

READ THIS FIRST

Model ST1002

IMPORTANT UPDATE

Applies to Models Mfg. Since 8/12
and Owner's Manual September, 2010

Phone #: (360) 734-3482 • Tech Support: tech-support@shopfox.biz • Web: www.shopfox.biz



The following changes were recently made to this machine since the owner's manual was printed:

- Now certified to meet CSA 22.2 #71.2-10 and UL 987-7th standards.
- Changed the motor nominal voltage from 220V to 240V and added a power cord with a plug.

This document provides relevant updates to portions of the owner's manual that no longer apply and additional information required by CSA—aside from this information, all other content in the owner's manual applies and **MUST** be read and understood for your own safety. **IMPORTANT: Keep this update with the owner's manual for future reference.** If you have any further questions, contact our Technical Support.

Changed Specifications

Electrical

Power Requirement240V, Single-Phase, 60 Hz

Motor

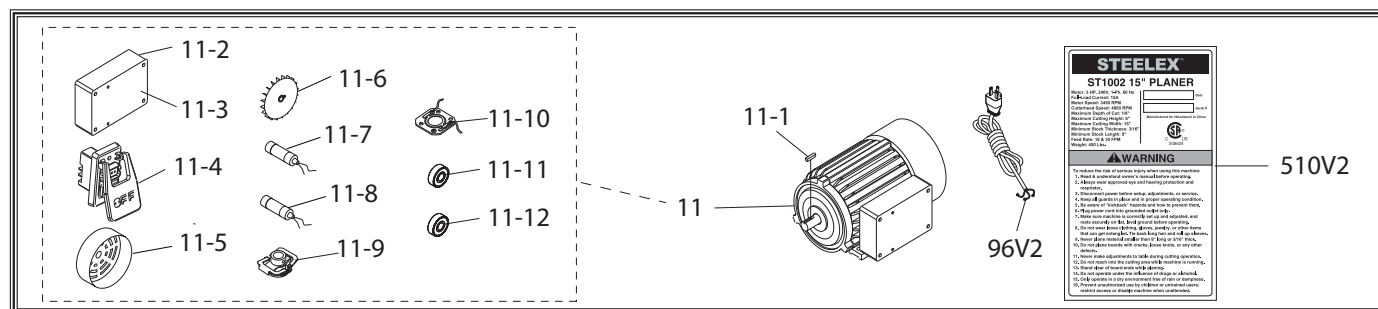
Voltage.....240V

Amps 15A

Operation Info

Cutterhead Speed4800 RPM

New/Revised Parts



REF	PART #	DESCRIPTION
11	XST1002011	MOTOR 3HP 240V 3-PH
11-1	XPK12M	KEY 5 X 5 X 30
11-2	XST1002011-2	SWITCH BOX
11-3	XST1002011-3	SWITCH COVER
11-4	D4151	START/STOP SWITCH KEDU HY56
11-5	XST1002011-5	MOTOR FAN COVER
11-6	XST1002011-6	MOTOR FAN
11-7	XST1002011-7	S CAPACITOR 200M 250V

REF	PART #	DESCRIPTION
11-8	XST1002011-8	R CAPACITOR 20M 450V
11-9	XST1002011-9	CENTRIFUGAL SWITCH 16MM 3450
11-10	XST1002011-10	CONTACT PLATE 16MM
11-11	XP6205ZZ	BALL BEARING 6205ZZ
11-12	XP6203ZZ	BALL BEARING 6203ZZ
96V2	XST1002096V2	POWER CORD 12G 3W 72" 6-20P V2.08.12
510V2	XST1002510V2	MACHINE ID LABEL CSA V2.08.12



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SAFETY

WARNING

Zero Risk Does Not Exist

As with any human activity, zero risk from using machinery does not exist and cannot be attained.

Operating this machine, as well as any machine, can be dangerous or relatively safe depending on the condition of the machine and the operator's experience, common sense, working conditions, and use of personal protective equipment (e.g., safety glasses, respirators, etc).

Understanding this manual reduces the risks from using this machine. Because not every possible hazard can be identified, common sense and risk awareness must be used at all times. To protect yourself, assess the hazards of each activity you perform and find the best way to perform those activities or use protective devices to decrease your risk of an accidental injury. Below are common hazard symbols in this manual that alert associated levels of risk:



Death or catastrophic harm **WILL** occur from failure to heed.



Moderate injury or fire **MAY** occur from failure to heed.



Death or catastrophic harm **COULD** occur from failure to heed.



Machine damage may occur from failure to heed.

WARNING

Safety Instructions

OWNER'S MANUAL. Read and understand this owner's manual **BEFORE** using machine.

TRAINED OPERATORS ONLY. Untrained operators have a higher risk of being hurt or killed. Only allow trained/supervised people to use this machine. When it is not being used, disconnect power, remove switch keys, or lock-out machine to prevent unauthorized use, especially around children. Make workshop kid proof!

DANGEROUS ENVIRONMENTS. Do not use machinery in areas that are wet, cluttered, or have poor lighting. Operating machinery in these areas greatly increases the risk of accidents and injury.

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

ELECTRICAL EQUIPMENT INJURY RISKS. You can be shocked, burned, or killed by touching live electrical components or improperly grounded machinery. To reduce this risk, only allow qualified service personnel to do electrical installation or repair work, and always disconnect power before accessing or exposing electrical equipment.

DISCONNECT POWER FIRST. Always disconnect machine from power supply **BEFORE** making adjustments, changing tooling, or servicing machine. This prevents an injury risk from unintended startup or contact with live electrical components.

EYE PROTECTION. Always wear ANSI-approved safety glasses or a face shield when operating or observing machinery to reduce risk of eye injury or blindness from flying particles. Eyeglasses are not approved safety glasses.

WARNING

Safety Instructions

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

HAZARDOUS DUST. Dust created while using machinery may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material, and always wear a NIOSH-approved respirator to reduce your risk.

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

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

INTENDED USAGE. Only use machine for its intended purpose and never make modifications not approved by Woodstock. Modifying a machine or using it differently than intended may result in malfunction or mechanical failure that can lead to serious personal injury or death!

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

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

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

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

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

STABLE MACHINE. Unexpected movement during operation greatly increases risk of injury or loss of control. Before starting, verify machine is stable and mobile base (if used) is locked.

USE RECOMMENDED ACCESSORIES. Consult this owner's manual or the manufacturer for recommended accessories. Using improper accessories will increase risk of serious injury.

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

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

DAMAGED PARTS. Regularly inspect machine for any condition that may affect safe operation. Immediately repair/replace damaged or mis-adjusted parts before operating machine.

MAINTAIN POWER CORDS. When disconnecting cord-connected machines from power, grab and pull the plug—NOT cord. Pulling cord may damage the wires inside. Do not handle cord/plug with wet hands. Avoid cord damage by keeping it away from heated surfaces, high traffic areas, harsh chemicals, and wet/damp locations.

Additional Safety for Planers

WARNING

PLANER INJURY RISKS. Familiarize yourself with the main injury risks associated with planers—always use common sense and good judgement to reduce your risk of injury. **Main injury risks from planers:** amputation/lacerations from contact with the moving cutterhead, entanglement/crushing injuries from getting caught in moving parts, blindness or eye injury from flying wood chips, or impact injuries from workpiece kickback.

KICKBACK. Know how to reduce the risk of kickback and kickback-related injuries. “Kickback” occurs during the operation when the workpiece is ejected from the machine at a high rate of speed. Kickback is caused by poor workpiece selection, unsafe feeding techniques, or improper machine setup/maintenance. Kickback injuries typically occur as follows: (1) operator/bystanders are struck by the workpiece, resulting in impact injuries (i.e., blindness, broken bones, bruises, death); (2) operator’s hands are pulled into blade, resulting in amputation or severe lacerations.

REACHING INSIDE PLANER. Never remove guards/covers or reach inside the planer during operation or while connected to power. You could be seriously injured if you accidentally touch the spinning cutterhead or get entangled in moving parts. If a workpiece becomes stuck or sawdust removal is necessary, turn planer OFF and disconnect power before clearing.

DULL/DAMAGED KNIVES/INSERTS. Only use sharp, undamaged knives/inserts. Dull or damaged knives/inserts increase the risk of kickback.

INSPECTING STOCK. To reduce the risk of kickback injuries or machine damage, thoroughly inspect and prepare the workpiece before cutting. Verify workpiece is free of nails, staples, loose knots or foreign material. Workpieces with minor warping should be jointed first or planed with the cupped side facing the infeed table.

BODY PLACEMENT. Stand to one side of planer during the entire operation to avoid getting hit if kickback occurs.

GRAIN DIRECTION. Planing across the grain is hard on the planer and may cause kickback. Plane in the same direction or at a slight angle with the wood grain.

PLANING CORRECT MATERIAL. Only plane natural wood stock. DO NOT plane MDF, OSB, plywood, laminates or other synthetic materials that can break up inside the planer and be ejected towards the operator.

LOOKING INSIDE PLANER. Wood chips fly around inside planer at a high rate of speed during operation. To avoid injury from flying material, DO NOT look inside planer during operation.

CUTTING LIMITATIONS. To reduce risk of kickback hazards or damage to machine, do not exceed maximum depth of cut or minimum board length and thickness found in Data Sheet. Only feed one board at a time.

INFEED ROLLER CLEARANCE. The infeed roller is designed to pull material into the spinning cutterhead. To reduce the risk of entanglement, keep hands, clothing, jewelry, and long hair away from the infeed roller during operation.

FEED WORKPIECE PROPERLY. To reduce the risk of kickback, never start planer with workpiece touching cutterhead. Allow cutterhead to reach full speed before feeding, and do not change feed speed during cutting operation.

WORKPIECE SUPPORT. To reduce risk of kickback, make sure workpiece can move completely across table without rocking or tipping. Use auxiliary support stands for long stock.

SECURE KNIVES/INSERTS. Loose knives or improperly set inserts can become dangerous projectiles or cause machine damage. Always verify knives/inserts are secure and properly adjusted before operation.

ELECTRICAL

Circuit Requirements

This machine must be connected to the correct size and type of power supply circuit, or fire or electrical damage may occur. Read through this section to determine if an adequate power supply circuit is available. If a correct circuit is not available, an electrician or qualified service personnel **MUST** install one before you can connect the machine to power.

A power supply circuit includes all electrical equipment between the breaker box or fuse panel in the building and the machine. The power supply circuit used for this machine must be sized to safely handle the full-load current drawn from the machine for an extended period of time. (If this machine is connected to a circuit protected by fuses, use a time delay fuse marked D.)

Full-Load Current Rating

The full-load current rating is the amperage a machine draws at 100% of the rated output power. On machines with multiple motors, this is the amperage drawn by the largest motor or sum of all motors and electrical devices that might operate at one time during normal operations.

Full-Load Current Rating at 240V..... 15 Amps

Circuit Requirements

This machine is prewired to operate on a 240V power supply circuit that has a verified ground and meets the following requirements:

Circuit Type 240V, Single-Phase, 60 Hz
Circuit Size.....20 Amps
Plug/ReceptacleNEMA 6-20

WARNING

The machine must be properly set up before it is safe to operate. DO NOT connect this machine to the power source until instructed to do later in this manual.



WARNING

Incorrectly wiring or grounding this machine can cause electrocution, fire, or machine damage. To reduce this risk, only an electrician or qualified service personnel should do any required electrical work on this machine.

NOTICE

The circuit requirements listed in this manual apply to a dedicated circuit—where only one machine will be running at a time. If this machine will be connected to a shared circuit where multiple machines will be running at the same time, consult a qualified electrician to ensure that the circuit is properly sized for safe operation.

Grounding Requirements

This machine **MUST** be grounded. In the event of certain types of malfunctions or breakdowns, grounding provides a path of least resistance for electric current to travel—in order to reduce the risk of electric shock.

Improper connection of the equipment-grounding wire will increase the risk of electric shock. The wire with green insulation (with/without yellow stripes) is the equipment-grounding wire. If repair or replacement of the power cord or plug is necessary, do not connect the equipment-grounding wire to a live (current carrying) terminal.

Check with a qualified electrician or service personnel if you do not understand these grounding requirements, or if you are in doubt about whether the tool is properly grounded. If you ever notice that a cord or plug is damaged or worn, disconnect it from power, and immediately replace it with a new one.

For 240V Connection

This machine is equipped with a power cord that has an equipment-grounding wire and NEMA 6-20 grounding plug. The plug must only be inserted into a matching receptacle (see **Figure 1**) that is properly installed and grounded in accordance with local codes and ordinances.

Extension Cords

We do not recommend using an extension cord with this machine. Extension cords cause voltage drop, which may damage electrical components and shorten motor life. Voltage drop increases with longer extension cords and smaller gauge sizes (higher gauge numbers indicate smaller sizes).

Any extension cord used with this machine must contain a ground wire, match the required plug and receptacle, and meet the following requirements:

Minimum Gauge Size at 240V 12 AWG
Maximum Length (Shorter is Better) 50 ft.

! WARNING

The machine must be properly set up before it is safe to operate. **DO NOT** connect this machine to the power source until instructed to do later in this manual.

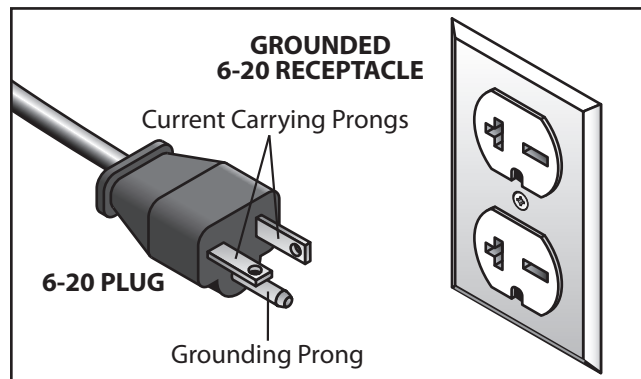
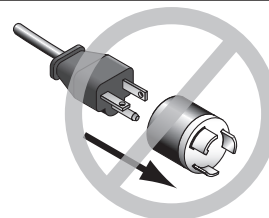


Figure 1. NEMA 6-20 plug & receptacle.

! CAUTION

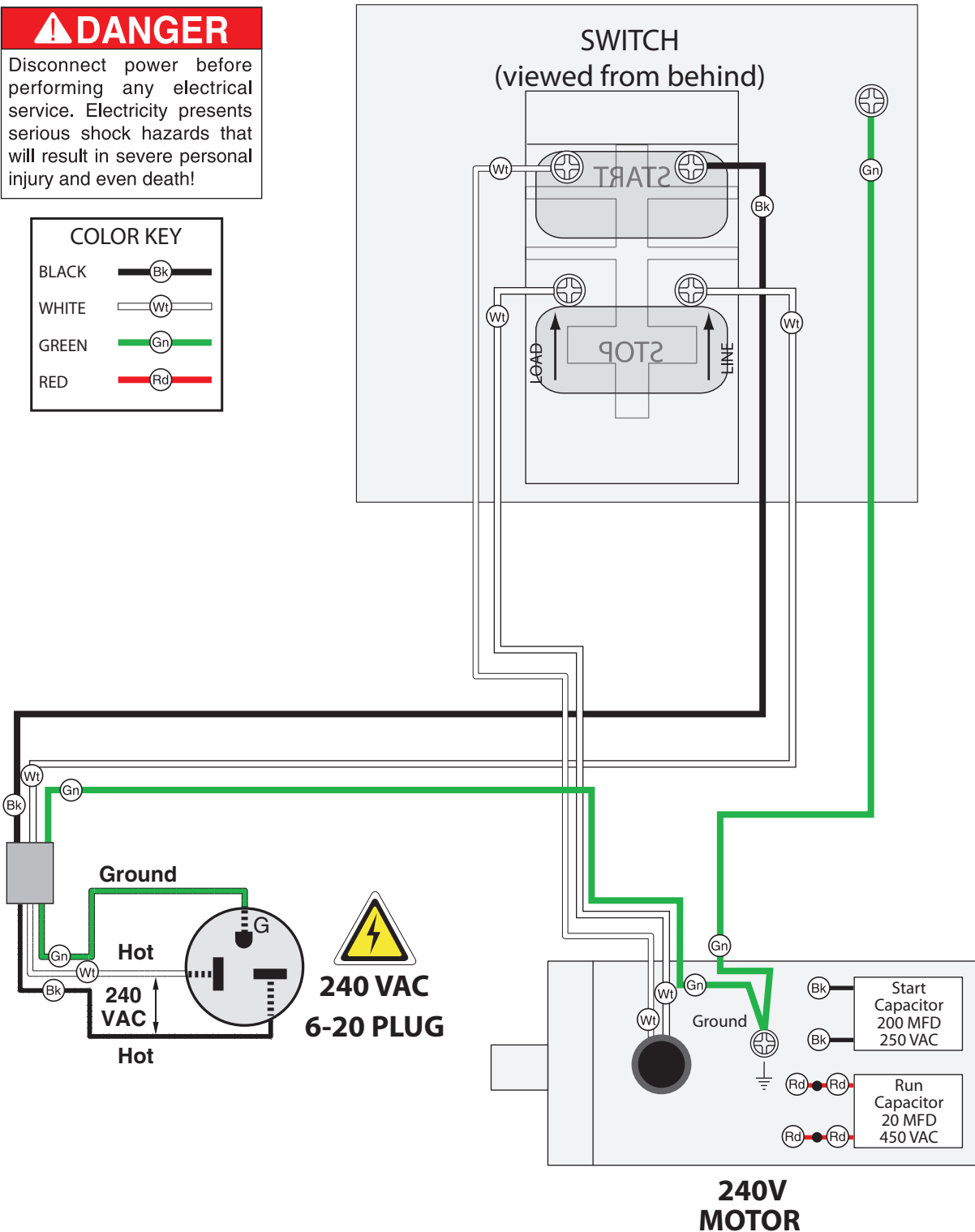


No adapter should be used with the required plug. If the plug does not fit the available receptacle or the machine must be reconnected for use on a different type of circuit, the reconnection must be made by an electrician or qualified service personnel and comply with all local codes and ordinances.

Wiring Diagram

⚠ DANGER
Disconnect power before performing any electrical service. Electricity presents serious shock hazards that will result in severe personal injury and even death!

COLOR KEY	
BLACK	Bk
WHITE	Wt
GREEN	Gn
RED	Rd





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STEELEX™

**MODEL ST1002
15" PLANER**



**OWNER'S
MANUAL**

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WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance and service of this machine/equipment.

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

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

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



WARNING!

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

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

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

Woodstock International, Inc. is committed to customer satisfaction. Our intent with this manual is to include the basic information for safety, setup, operation, maintenance, and service of this product.

We stand behind our machines! In the event that questions arise about your machine, please contact Woodstock International Technical Support at (360) 734-3482 or send e-mail to: tech-support@shopfox.biz. Our knowledgeable staff will help you troubleshoot problems and process warranty claims.

If you have comments about this manual, please contact us at:

**Woodstock International, Inc.
Attn: Technical Documentation Manager
P.O. Box 2309
Bellingham, WA 98227**

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MODEL ST1002 SPECIFICATIONS

Product Dimensions:

Net Weight	450 lbs.
Length/Width/Height (Stand).....	21" x 20 ³ / ₈ " x 23 ³ / ₄ "
Length/Width/Height (Planer).....	27 ¹ / ₂ " x 20" x 22"
Footprint (Length/Width).....	21" x 20 ³ / ₈ "

Shipping Dimensions:

Type	Crate, Cardboard Box
Content	Machine, Components
Weight	500 lbs.
Length/Width/Height (Box).....	22 ³ / ₄ " L x 22 ¹ / ₄ " W x 26" H
Length/Width/Height (Crate).....	31 ¹ / ₈ " L x 25 ¹³ / ₆₄ " W x 26 ³ / ₄ " H

Motor:

Type.....	TEFC Capacitor Start Induction
Horsepower	3 HP
Voltage.....	220V
Phase.....	Single
Amps	18A
Speed	3450 RPM
Cycle.....	60 Hz
Feed Speeds	16 & 30 FPM
Power Transfer	Triple Cogged V-Belt Drive
Bearings	Shielded and Lubricated

Main Specifications:

Capacities

Maximum Depth of Cut.....	¹ / ₈ "
Maximum Width of Cut	15"
Maximum Cutting Height.....	6"
Minimum Stock Thickness.....	³ / ₁₆ "
Minimum Stock Length	8"
Cutterhead Speed.....	5000 RPM
Cuts per Minute	15,000
Cuts per Inch	42 & 78

Construction

Table	Precision Ground Cast Iron
Infeed Roller.....	Spiral Serrated
Outfeed Roller	Rubber
Power Transfer to Feed Rollers:.....	Gearbox & Chain
Cutterhead Assembly	Steel
Cutterhead	One piece machined shaft; 3 Knife Slots w/ Sealed Ball Bearings

Other Information

Roller Extension Tables	3 Adjustable Rollers
Cutterhead Movement	Handwheel & 4 Chaindriven Leadscrews
Table Locks	Two Positive
Chip Chute	4" Outlet
Bed Rollers.....	2 Adjustable
Knife Type / Size / Adjustment.....	3 HSS / 15" x 1" x ¹ / ₈ " / Jack-screws
Vertical Scale Calibrations	Inch/Metric
Paint on Stand.....	Powder Coated
Country of Origin	China

MACHINE FEATURES

The instructions in this manual will be easier to understand if you become familiar with the location and names of the basic features of your new machine. Use the list below with the letters in **Figures 1–3** to identify the external features of the planer.

- A. Extension Rollers:** Provide increased support for large workpieces.
- B. Headstock:** Houses the infeed roller, chip breaker, cutterhead and outfeed roller.
- C. Bed Rollers:** Located in the work table, the bed rollers help the workpiece move through the planer and are adjustable for smooth or rough stock.
- D. Handwheel:** Raises or lowers headstock.
- E. Lock Knobs:** Locks headstock on columns.

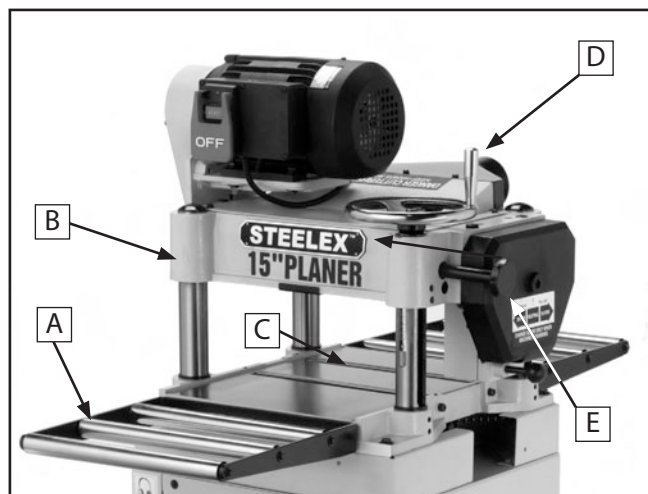


Figure 1. Front view of planer.

- F. 4" Dust Hood:** Allows connection to the dust collection system.
- G. Rear Panel:** Allows access to inside of cabinet.

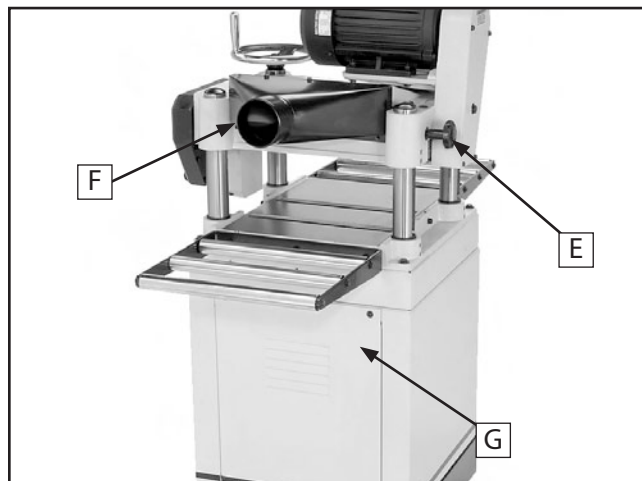


Figure 2. Rear view of planer.

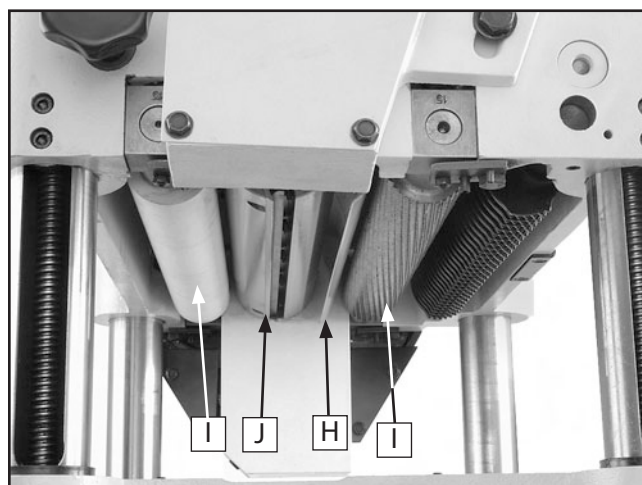


Figure 3. Headstock components.

- H. Chip Breaker:** Spring loaded fingers or bar that presses down on the wood in front of the cutterhead. The chip breaker prevents excessive chipping caused by the knives.
- I. Infeed and Outfeed Rollers:** Powered rollers that move the workpiece through the planer.
- J. Cutterhead:** The cutterhead holds the knives and spins at 5000 RPM. When the workpiece passes under the cutterhead, material is removed.

SAFETY

WARNING

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Below are common hazard symbols in this manual that alert associated levels of risk:



Death or catastrophic harm **WILL** occur from failure to heed.



Moderate injury or fire **MAY** occur from failure to heed.



Death or catastrophic harm **COULD** occur from failure to heed.



Machine damage may occur from failure to heed.

WARNING

Safety Instructions

- OWNER'S MANUAL.** This type of machine presents serious injury hazards to untrained users. Read through the entire manual before starting the machine.
- GUARDS.** Operating this machine with any of the guards removed greatly increases the risk of serious accidents. Only operate this machine with the guards in place, undamaged, and correctly working.
- EYE PROTECTION.** Operating this machine may result in an eye injury. Minimize this risk by wearing safety glasses. Everyday eyeglasses only have impact resistant lenses—they are NOT safety glasses.
- RESPIRATORY PROTECTION.** Wood dust created by this machine may cause severe respiratory illnesses. Minimize your risk from this hazard by wearing a NIOSH approved respirator while operating this machine.
- HEARING PROTECTION.** Operating this machine for extended periods of time may cause hearing loss. Wear hearing protection to minimize this risk.
- ENTANGLEMENT AVOIDANCE.** Loose clothing, gloves, neckties, jewelry or long hair may get caught in moving parts. Remove or otherwise secure these items when operating this machine to reduce your risk.

WARNING

Safety Instructions

- 7. MENTAL ALERTNESS.** Operating this machine when not fully alert greatly increases the risk of accidental injury. Never operate when under the influence of drugs/alcohol, when tired, or otherwise distracted.
- 8. TRAINED/SUPERVISED OPERATORS ONLY.** Only allow trained and properly supervised personnel to operate machinery. Make sure safe operation instructions are clearly understood. Keep all children and visitors a safe distance from the work area. Use padlocks and master switches, and remove start switch keys to prevent accidental starting.
- 9. UNATTENDED MACHINE.** Machines left unattended while running present multiple hazards, including visitor danger, fire, and self-inflicted damage. Always turn your machine **OFF** before leaving it.
- 10. OPERATING ENVIRONMENT.** Operating this machine in a wet location may result in electrocution; operating near flammable gasses may result in a fire or explosion. Only operate this machine in a dry location that is free of flammable gasses.
- 11. CLEAN WORK AREA AND GOOD LIGHTING.** Clutter and dark shadows increase the risk of an accident. Only operate this machine in a clean, well-lit work area.
- 12. ELECTRICAL CONNECTION.** Improperly connecting the machine to the power source may result in electrocution or fire. Always adhere to local electrical codes.
- 13. DISCONNECT POWER.** Adjusting machine when it is connected to the power source greatly increases the risk of injury from accidental startup. Always disconnect power **BEFORE** doing any work on machine, including changing blades or other tooling.
- 14. LOCKING MOBILE BASE.** Always lock mobile base before operating planer to prevent personal injury and damage to the machine.
- 15. DIFFICULT OPERATIONS.** If you are experiencing difficulties performing the intended operation, stop! Contact our Technical Support or ask a qualified expert how the operation should be performed.
- 16. REACHING INSIDE PLANER.** Never reach inside planer or remove covers when the planer is connected to power.
- 17. INFEEED CLEARANCE SAFETY.** Always keep hands, clothing, and long hair away from the infeed roller during operation to prevent serious injury.
- 18. BODY POSITION WHILE OPERATING.** The workpiece may kick out during operation. To avoid getting hit, stand to the side of the planer during the entire operation.
- 19. PLANING CORRECT MATERIAL.** Only plane natural wood stock with this planer. Planing MDF, plywood, laminate or other synthetic products can damage the machine and create hazards for the operator.
- 20. GRAIN DIRECTION.** Planing across the grain is hard on the planer and may cause the workpiece to kick out. Always plane in the same direction or at a slight angle with the wood grain.
- 21. LOOKING INSIDE PLANER.** Wood chips fly around inside the planer at a high rate of speed. **DO NOT** look inside the planer or remove guards/covers during operation.
- 22. CLEAN STOCK.** Planing stock with nails, staples, or loose knots **MAY** cause debris to kick out at the operator and **WILL** damage your cutters when they contact the cutterhead. Always thoroughly inspect and prepare stock to avoid these hazards.
- 23. REMOVING JAMMED WORKPIECES.** To avoid serious injury, always stop the planer and disconnect power before removing jammed workpieces.

POWER REQUIREMENTS

Operation

! WARNING

Serious personal injury could occur if you connect the machine to the power source before you have completed the set up process. **DO NOT** connect the machine to the power source until instructed to do so.

Amperage Draw

The Model ST1002 motor draws the following amps under maximum load:

Motor at 220V 18 Amps

Circuit Recommendations

We recommend using a dedicated circuit for this machine. You **MUST** connect your machine to a grounded circuit that is rated for the amperage given below. Never replace a circuit breaker on an existing circuit with one of higher amperage without consulting a qualified electrician to ensure compliance with wiring codes. **If you are unsure about the wiring codes in your area or you plan to connect your machine to a shared circuit, consult a qualified electrician.**

220V Circuit 30 Amps

Power Connection

Recommended 220V Plug Type..... NEMA L6-30

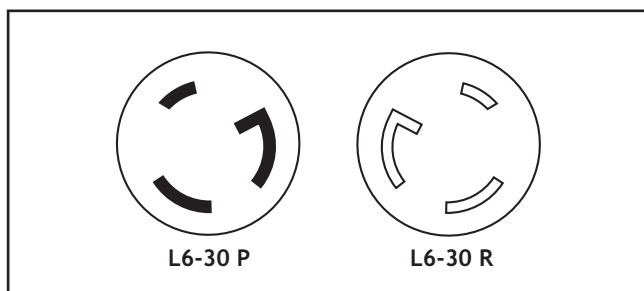
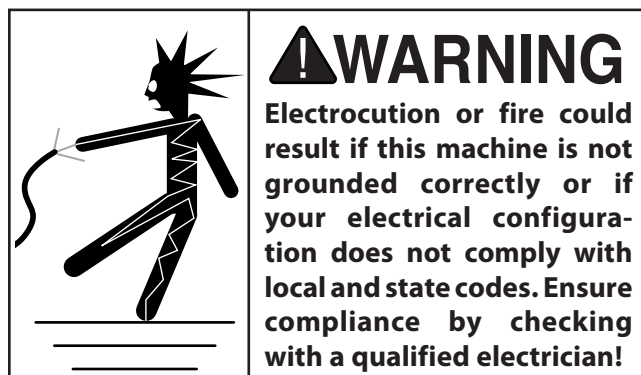


Figure 4. Typical type L6-30 plug and receptacle.

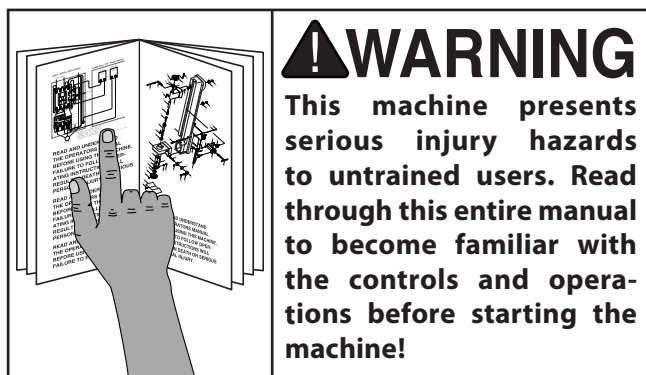


Extension Cords

We do not recommend the use of extension cords, but if you find it absolutely necessary:

- Use at least a 12 gauge cord that does not exceed 50 feet in length!
- The extension cord must also contain a ground wire and ground prong.
- A qualified electrician **MUST** size cords over 50 feet long to prevent motor damage or cord overload.

SETUP



Unpacking

The Model ST1002 was carefully packed when it left our warehouse. If you discover the machine is damaged *immediately call your dealer.*

Save the containers and all packing materials for possible inspection by the carrier or its agent. *Otherwise, filing a freight claim can be difficult.*

When you are completely satisfied with the condition of your shipment, you should inventory the contents.

Items Needed for Setup

The following items are needed to complete the set up process, but are not included with your machine:

DESCRIPTION	Qty
• Safety Glasses (for each person)	1
• Dust Collection System	1
• 4" Dust Hose (length as needed)	1
• 4" Hose Clamps.....	2
• Phillips Screwdriver.....	1
• Straightedge.....	1
• 6' Long 2x4's	2

Inventory

After all the parts have been removed from the box and crate, you should have the following items:

Box Contents (Figure 5)	Qty
A. Cabinet	1
B. Table Extension Rollers	2
C. Wheel Assembly	1
D. Dust Hood	1

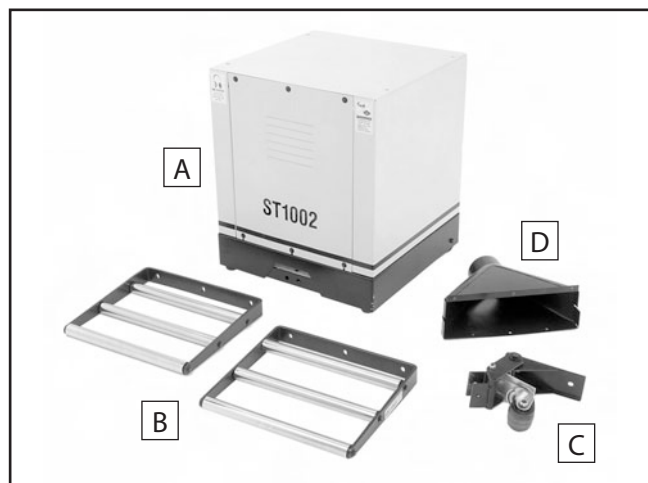


Figure 5. Inventory contents.

Crate Inventory (Figure 6)	Qty
E. Knife Gauge	1
F. Top Cover	1
G. Planer	1

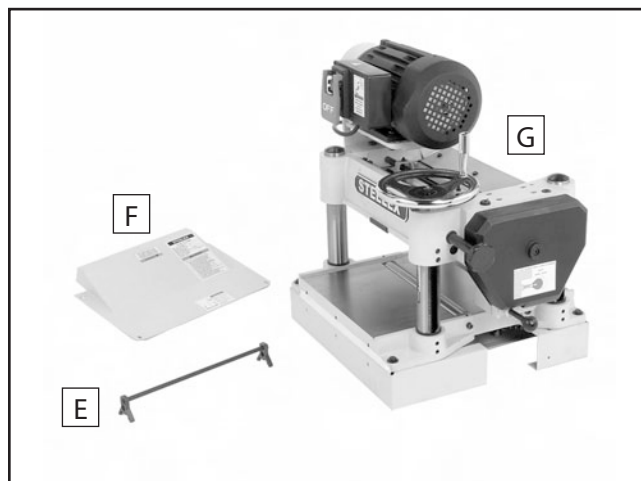


Figure 6. Fence inventory.


Hardware	Qty
• Hex Bolts M10-1.5 x 55 (Wheel Assembly)	2
• Hex Bolts M8-1.25 x 50 (Wheel Assembly)	1
• Hex Nuts M10-1.5 (Wheel Assembly)	2
• Flat Washers 8mm (Wheel Assembly)	1
• Flat Washers 10mm (Wheel Assembly)	2
• Lock Washers 8mm (Cabinet)	4
• Cap Screws M8-1.25 x 20 (Cabinet)	4
• Flange Bolts M6-1 x 10 (Top Cover)	3
• Hex Bolt M6-1 x 15 (Top Cover)	1
• Hex Bolt M6-1 x 10 (Dust Port)	3
• Hex Nuts M6-1 (Dust Port)	3
• Flat Washers 6mm (Dust Port)	6
• Flat Washers 8mm (Dust Port)	3
• Cap Screws M8-1.25 x 20 (Dust Port)	3
• Lock Washers 8mm (Extension Rollers)	6
• Flat Washers 8mm (Extension Rollers)	6
• Cap Screws M8-1.25 x 20 (Extension Rollers) ...	6
• Hex Wrench 2.5mm	1
• Hex Wrench 3mm	1
• Hex Wrench 5mm	1
• Hex Wrench 6mm	1
• Combo Wrench 10 x 12	1
• Combo Wrench 14 x 17	1

Cleanup

The unpainted surfaces are coated with a waxy oil to protect them from corrosion during shipment. Remove this protective coating with a solvent cleaner or citrus-based degreaser.

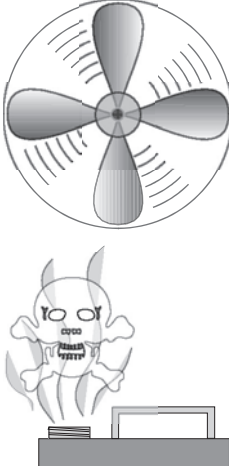
To clean thoroughly, some parts may need to be removed. **For optimum performance from your machine, make sure you clean all moving parts or sliding contact surfaces that are coated. Also, clean the cutterhead to ensure good planing results.**

Avoid chlorine-based solvents as they may damage painted surfaces should they come in contact. Always follow the manufacturer's instructions when using any type of cleaning product.



! WARNING

Gasoline and petroleum products have low flash points and could cause an explosion or fire if used to clean machinery. **DO NOT** use gasoline or petroleum products to clean the machinery.



! CAUTION

Many of the solvents commonly used to clean machinery can be toxic when inhaled or ingested. Lack of ventilation while using these solvents could cause serious personal health risks or fire. Take precautions from this hazard by only using cleaning solvents in a well ventilated area.

Site Considerations

Floor Load

The Model ST1002 weighs 450 lbs. and has a footprint of 21" W x 20 3/8" D.

Machine Placement

Consider existing and anticipated needs, size of material to be processed through each machine, and space for auxiliary stands, work tables, or other machinery when establishing a location for your saw. See **Figure 7** for the minimum working clearances of the Model ST1002.

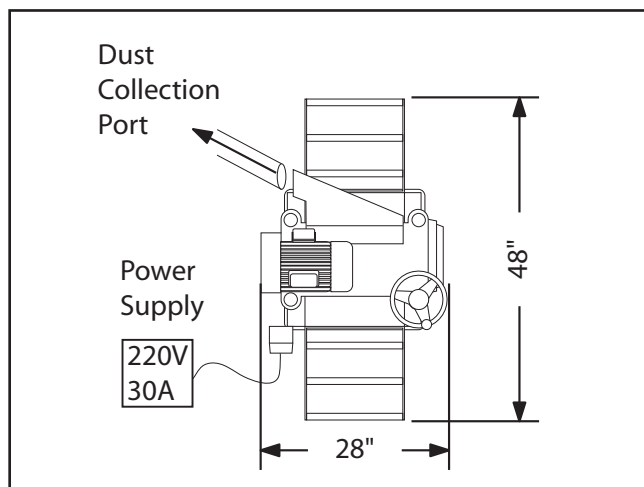


Figure 7. Working clearances.



! CAUTION

Unsupervised children and visitors inside your shop could cause serious personal injury to themselves. Lock all entrances to the shop when you are away and **DO NOT** allow unsupervised children or visitors in your shop at any time!

Wheel Assembly

Components and Hardware Needed:	Qty
Wheel Assembly	1
Cabinet	1
Hex Bolts M10-1.5 x 55	2
Hex Nuts M10-1.5	2
Flat Washers 10mm	2
Hex Bolt M8-1.25 x 50	1
Flat Washer 8mm	1

To secure the wheel assembly to the cabinet:

1. Turn the cabinet on its back side, place the wheel assembly over the bracket, and align the mounting holes as shown in **Figure 8**.

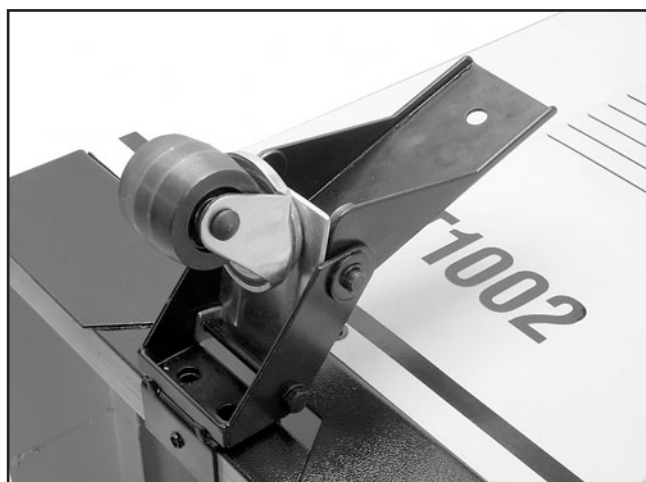


Figure 8. Wheel assembly placed on cabinet.

2. Fasten the front of the wheel assembly to the bracket with two M10-1.5 x 55 hex bolts, hex nuts, and flat washers.

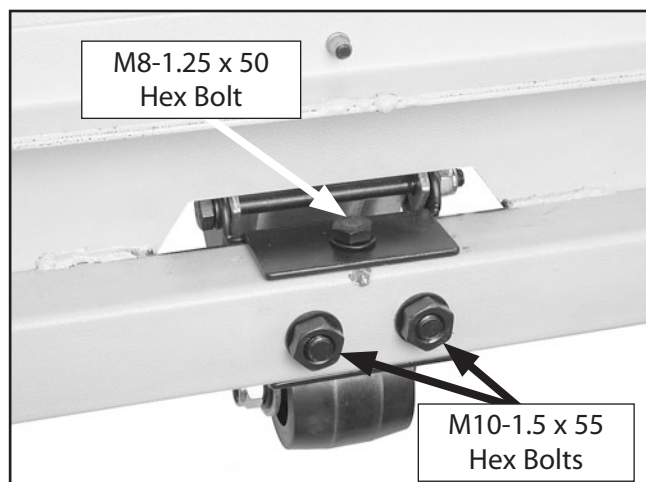


Figure 9. Wheel assembly secured to cabinet with bolts.

3. Thread the M8-1.25 x 50 hex bolt and flat washer through the top of the wheel assembly.

Mounting Planer

Components and Hardware Needed:	Qty
Planer Assembly	1
Cabinet	1
Cap Screws M8-1.25 x 20	4
Lock Washers 8mm	4
6' Long 2x4's	2
People To Help Lift	4

WARNING

The Model ST1002 is a heavy machine. DO NOT over-exert yourself while unpacking or moving your machine—get assistance.

To mount the planer:

1. DO NOT CONNECT PLANER TO POWER SOURCE!
2. Place two 2x4 boards under the headstock of the planer.

Note: Make sure that the boards are long enough so that they protrude from the planer at least 16" on each side.

3. Have one person on each end of each 2x4 and carefully lift the planer unit onto the stand. (This requires four people to lift the planer.)
4. Remove the rear panel, align the mounting holes, and secure the planer to the cabinet with the four M8-1.25 x 20 cap screws and lock washers shown in **Figure 10**.
5. Reinstall the rear panel.

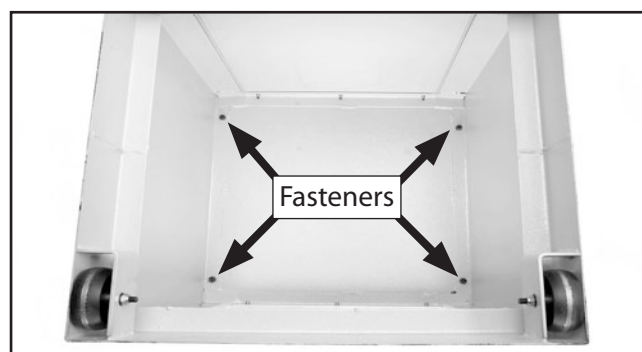


Figure 10. Planer mounted to cabinet (view from underneath planer).

Top Cover

Components and Hardware Needed:	Qty
Top Cover	1
Flange Bolts M6-1 x 10	3
Hex Bolt M6-1 x 15.....	1

To install the top cover:

1. Slide the top cover under the motor, and secure it with the three M6-1 x 10 flange bolts and the M6-1 x 15 hex bolt (**Figure 11**).

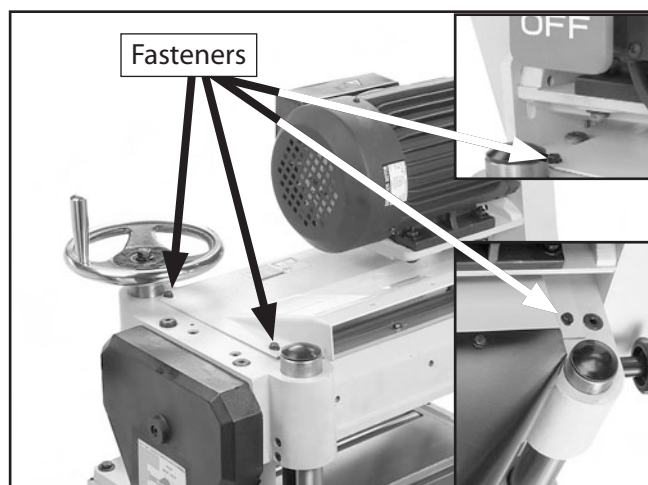


Figure 11. Top cover installed (two of four fasteners shown).

Dust Port

Components and Hardware Needed:	Qty
Dust Hood.....	1
Hex Bolts M6-1 x 10	3
Hex Nuts M6-1	3
Flat Washers 6mm.....	6
Cap Screws M8-1.25 x 20	3
Flat Washers 8mm	3

⚠ CAUTION

DO NOT attach the dust hood if you do not intend to connect your planer to a dust collection system. Accumulated wood chips could cause a malfunction, resulting in personal injury or damage to the planer.

To install the dust hood:

1. Attach the dust hood to the top of the planer with the M6-1 x 10 hex bolts, flat washers, and hex nuts as shown in **Figure 12**.

Note: You will need to reach into the dust hood to get access for fastening the nuts.



Figure 12. Dust hood attached.

2. Attach the bottom of the dust hood to the planer with the M8-1.25 x 20 cap screws and flat washers.

Extension Rollers

Components and Hardware Needed:	Qty
Table Extension Rollers	2
Cap Screws M8-1.25 x 20	6
Lock Washers 8mm	6
Flat Washers 8mm	6

To install the extension rollers:

1. Attach the extension rollers to the planer table with the M8-1.25 x 20 cap screws, lock washers, and flat washers, as shown in **Figure 13**, but do not fully tighten the cap screws.

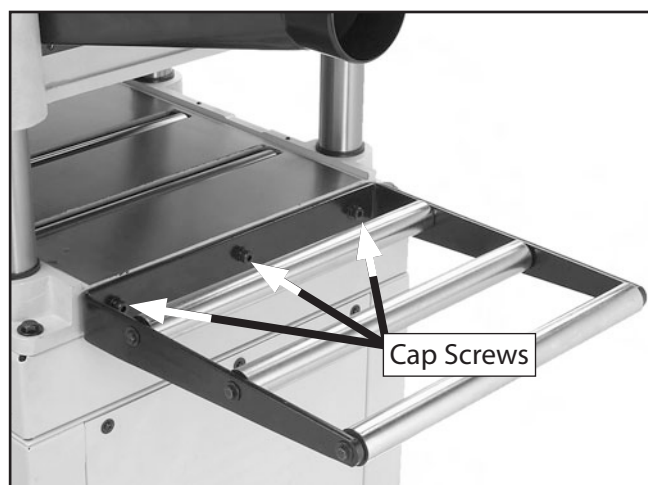


Figure 13. Extension roller installed.

2. Using a straightedge as a gauge, adjust each extension roller up/down until the top of the roller is flush with the main table casting (**Figure 14**), then completely tighten the cap screws.



Figure 14. Checking table-extension roller alignment.

—If the outside end of an extension roller tilts down, use a strip of masking tape along the bottom edge of the main table to shim the extension roller up (**See Figure 15**).

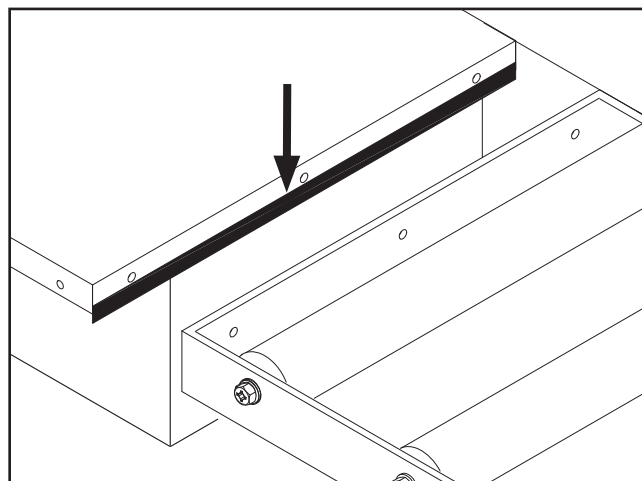


Figure 15. Masking tape location for tilting the extension roller up.

—If the outside end of a extension roller tilts up, use a strip of masking tape along the top edge of the main table to shim the extension roller down (**See Figure 16**).

Note: After reinstalling wings, remove all excess tape with a razor blade.

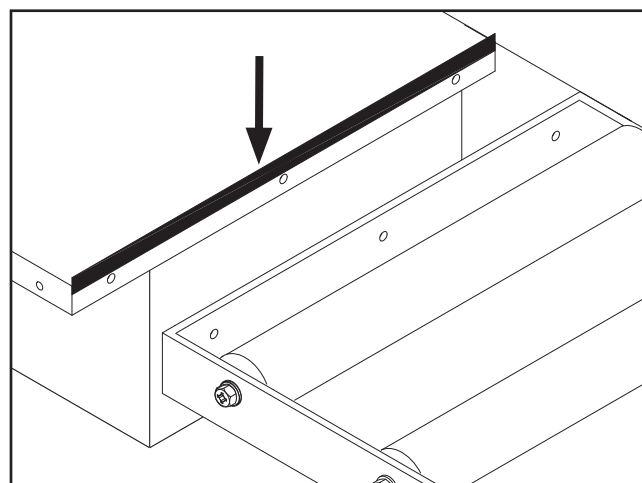


Figure 16. Masking tape location for adjusting the extension roller down.

3. If you have a dust collector, attach it to the dust hood now.

Note: To maximize work results and minimize clogging, chipout, etc., use a dust collector with your planer!

Gearbox Oil Level

Tools Needed:	Qty
Hex Wrench 6mm.....	1
Wrench or Socket 14mm.....	1

Before starting your machine for the first time, make sure the gearbox has oil. The proper oil level is just even with the bottom of the fill plug hole. The gearbox uses 80W-90W automotive grade gear oil.

To check the gearbox oil level:

1. Remove the gearbox fill plug (**Figure 17**).

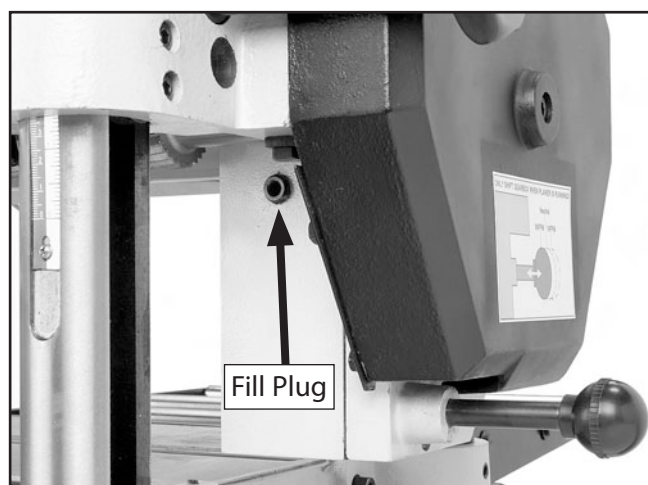


Figure 17. Gearbox fill plug location.

2. Using the short end a CLEAN hex wrench, dip it inside the fill hole and remove it. (Do not drop hex wrench into gear box!)

—If the end of the hex wrench is coated with oil, then the gearbox oil level is okay. Replace the fill plug and skip to the next section.

—If the end of the hex wrench is not coated with oil, then fill the gearbox with 80W-90W gear oil until the oil reaches the top of the filler plug.

Note: Replace the gearbox oil after the first 20 hours of operation. This is a normal break-in procedure.

Connecting to Power

Make sure you have read Circuit Recommendations on **Page 6**, and install the correct plug and receptacle for your machine.

Connect your planer to the power source.

Test Run

Once the assembly is complete and you have read through the **SAFETY** section, test run the machine before continuing with the setup.

If, during the test run, you cannot easily locate the source of an unusual noise or vibration, stop using the machine immediately, then contact our Technical Support for further assistance.

	<p>! WARNING</p> <p>Wear safety glasses during the entire test run process. Failure to comply may result in serious personal injury.</p>
--	--

To test run the machine:

1. Read the entire owner's manual, and make sure oil is in the gearbox.
2. Make sure all tools and foreign objects have been removed from the machine.
3. Put on safety glasses, and secure loose clothes or long hair.
4. Press the green START button to turn the machine **ON**. The planer should run smoothly with little or no vibration.

—If you suspect any problems, immediately stop the planer by pushing the red OFF/STOP button. Troubleshoot/fix any problems before starting the planer again.

—If you need any help with your planer call our Tech Support at (360) 734-3482.

Recommended Adjustments

For your convenience, the adjustments listed below have been performed at the factory and no further setup is required to operate your machine.

However, because of the many variables involved with shipping, some of these adjustments may need to be repeated to ensure optimum cutting results. Keep this in mind as you start to use your new planer.

Step-by-step instructions for these adjustments can be found in **SECTION 7: SERVICE ADJUSTMENTS**.

1. Table Parallelism (**Page 27**).
2. Chain Tension (**Page 26**).
3. Rollers & Chip Breaker Heights (**Page 29**).
4. Spring Tension (**Page 31**).
5. Chip Deflector Positioning (**Page 32**).

Tighten V-Belts

The final step in the set up process must be done after 16 hours of operation. During this first 16 hours the V-belts will stretch and seat into the pulley grooves. After this 16 hours, the V-belts must be re-tensioned or V-belt life will be severely reduced. Refer to **V-belts** on **Page 20** when you are ready to perform this important adjustment.

Note: *Pulleys and belts run very hot. This is a normal condition. Allow them to cool before making adjustments.*

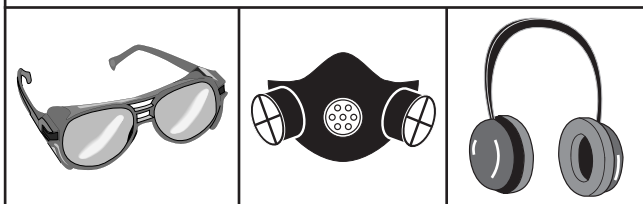
Note: *A collection of black belt dust at the bottom of the belt housing is normal during the life of the V-belt and does not indicate premature belt failure is in progress..*

OPERATIONS

Operation Safety

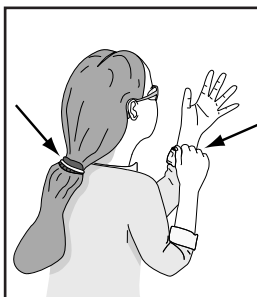
! WARNING

Damage to your eyes, lungs, and ears could result from using this machine without proper protective gear. Always wear safety glasses, a respirator, and hearing protection when operating this machine.



! WARNING

Loose hair/clothing could get caught in machinery and cause serious personal injury. Keep clothing and long hair away from moving machinery.



NOTICE

If you have never used this type of machine or equipment before, WE STRONGLY RECOMMEND that you read books, trade magazines, or get formal training before beginning any projects. Regardless of the content in this section, Woodstock International will not be held liable for accidents caused by lack of training.

! WARNING

Lock the caster wheel before operating the jointer! Operating the jointer with the wheel unlocked may cause loss of control, resulting in serious personal injury.

Basic Operation

The Model ST1002 headstock moves approximately $\frac{5}{32}$ " with one turn of the handwheel.

To operate the planer:

1. Put on safety glasses.
2. Unless your workpiece is very flat, surface plane the workpiece on a jointer until it is flat—having the face flat will ensure that it sits flat on the planer table during operation.
3. Start the planer.
4. Loosen the headstock lock knobs (**Figure 18**).



Figure 18. Headstock lock knob (one of two shown).

5. Adjust the headstock height to slightly lower than your workpiece height to ensure the first cut is as light as possible (approximately $\frac{1}{32}$ "– $\frac{1}{16}$ "). This cut removes any excessive high spots.
6. Tighten the headstock lock knobs.

7. Making sure not to stand directly in front or behind the workpiece to avoid kickback injury, place the flat side of the board down on the table, and feed the workpiece through the planer.

—If the cut is too heavy and bogs down the planer, turn the planer **OFF** immediately, allow it to come to a complete stop, remove the workpiece, and repeat **Steps 3–7**.

8. Measure your workpiece thickness and adjust the headstock height as necessary to take a lighter or heavier pass, depending on your needs. For most wood types, $\frac{1}{16}$ " per pass is a good cutting depth.

Note: Any time you change directions with the handwheel, there will be a small amount of backlash—so the first crank of the handwheel after switching directions will be slightly less than $\frac{1}{16}$ ". However, as long as you move the handwheel in the same direction during operation, backlash will not be a factor.

Operation Tips

- Inspect lumber for defects, warping, cupping, twisting, and for foreign objects (nails, staples, imbedded gravel, etc.). If you have any question about the quality of your lumber, do not use it. Remember, wood stacked on a concrete floor can have small pieces of stone or concrete pressed into the surface.
- Use the full width of the planer. Alternate between the left, the right, and the middle when feeding lumber into the planer. Your knives will remain sharp much longer.
- Scrape all glue off of joined boards before planing.
- Plane **ONLY** natural wood fiber. No wood composites.
- Plane wood with the grain. Never feed end-cut or end-grained lumber into your planer.
- Do not use boards with knots, splits, crossgrain or other obvious blemishes or defects. They can damage the machine and pose the possibility of operator injury.
- Keep your work area clear.
- Avoid planing wood with a high water content. Wood with more than 20% moisture content or wood exposed to rain or snow will plane poorly and cause excessive wear to the knives and motor. Excess moisture can also hasten rust and corrosion.

Power Feed

The infeed and outfeed rollers power the stock through the planer while keeping boards flat and providing a consistent rate of movement.

The power feed features high/low feed rates. Use the different feed rates as stated below:

Low Feed RateDimensioning Pass
High Feed Rate.....Finishing Pass

Figure 19 illustrates the three different positions of the feed control knob. Moving the knob toward the machine (**Position A**) produces the high feed speed (30 FPM); moving away from the machine (**Position C**) produces the low speed (16 FPM) and moving the knob to the center position (**Position B**) places the gearbox in neutral.

The speed should be changed only when the machine is running.

NOTICE

Only change the speeds when the planer is running, but DO NOT attempt to change speeds during any cutting operations or damage to the gearbox will result.

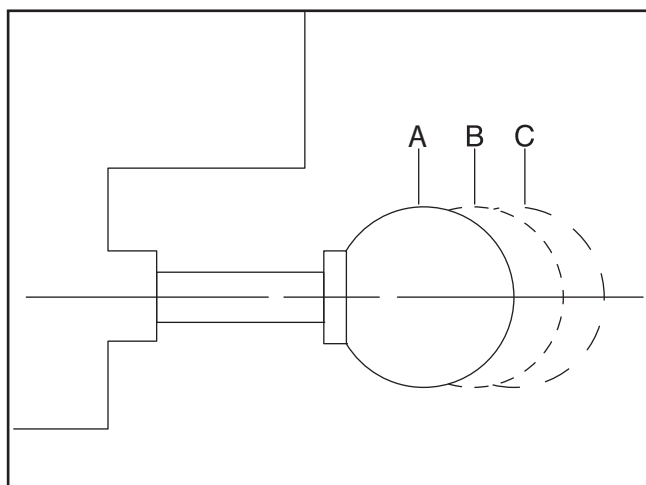


Figure 19. Feed control knob positions.

Bed Rollers

Misaligned bed rollers are the most common source of workpiece chatter, a washboard surface, uneven workpiece feeding, or binding. Therefore, it is important to adjust roller alignment.

Adjustment Height Range **0.002"–0.020"**

Tools Needed: **Qty**
Hex Wrench 3mm..... 1
Open End Wrench 12mm..... 1
Rotacator (optional, **Page 19**) 1

The height of the bed rollers will vary, depending on the type of material you intend to plane, but as a general rule keep the roller height within 0.002"–0.020" above the table. When planing rough stock, set the rollers high to keep the lumber from dragging along the bed. When planing milled lumber, set the rollers low to help minimize snipe.

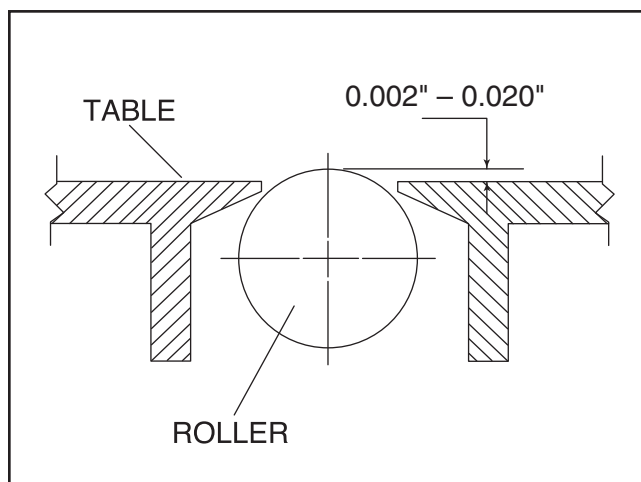


Figure 20. Bed roller height range.

To ensure accurate results and make the adjustment process quicker and easier, we recommend using the W1218 Rotacator (see **Page 19**) to gauge the bed roller height from the table. If a Rotacator is not available, a straightedge and feeler gauges can be used, but extra care must be taken to achieve satisfactory results.

To adjust the bed rollers:

1. Adjust the headstock height to give yourself at least 4" of working room below the cutterhead.
2. Loosen the locking set screws (**Figure 21**) above the roller adjusters (4 total).
3. Raise or lower the rollers by rotating the roller adjusters to reach your desired height.
4. Verify both sides of the bed roller are at the same height in relation to each other and the table and lock them in position with the locking set screws.
5. Double check the roller heights to make sure they did not move when you locked them (if they did, repeat the procedure).

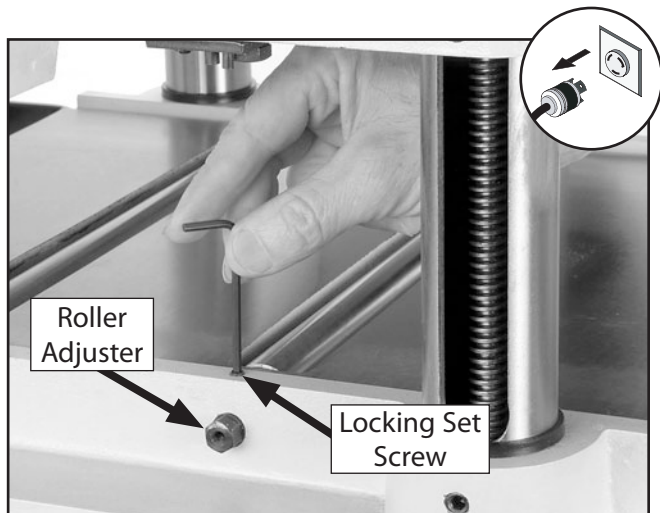


Figure 21. Bed roller controls (only one side shown).

ACCESSORIES

The following planer accessories may be available through your local Woodstock International Inc. Dealer. If you do not have a dealer in your area, these products are also available through online dealers. Please call or e-mail Woodstock International Inc. Customer Service to get a current listing of dealers at: 1-800 545-8420 or at sales@woodstockint.com.

The **SHOP FOX® Heavy-Duty Roller Stands and Roller Tables** make your planer safer and easier to use. All models feature convenient hand knobs for fast height adjustment and offer rigid steel construction. These stands are invaluable for supporting work on planers to help reduce snipe at the ends of long boards due to infeed and outfeed alignment issues. Go to: <http://www.shopfox.biz/rollerstand.cfm> to view all of the available roller tables and stands.

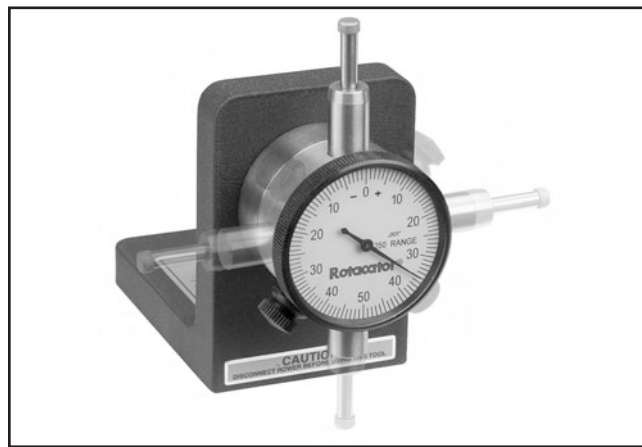


The **SHOP FOX® Wood Rack System** features interchangeable rack bars and shelf brackets to create simple or elaborate wood racks. 24" and 48" rack bars can be joined together to provide 6 feet of vertical storage capacity. Easily adjustable 12" and 18" shelf brackets lock into the rack bars for a secure system. Weight capacity is 300 lbs. for 12" brackets and 200 lbs. for 18" brackets when wood rack bars are supported by the floor and weight is evenly distributed. Assembly instructions included. D2829 24" Wood Rack Bars, D2830 48", Wood Rack Bars, D283112" Wood Rack Shelf Brackets, and D2832 18" Wood Rack Shelf Brackets.

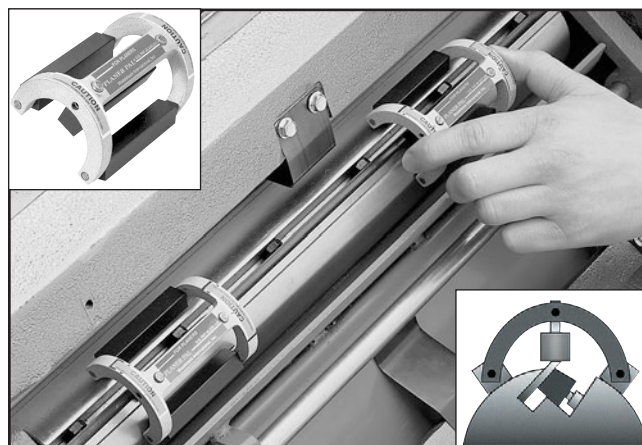


ST1002 15" Planer

The **W1218 Rotacator®** makes a planer setup process easier and more accurate for adjusting the table rollers, feed rollers, chip breaker, and the pressure bar if equipped on your planer. This tool is a rotating dial indicator on a magnetic base. Shown below, this handy device measures table-to-cutterhead alignment and the table roller height. The Rotacator® allows you to set your table within 0.001" from being parallel with the cutterhead.



PLANER PAL® Magnetic Planer Knife Setting Jigs. Our patented knife-setting system lets you set straight-type planer knives in perfect alignment every time! You can shift nicked knives on 2 1/2"– 4" cutterheads to get a perfect cut with an accuracy of ± 0.002 ". Two jigs are needed for 15"– 20" planers. Use the STANDARD JIGS for Steel Knives W1216 (Pair), or the CARBIDE JIGS for Steel or Carbide Knives W1217 (Pair).



MAINTENANCE



Schedule

For optimum performance from your machine, follow this maintenance schedule and refer to any specific instructions given in this section.

Daily Maintenance:

- Clean unpainted cast iron parts of the table and relubricate
- Lubricate feed rollers

Weekly Maintenance:

- Clean cutterhead
- Lubricate the four columns
- Change gear box oil (should be performed after the first 20 hours when planer is new).

Monthly Maintenance:

- Inspect V-belt for tension, damage, or wear
- Clean/vacuum dust buildup from inside cabinet and off of the motor
- Lubricate lead screw
- Lubricate chain
- Lubricate drive chain

Annual Maintenance:

- Change gear box oil (See **Page 21**, Gear Box)

Cleaning

Cleaning the Model ST1002 is relatively easy. Vacuum excess wood chips and sawdust, and wipe off the remaining dust with a dry cloth. Treat all unpainted cast iron and steel with a non-staining lubricant after cleaning.

V-Belts

The V-belts must be tensioned after the first 16 hours, or your belts will slip and burn out. The correct tension for the V-belts is $\frac{1}{4}$ " deflection when pushed in the center with moderate pressure. Always replace the V-belts with a matched set of three V-belts, or belt tension may not be even among the belts, causing premature belt failure.

To tension the V-belts:

1. DISCONNECT THE PLANER FROM THE POWER SOURCE!
2. Insert wooden levers between the motor mount on either side of the top of the planer as shown in **Figure 22**.

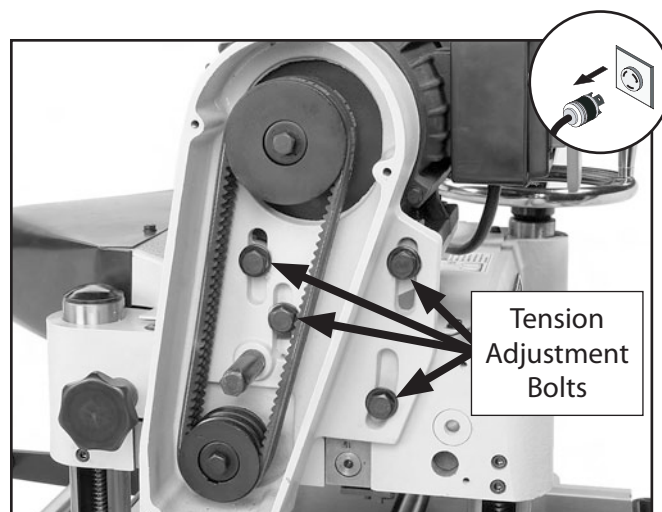
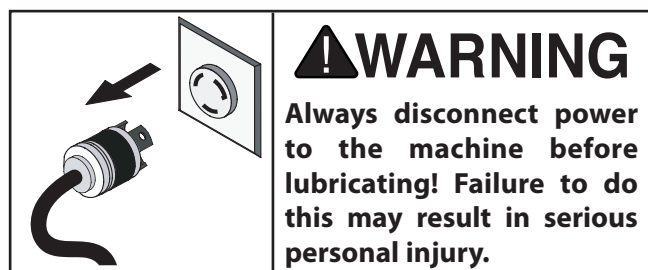


Figure 22. Tension adjustment bolts.

3. Using a 17mm socket, slightly loosen the four tension adjustment bolts (**Figure 22**).
4. Lift the motor assembly with the wooden levers until you can deflect each V-belt $\frac{1}{4}$ " by squeezing it at the midpoint with moderate finger pressure.
5. Hold the motor in place and secure the bolts loosened in **Step 3**.
6. Squeeze the belts to check the tension and repeat **Steps 3–5** if necessary.

Lubrication

This planer uses sealed and pre-lubricated ball bearings that require no lubrication.



The following is a list of parts that need lubrication:

Columns and Leadscrews: The four columns should be lubricated with SAE 10-30W oil once a week. The four lead screws should be lubricated with general purpose grease once a month (see **Figure 23**).

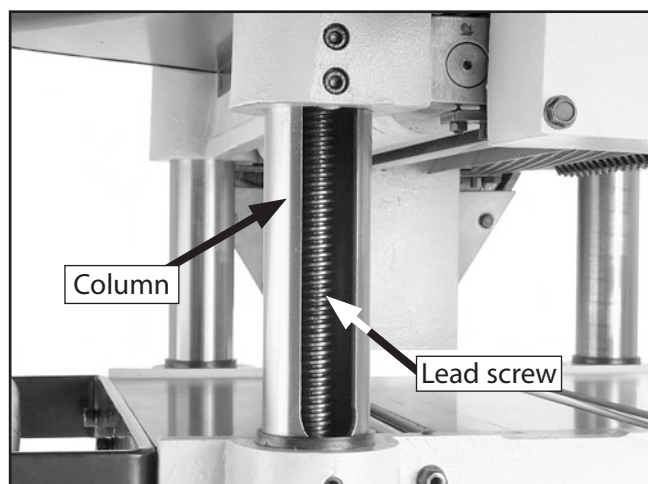


Figure 23. Columns and lead screws.

Chain: The table height adjustment chain (see **Figure 31** on **Page 27**) should be inspected monthly and lubricated with general purpose grease when needed.

Gear Box: Gear box oil should be changed after the first 20 hours of operation (see **Figure 24**). Inspect levels periodically and change yearly. Replace gear oil more frequently under heavy use. See **Page 13** for instructions on adding oil.

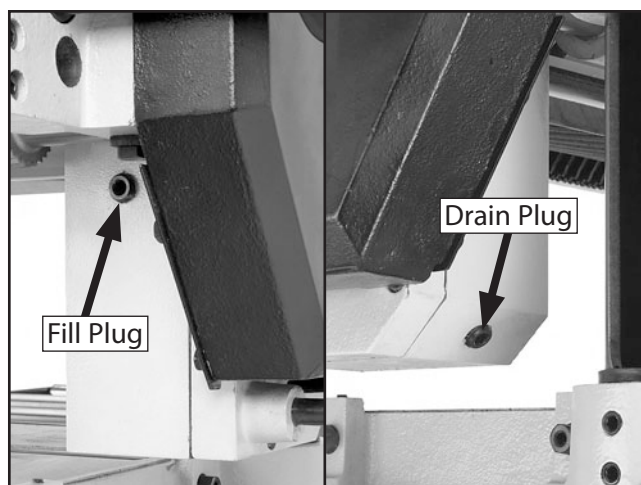


Figure 24. Gearbox oil fill and drain points.

Drive Chain: The drive chain should be inspected and lubricated monthly. Check the sprocket and the chain during inspection. Use a general purpose grease.

Feed Rollers: Add 1-2 drops of SAE 10-30W oil to each of the four oiling ports shown in **Figure 25** before daily startup. Lubrication of the feed rollers is crucial to the operation of your planer.

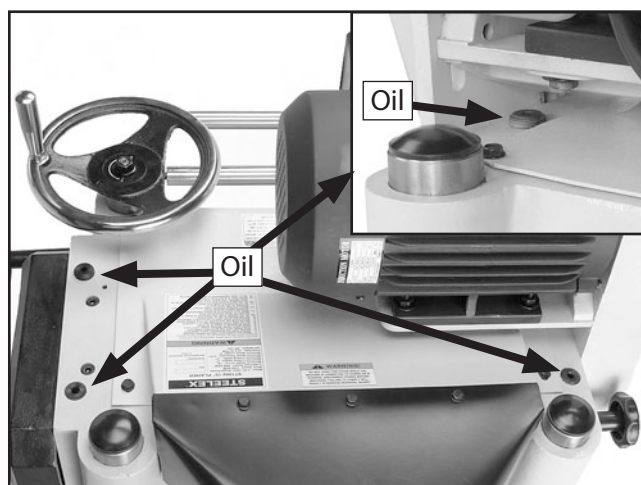


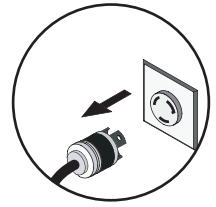
Figure 25. Feed roller lubrication points.

Maintenance Notes

DATE	MAINTENTANCE PERFORMED

SERVICE

Troubleshooting



This section covers the most common problems and corrections with this type of machine.

WARNING! DO NOT make any adjustments until power is disconnected and moving parts have come to a complete stop!

Motor and Machine Operation

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Motor will not start.	<ol style="list-style-type: none"> 1. Open circuit in motor or loose connections. 2. Start capacitor is at fault. 	<ol style="list-style-type: none"> 1. Inspect all lead connections on motor for loose or open connections. 2. Test/replace if faulty.
Fuses or circuit breakers blow.	<ol style="list-style-type: none"> 1. Short circuit in line cord or plug. 	<ol style="list-style-type: none"> 1. Repair or replace cord or plug for damaged insulation and shorted wires.
Motor fails to develop full power (output of motor decreases rapidly with decrease in voltage at motor terminals).	<ol style="list-style-type: none"> 1. Undersized wires or circuits too long. 2. Motor run capacitor at fault. 	<ol style="list-style-type: none"> 1. Increase wire sizes or reduce length of the circuit. 2. Replace run capacitor.
Motor overheats.	<ol style="list-style-type: none"> 1. Motor overloaded during operation. 2. Air circulation through the motor restricted. 	<ol style="list-style-type: none"> 1. Reduce cutting load; take lighter cuts. 2. Clean out motor to provide normal air circulation.
Motor stalls or shuts off during a cut.	<ol style="list-style-type: none"> 1. Motor overloaded during operation. 2. Short circuit in motor or loose connections. 3. Circuit breaker tripped. 	<ol style="list-style-type: none"> 1. Reduce cutting load; take lighter cuts. 2. Repair or replace connections on motor for loose or shorted terminals or worn insulation. 3. Install correct circuit breaker; reduce # of machines running on that circuit.
Cutterhead slows or squeals when cutting, especially on start-up.	<ol style="list-style-type: none"> 1. V-belts loose. 2. V-belts worn out. 	<ol style="list-style-type: none"> 1. Tighten V-belts (Page 20). 2. Replace V-belts (Page 20).
Loud repetitious noise coming from machine.	<ol style="list-style-type: none"> 1. Motor fan is hitting the cover. 2. V-belts are damaged. 	<ol style="list-style-type: none"> 1. Adjust fan cover mounting position, tighten fan, or shim fan cover. 2. Replace V-belts (Page 20).
Vibration when running or cutting.	<ol style="list-style-type: none"> 1. Loose or damaged blade. 2. Damaged V-belts. 3. Worn cutterhead bearings. 	<ol style="list-style-type: none"> 1. Tighten or replace blade. 2. Replace V-belts. 3. Check/replace cutterhead bearings.
Headstock lowers when planing.	<ol style="list-style-type: none"> 1. Knives are dull. 	<ol style="list-style-type: none"> 1. Replace or have the knives sharpened.

Cutting

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Excessive snipe (gouge in the end of the board that is uneven with the rest of the cut). <i>Note: A small amount of snipe is inevitable with all types of planers. The key is minimizing it as much as possible.</i>	<ol style="list-style-type: none"> One or both of the bed rollers are set too high. Outfeed extension rollers slope down or are not level with the main table. Chip breaker set too low. Workpiece is not supported as it leaves the planer. 	<ol style="list-style-type: none"> Lower the bed rollers (Page 17). Shim the outfeed extension rollers level with the main table (Page 12). Raise the height of the chipbreaker (Page 29). Hold the workpiece up slightly as it leaves the outfeed end of the planer.
Workpiece stops/slows in the middle of the cut.	<ol style="list-style-type: none"> Taking too heavy of a cut. One or both of the bed rollers are set too low or too high. Chipbreaker set too low. Feed rollers set too low or too high. Table not parallel with headstock. Pitch and glue build up on planer components. 	<ol style="list-style-type: none"> Take a lighter cut. Lower/raise the bed rollers (Page 17). Raise the height of the chipbreaker (Page 29). Adjust the feed rollers to the correct height (Page 29) Adjust the table so it is parallel to the headstock. Clean the internal cutterhead components with a pitch/resin dissolving solvent.
Chipping (consistent pattern).	<ol style="list-style-type: none"> Knots or conflicting grain direction in wood. Nicked or chipped knife. Feeding workpiece too fast. Taking too deep of a cut. Misaligned chipbreaker. 	<ol style="list-style-type: none"> Inspect workpiece for knots and grain direction; only use clean stock. Replace the affected knife (Page 25), or have it sharpened. Slow down the feed rate (Page 17). Take a smaller depth of cut. (Always reduce cutting depth when surface planing or working with hard woods.) Adjust both sides of the chipbreaker to the correct height (Page 29).
Fuzzy grain.	<ol style="list-style-type: none"> Wood may have high moisture content or surface wetness. Dull knives. 	<ol style="list-style-type: none"> Check moisture content and allow to dry if moisture is too high. Replace the knives (Page 25) or have them professionally sharpened.
Long lines or ridges that run along the length of the board.	<ol style="list-style-type: none"> Nicked or chipped knife(s). 	<ol style="list-style-type: none"> Replace the knives (Page 25) or have them professionally sharpened.
Uneven knife marks, wavy surface, or chatter marks across the face of the board.	<ol style="list-style-type: none"> Feeding workpiece too fast. Chipbreaker set unevenly. Knives not installed evenly. Worn cutterhead bearings. 	<ol style="list-style-type: none"> Slow down the feed rate. Adjust the height of the chipbreaker (Page 29). Adjust the knives with the knife gauge. Replace cutterhead bearings.
Glossy surface.	<ol style="list-style-type: none"> Knives are dull. Feed rate too slow. Cutting depth too shallow. 	<ol style="list-style-type: none"> Replace the knives (Page 25) or have them professionally sharpened. Increase the feed rate (Page 17). Increase the depth of cut.
Chip marks (inconsistent pattern).	<ol style="list-style-type: none"> Chips aren't being properly expelled from the cutterhead. Knives are dull. 	<ol style="list-style-type: none"> Use a dust collection system; adjust the chip deflector in or out depending on your setup (Page 32). Replace knives or have them sharpened.

Inspecting Knives

The Model ST1002 Planer has a three-knife cutterhead. Because of normal use and wear, the knives must be periodically sharpened, replaced or adjusted. Adjustment from the factory must also be checked prior to use due to possible movement during shipment.

The height of the knives can be easily and quickly inspected with the knife setting gauge. This inspection will ensure that the knives are protruding equally and are parallel with the cutterhead body.

To inspect the knives:

1. DISCONNECT THE PLANER FROM THE POWER SOURCE!
2. Remove the top cover and dust port.
3. Place the knife gauge on the cutterhead, directly over a knife, as shown in **Figure 26**.

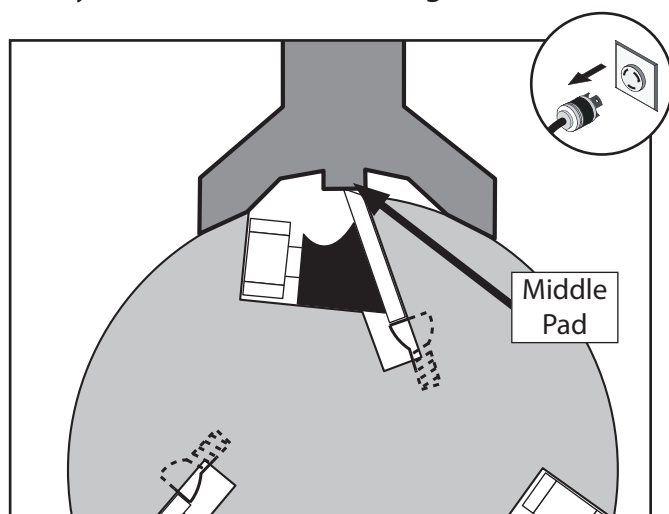


Figure 26. Gauge positioned over cutterhead knife.

4. Carefully inspect how the gauge touches the cutterhead and the knife.

—If both outside legs of the gauge sit firmly on the cutterhead and the middle pad just touches the knife, then that knife is protruding the correct amount (0.060"). (Repeat this inspection with the other knives.)

—If the gauge does not sit firmly on the cutterhead and touch the knife edge as described, then reset that knife. (Repeat this inspection with the other knives before resetting.)

Setting/Replacing Knives

Setting the knives correctly is crucial to the proper operation of the planer and is very important in keeping the knives sharp. If one knife protrudes higher than the others, it will do the majority of the work, and thus, dull much faster than the others.

The included knife gauge is designed to set the knives approximately 0.060" higher than the cutterhead.

This planer comes with jack screws to provide you with two options for cutterhead adjustments (see **Figure 27**).

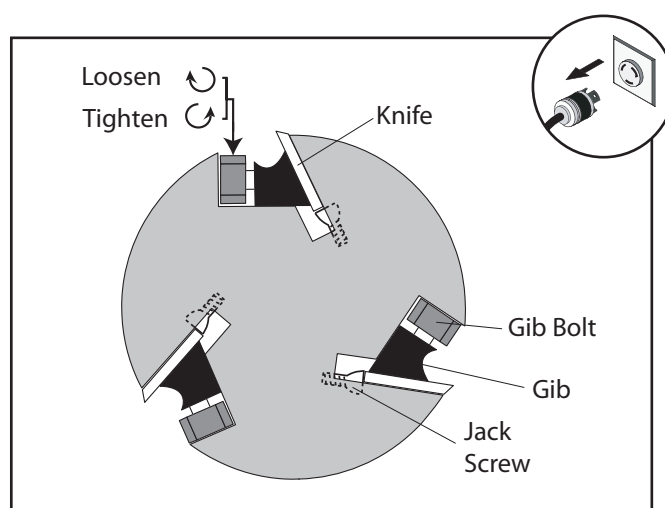


Figure 27. Cutterhead profile diagram.

! WARNING

Planer knives are dangerous and may cause personal injury. To reduce the risk of being injured, wear leather gloves when handling the knives.

To set the knives:

1. DISCONNECT THE PLANER FROM THE POWER SOURCE!
2. Remove the top cover and dust port.
3. Remove the belt guard to expose the cutterhead pulley.

4. Rotate the cutterhead pulley to give you good access to one of the knives.
5. Loosen the cutterhead gib bolts, starting in the middle, and alternating back and forth until all of the gib bolts are loose, but not falling out.
6. Position the knife gauge over the knife as shown in **Figure 26** and loosen the gib bolts until the knife is completely loose.
7. Using a 3mm hex wrench, find the jack screws through the access holes in the cutterhead (**Figure 28**) and rotate the jack screws to raise or lower the knife. When the knife is set correctly, it will barely touch the middle pad of the knife setting gauge. Snug the gib bolts tight enough to just hold the knife in place. Repeat **Steps 5–7** with the rest of the knives.

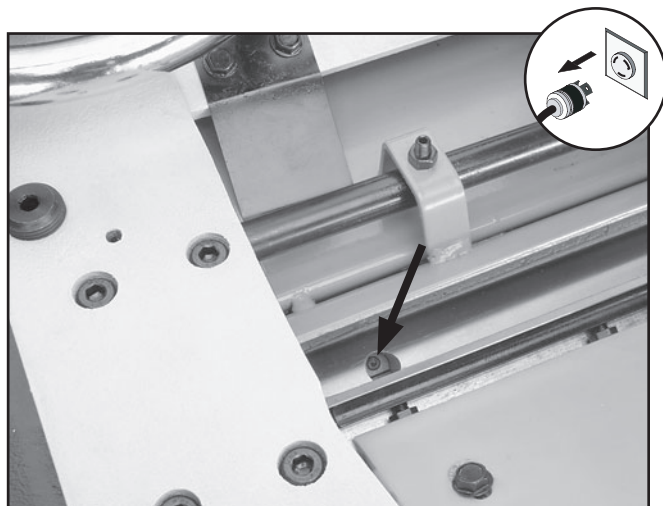


Figure 28. Jack screw access hole.

8. Rotate the cutterhead to the first knife you started with. Slightly tighten all the gib bolts by following the tightening sequence shown in **Figure 29**. Repeat this step on the rest of the knives.

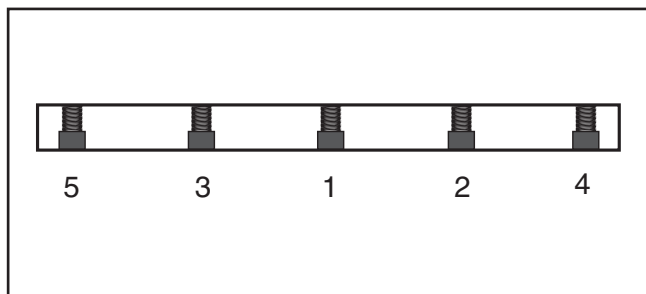


Figure 29. Gib bolt tightening sequence.

9. Final tighten each gib bolt.

Chain Tension

Tools Needed:

	Qty
Wrench or Socket 14mm.....	1
Phillips Head Screwdriver	1

The chain drive transfers movement from the handwheel to elevate the headstock. The chain drive can be adjusted to remove slack if the chain stretches over time or is loosened during headstock leveling procedures.

To adjust the chain tension:

1. DISCONNECT THE PLANER FROM THE POWER SOURCE!
2. Locate the access hole on the right side of the planer.



Figure 30. Chain drive access.

NOTICE

During the next step, **DO NOT** let the chain fall off the sprockets—returning it to its proper location without changing the table adjustments can be very difficult.

- Loosen the two locking bolts (**Figure 31**) behind the idler sprocket and move the sprocket against the chain to tighten it.

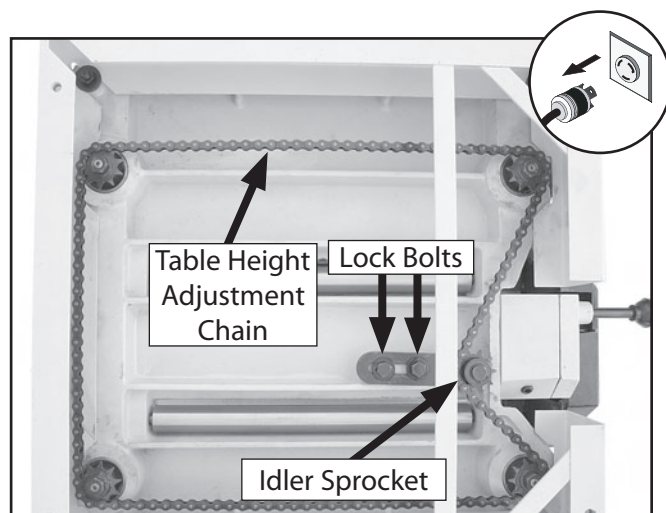


Figure 31. Underside of table.

- Re-tighten the two locking bolts.
- Check chain lubrication. Refer to **MAINTENANCE** on **Page 20** for further details.

Table Parallelism

Table parallelism is critical to the operation of the machine. As such, it is essential that the table is parallel with the cutterhead (within 0.002") from side-to-side, as illustrated in **Figure 32**.

Maximum Allowable Tolerances:

Cutterhead to Table Side-to-Side 0.002"
Headstock to Table Front/Back 0.020"

Tools Needed:

	Qty
Rotacator	1
Phillips Screwdriver #2	1
Wrench or Socket 14mm	1
Hex Wrench 6mm	1
Sawhorses	2
6' Long 2x4's	2
Lifting Assistants	3

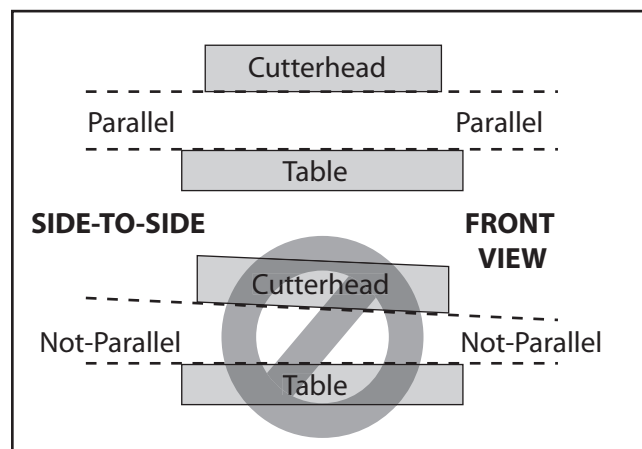


Figure 32. Side-to-side parallelism of table and cutterhead.

How the table sits in relation to the headstock from front-to-back is also important (see **Figure 33**). Because the feed rollers and chip breaker will be adjusted off the table position, the tolerances on the front-to-back positioning are not as critical as the cutterhead/table side-to-side positioning. Therefore, the maximum allowable tolerance for the front-to-back parallelism is not more than 0.020".

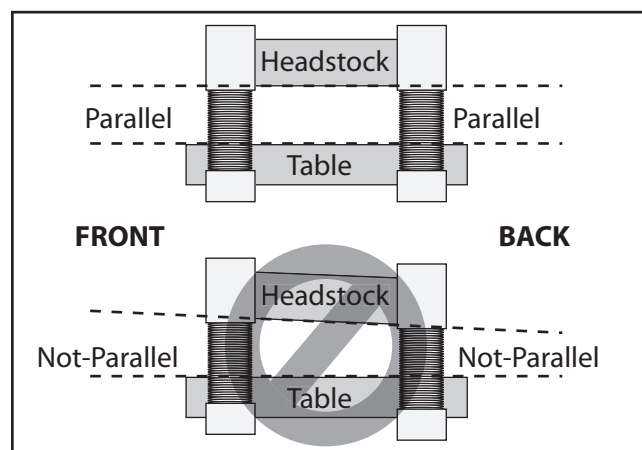


Figure 33. Front-to-back parallelism.

Table Parallelism Inspection

The easiest way to determine if your headstock has a parallelism problem is to plane a workpiece and measure the thickness in multiple locations. If the workpiece is tapered from left-to-right or from front-to-back, then parallelism may be a problem.

Use your Rotacator to further inspect the table parallelism. If you do not have a Rotacator, a wood block and feeler gauges may be used, but extra care must be taken to ensure accuracy. If the table is not within the maximum allowable tolerances, it must be adjusted.

Table Parallelism Adjustments

The headstock is adjusted by turning the chain sprockets underneath the table for movements over 0.016" or by adjusting how the headstock is mounted on the columns for movements under 0.016".

NOTICE

When making adjustments, tighten fasteners after each step to ensure the accuracy of your tests. When adjusting the chain sprockets, keep in mind that if the chain becomes too loose, it will fall off of all the sprockets. Returning it to its proper location can be frustrating.

To adjust the table parallelism:

1. DISCONNECT THE PLANER FROM THE POWER SOURCE!
2. Lower the headstock until it is approximately 4" from the table.
3. Remove the rear cabinet panel and remove the cap screws that secure the planer to the cabinet.
4. Position two sawhorses 2' apart.
5. Place two 6' long 2x4's under the headstock.

Note: Check the cap screws that mount the extension wings to the planer. Tighten these if they are loose.

6. With the help of three assistants, lift the planer off of the cabinet. Set it down so each extension roller sits on a sawhorse, as shown in **Figure 34**.



Figure 34. Planer supported by sawhorses.

7. Locate the chain on the underside of the table.
8. Loosen the chain tensioner (see **Chain Tension** instructions on **Page 26**).
9. Mark the location of one tooth in the sprocket that you are adjusting.
10. Move the chain away from only the sprocket you want to adjust so only that sprocket can be turned independent of the chain.

Note: If the left side of the table is too high, the left two sprockets will need to be adjusted. Each tooth on the sprocket represents .016" of vertical movement as the cogs are turned. Make sure, as you turn the sprockets, to keep an accurate tooth count to ensure that the headstock is adjusted equally.
11. Carefully turn the sprocket (clockwise to lower the headstock; counterclockwise to raise the headstock) just enough to position the next tooth at the marked location, then fit the chain around sprocket again.
12. Repeat **Steps 9–11** with each sprocket that needs to be adjusted until the table-to-cutterhead clearance is within 0.016" from one side to the other.
13. Make sure the chain is properly fitted on the sprockets, and tighten the idler sprocket and lock bolts.

14. Micro-adjust the headstock position by loosening the cap screws shown in **Figure 35** & **36** and lifting the table upward or downward until the table and cutterhead are in alignment.

Note: This process may require adjusting the columns on both the left and right hand sides until you find the correct combination.

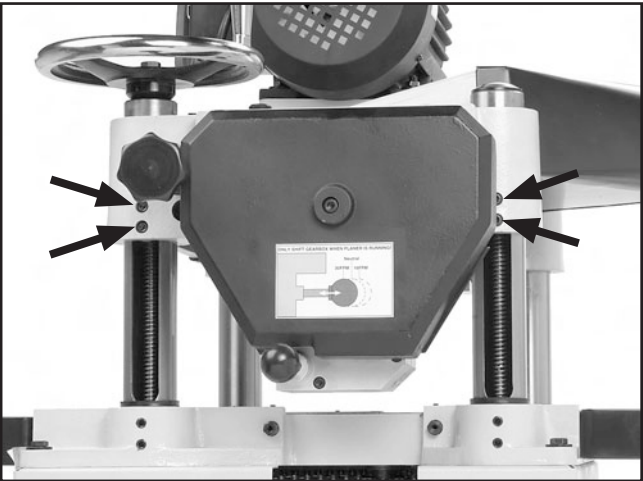


Figure 35. Table micro-adjustment screws, right side.

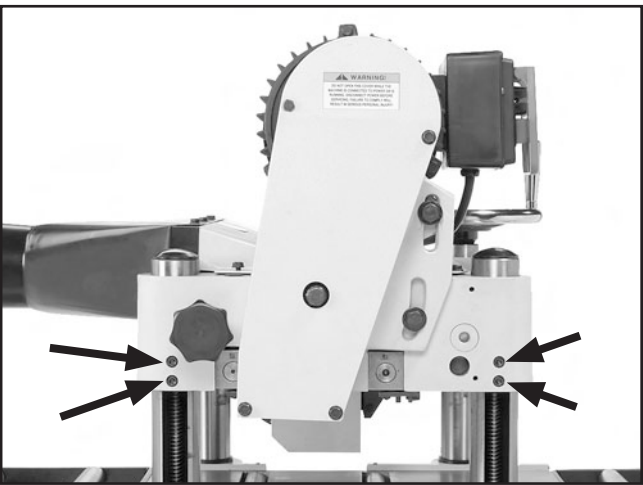


Figure 36. Table micro-adjustment screws, left side.

15. With the help of lifting assistants, lift the planer off of the sawhorse and place it back on the cabinet.
16. Align the mounting holes in the planer and cabinet, secure with the cap screws, and reinstall the rear panel.
17. Check to make sure the extension rollers are flush with the table surface and adjust as needed (see **Page 12**).

Rollers & Chip Breaker Heights

Distance Below Knife Edge at *BDC

Infeed Roller	0.040"
Chip Breaker	0.040"
Outfeed Roller	0.020"

Tools Needed:	Qty
Hex Wrench 3mm.....	1
Hex Wrench 2.5m	1
Wrench or Socket 10mm	1
Wrench or Socket 9mm	1
Rotacator (optional, Page 19)	1

*BDC = Bottom Dead Center (see **Figure 37**).

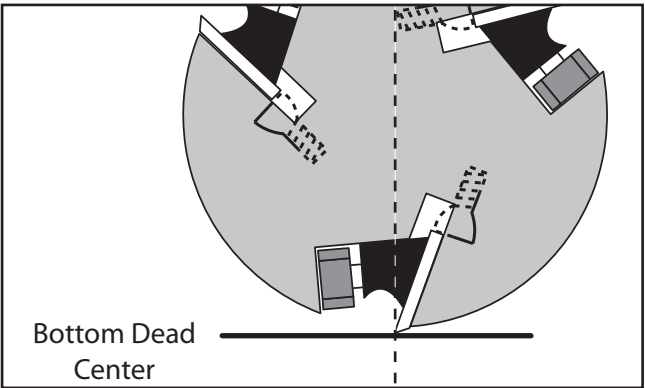


Figure 37. Knife edge at bottom dead center.

To ensure accurate results and make the adjustment process quicker and easier, we recommend using a Rotacator (see **Page 19**) for these adjustments.

If a Rotacator is not available, see **Page 31** for instructions on adjusting with wood blocks.

To set the height of the infeed and outfeed rollers and chip breaker using a Rotacator:

1. DISCONNECT THE PLANER FROM THE POWER SOURCE!
2. Make sure the knives are set correctly with the knife gauge.

3. Lower the headstock until it is at least 4" above the table and lock the headstock in place.
4. Remove the dust port, top cover, and belt cover.
5. Using your Rotacator, find BDC of any knife edge by slowly rocking the cutterhead pulley back and forth, and set the Rotacator dial to zero, as shown in **Figure 38**.

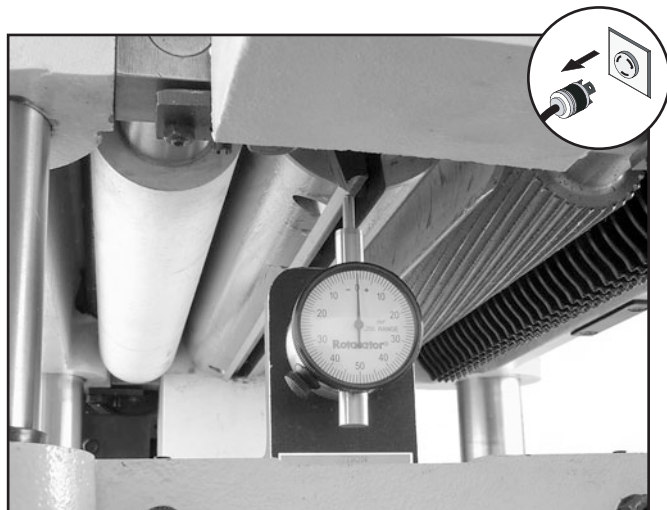


Figure 38. Finding BDC with the Rotacator.

6. Remove the cap screw on the chain cover, remove one of the triangular brackets mounted to the cover with flange bolts, and remove the chain drive cover.
7. Place the Rotacator under the right-hand side of the infeed roller and find bottom dead center on a serrated edge by rocking the infeed roller back and forth.
8. Loosen the roller adjustment jam nuts (**Figure 39**) and turn the roller height set screws to adjust the height of the infeed roller on the same side as the Rotacator to the specification given at the beginning of this procedure, using the zero setting of the Rotacator as a reference point.

9. Repeat **Steps 7–8** on the left-hand side of the infeed roller.
10. Double-check and micro-adjust both sides of the infeed roller, then carefully lock both sides in place.

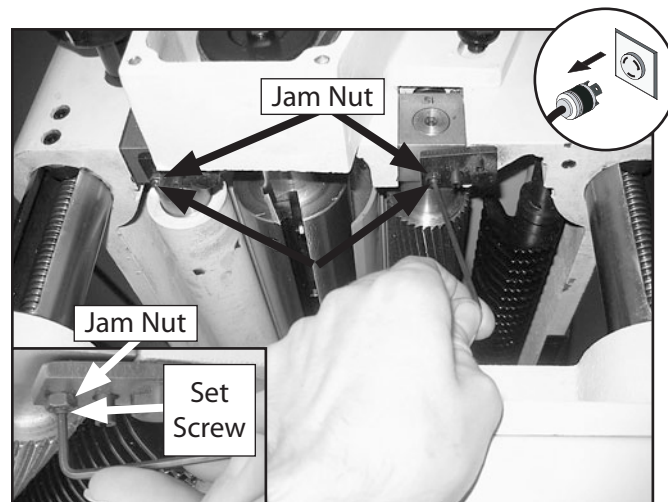


Figure 39. Infeed and outfeed roller height adjustment controls.

11. Using the same zeroed reference on the Rotacator, adjust the height of the chip breaker and outfeed table roller to their given specifications. The adjustment controls for each are shown in **Figures 39 & 40**.

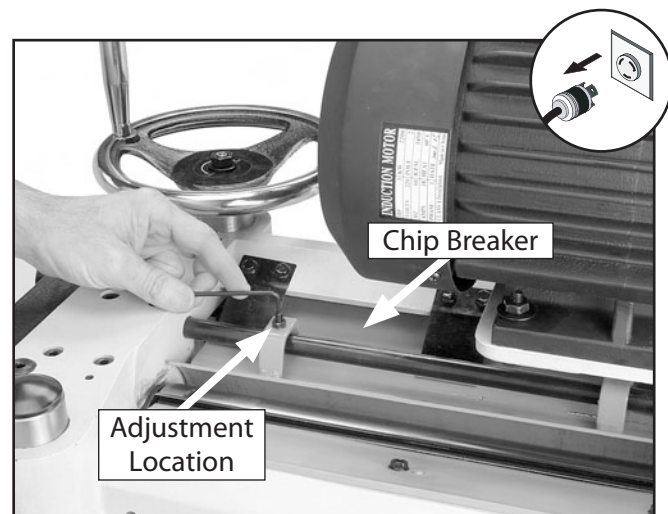


Figure 40. Adjusting chip breaker height.

To adjust the height of the infeed and outfeed rollers and chip breaker using wood blocks and a feeler gauge:

1. Build the wood blocks by cutting a straight 6' long 2x4 in half.

Note: Having the wood blocks at an even height is critical to the accuracy of your overall adjustments. For best results, remove board warpage by squaring the 2x4 with a jointer and table saw before cutting in half.

2. DISCONNECT THE PLANER FROM THE POWER SOURCE!
3. Lower the bed rollers below the table.
4. Place one wood block along the left side of the table, and place the other wood block along the right side of the table, as illustrated in **Figure 41**.

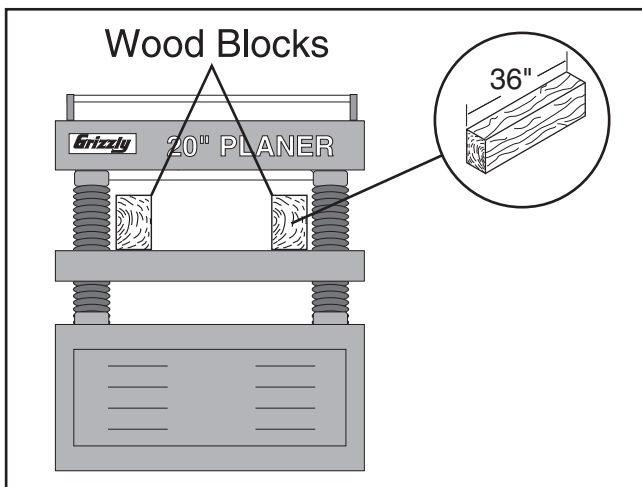


Figure 41. Wood blocks on table.

5. Remove the dust port, top cover, and belt cover.
6. Adjust the headstock and use the feeler gauge until you have a 0.040" gap between the edge of a knife at bottom dead center (find by rocking cutterhead pulley) and the wood blocks.

7. Lock the headstock height in place, as the wood blocks will now be your reference points for the rest of the adjustments.
8. Loosen the infeed roller adjustment jam nuts (**Figure 39**) and turn the adjustment set screws on each end to raise the feed roller above the wood block (if necessary), then bring it back down so it just touches the wood block on both sides.
9. Lock the infeed roller adjustment screws in place with the jam nuts, making sure they do not move while tightening.
10. Without moving the table, adjust the chip breaker, and outfeed roller in the same manner, using the wood blocks as your reference point.
11. When you are finished with the adjustments, replace the top cover, dust port and belt cover.

Spring Tension

Tools Needed:	Qty
5mm Hex Wrench.....	1

Roller spring tension must be adjusted so that roller pressure is uniform. Roller spring tension will vary, depending on the type of wood you plane. This is usually determined from trial-and-error.

Generally speaking, less spring tension is more forgiving on workpieces. Therefore, if you primarily plane milled lumber with relatively consistent surfaces, you can get away with having less spring tension. Likewise, if you primarily plane rough lumber with inconsistent surface heights, more spring tension is a must to keep the workpiece feeding through the planer without stopping.

If workpieces regularly stop feeding during operation, it may be a sign of weak spring tension.

To adjust roller spring tension:

1. Locate the four tension screws located on the top of the planer, as shown in **Figure 42 & 43**.
2. Adjust tension screws #1–#3 so that they protrude $\frac{1}{8}$ " above the headstock.
3. Adjust tension screw #4 so that it protrudes $\frac{5}{16}$ " above the headstock.

Note: The final height of the infeed roller will be found through trial and error, and depending upon the hardness of the wood being planed. Too heavy of a spring pressure will dent the workpiece. If the pressure is too light, the infeed roller will skid on the workpiece.

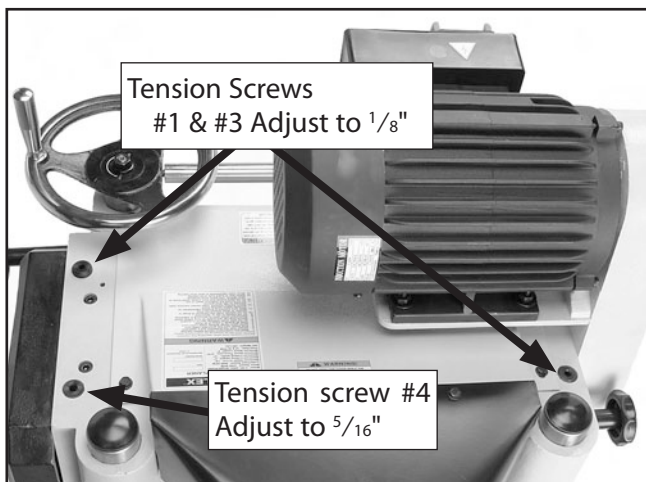


Figure 42. Tension screws 1, 3, and 4.

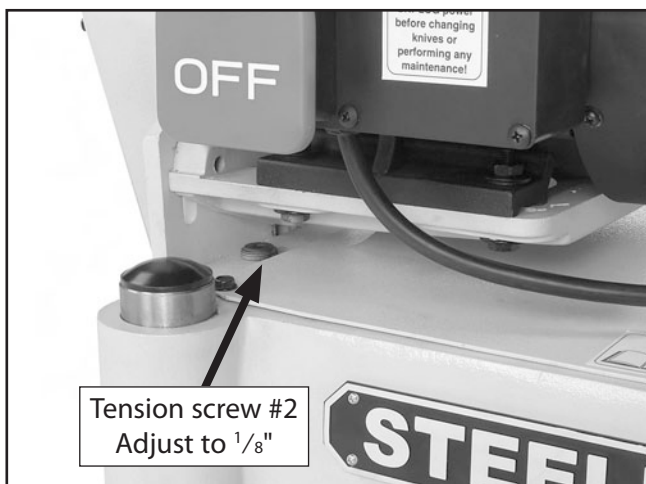


Figure 43. Tension screw #2.

Chip Deflector Positioning

Chip Deflector Gap Setting

If Planer Used w/Dust Collector	$\frac{1}{4}$ "
If Planer Used w/o Dust Collector	$\frac{1}{16}$ "

Tools Needed:

	Qty
Wrench or Socket 10mm	1
Hex Wrench 5mm.....	1

The chip deflector keeps chips from falling onto the outfeed roller.

To adjust the deflector position:

1. DISCONNECT THE PLANER FROM THE POWER SOURCE!
2. Remove the top cover, dust port, and belt cover.
3. Loosen the three chip deflector mounting bolts (see **Figure 44**).

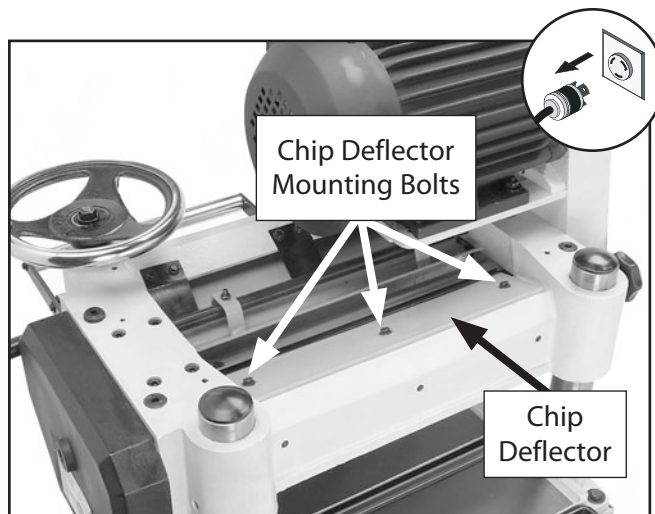


Figure 44. Chip deflector and mounting bolts.

4. Make sure the deflector is beveled toward the cutterhead. Move the deflector until the edge is the correct distance (given above) from the closest knife.
5. Rotate the cutterhead to make sure the cutterhead knives do not touch the chip deflector.
6. Re-tighten the mounting bolts and reinstall the top cover, dust port, and belt cover onto the planer.

Scale Calibration

Tools Needed:		Qty
Phillips Head Screwdriver		1
Calipers		1

The scale can be adjusted for accuracy. The machine will need to be run to make proper adjustments.

To calibrate the scale:

1. Adjust the cutterhead height to the approximate thickness of your test lumber. Measure the lumber with calipers to determine its exact thickness.
2. Move the cutterhead to $\frac{1}{16}$ " under the thickness of your lumber and feed your test board through the planer.
3. Turn the handwheel one half rotation and run the board through once more. Turn the board over and repeat.

4. Measure the board again and compare your results with the scale. If there is a discrepancy, loosen the scale adjustment screw (**Figure 45**) and correct the position.



Figure 45. Depth scale adjustment screw.

Anti-Kickback Fingers

The Model ST1002 provides an anti-kickback system as a safety feature. The anti-kickback fingers hang from a rod suspended across the headstock. The anti-kickback fingers should be inspected regularly.

Check the fingers (**Figure 46**) to ensure that they swing freely and easily. If the fingers do not swing freely and easily, clean them with a wood resin solvent.

Do not apply oil or other lubricants to the anti-kickback fingers. Oil or grease will attract dust, restricting the free movement of the fingers.

! WARNING

Proper operation of the anti-kickback fingers is essential for the safe operation of this machine. Failure to ensure that they are working properly could result in serious operator injury.

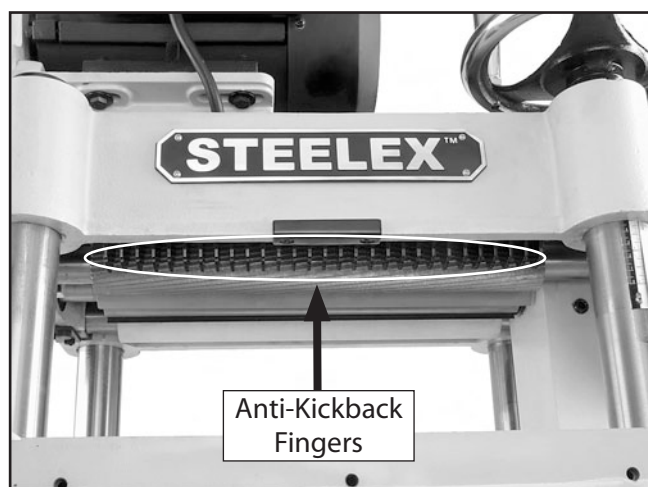


Figure 46. Anti-kickback fingers.

Pulley Alignment

Tools Needed:

Qty

Straightedge	1
Wrench 17mm	2
Wrench 14mm	2

Proper pulley alignment (see **Figure 47**) prevents premature belt wear. The pulleys are properly aligned when they are parallel and in the same plane as each other. Use a straightedge on the edge of the pulleys to judge alignment.

Note: A gap on either pulley surface may indicate the pulleys are not aligned.

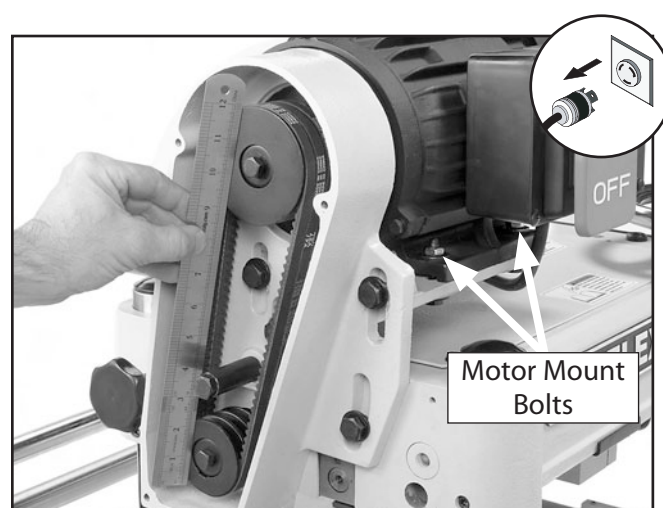


Figure 47. Checking belt alignment.

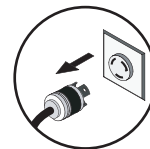
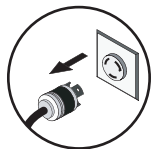
Should you find that the pulleys are out of alignment:

1. DISCONNECT THE PLANER FROM THE POWER SOURCE!
2. Loosen the motor mount bolts (**Figure 47**) to rotate the motor left-or-right so the motor pulley is parallel with the cutterhead pulley.
3. Remove the belt cover.
4. Check the pulleys with a straightedge.
5. Repeat **Step 2 & 3** as necessary.
6. Tighten the motor mount bolts and replace the belt cover.

ST1002 Electrical Components



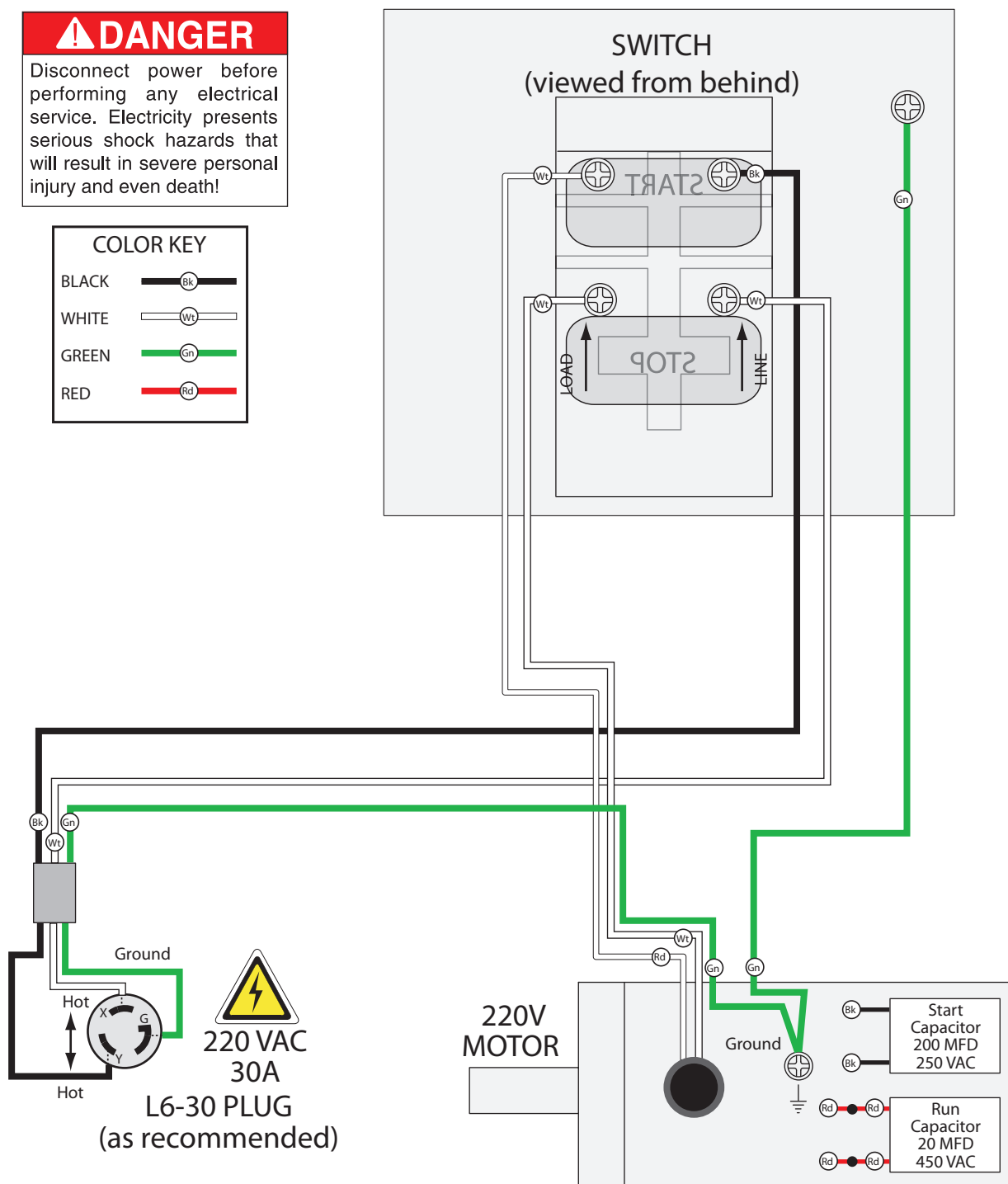
Figure 48. Switch and motor wiring.



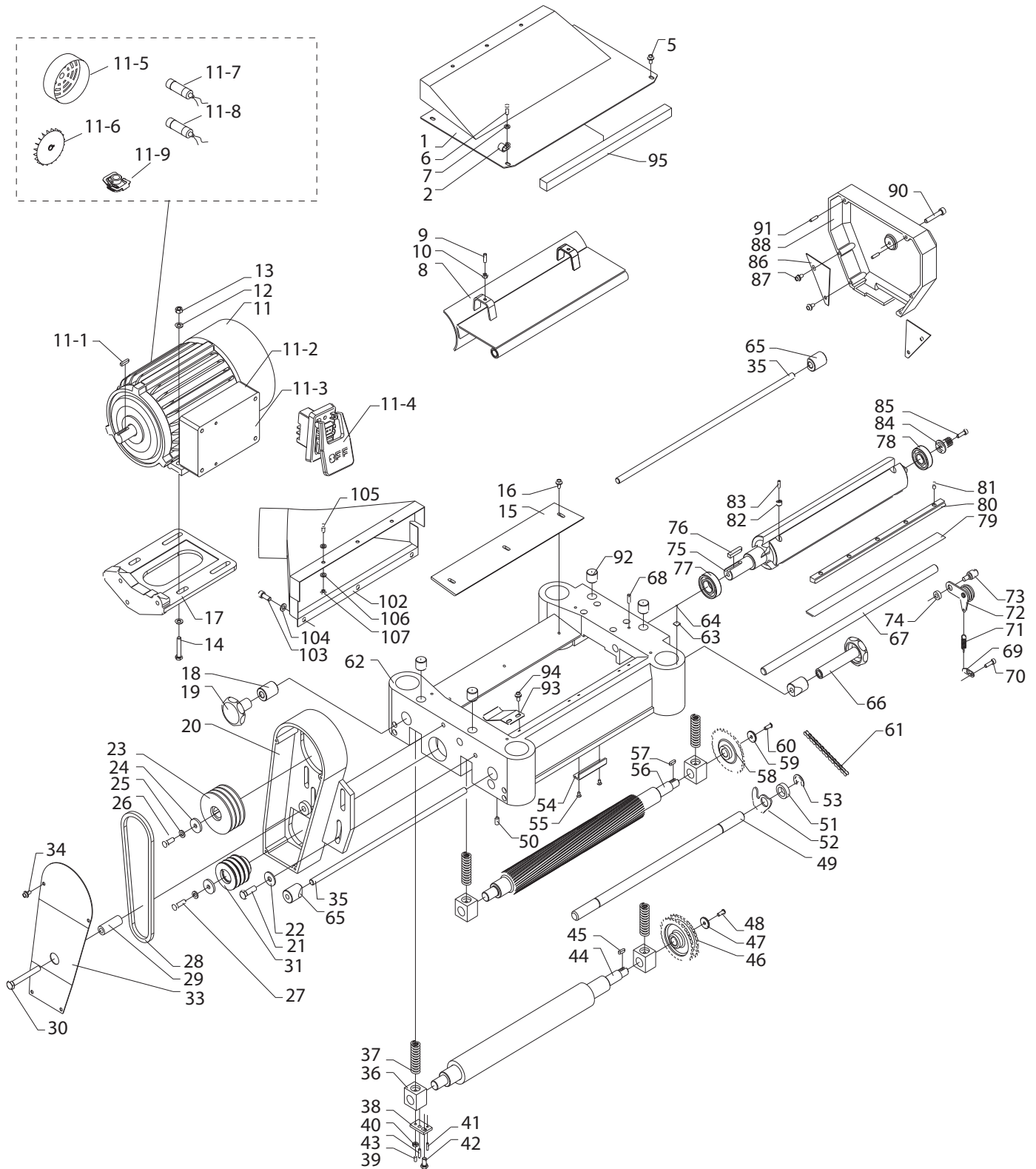
⚠ DANGER

COLOR KEY

BLACK	
WHITE	
GREEN	
RED	



Main Breakdown



Main Breakdown Parts List

REF	PART #	DESCRIPTION
1	XST1002001	UPPER COVER
2	XST1002002	CLAMP
5	XPFB09M	FLANGE BOLT M6-1 x 10
6	XPB83M	HEX BOLT M6-1 X 16
7	XPW03	FLAT WASHER 6MM
8	XST1002008	CHIP BREAKER
9	XPSS58M	SET SCREW M6-1 X 18
10	XPNO1M	HEX NUT M6-1
11	XST1002011	MOTOR ASSEMBLY
11-1	XPK12M	KEY 5 X 5 X 30
11-2	XST1002011-2	SWITCH BOX
11-3	XST1002011-3	SWITCH COVER
11-4	XST1002011-4	SWITCH ASSEMBLY
11-5	XST1002011-5	FAN COVER
11-6	XST1002011-6	FAN
11-7V2	XST1002011-7V2	S CAPACITOR 200M 250V V2.09.08
11-8V2	XST1002011-8V2	R CAPACITOR 20M 450V V2.09.08
11-9	XST1002011-9	CENTRIFUGAL SWITCH
12	XPW01M	FLAT WASHER 8MM
13	XPNO3M	HEX NUT M8-1.25
14	XPB118M	HEX BOLT M8-1.25 X 45
15	XST1002015	CHIP DEFLECTOR
16	XST1002016	SPECIAL SCREW M6-1 X 12
17	XST1002017	MOTOR BRACKET
18	XST1002018	BUSHING
19	XST1002019	KNOB M12-1.75
20	XST1002020	PULLEY GUARD
21	XPB01M	HEX BOLT M10-1.5 X 30
22	XPW04M	FLAT WASHER 10MM
23	XST1002023	MOTOR PULLEY
24	XST1002024	SPECIAL WASHER
25	XPLW04M	LOCK WASHER 8MM
26	XPB09M	HEX BOLT M8-1.25 x 20
27	XPB07M	HEX BOLT M8-1.25 X 25
28	XPVM27	V-BELT M-27 3L270
29	XST1002029	SPACER
30	XPB13M	HEX BOLT M10-1.5 X 80
31	XST1002031	CUTTERHEAD PULLEY
33	XST1002033	PULLEY COVER
34	XPFB01M	FLANGE BOLT M6-1 X 12
35	XST1002035	LOCKING ROD
36	XST1002036	ROLLER BUSHING
37	XST1002037	COMPRESSION SPRING
38	XST1002038	PLATE
39	XPSS53M	SET SCREW M5-.8 X 12
40	XPNO6M	HEX NUT M5-.8
41	XPRP76M	ROLL PIN 4 X 16
42	XPB03M	HEX BOLT M8-1.25 X 16
43	XPRP03M	ROLL PIN 5 X 20
44	XST1002044	OUTFEED ROLLER
45	XPB08M	KEY 5 X 5 X 16
46	XST1002046	FEED SPROCKET
47	XPW03M	FLAT WASHER 6MM

REF	PART #	DESCRIPTION
48	XPB83M	HEX BOLT M6-1 X 16
49	XST1002049	SHAFT
50	XPSS06M	SET SCREW M8-1.25 X 16
51	XST1002051	SPECIAL WASHER
52	XST1002052	ANTI-KICKBACK FINGER
53	XPR05M	EXT RETAINING RING 15MM
54	XST1002054	LIMITER PLATE
55	XPFH04M	FLAT HD SCR M6-1 X 8
56	XST1002056	INFEED ROLLER
57	XPB08M	KEY 5 X 5 X 16
58	XST1002058	FEED SPROCKET
59	XPW03M	FLAT WASHER 6MM
60	XPB18M	HEX BOLT M6-1 X 15
61	XST1002061	CHAIN
62	XST1002062	HEADSTOCK
63	XST1002063	POINTER
64	XST1002064	RIVIT 2 X 5
65	XST1002065	BUSHING
66	XST1002066	LOCK KNOB M12-1.75
67	XST1002067	SHAFT
68	XPSS25M	SET SCREW M6-1 X 20
69	XST1002069	HANGER
70	XPSB04M	CAP SCREW M6-1 X 10
71	XST1002071	EXTENSION SPRING
72	XST1002072	IDLER PULLEY ASSY
73	XST1002073	PIVOT
74	XST1002074	COLLAR
75	XST1002075	CUTTERHEAD
76	XPB09M	KEY 8 X 8 X 36
77	XP6205	BALL BEARING 6205
78	XP6204	BALL BEARING 6204ZZ
79	XST1002079	KNIVES (SET OF 3)
80	XST1002080	GIB
81	XST1002081	GIB BOLT
82	XST1002082	ADJUSTING NUT
83	XPSS34M	SET SCREW M5-.8 X 16
84	XST1002084	PINION
85	XPSB04M	CAP SCREW M6-1 X 10
86	XST1002086	PLATE
87	XPFB01M	FLANGE BOLT M6-1 X 12
88	XST1002088	COVER
90	XPSB45M	CAP SCREW M8-1.25 X 45
91	XST1002091	ROLL PIN 6 X 10
92	XST1002092	TENSIONING SET SCREW
93	XST1002093	PRESS PLATE
94	XPFB01M	FLANGE BOLT M6-1 X 12
95	XST1002095	SEAL
102	XST1002102	DUST HOOD
103	XPSB31M	CAP SCREW M8-1.25 X 25
104	XPW01M	FLAT WASHER 8MM
105	XPB04M	HEX BOLT M6-1 X 10
106	XPW03M	FLAT WASHER 6MM
107	XPNO1M	HEX NUT M6-1

Table Assembly Breakdown

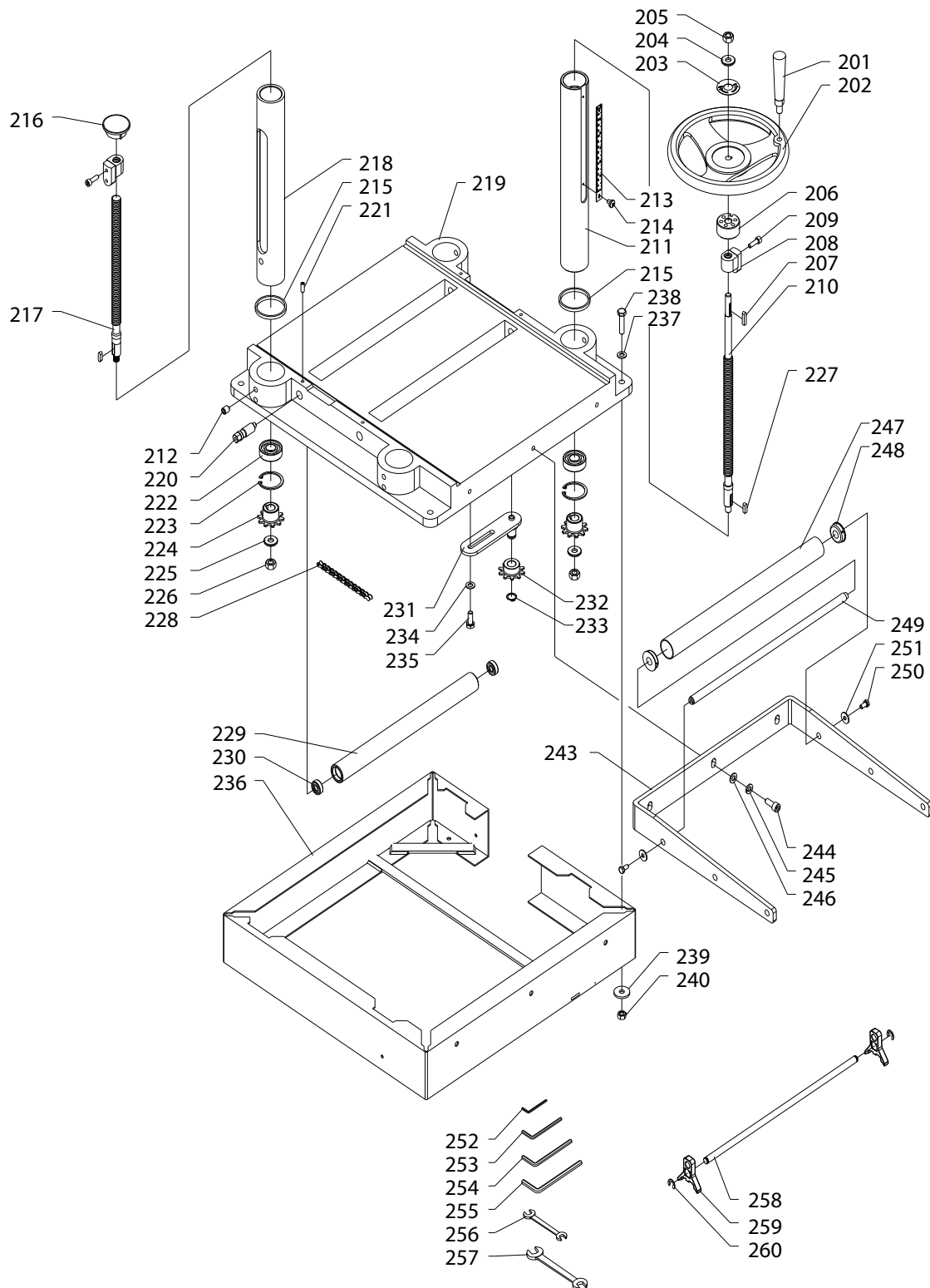
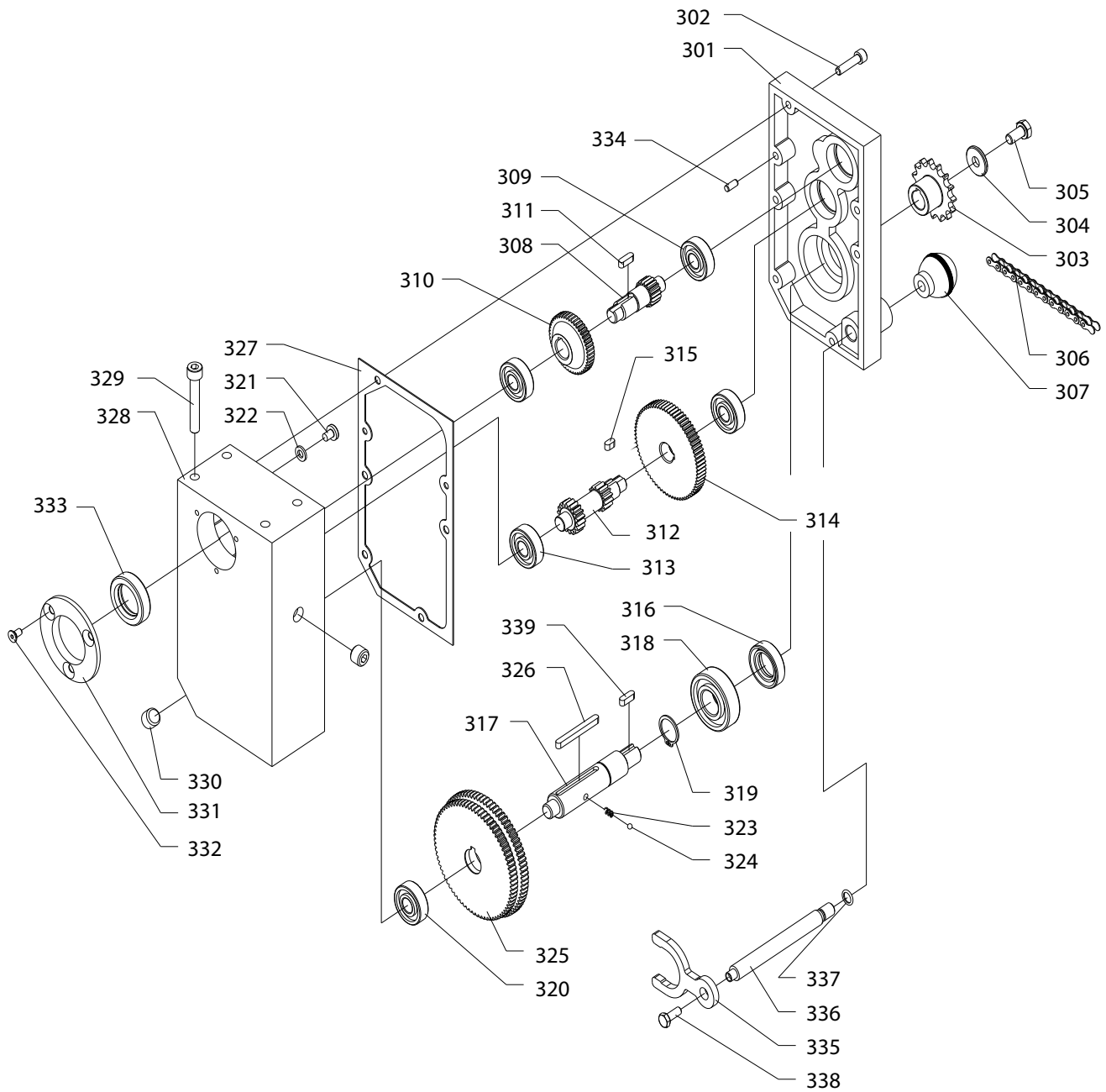


Table Assembly Parts List

REF	PART #	DESCRIPTION	REF	PART #	DESCRIPTION
201	XST1002201	HANDLE	230	XP608	BALL BEARING 608ZZ
202	XST1002202	HANDWHEEL	231	XST1002231	SUPPORT ASSEMBLY
203	XST1002203	DIRECTIONAL PLATE	232	XST1002232	IDLER SPROCKET
204	XPW04M	FLAT WASHER 10MM	233	XPR05M	EXT RETAINING RING 15MM
205	XPN02M	HEX NUT M10-1.5	234	XPW01M	FLAT WASHER 8MM
206	XST1002206	BUSHING	235	XPB09M	HEX BOLT M8-1.25 X 20
207	XPK124M	KEY 4 X 4 X 24	236	XST1002236	BASE
208	XST1002208	SPINDLE NUT	237	XPW01M	FLAT WASHER 8MM
209	XST1002209	PHLP HD SCR M6-1 X 20	238	XPB20M	HEX BOLT M8-1.25 X 35
210	XST1002210	ELEVATING SCREW	239	XPW01M	FLAT WASHER 8MM
211	XST1002211	COLUMN	240	XPN03M	HEX NUT M8-1.25
212	XPSS13M	SET SCREW M10-1.5 X 12	243	XST1002243	ROLLER FRAME
213	XST1002213	SCALE	244	XPB14M	CAP SCREW M8-1.25 X 20
214	XP512M	PHLP HD SCR M3-.5 X 6	245	XPLW04M	LOCK WASHER 8MM
215	XST1002215	COLUMN SPACER	246	XPW01M	FLAT WASHER 8MM
216	XST1002216	COLUMN CAP	247	XST1002247	BED ROLLER
217	XST1002217	ELEVATING SCREW	248	XST1002248	BED ROLLER BUSHING
218	XST1002218	COLUMN	249	XST1002249	BED ROLLER SHAFT
219	XST1002219	TABLE	250	XPB04M	HEX BOLT M6-1 X 10
220	XST1002220	ECCENTRIC STUD	251	XPW03M	FLAT WASHER 6MM
221	XPSS11M	SET SCREW M6-1 X 16	252	XPAW02.5M	HEX WRENCH 2.5MM
222	XP6302	BALL BEARING 6302	253	XPAW03M	HEX WRENCH 3MM
223	XPR24M	INT RETAINING RING 42MM	254	XPAW05M	HEX WRENCH 5MM
224	XST1002224	SPROCKET	255	XPAW06M	HEX WRENCH 6MM
225	XPW04M	FLAT WASHER 10MM	256	XPWR1012	WRENCH 10 X 12
226	XPN08M	HEX NUT M10-1.25	257	XPWR1417	WRENCH 14 X 17
227	XPK08M	KEY 5 X 5 X 16	258	XST1002258	KNIFE GAUGE BAR
228	XST1002228	CHAIN	259	XST1002259	KNIFE GAUGE BLOCK
229	XST1002229	BED ROLLER	260	XPEC015M	E-CLIP 8MM

Gear Box Assembly Breakdown

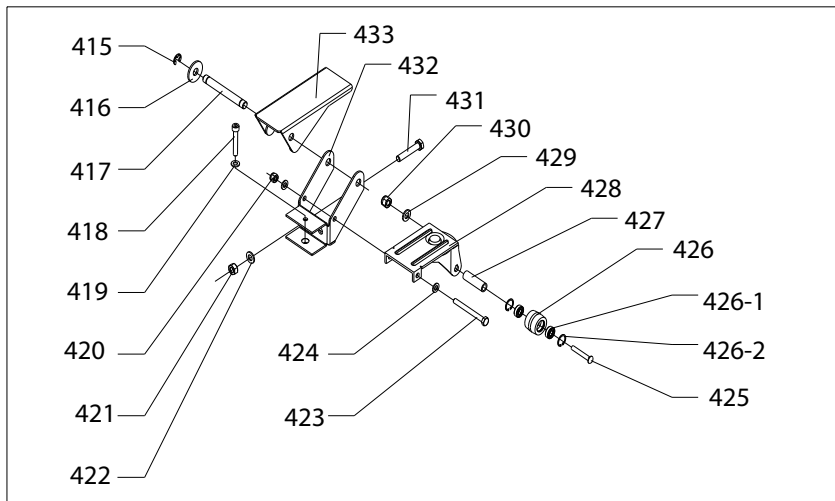
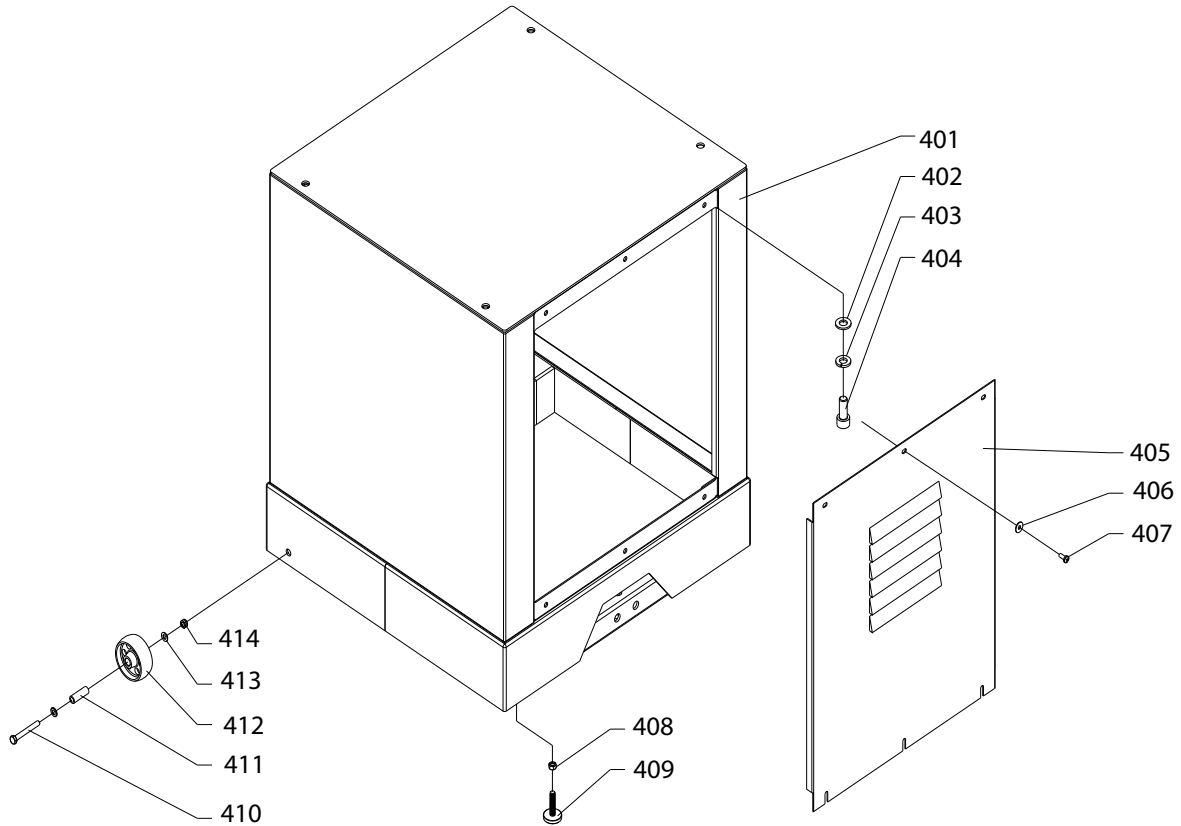


Gear Box Assembly Parts List

REF	PART #	DESCRIPTION
301	XST1002301	COVER
302	XPSB06M	CAP SCREW M6-1 X 25
303	XST1002303	SPROCKET
304	XPW01M	FLAT WASHER 8MM
305	XPB03M	HEX BOLT M8-1.25 X 16
306	XST1002306	CHAIN
307	XST1002307	KNOB
308	XST1002308	PINION
309	XP6201	BALL BEARING 6201
310	XST1002310	GEAR
311	XPB19M	KEY 5 X 5 X 14
312	XST1002312	PINION
313	XP6201	BALL BEARING 6201
314	XST1002314	GEAR
315	XPB06M	KEY 5 X 5 X 10
316	XST1002316	OIL SEAL
317	XST1002317	SHAFT
318	XP6204	BALL BEARING 6204ZZ
319	XPR09M	EXT RETAINING RING 20MM
320	XP6201	BALL BEARING 6201

REF	PART #	DESCRIPTION
321	XPS03M	PHLP HD SCR M6-1 X 8
322	XPW03M	FLAT WASHER 6MM
323	XST1002323	SPRING
324	XST1002324	BALL 6MM
325	XST1002325	GEAR
326	XPB36M	KEY 5 X 5 X 50
327	XST1002327	GASKET
328	XST1002328	GEAR BOX HOUSING
329	XPSB05M	CAP SCREW M8-1.25 X 50
330	XST1002330	OIL PLUG
331	XST1002331	OIL SEAL COVER
332	XPS08M	PHLP HD SCR M5-.8 X 12
333	XST1002333	OIL SEAL
334	XST1002334	PIN 5 X 10
335	XST1002335	CLUTCH
336	XST1002336	HANDLE SHAFT
337	XST1002337	O-RING 16MM
338	XPB01M	FLANGE BOLT M6-1 X 12
339	XPB08M	KEY 5 X 5 X 16

Cabinet Assembly Breakdown

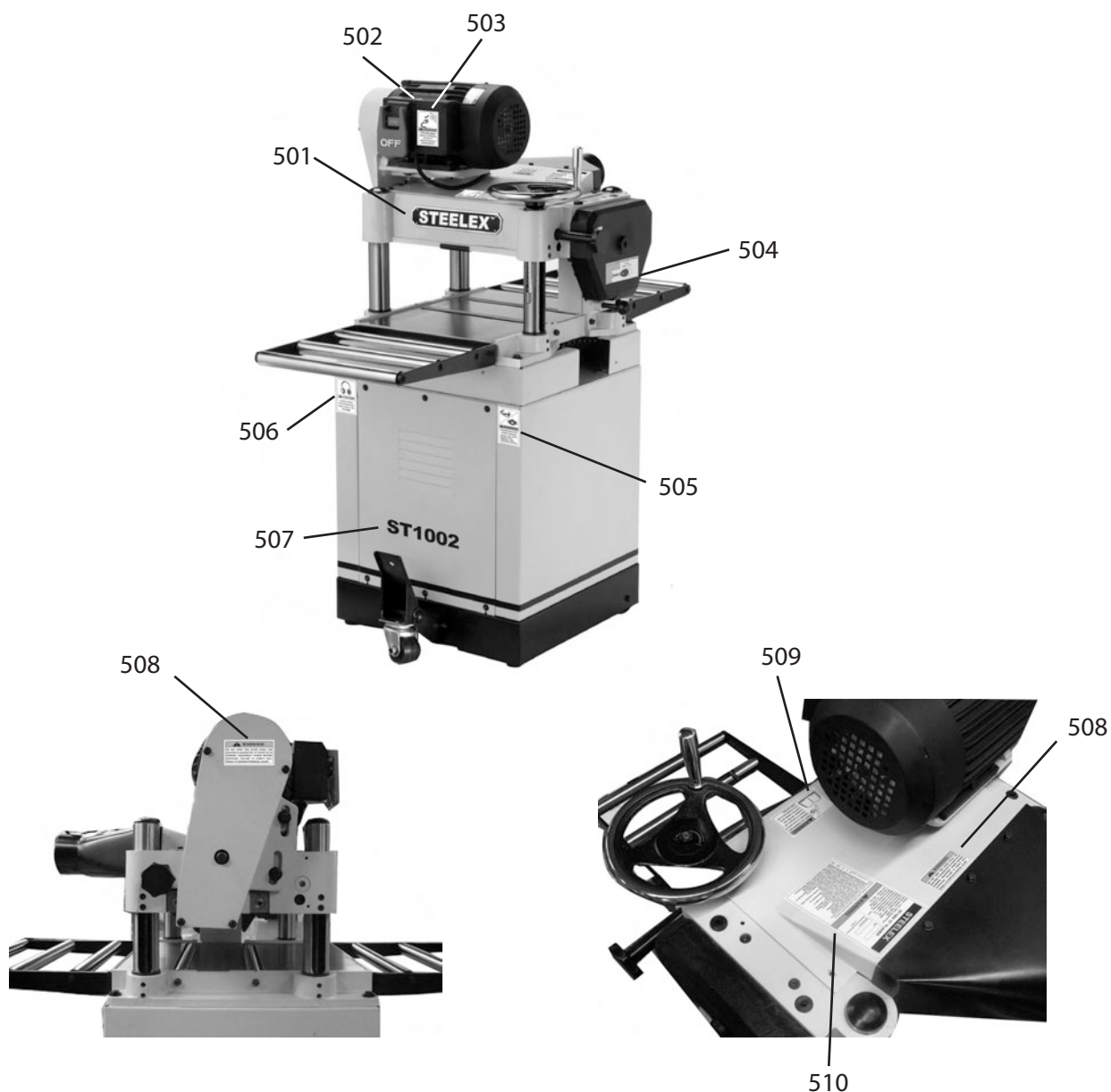


Cabinet Assembly Parts List

REF	PART #	DESCRIPTION
401	XST1002401	CABINET
402	XPW01M	FLAT WASHER 8MM
403	XPLW04M	LOCK WASHER 8MM
404	XPSB14M	CAP SCREW M8-1.25 X 20
405	XST1002405	CABINET COVER
406	XPW02M	FLAT WASHER 5MM
407	XPS40M	PHLP HD SCR M5-.8 X 16
408	XPN08	HEX NUT 3/8-16
409	XST1002409	FOOT
410	XPB86M	HEX BOLT M8-1.25 X 65
411	XST1002411	SLEEVE
412	XST1002412	UNIVERSAL WHEEL
413	XPW01M	FLAT WASHER 8MM
414	XST1002414	SPECIAL HEX NUT M8-1.25
415	XPEC10M	E-CLIP 9MM
416	XPW09M	FLAT WASHER 13MM
417	XST1002417	SHAFT
418	XPB22M	HEX BOLT M8-1.25 X 50

REF	PART #	DESCRIPTION
419	XPW01M	FLAT WASHER 8MM
420	XST1002420	SPECIAL HEX NUT M8-1.25
421	XPN02M	HEX NUT M10-1.5
422	XPW04M	FLAT WASHER 10MM
423	XPB45M	HEX BOLT M8-1.25 X 100
424	XPW01M	FLAT WASHER 8MM
425	XST1002425	SPECIAL BOLT
426	XST1002426	TROLLEY WHEEL
426-1	P6202ZZ	BALL BEARING 6202ZZ
426-2	XPR21M	INT RETAINING RING 35MM
427	XST1002427	SLEEVE
428	XST1002428	TROLLEY UNIVERSAL KIT
429	XPW04M	FLAT WASHER 10MM
430	XST1002430	SPECIAL HEX NUT M10-1.5
431	XPB144M	HEX BOLT M10-1.5 X 55
432	XST1002432	BRACKET
433	XST1002433	PEDAL

Safety Labels Breakdown & Parts List



REF	PART #	DESCRIPTION
501	XST1002501	STEELEX PLATE
502	XLABEL-04	ELECTRICITY LABEL
503	XST1002503	UNLUG 220V POWER LABEL
504	XST1002504	FPM LABEL
505	XPLABEL-43	RESPIRATOR/GLASSES LABEL

REF	PART #	DESCRIPTION
506	XLABEL-15	EAR PROTECTION LABEL
507	XST1002507	MODEL NUMBER LABEL
508	XST1002508	WARNING LABEL-SHUT COVER
509	XPLABEL-12B	READ MANUAL-HORIZONTAL NS 7/05
510	XST1002510	MACHINE ID LABEL

⚠ WARNING

Safety labels warn about machine hazards and how to prevent serious personal injury or machine damage. The owner of this machine **MUST** maintain the original location and readability of all labels on this machine. If any label is removed or becomes unreadable, **REPLACE** that label before allowing the machine to enter service again. Contact Woodstock International, Inc. at (360) 734-3482 or www.shopfoxtools.com to order new labels.

WARRANTY

Woodstock International, Inc. warrants all **STEELEX**® machinery to be free of defects from workmanship and materials for a period of two years from the date of original purchase by the original owner. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, lack of maintenance, or reimbursement of third party expenses incurred.

Woodstock International, Inc. will repair or replace, at its expense and at its option, the **STEELEX**® machine or machine part which in normal use has proven to be defective, provided that the original owner returns the product prepaid to the **STEELEX**® factory service center or authorized repair facility designated by our Bellingham, WA office, with proof of their purchase of the product within two years, and provides Woodstock International, Inc. reasonable opportunity to verify the alleged defect through inspection. If it is determined there is no defect, or that the defect resulted from causes not within the scope of Woodstock International Inc.'s warranty, then the original owner must bear the cost of storing and returning the product.

This is Woodstock International, Inc.'s sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant that **STEELEX**® machinery complies with the provisions of any law or acts. In no event shall Woodstock International, Inc.'s liability under this warranty exceed the purchase price paid for the product, and any legal actions brought against Woodstock International, Inc. shall be tried in the State of Washington, County of Whatcom. We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special or consequential damages arising from the use of our products.

Every effort has been made to ensure that all **STEELEX**® machinery meets high quality and durability standards. We reserve the right to change specifications at any time because of our commitment to continuously improve the quality of our products.

Warranty Registration

Name _____

Street _____

City _____ State _____ Zip _____

Phone # _____ Email _____ Invoice # _____

Model # _____ Serial # _____ Dealer Name _____ Purchase Date _____

The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. **Of course, all information is strictly confidential.**

1. How did you learn about us?

_____ Advertisement _____ Friend _____ Local Store
_____ Mail Order Catalog _____ Website _____ Other:

2. How long have you been a woodworker/metalworker?

_____ 0-2 Years _____ 2-8 Years _____ 8-20 Years _____ 20+ Years

3. How many of your machines or tools are **STEELEX**®?

_____ 0-2 _____ 3-5 _____ 6-9 _____ 10+

4. Do you think your machine represents a good value?

_____ Yes _____ No

5. Would you recommend **STEELEX**® products to a friend?

_____ Yes _____ No

6. What is your age group?

_____ 20-29 _____ 30-39 _____ 40-49
_____ 50-59 _____ 60-69 _____ 70+

7. What is your annual household income?

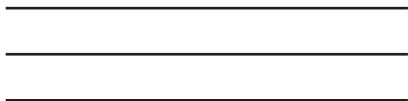
_____ \$20,000-\$29,000 _____ \$30,000-\$39,000 _____ \$40,000-\$49,000
_____ \$50,000-\$59,000 _____ \$60,000-\$69,000 _____ \$70,000+

8. Which of the following magazines do you subscribe to?

_____ Cabinet Maker	_____ Popular Mechanics	_____ Today's Homeowner
_____ Family Handyman	_____ Popular Science	_____ Wood
_____ Hand Loader	_____ Popular Woodworking	_____ Wooden Boat
_____ Handy	_____ Practical Homeowner	_____ Woodshop News
_____ Home Shop Machinist	_____ Precision Shooter	_____ Woodsmith
_____ Journal of Light Cont.	_____ Projects in Metal	_____ Woodwork
_____ Live Steam	_____ RC Modeler	_____ Woodworker West
_____ Model Airplane News	_____ Rifle	_____ Woodworker's Journal
_____ Modeltec	_____ Shop Notes	_____ Other:
_____ Old House Journal	_____ Shotgun News	

9. Comments: _____

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