

HAFCO **WOODMASTER**



Edition : 1
Date: (10/26)

Instruction Manual

OPEN END DRUM SANDER **OEDS-1632**

Order Code: (L126)

MACHINE DETAILS

MACHINE.

OPEN END DRUM SANDER

MODEL NO.

OEDS-1632

SERIAL NO.

DATE OF MANF.

IMPORTED BY

AUSTRALIA

HARE & FORBES
MACHINERYHOUSE

www.machineryhouse.com.au

NEW ZEALAND

MACHINERYHOUSE

www.machineryhouse.co.nz

NOTE:

This manual is only for your reference. At the time of the compiling of this manual every effort to be exact with the instructions, specifications, drawings, and photographs of the machine was taken. Owing to the continuous improvement of the HAFCO Woodmaster machine, changes may be made at any time without obligation or notice. Please ensure the local voltage is the same as listed on the specification plate before operating any electric machine.

SAFETY SYMBOLS:

The purpose of safety symbols is to attract your attention to possible hazardous conditions



WARNING

Indicates a potentially hazardous situation causing injury or death



CAUTION

Indicates an alert against unsafe practices.

Note: Used to alert the user to useful information



NOTE:

In order to see the type and model of the machine, please see the specification plate. Usually found on the back of the machine. See example (Fig.1)

Fig.1

HAFCO WOODMASTER	
PRODUCT SPECIFICATIONS	
Model: OEDS-1632	Voltage: 240V/50Hz
Capacity: 0.8-100mm	Motor: 1.5HP/1.1kW
Nett Weight: 131kg	FLC: 6.5A
MFG Date:	
Serial No:	
Imported by www.machineryhouse.com.au	Made in China www.machineryhouse.co.nz

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WARNING!

The machine is the sole responsibility of the owner for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training, proper inspection and maintenance, manual availability and comprehension. The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

1.1 SPECIFICATIONS

Order Code	L126
MODEL	OEDS-1632
Drum Length	406mm
Max. Stock Width	812mm
Min. Stock Length	57mm
Max. Stock Thickness	100mm
Min. Stock Thickness	0.8mm
Sanding Belt Size	1920 x 97mm
Extruded Aluminum Drum Size (D x L)	125 x 406mm
Drum Speed	1245rpm
Motor	1.1kW
Conveyor Motor	120W
Conveyor Variable Speed	0-3.05 m/min
Height Adjustment (per/rev)	1.5mm
Dust Port Ø	100mm
Dimensions (L x H x D)	600 x 1550 x 825mm
Nett Weight (kg)	131kg

1.2 PACKING LIST

- Machine
- Digital Depth display
- 2 x Extension tables, modified to reduce the gap to feed belt to less than 5mm
- 1 x 120 grit belt
- Open Stand
- Instruction Manual



WARNING!

Read and understand the instructions in this manual, before operating this machine to reduce the risk of serious injury or even death. Save all warnings and instructions for future reference.

1.3 IDENTIFICATION

Become familiar with the names and locations of the controls and features shown below to better understand the instructions when mentioned later in this manual.



A	Drum Carriage
B	Dust Port
C	Motor Mount Slide
D	Lead Screw Height Adjustment
E	Height Adjustment Handle
F	Shroud
G	Digital Readout
H	Motor

I	Variable Speed Control
J	ON/OFF Switch
K	Conveyor Table
L	Extension Table
M	Open Stand
N	Driven Roller
O	Conveyor Take Up
P	Drive Roller

2. SAFETY INFORMATION

2.1 GENERAL SAFETY REQUIREMENTS

DO NOT use this machine unless you have read this manual or have been instructed in the use of this machine in its safe use and operation.



This manual provides safety instructions on the proper setup, operation, maintenance, and service of this machine. Save this manual, refer to it often, and use it to instruct other operators.

Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution or death.

The owner of this machine is solely responsible for its safe use. This responsibility includes, but is not limited to proper installation in a safe environment, personnel training and authorization to use, proper inspection and maintenance, manual availability and comprehension of the application of the safety devices, integrity, and the use of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

Exposure to the dust created by power sanding, sawing, grinding, drilling and other construction activities may cause serious and permanent respiratory or other injury, including silicosis (a serious lung disease), cancer, and death. Avoid breathing the dust, and avoid prolonged contact with dust. Some examples of these chemicals are:



- ☐ Lead from lead-based paints.
- ☐ Crystalline silica from bricks, cement and other masonry products.
- ☐ Arsenic and chromium from chemically-treated timber.

Always operate tool in well ventilated area and provide for proper dust removal. Use a dust collection system along with an air filtration system whenever possible. Always use properly fitting approved respiratory protection appropriate for the dust exposure, and wash exposed areas with soap and water.



Safety glasses must be worn at all times in work areas. Earmuffs should be worn if the work area is noisy.



Sturdy footwear must be worn at all times in work areas.



Gloves should NOT be worn when operating machinery. Should only be worn when handling the material.



Long and loose hair must be contained with a net or under a hat.

2.1 GENERAL SAFETY REQUIREMENTS CONT.

DISCONNECT POWER FIRST. If using power, always disconnect the machine from power supply before making adjustments, or servicing the machine. This prevents any risk of injury from unintended startup or contact with live wires.

HEARING PROTECTION. Always wear hearing protection when operating or observing loud machinery. Extended exposure to this noise without hearing protection can cause permanent hearing loss.

REMOVE ADJUSTING TOOLS. Tools left on machinery can become dangerous projectiles upon startup. Never leave hex keys, wrenches, or any other tools on machine. Always verify removal before starting!

USE CORRECT TOOL FOR THE JOB. Only use this tool for its intended purpose. Do not force the machine or its attachments to do a job for which they were not designed. Never make unapproved modifications. Modifying the machine or using it differently than intended may result in malfunction or mechanical failure that can lead to personal injury or death!

AWKWARD POSITIONS. Keep proper footing and balance at all times when operating machine. Do not overreach! Avoid awkward hand positions that make operating control difficult. This could increase the risk of accidental injury.

GUARDS & COVERS. Guards and covers reduce accidental contact with moving parts or flying debris. Make sure they are properly installed, undamaged and working correctly.

MENTAL ALERTNESS REQUIRED. Full mental alertness is required for safe operation of machinery. Never operate under the influence of drugs or alcohol, when tired, or when distracted.

TRAINED OPERATORS ONLY. Only allow trained or supervised people to use this machine. When the machine is not being used, disconnect the power to the machine to prevent unauthorized use—especially around children. Make the workshop safe.

FORCING MACHINERY. Do not force the machine. It will do the job safer and better at the rate for which it was designed.

NEVER STAND ON MACHINE. Serious injury may occur if the machine is tipped or if the cutting tool is unintentionally contacted.

STABLE MACHINE. Unexpected movement during operation greatly increases risk of injury or loss of control. Before starting, verify the machine is stable and if using a mobile base it is locked in position.

UNATTENDED OPERATION. To reduce the risk of accidental injury, turn the machine OFF and ensure all moving parts have completely stopped before walking away. Never leave the machine running while unattended.

MAINTAIN WITH CARE. Follow all the maintenance instructions and lubrication schedules to keep the machine in good working condition. A machine that is improperly maintained could malfunction, leading to serious personal injury or death.

CHECK DAMAGED PARTS. Regularly inspect the machine for any condition that may affect the safe operation. Immediately repair or replace damaged or parts that are incorrectly fitted before operating.

CHILDREN & BYSTANDERS. Keep children and bystanders at a safe distance from the work area. Stop using machine if they become a distraction.



WARNING!

Before operating any machine, take time to read and understand all safety signs and symbols. If not understood seek explanation from your supervisor or an experienced operator.

2.2 SPECIFIC SAFETY FOR OPEN END SANDER

DO NOT use this machine unless you have been instructed in its safe use and operation and have read and understood this manual



Safety glasses must be worn at all times in work areas



Long and loose hair must be contained or restrained



Sturdy footwear must be worn at all times in work areas



Close fitting/protective clothing must be worn



Rings and jewellery must not be worn.



A mask must be worn when excessive airborne dust is created

PRE-OPERATIONAL SAFETY CHECKS

- ✓ Check the workroom and walkways to ensure there are no slip/trip hazards present.
- ✓ Ensure you are familiar with the operation of the ON/OFF switch and the emergency stop.
- ✓ Check the sanding belt is in a serviceable condition with no edge fraying, tears or holes
- ✓ Ensure the operator be positioned out of direct line of abrasive belt at all times.
- ✓ Ensure dust extraction is on before operating sanding machine.
- ✓ Faulty equipment must not be used. Immediately report suspect machinery.
- ✓ Ensure material is well supported – use roller/support stand/s for longer lengths.

OPERATIONAL SAFETY CHECKS

- ✓ Allow machine to reach maximum revolutions before operating to avoid overloading.
- ✓ Make sure the belt will clear the work piece before feeding it past the abrasive belt for the first time, then adjust belt slowly down until the belt touches the work piece.
- ✓ Keep fingers clear of the sanding belt while sanding.
- ✓ NEVER attempt to sand small items or try to sharpen metal items.
- ✓ Never leave the machine while it is running.
- ✓ Before making adjustments switch off and bring the machine to a complete standstill.

DON'T

- × DO NOT operate equipment without wearing appropriate PPE
- × DO NOT use the wrong type of belt or disc for the operation.
- × DO NOT attempt to sand very small items or use heavy pressure
- × DO NOT leave the machine running unattended.
- × DO NOT use faulty equipment. Immediately report any suspect equipment and apply a “**DO NOT USE**” tag

POTENTIAL HAZARDS

- | | | |
|--|--|--|
| ☐ Exposure to moving, abrasive and rotating parts | ☐ Burns to skin | ☐ Lung Damage |
| ☐ Eye injuries | ☐ Ejected waste | ☐ Excessive dusts |
| ☐ Pinch and squash | | |

3. POWER SUPPLY

3.1 ELECTRICAL REQUIREMENTS

Place the machine near an existing power source. Make sure all power cords are protected from traffic, material handling, moisture, chemicals, or other hazards. Make sure there is access to a means of disconnecting the power source. The electrical circuit must meet the requirements for the power used by the machine.

NOTE : The use of an extension cord is not recommended as it may decrease the life of electrical components on your machine.

ELECTRICAL REQUIREMENTS

Nominal Voltage.....	240V
Cycle.....	50 Hz
Phase.....	Single Phase
Power Supply Circuit.....	6.5 Amps
Full Load Current.....	10 Amps

(Full load current rating is also on the specification plate on the motor.)

3.2 FULL-LOAD CURRENT RATING

The full-load current rating is the amperage a machine draws when running at 100% of the output power. Where machines have more than one motor, the full load current is the amperage drawn by the largest motor or a total of all the motors and electrical devices that might operate at one time during normal operations.

Full-Load Current Rating for these machine is available on the motor plate.

It should be noted that the full-load current is not the maximum amount of amps that the machine will draw. If the machine is overloaded, it will draw additional amps beyond the full-load rating and if the machine is overloaded for a long period of time, damage, overheating, or fire may be caused to the motor and circuitry.

This is especially true if connected to an undersized circuit or a long extension lead. To reduce the risk of these hazards, avoid overloading the machine during operation and make sure it is connected to a power supply circuit that meets the requirements.



4 SET-UP

4.1 UNPACKING

This machine was carefully packaged for safe transport. When unpacking, separate all enclosed items from packaging materials and inspect them for shipping damage. If items are damaged, please contact your distributor.

NOTE: Save all the packaging materials until you are completely satisfied with the machine and have resolved any issues with the distributor, or the shipping agent.

When unpacking, check the packing list to make sure that all parts shown are included. If any parts are missing or broken, please contact your distributor.

4.2 CLEAN - UP

The unpainted surfaces of the machine have been coated with a waxy oil to protect them from corrosion during shipment. Remove the protective coating with a solvent cleaner or a citrus based degreaser.

Optimum performance from your machine will be achieved when you clean all moving parts or sliding contact surfaces that are coated with rust preventive products.

It is advised to avoid chlorine based solvents, such as acetone or brake parts cleaner, as they will damage painted surfaces and strip metal should they come in contact. Always follow the manufacturer's instructions when using any type of cleaning product.

4.3 SITE PREPARATION

When selecting the site for the machine, consider the largest size of work piece that will be processed through the machine and provide enough space around the machine for operating the machine safely. Consideration should be given to the installation of auxiliary equipment. Leave enough space around the machine to open or remove doors/covers as required for the maintenance and service as described in this manual.

It is recommended that the machine is anchored to the floor to prevent tipping or shifting. It also reduces vibration that may occur during operation.

4.4 LIFTING INSTRUCTIONS

On the day that the machine arrives, make sure that a forklift or lifting device, with sufficient capacity is available to unload the machine from the vehicle. Ensure access to the chosen site is clear and that doors and ceilings are sufficiently high and wide enough to receive the machine.



WARNING

This machine is extremely heavy.

Serious personal injury may occur if safe moving methods are not followed. To be safe, you will need assistance and power equipment when moving the shipping crate and removing the machine from the crate.



WARNING!

Make sure everyone is away from the load before hoisting. The load must be under control when lowering loads suspended. Rigging and crane operation must be carried out by persons with approved qualifications.

4.5 ASSEMBLY

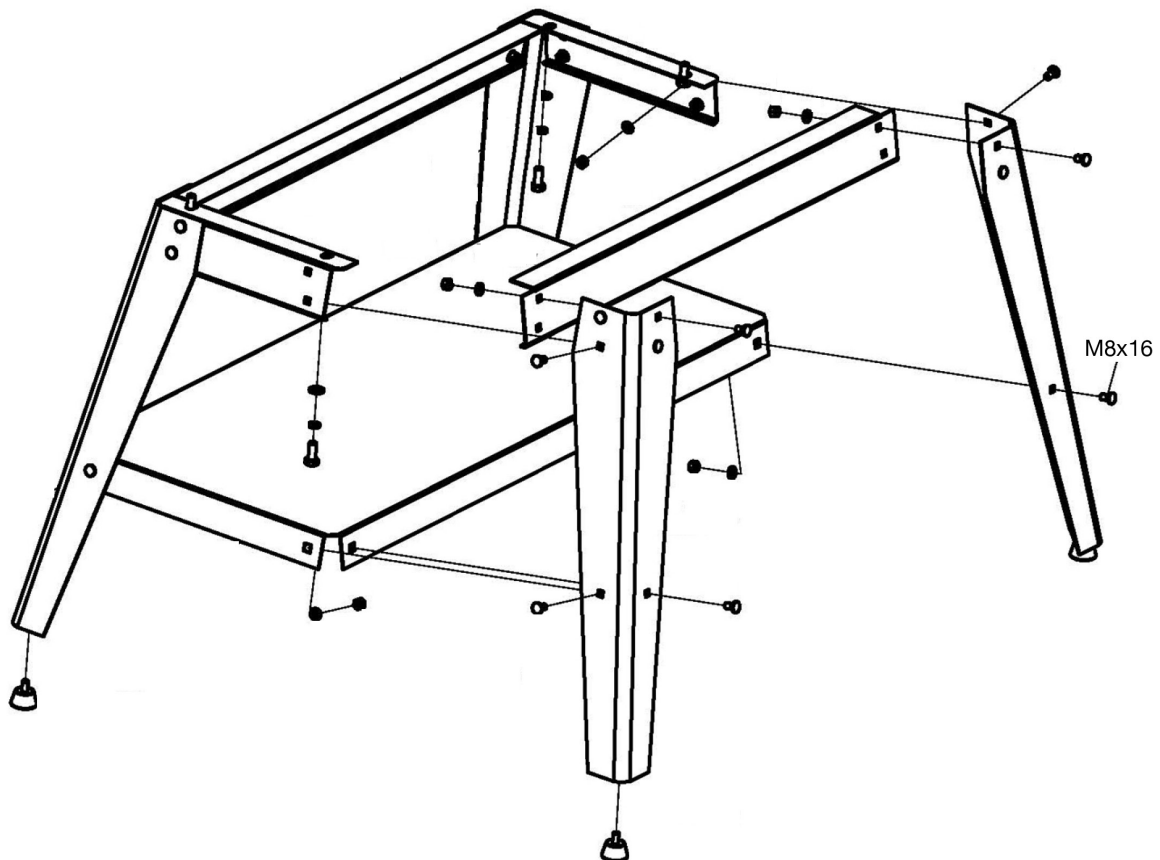
The machine must be fully assembled before it can be operated. First clean any parts that are coated in rust preventative to ensure the assembly process can proceed smoothly.

STAND ASSEMBLY:

1. **Attach the Legs:** Lay out the four legs and the top mounting brackets. Loosely bolt the legs to the top perimeter frame using the M8 x16 Bolts washers and M8 nuts, but do not fully tighten yet.
2. **Add Crossbars:** Install any middle or bottom stabilizing braces. Leaving the hardware slightly loose allows you to wiggle the pieces into alignment.
3. **Square the Stand:** Once all pieces are connected, place the stand on a flat surface and tighten all bolts securely to ensure the frame is rigid and does not wobble.

MOUNTING THE SANDER

1. **Align the Machine:** Carefully lift the sander onto the top of the stand, aligning the mounting holes on the base of the sander with the slots on the stand's top brackets.
2. **Secure the Base:** Insert the heavy-duty bolts with washers through the top of the stand and into the sander base. Fasten with washers and lock nuts from underneath.
3. **Check for Level:** Use a machinist's level on the sanding table or conveyor bed to ensure the machine sits perfectly level to prevent uneven sanding.



IN-FEED / OUT-FEED TABLES

The sander must be bolted to the stand when using these table extensions. Maximum working load of each table is 16 kilograms. Fasteners are provided with the extension tables.

1. **Locate the Pre-drilled Mounting Points:** The drum sander has pre-drilled mounting holes on the frame, located directly under the conveyor bed on the in-feed and out-feed sides.
2. **Attach the Brackets or Frame:** When you are installing the extension tables, align the table brackets with the sander's threaded mounting holes. Secure them using the bolts and washers provided, but only tighten them finger-tight at this stage.
3. **Level the Extension Tables:** This is the most crucial part of the process.

Place a steel straight-edge flat across the metal conveyor table (extending out over the extension wing). Adjust the carriage bolts under the extension table until the wing is perfectly flush with the metal conveyor bed. It is recommended to tighten the bolts in small increments, checking frequently to ensure the table doesn't shift.



FIG. 4.2



FIG. 4.3

TIP: It is often preferable to position the in-feed and out-feed tables slightly below conveyor table surface, particularly if stock being sanded is bowed, warped or otherwise inconsistent. Also, if stock slips on the conveyor, the tables may be positioned too high.

Height Adjustment Handle

1. Install the height adjustment handle onto the spindle and tighten the set screw.

4.6 DUST COLLECTION

Dust collection is mandatory for a safe work environment and extended abrasive life. The OEDS-1632 is equipped with a 100mm dust collection port. Secure a 100mm dust collection hose to the port with a hose clamp (Fig. 4.4), and connect to a high volume dust collector (minimum 550 CFM).

Note: Dryer vent hose is not recommended for this purpose.

Keep the hose clear of the conveyor area by directing it over the hose hanger at the rear of the sanding head.

A standard shop type dust collector canister (60 ltr. or larger) can be used for short periods of sanding time but may require converting the hose size down to 2-1/2". An adapter (not included) will be required.



FIG. 4.4

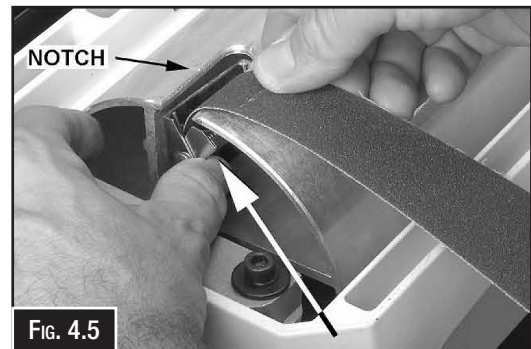
4.7 INSTALLING THE ABRASIVES

Proper attachment of the abrasive strip to the drum is critical to achieving top performance from your drum sander.

An 120-grit, 97mm wide abrasive is pre-installed on drum. Optional aluminium oxide sanding abrasives of different grits are available.

To install abrasive strip:

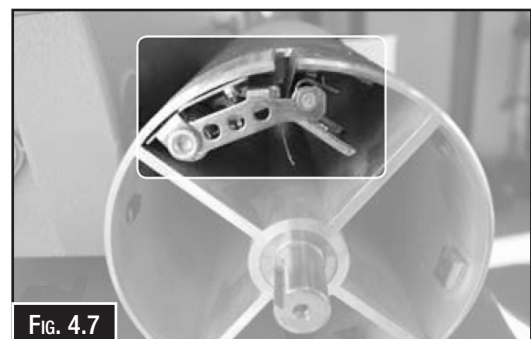
1. Press fastener lever clamp plate on outboard (left) end of drum, and insert tapered end of abrasive through slit in fastener, as shown. Align tapered edge of abrasive strip with left edge of drum. Insert enough strip so that the right edge aligns with the reference notch; this will ensure the proper length of strip to be secured at the opposite end of the drum.
2. Release fastener lever to secure end of strip. (Fig. 4.5)
3. Begin wrapping the abrasive around the drum. The tapered edge of strip end should follow as closely as possible to edge of drum. (Fig. 4.6)
4. Continue wrapping abrasive in spiral fashion by rotating drum with one hand and guiding strip with the other. Successive windings of strip must not have any overlap. They should be flush with previous windings or with a slight gap between.
5. Press inboard take-up lever clamp plate and insert trailing end of strip as far as it will go. If necessary, trim the tapered end of abrasive strip.
6. Release inboard take-up lever to secure strip.



NOTE: All abrasive strips will stretch over time as they are used, and may stretch enough to allow the take-up lever to reach its lowest position so that it cannot maintain tension on the strip. If this occurs, follow the above procedures to reset the take-up lever.

The take-up fastener is designed to automatically take up any slack caused by stretching of the abrasive wrap. The abrasive wrap may stretch enough in use to allow the take-up lever to reach its lowest position so it no longer is able to maintain tension on the wrap. (Fig. 4.7)

If this occurs, it will be necessary to reset the take-up lever by raising it, pushing the wrap end into the slot, and then releasing the clip lever.



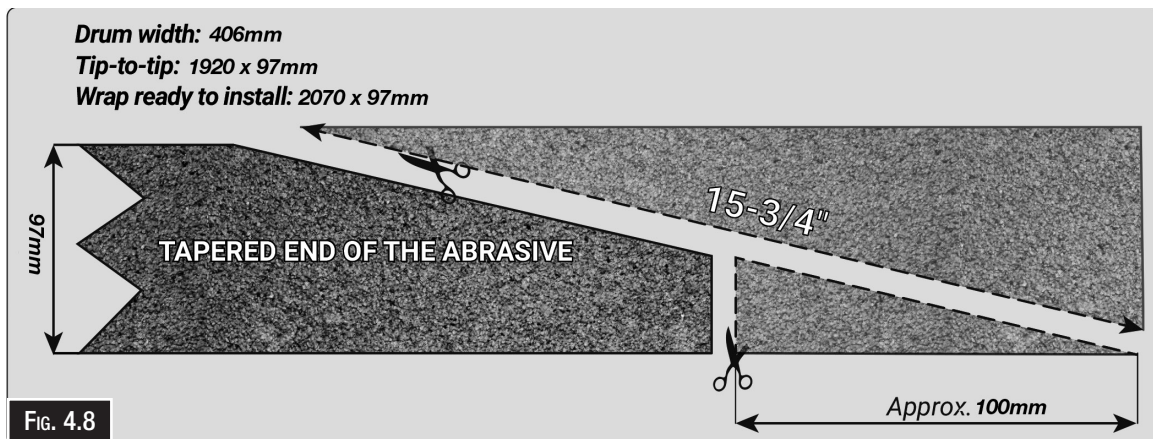
WARNING!

When operating a Sander it is important to wear appropriate safety gear to protect yourself from injury. This includes safety glasses or goggles, or a face shield to protect your eyes from flying debris.

PREPARING THE ABRASIVE STRIP

Abrasive strips do not have to be pre-measured. The end of the roll is first tapered and attached to the outboard (left) side of the drum. Then the strip is wrapped around the drum, and the second taper is made for attachment to the inboard (right) side of the drum. The strip is then attached to the drum, by following the procedure in “4.7 Installing The Abrasives” on page 13.

NOTE: *Pre-cut wraps have been factory tapered to the specific width of your drum. If you are cutting your own abrasive, use the wrap that came on the drum as a template or the template below (abrasive side up).*

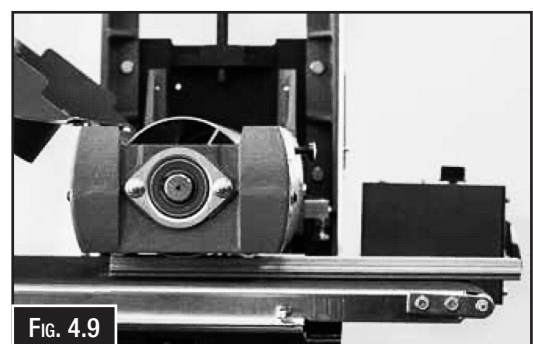


4.8 CHECKING DRUM ALIGNMENT

Your HAFCO Woodmaster Drum Sander should now be in place and ready for the final set-up. The sander was adjusted and aligned at the factory. However simple alignment checks will ensure that everything is in perfect order.

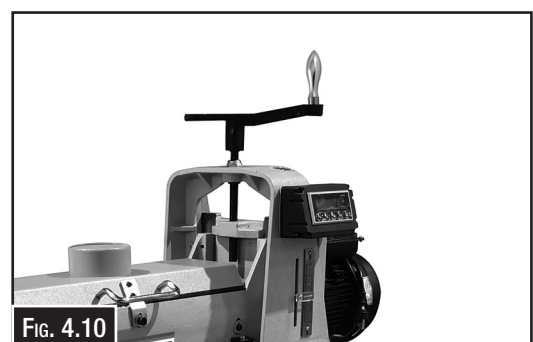
Problems can be avoided if these essential checks and set-up procedures are performed prior to operation. Checking the alignment before using the sanding drum is necessary to make sure that the drum is parallel.

1. Remove the abrasive from the drum. Removing the abrasive is necessary to make sure that the adjustment is as accurate as possible and the texture on the abrasive will make the adjustment imprecise.
2. Locate the height adjustment handle for raising and lowering the sanding head.
3. Use a flat, uniform piece of wood as a thickness gauge. Insert it between the conveyor belt and the drum on the inboard (right) side of the machine. (Fig. 4.9)



The tension rollers are set just below the drum enough so that items cannot pass easily underneath. Use the height adjustment handle as necessary to ensure that the piece of wood makes contact with the drum. (Fig. 4.10)

4. After you place the piece of wood between the conveyor belt and the drum, rotate the height adjustment handle up one full turn. After the height has been adjusted the wood piece may be removed.



4.8 CHECKING DRUM ALIGNMENT Cont.

If the drum is not parallel, loosen the 4 socket head screws A (these screws are along the outboard (left) side of the conveyor belt) and raise or lower the conveyor with the adjustment nut B to achieve parallel alignment. Then tighten the four socket head screws.

To achieve parallel alignment on the inboard (right) side of the machine, repeat steps 3 and 4, then adjust the alignment if needed by loosening the 4 socket head screws located along the outboard (left) side of the conveyor and turning the height adjustment nut of the conveyor.

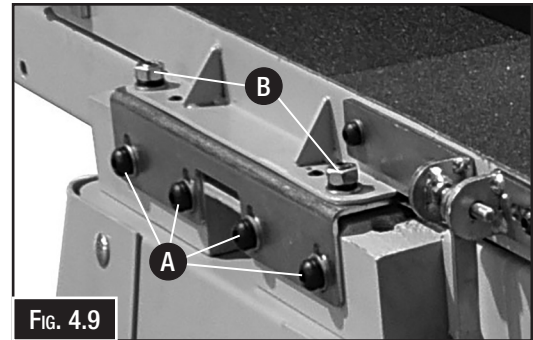


FIG. 4.9

5. OPERATION

This machine may perform many types of operations that are beyond the scope of this manual. Many of these operations may be dangerous or deadly if performed incorrectly.

The instructions in this section are written with the understanding that the operator has the necessary knowledge and skills to operate this machine. If at any time you are experiencing difficulties performing any operation, stop using the machine! **Above all, your safety should come first!**

5.1 OPERATION OVERVIEW

This overview purpose is to provide a novice machine operator with a basic understanding of how the machine is used during operation, and so that if the machine controls or components are mentioned later in this manual, it will be easy to understand. The overview is not intended to be an instructional guide and is only generic in nature. To learn more about the specific operation, read this entire manual and seek additional training from an experienced machine operator. Another source of information may be found in video's on websites or by reading trade magazines.

A typical operation consists of:

1. Ensure there is enough space for the workpiece to exit the machine safely. If the workpiece is wider than the conveyor table, support it across its full width. If the workpiece is very long or difficult to handle, use a roller support stand to help feed it through the machine.
2. Put on appropriate personal protective equipment (PPE). Always wear safety glasses to protect against flying chips. Always wear a respirator to protect against dust inhalation.
3. Inspect the workpiece is suitable for sanding. Determine the correct sandpaper grit for the job before beginning. Secure the machine. If using a mobile base, make sure the mobile base is disengaged and verify that all four rubber feet are firmly in contact with the floor for stability.
4. Adjust the table height to approximately match the thickness of the work piece.
5. Confirm that the dust collection system is connected to the machine's dust port.
6. Before starting the machine, Turn on the dust collection system first then switch the motor on. Wait until the sanding drum reaches full operating speed before feeding material.
7. Feed the workpiece. Place the front end of the workpiece on the in-feed side of the conveyor table. Support the rear end of the workpiece until the pressure rollers engage and pull it through the machine.

NOTE: During the first pass with a new workpiece, the operator may need to make small adjustments to the table height to achieve the desired sanding depth and finish quality. These steps emphasize machine stability, dust control, proper PPE use, and controlled feeding of the workpiece to ensure safe and effective sanding.

5.2 ABRASIVE SELECTION

Selecting the right drum sander abrasive and following proper installation and sanding procedures determines your surface quality. Start with a coarse grit (e.g., 24–60) for heavy material removal or leveling, progress through intermediate grits to eliminate prior scratches, and finish with fine grits (180–220) to prepare for sealing.

1. ABRASIVE GRIT SELECTION

Heavy Removal & Leveling (24 to 60 grit): Use for abrasive planing, flattening glued-up panels, or removing deep milling marks. Note: Do not take heavy passes; take light cuts to prevent burning.

Initial Surfacing (80 to 120 grit): The standard starting point for boards that have already been through a planer or jointer, balances material removal with early finishing.

Finish Sanding (180 to 220 grit): Used to prep the bare wood for a finish, giving you a head start before final orbital sanding.

2. PREPARATION & CUTTING PROCEDURE

Choose the Material: Aluminum oxide is the industry standard for wood.

Template Cutting: Pre-cut manufacturer sheets can be expensive. To save costs by using bulk rolls, lay the old, worn abrasive strip flat on the floor or a piece of plywood and trace its edges to create a template. (See **PREPARING THE ABRASIVE STRIP** on Page 14)

Angled Cuts: Because drum sanders feature a split and angled cam system, the ends of the abrasive strip must be cut at an angle. Use a sharp utility knife to ensure clean, straight edges.

4. SANDING OPERATION & BEST PRACTICES

Never Skip More Than One Grit: To remove deep scratches left by coarse grits, work your way up sequentially (e.g., 80 ~ 120 ~ 180).

Manage Your Depth of Cut: Set your drum height so it barely touches the thickest part of the work piece. A good rule of thumb is to take no more than a quarter or half turn on the depth adjustment per pass.

Keep Dust Collection Running: Sandpaper lifespan is severely reduced by dust buildup. Always ensure your dust collection system is active and functioning, and clear the paper during longer jobs using an abrasive cleaning block (crepe rubber stick).

5.3 SETTING THE CONVEYOR SPEED

The feed rate dictates how fast the wood travels under the spinning drum.

Starting Point: A great rule of thumb is to start at about 75% speed or roughly 1.5 to 2.4 meters per minute.

Slower is Better: For harder woods (like cherry or maple) and when using fine-grit sandpaper, dialing the feed rate down helps prevent the abrasive from loading up with dust.

Avoid Going Too Slow: If the feed rate is slowed down too much, the prolonged friction between the abrasive and the wood can generate excess heat. This can cause burning/scorching and a raised grain that feels fuzzy rather than smooth.

Wide Panels: When sanding full-width panels, the load on the motor increases. You should slow down the feed rate slightly compared to running narrow.

5.4 DEPTH OF CUT

Determining the depth of cut is the most important operating procedure decision. It may take some experimentation to determine the proper depth of cut. The crucial variables to keep in mind are abrasive grit, type of wood, project type, and conveyor feed rate. We recommend practicing on a scrap of wood prior to sanding a project.

DIGITAL DISPLAY

The M503L digital counter is a magnetic scale digital readout (DRO) and measurement system primarily used for woodworking and industrial positioning.

KEY DESCRIPTION (Fig. 5.1)



Exit Key: Clears the display or exits the current mode



Parameter Changing Key: Changes the current display parameters



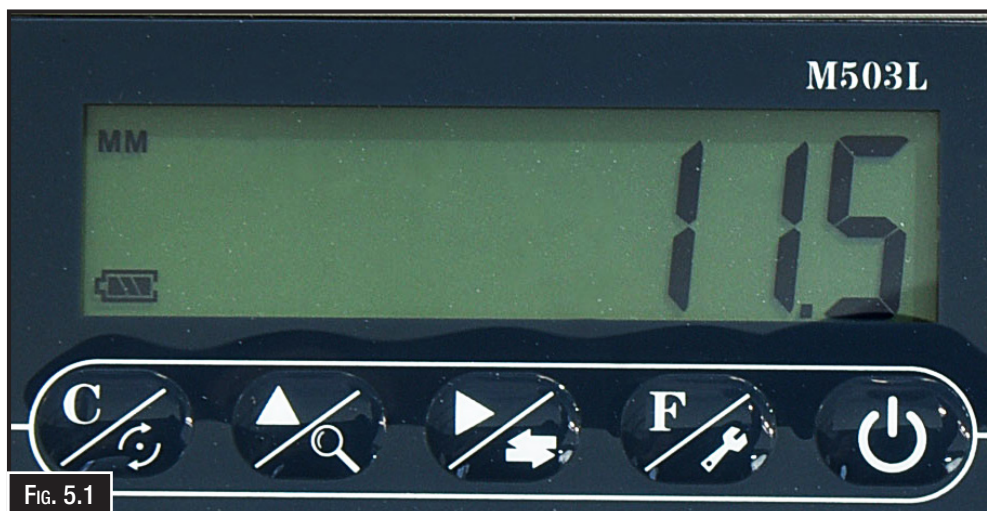
Menu/Parameter Switching Key: Switches between Menu's or parameters when they are selected.



Menu/Confirmation Key: Long press enters the menu, a short press is the parameter confirmation function



Back Light Key: Switches on the display back light.



NOTE: The Digital Display parameters were set before the machine left the factory and the only changes need maybe to **ZERO** the display or enter a value.



WARNING!

When operating a Sander it is important to wear appropriate safety gear to protect yourself from injury. Dust particles can cause lung damage.

5.5 SANDING TIPS

1. Multiple-piece sanding runs

When abrasive planing (or thickness sanding) a run of similar pieces that you want to have the same thickness, it is best to determine the thickness of the thinnest piece and process all pieces to that same thickness in one session. Be aware that the sander will remove cups and crowns in the work-piece; consider this when measuring and processing stock to the same thickness.

2. Simultaneous multiple pieces

When sanding multiple pieces simultaneously, make sure to stagger (step) the pieces across the width of the conveyor belt. This provides better contact with the tension rollers. Try to process only multiple pieces of similar thickness. If there is a significant thickness difference, the thinner pieces can slip on the conveyor belt if they do not contact the tension rollers. Also note that pieces thicker than 20mm should be longer than the minimum normally recommended to prevent tipping of the stock.

3. Edge sanding

When edge sanding, the sander will mimic the opposite edge of the stock which is lying on the conveyor 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 stock that is less than 20mm wide or more than 50mm high, it is good procedure to stack and clamp several pieces together to prevent them from slipping or tipping on the conveyor belt.

4. 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 extra roller stands, help from another person, or hand pressure on the stock, to minimize potentially hazardous situations.

6. MAINTENANCE

For best results, make cleaning the sander a regular shop procedure. Allowing excess build-up of dust and debris can adversely affect performance through loading of the abrasives, slippage on the conveyor table, and/or the accumulation of material inside the drums which can throw off the center of balance.

NOTE: Bearings are pre-sealed and require no lubrication.

- Brush the conveyor belt after the operation. If not cleaned, the conveyor belt could allow stock to slip during sanding operations.
- Lubricate the conveyor bushings as needed, and check for wear.
- Lubricate the elevating lead screw as needed. (A, Fig. 6.1)
- Clean any sawdust from the abrasive strip and brush dust from conveyor belt.
- Keep slide areas clean (B, Fig. 6.1).
- Blow dust from motors and switches.



FIG. 6.1

6. MAINTENANCE Cont.

- Blow dust from inside of sanding drum, which may cause vibration or offset the center of balance. (Leave your dust collector on when cleaning dust from the drums.)
- Check all set screws for tightness on parts such as bearings, conveyor table, and couplings.

6.1 CONVEYOR BELT TENSION/TRACKING

Conveyor belt tension adjustment may be necessary during the break-in period to compensate for belt stretching.

To Adjust Belt Tension:

1. Loosen the two screws on both sides of the conveyor. (A, Fig. 6.2)
2. Adjust take-up screw (B, Fig. 6.2) with 5mm hex wrench. Do this on both sides of conveyor to obtain approximately equal tension on both sides of conveyor belt when taut.

NOTE: *Insufficient belt tension will cause slippage of conveyor belt on drive roller during sanding operation. The conveyor belt is too loose if it can be stopped by hand pressure applied directly to top of moving conveyor belt.*

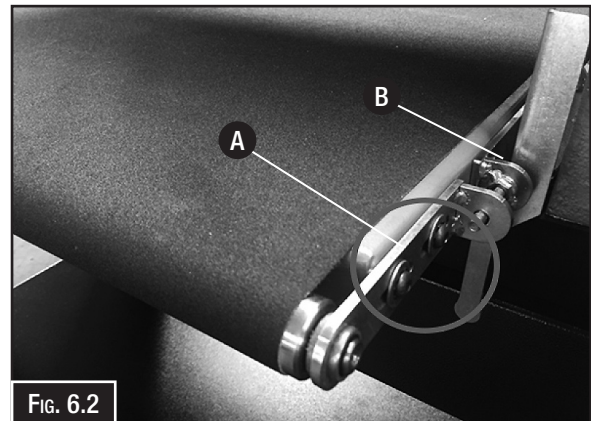


FIG. 6.2

Belt Tracking Adjustment

A belt tracks correctly when it moves centrally on the conveyor rollers without drifting to either side. Tracking adjustments are made while conveyor belt is running.

1. Make sure proper belt tension has been achieved.
2. Turn on conveyor and set to maximum speed. Watch for tendency of conveyor belt to drift to one side of the conveyor. If it drifts, tighten or loosen the take-up screw on either side

NOTE: *Adjust take-up screw only 1/4 turn at a time. Allow time for belt to react to adjustments before proceeding further. Avoid over-adjusting, as this may affect belt tension. If tension is affected, it may become necessary to use both take-up screws to accomplish tensioning and tracking.*

6.2 TENSION ROLLER ADJUSTMENT

The in-feed and out-feed rollers are tensioned to provide downward pressure on the work piece to prevent slippage on the feed conveyor. Tension rollers have been set by the manufacturer, but should be inspected and may require adjustment as the sander receives use.

NOTE: *Rollers set too high, could allow kickback of pieces being sanded.*

You can increase or decrease tension roller pressure by turning the screws on the tension roller brackets. Too much tension roller pressure can result in a “snipe” mark, on the end of the board. (Fig. 6.3)

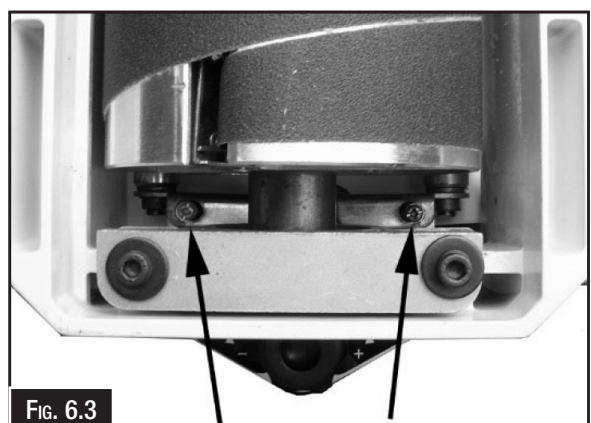


FIG. 6.3

6.3 TROUBLESHOOTING

Review the troubleshooting and procedures in this section if a problem develops with your machine. If you need replacement parts then follow the procedure in the beginning of the spare parts section or if additional help with a procedure is required, then contact your distributor.

Note: Make sure you have the model of the machine, serial number, and manufacture date before calling.

SYMPTOMS	POSSIBLE CAUSE	POSSIBLE SOLUTION
Drum motor won't start when switch is activated	1. No incoming current. 2. Low voltage. 3. Open circuit in motor or loose connection. 4. Switch malfunction.	1. Check connections at plug or circuit panel. . 2. Check power line for proper voltage. 3. Inspect all lead connections and motor for connections. 4. Replace switch.
Drum motor will not start: fuses blow or circuit breaker trips	1. Short circuit in line cord or plug 2. Short circuit in motor or loose connection 3. Incorrect fuse or circuit breaker in power line	1. Inspect cord or plug for damaged insulation and wires. 2. Inspect all connections on motor for loose or shorted terminals or worn insulation. 3. Install correct fuse or circuit breaker
Drum motor overheats	1. Air circulation through motor restricted. 2. Motor overloaded.	1. Clean motor fan with compressed air to restore normal air circulation. 2. Have controls inspected and repaired.
Drum motor stalls, resulting in blown fuse or tripped circuit.	1. Short circuit in motor or loose connections. 2. Low voltage. 3. Incorrect fuse or circuit breaker	1. Inspect connections on motor for loose or shorted terminals or worn insulation. 2. Correct low voltage conditions. 3. Install correct fuse or circuit breaker.
Loud, repetitive noise or vibration coming from the machine.	1. Fasteners loose. 2. Motor fan is hitting cover. 3. Machine not level.	1. Inspect fasteners and tighten where needed. 2. Tighten fan or shim fan cover. 3. Place sander on level floor; shim if needed.
Conveyor motor stalls.	1. Excessive depth of cut.	1. Reduce depth of cut; use coarser grit; reduce feed rate
Conveyor rollers run intermittently	1. Shaft coupling is loose.	1. Align the shaft flats of the gear motor and the drive roller and tighten the shaft-coupling setscrews.
Conveyor belt does not move.	1. Shaft coupler is loose or unattached	1. Adjust shaft coupler
Conveyor belt slips on drive roller.	1. Improper conveyor belt tension. 2. Excessive depth of cut and/or feed rate.	1. Adjust belt tension 2. Reduce depth of cut and/or feed rate.
Abrasive strip comes off the drum.	1. Slack in abrasive strip on drum. 2. Abrasive improperly wrapped.	1. Remove slack in strip. 2. Read the section on installing abrasives, and re-wrap.
Abrasive loads up prematurely.	1. Excessive depth of cut. 2. Excessive feed rate. 3. Inadequate dust collection. 4. Inadequate abrasive.	1. Reduce depth of cut. 2. Reduce feed rate. 3. Increase airflow at dust port. 4. Use an open-coat abrasive.
Line or groove in stock	1. Inconsistent feed rate.	1. Do not stop or change the feed rate while feeding stock.
Snipe marks.	1. Improper tension on rollers.	1. Re-tension rollers.
Sander burns wood.	1. Abrasive strip is overlapped. 2. Abrasive is loaded. 3. Depth of cut excessive for fine grit. 4. Feed rate too slow. 5. Abrasive is worn.	1. Re-wrap abrasive strip. 2. Clean abrasive. 3. Use coarser grit or reduce depth of cut. 4. Increase feed rate. 5. Replace abrasive.
Board slips on conveyor belt.	1. Tension rollers too high. 2. Extension tables too high. 3. Excessive feed rate. 4. Dirty or worn conveyor belt.	1. Lower tension rollers. 2. Adjust tables. 3. Reduce feed rate. 4. Replace conveyor belt.
Ripples on work piece A. Non-uniformly ripples. B. Uniformly ripples.	A. Uneven feed rate. B. Conveyor table flexing or vibration.	A. Conveyor belt slipping (see above) Board slips on conveyor belt (see above). Conveyor motor stalls (see above). B. Reduce depth of cut and/or feed rate. Check for loose bolts, loose shaft coupling set screws, or out-of-balance drum.
Wood is gouged	1. Stock slipping on conveyor. 2. Work piece not properly supported.	1. Correct depth of cut or roller tension. 2. Add work supports for long work pieces.

OPEN END DRUM SANDER

OEDS-1632

Order Code: (L126)

The following section covers the spare parts diagrams and lists that were current at the time this manual was originally printed. Due to continuous improvements of the machine, changes may be made at anytime without notification.

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.
2. A scanned copy of your parts list/diagram with required spare part/s identified.

NOTE: SOME PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY

3. Go to www.machineryhouse.com.au/contactus and fill out the inquiry form attaching a copy of scanned parts list.



WARNING!

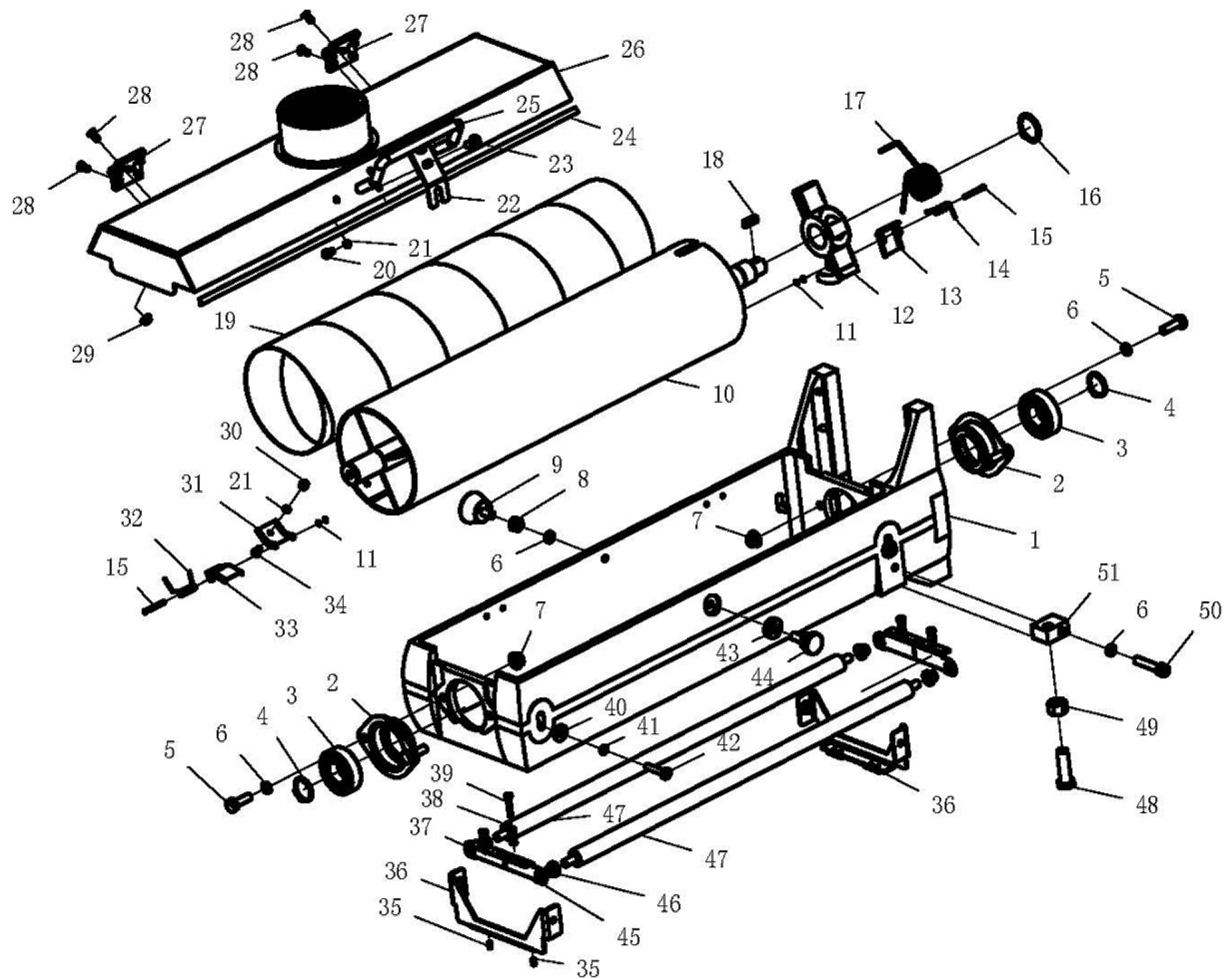
*Electricity is dangerous and could cause death.
All electrical work must be carried out by a qualified electrician.*



CAUTION!

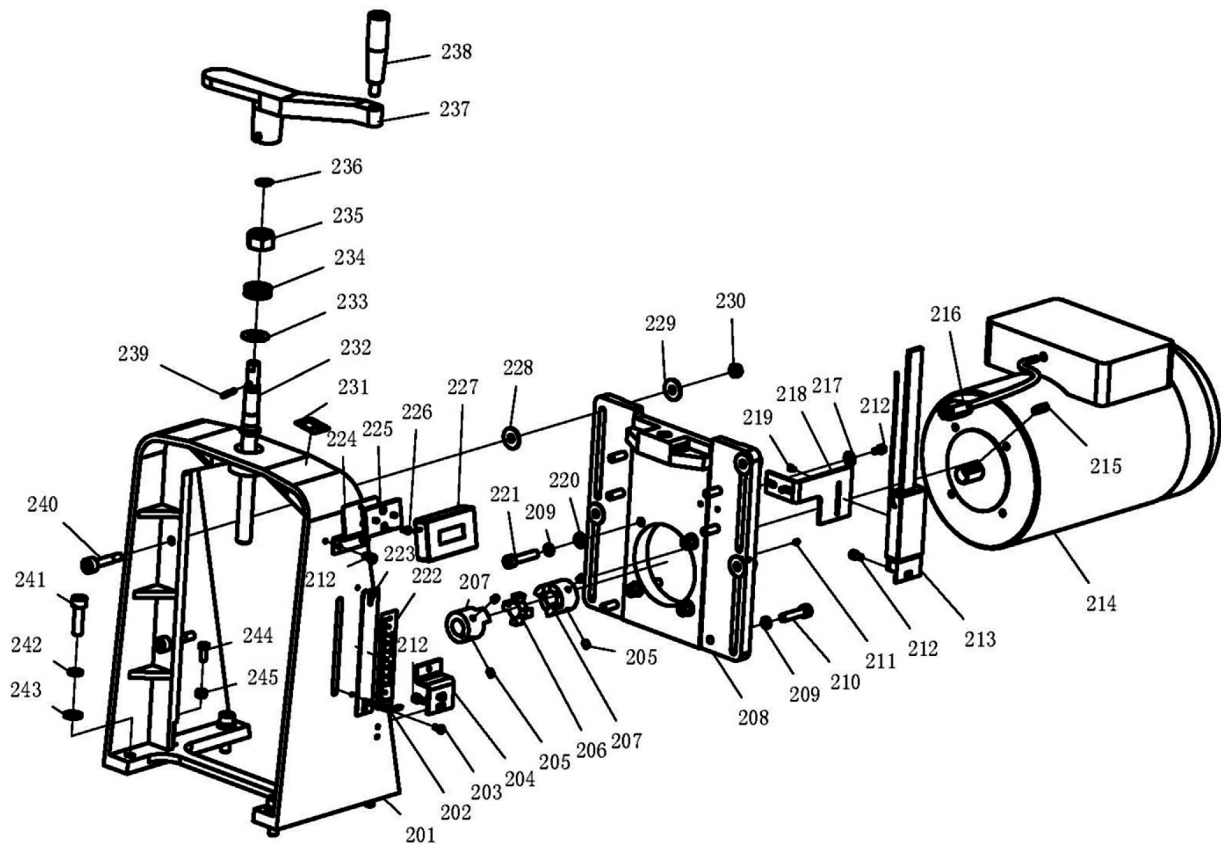
It is impossible to cover all possible hazards Every workshop environment is different. These are designed as a guide to be used to compliment training and as a reminder to users prior to equipment use. Always consider safety first, as it applies to the individual working conditions.

Head Assembly - Exploded View



ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY
1	MACHINE HEAD	1	27	HINGE	2
2	BEARING CAP	2	28	FLAT HEAD SCREW M5*12	8
3	BEARING 6205	2	29	FLANGE NUT M5	4
4	EXT RET RING 25	2	30	HEX NUT M5	1
5	HEX BOLT M8*25	4	31	FIXED CLAMP BRACKET	1
6	LOCK WASHER 8	6	32	COMPACT SPRING	1
7	FLANGE NUT M8	4	33	FIXED CLAMP PLATE	1
8	HEX NUT M8	1	34	FLAT HEAD SCREW M5*10	1
9	RUBBER FOOT	1	35	SET SCREW M4*8	4
10	DRUM	1	36	BRACKET	2
11	LOCKING CLAMP 2.4	4	37	RIGHT CLAMP	2
12	TWO-STEP CLAMP	1	38	SPRING	4
13	TWO-STEP CLAMP PLATE	1	39	PHI HEAD SCREW M4*25	4
14	TIGHTENING TORSION SPRING	1	40	FLAT WASHER 6*25*2	4
15	SHAFT	2	41	LOCK WASHER 6	4
16	EXT RET RING 28	1	42	BUTTON HEAD SCREW M6*30	4
17	TENSION SPRING	1	43	COMPACT WASHER	1
18	KEY A6*20	1	44	LOCK KNOB M8	1
19	SANDING BELT P120	1	45	LEFT CLAMP	2
20	CAP SCREW M5*10	2	46	SHAFT SLEEVE	4
21	LOCK WASHER 5	3	47	COMPRESSION SHAFT	2
22	LOCKING PLATE	1	48	STOP BOLT M12*40	1
23	BUTTON HEAD SCREW M6*16	2	49	HEX NUT M12	1
24	RUBBER STRIP	1	50	CAP SCREW M8*40	1
25	DRUMS COVER HANDLE	1	51	BLOCK MEASURING DEVICE	1
26	DRUMS COVE	1			

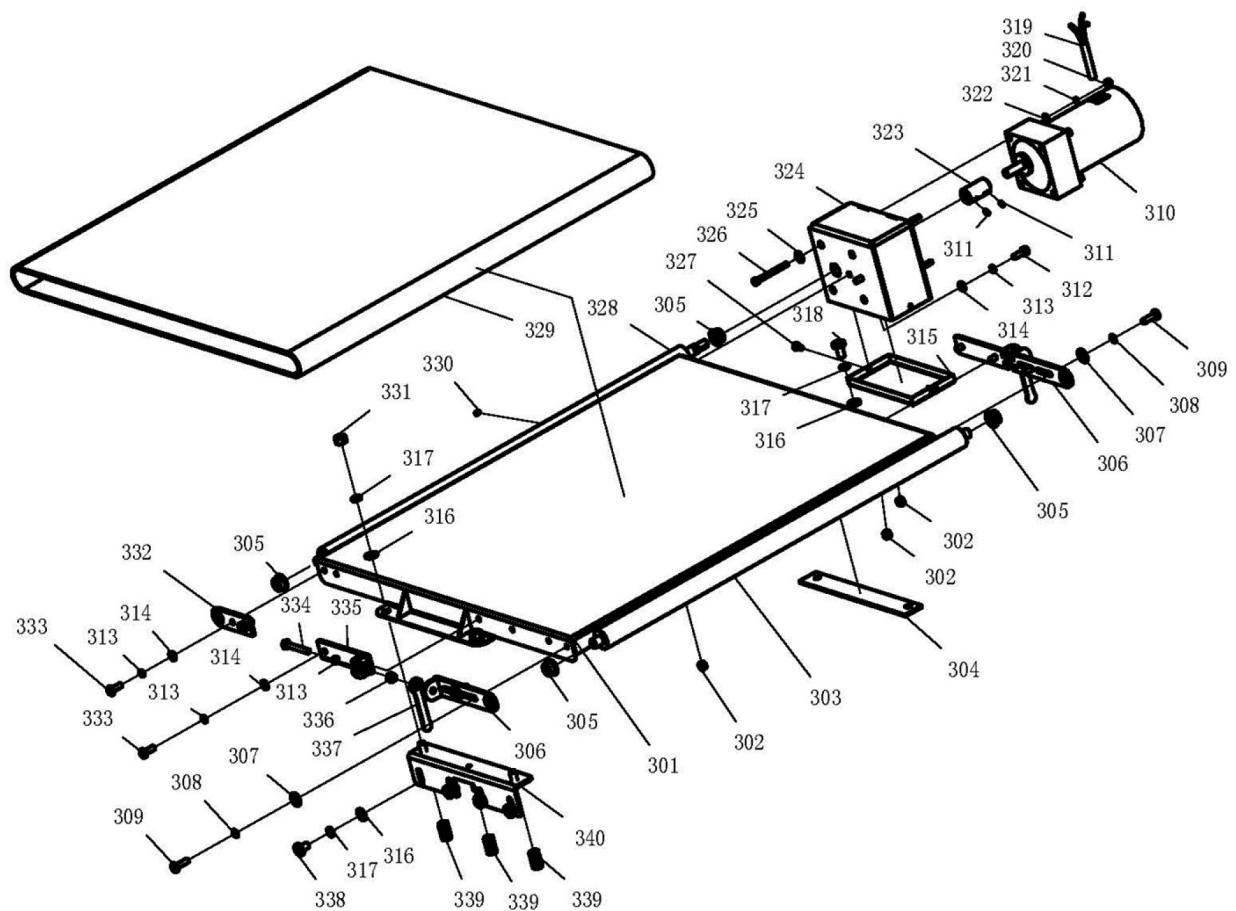
Side Wall and Motor Assembly - Exploded View



ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY
201	SIDE WALL	1	224	DISPLAY SCREEN SET PLATE	1
202	INDICATOR	1	225	DISPLAY SCREEN BACKING PLATE	1
203	PHI HEAD SCREW M4*10	2	226	PHI HEAD SCREW M4*8	2
204	DIGITAL SCALE BACKING PLATE	1	227	DISPLAY SCREEN	1
205	SET SCREW M6*8	4	228	COPPER WASHER 8*24*1.5	4
206	COUPLING SPIDER	1	229	ENLARGE WASHER M8	4
207	COUPLING	2	230	LOCK NUT M8	4
208	MOTOR PLATE	1	231	HEIGHT DIRECTION LABEL	1
209	LOCK WASHER M8	10	232	LED SCREW	1
210	CAP SCREW M8*35	6	233	SADDLE WASHER M16	1
211	SET SCREW M4*6	1	234	BEARING 51103	1
212	CAP SCREW M5*10	7	235	LOCK NUT M16	1
213	DIGITAL SCALE	1	236	EXT RETAINING RING M15	1
214	MOTOR	1	237	CRANK HANDLE	1
215	KEY C6*20	1	238	HANDLE	1
216	MOTOR CORD	1	239	TENSION PIN M4*24	1
217	ENLARGE WASHER 5	2	240	LOCATION CAP SCREW M8*45	4
218	DIGITAL SCALE SET PLATE	1	241	CAP SCREW M10*35	4
219	PHI HEAD SCREW M3*6	2	242	LOCK WASHER M10	4
220	FLAT WASHER 8	4	243	FLAT WASHER M10	4
221	CAP SCREW M8*40	4	244	HEX BOLT M6*16	1
222	GRADUATED SCALE	1	245	HEX NUT M6	1
223	SCALE PLATE	1			

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

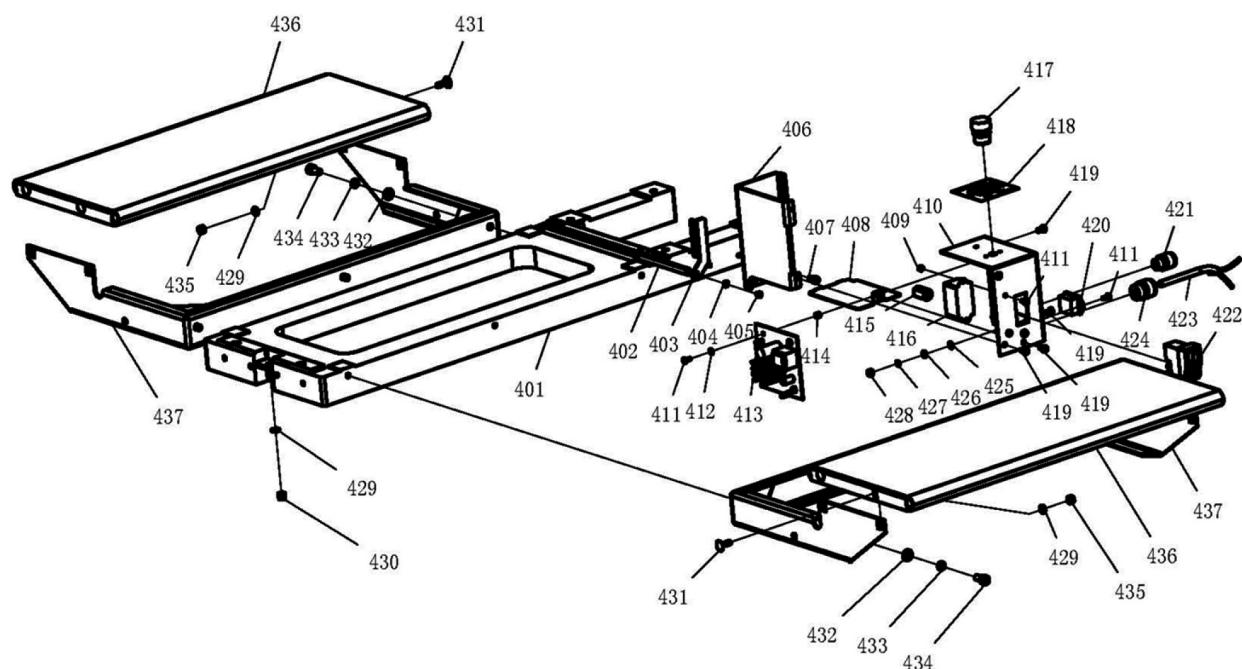
Table Assembly - Exploded View



ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY
301	CONVEYOR TABLE	1	321	LOCK WASHER M5	4
302	LOCK NUT M6	4	322	FLAT WASHER M5	4
303	FRONT CONVEYOR ROLLER	1	323	SHAFT JOINT	1
304	PLATE	1	324	ELECTRIC CONTROL BOX	1
305	BUSHING OILITE	4	325	ENLARGE WASHER M5	4
306	MICRO-ADJUST MOUNTING BRACKET	2	326	CAP SCREW M5*65	4
307	ENLARGE WASHER M6	4	327	HEX BOLT M5*10	2
308	SERRATED SPACER M6	4	328	CONVEYOR DRIVE ROLLER	1
309	BUTTON HEAD SCREW M6*20	4	329	CONVEYOR BELT	1
310	SPEED REDUCTION MOTOR	1	330	SET SCREW M5*6	2
311	SET SCREW M4*8	4	331	HEX NUT M5	2
312	CAP SCREW M6*16	2	332	POSITIONING PLATE	1
313	LOCK WASHER M6	10	333	BUTTON HEAD SCREW M6*16	6
314	FLAT WASHER M6	8	334	HEX BOLT M6*45	2
315	BOTTOM COVER	1	335	MOUNTING BRACKET	2
316	FLAT WASHER M8	8	336	HEX NUT M6	2
317	LOCK WASHER M8	8	337	WRENCH	2
318	BUTTON HEAD SCREW M8*16	2	338	BUTTON HEAD SCREW M8*12	4
319	SPEED MOTOR CORD	1	339	SPRING	3
320	HEX NUT M5	4	340	HEIGHT ADJUSTING PLATE	1

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

Base Assembly - Exploded View



ITEM	DESCRIPTION	QTY	ITEM	DESCRIPTION	QTY
401	BASE	1	420	SOCKET	1
402	ADJUSTING ROD	1	421	PLASTIC COATED METAL HOSE JOINT 8	1
403	ADJUSTING HANDLE	1	422	SWITCH ON/OFF	1
404	FLAT WASHER4	1	423	POWER CORD	1
405	PHI HEAD SCREW M4*6	1	424	STRAIN RELIEF M20*1.5	1
406	BRACKET BASE-CONTROLLER	1	425	SEATED SPACER M5	3
407	CAP SCREW M6*12	2	426	FLAT WASHER M5	3
408	COVER BASE-CONTROL HOUSING	1	427	LOCK WASHER M5	3
409	HEX NUT M4	2	428	HEX NUT M5	3
410	CONTROL HOUSING BRACKET	1	429	FLAT WASHER M6	9
411	PHI HEAD SCREW M4*10	8	430	LOCK NUT M6	1
412	FLAT WASHER M4(ABS)	4	431	CARRIAGE BOLT M6*20	8
413	PC BOARD	1	432	FLAT WASHER M8	6
414	SPACER WASHER	4	433	LOCK WASHER M8	6
415	SHIELDED MAGNETIC RING	1	434	CAP SCREW M8*16	6
416	NOTCH FILTERS	1	435	HEX NUT M6	8
417	REGULATOR KNOB	1	436	TABLE EXTENSION WING	2
418	SPEED LABEL	1	437	BASE BRACKET	2
419	PHILLIPS HEAD SCREW MS*10	8			

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



ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

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