

# **HAFCO**

# **WOODMASTER**



Edition : 1.0  
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## **Instruction Manual**

# **THICKNESSER**

## **T-330H**

Order Code: (W820)

## MACHINE DETAILS

MACHINE.

THICKNESSER

MODEL NO.

T-330H

SERIAL NO.

DATE OF MANF.

Imported by

AUSTRALIA



[www.machineryhouse.com.au](http://www.machineryhouse.com.au)

NEW ZEALAND



[www.machineryhouse.co.nz](http://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 METALMASTER 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*

Fig.1

### 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)*

| <b>PRODUCT SPECIFICATIONS</b>                                                           |                                                                                         |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Model: T-330H                                                                           | Voltage: 240V/50Hz                                                                      |
| Capacity: 330 X 152mm                                                                   | Motor: 1.5kW                                                                            |
| Nett Weight: 190kg                                                                      | FLC: 7.2A                                                                               |
| MFG Date:                                                                               |                                                                                         |
| SERIAL No: <input type="text"/>                                                         |                                                                                         |
| Imported by<br><a href="http://www.machineryhouse.com.au">www.machineryhouse.com.au</a> | Made in China<br><a href="http://www.machineryhouse.co.nz">www.machineryhouse.co.nz</a> |

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## 1.1 SPECIFICATIONS

|                                             |               |
|---------------------------------------------|---------------|
| Order Code                                  | W820          |
| <b>Model</b>                                | <b>T-330H</b> |
| Width Capacity (mm)                         | 330           |
| Height Capacity (mm)                        | 152           |
| Minimum Length (mm)                         | 152           |
| Feed Rate (Metres / Minute)                 | 6             |
| Maximum Thickness Pass (Width > 152mm) (mm) | 0.8           |
| Maximum Thickness Pass (Width < 152mm) (mm) | 2.8           |
| Number of Spirals                           | 2             |
| Number of Inserts                           | 30            |
| Motor Power (KW)                            | 1.5           |
| Voltage (V)                                 | 240           |
| Amps (A)                                    | 10            |
| Motor Protection                            | Yes           |
| Footprint (LxW) (mm)                        | 572 x 430     |
| Weight (kg)                                 | 31.2          |

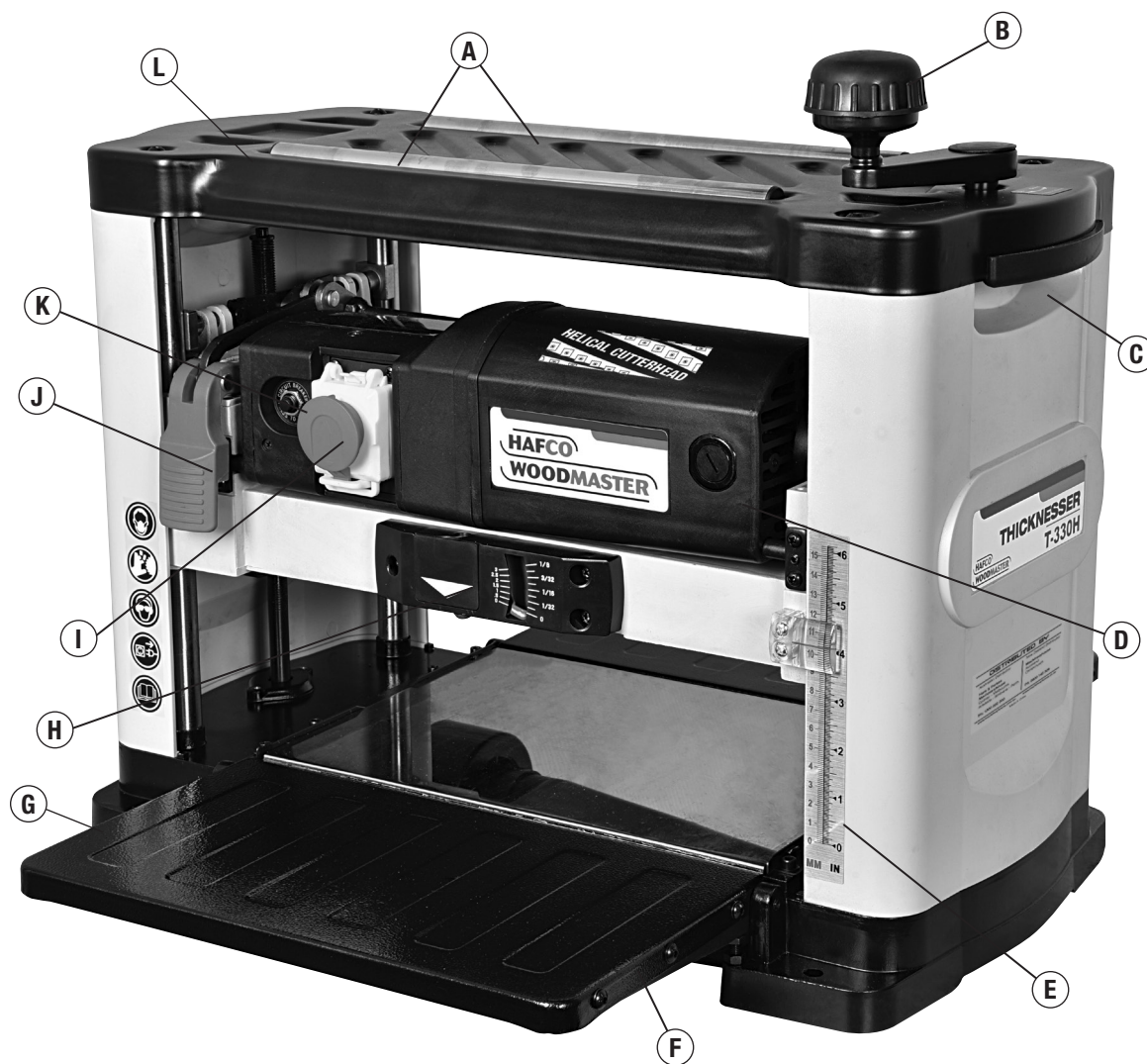
## 1.2 PACKING LIST

|                                             |    |
|---------------------------------------------|----|
| 1. Thickness planer                         | x1 |
| 2. Dust chute                               | x1 |
| 3. Socket head screw M6X16 with flat washer | x2 |
| 4. Magnet                                   | x1 |
| 5. Hex wrench                               | x2 |
| 6. Adapter                                  | x1 |
| 7. Crank handle                             | x1 |
| 8. Socket head screw M5X25 with flat washer | x1 |
| 9. Torx wrench                              | x2 |



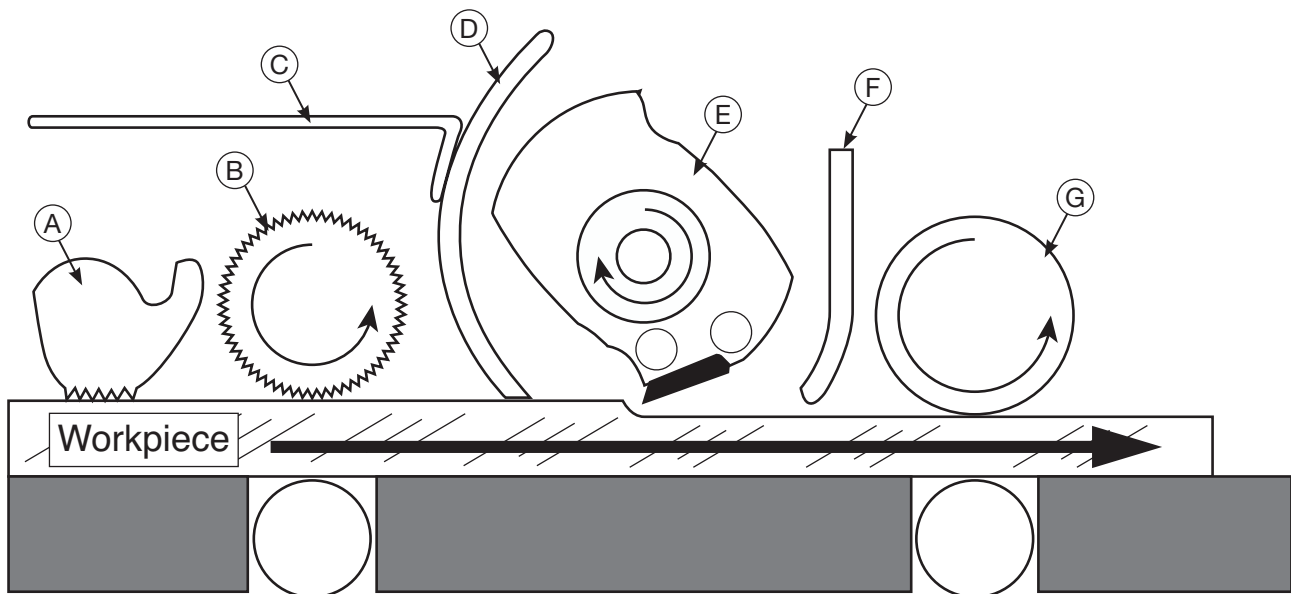
### 1.3 IDENTIFICATION

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.



|          |                                    |          |                                   |
|----------|------------------------------------|----------|-----------------------------------|
| <b>A</b> | Return Rollers                     | <b>G</b> | Table Extension Wing.             |
| <b>B</b> | Cutter Head Elevation Crank Handle | <b>H</b> | Depth Of Cut Gauge                |
| <b>C</b> | Lifting Handles                    | <b>I</b> | ON/OFF and Emergency Stop Buttons |
| <b>D</b> | Motor Brush Housing                | <b>J</b> | Head Lock                         |
| <b>E</b> | Cutter Head Elevation Scale        | <b>K</b> | Circuit Breaker Reset             |
| <b>F</b> | Table                              | <b>L</b> | Machine Body                      |

## 1.4 IDENTIFICATION DRIVE ROLLERS AND CUTTER HEAD



- A. Anti-Kickback Fingers: Provide additional safety for the operator.
- B. Serrated In-feed Roller: Pulls the work piece toward the cutter head.
- C. Chip Breaker: Breaks off chips created by the cutter head to prevent tear out and diverts the chips to the dust port.
- D. Chip Deflector: Directs chips into the dust hood.
- E. Helical Cutter head: Holds the cutter inserts that remove material from the workpiece.
- F. Pressure Bar: Stabilizes the workpiece as it leaves the cutter head and assists in deflecting wood particles toward the dust hood.
- G. Out-feed Roller: Pulls the work piece through the thicknesser.



### **WARNING!**

*Always check the capacity of the machine. Exceeding the capacity of the machine may result in sudden breakage that ejects dangerous metal debris at the operator or bystanders.*



### **WARNING!**

*Keep hands and fingers away from the cutter area. Stop the cutter and disconnect the machine from the power before placing hands in the cutting area.. Moving blade cutter hazard may cause serious injury.*



## 2. IMPORTANT INFORMATION

### 2.1 GENERAL WOODWORKING MACHINE SAFETY

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.



## WARNING

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.

**WEARING PROPER APPAREL.** Do not wear clothing apparel or jewellery that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to avoid accidental slips, which could cause loss of operating control.

**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.

**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.



## 2.2 SPECIFIC SAFETY FOR THICKNESSERS.

**DO NOT** use this machine unless the operator has 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.*



*Appropriate protective footwear with substantial uppers must be worn.*



*Close fitting, protective clothing or a workshop apron is encouraged.*



*Rings and jewellery must not be worn.*



*Hearing protection will be required when operating this machinery.*

### PRE-OPERATIONAL SAFETY CHECKS

1. Check workspaces and walkways to ensure that no slip/trip hazards are present.
2. Check material to be planed for defects, splits, dead knots, or nails.
3. Ensure in-feed table is clear of debris and free from gum or resin residue.
4. Locate and ensure you are familiar with the operation of the ON/OFF starter and E-Stop.
5. Do not exceed maximum 2mm depth of cut.
6. Ensure all locks are securely tightened before operating the machine.
7. Start the dust extraction unit before using the machine.
8. Faulty equipment must not be used. Immediately report suspect machinery.

### OPERATIONAL SAFETY CHECKS

1. Never leave the machine running unattended.
2. Timber less than 300 mm in length must not be planed on this machine.
3. Feed timber to machine with the grain.
4. Feed only one piece of timber at a time.
5. Never look through machine feed opening when cutter block is revolving.
6. Never plane any timber with embedded nails, etc.
7. Stand to one side of material being fed through machine in case of kickback.
8. Before making adjustments or before clearing the in-feed or out-feed tables switch off and bring the machine to a complete standstill.

### HOUSEKEEPING

1. Switch off the machine.
2. Leave the machine in a safe, clean and tidy state.

### POTENTIAL HAZARDS

- Rotating and moving parts – timber may be flung back violently
- Eye injuries
- Pinch and squash injuries
- Flying chips and debris
- Excessive noise

## 2.2 SPECIFIC SAFETY FOR THICKNESSERS Cont.

### IN-FEED AND OUT-FEED EXTENSION WINGS

This machine is designed to feed material into and away from the spinning cutterhead, and doing so clamps the material firmly to the table. To avoid serious personal injury, always keep hands, clothing, jewellery, and long hair away from the in-feed and out-feed tables during operation.

### DISCONNECT BEFORE ADJUSTMENTS.

To avoid unexpected start-up and serious personal injury, always disconnect the thicknesser from the power before performing adjustments, maintenance or service.

### PINCH POINTS

Beware of pinch points that can cause serious damage to fingers and hands especially if using a support roller stand on the out feed. (Fig.2.1) It is best practice to wait for the workpiece to stop feeding before removing.



FIG. 2.1



### **CAUTION !**

*A prepared list of safety guidelines can never be complete. Every workshop environment is different. Always consider Safety first, as it applies to your individual working conditions. Use this machine and other machinery with caution and respect. Failure to do so could result in serious Personal injury, damage to the equipment, or poor work results.*

### 3. POWER SUPPLY

#### 3.1 ELECTRICAL INSTALLATION

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 240V.

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..... | 10 Amps      |
| Full Load Current.....    | 7.2 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 workpiece 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 there is assistance available to unload the machine from the vehicle. Ensure access to the chosen site is clear to receive the machine.



#### **CAUTION!**

*This machine may not seem to be that heavy but damage to the back or legs can occur if lifting practices are not followed. When lifting bend the knees and keep the back straight.*

## 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.

### MOUNTING THE MACHINE

The thicknesser is equipped with four mounting holes located on the corners of its base (see Fig. 4.2). These holes allow the machine to be securely bolted to a workbench or stand. (see Fig. 4.22)

**Note:** Mounting fasteners are not supplied.

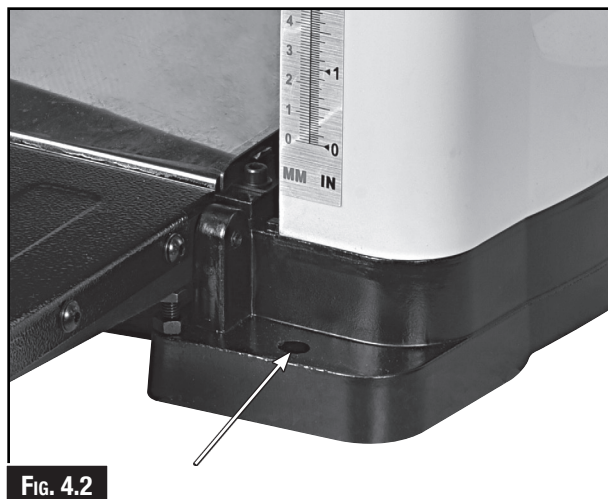


FIG. 4.2

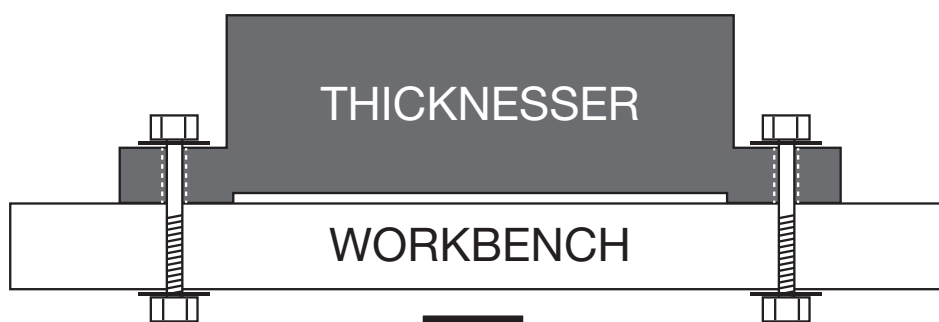


FIG. 4.22

### ATTACHING THE HAND WHEEL

Attach the depth adjustment handle (A) to the shaft (B) and fasten in place with the Hex Socket Head screw. Tighten screw using hex wrench, then lastly insert the rubber cap. (Fig. 4.3)

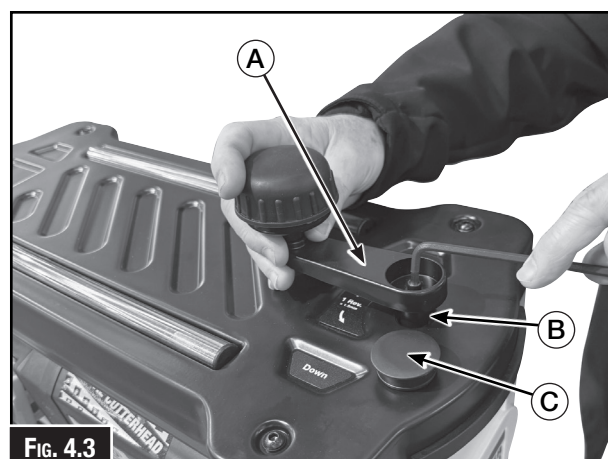


FIG. 4.3

## ATTACHING THE DUST HOOD

The Dust Port is used to direct the waste away from the machine, and is most commonly used when the thicknesser is connected to a dust collector. It has a 4" port to accommodate most dust collection systems.

### To install:

1. Install the dust port on the rear of the thicknesser. Attach the dust hood on the back of the machine using the 4 socket head cap screws supplied with the machine. (Fig. 4.4)

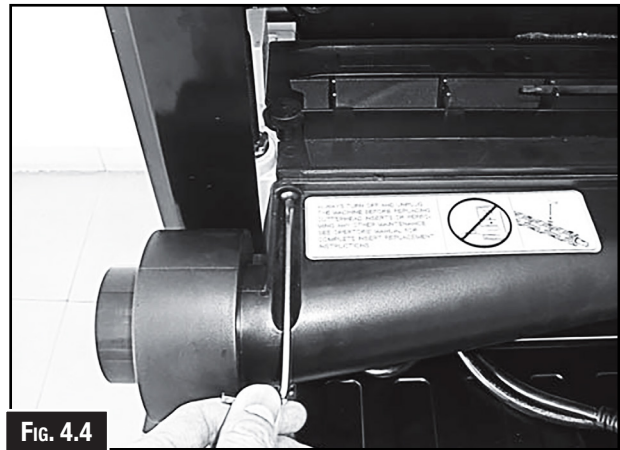


FIG. 4.4

## 4.6 TEST RUN

Once assembly is complete, test run the machine to ensure it is properly connected to the power and safety components are functioning correctly. If you find an unusual problem during the test run, immediately stop the machine, disconnect it from power, and fix the problem BEFORE operating the machine again. The Troubleshooting table in the Maintenance section of this manual may be able to help. If the problem persists then contact your dealers service technician.

### To test run the machine:

1. Connect the machine to the power supply.
2. Make sure that the manual has been read and that the safety instructions at the beginning of the manual are understood. Make sure the machine has been setup correctly
3. Make sure all tools and objects used during set up have been cleared away from the machine.
4. Turn the machine ON.
5. Make sure that the motor is travelling in the correct direction.
6. Listen to and watch for abnormal noises or actions. The machine should run smoothly with little or no vibration or rubbing noises.
7. Any strange or unusual noises should be investigated and corrected before operating the machine again. Always disconnect the machine from power supply when investigating or correcting potential problems. The troubleshooting chart in the maintenance section may be helpful in rectifying a problem.

## Testing The Emergency Stop Button

Make sure that the emergency button is working correctly

1. Start the machine and then press the emergency stop button. The machine should stop and the power should be cut off. If the machine cannot be started then the emergency stop is working correctly.
2. To reset the Emergency Stop release the catch so that the top opens and the start and stop button are exposed.
3. Press the start button and the machine should now work again.





## 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!

If you are an inexperienced operator, we strongly recommend that you read books, trade articles, or seek training from an experienced operator before performing any unfamiliar operations.

**Above all, your safety should come first!**

### 5.1 OPERATION OVERVIEW

The purpose of this overview is to provide the novice machine operator with a basic understanding of how the machine works during operation, so the machine controls and components discussed later in this manual may be easy to understand.

Due to the generic nature of this overview, it is not intended to be an instructional guide. To learn more about specific operations, read this entire manual, seek additional training from experienced machine operators, and do additional research outside of this manual by reading “how-to” books, trade magazines, or websites.

In a typical operation, the operator does the following:

1. Examine the workpiece to make sure it is suitable for planing.
2. Put on safety glasses or face shield, a respirator and hearing protection.
3. Place the workpiece on the table with the flat side down and correctly adjust the table height for the workpiece thickness and depth of cut.

If workpiece is bowed, plane the surface of the workpiece on a jointer until one side is flat. Doing so ensures that it sits flat on the planer table during operation.

4. When all safety precautions have been taken, turn ON the planer.
5. Stand to one side of planer path to reduce risk of kickback injuries, then feed the workpiece into the planer until the in-feed roller grabs it.

### 5.2 INSPECTING THE WORK PIECE

Some materials are not safe to use or may require modification before they are safe to use. Before cutting, inspect all workpieces for the following:

- **Material Type:** This machine is only intended for work pieces of natural wood fiber. Attempting to use work pieces of any other material that could break apart during operation could lead to serious personal injury and property damage.
- **Foreign Objects:** Inspect lumber for defects and foreign objects (nails, staples, embedded gravel, etc.). If you have any doubts about the quality of the timber, DO NOT use it. Remember, wood stacked on a concrete floor can have small pieces of stone or concrete pressed into the surface.
- **Large/Loose Knots:** Loose knots can become dislodged during operation. Large knots can cause kickback and machine damage. Always use workpieces that do not have large/loose knots.
- **Wet or “Green” Stock:** Avoid using wood with a high water content. Wood with more than 20% moisture content or wood exposed to excessive moisture (such as rain or snow), will cut poorly and cause excessive wear to the machine. Excess moisture can also hasten rust and corrosion of the machine and/or individual components.

### 5.3 BASIC CONTROLS

The ON/OFF safety switch is located on the front of the machine for quick, easy and safe access. The switch is fitted with a yellow door with a RED button in the centre of it.

To start the machine the yellow door needs to be released by pressing against the catch (Fig. 5.1) to open it and reveal the GREEN ON and RED OFF buttons.

Push the bottom green button (A) to turn the machine ON. Push the top red button (B) to turn the machine OFF. (Fig. 5.2)

In an emergency the red button on the yellow door can be pressed and held with the catch and the machine will stop. With the door closed the machine cannot be started until the catch is released and the buttons exposed.

**CAUTION:** *Never walk away from the machine while it is still running. Always lock the switch in the OFF position and unplug from the power supply when not in use.*

**Overload Reset Button:** This machine has a motor thermal overload protection switch, which will trip if the motor becomes too hot. To reset the switch, move the ON/OFF switch to OFF, wait a few minutes to allow the motor to cool, then press the reset button. (Fig. 5.3)

**Height Adjustment Handle:** The thicknesser depth of cut is controlled by using the elevation crank on top of the machine. Rotating the crank clockwise raises the cutter head. (Fig. 5.4)

**Depth of Cut Scale:** The Depth Of Cut Scale, located on the front of the machine, is a convenient way to quickly determine how much material is being planed off in one pass. (Fig. 5.5)

1. With the machine OFF, insert your workpiece just under the depth of cut scale
2. Crank the raising / lowering handle until the button (B) comes in contact with the workpiece.
3. As you rotate the raising / lowering handle, the needle on the depth of cut scale will move showing you how much material will be removed in that pass under the depth of cut scale.

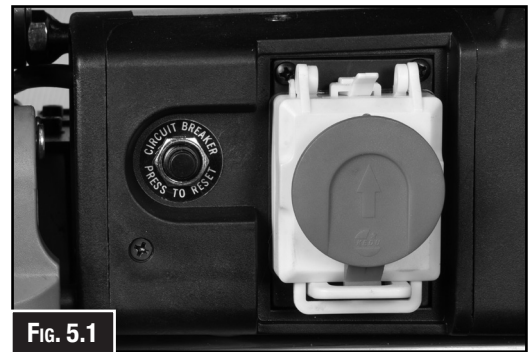


Fig. 5.1

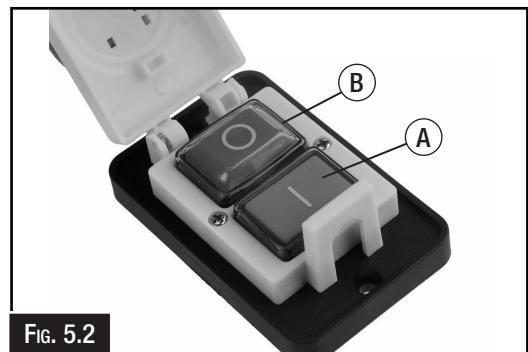


Fig. 5.2



Fig. 5.3



Fig. 5.4

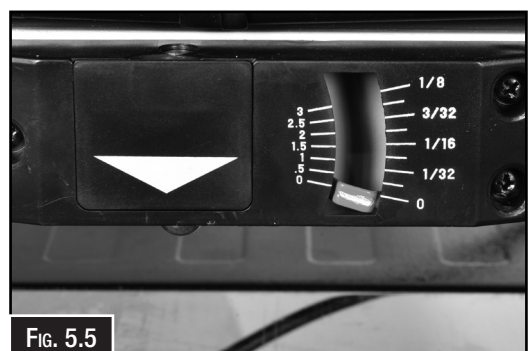


Fig. 5.5

**Thickness Scale:** The Depth of cut can also be read directly from the inch/millimeter scale on the front of the thicknesser, as shown. (Fig. 5.6)

Although the correct depth of cut varies according to wood hardness and workpiece width, we recommend a maximum depth of cut at full width, of no more than 1.5mm. A series of light cuts will give a better end result and put less stress on the motor than trying to take off too much material in a single pass.

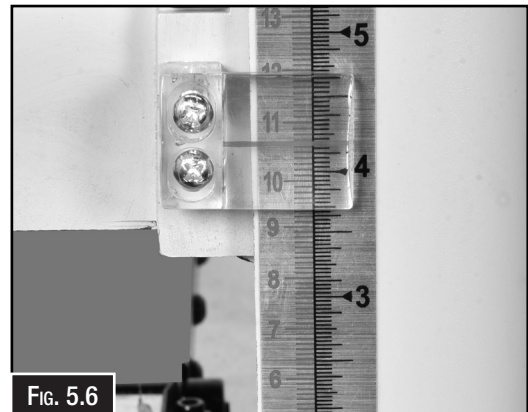


Fig. 5.6

**Head Clamp:** Once the depth of cut has been set the head needs to be clamped in that position to stop an irregular thickness finish due to the head moving during the operation. (Fig. 5.7)



Fig. 5.7

## 5.4 OPERATING TIPS

- ☐ Wherever possible use the full width of the thicknesser cutters. If the width is smaller than the width of the cutters, alternate the cutting path between the left, the right and the middle of the table to evenly distribute the wear across the cutters.
- ☐ Scrape all glue off joined boards before putting the timber through the thicknesser
- ☐ ONLY machine natural wood. Do not machine wood composites or any other man-made material.
- ☐ Machine the workpiece with the grain. NEVER feed end-cut or end-grained lumber into your machine.
- ☐ Keep the work area clear.
- ☐ Always true-up any cupped or warped stock on a jointer or band saw before placing it through the thicknesser.
- ☐ When making multiple passes through the thicknesser with long stock, use the stock return rollers on top of the machine to move the material back to the in-feed side.
- ☐ When possible, machine both faces of the workpiece so that they will be parallel with one another



### **WARNING!**

***Always check the capacity of the machine. Exceeding the capacity of the machine may result in sudden breakage that ejects dangerous metal debris at the operator or bystanders.***

### AVOIDING SNIPE

Snipe, gouging or depression of the board at the ends, can occur when the board is not properly supported. (Fig. 5.8)

For workpieces longer than 1200mm, greater care must be taken to reduce the problem because the additional length of the workpiece translates into more unsupported weight pulling down on the end of the board. This unsupported weight will work against keeping the stock flat. Make sure to use supports or stands whenever long pieces are being planed to avoid this problem.

Since snipe occurs at the end of the boards, it is good practice to start with a workpiece that is slightly longer than what you need so that you can simply cut off the end with the problem.

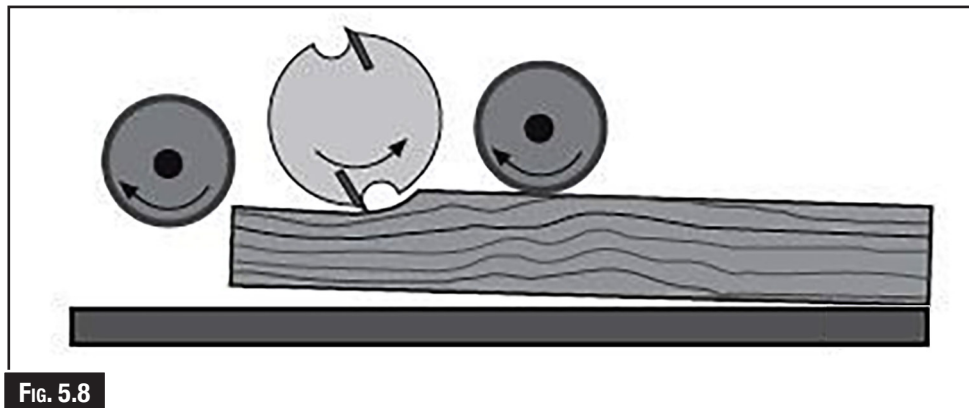


Fig. 5.8

### CHIP MARKS OR INDENTATIONS

#### Reason:

Chip indentation or chip bruising is the result of wood chips not being removed from around the cutter head. Instead, they are deposited on the planed surface and crushed into the workpiece by the out-feed roller. This condition can be caused by a number of reasons, some of which are:

- The type of lumber being planed. Certain species have a tendency to chip bruise.
- A high moisture content (20% or higher) and/or surface moisture. Typically found in air-dried lumber where the surface is dry but the interior of the stock needs more time to season.
- Dull knives or inserts
- Depth of cut too much.

#### Solution:

- Lumber must be completely dry, preferably kiln-dried (KD). Air-dried (AD) lumber must be seasoned properly and have no surface moisture. DO NOT plane partially air-dried (PAD) lumber.
- Make sure the planer knives or inserts are sharp.
- Reduce the depth of cut and make more passes.



## 6. MAINTENANCE

### 6.1 LUBRICATION

The Thicknesser should provide you with a long time of service provided the following maintenance operations are performed.

1. A quality paste wax should be applied to the table surface to ease the movement of the work piece across it. Be sure to buff off all excess wax so that it does not get absorbed into the wood when planing.
2. Having clean feed rollers is essential for optimal results. After disconnecting the machine from the power supply, check the feed rollers after each use for buildup of pitch, gum, or resin and be sure to clean off with a non flammable tar and pitch remover.
3. Any moving parts should be cleaned regularly with a penetrating oil and lubricated with a light coating of medium weight machine oil.

#### DRIVE SYSTEM LUBRICATION

The drive system in the gear box should be lubricated periodically.

To lubricate the gears & chain:

1. DISCONNECT MACHINE FROM THE POWER SUPPLY
2. Remove the height adjustment handle by removing the rubber cap (A) & screw (B). (Fig. 5.9)
3. Remove the top cover of the thicknesser by removing the 4 hex cap screws (C) located on the top of the machine. (Fig. 6.0)
4. Remove the left side panel to expose the gear box cover (D). (Fig. 6.1)
5. Place a light coat of multi purpose grease on the teeth of the gears (E) and a light coat of spray lubricant on the chain (F). Do not over-lubricate. (Fig. 6.2)
7. Replace all covers and guards that were removed once the lubrication is complete.

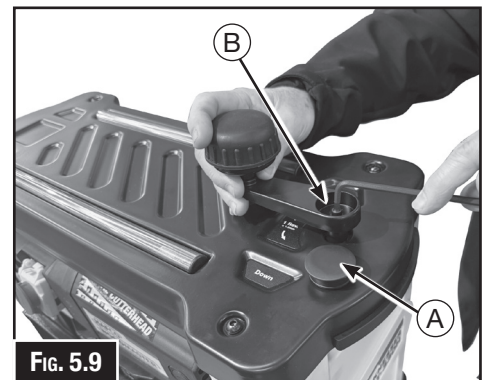


FIG. 5.9

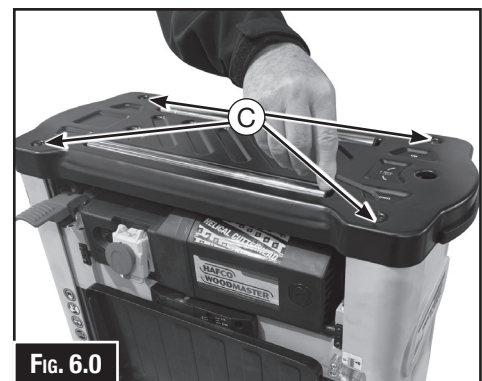


FIG. 6.0

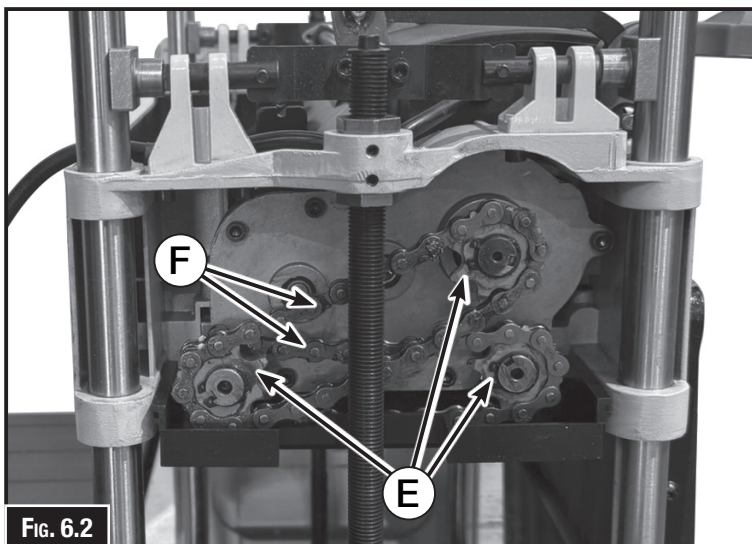


FIG. 6.2

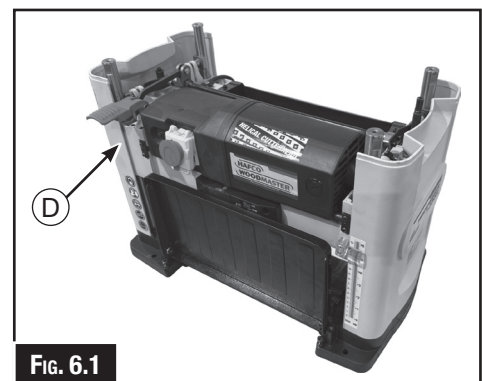


FIG. 6.1

## 6.2 REPLACING INSERT CUTTER HEAD

**Note:** This machine is supplied with a spiral cutter head equipped with indexable carbide inserts. As they wear they can be rotated to one of their four cutting edges. If one edge of the insert becomes dull or damaged, simply rotate it 90° to reveal a fresh cutting edge. (Fig. 6.4)

To change or rotate a spiral cutter head inserts:

1. DISCONNECT MACHINE FROM THE POWER!
2. Remove the dust hood, belt cover, and the top cover.
3. Leather heavy gloves should be worn to protect your hands and fingers.
4. Remove any sawdust or debris from around the insert, Torx screw, and the surrounding area.
5. Remove the Torx screw and the insert, then clean both parts and the pocket where the insert sits.

**Note:** Ensure the insert, Torx screw, and the cutter head pocket have been thoroughly cleaned. This is critical to achieving a smooth and precision finish.

**If dirt or dust is trapped between the insert and cutter head it will slightly raise the insert, and make noticeable marks.**

6. Replace the insert so that a fresh cutting edge faces outward. If all four insert cutting edges have been used, replace the insert with a new one. Always position the reference mark (Fig.6.5) on the insert in the same position when installing a new insert to aid in the rotational sequencing.
7. Lubricate the Torx screw threads with a very small amount of light machine oil, wipe the excess off, and tighten the screws making sure not to over tighten them.

**Note:** Do Not use too much oil. The excess may squeeze out of the threaded hole as you install the insert and force the insert to raise slightly, forcing the insert out of alignment.



Fig. 6.4

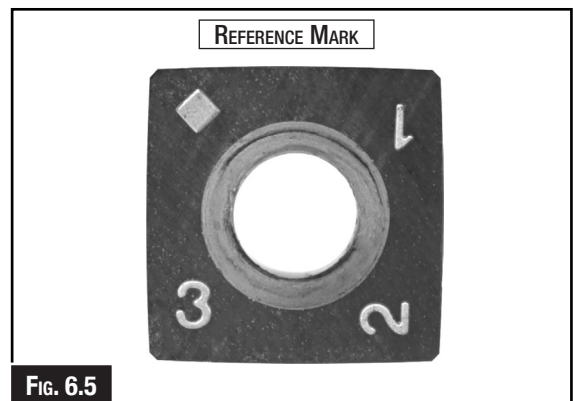


Fig. 6.5

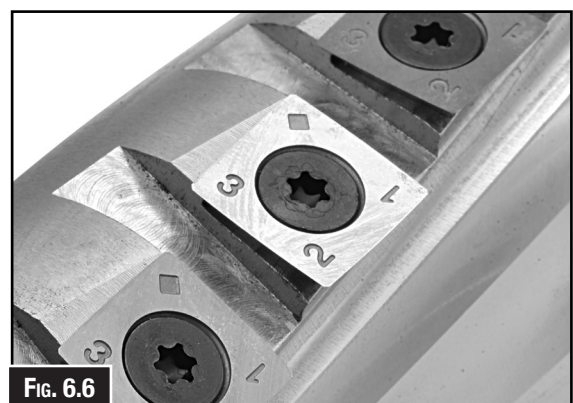


Fig. 6.6



## WARNING!

**Disconnect all power from the machine before servicing. There may be multiple power sources present. Remove the plug from the power point or remove the fuse if hardwired. Failure to do may cause death or injury.**



### 6.3 MOTOR BRUSH INSPECTION & REPLACEMENT

The motor on the T-330H is equipped with two long-life carbon brushes—one on the front and one on the back of the motor. The brush life is affected by motor loads and usage. Worn brushes may result in intermittent operation and difficulty starting the motor. If either brush is worn down to 6mm or less, replace both brushes as a set.

To check/replace motor brushes:

1. DISCONNECT THE MACHINE FROM THE POWER!
2. Unscrew plastic brush covers, and remove motor brush assemblies (Fig. 6.7).

**Note:** As you remove brush assembly, make note of carbon tip orientation. If found acceptable, re-install in same way.

3. Measure length of carbon tip. If carbon tip is worn down to 6mm or less, replace both brush assemblies with new ones.
4. Insert brush assemblies back into motor. (Fig. 6.8)



Fig. 6.7



Fig. 6.8

### 6.4 CLEANING THE FEED ROLLERS

Over time sawdust and grime can accumulate on the in-feed and out-feed rollers, creating inconsistent pressure on the workpiece as it is fed through the cutter head. For optimum performance, the rolls will need to be cleaned.

To clean in-feed & out-feed rollers:

1. DISCONNECT THE MACHINE FROM POWER!
2. Raise the headstock completely to expose in-feed and out-feed rollers (Fig. 6.9).
3. Clean the rubber in-feed and out-feed rollers with solvent to remove any pitch or stuck-on chips.
4. Use a vacuum and clean brush to remove any trapped material from between roller and headstock.



Fig. 6.9



### CAUTION!

Some service processes should only be carried out by professional maintenance personnel. If you are unsure of your ability to complete a task, please contact your local Hafco/Metalmaster service engineer.

## 6.5 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.*

| SYMPTOM                                                                | POSSIBLE CAUSE                                                                                                                                                                                                                                                                                                              | POSSIBLE SOLUTION                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Machine has vibration or noisy operation.                              | <ol style="list-style-type: none"> <li>1. Motor mount loose/broken.</li> <li>2. Motor fan rubbing on fan cover.</li> <li>3. Table rollers protruding unevenly.</li> <li>4. Motor bearings at fault.</li> <li>5. Cutter head bearings at fault.</li> <li>6. Chip deflector hitting cutter head.</li> </ol>                   | <ol style="list-style-type: none"> <li>1. Tighten/replace.</li> <li>2. Fix/replace fan cover; replace damaged fan.</li> <li>3. Adjust table rollers.</li> <li>4. Test by rotating shaft; &amp; replace worn bearings</li> <li>5. Replace bearing(s)/realign cutter head.</li> <li>6. Check/replace chip deflector and realign</li> </ol>                |
| Consistent chipping pattern.                                           | <ol style="list-style-type: none"> <li>1. Knots or conflicting grain direction in workpiece.</li> <li>2. Nicked or chipped cutter</li> <li>3. Feed rate too fast.</li> <li>4. Depth of cut too deep.</li> <li>5. Bed rollers set too high or low; not even with each other.</li> <li>6. Misaligned chip breaker.</li> </ol> | <ol style="list-style-type: none"> <li>1. Inspect workpiece for knots and grain direction; use only clean stock.</li> <li>2. Rotate/replace cutters or insert .</li> <li>3. Reduce feed rate.</li> <li>4. Reduce the depth of cut.</li> <li>5. Properly adjust the bed roller height.</li> <li>6. Adjust sides of chip breaker until correct</li> </ol> |
| Furry grain.                                                           | <ol style="list-style-type: none"> <li>1. Workpiece has high moisture content or surface wetness.</li> <li>2. Dull cutter blades or inserts</li> </ol>                                                                                                                                                                      | <ol style="list-style-type: none"> <li>1. Allow workpiece to dry if moisture content is over 20% or has surface wetness.</li> <li>2. Rotate/replace cutter blades or inserts</li> </ol>                                                                                                                                                                 |
| Lines or ridges running the length of the workpiece                    | <ol style="list-style-type: none"> <li>1. Nicked blades or chipped inserts.</li> </ol>                                                                                                                                                                                                                                      | <ol style="list-style-type: none"> <li>1. Rotate or replace the inserts or replace the damaged blades.</li> </ol>                                                                                                                                                                                                                                       |
| Uneven cutting marks, wavy surface, or chatter marks on the workpiece. | <ol style="list-style-type: none"> <li>1. Feed rate too fast.</li> <li>2. Chip breaker or pressure bar set unevenly.</li> <li>3. Bed rollers not set correctly.</li> <li>4. Insert(s) or blades not properly installed.</li> <li>5. Worn cutter head bearings.</li> </ol>                                                   | <ol style="list-style-type: none"> <li>1. Reduce feed rate.</li> <li>2. Adjust the height of the chip breaker or pressure bar</li> <li>3. Properly adjust the bed roller height</li> <li>4. Remove insert(s) or blades, then properly clean and install.</li> <li>5. Replace cutter head bearings</li> </ol>                                            |
| Glassy surface                                                         | <ol style="list-style-type: none"> <li>1. Inserts are dull.</li> <li>2. Feed rate too slow.</li> <li>3. Depth of cut too shallow</li> </ol>                                                                                                                                                                                 | <ol style="list-style-type: none"> <li>1. Rotate/replace inserts or replace blades</li> <li>2. Increase feed rate</li> <li>3. Increase depth of cut</li> </ol>                                                                                                                                                                                          |
| Inconsistent chip marks.                                               | <ol style="list-style-type: none"> <li>1. Chips are not being removed from around the cutter head</li> </ol>                                                                                                                                                                                                                | <ol style="list-style-type: none"> <li>1. Use an adequate dust collection system; adjust the chip deflector in or out.</li> </ol>                                                                                                                                                                                                                       |



## WARNING!

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

# THICKNESSER

## T-330H

Order Code: (W820)

Edition : 1.0

Date: (10/25)

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](http://www.machineryhouse.com.au/contactus) and fill out the inquiry form attaching a copy of scanned parts list.



#### **WARNING!**

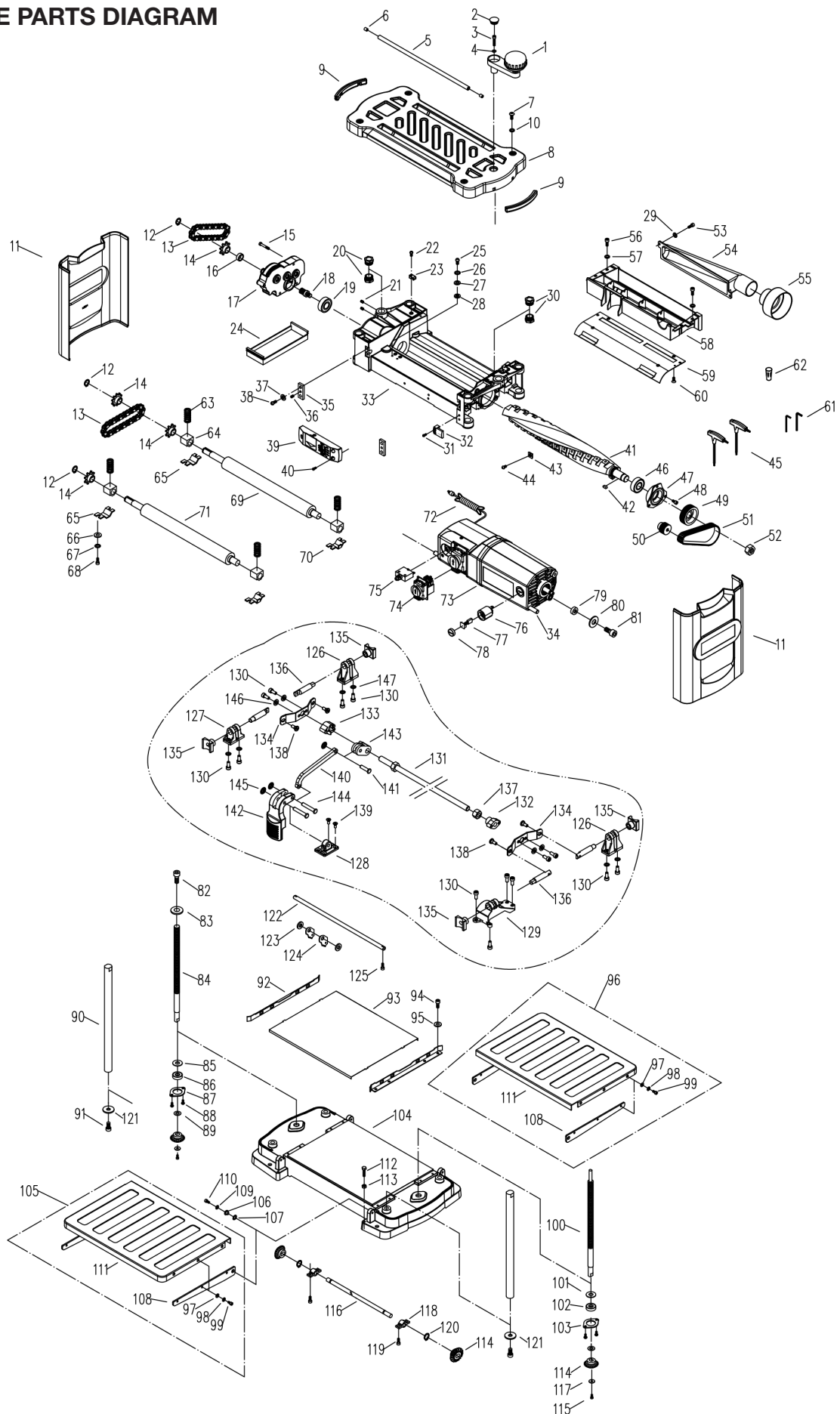
*Electricity is dangerous and could cause death  
All electrical work must be carried out by a qualified electrician.*



#### **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.*

## SPARE PARTS DIAGRAM



## SPARE PARTS LIST

| ITEM | FIG. NO.      | DESCRIPTION           | QTY | ITEM | FIG. NO.    | DESCRIPTION              | QTY. |
|------|---------------|-----------------------|-----|------|-------------|--------------------------|------|
| 1    |               | Handle assembly       | 1   | 56   |             | Socket head screw        | 4    |
| 2    | SPL3047       | Cap                   | 1   | 57   |             | Flat washer              | 4    |
| 3    | GB70.1-2000   | Socket head screw     | 1   | 58   | MB13/3-05   | Dust chute               | 1    |
| 4    |               | Flat washer           | 1   | 59   | MB13/3-22   | Chute plate              | 1    |
| 5    | MB13-01       | Roller                | 2   | 60   |             | Flat head tap screw      | 4    |
| 6    | EP12028       | Roller cap            | 4   | 61   |             | Hex wrench 4,5mm         | 2    |
| 7    |               | Socket pan head screw | 4   | 62   |             | Magnet                   | 1    |
| 8    | MB13-02X      | Top cover             | 1   | 63   |             | Spring                   | 4    |
| 9    | MB13-02X-02   | Grip                  | 2   | 64   | EP125024    | Bearing block            | 4    |
| 10   |               | Flat washer           | 4   | 65   | EP125004    | Left retainer            | 2    |
| 11   |               | Side cover            | 2   | 66   | GB96-85     | Flat washer              | 8    |
| 12   | GB93-87       | Retaining ring        | 3   | 67   | GB93-87     | Lock washer              | 8    |
| 13   | GB1243.1-83   | Chain                 | 2   | 68   | GB70.1-2000 | Socket head screw        | 8    |
| 14   | MB13-51       | Sprocket              | 4   | 69   | MB13-10     | Out-feed roller          | 1    |
| 15   | GB70.1-2000   | Socket head screw     | 4   | 70   | EP125006    | Right retainer           | 2    |
| 16   | 13102         | Spacer                | 1   | 71   | MB13-11     | In-feed roller           | 1    |
| 17   |               | Gear box assembly     | 1   | 72   |             | Power cord               | 1    |
| 18   | 13113/SPL1047 | Pinion                | 1   | 73   | YB12A       | Motor                    | 1    |
| 19   | GB276-94      | Ball bearing          | 1   | 74   |             | Switch                   | 1    |
| 20   | 21758-048-01  | Elevating nut(LH)     | 2   | 75   |             | Circuit breaker          | 1    |
| 21   |               | Set screw             | 4   | 76   |             | Brush holder             | 2    |
| 22   | GB70.1-2000   | Socket head screw     | 1   | 77   |             | Brush                    | 2    |
| 23   |               | Cable clamp           | 1   | 78   |             | Brush cap                | 2    |
| 24   | MB13-05       | Chain cover           | 1   | 79   | MB13-35     | Spacer                   | 1    |
| 25   | GB818-2000    | Pan head screw        | 2   | 80   | GB96-85     | Flat washer              | 1    |
| 26   | GB93-87       | Lock washer           | 2   | 81   | GB70.1-2000 | Socket head screw        | 1    |
| 27   |               | Flat washer           | 2   | 82   | GB70.1-2000 | Socket head screw        | 1    |
| 28   | GB862.1-87    | Serrated washer       | 2   | 83   | GB5287-85   | Flat washer              | 1    |
| 29   |               | Flat washer           | 2   | 84   | 21758-085   | Elevating screw (LH)     | 1    |
| 30   | 21758-048     | Elevating nut(RH)     | 2   | 85   | 21758-101   | Flat washer              | 1    |
| 31   |               | Pan head screw        | 2   | 86   |             | Ball bearing             | 1    |
| 32   | 21758-42      | Pointer               | 1   | 87   |             | Bearing clamp plate      | 1    |
| 33   | MB13-08       | Roller case           | 1   | 88   |             | Socket pan head screw    | 4    |
| 34   | MB13-15-01    | Motor pivot rod       | 1   | 89   | 21758-105   | Flat washer              | 2    |
| 35   | MB13-16       | Rod clamp             | 2   | 90   | 21758-88    | Column                   | 4    |
| 36   |               | Set screw             | 2   | 91   |             | Socket head screw        | 4    |
| 37   | GB93-87       | Lock washer           | 4   | 92   | MB13-22     | Guide                    | 2    |
| 38   | GB70.1-2000   | Pan head screw        | 4   | 93   | MB13-27     | Table                    | 1    |
| 39   |               | Depth-of-cut gauge    | 1   | 94   | GB70.1-2000 | Socket head screw        | 8    |
| 40   |               | Pan head screw        | 3   | 95   | GB96-85     | Flat washer              | 8    |
| 41   |               | Helical cutter head   | 1   | 96   |             | Out-feed extension table | 1    |
| 42   | GB1096-1979   | Key                   | 1   | 97   | GB96-85     | Flat washer              | 12   |
| 43   |               | Blade                 | 30  | 98   | GB818-2000  | Lock washer              | 12   |
| 44   |               | Blade fixing screw    | 30  | 99   |             | Socket head screw        | 12   |
| 45   |               | Torx wrench           | 2   | 100  | 21758-085   | Elevating screw (RH)     | 1    |
| 46   | GB276-94      | Ball bearing          | 1   | 101  | 21758-101   | Flat washer              | 1    |
| 47   | SPL1020       | Bearing house         | 1   | 102  |             | Ball bearing             | 1    |
| 48   | GB70.2-2000   | Pan head screw        | 3   | 103  |             | Bearing clamp plate      | 1    |
| 49   | EP12039       | Cutter head pulley    | 1   | 104  | MB13-30     | Base                     | 1    |
| 50   | EP12040       | Motor pulley          | 1   | 105  |             | In-feed extension table  | 1    |
| 51   |               | Belt                  | 1   | 106  | MB13-37     | Bushing                  | 4    |
| 52   | GB6172-86     | Hex nut               | 1   | 107  |             | Spring washer            | 4    |
| 53   |               | Socket head screw     | 2   | 108  |             | Table support            | 2    |
| 54   | 21758-072     | Dust exhaust port     | 1   | 109  | GB93-87     | Lock washer              | 4    |
| 55   | MB13/3-06     | Connecting port       | 1   | 110  | GB70.1-2000 | Socket head screw        | 4    |

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



## SPARE PARTS LIST

| ITEM | FIG. NO.    | DESCRIPTION         | QTY | ITEM | FIG. NO. | DESCRIPTION                     | QTY. |
|------|-------------|---------------------|-----|------|----------|---------------------------------|------|
| 111  |             | Extension table     | 2   | 127  | MB13-81  | Support bracket B               | 1    |
| 112  | GB5781-86   | Hex head bolt       | 4   | 128  | MB13-82  | Support bracket C               | 1    |
| 113  | GB41-2000   | Hex nut             | 4   | 129  | MB13-83  | Support bracket D               | 1    |
| 114  | MB125-006   | Bevel gear          | 4   | 130  |          | M5X12 Socket head screw         | 14   |
| 115  |             | Socket head screw   | 2   | 131  | MB13-84  | Drive rod                       | 1    |
| 116  | 21758-099   | Shaft               | 1   | 132  | MB13-85  | Connecting block                | 1    |
| 117  |             | Flat washer         | 2   | 133  | MB13-86  | Idler ratchet                   | 1    |
| 118  | MB13-32     | Support             | 2   | 134  | MB13-87  | Locking plate                   | 2    |
| 119  | GB70.1-2000 | Socket head screw   | 4   | 135  | MB13-88  | Pushing block                   | 4    |
| 120  | GB894.1-86  | Retaining ring      | 2   | 136  | MB13-89  | Connecting rod                  | 4    |
| 121  |             | Flat washer         | 4   | 137  |          | M10 Hex nut                     | 1    |
| 122  | MB13-13     | Shaft               | 1   | 138  |          | Sct head shoulder screw Ø6x4xM5 | 4    |
| 123  |             | washer              | 34  | 139  |          | Flat head screw M4x10           | 4    |
| 124  |             | Anti-kickback block | 35  | 140  | MB13-90  | Handle connecting lever         | 1    |
| 125  |             | Socket head screw   | 2   | 141  | MB13-94  | Shoulder pin Ø6x22              | 1    |
| 126  | MB13-80     | Support bracket A   | 2   | 142  | MB13-91  | Lock handle                     | 1    |
|      |             |                     |     | 143  | MB13-92  | Driving ratchet                 | 1    |
|      |             |                     |     | 144  | MB13-95  | Shoulder pin Ø6x35              | 2    |
|      |             |                     |     | 145  |          | Clamp Retaining Ring Ø6         | 3    |
|      |             |                     |     | 146  |          | Flat washer 5mm                 | 4    |
|      |             |                     |     | 147  |          | Lock washer 5mm                 | 6    |

**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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