	2.25 in

SAFETY

1. Read the operators manual carefully. Be familiar with the operation of the equipment. Know where the controls are and how to operate them.
2. Never allow children to operate equipment. Never allow anyone to operate the equipment without proper instruction.
3. Keep the work area clear of other persons.
4. Maintain a clean uncluttered work area.
5. Never make any adjustments while the machine is running.
6. Keep hands and feet away from rotating parts. Keep clear of infeed and discharge openings.
7. Disconnect the electrical supply before making any adjustments on the machine (unplug the machine).
8. Remove all tools and equipment before starting machine.
9. Wear proper clothing. Avoid loose fitted clothing, long sleeves, long hair, gloves, neck tie, jewelry, watches, rings, etc.
10. Wear safety goggles, ear protection (ear plugs or covers) and a mask in dusty operations.
11. To avoid electrical shock do not operate any electrical powered machine in a damp or wet area.
12. Maintain all safety guards.
13. Do not operate the machine while under the influence of medication, alcohol, or drugs.
14. Never leave the machine running unattended.
15. Don't overload the machine, follow the operators manual.
16. Keep the equipment in proper working order. Follow recommended maintenance proceeds in operators manual.
17. Do not use lumber with loose knots or splintered surfaces.

WARNING: **Never operate the sander around an open flame as sanding dust can be extremely flammable. Always use a dust collector.**

UNPACKING AND ASSEMBLY INSTRUCTION

All of our machines are test run, checked, and adjusted at the factory before shipment. Shipping may cause some misalignment. Report all shipping damage to the carrier, not the manufacturer.

NOTE: The machine should be set on a solid and level floor.

Remove from the shipping carton and check to see that all parts were received without damage. The model 426 drum sander will be shipped in a single crate.

NOTE: Damaged parts are to be reported directly to the transportation carrier. The manufacturer is not responsible for shipping damage.

Crate Contents:

A. Drum Sander	Quantity
B. Crank (Thickness Adjustment Crank)	1
C. Operators Manual (Part #703-0426)	1
D. Velcro Tape Wrap (Installed)	1
E. Grit Sandpaper Wrap (1 Installed)	1
100 Grit Sandpaper Wrap	3
F. Abrasive Cleaner Stick	2
	1

OPERATING INSTRUCTIONS

Some woods, such as pine, which have large mounts of gums and resins will load up the sandpape almost immediately and give poor results. These types of woods are not recommended for sanding. Ir the same way, painted or varnished wood will load up the sandpaper. Sanding wet or green wood is no recommended.

Use the sander to finish pre-dimensioned boards. A lighter sanding pass will produce a smoother surface.

To remove loaded material from the sandpaper, use the abrasive belt cleaner, see USING THE ABRASIVE BELT CLEANER. This item is an accessory and is included with the drum sander.

WARNING: **Never operate the sander around an open flame as sanding dust can be extremely flammable. Always use a dust collector.**

1. With the machine turned off, place the board to be sanded under the infeed roller.
2. Raise the table so the board just contacts the roller.
3. Remove the board.
4. Turn the crank up three turns. This will allow the board to be close to the sanding head.
5. Turn the machine on.
6. Begin to move the board straight into the machine.
7. After the board is under the sanding head, slowly raise the table until the board contacts the sanding head.
8. Feed the board through again, **raising the table no more than 1/8 turn of the crank (.0075") for each pass.** A lighter pass will produce a smoother surface. On finer grits of sandpaper make multiple passes before raising the table.

WARNING: **Trying to take off too much per pass will tear up the sandpaper, make the board feed improperly causing gouges in the board, and possibly damage the machine.**

SANDPAPER INSTALLATION

To install the velcro tape follow the same procedure as sandpaper installation.

1. Disconnect the electrical source (unplug the machine).
2. Remove old paper and velcro tape (if bad). If the velcro tape was removed, clean the old adhesive from the sanding drum using mineral spirits.
3. Unwind and cut off 11' of sandpaper.

NOTE: If there is not velcro tape already installed on your sanding head that will need to be done before proceeding with installing the sandpaper. Unwind and cut 15' of velcro tape.

4. Wrap the sandpaper around the head one time and mark where it meets the end (see fig. A-1). That should be 12-1/8" for sandpaper and 13" for velcro tape.
5. Remove from the head and mark a line on the diagonal using a straight edge. Then cut on the line (see fig. A-2).

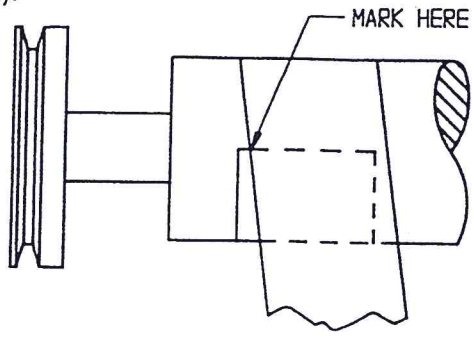


Fig. A-1

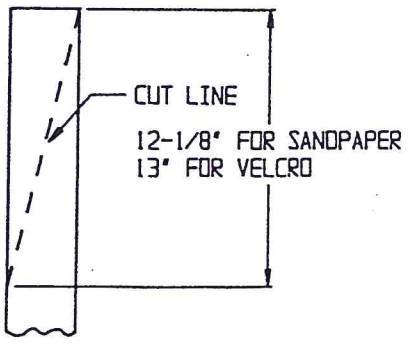


Fig. A-2

6. Apply the sandpaper to the drum in a spiral. Start the cut edge at the drive end of the drum and turn the drum one revolution (see fig. A-3). Then align with the edge of the sandpaper, and continue to turn the drum (see fig. A-4). Make sure the sandpaper is wrapped tight.

NOTE: For the velcro tape, remove the paper from the back of the velcro tape on the cut end to expose the adhesive, then apply the velcro tape to the head in a spiral.

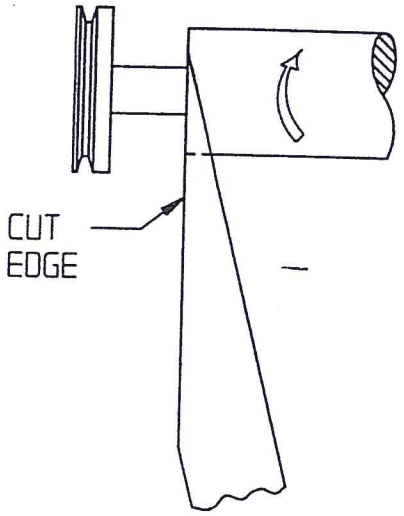


Fig. A-3

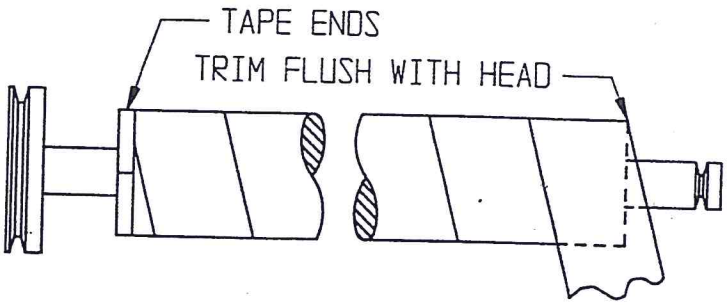


Fig. A-4

7. At the opposite end, trim the sandpaper even with the end of the sanding head.
8. To keep the ends from coming loose, wrap tape around both ends. Fiberglass reinforced packaging tape works good for this.
9. Replace the hood and reconnect the electrical source.

USING THE ABRASIVE BELT CLEANER

The abrasive belt cleaner is used to remove loaded material from the sandpaper.

CAUTION: Never allow your fingers below the hood level. When the abrasive cleaner stick becomes too short, replace it.

1. Remove the wing knobs and open the hood door.
2. Turn the machine on.
3. Lightly touch the abrasive cleaner stick to the sandpaper moving it back and forth across the sanding drum.
4. Turn the machine off.
5. Close the hood door and replace the wing knobs.

ADJUSTING THE CONVEYOR BELT TENSION

1. Loosen both of the conveyor take-up knobs until there is no more tension on them. Slide the take-up roller to the front of the adjustment slot on both sides.
2. Tighten both of the conveyor take-up knobs by the same amount until the conveyor belt will not easily slip on the rollers when rocked back and forth by hand.

NOTE: Over tightening the conveyor belt will pull out the laces and wear the conveyor belt our prematurely.

LUBRICATION

1. Oil corner screw and crank screw with 2-4 drops at the top and bottom wear washers and where the screws go through the table, as required for ease of turning the crank handle (see fig. B-1).
2. Oil press roller bronze bushings with 2-4 drops on the side of the bronze bushing where it touches the machine frame, and where the shaft goes through the bushing every 20 hours of operation (see fig. B-2). Oil more often under severe use.

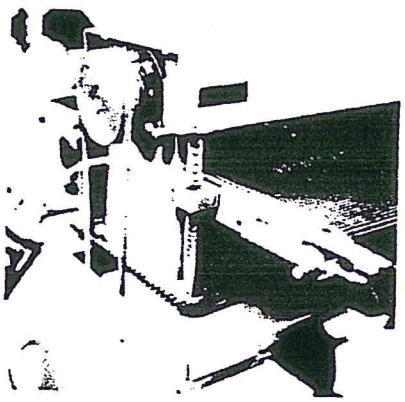


Fig. B-1

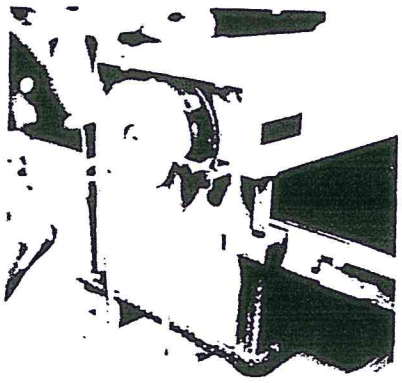


Fig. B-2

3. Oil bronze bushings for the dual "V" pulleys with 2 drops every 8 hours of operation.
4. Electric motor lubrication:
   A. Sealed bearings - No further lubrication required, bearings are lubricated for the life of the bearing.
   B. For motors with grease plugs in end plates - Relubricate while motor is warm and at standstill. Remove and clean all grease plugs, insert grease fitting into upper hole adding a small amount of grease with a grease gun. Run motor 5 minutes before replacing plug. Motors with provisions for regreasing should have bearing grease added every 2,000 hours of operation.

CAUTION: **Excessive amount of grease will overheat the bearings.**

ADJUSTING THE SANDING DRUM DRIVE BELT

CAUTION: **Loose belts can cause vibration.**

1. Loosen the (4) bolts that mount the motor to the machine.
2. Slide the motor to one end of the slots to tighten the belt. Retighten the bolts that mount the motor to the machine.

TABLE LEVELING

Tools Required: needle nose pliers, gauge block.

1. Disconnect the electrical source (unplug the machine).
2. Remove the conveyor belt.
3. Adjust the drum sander table to obtain approximately six inches between the drum sander table and the base top.
4. Set the gauge block on the table and slide it over near the sanding drum.

CAUTION: **Do not adjust the table with the gauge block directly under the sanding drum.**

5. Adjust the table so the gauge block will just touch the sanding drum on one end when slid back and forth under the sanding drum (if the gauge block will just barely touch the sanding drum on both ends the table is level and does not need adjusting).
6. Remove the chain connector link (master link) and remove the chain from the corner screw sprockets (see fig. B-3).

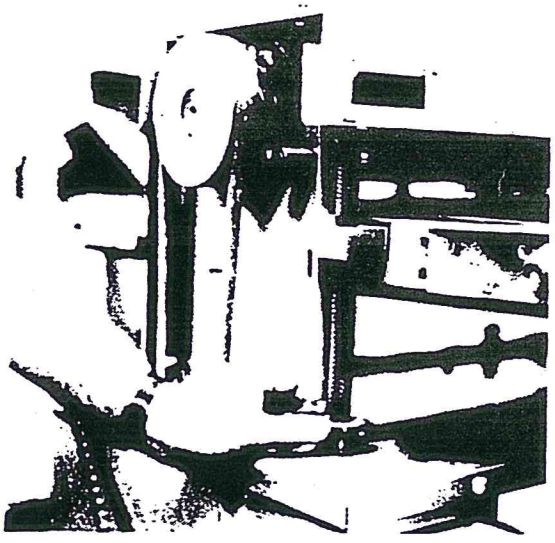


Fig. B-3

7. Push down on each corner of the table to check for movement. If any corner moves adjust that corner screw clock-wise until the corner screw sprockets rest evenly on the base top on all corners.

8. Check the distance between the sanding drum and the table on one side then the other. If one side is more than one-sixtyfourth lower than the other, turn the two corner screws on the lower side clock-wise by hand until the gauge block will barely touch the sanding drum on both ends when slid under it (be sure and turn both of the corner screws on the lower side by the same amount).

NOTE: 1/4 turn of the corner screws clock-wise will raise the drum sander table by 1/64 in.

9. When the table is level replace the chain, being careful not to move the corner sprockets (turning the corner screw sprockets changes the level of the table).

NOTE: Oiling the corner screws where they go through the table and at the top and bottom (see LUBRICATION) will make the crank easier to turn.

ROLLER CHAIN TIGHTENING

Tools Required: 9/16 in. wrench

1. Loosen the chain tightener.
2. Put the chain to the inside of the bracket with the pointed side of the bracket against the chain.
3. Slide the bracket in until the chain is no longer sloppy and retighten the nut.

NOTE: The chain should not be taut, over tightening the chain will cause it to wear prematurely.

TROUBLESHOOTING

Problem	Possible Causes and Solutions
Spits board out	Motor turning the wrong direction. Rewire motor to reverse the direction.
Conveyor belt does not turn	First check the tension on the conveyor belt (see ADJUSTING THE CONVEYOR BELT TENSION). Then check for belt slippage on the feed drive motor. Check the fuse in the feed control box.
Gouges in board	Too heavy of a cut.
Snipe	A very small amount of snipe is normal .006". If you have excessive snipe try supporting the outer ends of the board as it enters and leaves the machine.

ACCESSORIES

Part Number	Description
801-2000	Velcro, 2" wide, adhesive backed velcro attaches to the sanding drum. Sold by the foot, 15' of velcro is required to wrap the sanding drum.

All sandpaper is 3" wide, velcro backed for easy reuse. The sandpaper is sold by the foot, and 11' of sandpaper is required to wrap the sanding drum on the 426 drum sander.

801-2060	60 grit, 3" wide, velcro backed sandpaper.
801-2080	80 grit, 3" wide, velcro backed sandpaper.
801-2100	100 grit, 3" wide, velcro backed sandpaper.
801-2150	150 grit, 3" wide, velcro backed sandpaper.
801-2180	180 grit, 3" wide, velcro backed sandpaper.
801-0800	Abrasive cleaner stick, increase the life of your sanding belts by removing loaded material from the sandpaper.

ORDERING REPLACEMENT PARTS AND ACCESSORIES

To speed delivery and reduce errors when ordering parts always give the name, model number, and serial number of your machine. Use the part number and description as shown in the parts list. Do not use key numbers (the numbers in the circles on the parts breakdown drawing). Always use the part number and description given in the parts list.

1. Give complete machine identification.
   - A. Machine Name_____
   - B. Model Number_____
   - C. Serial Number_____

2. Completely identify the part_____
   (Return the old part if necessary)
   - A. Part Number_____
   - B. Part Name _____

3. State your return address.
   - Your Name_____
   - Company_____
   - Street Address_____
   - Mailing Address_____
   - City_____State_____Zip_____
   - Telephone (_____) _____-_____

4. Send the order to **rbi**ndustries.

rbindustries, inc.
1801 Vine Street
P.O. Box 369
Harrisonville, MO 64701
1-800-487-2623
(816) 884-3534
FAX: (816) 884-2463

1. Velcro is wrapped one way - sandpaper the opposite way - this keeps it from tearing.
2. Customer is sanding ~~cutting~~ 1/8" wood - this is too thin too flex - release tension so feed rollers only are pulling wood through -
3. To tighten sanding drum drive belt: loosen bolts on motor - slide motor to one end of slots to tighten the belt -

PARTS LIST MODEL 426 DRUM SANDER

To speed delivery and reduce errors when ordering parts always give the name, model number, and serial number of your machine. Use the part number and description as shown in the parts list. Do not use key numbers (the numbers in the circles on the parts breakdown drawing), always use the part number and description given in the parts list.

Key #	Part #	Description	Qty.
001	626-0001	BASE TOP, #426	1
002	626-0003	SIDE, #426	2
003	626-0002	MOTOR MOUNT SUPPORT, #426	2
004	695-0054	MOTOR MOUNT BAR, #612/812B/426	2
005	645-4137	SKIRT, L.H. SIDE, #612/812B/426	1
006	645-4136	SKIRT, R.H. SIDE, #612/812B/426	1
007	626-0004	TOP BAR, #426	2
008	626-0005	TABLE, #426	1
009	665-1034	CRANK SCREW, #612/816/820	1
010	665-1005	CORNER SCREW, #612/816/820	3
011	665-0004	SPROCKET, THREADED	4
012	626-0010	TAKE-UP ROLLER BRKT., R.S., #426	1
013	626-0011	TAKE-UP ROLLER BRKT., L.S., #426	1
014	626-0007	TAKE UP ROLLER, #426	1
015	626-0008	DRIVE ROLLER BRKT., R.S., #426	1
016	626-0009	DRIVE ROLLER BRKT., L.S., #426	1
017	626-0006	DRIVE ROLLER, #426	1
018	626-0018	DRIVE ROLLER BRACE, #426	1
019	626-0024	TAKE-UP ROLLER BLOCK, #426	2
020	626-0013	PRESS ROLLER, #426	2
021	726-0012	SANDING HEAD, #426	1
022	626-0022	DRIVE BELT GUARD, TOP, #426	1
023	626-0023	DRIVE BELT GUARD, BOTTOM, #426	1
024	626-0014	HOOD TOP, #426	1
025	626-0021	HOOD END, #426	2
026	626-0015	HOOD DOOR, #426	1
027	645-0279	CRANK WELDMENT replace	1
028	726-0020	CONVEYOR BELT, #426 760-1020	1
029	626-0017	DUST DEFLECTOR, #426	2
030	645-0045	CHAIN TIGHTENER	1
031	745-0410	#41 CHAIN MASTER CONNECT LINK	1
032	745-0313	#41 ROLLER CHAIN	7.29
033	626-0027	CONTROL MOUNT BACK-PLATE	1
034	626-0029	PULLEY, DRIVE ROLLER, #426	1
035	626-0019	IDLER ARM	1
036	626-0025	IDLER ARM BRACKET, #426	1
037	626-0026	SPRING TENSION BRACKET, #426	1
038	745-0063	TENSION SPRING	1
039	745-0062	PULLEY, 2" IDLER	1
040	745-0301	GEARMOTOR, 1/6HP, VON WEISE	1
041	626-0028	PULLEY, GEAR MOTOR, #426	1

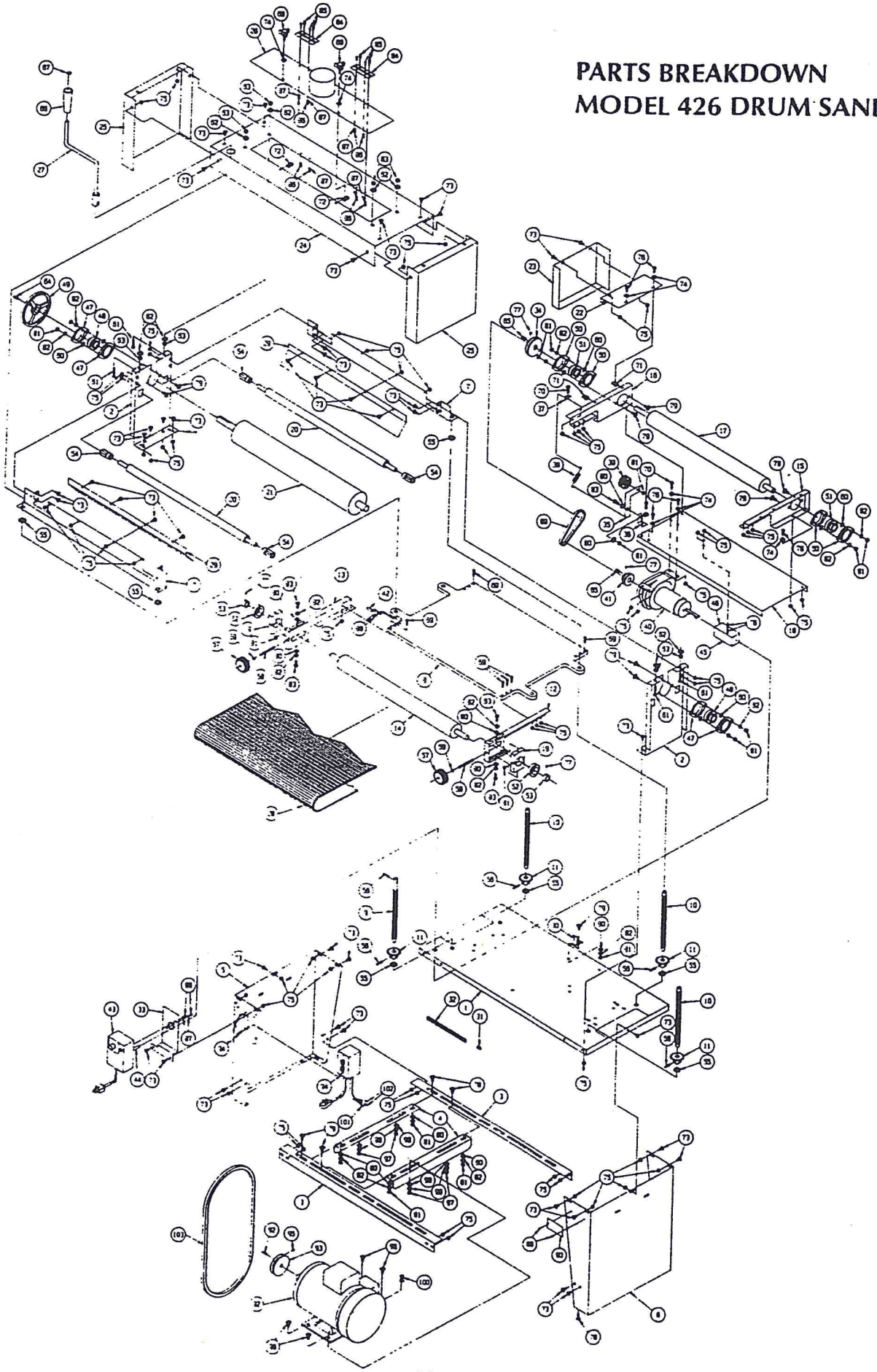
Key #	Part #	Description	Qty.
042	695-0049	POINTER, #426/438	1
043	715-1259	VARIABLE SPEED CONTROLLER (KB)	1
044	745-0731	16-3 WIRE, 3'	1
045	745-0673	RB-673 ELECTRICAL HANDY BOX	1
046	745-0674	RB-674 BLANK COVER FR HANDY BOX	1
047	745-0058	FLANGETTE, FOR 1" BEARING	4
048	795-1030	BEARING, 1"	2
049	726-0032	PULLEY, 6"OD, 1"ID	1
050	790-0044	FLANGETTE, FOR 3/4" BEARING	4
051	790-0043	BEARING, 3/4" (W/ECC.LOC.COL.)	2
052	790-0018	BEARING, 1-5/8"OD X 3/4"ID	2
053	626-0031	TAKE UP ROLLER COLLAR	2
054	765-0057	5/8"ID FEED ROLLER BUSHINGS	4
055	740-0549	5/8"ID X 1-1/8"OD X 18GA WASHER	8
056	770-0059	1/4" X 1-1/8" ROLL PIN	5
057	638-0043	CONVEYOR TAKE UP KNOB	2
058	750-0205	5/16-18 X 3" THREADED ROD	2
059	715-0103	1/4"ID X 3/4"OD X 1/16" NY. SPACER	2
060	745-0720	5/16"ID X 3/4" OD X .010"NY.SP.	8
061	770-0018	3/8-16 X 1-1/4" HX HEAD BOLT	4
062	770-0050	3/8" FLAT WASHER	8
063	770-0058	3/8-16 HEX NUT	8
064	745-0093	1/4" X 3/4" SQUARE KEY	1
065	745-0712	3/16" X 1" SQUARE KEY	2
066	745-0149	PLASTIC HANDLE GRIP	1
067	745-0164	1/2"ID RETAINER PLANER HANDLE	1
068	705-1037	1/4-20 X 1", 3 PRONG KNOB	2
069	735-0017	1/4-20 X 3/4" SKT HD CAP SCREW	12
070	725-0043	1/4-20 X 1" HEX HEAD BOLT	3
071	738-1041	1/4-20 U-NUT FOR 10GA	2
072	738-0041	1/4-20 J-NUT FOR 14GA	2
073	745-0099	1/4-20 X 5/8" CARRIAGE BOLT	52
074	745-0177	1/4 FLAT WASHER	10
075	745-0223	1/4-20 FLANGED LOCK/WHIZ NUT	73
076	750-0206	1/4-20 X 3/4" HEX HEAD BOLT	8
077	770-0083	1/4-20 X 1/4" SSS (CUP POINT)	5
078	715-0166	1/4-20 X 1" CARRIAGE BOLT	4
079	770-0179	5/16-18 X 3/4" CARRIAGE BOLT	15
080	745-0150	5/16 FLAT WASHER	11
081	770-0081	5/16-18 HEX NUT	17
082	770-0178	5/16 SPLIT LOCK WASHER	17

Key #	Part #	Description	Qty.
083	795-0063	5/16-18 X 3/4" HEX HEAD BOLT	5
084	638-0049	HINGES, 4"	2
085	745-0106	10-32 X 1/2" RD HD MACHINE SCREW	10
086	745-0107	10-32 HEX NUT	10
087	715-0191	3/16 INTERNAL LOCK WASHER	10
088	770-0052	#4 X 1/4" RD HD DRIVE SCREW	4
089	745-0162	V-BELT #1210-3/8 X 21	1
090	706-0426	SERIAL TAG, #426 SANDER	1
091	703-0426	MANUAL, #426 DRUM SANDER	1
	801-2080	80 GRIT SANDPAPER, 3" X 150FT	33
	801-2100	100 GRIT SANDPAPER, 3" X 150FT	22
	801-2000	VELCRO=2" X 75' ROLL (ADHES.BKD)	15
	801-0800	SANDING HEAD CLEANER STICK	1
	702-0002	DECAL, RBI MADE IN USA (ROUND)	1
	702-0015	DECAL, RBI MADE IN USA, 1.75" X 3"	1
	702-0204	DECAL, CAUTION-KEEP HANDS CLEAR	3
	702-0029	DECAL, COMMERCIAL-MADE IN USA	2
	702-0214	DECAL, 4" PLANER SCALE	1
	702-0014	DECAL, KEEP ALL GUARDS (LARGE)	1
	745-1226	DECAL, WARNING-POWER CORD	1

3HP MOTOR PACKAGE for #426

092	704-1008	MOTOR, 3HP/1PH, BALDOR, REV.	1
093	626-0030	PULLEY, MOTOR, #426	1
094	745-0328	PLANER POWER CORD & SWITCH	1
095	770-0083	1/4-20 X 1/4" SSS (CUP POINT)	1
096	770-0179	5/16-18 X 3/4" CARRIAGE BOLT	4
097	770-0081	5/16-18 HEX NUT	4
098	745-0150	5/16 FLAT WASHER	4
099	770-0178	5/16 SPLIT LOCK WASHER	4
100	795-0051	3/8" ROMEX CLAMP (FOR 7/8" HOLE)	1
101	745-0681	TERMINAL,SPADE,YELLOW,10-12AWG	1
102	745-0678	WIRE NUT, YELLOW, MAX. 3-#12	3
103	795-0064	V-BELT #6856-1/2 X 56 NOTCH	1
	745-0226	DECAL, WARNING	1

PARTS BREAKDOWN
MODEL 426 DRUM SANDER



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