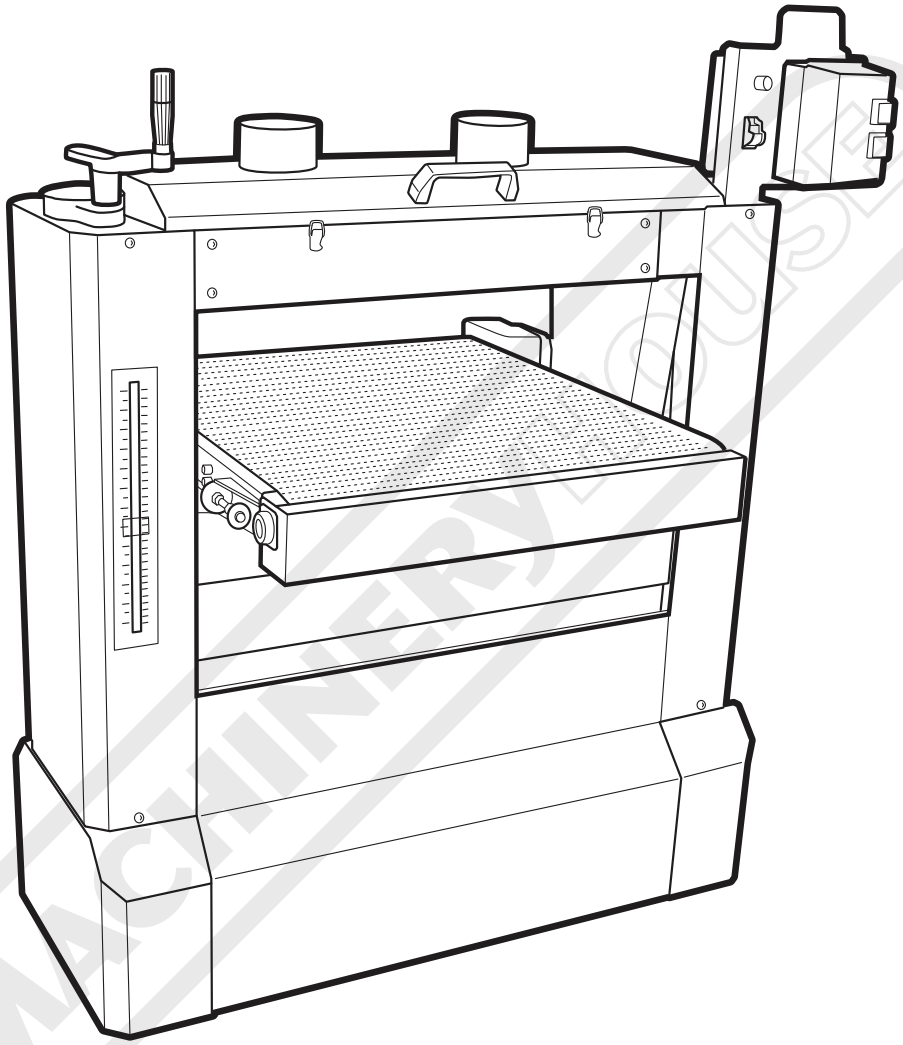
HAFCO
WOODMASTER



MACHINERY HOUSE

Edition : 1.0
Date: (12/24)

Instruction Manual

DRUM SANDER
DS-660

Order Code: (L1296)

TABLE OF CONTENTS

IMPORTANT SAFETY INSTRUCTIONS

⚠WARNING: READ AND UNDERSTAND ALL WARNINGS AND OPERATING INSTRUCTIONS BEFORE USING THIS EQUIPMENT. Failure to follow all instructions listed below, may result in electric shock, fire, and/or serious personal injury or property damage.

Woodworking can be dangerous if safe and proper operating procedures are not followed. As with all machinery, there are certain hazards involved with the operation of the product. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result. Safety equipment such as guards, push sticks, hold-downs, featherboards, goggles, dust masks and hearing protection can reduce your potential for injury. But even the best guard won't make up for poor judgment, carelessness or inattention. ***Always use common sense*** and exercise caution in the workshop. If a procedure feels dangerous, don't try it. Figure out an alternative procedure that feels safer. **REMEMBER:** Your personal safety is your responsibility.

SAFETY GUIDELINES - DEFINITIONS

This manual contains information that is important for you to know and understand. This information relates to protecting YOUR SAFETY and PREVENTING EQUIPMENT PROBLEMS. To help you recognize this information, we use the symbols below. Please read the manual and pay attention to these sections.

⚠DANGER: Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠WARNING: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠CAUTION: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION Used without the safety alert symbol indicates potentially hazardous situation which, if not avoided, may result in property damage.

GENERAL SAFETY RULES

⚠WARNING: WARNING FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY.

- **FOR YOUR OWN SAFETY, READ AND UNDERSTAND THE INSTRUCTION MANUAL BEFORE OPERATING THE UNIT.** Learn the unit's application and limitations as well as the specific hazards peculiar to it.
- **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
- **DON'T USE IN DANGEROUS ENVIRONMENT.** Don't use this unit in damp or wet locations, or expose it to rain. Keep work area well-lighted.
- **KEEP CHILDREN AND VISITORS AWAY.** All children and visitors should be kept a safe distance from work area.
- **DISCONNECT UNIT** before servicing.
- **CHECK DAMAGED PARTS.** Before further use of the unit, properly repair or replace any part that is damaged.

⚠WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS INJURY.

1. Read and understand the warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.
2. Replace the warning labels if they become obscured or removed.
3. This Dual Drum Sander is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a drum sander, do not use until proper training and knowledge have been obtained.
4. Do not use this machine for other than its intended use. If used for other purposes, Delta Power Equipment Company, Inc. disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
5. Always wear approved safety glasses/face shields while using this Dual Drum Sander.
6. Before operating this drum sander, remove tie, rings, watches and other jewelry, and roll sleeves up past the elbows. Remove all loose clothing and confine long hair. Non-slip footwear or anti-skid floor strips are recommended. Do not wear gloves.
7. Wear ear protectors (plugs or muffs) during extended periods of operation.
8. Some dust created by power sanding, sawing, grinding, drilling and other construction activities contain chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
   - Lead from lead based paint.
   - Crystalline silica from bricks, cement and other masonry products.
   - Arsenic and chromium from chemically treated lumber.

Your risk of exposure 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, such as face or dust masks that are specifically designed to filter out microscopic particles.

1. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
2. Make certain the switch is in the **OFF** position before connecting the machine to the power source.
3. Make certain the machine is properly grounded.
4. Make all machine adjustments or maintenance with the machine unplugged from the power source.

5. Form a habit of checking to see that all extra equipment such as adjusting keys, wrenches, scrap, stock, and cleaning rags are removed away from the machine before turning on.
6. Keep safety guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately when maintenance is complete.
7. Make sure the drum sander is firmly secured to the floor before use.
8. Check damaged parts. Before further use of the machine, 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.
9. Provide for adequate space surrounding work area and non-glare, overhead lighting.
10. Keep the floor around the machine clean and free of scrap material, oil and grease.
11. Keep visitors a safe distance from the work area. Keep children away.
12. Make your workshop child proof with padlocks, master switches or by removing starter keys.
13. Give your work undivided attention. Looking around, carrying on a conversation and “horse-play” are careless acts that can result in serious injury.
14. Maintain a balanced stance at all times so that you do not fall or lean against the sanding belt or other moving parts. Do not overreach or use excessive force to perform any machine operation.
15. Use the right tool at the correct speed and feed rate. Do not force a tool or attachment to do a job for which it was not designed. The right tool will do the job better and safer.
16. Use recommended accessories; improper accessories may be hazardous.
17. Maintain machinery with care. Follow instructions for lubricating and changing accessories.
18. Turn off the machine before cleaning. Use a brush or compressed air to remove dust or debris — do not use your hands.
19. Do not stand on the machine. Serious injury could occur if the machine tips over.
20. Never leave the machine running unattended. Turn the power off and do not leave the machine until it comes to a complete stop.
21. At all times hold the stock firmly.

MACHINERY HOUSE

SAVE THESE INSTRUCTIONS.

Refer to them often and use them to instruct others.

KEY FEATURES AND COMPONENTS

1. Variable speed feed belt
2. 3HP continuous duty motor
3. Dual 26” drums
4. Sanding elevation cursor
5. Elevation crank handle
6. Switch assembly

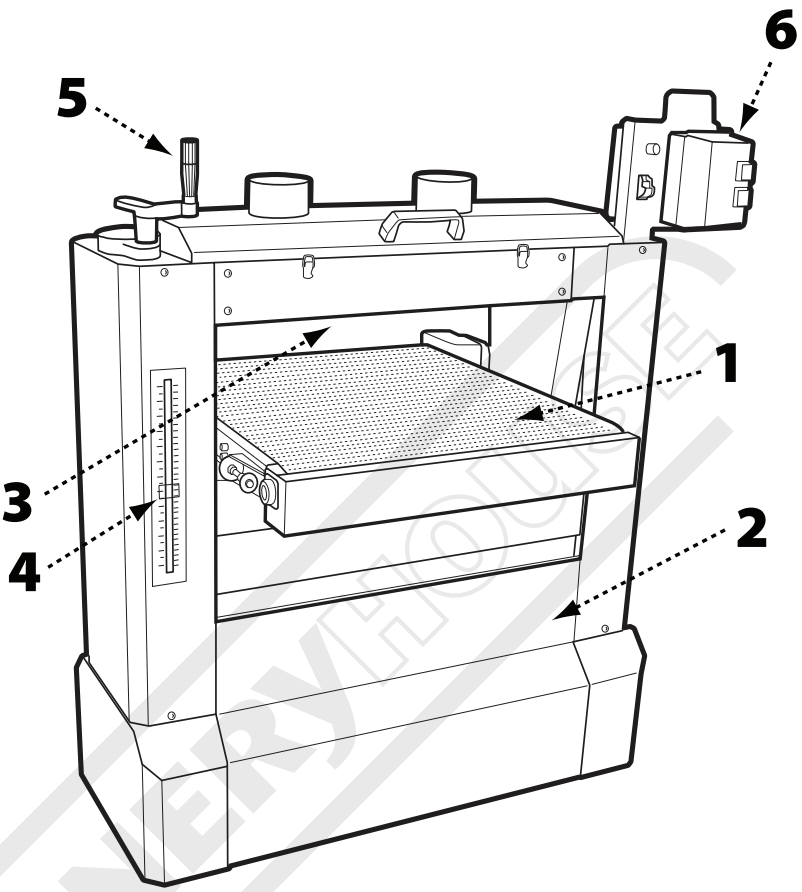


FIG. 1

MACHINERY HOUSE

FUNCTIONAL DESCRIPTION

This 26” Dual Drum Sander is specifically designed to handle both rough and final sanding processes in a single pass. This machine features an adjustable height automatic feed table and comes with 80-grit and 120-grit pre-cut sanding belts already installed. This dual drum sander is powered by a 3HP continuous duty sealed motor with a variable speed feed that enables you work at 3-20 S.F.P.M. The wide feed belt accepts stock as big as 25 ½” and allows you to sand pieces up to 12 ¼” thick.

PRODUCT SPECIFICATIONS

DRUM MOTOR SPECIFICATIONS	
Type	Induction Ball bearing/ Continuous Duty
Horsepower	3HP
Amps	16A
Voltage	230V
Phase	Single
Hertz	60Hz
RPM	3,450
BELT FEED MOTOR SPECIFICATIONS	
Type	Universal
Horsepower	1/6
PRODUCT SPECIFICATIONS	
Maximum sanding width	25-1/2”
Maximum board thickness	12-1/4”
Minimum board thickness	1/4”
Minimum board length	6”
Feed Speed	3-20 FPM (variable)

Number of Sanding Drums	2
Drum Size	5” x 26”
Drum Speed	1,550 RPM
Dust Ports	2-4”
PRODUCT DIMENSIONS	
Footprint	17-3/4” x 43”
Length	31”
Width	46”
Height	53”
Weight	485 lbs.
SHIPPING DIMENSIONS	
Carton Type	Wooden Crate
Length	33”
Width	48”
Height	55”
Gross Weight	535 lbs.

UNPACKING

⚠WARNING: The machine is heavy, be careful when removing it from the shipping container! Failure to comply may cause serious injury and/or damage to the sander and/or property!

Your 26 inch Dual Drum Sander comes packed in a single container. Use a safety strap to avoid tip over when lifting machine. Check shipping carton and machine for damage before unpacking.

Open the shipping container. Carefully remove packaging materials, parts and machine from shipping carton. Always check for and remove protective shipping materials around motors and moving parts. Lay out all parts on a clean work surface and check that all parts are present and in good condition:

DESCRIPTION (QUANTITY)

Delta 26” Dual Drum Sander (1)

8-10mm Open End Wrench (1)

Elevation Handle (1)

Compare the items to inventory figures; verify that all items are accounted for before discarding the shipping box. Report any missing or damaged parts to your distributor or dealer. Prior to tool assembly and use, read this manual thoroughly to familiarize yourself with proper assembly, maintenance and safety procedures.

Remove any protective materials and coatings from all of the parts and the drum sander. The protective coatings can be removed by spraying WD-40 on them and wiping it off with a soft cloth. This may need to be redone several times before all of the protective coatings are removed completely.

⚠WARNING: If any parts are missing, do not attempt to plug in the power cord and turn “ON” the machine. The machine should only be turned “ON” after all the parts have been obtained and installed correctly.

ASSEMBLY

TOOLS REQUIRED

- Flat head screw driver
- 10mm open-end wrench

SECURE SWITCH BOX TO FRAME

Tools Required: 10mm open-end wrench

Parts: None

Hardware Needed: Two 10mm hex head screws

1. Locate the two threaded holes on the upper right side of the machine as shown in Fig. 2.
2. Attach the two 10mm hex head screws to the mounting plate, leaving about 1/8" between the screw head and mounting plate.
3. Mount switch assembly (A) to the machine frame by aligning the keyholes (B) in the switch assembly over the screw heads and pushing the assembly back and into position.
4. Tighten screws using 10mm open-end wrench.

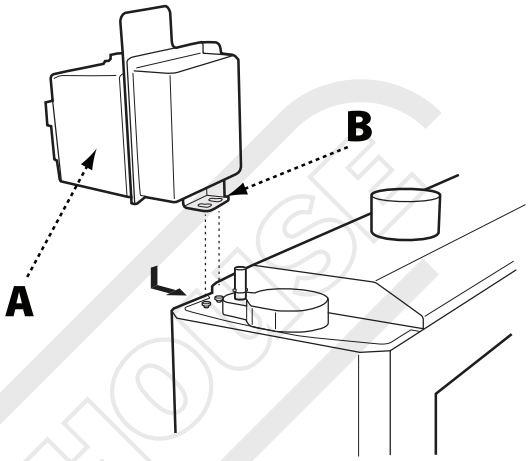


FIG. 2

ASSEMBLE TABLE ELEVATION CRANK AND HANDLE

Tools Required: None

Parts: Table Elevation Crank
Table Elevation Handle

Hardware Needed: None

1. Install the table elevation crank (C) by aligning the groove in the bottom of the crank with the pin located on the shaft (D). See Fig. 3.
2. Screw the table elevation handle into the threaded hole in the table elevation crank.

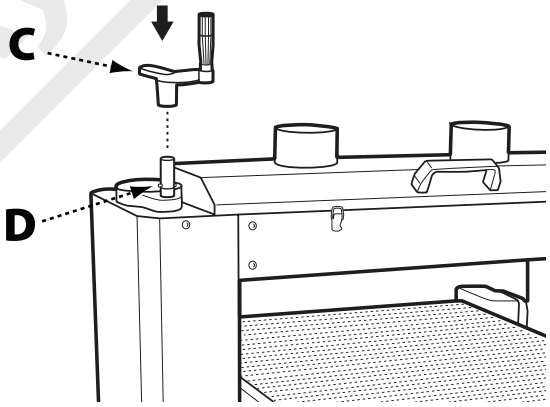


FIG. 3

CONNECT DUST COLLECTOR TO DUST COLLECTION PORT

Tools Required: Flat head screwdriver

Parts: None

Hardware Needed: Two 4" Ring Clamps (not provided)

Your 26 inch Dual Drum Sander is equipped with two 4-inch dust collection ports. These must be connected to dust collector hoses to ensure safe operation.

⚠WARNING: Do not attempt to operate this tool without first connecting it to an adequate dust collection system.

1. Fit a 4" ring clamp over the end of each dust collection hose.
2. Place a dust collection hose over each dust collection port and tighten ring clamp with the flat head screwdriver.

MACHINERYHOUSE

ADJUSTMENTS

TO REPLACE THE SANDING BELT

1. Lift the upper guard up and tilt it toward the rear of the machine to expose the drums.
2. Locate the spring-loaded locking clamp (A) on the right end of the drum. Squeeze the clamp open and remove the end of the sanding belt (B) from the drum slot. See Fig. 4.
3. Slowly pull the old sanding belt off the drum.
4. Squeeze the spring-loaded locking clamp on the left end of the drum and remove the old sanding belt.
5. Squeeze the spring-loaded locking clamp on the left end of the drum and insert the end of the new sanding belt approximately 2 inches into the drum slot.
6. Release the clamp to lock the belt end in place.
7. Rolling the roller by hand, carefully wind the sanding belt around the drum, making sure to keep it snug. The edges of the belt should meet without overlapping.
8. Squeeze the locking clamp on the right end of the drum and insert as much of the end of the sanding belt into the slot as possible.
9. Release the clamp to lock the belt in place.
10. Roll the roller by hand to ensure the belt is snug and the edges meet without overlapping.

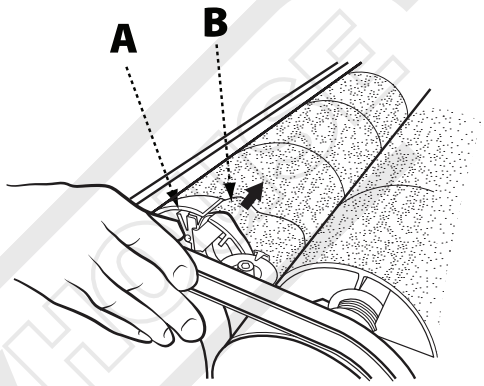


FIG. 4

NOTE: The Dual Drum Sander is designed to achieve coarse and fine sanding in a single pass. Therefore, the coarser sanding belt should always be installed on the front roller with the finer belt on the rear roller.

TO ADJUST THE FEED BELT TRACKING

For proper stock feed, both sides of the feed belt must travel at exactly the same rate. If the feed belt tracks to the right or left during operation, you will need to adjust the tension.

NOTE: If the belt tracks to the left, tighten the left tensioning bolt. If it tracks to the right, tighten the right tensioning bolt.

1. Locate the feed belt tensioning bolts as shown in Fig. 5.
2. Turn the sander on and, depending on which direction the feed belt is tracking, use a 6mm Allen wrench to tighten either the left or right adjustment bolt in 1/4-turn increments until the feed belt tracks evenly.

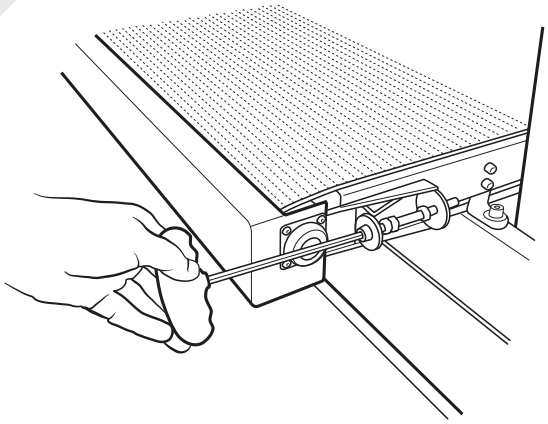


FIG. 5

ADJUSTMENTS

TO ADJUST DRIVE BELT TENSION

1. Remove the elevation cursor by unscrewing the retaining screw.
2. Remove the eight Phillips head bolts and washers securing the left and right side guards (A) to the machine and remove the guards. See Fig. 6.
3. Use a 6mm Allen wrench to remove the four hex cap bolts and washers securing the bottom guard (B) to the machine. See Fig. 7.
4. Raise the telescoping panels (C) high enough to expose the motor mount (D). See Fig. 7. Prop up using a scrap block of wood.
5. Locate the two M12 nuts (E) that raise and lower the motor. See Fig. 7.
6. To increase tension on the drive belts, loosen the bottom nuts then tighten the top nuts.
7. Drop the telescoping panels back into place and re-secure to the bottom guard.
8. Re-attach the side guards and elevation cursor.

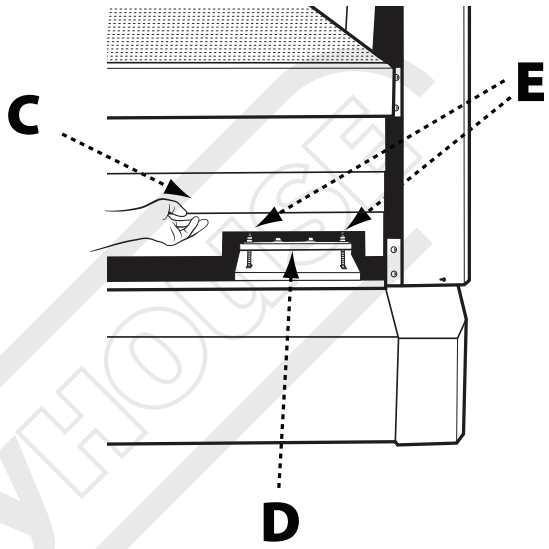


FIG. 7

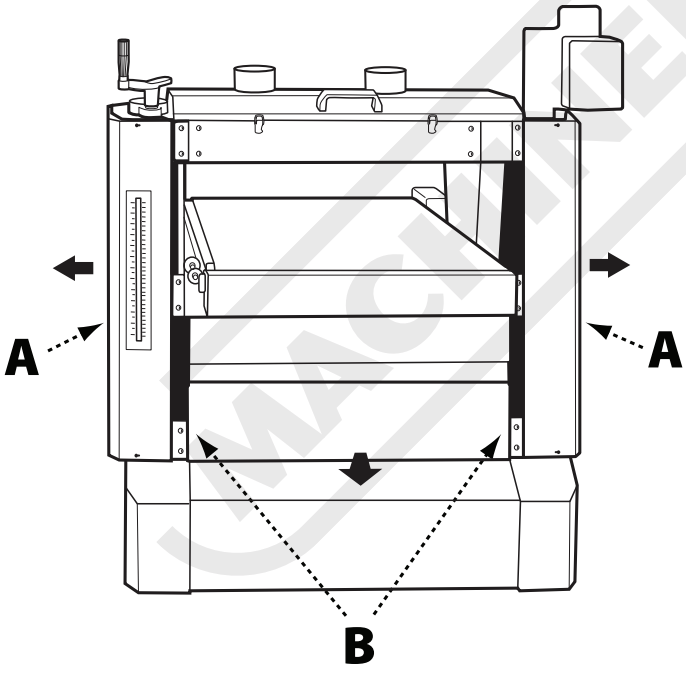


FIG. 6

MACHINERY HOUSE

ADJUSTMENTS

TO REPLACE THE FEED BELT

⚠WARNING: This step requires two adults. The feed table is heavy, be careful when disconnecting and removing it from the machine. Failure to comply may cause serious injury and/or damage to the sander and/or property!

1. Using the table elevation crank and handle, lower the table as far as it will go.
2. Release tension on the feed belt by backing off the locking nuts (A) on the feed belt adjustment bolts (Fig. 8) and then tightening the feed belt adjustment bolts (B) until they are loose enough to remove the feed belt assembly.
3. Loosen but do not remove the eight Philips head screws (C) holding the bearings to either side of the front of the feed table. See Fig. 9.
4. Remove the front guard (D) by sliding it forward.
5. Locate and remove the four 6mm hex head screws (E) securing the feed table to the base. See Fig. 10.
6. With the aid of a second adult, carefully remove the feed table through the rear of the machine being careful to angle it away from the motor housing.
7. Position the feed table on its side and remove the worn feed belt.
8. Carefully slide the new feed belt into place.
9. Slide feed belt assembly back onto machine base through the rear, being careful not to damage motor housing.
10. Replace and tighten the four 6mm hex cap head screws to secure the feed table to the machine base.
11. Replace the front guard and retighten the Phillips head screws on each bearing.
12. Re-tension the feed belt.
13. Adjust the tracking as described on page 9.

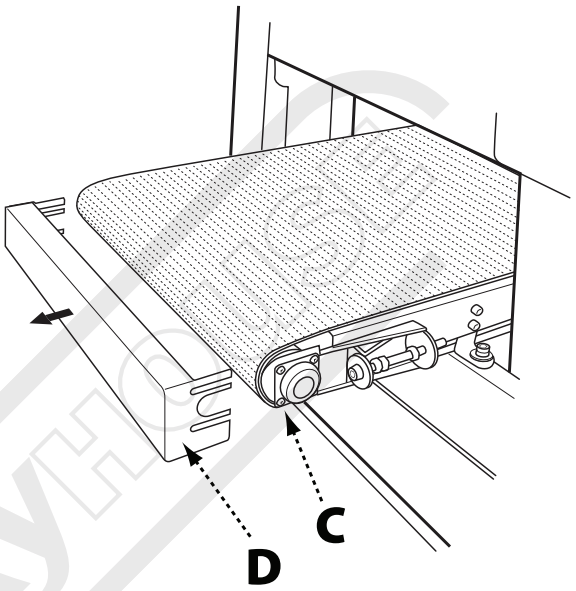


FIG. 9

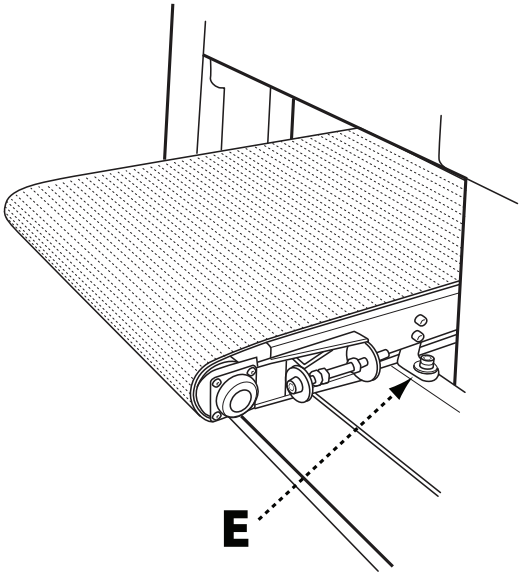


FIG. 10

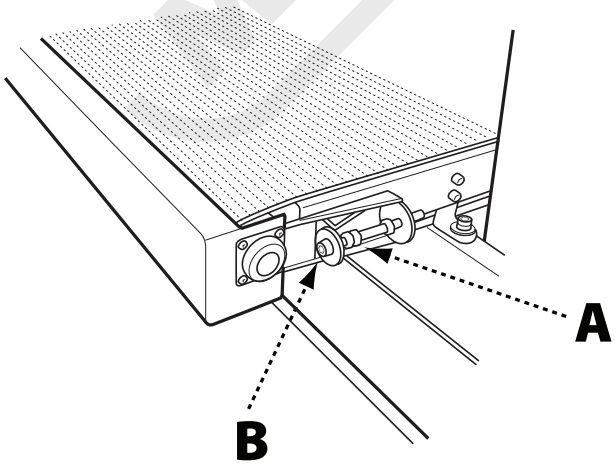


FIG. 8

MACHINERYHOUSE

ADJUSTMENTS

TO ADJUST PARALLELISM OF SANDING DRUMS

The front sanding drum has been factory adjusted and needs no further adjustment. The rear sanding drum must be adjusted for parallelism.

1. Lift the upper guard up and tilt it toward the rear of the machine to expose the sanding drums.
2. Using the 6mm wrench, rotate the cap screws, indicated in Fig. 11, on either end of the rear drum.
3. Turning the cap screws clockwise will raise the drum while turning it counterclockwise will lower the drum.
4. Repeat this dial setting on the opposite end of the drum.
5. Replace the upper guard to its original position over the drums.

NOTE: For proper operation of the machine, the dial settings at both ends of the drum must be identical.

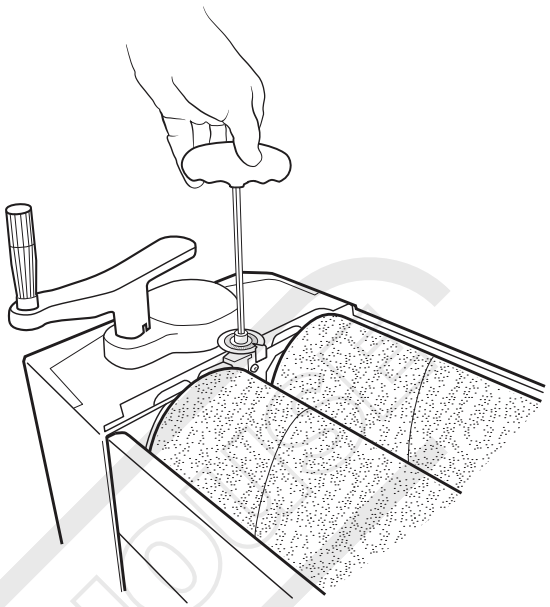


FIG. 11

TO ADJUST ROLLER PRESSURE

The pressure rollers maintain tension upon the workpiece as it passes through the machine. If the stock refuses to pass through the machine, or the finished surface is uneven, the tension on the pressure rollers may need adjusting.

1. Lift the upper guard up and tilt it toward the rear of the machine to expose the sanding drums.
2. Locate the roller pressure adjustment screws as indicated in Fig. 12.
3. Using a Phillips head screw driver, turn the screws clockwise to increase the roller pressure on the workpiece; or counterclockwise to decrease the pressure.
4. Adjust both sides of the pressure rollers to ensure parallelism with the drums.
5. Replace the upper guard to its original position over the drums.

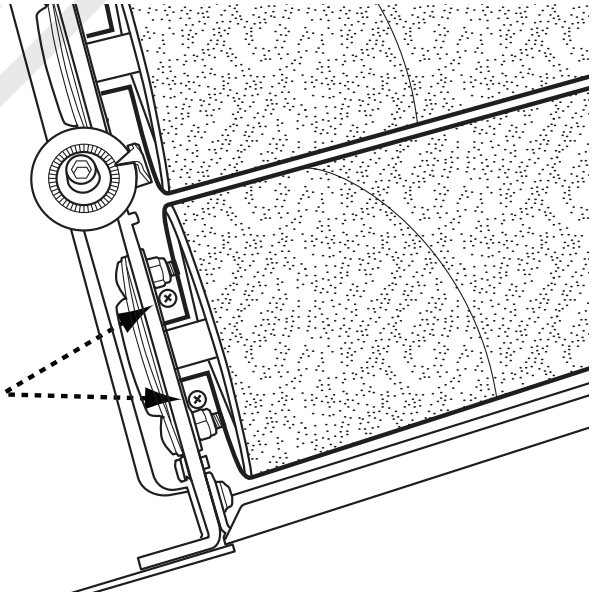


FIG.12

⚠CAUTION: Do not overtighten the adjustment screw. Too much roller pressure will prevent the workpiece from passing through the machine, and may cause the feed belt to stop.

ADJUSTMENTS

TO ADJUST DRUM HEIGHT

In order to accommodate different abrasive grits on the drums, the height of the drums from the workpiece must vary. The height of the front drum has been factory set and should not be adjusted. The back drum is designed for easy adjustment.

1. Lift the upper guard up and tilt it toward the rear of the machine to expose the sanding drums.
2. Locate the drum height adjustment screw as shown in Fig. 13.
3. Rotate the adjustment screw to the desired measurement.
4. Repeat this same adjustment at the opposite end of the roller to maintain parallel orientation to the front drum.
5. Replace the upper guard to its original position over the drums.

NOTE: For proper operation of the machine, the dial settings at both ends of the drum must be identical.

IMPORTANT: The chart at the right shows the proper settings based upon sanding grits.

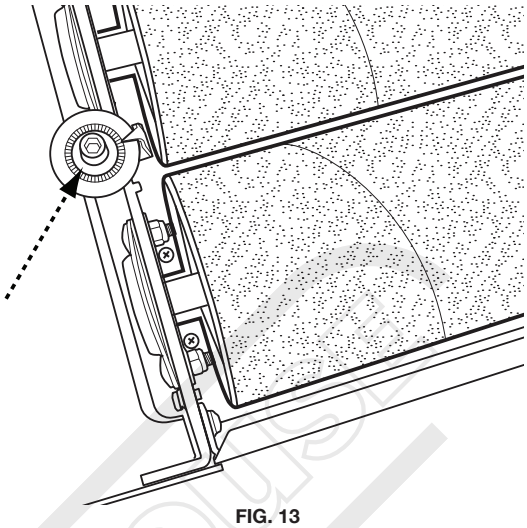


FIG. 13

Front Grit / Rear Grit	Setting (mm)
80/100, 120/150, 120/180, 150/220	.15
80/120, 100/150, 100/180	.30
60/100, 36/38	.40
36/120	.56
36/60	.76
36/80	.9

OPERATION

The basic operating procedure for the Dual Drum Sander is as follows:

1. Establish the depth of wood removal and set table height.
2. Start drums.
3. Start feed belt and select proper feed rate.
4. Ensure dust collection system is running.
5. Feed stock through machine.

OPERATING TIPS

DETERMINING DEPTH OF WOOD REMOVAL

Given the variables of grit abrasion, wood type, and feed rate, determining proper depth of removal may take some experimentation. For best results, use scrap wood to practice sanding and to develop skill and familiarity with the machine before doing finish work. Also consider any cups and/or crowns in the workpiece.

A good rule of thumb when sanding with grits finer than 80 is to lower the drum so it contacts the workpiece but drum can still be rotated by hand. For grits coarser than 80, lower the drum slightly more.

SANDING IMPERFECT STOCK

When sanding stock with a cup or crown, place the crown up. This will stabilize the stock to help prevent tipping or rocking during sanding. After the crown has been removed and the top is flat, turn the stock over and sand the opposite side. To avoid personal injury, take special care when sanding stock that is twisted, bowed, or otherwise varies in thickness from end to end.

If possible, support such stock as it is being sanded to keep it from slipping or tipping. Use an extra roller stand, help from another person, or hand pressure on the stock to minimize potentially hazardous situations.

OPERATING TIPS

STOCK FEEDING ANGLE

Some pieces, because of their dimensions, will need to be fed into the machine at a 90-degree angle (perpendicular to the drums). However, even a slight offset angle of the stock will provide for more effective stock removal. The optimum feeding angle is about 60-degrees. Angling the workpiece for stock removal provides other advantages, such as less loading of certain areas of the drums due to glue lines or mineral streaks in the stock, more even wear of abrasive strips, potentially faster feed rates, and lighter loads on the motor. For the best final finish, however, the stock should be fed with the grain on the final one or two passes.

MULTIPLE-PIECE SANDING

When sanding multiple pieces simultaneously, make sure to stagger (step) the pieces across the width of the feed belt. Multiple pieces should also be of similar thickness and this helps to ensure consistent contact with the pressure rollers.

SANDING FACE FRAMES AND RAISED PANEL DOORS

It is important to have the proper abrasive contact when doing this type of sanding. If the machine is set to take an excessive depth of cut, the result can be a gouge or dip as the drum goes from sanding the rails at full width to sanding just a few inches of width of the stiles.

EDGE SANDING

When edge sanding, the sander will mimic the opposite edge of the stock which is lying on the feed belt. Because of this, it is important for the stock edge to have been ripped at the proper angle to the face before the sanding process. When edge sanding small stock, clamp several pieces together to prevent them from slipping on the feed belt.

SELECTING THE PROPER ABRASIVES

The abrasive material you choose will have a substantial effect on the performance of your sander. Variations in paper type, weight, coating and durability all contribute to achieving your desired finish.

As with any sanding operation, first begin sanding with a coarser grit, depending on the roughness of the stock or the amount of stock to be removed. Then progressively work toward finer grits. This means if you are using two different grits on your 31-481 Dual Drum Sander, the coarser grit should always be placed on the front drum.

The amount of stock to be removed is a major consideration when initially choosing the grit grade. Grits 36 and 60 are primarily designed for stock removal; grits over 100 are primarily finishing grits designed to remove the scratch pattern from the previous grit used.

For best results, never skip more than one grit grade when progressing through a sanding sequence. For fine work, such as furniture, try not to skip any grit grades during the sanding process. In general, premium quality abrasives will produce a better finish with a less noticeable scratch pattern.

CAUTION: Grits that are too fine can sometimes burnish the wood and leave a glossy surface which will not accept stains evenly. This will vary by type of wood. Oak, for example, is susceptible to burnishing because of its open pores.

READY-TO-CUT ABRASIVE STRIPS

DESCRIPTION	NORMAL USE
60 Grit Sandpaper	surfacing and dimensioning boards, trueing warped boards
80 Grit Sandpaper	surfacing, light dimensioning, removing planer ripples
120 Grit Sandpaper	light surfacing, minimal stock removal
150 Grit Sandpaper	finish sanding, minimal stock removal
180 Grit Sandpaper	finish sanding only, not for stock removal
220 Grit Sandpaper	finish sanding only, not for stock removal.

RECOMMENDED MAINTENANCE PROCEDURES

ROUTINE INSPECTION

It is recommended that you periodically inspect your DELTA® Dual Drum Sander as a precautionary action. During this time, check all hardware such as bolts, nuts and screws to ensure they are properly tightened. Also verify that the sanding belts and drive belts are mounted properly and have not become loose or torn.

Also take this opportunity to inspect for dust and/or wood particles that may have accumulated on or in the machine.

LUBRICATION

The table height adjustment screw shafts, located at either end of the machine must be well lubricated with grease at all times. In order to access, inspect and lubricate the screw shafts, it is necessary to remove the two side guards located on either end of the machine.

To remove the side guards:

1. Remove the elevation cursor by unscrewing the retaining screw.
2. Remove the eight Phillips head bolts and washers securing the left and right side guards to the machine and remove the guards. See Fig. 14.
3. Re-attach side guards and elevation cursor.

CLEANING THE SANDING BELTS

Regularly clean the sanding belts on the drums with commercially available cleaning sticks, following the manufacturer's directions. When cleaning, also brush the stick crumbs from the sanding drum while it is still rotating.

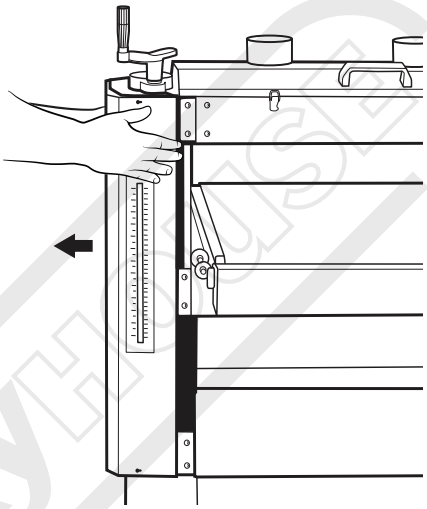


FIG. 14

TROUBLESHOOTING GUIDE

PROBLEM	POTENTIAL CAUSE	SOLUTION
Sanding surface clogs too quickly.	Sanding grit too fine. Too much material being removed at once. Dirty board surface. Insufficient dust collection. Board contains too much moisture. Worn sanding belt.	Change to a coarser grit. Adjust table height. Ensure board is free of debris prior to sanding. Inspect dust collection system. Properly dry stock before sanding. Replace sanding belt (Page 8)
Sanding belt tears.	Drums not parallel to feed table. Sandpaper edges overlapped. Tape is slipping. Too much material is removed at once.	Re-align drums (Page 10) Re-install sanding belt. Rewind the loose belt on the drum. Lower the table height.
Rounding on the edges.	Too much material is removed at once.	Lower the table height.
Uneven thickness on right and left side of the board.	Drums are not parallel to feed table. Uneven wear of sanding paper.	Re-align drums (Page 10) Replace sanding belt.
Stock slips on the feed belt.	Too much material is removed at once. Too much dust on the feed belt surface. Worn feed belt.	Lower the table height. Clean surface with air hose. Replace feed belt (Page 8)
Shiny spots on sanded surface.	Sanding paper too old. Drums too high.	Replace sanding belt (Page 8) Lower table height.
Marks on sanded surface	Partial damage to sanding paper. Paper overlapped on edges.	Replace sanding belt (Page 8) Re-align sanding belt on drum
Feed belt does not run smoothly or stops completely.	Feed belt tension is incorrect. Belt tracking is incorrect.	Adjust feed belt tension (Page 8) Adjust feed tracking (Page 8)
Consistently noticeable "snipe"	No out-feed support. Pressure roller spring tension incorrect. Drum height incorrect in relation to pressure rollers.	Use supplementary support in rear of machine. Check and adjust. Adjust pressure rollers (Page 11)

SPARE PARTS SECTION

HOW TO ORDER SPARE PARTS

1. Have your machines model number, serial number & date of manufacture on hand, these can be found on the specification plate mounted on the machine

NOTE: SOME PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY

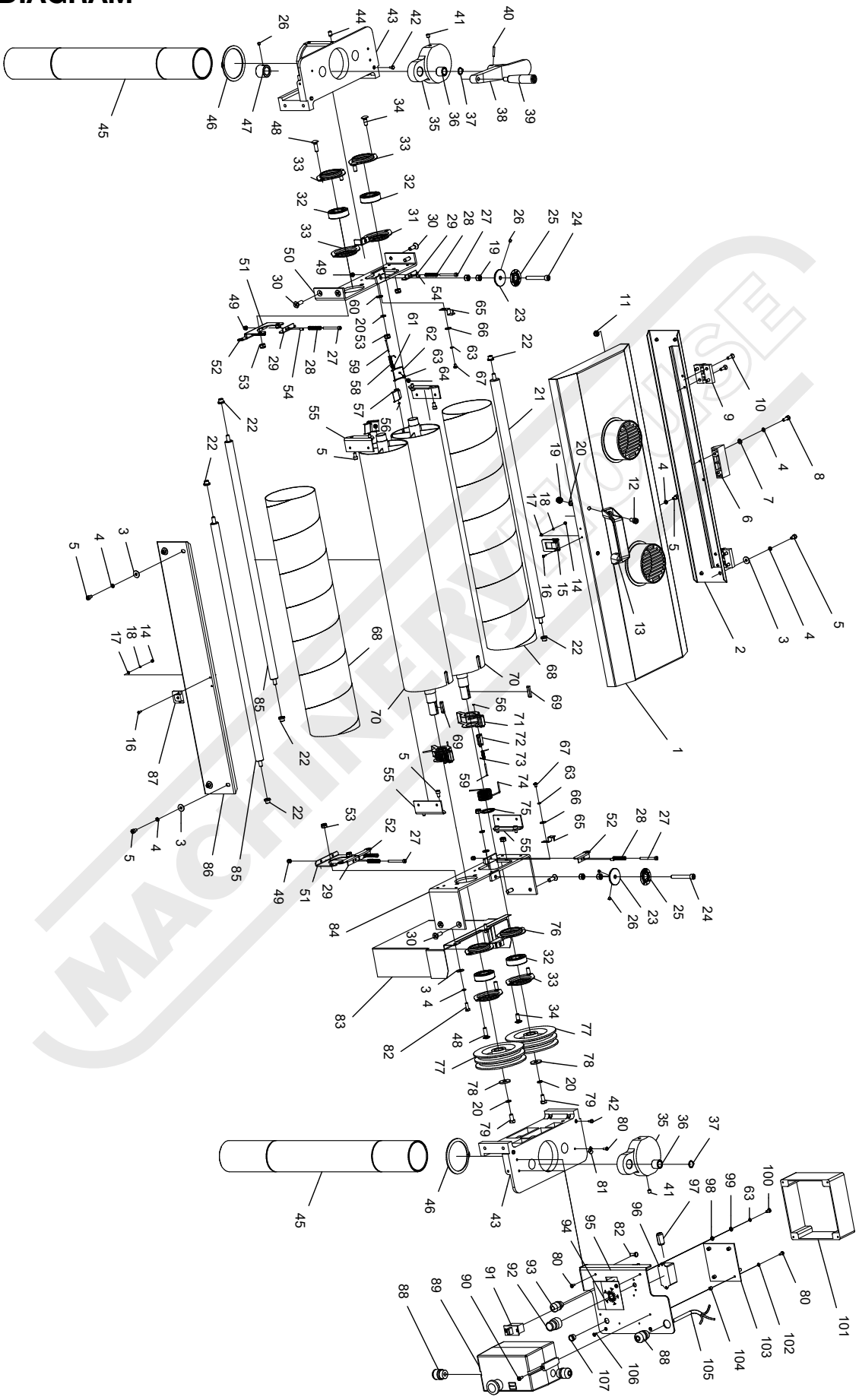
2. Go to www.machineryhouse.com.au/contactus and fill out the inquiry form

⚠ WARNING

Always disconnect the power to the machine before servicing or doing maintenance to the machine.

MACHINERYHOUSE

PARTS DIAGRAM

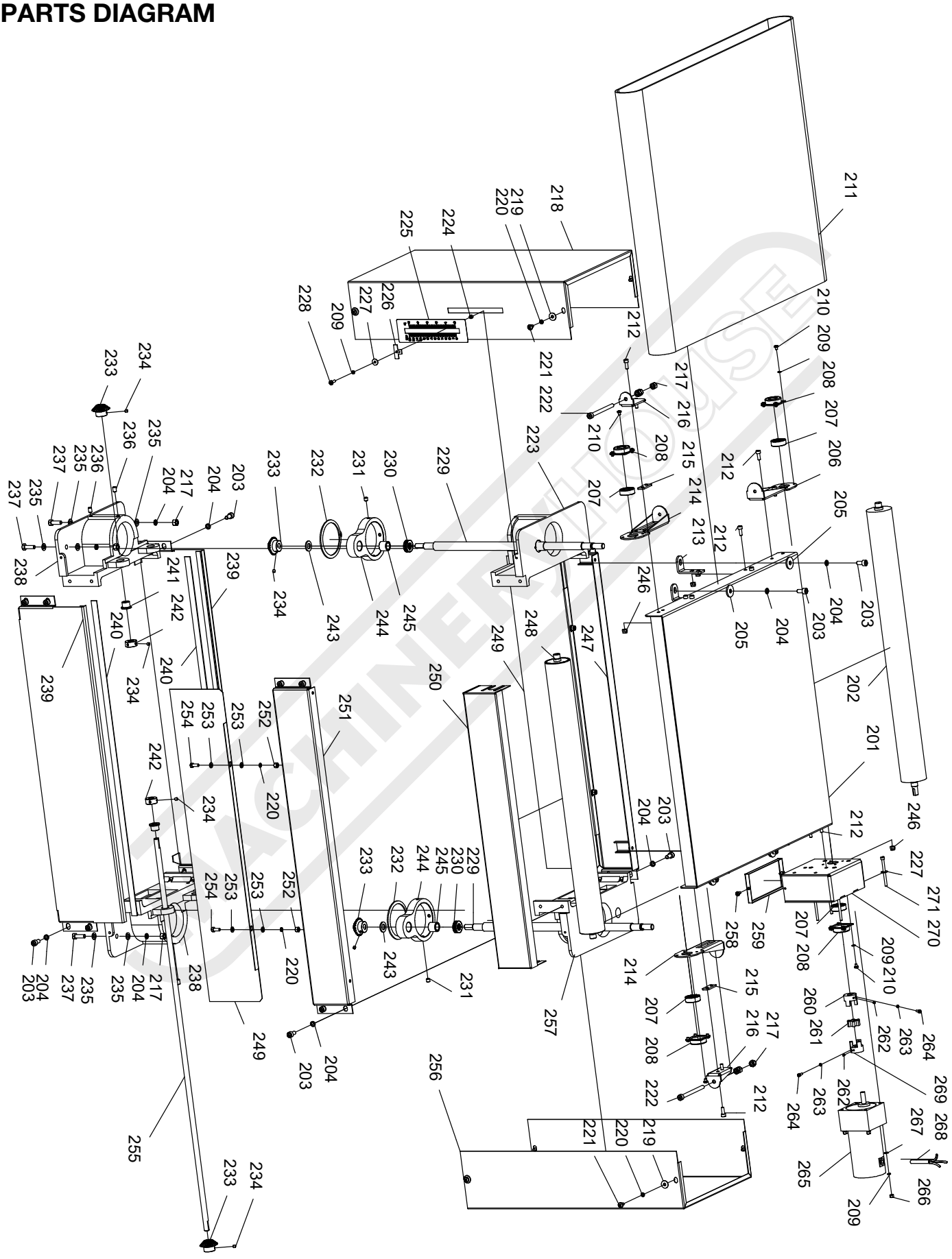


PARTS LIST

PART	DESCRIPTION	QTY	PART	DESCRIPTION	QTY
1	DRUMS COVER	1	55	CORNER BRACKET	4
2	DUST HOOD SUPPORT PANEL	1	56	LOCKING CLAMP 2.4	8
3	ENLARGE WASHER 6	10	57	FIXED CLAMP PLATE	2
4	LOCK WASHER 6	14	58	SPRING	2
5	CAP SCREW M6*10	18	59	SHAFT	4
6	FENCE GUIDE BLOCK	1	60	FLAT WASHER 8	2
7	FLAT WASHER 6	2	61	FLAT HEAD SCREW M5*10	2
8	CAP SCREW M6*16	2	62	FIXED CLAMP BRACKET	2
9	HINGE	2	63	LOCK WASHER 5	5
10	FLAT HEAD SCREW M6*20	8	64	HEX NUT M5	2
11	FLANGE NUT M6	4	65	SCALE POINTER	2
12	CAP SCREW M8*20	2	66	ENLARGE WASHER 5	2
13	DRUMS COVER HANDLE	1	67	PHI HEAD SCREW M5*8	2
14	HEX NUT M3	4	68	SANDING BELT P120	2
15	UPPER CLASP	1	69	KEY A6*30	2
16	PHI HEAD SCREW M3*10	4	70	DRUM	2
17	FLAT WASHER 3	4	71	TWO-STEP CLAMP	2
18	LOCK WASHER 3	4	72	TWO-STEP CLAMP PLATE	2
19	HEX NUT M8	6	73	SPRING	2
20	LOCK WASHER 8	6	74	SPRING	2
21	PRESSURE ROLLER REAR	1	75	EXT RET RING 28	4
22	BEARING	6	76	RIGHT ADJUST.BEARING CAP	1
23	ADJUSTING COLLAR	2	77	DRIVE ROLLER	2
24	CAP SCREW M8*65	2	78	FLAT WASHER 8*28*3	2
25	INDICATOR DIAL	2	79	HEX BOLT M8*16(LEFT)	2
26	SET SCREW M6*6	6	80	PHI HEAD SCREW M4*10	7
27	CAP SCREW M5*50	6	81	CLAMP	1
28	MICRO-ADJUSTMENT SPRING	6	82	HEX BOLT M6*16	4
29	LEFT CLAMP	3	83	PULLEY GUARD	1
30	FLAT HEAD SCREW M8*25	8	84	RIGHT BEARING HOUSING	1
31	LEFT ADJUST.BEARING CAP	1	85	PRESSURE ROLLER FRONT	2
32	BEARING 6205	4	86	FRONT UPPER PANEL	1
33	BEARING CAP	6	87	LOWER CLASP	1
34	CARRIAGE BOLT M8*20	4	88	STRAIN FELIEF M20*1.5	3
35	POST COVER	2	89	SWITCH	1
36	BRONZE COLLAR COVER	2	90	PHI HEAD SCREW M5*12	2
37	EXT RET RING 15	2	91	SAFETY SWITCH	1
38	CIANK HANDLE	1	92	REGULATOR KNOB	1
39	HANDLE	1	93	STRAIN FELIEF M16	1
40	PIN 4*24	1	94	SPEED LABEL	1
41	SET SCREW M8*8	4	95	SWITCH MOUNTING PLATE	1
42	RUBBER WASHER	4	96	NOTCH FILTERS	1
43	COLUMN SUPPORT BRACKET	2	97	SHIELDED MAGGNETIC RING	1
44	SET SCTEW M8*12	4	98	SERRATED SPACER 5	1
45	WORM GEAR	2	99	FLAT WASHER 5	1
46	EXT RET RING 80	2	100	PHI HEAD SCREW M5*10	1
47	STOP COLLAR	1	101	SWITCH REAR GUARD	1
48	CARRIAGE BOLT M8*25	4	102	FLAT WASHER 4(ABS)	4
49	LOCK NUT M5	6	103	PC BOARD	1
50	LEFT BEARING HOUSING	1	104	SPACER WASHER	4
51	CLAMP BLOCK	2	105	POWER CORD	1
52	RIGHT CLAMP	3	106	FLAT HEAD SCREW M4*10	2
53	LOCK NUT M8	8	107	PLASTIC GRAMMET 14	1
54	SET SCREW M5*10	6			

NOTE: SOME INDIVIDUAL PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY

PARTS DIAGRAM

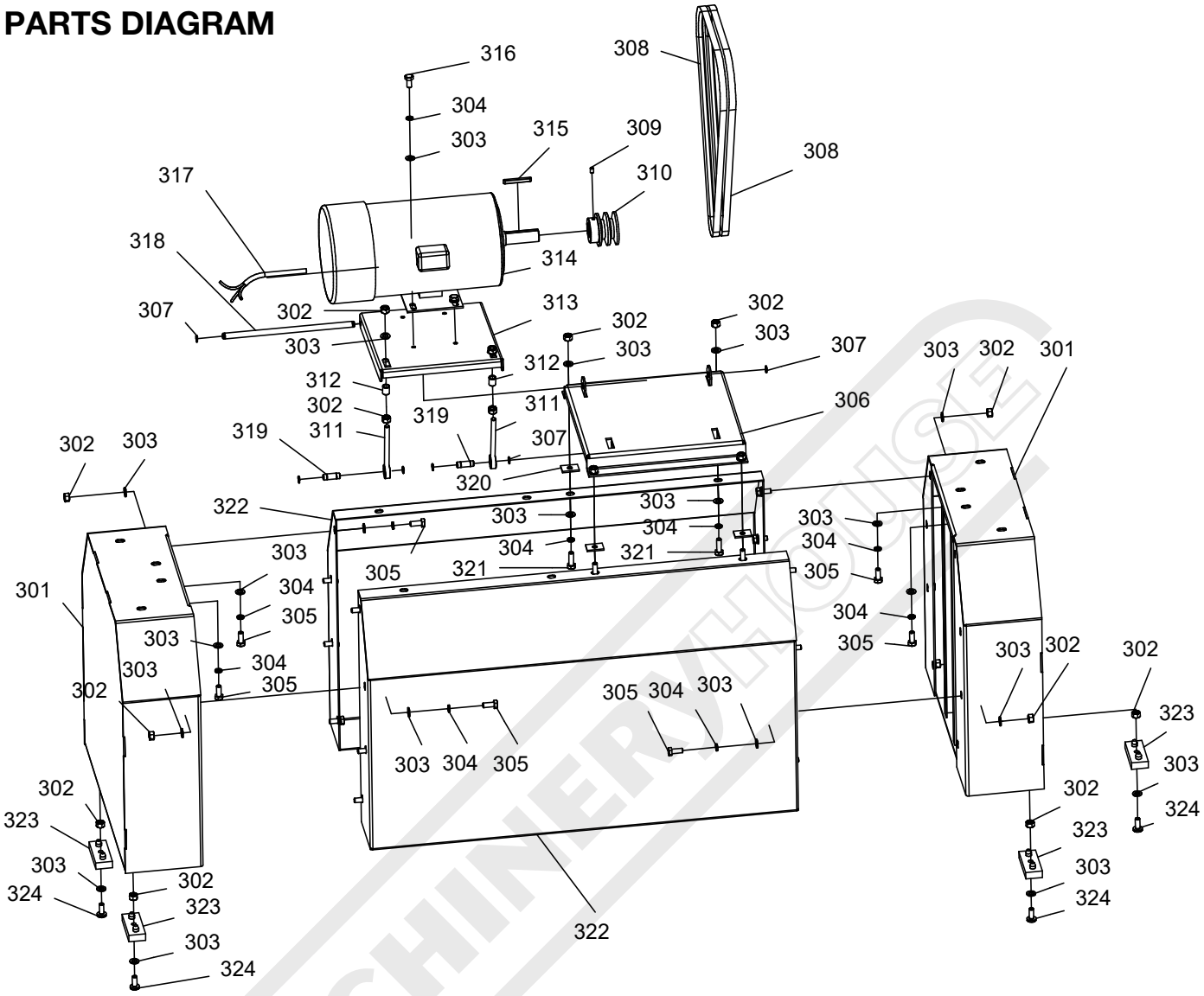


PARTS LIST

PART	DESCRIPTION	QTY	PART	DESCRIPTION	QTY
201	BELT PLATEN	1	237	HEX BOLT M8*25	4
202	CONVEYOR DRIVE ROLLER	1	238	LOWER BRACKET	2
			239	COVER	2
203	CAP SCREW M8*16	20	240	DAMPING BAR	2
204	LOCK WASHER 8	24	241	GEAR SHAFT BUSHING	2
205	FLAT WASHER 8*28*3	4	242	POSITIONING COLLAR	2
206	POSITIONING PLATE	1	243	FLAT WASHER 12.5*22*0.8	2
207	BEARING 6202	4			
208	BEARING CAP	4	244	SCREW HOLDER	2
209	LOCK WASHER 5	13	245	BRONZE COLLAR COVER	2
210	PHI HEAD SCREW M5*8	16	246	LOCK NUT M6	18
211	CONVEYOR BELT	1	247	REAR PANEL	1
212	CAP SCREW M6*16	18	248	FRONT CONVEYOR ROLLER	1
213	MOUNTING BRACKET	4			
214	MICRO-ADJUST MOUNTING BRACKET	2	249	SHIELD PLATE	2
			250	COVER PANEL	1
215	PAD	2	251	FRONT PLANEL	1
216	MICRO-ADJUSTMENT BLOCK	2	252	HEX NUT M6	4
			253	FLAT WASHER 6	8
217	HEX NUT M8	10	254	HEX BOLT M6*16	4
218	LEFT COVER	1	255	TRANSMISSION SHAFT	1
219	ENLARGE WASHER 6	8	256	RIGHT COVER	1
220	LOCK WASHER	12	257	RINGHT COLUMN BRACKET	1
221	PHI HEAD SCREW M6*10	8			
222	CAP SCREW M8*100	2	258	PHI HEAD SCREW M5*10	2
223	LEFT COLUMN BRACKET	1	259	BOTTOM COVER	1
224	SPACER	1	260	SHAFT JOINT Φ12	1
225	GRADUATED SCALE	1	261	RUBBER WASHER JOINT	1
226	INDICATOR	1	262	SET SCREW M4*8	2
227	ENLARGE WASHER 5	5	263	LOCK WASHER 4	2
228	PHI HEAD SCREW M5*16	1	264	CAP SCREW M4*12	2
229	LEAD SCREW	2	265	SPEED REDUCTION MOTOR	1
230	BEARING 51102	2			
231	SET SCREW M8*8	4	266	HEX NUT M5	4
232	EXT RET RING 80	2	267	FLAT WASHER 5	4
233	BEVEL GEAR	4	268	SPEED MOTOR CORD	1
234	SET SCREW M6*6	8	269	SHAFT JOINT Φ10	1
235	FLAT WASHER 8	8	270	ELECTRIC CONTROL BOX	1
236	SET SCREW M8*12	4	271	CAP SCREW M5*65	4

NOTE: SOME INDIVIDUAL PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY

PARTS DIAGRAM



PART	DESCRIPTION	QTY	PART	DESCRIPTION	QTY
301	SIDE PANEL	2	313	MOTOR ADJUSTMENT PLATE	1
302	HEX NUT M8	28	314	MOTOR 3HP	1
303	FLAT WASHER 8	54	315	KEY C6*40	1
304	LOCK WASHER 8	28	316	HEX BOLT M8*16	4
305	HEX BOLT M8*20	20	317	MOTOR CORD	1
306	MOTOR BASE	1	318	BASE SHAFT	1
307	EXT RET RING 10	6	319	POSITIONING SHAFT	2
308	BELT XPA1250	2	320	RUBBER WASHER	4
309	SET SCREW M6*10	1	321	HEX BOLT M8*25	4
310	MOTOR PULLEY	1	322	MIDDLE PANEL	2
311	ADJUST BOLT	2	323	FOOT PAD	4
312	BUSHING	2	324	PHI HEAD SCREW M8*20	4

NOTES:

MACHINERY HOUSE

⚠WARNING

General Machinery Safety Instructions

Machinery House
requires you to read this entire Manual before using this machine.

1. **Read the entire Manual before starting machinery.** Machinery may cause serious injury if not correctly used.
2. **Always use correct hearing protection when operating machinery.** Machinery noise may cause permanent hearing damage.
3. **Machinery must never be used when tired, or under the influence of drugs or alcohol.** When running machinery you must be alert at all times.
4. **Wear correct Clothing.** At all times remove all loose clothing, necklaces, rings, jewelry, etc. Long hair must be contained in a hair net. Non-slip protective footwear must be worn.
5. **Always wear correct respirators around fumes or dust when operating machinery.** Machinery fumes & dust can cause serious respiratory illness. Dust extractors must be used where applicable.
6. **Always wear correct safety glasses.** When machining you must use the correct eye protection to prevent injuring your eyes.
7. **Keep work clean and make sure you have good lighting.** Cluttered and dark shadows may cause accidents.
8. **Personnel must be properly trained or well supervised when operating machinery.** Make sure you have clear and safe understanding of the machine you are operating.
9. **Keep children and visitors away.** Make sure children and visitors are at a safe distance for you work area.
10. **Keep your workshop childproof.** Use padlocks, Turn off master power switches and remove start switch keys.
11. **Never leave machine unattended.** Turn power off and wait till machine has come to a complete stop before leaving the machine unattended.
12. **Make a safe working environment.** Do not use machine in a damp, wet area, or where flammable or noxious fumes may exist.
13. **Disconnect main power before service machine.** Make sure power switch is in the off position before re-connecting.
14. **Use correct amperage extension cords.** Undersized extension cords overheat and lose power. Replace extension cords if they become damaged.
15. **Keep machine well maintained.** Keep blades sharp and clean for best and safest performance. Follow instructions when lubricating and changing accessories.
16. **Keep machine well guarded.** Make sure guards on machine are in place and are all working correctly.
17. **Do not overreach.** Keep proper footing and balance at all times.
18. **Secure workpiece.** Use clamps or a vice to hold the workpiece where practical. Keeping the workpiece secure will free up your hand to operate the machine and will protect hand from injury.
19. **Check machine over before operating.** Check machine for damaged parts, loose bolts, Keys and wrenches left on machine and any other conditions that may effect the machines operation. Repair and replace damaged parts.
20. **Use recommended accessories.** Refer to instruction manual or ask correct service officer when using accessories. The use of improper accessories may cause the risk of injury.
21. **Do not force machinery.** Work at the speed and capacity at which the machine or accessory was designed.
22. **Use correct lifting practice.** Always use the correct lifting methods when using machinery. Incorrect lifting methods can cause serious injury.
23. **Lock mobile bases.** Make sure any mobile bases are locked before using machine.
24. **Allergic reactions.** Certain metal shavings and cutting fluids may cause an ellergic reaction in people and animals, especially when cutting as the fumes can be inhaled. Make sure you know what type of metal and cutting fluid you will be exposed to and how to avoid contamination.
25. **Call for help.** If at any time you experience difficulties, stop the machine and call you nearest branch service department for help.

MACHINERY HOUSE

⚠WARNING

Drum Sander Safety Instructions

Machinery House
requires you to read this entire Manual before using this machine.

1. **Maintenance.** Make sure the Drum Sander is turned off and disconnect from the main power supply and make sure all moving parts have come to a complete stop before any inspection, adjustment or maintenance is carried out.

2. **Drum Sander Condition.** Drum Sander must be maintained for a proper working condition. Never operate a Drum Sander that has damaged or worn parts. Scheduled routine maintenance should performed on a scheduled basis.

3. **Belt Condition.** Never operate a Drum Sander with a damaged or badly worn belt. Replace if required.

4. **Belt Rotation.** Be aware of the belt rotation when sanding.

5. **Hand Hazard.** Keep hands and fingers clear from sanding drums during operation. Do not allow hands and fingers to get pinched between board and conveyor belt during operation. This may pull the operator's hand into the machine during operation and cause serious injury.

6. **Leaving a Drum Sander Unattended.** Always turn the Drum Sander off and make sure all moving parts have come to a complete stop before leaving the Drum Sander. Do not leave Drum Sander running unattended for any reason.

7. **Avoiding Entanglement.** Drum Sander guards must be used at all times. Remove loose clothing, belts, or jewelry items. Never wear gloves while machine is in operation. Tie up long hair and use the correct hair nets to avoid any entanglement with the Drum Sander moving parts.

8. **Understand the machines controls.** Make sure you understand the use and operation of all controls.

9. **Power outage.** In the event of a power failure during use of the machine, turn off all switches to avoid possible sudden start up once power is restored.

10. **Work area hazards.** Keep the area around the Drum Sander clean from oil, tools, chips. Pay attention to other persons in the area and know what is going on around the area to ensure unintended accidents.

11. **Feeding material.** Never feed more than one piece of material at a time. Do not allow anyone to stand directly in front of this sander when feeding your material. Do not ham material into sander during operation. Firmly hold the workpiece in both hands and ease it into the machine using light pressure.

12. **Hearing protection and hazards.** Always wear hearing protection as noise generated from Drum Sander and workpiece vibration can cause permanent hearing loss over time.

13. **Dust hazards.** Always use a dust collector when using machine.

14. **Job Material.** Check material prior to sanding for nails, staples, knots and other objects that make cause any danger when sanding.

15. **Starting position/speed.** Never turn the Drum Sander on when the workpiece is resting on the disc or belt. Allow disc to reach full speed before sanding.

16. **Replacing Sanding paper.** Replace sanding paper when it becomes worn or damaged.

17. **Guards.** Do not operate Drum Sander without the correct guards in place.

18. **Wood dust may cause allergic reactions.** Make sure you know what type of dust you are exposed to as it may cause you an allergic reaction. Always wear an approved respirator.

19. **Call for help.** If at any time you experience difficulties, stop the machine and call you nearest branch service department for help.

PLANT SAFETY PROGRAM

NEW MACHINERY HAZARD IDENTIFICATION, ASSESSMENT & CONTROL

Drum Sander

Developed in Co-operation Between A.W.I.S.A and Australia Chamber of Manufactures
This program is based upon the Safe Work Australia, Code of Practice - Managing Risks of Plant in the Workplace (WHSA 2011 No10)

Item No.	Hazard Identification	Hazard Assessment	Risk Control Strategies (Recommended for Purchase / Buyer / User)
A	ENTANGLEMENT	HIGH	Eliminate, avoid loose clothing / Long hair etc.
B	CRUSHING	LOW	Heavier timber must be supported Be sure that when rising and falling belt table, hands are well away from locating, clamping and pivoting area.
C	CUTTING, STABBING, PUNCTURING	MEDIUM	Isolate power to machine prior to any checks or maintenance. Do not open or clean inside until the machine has completely stopped. Keep hands clear of all belts and moving parts. Use a push stick where necessary. Care must be taken when handling belts. Make sure all guards are secured shut when machine is on.
D	SHEARING	MEDIUM	Make sure all guards are secured shut when machine is on.
F	STRIKING	MEDIUM	Do not stand behind timber when feeding into machine. A face mask must be worn at all times. Ensure to use correct feed rates for material.
H	ELECTRICAL	MEDIUM	All electrical enclosures should only be opened with a tool that is not to be kept with the machine. Machine should be installed & checked by a Licensed Electrician.
O	OTHER HAZARDS, NOISE, DUST.	LOW	Wear hearing protection as required. Must be connected to dust extraction
Plant Safety Program to be read in conjunction with manufactures instructions			

HARE&FORBES MACHINERYHOUSE

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Authorised and signed by:
Safety officer:.....
Manager:.....

Revised Date: 12th March 2012