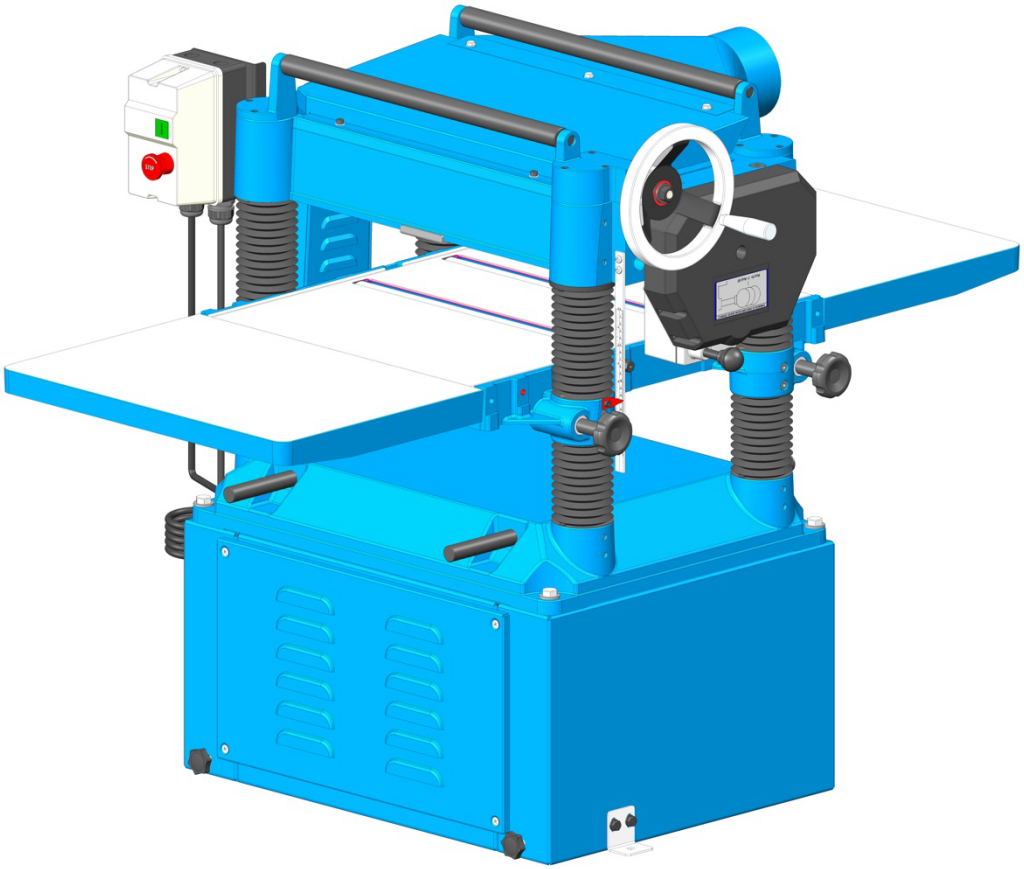
Planer

Model AW20P

Owner's Manual

For Models Manufactured Since 10/2026



175370

Oliver Machinery
1-800-559-5065
921 Thomas Ave SW,
Renton, WA 98057

info@olivermachinery.net
www.olivermachinery.net

Stock Number: AW20P
Manual Version: 1.0.0



READ AND UNDERSTAND ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO ASSEMBLE OR OPERATE THIS MACHINE.

FOLLOW ALL INSTRUCTIONS AND OBSERVE SAFE OPERATING PRACTICES AT ALL TIMES.

THE OWNER OF THIS MACHINE IS SOLELY RESPONSIBLE FOR THE SAFETY OF ALL PERSONS WHO OPERATE OR WORK NEAR THE MACHINE. THIS RESPONSIBILITY INCLUDES, BUT IS NOT LIMITED TO:

- **PROPER ASSEMBLY, OPERATION, INSPECTION, MAINTENANCE, AND RELOCATION OF THE MACHINE.**
- **ENSURING OPERATORS ARE PROPERLY TRAINED IN THE SAFE OPERATION OF THE MACHINE.**
- **ENSURING THIS MANUAL IS AVAILABLE TO OPERATORS AT ALL TIMES.**
- **AUTHORIZING AND SUPERVISING MACHINE USE.**
- **ENSURING THE PROPER USE OF ALL SAFETY GUARDS, PROTECTION DEVICES, AND ANY OTHER PERSONAL PROTECTIVE EQUIPMENT.**

OLIVER MACHINERY DISCLAIMS ANY LIABILITY FOR MACHINES THAT HAVE BEEN ALTERED, MODIFIED, OR ABUSED.

OLIVER MACHINERY RESERVES THE RIGHT TO MAKE CHANGES AT ANY TIME, WITHOUT PRIOR NOTICE, TO PARTS, FITTINGS, OR ACCESSORY EQUIPMENT AS DEEMED NECESSARY FOR PRODUCT IMPROVEMENT OR OTHER REASONS.

***** SAVE THIS MANUAL FOR FUTURE REFERENCE. *****

PROP 65 NOTICE

WARNING: Drilling, sawing, sanding, or machining wood and wood products can expose you to wood dust and other chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

Examples of these chemicals include:

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

Avoid inhaling wood dust and other harmful chemicals. Use a dust mask and other appropriate personal protective equipment.

For more information go to http://www.P65Warnings.ca.gov/wood

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Introduction

Thank you for choosing Oliver Machinery. This manual contains important information on the safe setup, operation, and maintenance of this machine. Please read this manual carefully and ensure that you fully understand the instructions before operating the machine.

This manual should be considered a permanent part of the machine and should remain with the machine if it is resold or relocated.

While this manual may provide tips for improving the results of your work, it is not intended as a substitute for formal woodworking training. If you are unsure how to safely perform a particular woodworking operation, consult qualified and knowledgeable sources before proceeding.

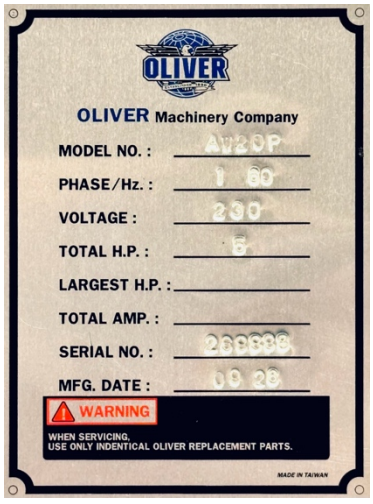
Every effort has been made to ensure that this manual is accurate and up to date. The instructions, specifications, drawings, and photographs in this manual should correspond with the machine delivered. If you notice any discrepancies or find any part of this manual unclear, please check our website for the latest version:

www.olivermachinery.net/manuals

You may also contact our technical support department for assistance:

1-800-559-5065

Before calling, please record the **manufacturing date** and **serial number** of your machine. This information can be found on the nameplate located on the back of the machine. Providing this information will help us assist you more efficiently and determine whether an updated manual is available for your machine.



We welcome your feedback regarding this manual. If you have suggestions for improvement, please contact us at the number above or email:

info@olivermachinery.net

Your feedback helps us continue improving our products and documentation.

Specifications

Quick View

Model	AW20P Planer
Stock Number	AW20P
Motor	TEFC induction motor 5HP, 230V, 1Ph
Max. Stock Width	20”
Max Depth of Cut	3/32” (Full width) 1/8" (Stock less than 8” wide)
Dimensions	55-3/4”(L) x 40” (W) x 41”(H)
Footprint	23”(L) x 28”(W)
Fully Assembled Weight	772 lbs.
Warranty	1 Year (Motor and electronics) 2 Years (All other parts)

Product Dimensions

Fully Assembled Dimensions	55-3/4”(L) x 40”(W) x 41”(H)
Footprint	23” (L) x 28”(W)
Fully Assembled Weight	772 lbs.

Shipment Info

Type	Palleted wood crate
Content	Planer with included accessories
Dimensions	39-1/4” (L) x 30-5/16”(W) x 48”(H)
Weight	882 lbs.
Approximate Setup Time	60 minutes
Must Ship Upright	YES
Stackable	NO

Electricals

Power Requirement	230V, 1Ph, 60Hz
Full Load Current Rating	20A
Recommended circuit size	30A
Power Switch Type	Magnetic switch with overload protection.
Connection Type	Electrical work required to connect planer to a power source. 6 feet 12AWG cord provided.
Overload Protection	Equipped

Motor

Motor Type	TEFC induction motor
Horsepower	5HP
Speed	3450 RPM
Efficiency	82%
Power Transfer Mechanism	V-belt and pulleys
Bearing type	Permanently sealed ball bearing

Planer Capacity and Performance

Maximum Stock Width	20”
Maximum Depth of Cut	1/8" (Stock less than 8” wide) 3/32”(Full Width)
Maximum Stock Thickness	8”
Minimum Stock Thickness	1/4"
Minimum Stock Length	the greater of 7” or twice the workpiece height
Feed Rate	16/20 FPM
Number of Cuts Per Square Inch	89 @ 16FPM 71 @ 20FPM

Cutterhead and Headstock

Cutterhead Type	Oliver HCX helical shearing cutterhead
Cutterhead Diameter	3-7/32”
Cutterhead Speed	5000 RPM
Number of Cutter Inserts	68
Number of Rows of Cutter Inserts	4
Cutter Insert Type	Four-sided, indexable carbide
Cutter Insert Diameters	15mm x 15mm x 2.5mm
Cutter Blade Angle	30 degrees
Cutter Insert Tightening Torque	50 - 55 lb-in
Infeed Roller Type	Serrated steel
Outfeed Roller Type	Smooth steel
Table Height Change Per Revolution of Handwheel	1.5mm (Approx. 1/16”)
Stock Return Roller Load Limit	220 lbs.

Measurements

Measurement Units	Inch/mm
Measurement Device	Standard height scale

Table

Table Dimensions	55-3/4” x 20” (With infeed/outfeed table) 25-3/4” x 20” (Without infeed/outfeed table)
Table Height Above Ground	23-3/8” – 31-3/8”
Table Height Lock	Equipped
Material	Precision ground cast iron
Bed Roller	Two
Extension Table Weight	31 lbs.

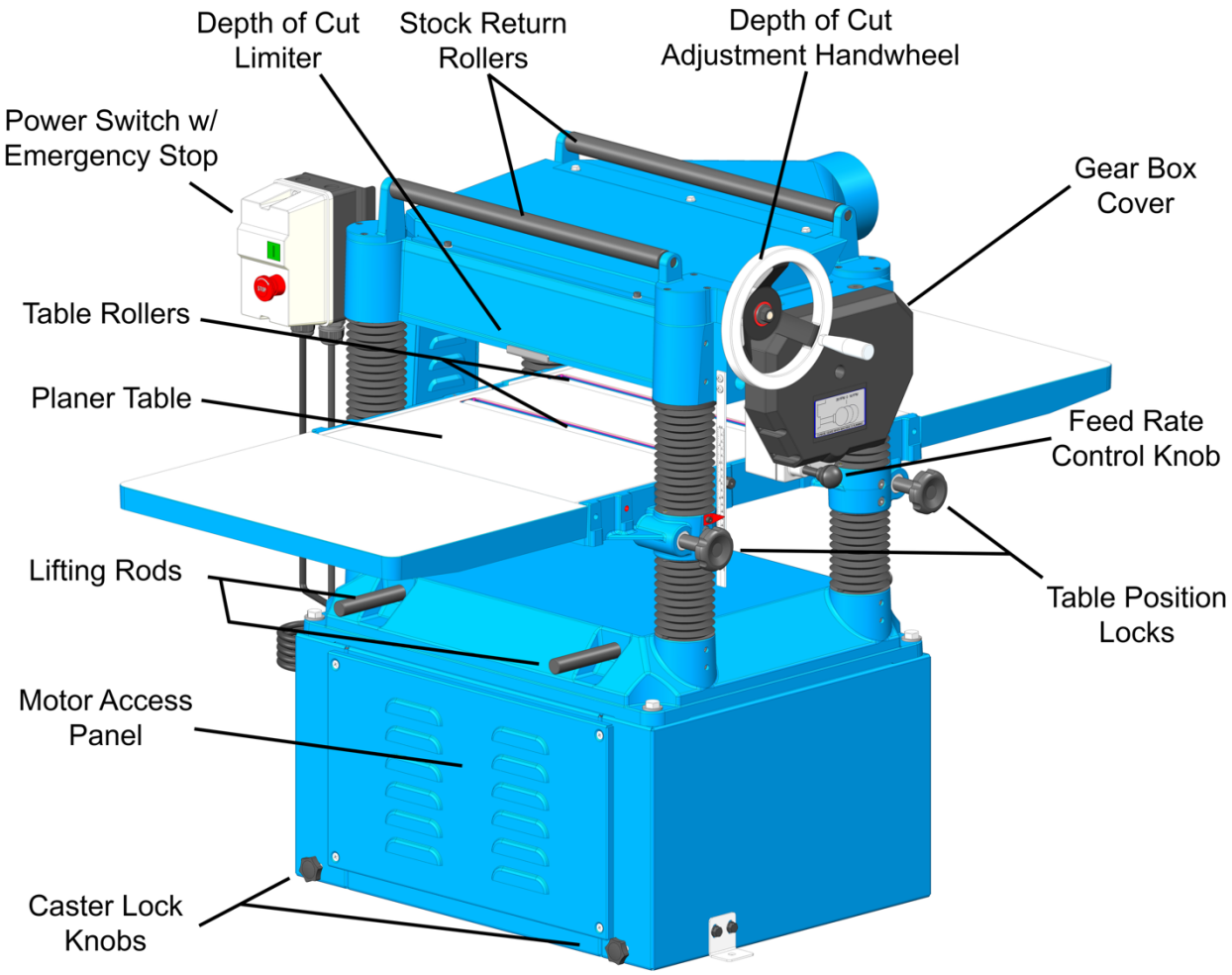
Safety

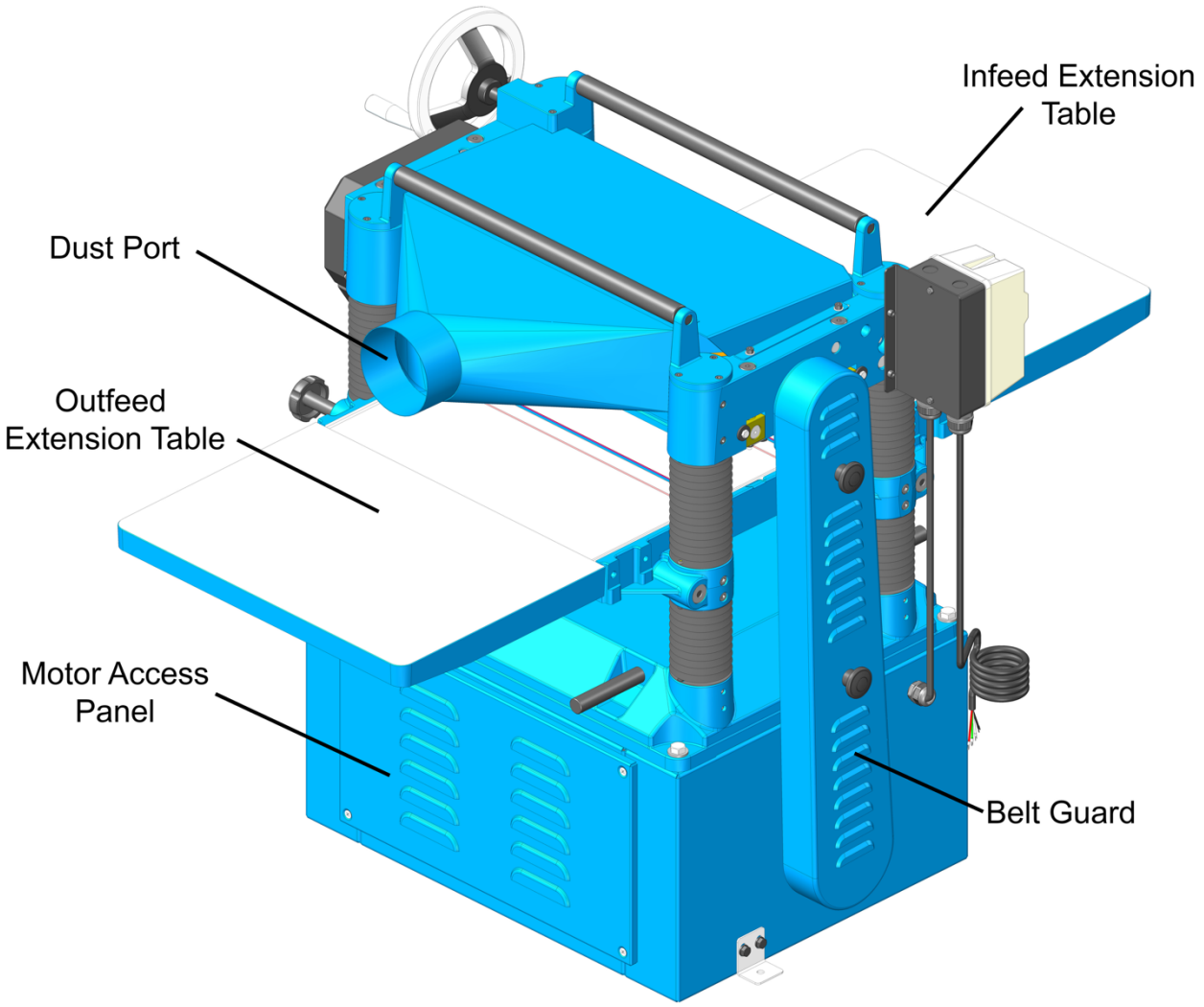
Number of Dust Ports	1
Dust Port Size	5”
Minimum CFM Required	900 CFM
Sound Rating @ 2’ distance	85 dB

Miscellaneous

Serial Number Location	On machine cabinet below the power switch.
Spare Parts Included	10 Cutter inserts and compatible Torx screws.
Certification	CSA 175370
Country of Origin	Taiwan

Identification




Infeed Extension Table
Dust Port
Outfeed Extension Table
Motor Access Panel
Belt Guard

Safety

Oliver Machinery has made every effort to design and manufacture a safe, reliable, and easy-to-use machine. However, safety ultimately depends on the individual machine operator. **Before operating this machine, become familiar with the safety labels and guidelines contained in this manual.**

DANGER	Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.
WARNING	Indicates a hazardous situation which, if not avoided, **COULD** result in death or serious injury.
CAUTION	Indicates a hazardous situation which, if not avoided, **MAY** result in minor or moderate injury.
IMPORTANT	Indicates information related to the proper operation of the machine or prevention of machine damage.

General Safety Guidelines

1. **FAMILIARIZE YOURSELF WITH THE MACHINE**
   Read and understand all safety instructions in this manual. Know the machine's limitations and hazards. Do not operate or service this machine unless you have received proper training.

2. **ELECTRICAL GROUNDING**
   Proper grounding reduces the risk of electrical shock or fire. Ensure the machine frame is properly grounded and that a grounding conductor is included in the electrical supply. If a cord and plug are used, ensure the grounding plug is connected to a properly grounded outlet. Follow all applicable local electrical codes.

3. **DISCONNECT POWER**
   Disconnect the machine from the power source before performing service, maintenance, adjustments, or changing cutters. Machines undergoing maintenance should be properly tagged to prevent accidental startup.

4. **EYE PROTECTION**
   Always wear approved eye protection such as a face shield, safety goggles, or safety glasses that comply with ANSI Z87.1 or CSA Z94.3 standards. Regular eyeglasses are not safety glasses.

5. **HEARING PROTECTION**
   Use hearing protection when noise levels exceed those permitted under OSHA Regulation 29 CFR 1910.95. When in doubt, wear hearing protection.

6. **OTHER PERSONAL PROTECTION MEASURES**
   Before operating the machine, remove ties, rings, watches, and other jewelry. Roll sleeves above the elbows. Remove loose clothing and secure long hair. Wear protective footwear. Do not wear gloves unless specifically instructed for a particular operation.

7. **GUARDS**
   Keep all machine guards in place and properly adjusted during operation. If guards are removed for maintenance, **DO NOT OPERATE** the machine until they are reinstalled. Check clearance between guards and cutters before starting the machine.

8. **WORKPLACE SAFETY**
   Keep the floor and work area around the machine clean and free of debris. Scrap material, sawdust, oil, and other liquids increase the risk of slipping or tripping. Ensure the workspace is well-lit and properly ventilated. Use dust collection or exhaust systems to minimize airborne dust. Use anti-skid floor strips on the area where the operator normally stands and mark off the machine work area. Provide adequate workspace around the machine.

9. **ACCESS CONTROL**
   Only trained and authorized personnel should operate this machine. Use a lockable or childproof power switch where applicable.

10. **STAY ALERT**
    Never operate machinery while under the influence of drugs or alcohol, or when fatigued or impaired.

11. **NEVER STAND ON MACHINE**
    Standing on the machine may result in tipping, falls, or accidental contact with moving parts.

12. **REPLACEMENT PARTS**
    Use only genuine Oliver Machinery replacement parts and accessories recommended for this machine. Parts from other manufacturers may create safety hazards and WILL void the factory warranty and other guarantees.

13. **PROPER USE**
    Use this machine only for its intended purpose. If used for other purposes, Oliver Machinery disclaims any real or implied warranty and holds itself harmless for any injury or damage which may result from that use.

14. **ADDITIONAL SAFETY INFORMATION**

    For further information on woodworking safety, consult the following resources:

    - National Safety Council – *Accident Prevention Manual for Business and Industry*
      https://shop.nsc.org/apm-admin-program-14ed

    - ANSI O1.1 – Woodworking Machinery Safety Requirements
      https://webstore.ansi.org/standards/wmma/ansio12013r2023

    - OSHA 29 CFR 1910.213 – Woodworking Machinery Requirements
      https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.213

Safety Guidelines Specific to the Planer

Before Work Begins:

1. **USE ONLY NATURAL, SOLID WOOD.** Do not plane plywood, MDF, OSB, laminate, or other materials that may break apart during operation. Do not plane treated lumber or materials containing hazardous chemicals, as planing can release hazardous dust. Do not plane workpieces containing loose knots, nails, screws, staples, or other foreign objects.
2. **CHECK CUTTER INSERTS.** Ensure that all cutter inserts are sharp, clean, undamaged, and securely fastened. Dull or damaged inserts increase the risk of kickback and can adversely affect surface finish. Tighten all inserts to the torque specified by the manufacturer.
3. **SERVICING CUTTER INSERTS.** Before installing, rotating, or replacing cutter inserts, switch off the planer, disconnect it from the power source, and prevent accidental startup. Wear appropriate cut-resistant gloves when handling sharp inserts, provided this is consistent with the manufacturer's instructions. Ensure that the cutterhead and insert seats are clean before installation. Debris between an insert and its seat can prevent proper seating and may cause the insert to break or become dislodged during operation.
4. **SUPPORT LONG WORKPIECES.** Use suitable auxiliary infeed and outfeed rollers or support tables to support long workpieces throughout the planing operation. Ensure that the supports are properly positioned and do not cause the workpiece to rock or tip. Secure the planer to a stable surface using the provided mounting brackets or predrilled mounting holes when available.

When Using the Planer:

1. **DUST COLLECTION.** A dust collection system is required for this planer. Ensure that the system is operating and providing adequate suction before starting the planer.
2. **KICKBACK.** Kickback occurs when a workpiece is unexpectedly ejected from the planer, typically toward the infeed side. Kickback can cause serious injury or death. Always remain alert and follow these precautions:
    - **ALWAYS** wear appropriate personal protective equipment, including eye and hearing protection. Use respiratory protection when required by the applicable dust hazard assessment.
    - **ALWAYS** stand to one side of the infeed and outfeed path. Keep other people clear of the potential kickback path.
    - **NEVER** stand directly in line with the infeed or outfeed opening while the planer is operating.
    - **NEVER** look inside the planer while the motor is running.
    - **MINIMUM WORKPIECE LENGTH:** The workpiece must be at least the greater of 7 inches or twice its height. Never feed a workpiece shorter than this minimum length into the planer. Workpieces shorter than the specified minimum may not be properly secured by the feed rollers, increasing the risk of kickback and serious injury.
    - **NEVER** operate the planer with required guards or anti-kickback devices missing, damaged, or inoperative.

3. **PROPER WORKPIECE FEEDING.** Proper feeding helps reduce the risk of kickback.
    - **NEVER** start the planer with the workpiece touching the cutterhead.
    - Allow the planer to reach full operating speed before feeding a workpiece.
    - Ensure that the feed rollers are properly adjusted and functioning.
    - KEEP HANDS AWAY FROM THE CUTTERHEAD AND FEED ROLLERS while the planer is operating.
    - **NEVER** force a workpiece through the planer. Reduce the depth of cut as necessary.
    - **ONLY** plane one board at a time.
    - For warped workpieces, joint one face before planing.
    - Feed workpieces in the direction of the wood grain, as specified in the operating instructions.
4. **STUCK WORKPIECES.** If a workpiece becomes stuck, switch off the planer, disconnect it from the power source, and wait until the cutterhead and all moving parts have come to a complete stop. Lower the table to create space so the stuck workpiece can be removed safely. Do not reach into the machine or use your hands or push sticks to force a stuck workpiece through the planer while it is still running.
5. **DEPTH OF CUT SETTINGS.** Never exceed the maximum depth of cut specified for the planer. Excessive cuts can overload the machine and increase the risk of kickback, injury, or machine damage. Reduce the depth of cut when planing hard or wide workpieces, as necessary.

After Operation

1. **STOP THE MACHINE.** Switch off the planer whenever it is not in use or will be left unattended.
2. **WAIT FOR A COMPLETE STOP.** Do not leave the machine unattended until the cutterhead and all moving parts have come to a complete stop.
3. **CLEAN UP.** Once the machine has stopped, clean the work area. Disconnect the power source before cleaning or removing debris from inside the machine.

Electrical Requirements

WARNING

Faulty electrical installation or wiring can cause electric shock, electrocution, fire, or equipment damage.

All electrical work must be performed by a licensed electrician and must comply with all applicable local electrical codes and regulations. Failure to comply with these requirements will void the machine warranty.

Electrical Specifications and Minimum Circuit Size Requirements

Machine Model	AW20P Planer
Stock Number	AW20P
Voltage	230V
Phase	1Ph
Full Load Current Rating	20A
Minimum Circuit Size Required	30A

This machine is designed to operate on a 230V single-phase power supply. It must be connected to a dedicated 30A branch circuit that supplies power exclusively to this machine.

Do not connect the machine to a circuit that does not meet the specified electrical requirements. If the existing circuit is unsuitable, have a licensed electrician install or modify the circuit before operating the machine.

The branch-circuit conductors, overcurrent protection, disconnecting means, and any cord, plug, and receptacle must be appropriately rated for the machine and comply with applicable electrical codes.

Grounding

WARNING

Improper grounding can cause electric shock, fire, or equipment damage.

The machine must be connected to a properly installed equipment grounding conductor. The grounding path must be continuous and effective and must comply with applicable electrical codes.

Grounding helps provide a low-impedance path for fault current, allowing the electrical protection system to operate as intended.

Verify that the machine is properly grounded before operation. Do not operate the machine if a proper grounding connection is unavailable. Have a licensed electrician install or repair the grounding system as necessary.

A ground-fault circuit interrupter (GFCI) may be required by applicable electrical codes or recommended for additional protection. GFCI protection does not replace the required equipment grounding conductor. Consult a licensed electrician to determine the appropriate protection for the installation.

Indoor Use Only

This machine is designed for indoor use only.

Do not operate the machine outdoors or in wet or damp locations. Exposure to moisture can increase the risk of electric shock and equipment damage.

Always operate the machine in a dry, well-ventilated indoor environment.

Electrical Wiring

This machine is not supplied with a plug.

Hardwired Installation

If the machine is to be connected directly to the electrical supply, a properly rated, readily accessible disconnecting means must be provided in accordance with applicable electrical codes and the machine's wiring diagram. Where required, the disconnect must be capable of being locked in the OFF position. All wiring must be performed by a licensed electrician.

Cord-and-Plug Installation

If the machine is to be connected using a power cord and plug, the cord, plug, and receptacle must be UL/CSA listed and must be compatible with the machine's voltage, current, grounding, and circuit requirements.

Do not use an extension cord unless it is necessary. The extension cord must be appropriately rated for the machine and installation.

Minimum cord size required based on amperage draw and length of the cord:

Cord Length	< 25 feet	< 50 feet	< 75 feet	< 100 feet	> 100 feet
Cord Size (AWG)	10	10	8	8	Not Recommended

WARNING **Conductors and electrical components must be properly sized and rated for the machine and installation. Undersized or improperly installed wiring can overheat and cause fire, electric shock, or equipment damage.**

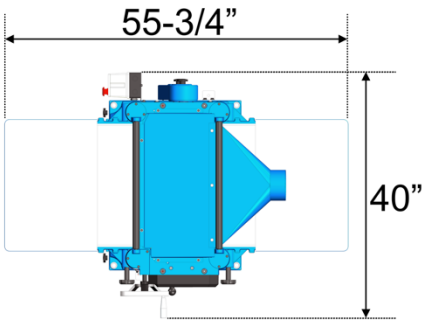
WARNING **Connections involving aluminum conductors must use terminals and connectors specifically listed for the conductor materials and sizes involved. Follow the connector manufacturer's installation instructions and applicable electrical codes. Have a licensed electrician make and inspect these connections.**

Setup

Shop Preparation

Space Requirement

The dimensions of this machine are 55-3/4”(L) x 40”(W). You will need at least 36” clearance around the machine for workpiece handling, electrical connection, dust collection connection, and safe operator movement.



Load Limits

This machine has a shipping weight of 882 lbs., and a net weight of 772 lbs. Ensure that all lifting equipment and building structures can safely support the combined weight of the machine, operator, and any additional equipment used during setup.

Electricals

Ensure a properly sized circuit and an electrical terminal are available nearby the machine. If the machine is to be hardwired, there must be a readily accessible power disconnect nearby, so that the machine can be disconnected from power source for servicing and adjustments. If the machine is to be connected with a cord and a plug, please ensure a matching outlet is installed nearby the machine.

Please refer to section “Electrical Requirements” on page 14 for details regarding electrical requirements.

Lighting

Adequate lighting is required for safe machine operation. Install overhead lighting that provides clear visibility of the work area without glare or shadows.

Safety Labels

If this machine introduces new hazards to your workplace, install appropriate warning signs in visible locations.

Dust Collection

Wood dust generated by planing operations may pose respiratory health risks. High-quality dust masks should be available for using the planer.

Connect this machine to a dust collection system. Check air suction strength regularly to ensure dust and shavings are effectively removed.

⚠ **CAUTION**	**Air resistance and leakage in a dust collection system impact its effectiveness. Use a dust collection system capable of delivering at least 900 CFM at this planer’s dust port. Doing so improves air quality in the workplace and prevents the machine from jamming.**

Receiving the Shipment

Your shipment should arrive in one palletized crate. Upon receiving your shipment, check for any significant damages before signing the freight delivery Bill of Lading (BOL).

IMPORTANT	If any items are damaged, please call us immediately at **1-800-559-5065** Freight damage must be reported directly to the transport carrier immediately at the time of delivery and must be noted on the signed copy of the delivery Bill of Lading (BOL) paperwork otherwise a freight claim may be denied.

⚠ **CAUTION**	**Always wear safety goggles and gloves when removing straps for securing your package. Straps may spring back violently when released and cause injury.**

Moving the Machine

Your machine will be delivered by freight service to the loading dock or outside of your workshop. On the day of delivery, please be sure help is available to move the machine to the desired location.

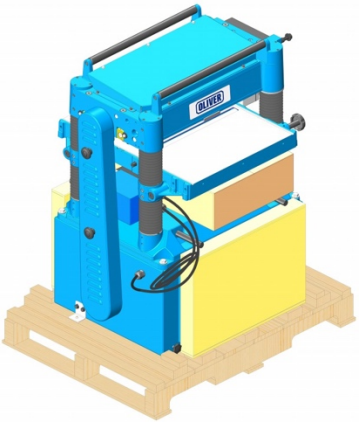
⚠ **WARNING**	**AW20P Planer has a gross weight of 882 lbs. and a net weight of 772 lbs.** **Use a forklift, pallet jack, or other suitable lifting equipment to move the machine. Safe moving techniques are required, or serious personal injury may occur.**

⚠ **WARNING**	**Your machine may be secured by the straps. Do not lift your shipment by the straps. They are not designed to hold the total weight of your shipment. They may snap without warning and cause serious injury and machine damage.**

Unboxing

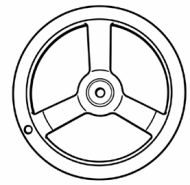
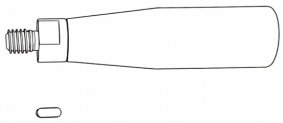
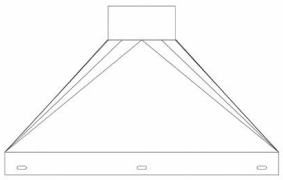
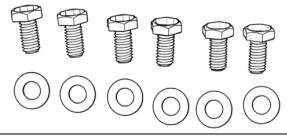
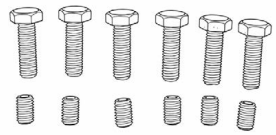
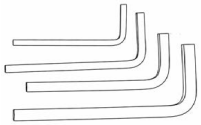
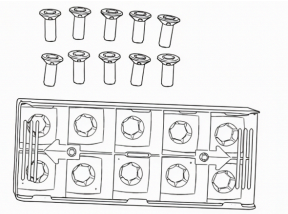
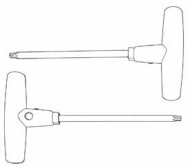
The planer is packed inside a wooden crate and is mostly assembled. In addition, there are three paper boxes that contain all the accessories.

To lift the top part of the crate, remove all Philips screws located near the bottom of the crate.



Accessories

Carefully remove the packaging and inspect all components included in the shipment before beginning the assembly:

Item		*Description*	*Quantity*
1		Depth of cut adjustment handwheel	1
2		Handle and key for the depth of cut adjustment handwheel.	1 each
3		Dust chute with 5” dust port.	1
4		Fasteners for dust chute: • Hex bolt (M6*1.0P*12) • M6 washers	6 each
5		Cast iron extension tables.	2
6		Fasteners for extension table: • Hex head bolt (M8*1.25P*25) • Set screws (M8*1.25P*12)	6 each
7		Combination wrench set	1
8		Metric hex wrench set	1
9		Spare cutter inserts and torx screws	10 each
10		T-Handle torx drivers (T-25)	2

NOTICE: If you cannot find an item in the list above, please check if it is still attached to the packaging. Occasionally, the item may have been pre-installed at the factory. See section **"Parts List"** on page 52 to check if a component is included or installed.

NOTICE: This machine comes with various standard sized, non-proprietary parts. If any of these parts are missing, we are happy to deliver them to you. To have the machine up and running as soon as possible, you can also find these parts at your local hardware store.

Additional Tools Recommended for Machine Assembly and Maintenance

Item	**Purpose**
Safety glasses	Protection
Disposable gloves	Protection
Paper towel / rags	Cleaning
Rust inhibitor	Cast iron tabletop rust protection.
Straight edge	Check alignments.
Dial indicator / feeler gauge	Check alignments.
Metric combination wrench set	Assembly and maintenance
Metric hex wrench set	Assembly and maintenance
Torque wrench or Torque screwdriver	Cutter inserts installation and for checking torx screw tension (50 - 55 lb-in).
T25 star bit	Cutter inserts installation.

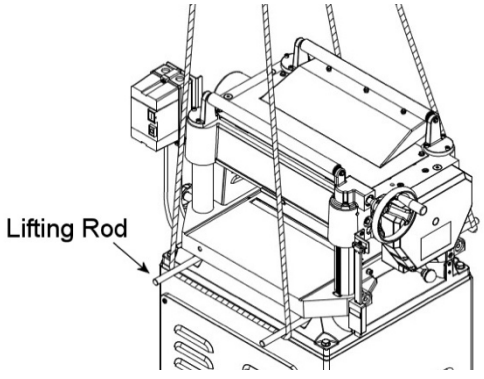
Removing Machine from Crate

The planer is secured by mounting brackets and wood blocks to prevent shifting during transport. Remove the mounting brackets to detach the planer from the pallet. Save the mounting brackets if the machine is to be bolted on the floor.



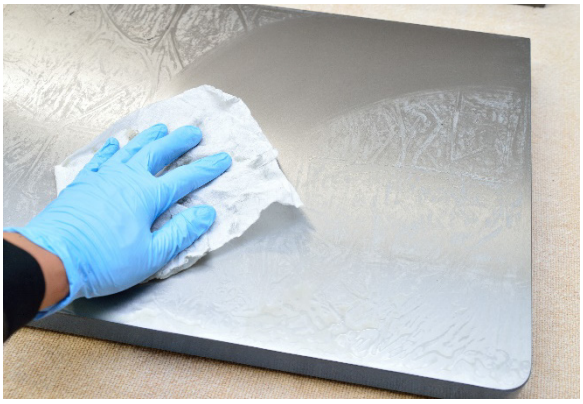
To lift the machine, extend all four lifting rods. Connect a pair of lifting slings to the lifting rods as shown in the diagram and ensure the slings are parallel and balanced.

Ensure the power switch is not interfering with the lifting slings and provide adequate clearance when lifting the machine.



WARNING **AW20P Planer has a net weight of 772 lbs. All lifting devices must be capable of handling the load, or serious personal injury and machine damage may occur.**

Cleaning



To prevent rust during shipping, the cast iron planer bed and the extension tables are coated with rust preventive and wrapped in plastic film. It is important to thoroughly clean the planer before beginning assembly.

After completing the initial cleaning, regularly coat the unpainted cast iron surfaces with a rust preventive product such as Boeshield® T-9 or paste wax. Avoid using rust preventives containing silicone, as silicone can interfere with finishes and glues applied to your workpieces.

Assembly

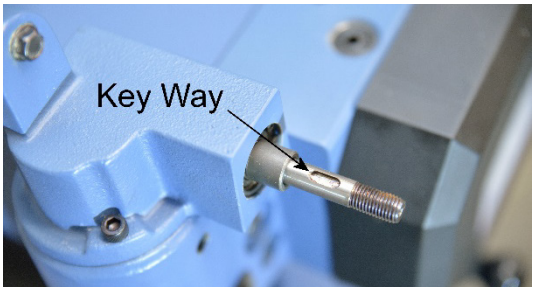
This planer is mostly assembled in the factory. There are a few more items to set up before the machine is ready for a test run:

1. Install depth of cut adjustment handwheel.
2. Install dust chute.
3. Install extension tables.
4. Install power switch.
5. Connect planer to a dust collection system.
6. Connect planer to power source.

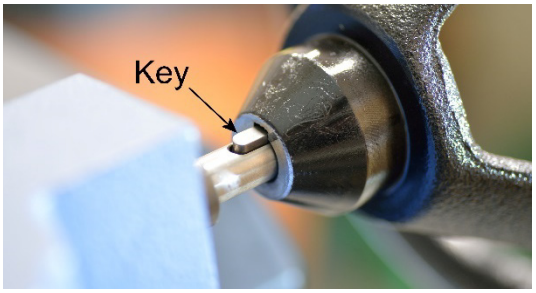
The approximate time for cleaning and assembly is approximately 60 minutes.

Depth of Cut Adjustment Handwheel Installation

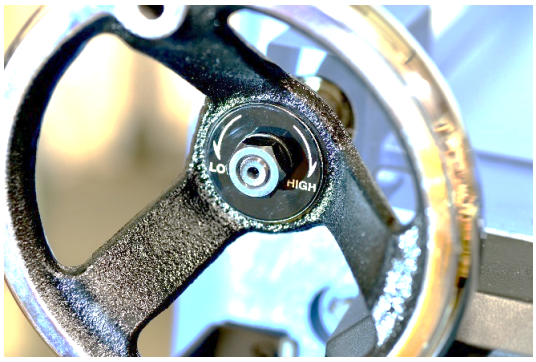
1. Prepare the handwheel assembly (Items #1 and #2) listed in the accessory list.
2. Remove the preinstalled nut and washer from the handwheel shaft.
3. Insert the key into the keyway on the handwheel shaft.



4. Slide the handwheel onto the shaft, ensuring that the keyway in the handwheel is properly aligned with the key.



5. Reinstall the washer and nut, then tighten securely.

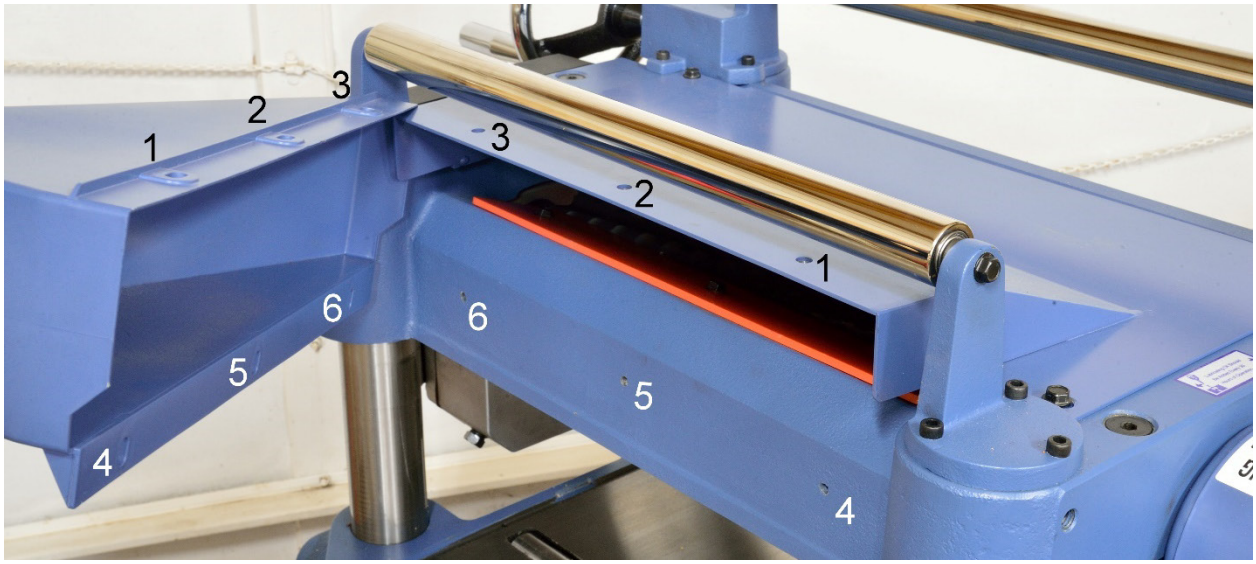


6. Install the handwheel handle and tighten it securely using a wrench.



Dust Chute Installation

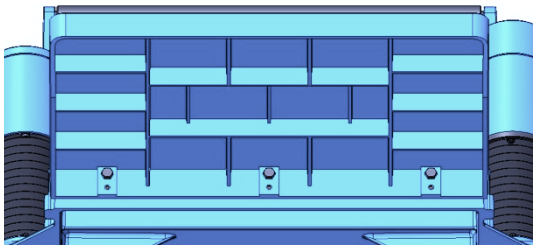
Use the provided hex bolts and washers (item #4 in accessory list) to mount the dust chute on top of the cutterhead cover:



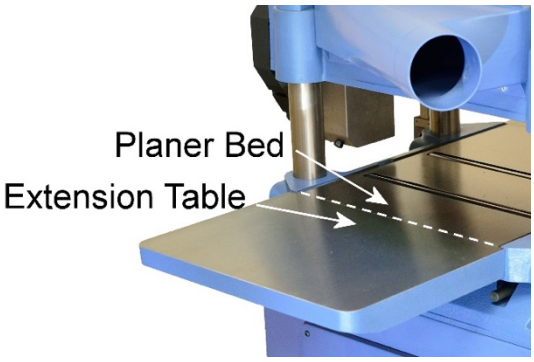
Extension Tables Installation

CAUTION **Each extension table weighs 31 lbs. and may be difficult to install by one person. Have another person assist with installation when necessary to prevent injury or damage to the machine.**

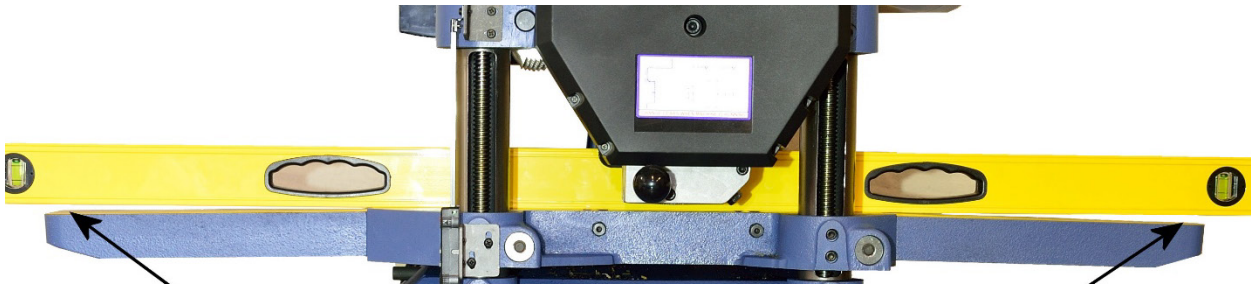
1. Prepare the hex bolts and set screws listed in accessory list item #6.
2. Locate the three mounting holes at each end of the planer bed. Attach each extension table using the hex bolts. Do not fully tighten the bolts at this stage. Tighten them just enough to hold the extension table in position while allowing for adjustments. Then, hand-thread the set screws into the threaded holes in the extension table.



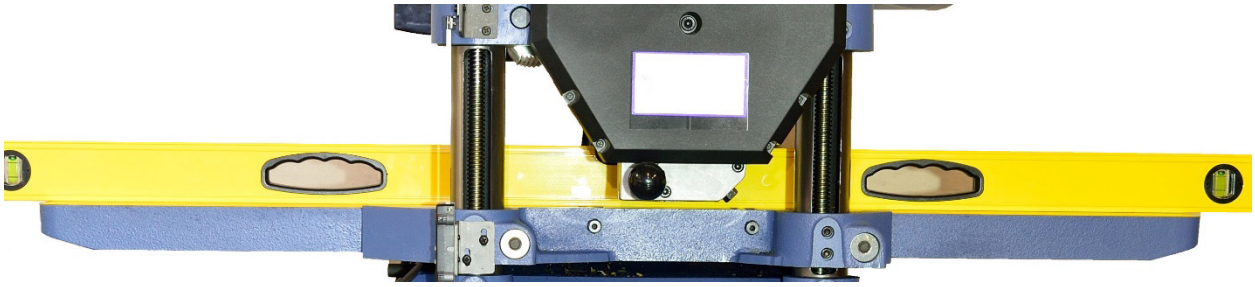
3. Align the edge of extension tables so it is flush with the edge of the planer bed.



4. Place a straightedge across the planer bed and extension table to check their alignment. At this stage, the extension table should be slightly sloped away from the planer bed.



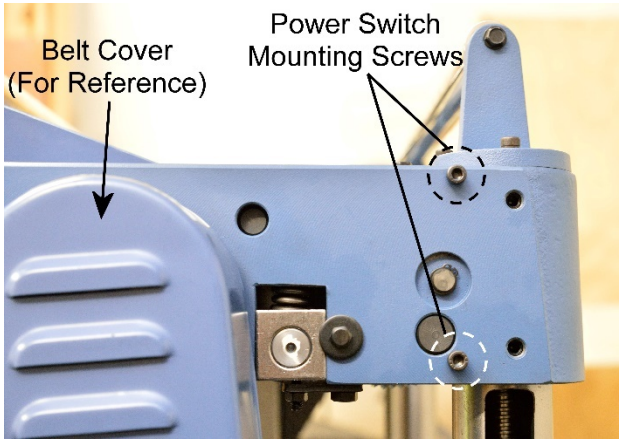
5. Use a hex wrench to adjust the set screws and raise the extension tables. Make small, incremental adjustments to each set screw, alternating between them to raise the table evenly. Continue adjusting until the extension table is level and flush with the planer bed. If a set screw becomes difficult to turn, slightly loosen the mounting bolts before continuing the adjustment.

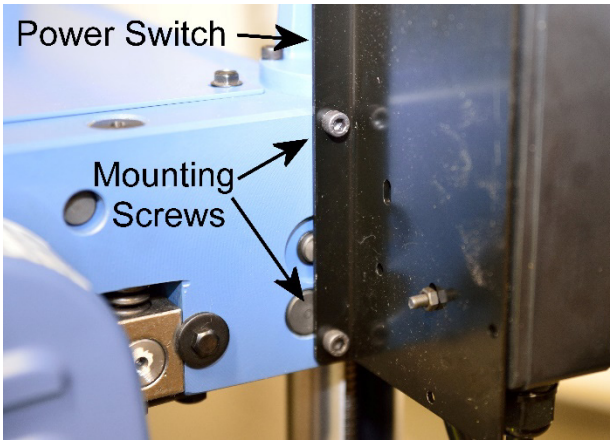


6. Once the extension tables are properly aligned with the planer bed, fully tighten all mounting bolts. Recheck the alignment with a straightedge and make any necessary readjustments.

Power Switch Installation

The mounting screws for the power switch are pre-installed in the headstock. Remove the cap screws as show in the picture, then use them to mount the power switch.





Dust Collection

This planer generates a large volume of wood chips, shavings, and dust during operation. Always connect the machine to an adequately sized dust collection system before use.

The minimum required airflow is 900 CFM, measured at the planer's dust port. Select a dust collection system capable of delivering at least 900 CFM at the machine. Account for airflow losses caused by ductwork, hoses, bends, fittings, and filters when selecting your dust collector.

IMPORTANT	**Operating this planer without a dust collection system, or with insufficient airflow, can allow wood chips, shavings, and dust to accumulate inside the machine. This buildup can impair machine operation, cause damage, and create hazardous conditions. Check the dust collection system regularly to ensure that hoses and ducts are not blocked and that the collection container or bag is not full. Keep the dust collection system operating whenever the planer is in use.**

Wiring and Grounding

DANGER **Deenergize the electrical circuit before touching any enclosed, electrified parts. Touching electrified parts WILL result in serious personal injury or death.**

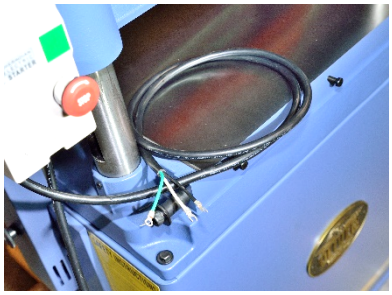
WARNING

Faulty electrical work can cause electrocution and is a fire hazard.

All electrical work must be completed by a licensed electrician and must meet the local electrical code in your area, or the warranty is void.

Make sure the voltage of your power circuit matches the specifications on the nameplate of the machine, and the circuit is sized to supply power to the planer.

Wiring Instructions



This machine is not pre-wired with a plug. A 12AWG cord is provided for connecting this machine to a power source. If you plan to connect the machine directly to the electrical panel ("Hardwiring"), please ensure there is a readily accessible electrical disconnect near the machine. Refer to the section "Wiring Diagram" for wiring your machine to a power source.

If you choose to connect this machine with a plug and a cord, please use a UL/CSA listed plug that is sized to meet the amperage requirement of your machine.

Break-in Period

Congratulations on getting this machine assembled and ready for a test run! Please set a reminder to service this machine as it goes through the break-in period. Completing these services will maximize the performance and longevity of your machine.

After 16 hours of operation: Adjust V-belt tension.
After 50 hours of operation: Replace gearbox oil.

Controls and Components

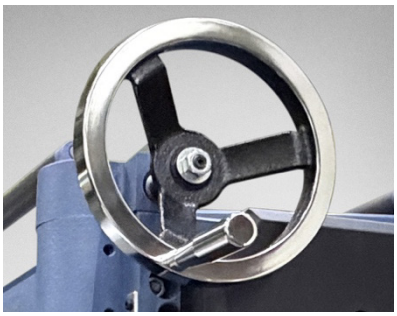
Power Switch

To Stop	Press the "STOP" button. **NOTICE:** When the STOP button is pressed, it needs to be reset before the planer can start again. To reset, rotate the serrated rim clockwise until the STOP button pops up. **NOTICE:** The planer will shut down if the motor is overloaded. Press STOP to reset the overload protection, then reset the STOP button before restarting the planer.
To Start	Press the green "START" button. **NOTICE:** The machine will only start when the STOP button is reset.



Depth of Cut Adjustment

The table height adjustment handwheel is located on the side of the planer headstock.



Turn **CLOCKWISE** to raise the table, increasing depth of cut.

Turn **COUNTERCLOCKWISE** to lower the table, reducing depth of cut.

Each rotation of the handwheel changes the height by 1.5mm, approximately 1/16".

Table Height Locking Knobs

Two locking knobs are located on the power switch side of the table. Tightening these knobs will stop the table from moving.

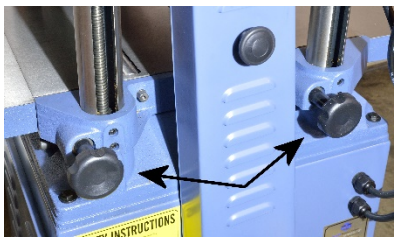
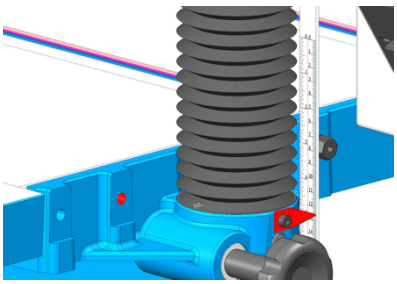


Table Height Scale

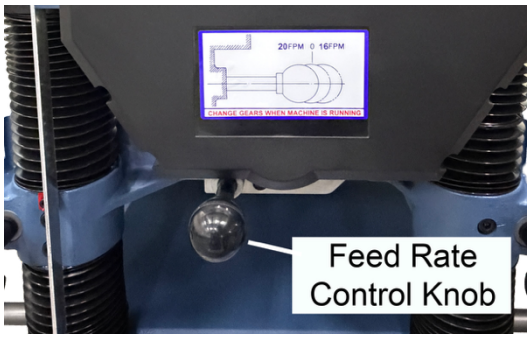
The table height scale is located on the front right column next to the digital readout. A metal pointer marks the current height of the table.

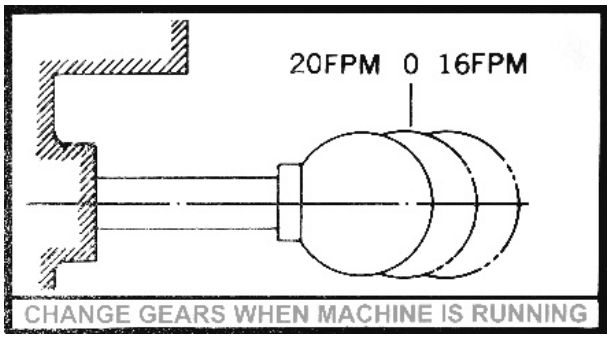


Feed Rate Control

AW20P Planer can feed stock at 16/20 FPM (feet-per-minute). To change feed rate, shift the position of the feed rate control knob when the machine is running at full speed with no load:

- Push in: 20 FPM
- Pull out: 16 FPM
- In between: 0 FPM (Neutral)

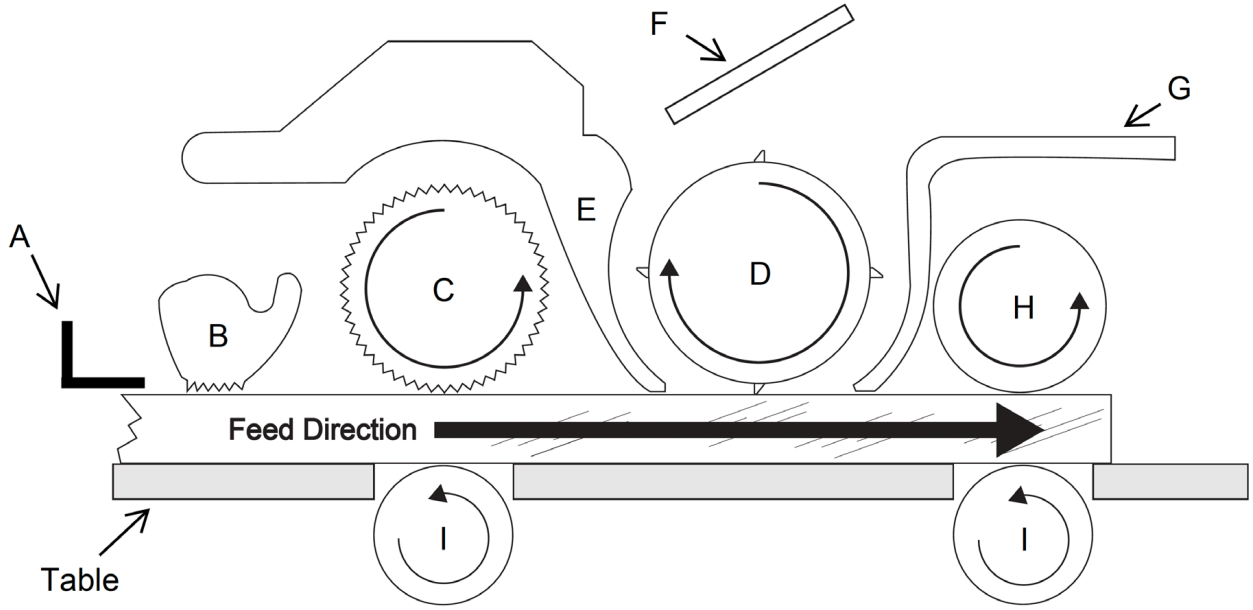




IMPORTANT	Only change feed rate when the machine is running at full speed. Failure to do so may cause the gearbox to jam and damage the machine.

Components for Planing Wood

The diagram below illustrates the components involved in planing a workpiece:



How it works:

1. **TABLE:** This planer is equipped with a height-adjustable table. Raise the table to increase the depth of cut, and lower the table to reduce the depth of cut.
2. **DEPTH LIMITER [A]:** The limiter protects the motor from overloading. When the depth of cut is properly set, the workpiece passes beneath the depth limiter [A] before reaching the cutterhead. For workpieces narrower than 8”, the workpiece may bypass the depth limiter, allowing a maximum depth of cut of 1/8".
3. **ANTI-KICKBACK FINGERS [B]:** As the workpiece enters the planer, the anti-kickback fingers [B] glide along the surface of the workpiece. In the event of kickback, the anti-kickback device stops or slows the workpiece from being ejected from the planer.
4. **INFEED ROLLER [C]:** As the workpiece moves farther into the planer, the infeed roller [C] pulls the workpiece toward the cutterhead [D].
5. **CUTTERHEAD [D]:** The cutterhead [D] shears away material from the workpiece and reduces the thickness of the workpiece to the desired thickness.
6. **CHIP BREAKER [E] and CHIP DEFLECTOR [F]:** The chip breaker [E] helps control and break up the wood chips produced during cutting, and chip deflector [F] directs the wood chips toward the dust port for collection and removal.
7. **PRESSURE BAR [G] AND OUTFEED ROLLER [H]:** After passing beneath the cutterhead, the workpiece engages the pressure bar [G], which helps maintain downward pressure on the workpiece and keeps it against the table. The workpiece then engages the outfeed roller [H], which grips and pulls the workpiece away from the cutterhead and out of the planer.
8. **TABLE ROLLERS [I]:** The bottom surface of the workpiece is supported by the table rollers [I]. These rollers extend slightly above the planer table to reduce friction and assist in feeding the workpiece through the planer. The height of the table rollers can be adjusted to accommodate workpieces with different surface roughness.

Test Run

Each planer has been inspected and calibrated before leaving the factory to meet our quality and precision standards. Due to various reasons, the machine may need to be re-adjusted when it arrives at your workshop. It is recommended to complete the test run before using the planer for production work, and repeat the test run if the planer is relocated.

Step 1: Verify safety feature and table-lifting mechanism are functional.

1. **Ensure the planer is disconnected from the power source.**
2. Remove all tools and debris from the machine.
3. Lower the table completely. Verify that it moves smoothly throughout its travel.
4. Verify that all anti-kickback fingers move freely and return to their normal position without binding.
5. Raise the table all the way up. Verify that it moves smoothly throughout its travel. The table should stop at approximately 1/4" below the headstock.

Step 2: Verify all electrical components are functional.

1. Connect machine to the power source. The planer must NOT start automatically.
2. Verify the emergency stop button is resettable by pressing it, then rotate the rim of the STOP button until it pops up and reset.
3. Press ON. The machine should start and run without excessive noise or vibration.
4. Press STOP to stop the machine.
5. Press ON to restart the machine. The planer should not start as the emergency stop button is not reset. Rotate the STOP button clockwise to reset and press the ON button. The planer should start.
6. While the planer is running, interrupt power using the machine's designated disconnecting means. Restore power. The planer must NOT restart automatically. Press ON to verify normal operation.
7. Press STOP to turn off the planer, and reset the STOP button for the next set of tests.

Step 3: Verify the planer is functional and calibrated.

1. Connect planer to a dust collection system.
2. Prepare a good-quality, straight-grain wood board with a flat bottom for the test run. Select a workpiece less than 20" wide and approximately 2 feet long – a size that can be safely handled by the operator.
3. Start the dust collection system.
4. Adjust the table height to set the depth of cut to approximately 1/16" for a test pass.
5. Turn on the planer and feed the workpiece towards the infeed roller. Once the infeed roller engages the workpiece, the infeed roller should pull the workpiece smoothly through the planer. Verify the entire top surface has been cut.
6. Inspect the workpiece for defective finish.
7. Use a caliper to measure the thickness of the test workpiece at corresponding locations on both sides. If a significant difference exists between the two sides, check the cutterhead-to-table alignment.
8. Verify the thickness of the test piece is the same as shown on the headstock height scale.
9. Check the workpiece for excessive snipe. A small amount of snipe may occur at the ends of the workpiece and is acceptable.
10. While the machine is running idle, move the feed rate control knob to change feed rate. This ensures the gearbox and feed rate control knob are functional.
11. **Press STOP to turn off the planer when all tests complete.**

Congratulations! You have completed the test run. If any issues are detected, refer to the Troubleshooting and Maintenance sections before operating the machine.

Accessories

Oliver Machinery offers a selection of accessories designed to improve the performance, durability, and convenience of your planer.

Accessories are available on our website: **olivermachinery.net**

To order by phone, please call us at **1-800-559-5065.** We are available Monday through Friday, 6:30 AM - 3 PM Pacific Time.

You can also email us at **info@olivermachinery.net** to purchase accessories.

Cutter Inserts



Genuine HCX four-sided indexable carbide cutter inserts compatible with the Oliver **AW20P Planer**. Sold in box of 10.

Part numbers:
Cutter Inserts (Box of 10) - **P-15mm4S**
Torx Screws - **038201-101**

Touchup Paint



Keeping painted surfaces in good condition not only maintains the appearance of your machine but also helps prevent rust. Oliver Machinery offers pre-mixed spray paint in Oliver Blue to match the original factory finish.

⚠ WARNING **Using unapproved accessories may cause the machine to malfunction and may result in serious injury or machine damage. Only use accessories recommended for this machine.**

Operation

For safety and to achieve the best results, please take the following steps before processing any workpiece with this planer.

Step 1: Preparation

Only Use Natural and Quality Wood

Only plane good quality natural wood materials. Cracked stock, boards with loose knots, plywood, and other engineered wood products can break apart and cause severe kickbacks, which can lead to severe injuries and machine damage.

Do not plane treated lumber or anything that contains harmful chemicals, as this will spread wood dust that contains such harmful chemicals.

The workpiece must be at least the greater of 7 inches or twice its height. Workpieces shorter than the specified minimum may not be properly secured by the feed rollers, increasing the risk of kickback and serious injury.

Inspect the Workpiece

Carefully inspect the workpiece for foreign objects. Nails, staples, rock chips, and other objects embedded on the wood surface will damage the planer. To avoid chipping or dulling the cutter inserts, clean the workpiece with a stiff brush to remove all dirt and foreign objects before planing, especially for rough-sawn or reclaimed lumber. Use a metal detector to scan for metal objects as needed.

Check Moisture Content

Check the moisture content of stock before the operation. "Green wood" with moisture content over 20% will not cut properly and may jam the machine. Excessive moisture content can also cause the planer's unpainted surface to rust. Besides, as the workpiece dries, the once-flattened surface can become fuzzy and warped again. Allow the workpiece to dry and stabilize before it is processed.

Warped Stock

Boards with moderate cupping, bowing, or twisting should have one side face-jointed before being processed by a planer. It is acceptable to process a slightly cupped board. Make sure the concave side is facing down, and begin with light cuts.

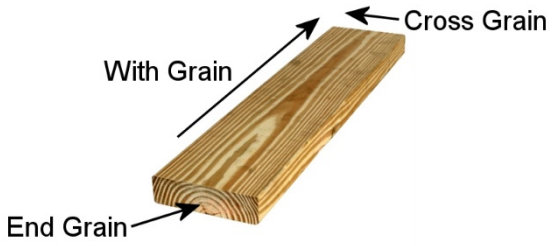
Avoid using boards that are severely warped, as they can be unstable and might cause severe kickbacks during operation.

Glue Deposits

Glue left on the workpiece surface can dull cutters and impact cut quality. Scrape off all glue deposits from the workpiece before the operation.

Wood Grain Direction

This planer is designed to plane WITH the grain direction of the wood. Do not plane cross-grain or end-grain. Severe kickback and chipping may occur.



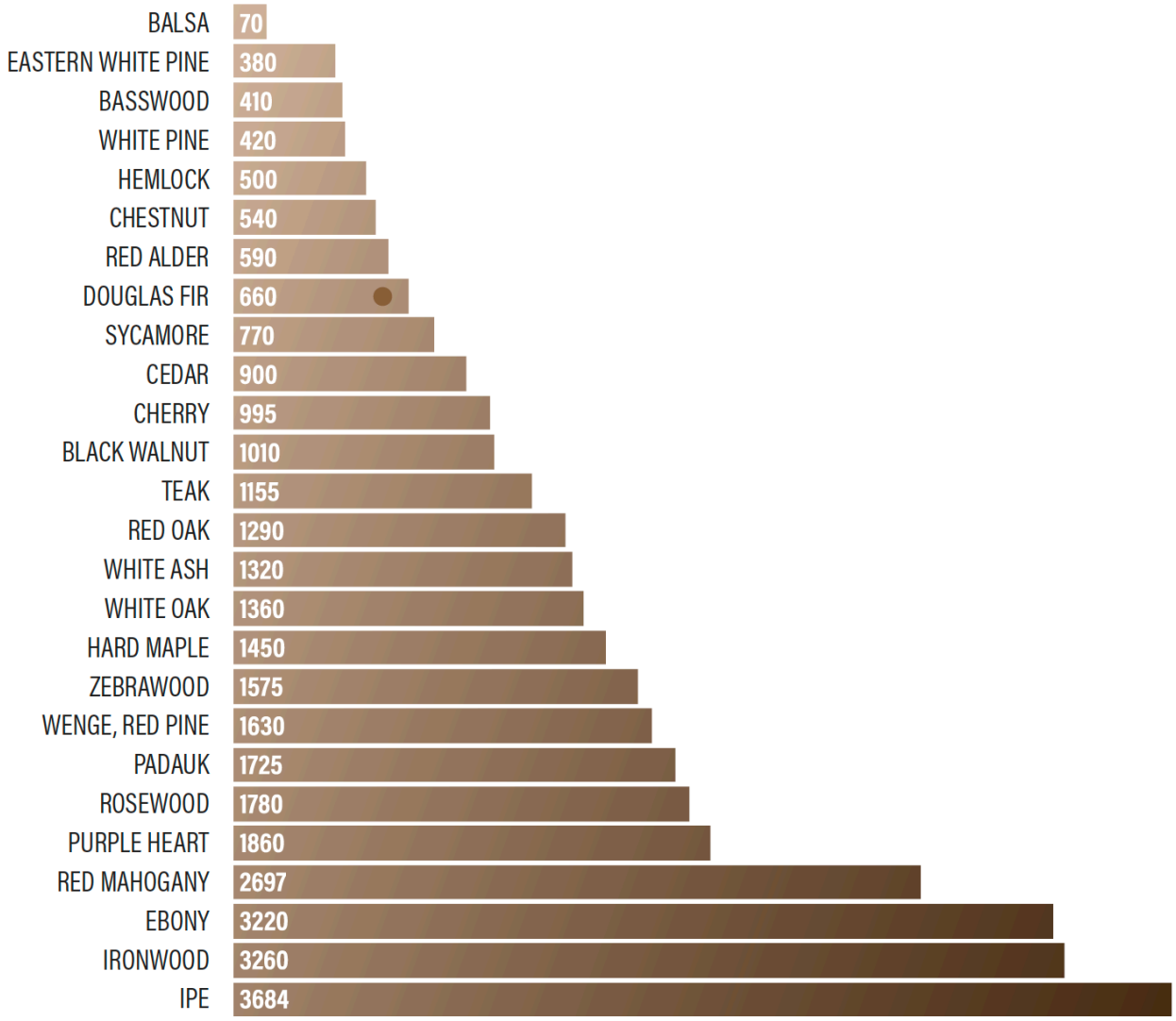
Step 2: Setting Depth of Cut and Feed Rate

This planer is capable of removing a maximum of 3/32” of material per pass. For stock less than 8” wide, the planer can remove up to 1/8" of material per pass. Each rotation of the depth of cut adjustment handwheel changes the depth of cut by 1.5mm (approximately 1/16”). For best results, take light passes at a low feed rate when approaching the desired thickness.

Wood Hardness

Reduce the maximum depth of cut for wood types that are extremely hard or extremely soft. Hardwood increases the planer's workload, and very soft wood species may get a poor finish when receiving aggressive cuts.

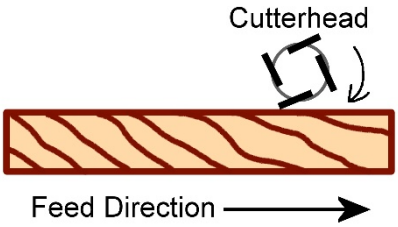
The Janka scale shows the hardness of wood types that are commonly used. It ranks the hardness of various wood types by measuring the amount of force (in lbs.) required to embed a 0.444" steel ball halfway into the wood.



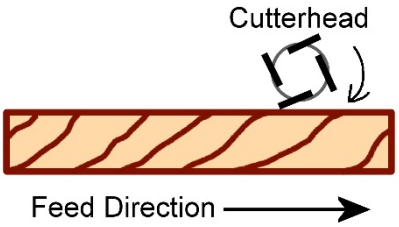
Step 3: Determining the Feed Direction

Inspect the workpiece and identify the direction of the edge grain. Choose a feed direction such that cutters will cut WITH grain to minimize tearouts.

Good – Planer cuts WITH the grain.



Not Ideal – Planer cuts AGAINST the grain.



Sometimes, it is impossible to cut with the grain for the entire length of a workpiece. In this case, try feeding the workpiece in the opposite direction and see what works best. Reducing the depth of cut can also help improve cut quality.

Step 4: Planing Wood to Desired Thickness

With the above preparation steps completed, the workpiece is ready for planing.

⚠ **WARNING**	**Always wear safety goggles and other appropriate personal protective equipment when operating this machine. Stand to the side of the planer to avoid injury from kickback. NEVER look or reach inside the planer while it is running. Failure to comply with these instructions may result in serious injury or death.**

⚠ **CAUTION**	**Use an ear protection device to prevent hearing loss. Ensure the dust collection system is functional, and use a dust mask to avoid inhaling harmful airborne particles.**

1. Put on protection devices.
2. If you have a long workpiece, make sure it is properly supported throughout the process. Bolt down the planer on a stable surface as needed.
3. Measure the workpiece thickness and set the initial depth of cut to no more than 1/32". This allows feed rollers to properly engage the workpiece and not remove too much material for a test pass.
4. Turn on the dust collection system and planer.
5. While standing on the side of the workpiece, gently feed the workpiece with the face jointed side down. Once the infeed roller engages the workpiece, allow the machine to feed the workpiece. **DO NOT** force feed the workpiece through the planer.

   If the infeed roller does not engage the workpiece:
   - Table height is set too low.
   - Stop the machine. Wait for the machine to come to a complete stop.
   - Lower the table to remove the workpiece.
   - Raise the table beyond the previous position to increase the depth of cut, then restart the operation.

If the machine stalls or the workpiece gets stuck:

- Table height is set too high.
- Stop the machine and wait for the machine to come to a complete stop.
- Lower the table to remove the workpiece.
- Move the table to adjust for a lighter depth of cut, then restart the operation.

6. If the workpiece is feeding properly, wait until the entire workpiece clears the outfeed roller, then remove the workpiece. Support the workpiece as it exits the planer.
7. After the initial pass, measure the workpiece thickness in the midsection.

If more material needs to be removed, continue with the following steps.

8. If you need to remove a lot of material, run a few passes with deeper cuts, then finish with a light pass and slow feed rate.
9. The depth of cut for each pass should be less than 1/8". For workpieces 8” or wider, the depth of cut is limited to 3/32”. Reduce the maximum depth of cut for harder wood types.
10. Repeat until the workpiece has reached the desired thickness.

Turn off the planer when the work is completed.

Common Cutting Problems

Snipe

When a workpiece is not properly supported as it enters or leaves the machine, the ends of the workpiece will have more materials removed than the rest of the section. To minimize the amount of snipe, make sure the extension table is flush and level with the planer's main table. Holding the workpiece up slightly as it enters and leaves the machine can also help reduce snipe. Sometimes, a small amount of snipe is inevitable. The best way to eliminate snipe completely is to prepare a workpiece of extra length and then trim the ends when the planing is done.



Chipping

Happens when cutting against the grain direction. See "**Select Feed Direction**" in this section for details. Chipping is more likely to happen on highly figured lumber and areas near a knot. Lightly moistening the problematic area before planing can sometimes mitigate the issue.



Chipping can also be caused by dirty or dull cutters. Inspect cutter inserts regularly and remove resin buildups. Rotate/replace dull cutter inserts when they are dull.

Indentation

If the depth of cut is very shallow and the workpiece is made of soft wood, the infeed roller may leave marks on the planed surface. To correct this, increase the depth of cut and reduce the infeed roller pressure if necessary.

Dirty rollers or inadequate dust extraction may allow foreign objects to imprint on the workpiece. Remove all resin buildup from the rollers, cutterhead, and table. Also, check the dust collection system to ensure that wood chips are effectively removed.

Grooves or ridges along the plane direction

Check the cutter inserts to make sure they are not shifted, chipped, or destroyed.

Fuzzy Grain

This can happen when planing wood with high moisture content or if the cutter is dull. Sometimes, this is unavoidable due to the nature of certain wood types. To mitigate this issue, avoid using wood with high moisture content and use sharp cutters.

Burnishing

This can happen when planing wood with low compression strength. Wood fiber on sections of the workpiece is compressed by the cutterhead and form reflective streaks along the feed direction when viewed with low angled lighting.



To remove the burnishing marks, simply follow the standard finishing process:

1. Raise the grain with a damp rag.
2. Allow the wood to dry completely.
3. Lightly sand the workpiece to remove the remaining burnishing marks and raised fibers.
4. Repeat the steps above as needed, then apply finish.

Maintenance

Routine maintenance helps keep your planer operating safely and efficiently. Follow the maintenance schedule below and record completed tasks using the maintenance record worksheet provided in this manual.

NOTICE: Maintenance frequency may vary depending on operating conditions and machine usage.

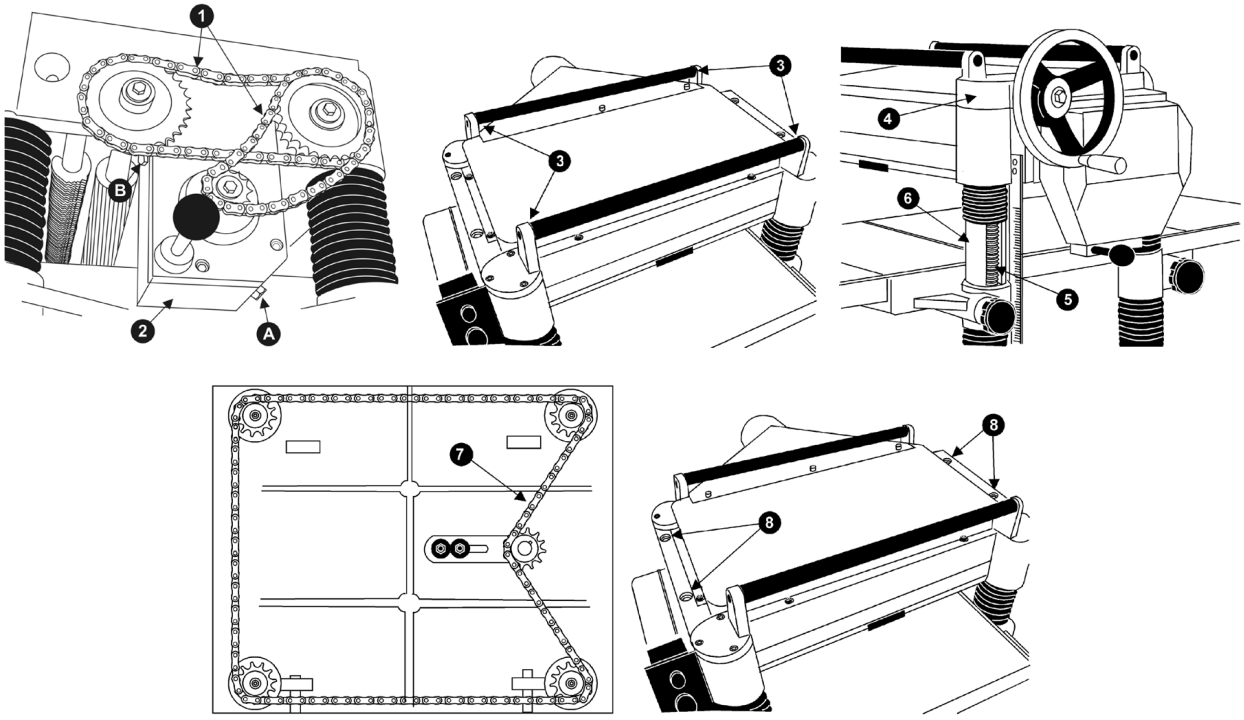
WARNING **Disconnect machine from the power source before any maintenance work is performed. After servicing the planer, remove all wrenches and tools before restarting the machine. Failure to comply can cause serious injury!**

Maintenance Schedule

Task	Frequency
Inspect power switch, cord, and plug for damage. Replace as needed.	Before each use.
Remove dust buildups from the planer and dust collection system.	When the dust collection system is full or clogged.
Inspect and clean the cutterhead. Remove any dust and resin accumulation.	Every 40 hours of operation.
Inspect/rotate/replace worn cutter inserts.	Every 40 hours of operation.
Clean infeed roller, outfeed roller, bed rollers, anti-kickback fingers and apply rust protectant.	Every 40 hours of operation.
Apply rust protectant on unpainted cast iron surfaces.	Every 40 hours of operation and before storing or transporting the machine.
Verify extension tables are flush and level with the planer bed. Adjust as needed.	Every month.
Check V-belt tension and replace if belt shows signs of cracking or glazing. Verify belt pulleys are mounted securely on the cutterhead shaft and motor shaft.	After the first 16 hours of operation, then every 6 months.
Remove dust buildups from motor and the cabinet.	Every 6 months
Inspect table chain for chain slacks.	Every 6 months
Check parallelism between the table and cutterhead, and the rollers.	Every 6 months

Lubrication Schedule

Tasks	Frequency	Reference
Lubricate drive chains and sprockets with general purpose grease.	Monthly	1
Replace gear box oil using standard gear oil, 70-90 weight.	Replace gear box oil after the first 50 hours of operation, then yearly.	2
Lubricate return roller bushings with SAE 30 oil.	Every 40 hours of operation	3
Lubricate depth of cut adjustment handwheel worm gear with general purpose grease.	Yearly	4
Lubricate lead screws with general purpose grease.	Every 3 months	5
Clean and lubricate columns with a light coat of SAE 30 oil.	Every 40 hours of operation	6
Lubricate table chain with general purpose grease.	Yearly	7
Lubricate feed roller shafts with SAE-30 oil.	Every 40 hours	8
Motor bearings	Permanently sealed bearings. Do not require lubrication	

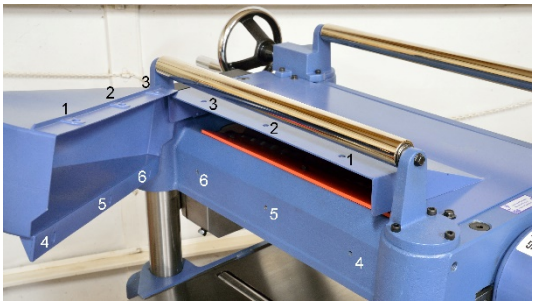


WARNING **Disconnect machine from the power source before any maintenance work is performed. After servicing the planer, remove all wrenches and tools before restarting the machine. Failure to comply can cause serious injury!**

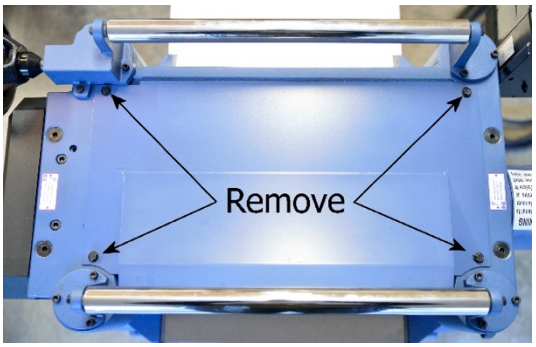
Remove Planer Top Cover

This allows you to service the cutterhead, chip deflector, and chip breaker.

1. **Disconnect planer from power source!!**
2. Remove dust chute.



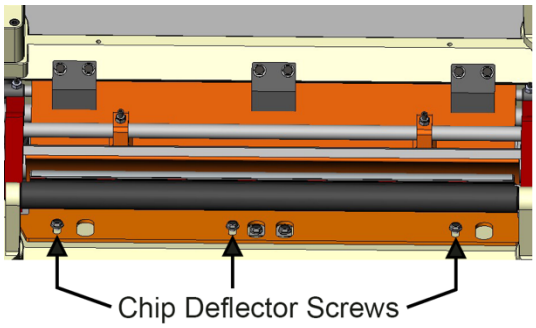
3. Remove the planer cover by removing the four cap screws from the top of the planer.



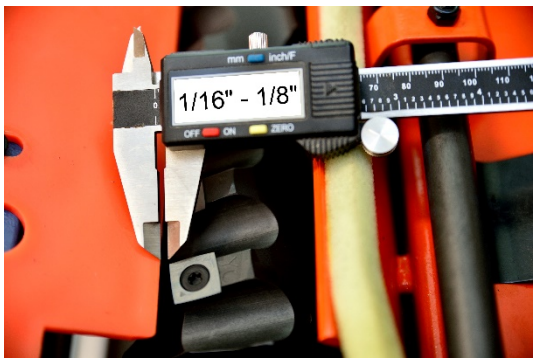
Adjust Chip Deflector Clearance

The chip deflector was pre-installed in the factory and should not require adjustments initially. If the gap between chip deflector and cutterhead goes beyond the 1/16” - 1/8” tolerance, adjustment is needed.

1. **Disconnect planer from power source!!**
2. Remove dust chute and top cover.
3. Loosen the three bolts that secures the chip deflector.



4. Adjust the distance between the chip deflector and the cutterhead. The entire edge of the chip deflector should be no less than 1/16” away from the closest point of the cutter head, but no more than 1/8”.

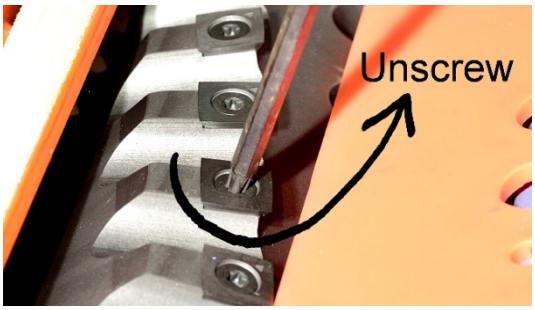


5. Re-tighten the bolts to secure the chip deflector, then reinstall the top cover and dust chute.
6. Remove all wrenches and tools before restarting the planer.

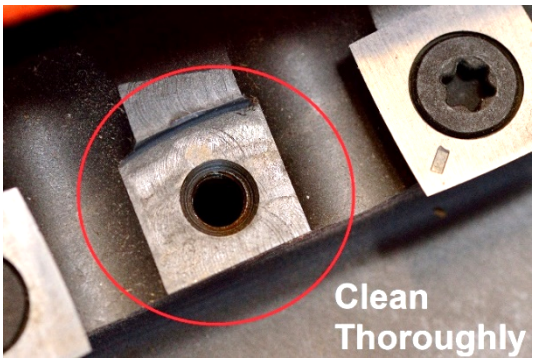
Rotate/Replace Cutter Inserts

> ⚠ **CAUTION** **Cutter inserts on the cutterhead are extremely sharp. Protect your hands with thick leather gloves to avoid injuries.**

1. **Disconnect planer from power source!!**
2. Remove dust chute and top cover.
3. Remove dust and resin accumulations on the cutterhead and the area nearby.
4. Rotate the cutter inserts 90° clockwise when they get dulled or nicked. Use a permanent marker to mark the new edge to be used.
5. To rotate/replace a cutter insert, remove the torx screw with a T-25 torx bit. Turn **COUNTERCLOCKWISE** to loosen the screw.



6. With the cutter insert removed from its platform, thoroughly clean the cutter insert platform with a vacuum or compressed air.



IMPORTANT: Obstacles between the insert and cutterhead platform will create uneven pressure against the insert. This will lower cut quality and may cause the insert to crack.

7. Reinstall the cutter insert with the marked cutting edge facing out.
8. Inspect the torx screw. Replace any damaged screws. Lubricate the screw thread with a thin coat of lightweight machine oil.

   IMPORTANT: Do not use excessive amount of lubrication, or the torx screw and the cutter insert will not sit properly.
9. Using a torque wrench, re-tighten the torx screw with 50 - 55 lb-in of torque.

   IMPORTANT: Do not overtighten the screw or the inserts may break. Do not use power tools to tighten the torx screws as it can strip the screws.
10. Reinstall top cover and dust chute when cutterhead service completes.
11. Remove all wrenches and tools before restarting the planer.

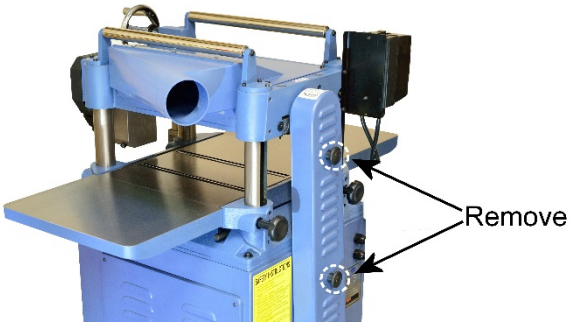
Check/Adjust Belt Tension

⚠ **CAUTION**	**Belt and pulleys may be hot after operations. Allow components to cool before servicing.**

IMPORTANT	After the initial break-in period, the V-belt should stretch by some amount. Check and adjust belt tension after 16 hours of operation.

To check belt tension:

1. **Disconnect planer from power source!!**
2. Remove the belt cover knobs and the belt cover.

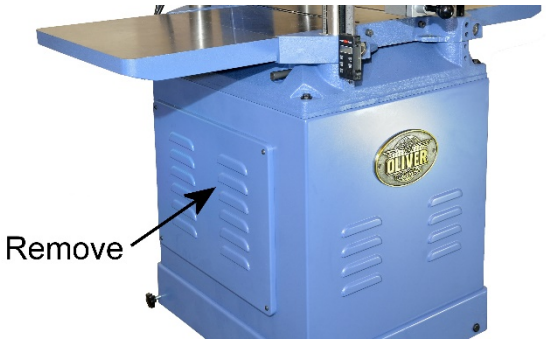


3. Apply moderate pressure on the V-belt midway between the two pulleys. Properly tensioned V-belt should deflect by approximately 1/2“.

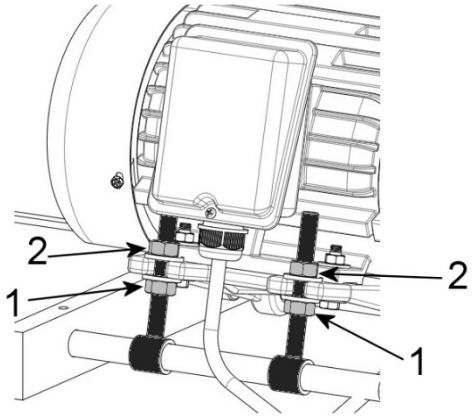


To adjust belt tension:

1. Remove the motor access panel that is on the infeed side of the planer.



2. To tighten the belt, loosen both lower motor mounting bolts (#1). Lower the motor until proper belt tension is reached. Secure the motor mounting plate by tightening both upper mounting bolts (#2), and the lower mounting bolts.

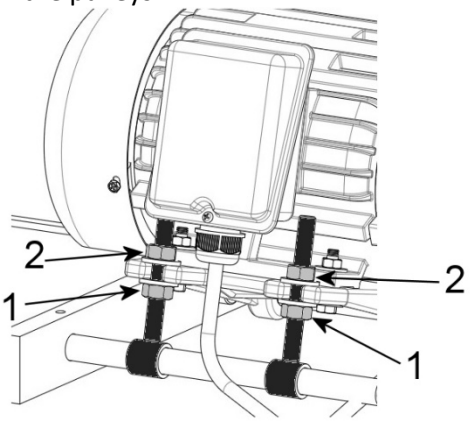


If V-belts need replacement:

IMPORTANT: V-Belts should be replaced as a group to ensure even wear and tear.

IMPORTANT: After the initial break-in period, the V-belt should stretch by some amount. Check and adjust belt tension after 16 hours of operation.

1. Loosen the upper mounting bolts (#2). Raise the motor to loosen the belt and roll the belts off the pulleys.



3. Install new belts and make sure the belts sit into the grooves of pulleys.
4. Adjust belt tension.
5. Set a reminder to readjust belt tension after the new belt is broken in. The process takes approximately 16 hours of run time.

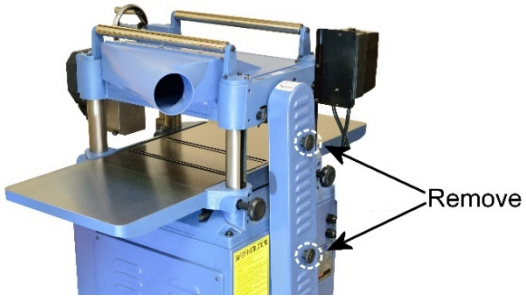
When Belt Maintenance Completes

Reinstall all the panels and covers. Remove all wrenches and tools before restarting the planer.

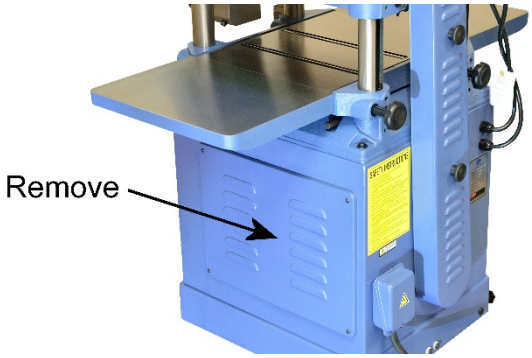
Align Belt Pulleys

The belt pulleys were aligned in the factory and should not require further adjustments. It is a good practice to check pulley alignment while checking belt tension.

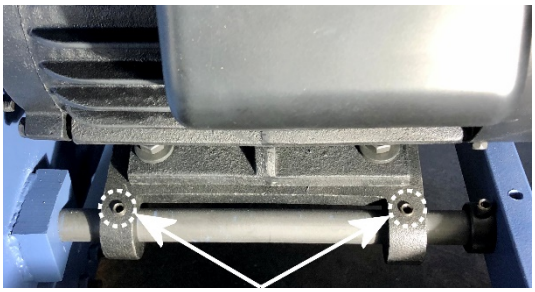
1. **Disconnect planer from power source!!**
2. Remove the belt cover knobs and the belt cover.



3. Use a straight edge to check the alignment of the belt pulleys.
4. If re-alignment is needed, open the motor access panel that is on the outfeed side of the planer.



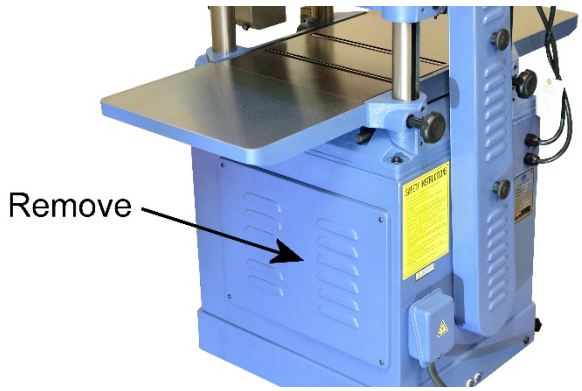
5. Loosen two set screws that hold the motor in place.



6. Move motor assembly along the mounting shaft to align the pulleys.
7. Retighten the set screws and close the motor access panel when adjustments complete.

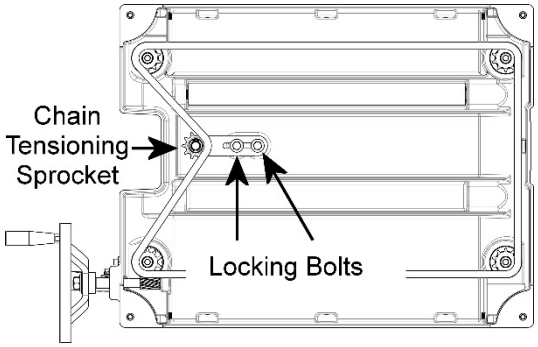
Adjust Table Chain Tension

1. **Disconnect planer from the power source!!**
2. Remove motor access panel.



3. Loosen the two locking bolts for holding the chain tensioner bracket in place.

   IMPORTANT: Keep table chain tensioned while loosening the locking bolt. If the chain falls off from the sprockets, it can take a lot of time to reinstall the chain and recalibrate the planer.



4. Push the chain tensioning sprocket against the chain with moderate tension to remove chain slack. Hold the sprocket in place, and re-tighten the locking bolts.
5. Clean and lubricate the chain as needed.
6. Re-install motor access panel when adjustments complete.

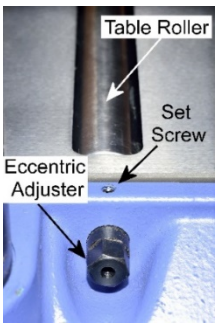
Adjust Table Roller Height

Your planer is equipped with table rollers to help feed workpieces through the planer. There is no fixed rule for setting the exact height of the table rollers. Increase the roller height when planing rough workpieces or when feeding is difficult.

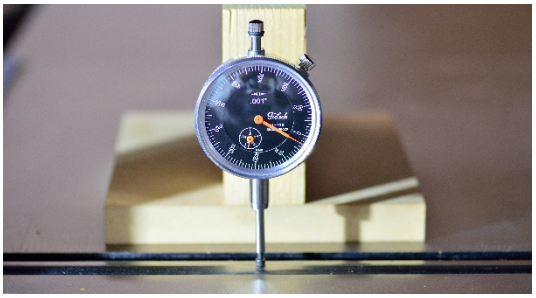
The normal table roller height is: **0.002”- 0.003”** above the table. The rollers can be raised higher, up to 0.005”, as needed. However, setting the rollers too high increases the likelihood of snipe.

To adjust table roller height:

1. **Disconnect planer from its power source!!**
2. Each end of the table roller is equipped with a set screw and an eccentric adjuster. Make sure to adjust both ends of the roller.



3. Loosen the set screws that secure the eccentric adjusters.
4. Rotate the eccentric adjusters to change roller height.
5. Use a dial indicator to verify that the roller height is consistent at both sides. Make fine adjustments as needed.



6. Retighten the set screws to secure the eccentric adjusters once the adjustments are complete.

Measure Feed Rollers / Chip Breaker / Pressure Bar Offset Relative to the Cutterhead

To ensure optimal feeding and cutting performance, the heights of the infeed roller, outfeed roller, chip breaker, and pressure bar must be properly adjusted relative to the lowest point of the cutting circle formed by the cutterhead. The diagram below illustrates the height offsets between the cutterhead and these components. The adjustments are done in the factory and should not need further adjustments.

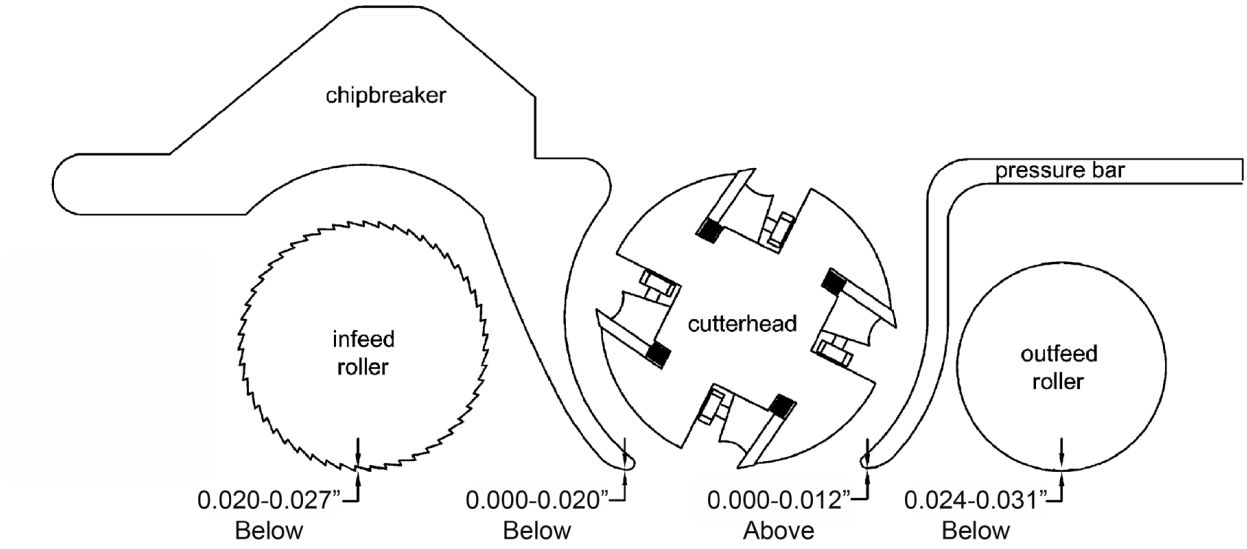


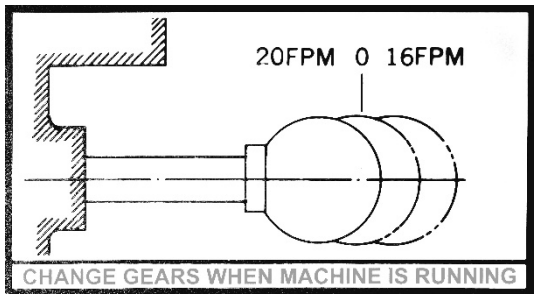
**Diagram not drawn to scale*

If feeding or cut quality issue is found, there are two ways to measure the offsets – using a dial indicator, or using a homemade gauge and a feeler gauge set.

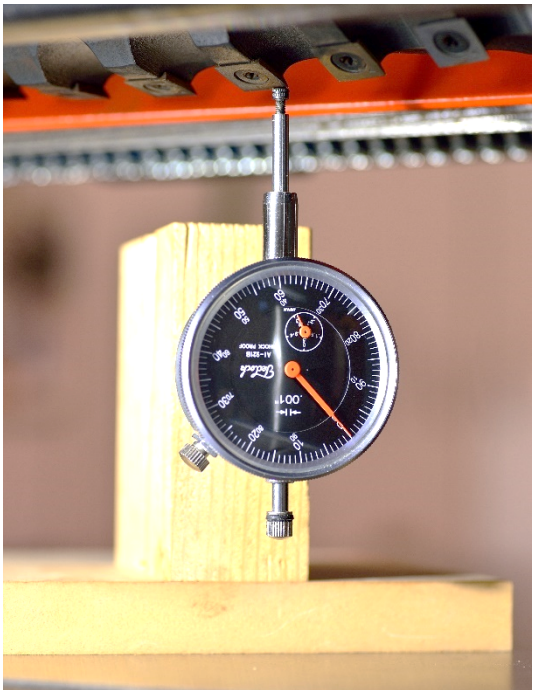
Before the work begins, thoroughly clean the table and the rollers to remove any accumulations that may interfere with the offset measurements. Reinstall the guards removed after the adjustments are complete.

Method 1: Using a Dial Indicator

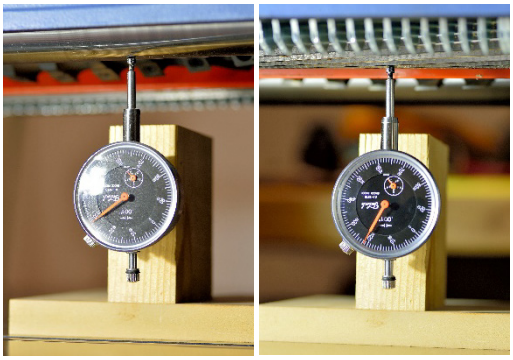
1. **Remove all tools from the planer.**
2. Turn on the planer, when it reaches full speed, shift the feed rate control knob to 0 FPM (Neutral) position to allow the feed rollers to rotate freely.



3. **Turn off planer. Disconnect planer from power source!!**
4. Prepare a dial indicator with a flat tip and a sturdy stand for offset measurements.
5. Remove the belt cover so the cutterhead can be moved using the drive belt.
6. Adjust the table height so that the dial indicator can fit beneath the cutterhead. Rotate the cutterhead and use the dial indicator to locate its lowest point.



7. Zero the dial indicator. Use this as the reference point for measuring the offset between the cutterhead and the feed rollers.
8. Move the dial indicator to the lowest point of the feed rollers or the target component to measure the offset. The reading from the dial indicator now shows the offset between the cutterhead and the target component.
9. To measure offset of the serrated infeed roller, rotate the roller to find the lowest spot.



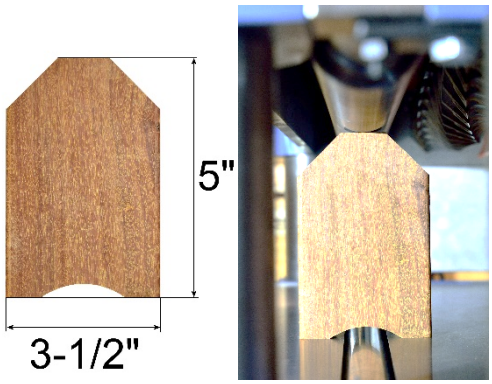
Make adjustments if the offset goes beyond the tolerance listed below:

	Tolerance
Infeed Roller	**0.020” - 0.027” below**
Chip breaker	**0.000” - 0.020” below**
Pressure Bar	**0.000” - 0.012” above**
Outfeed Roller	**0.024” - 0.031” below**

Method 2: Using Feeler Gauge

If a dial indicator is not available, it is possible to make the adjustments with a home-made gauge block and a set of feeler gauges.

1. Using hardwood, build a gauge block similar to this one below. The exact dimension is not critical. Just make sure the bottom clears the table roller. The top should be chamfered for better tool access and visibility.



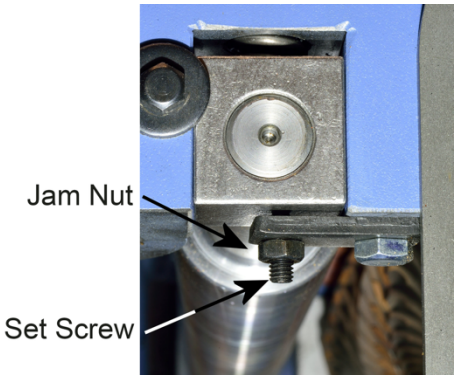
2. **Remove all tools from the planer.**
3. Set the feed rate to 0 FPM as shown in the previous method. This allows the feed rollers to rotate freely.
4. **Turn off planer. Disconnect planer from power source!!**
5. Remove the belt cover so you can rotate the cutterhead with the drivebelt.
6. Place the feeler gauge on top of the gauge block. To verify the height offset of a component, the thickness of the feeler gauge must match the target offset. For example, to check the infeed roller's offset, put the **0.020"** feeler gauge on top of the gauge block.
7. Raise the table until the lowest point of the cutterhead barely touches the feeler gauge.



8. Remove the feeler gauge and move the gauge block under the infeed roller. The gauge block should fit perfectly under the target component if the height setting is perfect.
9. To measure offset of the serrated infeed roller, rotate the roller to find the lowest spot.

Adjust Feed Roller Height

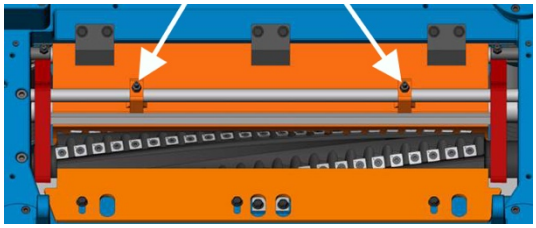
1. **Disconnect planer from power source!!**
2. Loosen the jam nuts on both ends of the feed roller. Rotate the set screws to change the height of the roller. Continue to calibrate until the cutterhead-roller offset is uniform across the entire feed roller.



3. When the correct height is set, hold the set screws in place and re-tighten the jam nuts.

Adjust Chipbreaker Height

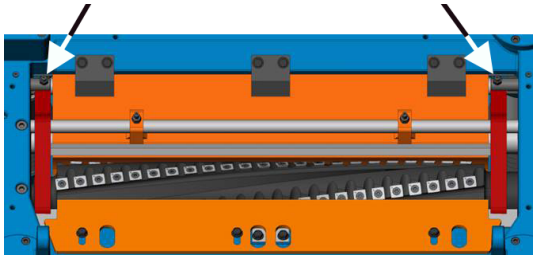
1. **Disconnect planer from power source!!**
2. Remove the top cover.
3. There are two set screws for setting the height of the chipbreaker. Loosen the two jam nuts that secure the set screws.



4. Adjust the set screws until the entire length of the chip breaker is 0.01” below the lowest point of the cutting arc formed by the cutterhead.

Adjust Pressure Bar Height

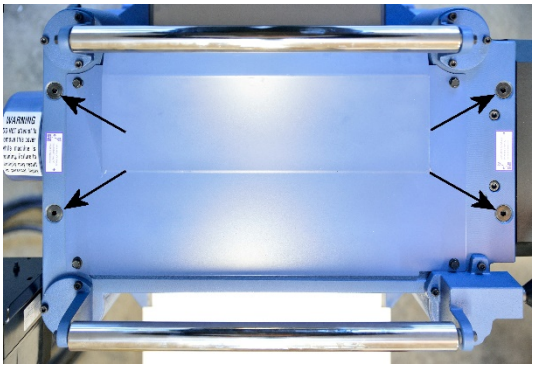
1. **Disconnect planer from power source!!**
2. Remove the top cover.
3. There are two set screws on each end of the pressure bar for setting its height. Loosen the two jam nuts that secure the set screws.



4. Adjust the set screws until the pressure bar is uniformly set to the target setting of 0.008" above the lowest point of the cutting arc formed by the cutterhead.

Adjust Feed Roller Pressure

If your workpiece is slipping and not feeding through the machine, increase the feed roller pressure by turning the pressure bolts clockwise with a hex wrench.



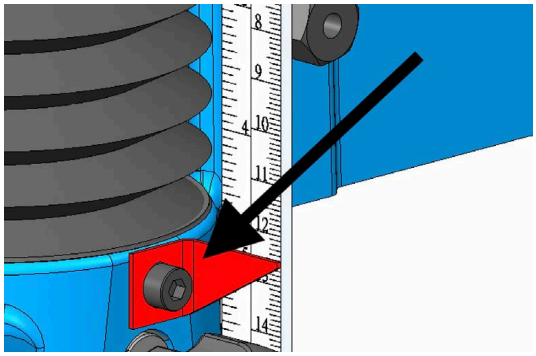
There is a pressure adjustment bolt on each end of the feed rollers. Make sure the adjustments are made on BOTH ends of the feed roller, so even pressure is applied across the entire feed roller.

If the workpiece is damaged by the feed roller, reduce pressure.

Adjust Table Height Scale

The table height scale is pre-calibrated at the factory. It can be adjusted to accommodate a different viewing angle, or if the scale is shifted.

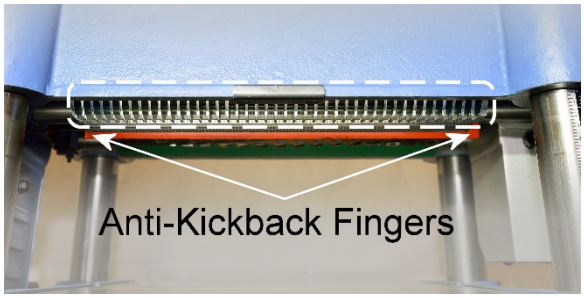
1. Prepare a piece of 2x4 with at least one flat face for calibration.
2. Plane the board with the flat face down until the entire surface is cut. Use a caliper to measure the mid-section of the board for thickness.
3. Loosen the screws that secure the pointer.



4. Shift the pointer so it is pointing at the exact value as the thickness of the board.
5. Re-tighten the screws after the adjustments.

Inspect Anti-Kickback Fingers

This planer is equipped with anti-kickback fingers. Once engaged, the workpiece can only move towards the cutterhead. This prevents accidental kickbacks which can cause serious injuries.



Inspect the anti-kickback fingers regularly to ensure they can move freely, and that their teeth are clean and are sharp enough to stop a board from moving backwards. Clean and apply a very light coat of SAE-30 machine oil as rust preventive.

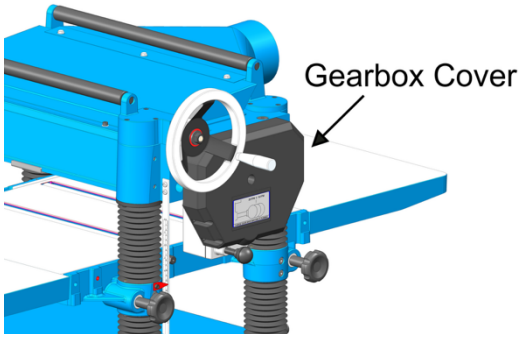
Replace anti-kickback fingers if they are damaged or worn.

> **⚠CAUTION⚠**
>
> Do not operate this planer without functioning anti-kickback fingers. Failure to comply can result in serious personal injuries.

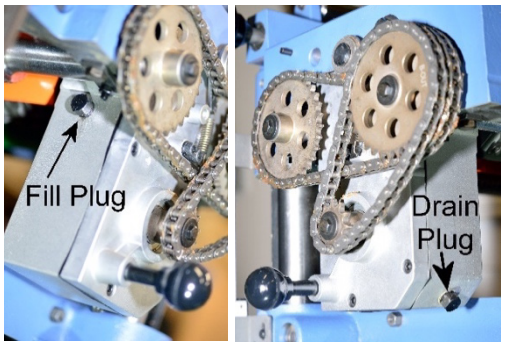
Replace Gearbox Oil

The gear box oil protects the gears from premature wear. Replace the oil after the first 50 hours of operation, then yearly.

1. **Disconnect planer from the power source!!**
2. Remove the gearbox cover.



3. Locate the fill plug and the drain plug as shown in the pictures below.



4. Remove both drain plug and fill plug to drain the gearbox oil.
5. Tighten the drain plug.
6. Fill the gearbox with approximately 0.5 quarts of standard gear oil (70-90 weight).
7. Tighten the fill plug and reinstall the gearbox cover.
8. Recycle the used oil at approved facilities.

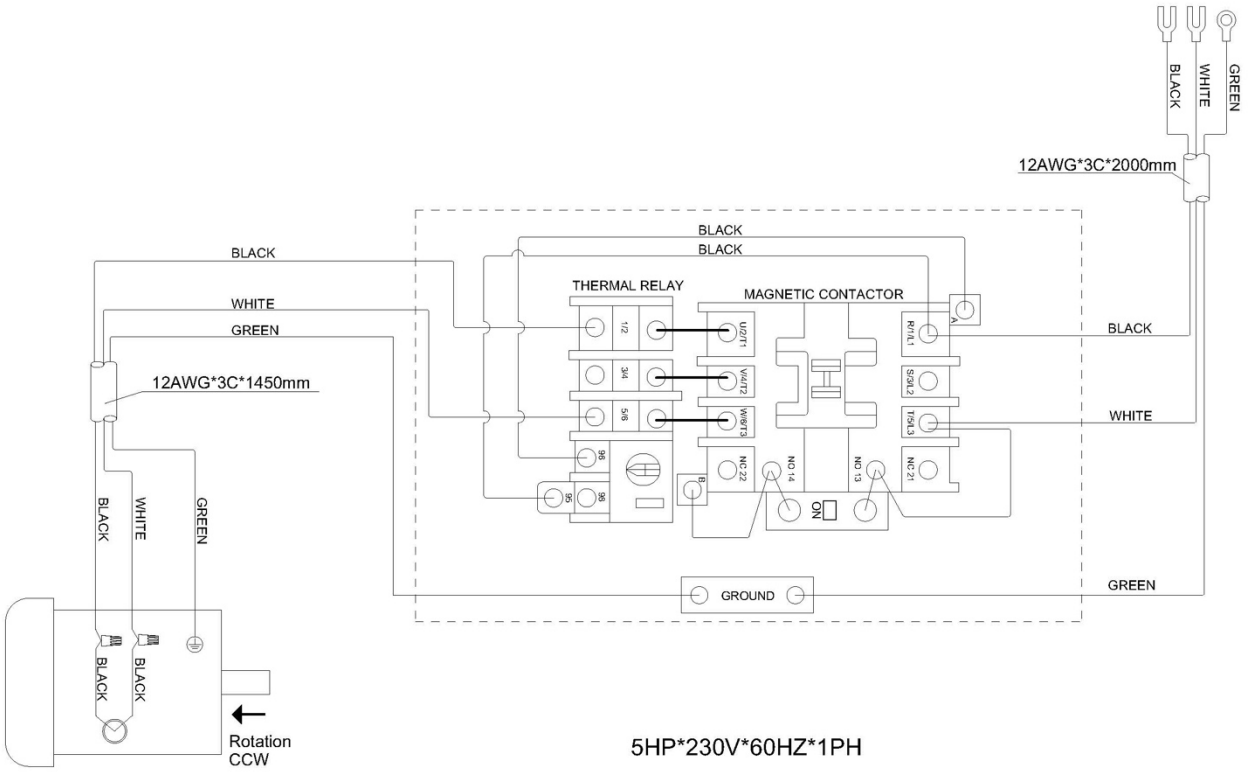
Troubleshooting

Problem	Possible Cause	Possible Solution
Machine does not start.	Machine is not connected to a power source.	1. Make sure machine is plugged in, or power disconnect is at the ON position. 2. Check electrical panel for tripped circuit breaker or blown fuse. 3. Ensure all electrical connections have good contacts.
	Low voltage/current.	1. If an extension cord is used, use a shorter/heavier extension cord. 2. Have an electrician check/repair the power circuit.
	Overload protection triggered.	Press the overload protection reset button to reset.
	Faulty switch/motor/ capacitor.	Contact customer service for further assistance.
Machine trips overload protection/ circuit breaker, or blow fuses.	Machine is undersized for the operation.	Reduce the depth of cut and feed rate.
	Workpiece moisture level is too high.	Only plane wood with moisture level below 20%.
	Machine is jammed.	Inspect the cutterhead and make sure it is not obstructed by woodchips. Check dust chute and headstock and clear blockages.
	Too much load on a circuit.	Make sure the power circuit is sized for this machine. If the circuit is shared, ensure the circuit is sized to supply power for all items in the circuit.
	Motor/capacitor issue.	Contact customer service for further assistance.
Machine stalls during operation.	Machine is undersized for the operation.	Reduce the depth of cut. Lower feed rate.
	Dull cutters	Rotate/replace cutter inserts.
	Belt slipping	Clean belt and pulleys. Adjust belt tension.
	Motor/capacitor issue.	Contact customer service for further assistance.
Machine stopped during operation.	Thermal overload protection triggered.	Wait for at least 30 seconds for the machine to cool down, then press STOP button to reset overload protection. Reduce depth of cut and feed rate before resuming the operation.
Feed roller chain jumps during operation.	Loose chain.	Adjust chain tensioner.
	Misaligned sprockets.	Align sprockets.
	Worn sprockets.	Replace sprockets and chains.

Problem	Possible Cause	Possible Solution
Unable to move feed rate knob.	Machine is not running.	Only move feed rate knob while the machine is running idle at full speed.
Feed rollers do not move when machine is running.	Feed rate is set to 0 FPM.	Shift feed rate control knob to set feed rate to 16/20 FPM while machine is running idle at full speed.
Workpiece does not feed smoothly.	Low feed roller pressure.	Adjust feed roller spring tension.
	Incorrect feed roller height setting.	Adjust feed rollers height so the bottom of the rollers is below the lowest point of the cutterhead. Infeed Roller: 0.020” - 0.027” below. Outfeed Roller: 0.024” - 0.031” below.
	Dirty planer table / feed rollers.	Clean table and feed rollers. Apply paste wax on the table to reduce drag. Do not use silicone lubrications on tabletop.
	Belt slipping	Clean belt and the pulleys. Adjust belt tension. Replace the belt as needed.
	Stuck planer bed roller.	Clean and lubricate roller.
Machine vibrates excessively or makes unexpected noise.	Damaged cutter inserts.	Replace cutter inserts.
	Machine stands on uneven floor.	Reposition on flat, level surface.
	Chip deflector is hitting the cutterhead.	Move chip deflector 1/16”- 1/8” away from cutterhead.
	V-belt worn, slipping or hitting belt cover.	Clean belt and pulleys. Adjust belt tension. Replace V-belt if it shows signs of aging.
	Feed roller bushing needs lubrication.	Lubricate bushings.
	Loose or bent pulley	Inspect pulley. Replace as needed.
	Improper motor mounting.	Check and adjust motor mounting.
	Loose components.	Tighten fasteners of the component.
	Worn bearings	Contact customer service for assistance.
Uneven depth of cut side to side.	Cutterhead is not parallel with planer table.	Adjust cutterhead-table parallelism. Tolerance: Less than 0.004” side-to-side.
Board thickness does not match the scale’s measurement.	Table height scale index is mispositioned.	Adjust the index.

Problem	Possible Cause	Possible Solution
Workpiece came out twisted.	Workpiece is twisted before the cut.	Planer is not the tool to flatten a twisted workpiece. Flatten one side with a jointer before proceeding with a planer.
	Feed/bed roller is not parallel with the cutterhead.	Adjust roller/table parallelism.
Excessive snipe.	Extension tables slope down.	Adjust the extension tables to make them parallel with the planer bed.
	Long workpiece is not supported properly.	Use auxiliary rollers to support long workpiece.
	A small amount of sniping can happen sometimes.	Add an extra 6” length on a workpiece for planing, and then trim off the ends.
End of workpiece splitting.	Aggressive depth of cut for the wood type.	Reduce depth of cut.
	Planing end grain.	Do not plane end grain. Use a drum sander instead.
Chipping in workpiece surface.	Dull or damaged cutter.	Rotate/replace cutter insert.
	Planing against/across grain or knots.	Reduce depth of cut. Moisten problematic areas before planing.
	Too much material removed in one pass.	Reduce feed rate and depth of cut.
Indentation in workpiece surface.	Dirty rollers.	Remove all buildups on infeed, outfeed, and table rollers.
	Inefficient chip removal.	Check dust collection system for suction. Adjust chip breaker and chip deflector.
Fuzzy looking finish.	Wood moisture content too high.	Only process wood with less than 20% moisture content.
	Dull cutter.	Rotate/replace cutter insert.
	Some wood types tend to have fuzzy grain.	Adjust feed rate / depth of cut. Use sharp cutters.
Glossy looking finish.	Dull cutter.	Rotate/replace cutter insert.
	Cutting depth too shallow.	Increase depth of cut.
Long lines or ridges running along the length of board.	Chipped cutter or incorrectly installed cutter.	Rotate/replace damaged cutter insert. Reinstall cutter insert.
Serrated marks on workpiece.	Cutting depth too shallow.	Increase depth of cut.

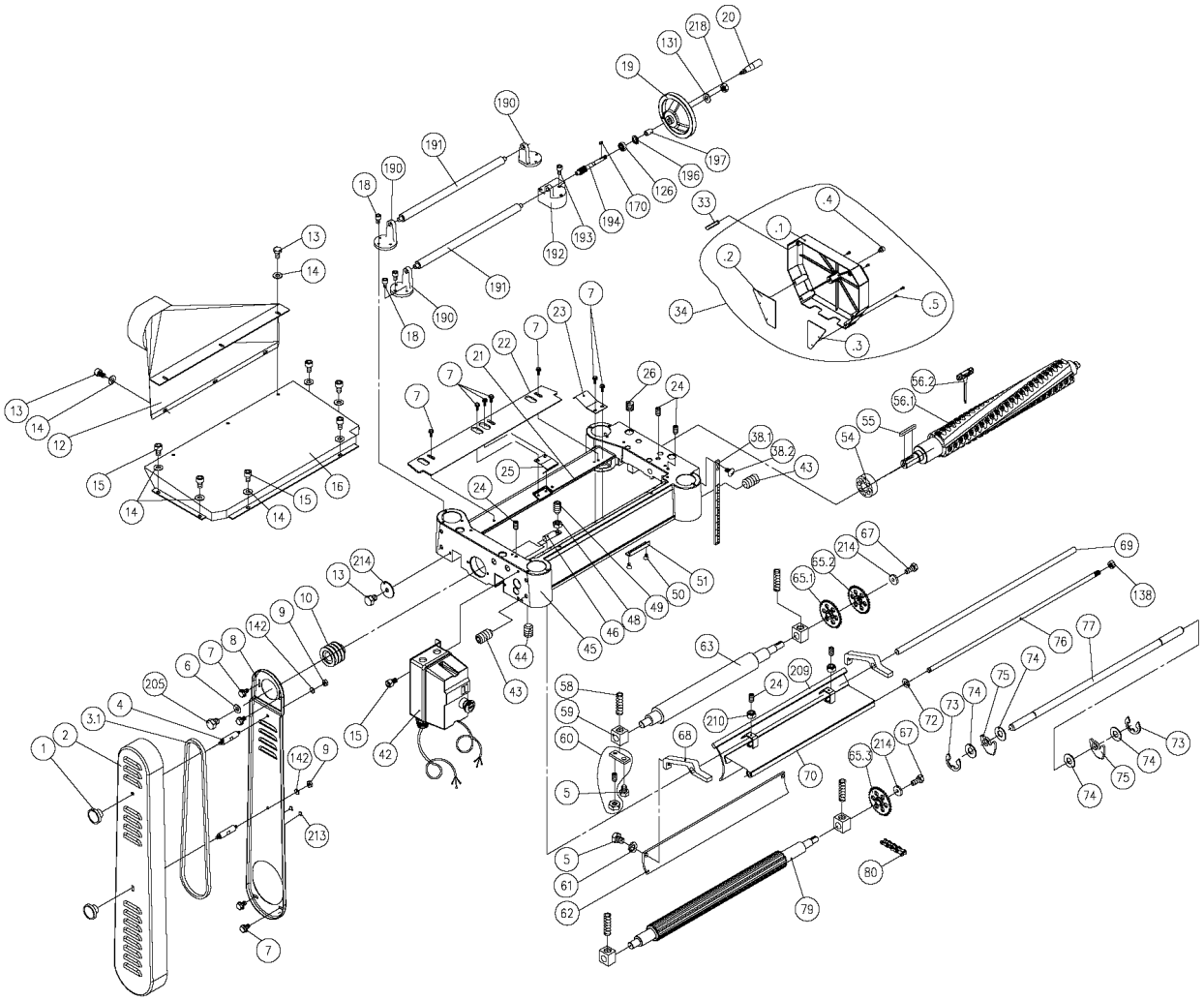
Wiring Diagram



5HP*230V*60HZ*1PH

Parts List

Headstock Assembly



Gearbox Assembly

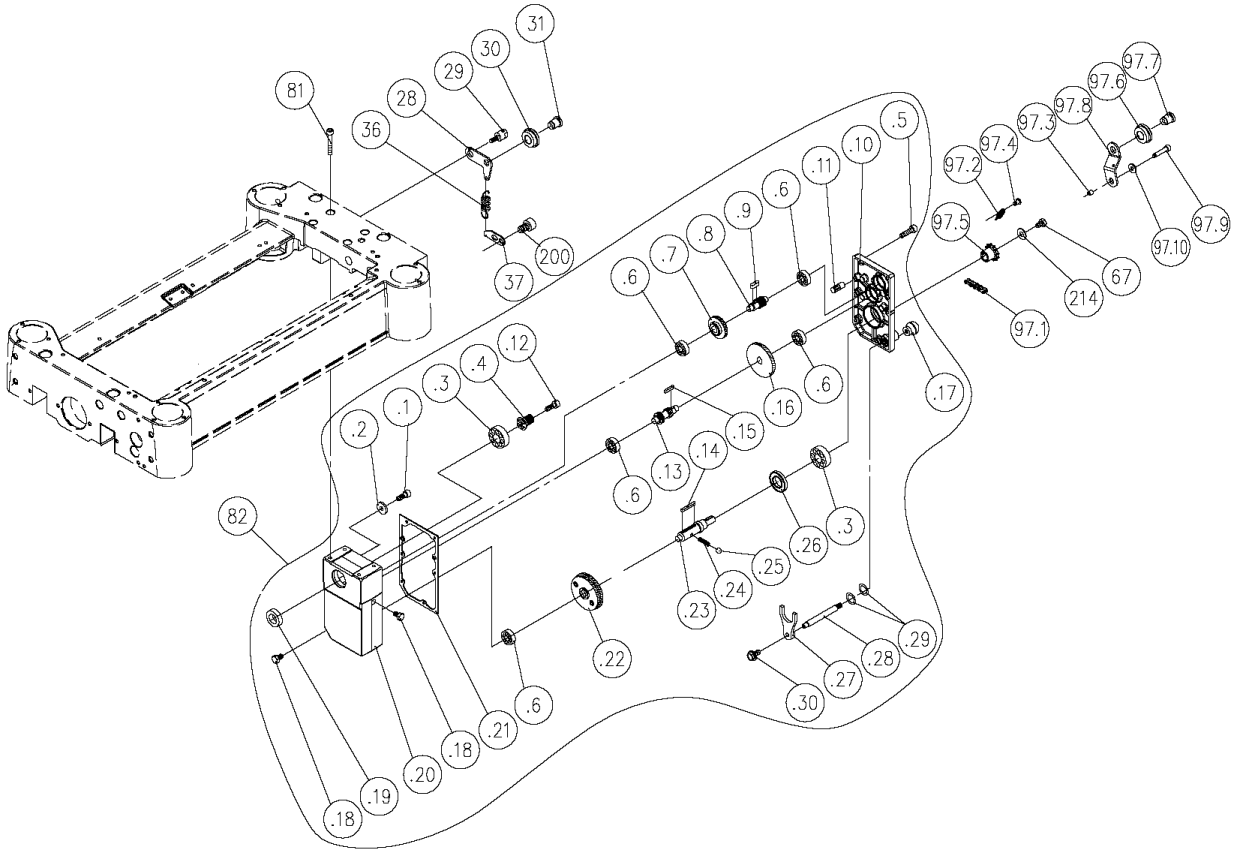
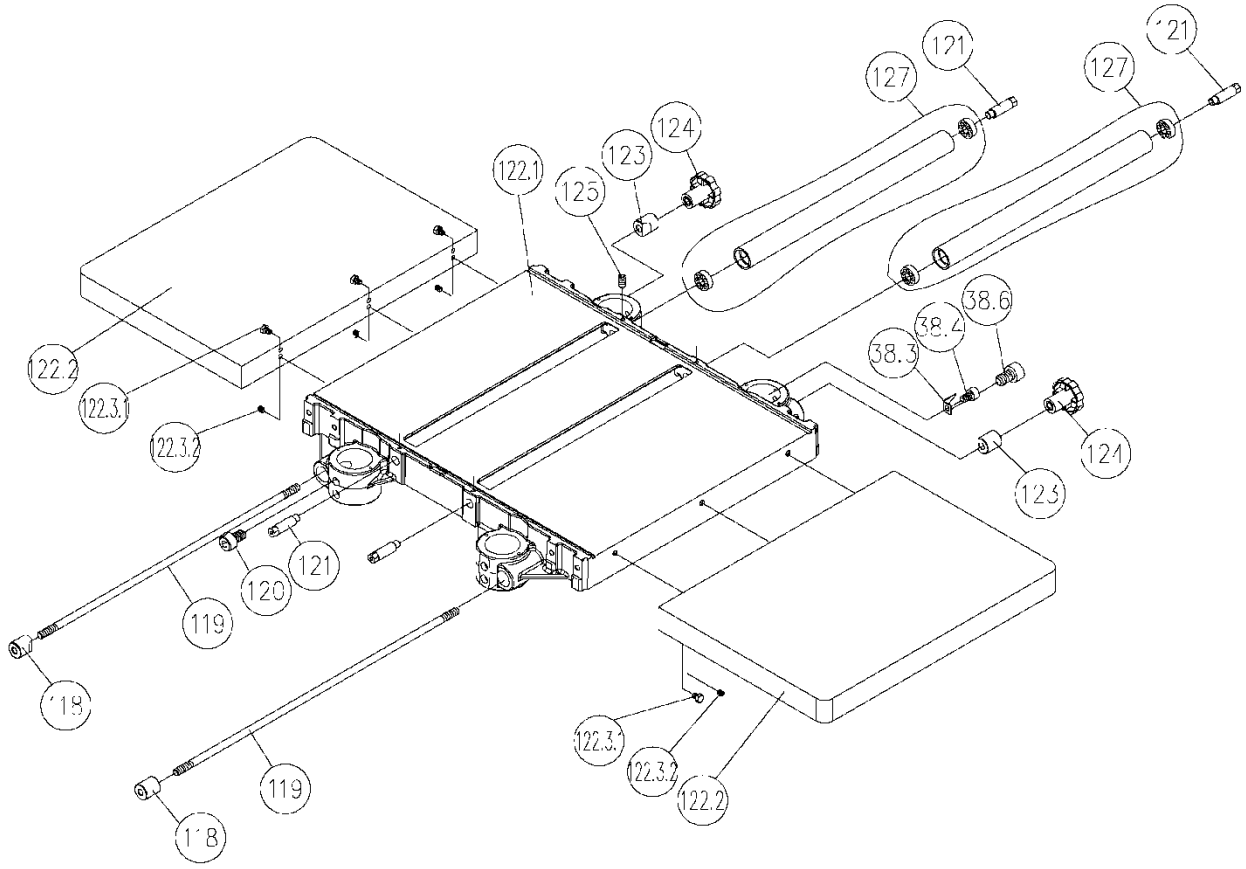
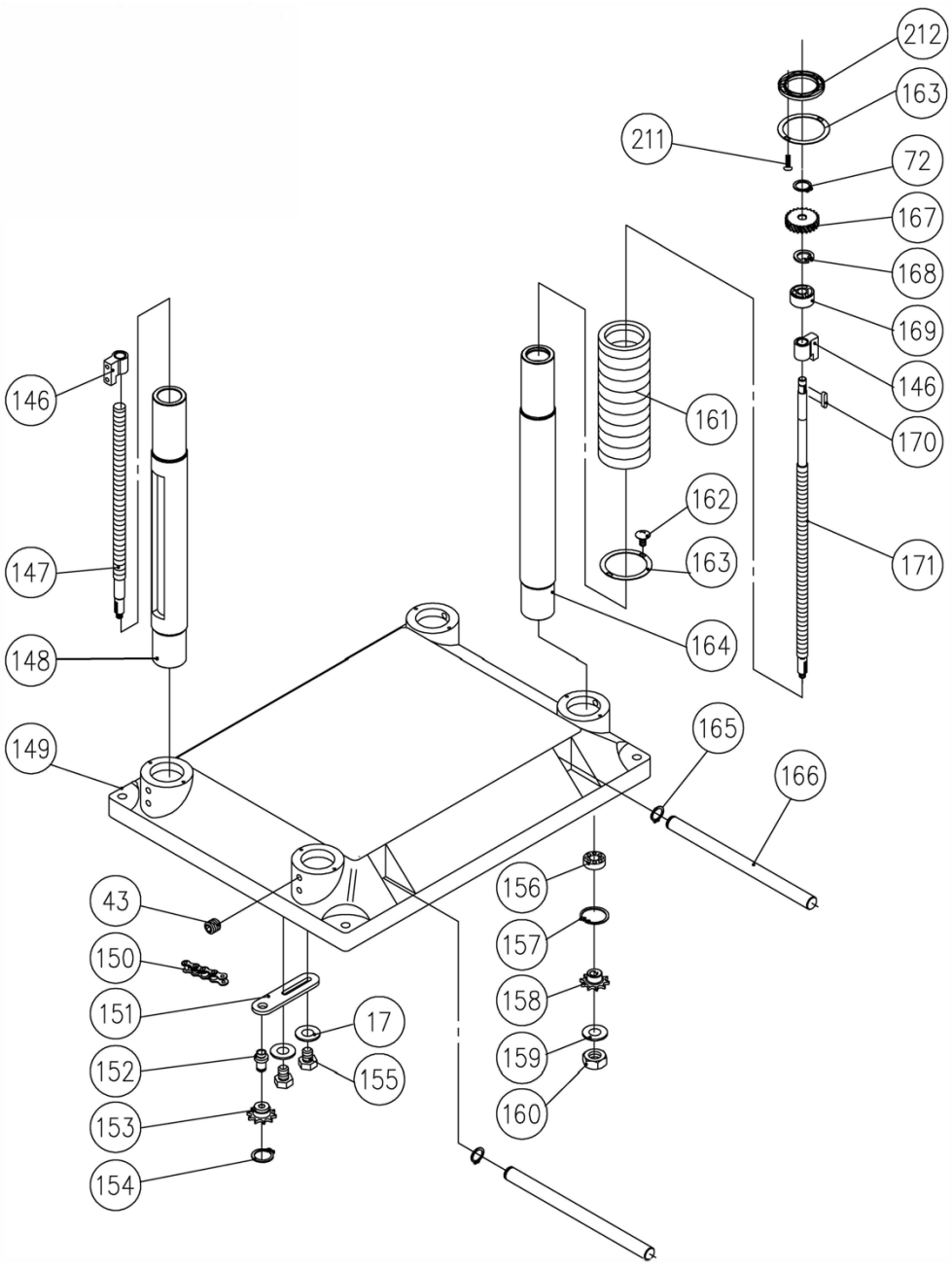


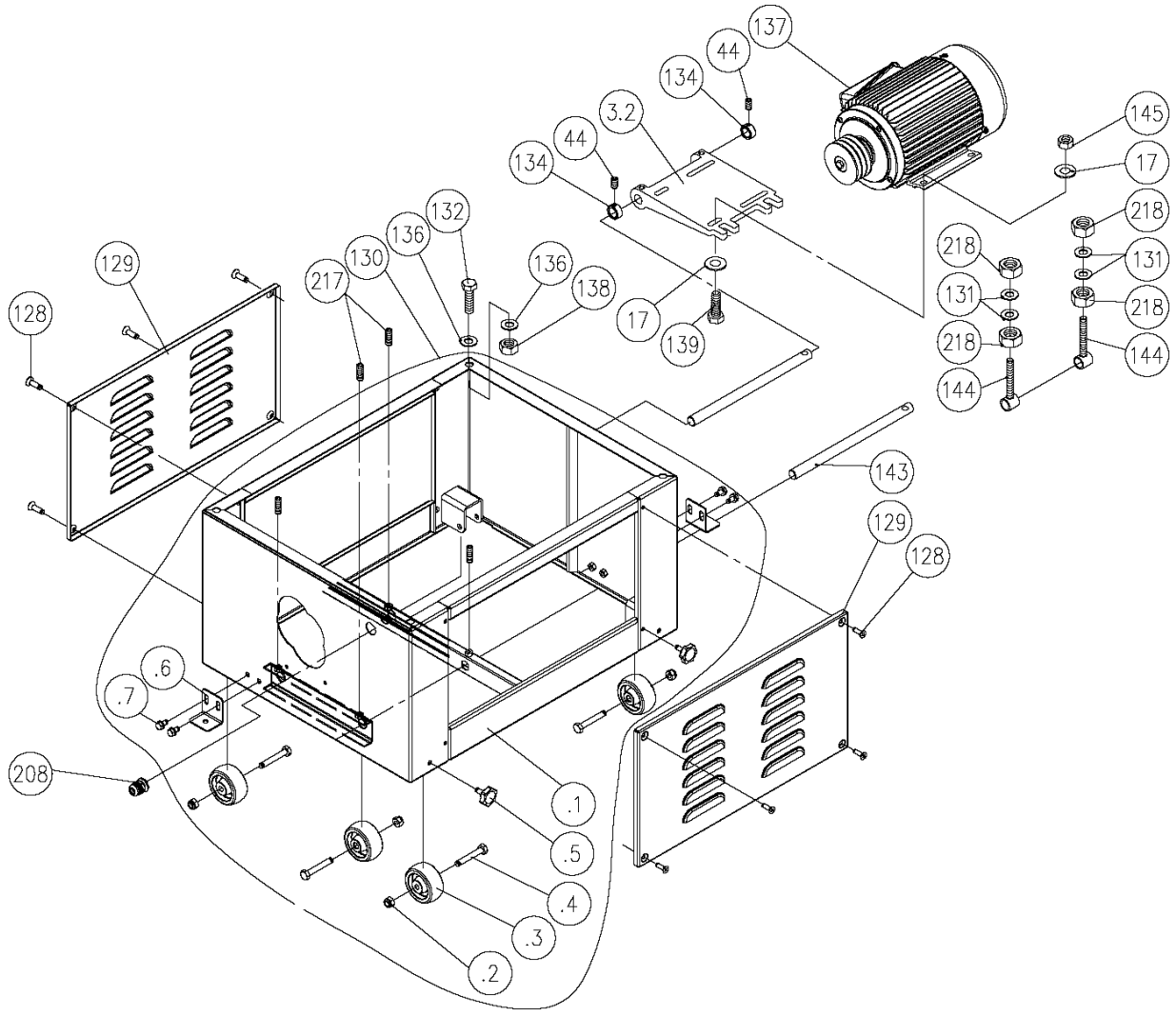
Table Assembly



Base Assembly



Motor and Cabinet Assembly



Key	Part Number	Descriptions	Specifications	QTY
1	230118-000	Knob		2
2	170871-127	Belt Guard		1
3.1	014013-000	V-Belt	M58	3
3.2	050295-008	Motor Bracket		1
4	380147-901	Bolt		2
5	000003-204	Hex. Screw	M8*1.25P*20	6
6	006001-043	Flat Washer	8.2(+0.2/-0)*30*4.0t	2
7	000902-202	Hex. Screw W/Washer	M6*1.0P*12	15
8	170432-127	Belt Guard Frame		1
9	009005-200	Hex. Nut	5/16"-18NC(12.7B*6.75H)	2
10	050273-901	Cutter Head Pulley		1
12	920264-001	Dust Chute		1
13	000002-201	Hex. Screw	M6*1.0P*12	10
14	006002-032	Flat Washer	6.6*13*1.0t	12
15	000103-103	CAP Screw	M6*1.0P*12	8
16	170494-127	Dust Cover		1
17	006001-041	Flat Washer	8.2*22*3.0t	10
18	000103-106	CAP Screw	M6*1.0P*16	9
19	920263-001	Handwheel Assembly		1
20	230114-906	Handle		1
21	200021-000	Foam Gasket		1
22	250172-617	Chip Deflector		1
23	270015-901	Spring Plate		3
24	000203-106	SET Screw	M6*1.0P*16	5
25	270017-901	Spring Plate		1
26	380200-901	Tension Bolt		4
28	170405-901	Bracket		1
29	290039-901	Shaft		1
30	130071-000	Chain Tensioner		1
31	360349-901	Chain Tensioner Shaft		1
33	011004-102	Spring Pin	6*20	2

Key	Part Number	Descriptions	Specifications	QTY
34	924736-000	Side Cover Assembly		1
34.1	251337-000	Side Cover		1
34.2	174671-902	Side Cover Guard		1
34.3	174659-902	Side Cover Guard		1
34.4	000104-103	CAP Screw	M8*1.25P*12	1
34.5	002001-704	Round Head Phillips Lock Screw	M4*0.7P*8	4
36	280050-000	Spring		1
37	170406-901	Hook		1
38	921244-001	Scale Assembly		1
38.1	571057-000	Scale		1
38.2	000304-203	Round Head Screw	M6*1.0P*12	2
38.3	170476-156	Pointer		1
38.4	000102-103	CAP Screw	M5*0.8P*10	1
38.5	000205-101	SET Screw	M10*1.5P*12	1
38.6	000104-104	CAP Screw	M8*1.25P*16	1
42	938258-001	Magnetic Switch Assembly	5HP*220V-240V*1PH	1
43	000205-101	Set Screw	M10*1.5P*12	15
44	000204-103	Set Screw	M8*1.25P*12	3
45	050293-127	Head Casting		1
46	360385-901	Adjusting shaft		2
48	008005-200	Hex. Nut	M6*1.0P(10B*5H)	2
49	000203-107	Set Screw	M6*1.0P*20	2
50	000402-104	Flat Head Screw	M5*0.8P*12	2
51	170409-901	Limit Plate		1
54	030210-002	Ball Bearing	6206	1
55	012204-001	Key	8*8*36	1
56.1	924684-001	Helical Cutterhead Assembly	4 Slot-68 Inserts	1
56.2	040710-000	Trox Wrench	T-25	1
58	280051-000	Spring		4
59	130039-000	Bushing		4
60	923901-001	Retainer Plate Assembly		4

Key	Part Number	Descriptions	Specifications	QTY
61	006305-100	Spring Washer	8.2*13.7	2
62	170477-019	Pressure Plate		1
63	360407-000	Outfeed Roller		1
65.1	150027-000	Chain Sprocket		1
65.2	150025-000	Chain Sprocket		1
65.3	150028-000	Chain Sprocket		1
67	000002-203	Hex. Screw	M6*1.0P*16	3
68	070016-025	Pressure Plate Bracket		2
69	360386-902	Shaft		1
70	170478-019	Chip Breaker		1
72	010003-000	Retaining Ring	STW-12	2
73	010209-000	Retaining Ring	ETW-15	2
74	250160-615	Spacer		55
75	172281-905	Anti-Kick Back		56
76	360387-902	Shaft		1
77	360388-902	Shaft		1
79	360389-000	Infeed Roller		1
80	016308-002	Chain	#06B*67P	1
81	000104-114	CAP Screw	M8*1.25P*50	4
82	924731-001	Gear Box Assembly		1
82.1	000103-103	CAP Screw	M6*1.0P*12	1
82.2	006001-020	Flat Washer	6.2*20*3.0t	1
82.3	030208-002	Ball Bearing	6204	2
82.4	320196-000	Gear		1
82.5	000103-108	CAP Screw	M6*1.0P*25	5
82.6	030106-002	Ball Bearing	6201	5
82.7	320197-000	Gear		1
82.8	320160-000	Shaft		1
82.9	012003-003	Key	5*5*12	1
82.10	090431-000	Gear Box Cover		1
82.11	360355-901	Pin		2

Key	Part Number	Descriptions	Specifications	QTY
82.12	002602-106	CAP Locking Screw	M6*1.0P*25	1
82.13	320205-000	Shaft		1
82.14	012004-003	Key	6*6*40	1
82.15	012003-002	Key	5*5*10	1
82.16	320198-000	Gear		1
82.17	250372-615	Knob		1
82.18	043401-000	Plug	PT1/4"-19	2
82.19	043608-000	Oil Seal	TCX4 28*40*8	1
82.20	090430-000	Gearbox		1
82.21	340154-000	Gearbox Gasket		1
82.22	922351-000	Gear Assembly		1
82.23	360357-000	Shaft		1
82.24	280052-000	Spring		1
82.25	017002-000	Steel Ball	Ø6	1
82.26	043505-000	Oil Seal	SC25*47*6	1
82.27	130404-000	Clutch		1
82.28	360358-901	Shaft		1
82.29	043303-000	Retaining Ring	P12	2
82.30	029502-201	Hex. Screw W/Lock Washer	M6*1.0P*12	1
97.1	016304-000	Chain	#06B*50P	1
97.2	280050-000	Spring		1
97.3	160086-903	Bushing		1
97.4	000801-101	Round Head Hex Screw	M6*1.0P*10	1
97.5	150008-000	Chain Sprocket		1
97.6	130071-000	Chain Tensioner		1
97.7	360349-901	Chain Tensioner Shaft		1
97.8	175408-901	Idler Bracket		1
97.9	000103-109	CAP Screw	M6*1.0P*30	1
97.10	006001-034	Flat Washer	6.7*16*2.0t	1
118	130038-000	Locking Block		2
119	360390-902	Shaft		2

Key	Part Number	Descriptions	Specifications	QTY
120	000104-104	CAP Screw	M8*1.25P*16	7
121	360391-901	Eccentric Shaft		4
122.1	050302-127	Table		1
122.2	050301-127	Extension Wing		2
122.3	850338-000	Hardware Bag for Extension Wing		1
122.3.1	000003-105	Hex. Screw	M8*1.25P*25	6
122.3.2	000204-103	SET Screw	M8*1.25P*12	6
123	130037-000	Locking Block		2
124	230115-000	Knob		2
125	000203-104	SET Screw	M6*1.0P*12	4
126	030007-001	Ball Bearing	6201	1
127	921208-001	Roller W/Bearing		2
128	000403-204	Flat Head Screw	M6*1.0P*20	8
129	170479-127	Stand Access Panel		2
130	925503-001	Stand Assembly		1
130.1	175587-127	Stand		1
130.2	008308-200	Locking Nut	M10*1.5P(17B*12H)	4
130.3	250420-615	Wheel		4
130.4	000004-313	Hex. Screw	M10*1.5P*65	4
130.5	004001-101	Knob	5/16"-18NC*3/4"	2
130.6	174711-000	Fixing Plate		2
130.7	049201-101	Hex. Screw w/Flat Washer	M8*1.25P*16/(13B*6.5H)	4
131	006001-091	Flat Washer	13*28*3.0t	5
132	000005-202	Hex. Screw	M12*1.75P*50	4
134	190074-901	Spacer		2
136	006002-091	Flat Washer	13*28*3.0t	8

Key	Part Number	Descriptions	Specifications	QTY
137	901463-001	Motor Assembly	5HP*230V*60HZ*1PH*2P	1
137.X	496220-000	Start Capacitor	400MFD/250VAC(LAI)(45*90)	1
137.X	496258-000	Run Capacitor	50UF/350VAC(LAI)(45*86)	1
137.X	012202-002	Key	5*5*30	1
137.X	050271-901	Motor Pulley		1
138	008009-200	Hex. Nut	M12*1.75P(19B*10H)	5
139	000003-108	Hex. Screw	M8*1.25P*40	4
142	006002-046	Flat Washer	8.5*16*1.5t	2
143	360394-901	Support Shaft		2
144	380249-901	Adjusting Rod Assembly		2
145	008006-100	Hex. Nut	M8*1.25P(13B*6.5H)	4
146	130045-000	Knob		4
147	360395-000	Lead Screw		3
148	050296-000	Column		3
149	050297-127	Base Casting		1
150	016004-000	Chain	#40*166P	1
151	170413-901	Chain Tensioner Bracket		1
152	360362-901	Sprocket Shaft		1
153	150011-000	Chain Sprocket		1
154	010006-000	Retaining Ring	STW-15	1
155	000003-105	Hex. Screw	M8*1.25P*25	1
156	030003-001	Ball Bearing	6202	4
157	010103-000	Retaining Ring	RTW-35	4
158	150032-000	Chain Sprocket		4
159	006001-078	Flat Washer	10.5*19*1.5t	4
160	008008-100	Hex. Nut	M10*1.25P(17B*8H)	4
161	250173-615	Dustproof Cover		8
162	001104-510	Round Head Tapping Screw	M5*2.12P*10(3.0)	30
163	170481-901	Fixing Ring		16
164	050298-000	Main Column		1

Key	Part Number	Descriptions	Specifications	QTY
165	010202-000	Retaining Ring	ETW-17	4
166	360396-902	Moving Pole		4
167	320203-000	Helical Gear		1
168	010104-000	Retaining Ring	RTW-38	1
169	130046-000	Support Sleeve		1
170	012002-004	Key	4*4*10	2
171	360397-000	Elevating Screw		1
190	050299-000	Roller Bracket		3
191	360398-902	Roller		2
192	050300-000	Worm Gear Box		1
193	000103-113	CAP Screw	M6*1.0P*50	3
194	320204-000	Shaft		1
196	010102-000	Retaining Ring	RTW-32	1
197	190008-901	Spacer		1
200	000103-102	CAP Screw	M6*1.0P*10	2
205	048201-104	Hex. Locking Screw	M8*1.25P*30	1
208	021309-000	Strain Relief Cable Gland	PGB16-14B	1
209	200057-646	Foam Gasket	3/8"*1/2"*525L	1
210	008304-200	Locking Nut	M6*1.0P(10B*7H)	2
211	000303-106	Round Head Screw	M5*0.8P*16	2
212	251412-615	Packing		1
213	200013-615	Anti-collision Pads		2
214	006001-021	Flat Washer	6.2*22*3t	7
217	000204-105	SET Screw	M8*1.25P*20	4
218	008009-100	Hex. Nut	M12*1.75P(19B*10H)	5

Spare Parts

Part Number	Descriptions	Specifications	QTY
924670-001	Inserts 10 PCS/Box		1
038201-101	Torx Screw	#10-32UNF*1/2”	10

Maintenance Record

Date	Task	Operator

Notes

Warranty and Service Policy

Limited Warranty

Oliver Machinery ("Oliver") warrants to the original purchaser that its products will be free from defects in materials and workmanship under normal use and service for a period of two (2) years from the date of purchase by the original customer.

Motors, electronic components, and electrical systems—including but not limited to variable frequency drives (VFDs), circuit boards, switches, sensors, and controllers—are warranted for a period of one (1) year from the date of purchase.

This warranty applies only to the original purchaser and is not transferable.

Oliver's sole obligation under this warranty shall be, at its option, to repair or replace any product, component, or part determined by Oliver to be defective in material or workmanship.

Replacement parts may be new or refurbished components of equal performance.

Warranty Coverage

This warranty covers defects in materials and workmanship occurring under normal operating conditions and proper maintenance.

Unless otherwise agreed in writing, warranty coverage includes replacement parts only. Labor, service travel, installation, and diagnostic costs are not included unless specifically authorized by Oliver in writing.

Items Not Covered

This warranty does not cover the following:

- Normal wear and consumable items, including but not limited to:
    - Belts
    - Blades
    - Cutters
    - Sanding media
    - Brushes
    - Bearings subject to normal wear
    - Lubricants and filters
- Damage resulting from:
    - Misuse or abuse
    - Negligence
    - Improper installation
    - Operation outside recommended specifications
    - Lack of routine maintenance
    - Unauthorized modifications or repairs
    - Use of non-approved parts or accessories
    - Electrical supply issues including power surges, improper voltage, or phase imbalance
    - Accidents, fire, flood, or other acts of nature
    - Cosmetic damage that does not affect machine operation
- Freight damage occurring during shipping – see below:

  Freight damage must be reported directly to the transport carrier immediately at the time of delivery and must be noted on the signed copy of the delivery Bill of Lading (BOL) paperwork otherwise a freight claim may be denied.

Warranty Claim Procedure
To obtain warranty service, the customer must:

1. Contact Oliver Machinery technical support at **800-559-5065** or submit a warranty request through https://olivermachinery.net/warranty
2. Provide:
    - Proof of purchase
    - Machine model number
    - Serial number
    - Description of the issue
    - Supporting photos or videos if requested

Oliver may require troubleshooting steps prior to authorizing replacement parts.

Warranty parts will be shipped using standard ground shipping methods. Expedited shipping may be requested by the customer at additional cost.

Oliver reserves the right to require the return of defective parts for inspection before issuing warranty replacements.

Limitation of Liability
To the fullest extent permitted by law, Oliver Machinery shall not be liable for any indirect, incidental, special, or consequential damages, including but not limited to:

- Loss of production
- Loss of profits
- Business interruption
- Installation or removal costs
- Loss of use of equipment

Oliver's total liability under this warranty shall not exceed the original purchase price of the product.

Disclaimer of Other Warranties
Except for the limited warranty expressly stated above, Oliver Machinery disclaims all other warranties, express or implied, including but not limited to:

- the implied warranty of merchantability
- the implied warranty of fitness for a particular purpose

Some jurisdictions do not allow limitations on implied warranties, so certain limitations may not apply in those areas.

Product Safety

All Oliver Machinery equipment must be installed, operated, and maintained in accordance with the owner's manual and applicable safety standards.

Removal or modification of safety devices, guards, or electrical systems will void this warranty.

Product Changes

Oliver Machinery reserves the right to improve, modify, or change product designs and specifications without obligation to retrofit previously manufactured equipment.

Governing Law

This warranty shall be governed by and interpreted in accordance with the laws of the State of Washington, United States.

Customer Support

For questions regarding warranty coverage, service, or replacement parts, please contact:

Oliver Machinery

Phone: **800-559-5065**
Email: **info@olivermachinery.net**
Website: **www.olivermachinery.net**

Appendix

US Standard – Metric Conversion Chart

Fractions	Decimal In.	Millimeters
1/64	.0156	.396
1/32	.0312	.793
3/64	.0469	1.190
1/16	.0625	1.587
5/64	.0781	1.984
3/32	.0937	2.381
7/64	.1094	2.778
1/8	.125	3.175
9/64	.1406	3.571
5/32	.1562	3.968
11/64	.1719	4.365
3/16	.1875	4.762
13/64	.2031	5.159
7/32	.2187	5.556
15/64	.2344	5.953
1/4	.25	6.350
17/64	.2656	6.746
9/32	.2812	7.143
19/64	.2969	7.540
5/16	.3125	7.937
21/64	.3281	8.334
11/32	.3437	8.731
23/64	.3594	9.128
3/8	.375	9.525
25/64	.3906	9.921
13/32	.4062	10.318
27/64	.4219	10.715
7/16	.4375	11.112
29/64	.4531	11.509
15/32	.4687	11.906
31/64	.4844	12.303
1/2	.5	12.700

Fractions	Decimals In.	Millimeters
33/64	.5156	13.096
17/32	.5312	13.493
35/64	.5469	13.890
9/16	.5625	14.287
37/64	.5781	14.684
19/32	.5937	15.081
39/64	.6094	15.478
5/8	.625	15.875
41/64	.6406	16.271
21/32	.6562	16.668
43/64	.6719	17.065
11/16	.6875	17.462
45/64	.7031	17.859
23/32	.7187	18.256
47/64	.7344	18.653
3/4	.75	19.050
49/64	.7656	19.446
25/32	.7812	19.843
51/64	.7969	20.240
13/16	.8125	20.637
53/64	.8281	21.034
27/32	.8437	21.431
55/64	.8594	21.828
7/8	.875	22.225
57/64	.8906	22.621
29/32	.9062	23.018
59/64	.9219	23.415
15/16	.9375	23.812
61/64	.9531	24.209
31/32	.9687	24.606
63/64	.9844	25.003
1.0	1.	25.400



Oliver Machinery continually expands its line of industrial woodworking products.

For complete, up-to-date product information, visit us online at:

www.olivermachinery.net

or call toll free 1-800-559-5065

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