



MODELS ST1007, ST1012, ST1014 15" & 20" PLANERS OWNER'S MANUAL

(For Models Manufactured Since 9/17)



Phone: (360) 734-3482 • Online Technical Support: techsupport@woodstockint.com

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WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE OR FORM WITHOUT

THE WRITTEN APPROVAL OF WOODSTOCK INTERNATIONAL, INC.



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.
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Bellingham, WA 98227
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INTRODUCTION

Contact Info

We are committed to customer satisfaction. If you have any questions or need help, use the information below to contact us.

IMPORTANT: Before contacting, please get the original purchase receipt, serial number, and manufacture date of your machine. This information is required for all Technical Support calls and it will help us help you faster.

Woodstock International Technical Support
Phone: (360) 734-3482
Email: techsupport@woodstockint.com

We want your feedback on this manual. What did you like about it? Where could it be improved? Please take a few minutes to give us feedback.

Technical Documentation Manager
P.O. Box 2309
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Machine Descriptions

Following are the differences between the models covered in this manual:

- ST1007 = 15", 3 HP, with 3-Knife Cutterhead
- ST1012 = 15", 3 HP, with Helical Cutterhead
- ST1014 = 20", 5 HP, with Helical Cutterhead

Manual Accuracy

We are proud to provide a high-quality owner's manual with your new machine!

We made every effort to be exact with the instructions, specifications, drawings, and photographs contained inside. Sometimes we make mistakes, but our policy of continuous improvement also means that **sometimes the machine you receive will be slightly different than what is shown in the manual.**

If you find this to be the case, and the difference between the manual and machine leaves you confused about a procedure, check our website for an updated version. We post current manuals and manual updates for free on our website at **www.woodstockint.com**.

Alternatively, you can call our Technical Support for help. Before calling, make sure you write down the **Manufacture Date** and **Serial Number** from the machine ID label (see below). Also, if available, have a copy of your **original purchase receipt** on hand. This information is required for all Tech Support calls.

STEELEX		MODEL XXXX MACHINE NAME	
Specifications		⚠ WARNING!	
Motor:		<p>To reduce risk of serious personal injury when using this machine:</p> <ol style="list-style-type: none"> 1. Read & understand owner's manual before operating. 2. Always wear approved eye protection and respirator. 3. Do not plug power cord into a grounded outlet. 4. This machine is machine to collect wood dust/chips—never cut glass, metal, liquids, asbestos, silica, etc., biohazards, burning material/ashes, etc. Do not connect power before servicing or cleaning. Do not use in rain or wet areas. 5. Keep hands, long hair, and loose clothing away from inlet. 6. Never leave machine unattended while it is running. 7. Do not use if cord/plug becomes damaged—promptly repair and replace. 8. Always wear proper safety gear. 9. Prevent unauthorized use by children or untrained users. 	
Specification:			
Specification:			
Specification:			
Weight:			
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Manufacture Date <input type="text"/> </div>			
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Serial Number <input type="text"/> </div>			
Manufactured for Woodstock in Taiwan.			

MACHINE SPECIFICATIONS



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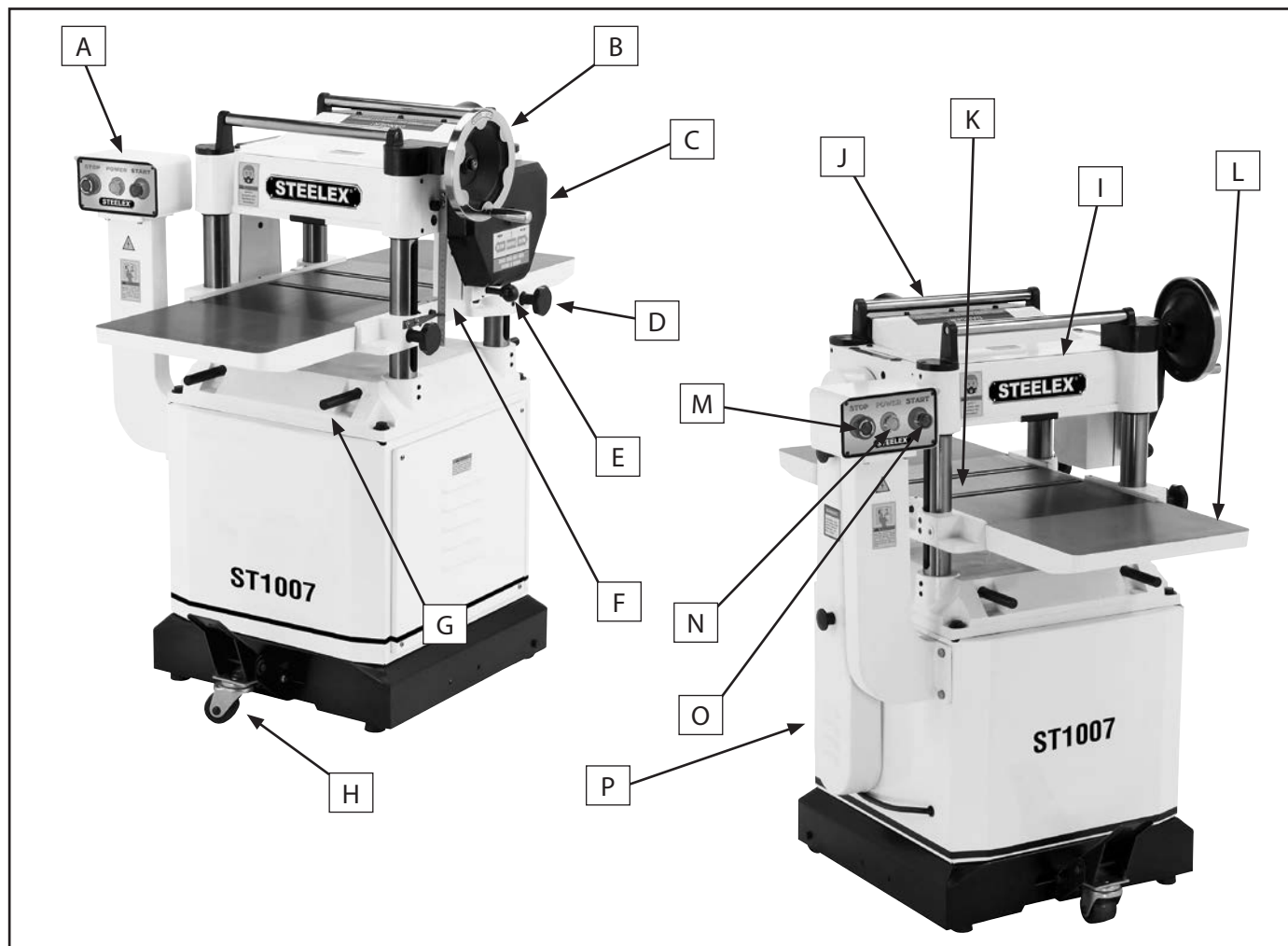
MODEL ST1007, ST1012, & ST1014 PLANERS

Model Number	ST1007	ST1012	ST1014
Product Dimensions			
Weight	640 lbs.	660 lbs.	771 lbs.
Width (side-to-side) x Depth (front-to-back) x Height	42 x 32-1/2 x 46 in.		55-1/2 x 43-1/2 x 46 in.
Foot Print (Length x Width)	22-1/2 x 22 in.		23-1/2 x 23-1/2 in.
Shipping Dimensions			
Type	Wood Crate		
Weight	660 lbs.	683 lbs.	874 lbs.
Width (side-to-side) x Depth (front-to-back) x Height	30 x 36 x 47 in.		43 x 29 x 48 in.
Electrical			
Power Requirement	240V, Single-Phase, 60 Hz		
Full-Load Current Rating	15A		19A
Minimum Circuit Size	20A		30A
Connection Type	Cord & Plug		
Power Cord Included	Yes		
Power Cord Length	6 ft.		6-1/2 ft.
Power Cord Gauge	12 AWG		
Plug Included	Yes		
Included Plug Type	6-20		L6-30
Switch Type	Magnetic Switch w/Overload Protection		
Motor			
Type	TEFC Capacitor-Start Induction		
Horsepower	3 HP		5 HP
Phase	Single-Phase		
Amps	15A		19A
Speed	3450 RPM		
Power Transfer	Belt Drive		
Bearings	Sealed & Permanently Lubricated		
Manufacturer Specifications			
Country of Origin	China		
Warranty	2 Years		
Approx. Assembly & Setup Time	30 Minutes		
Serial Number Location	ID Label		
ISO 9001 Factory	No		
Certified by NRTL	Yes		

Model Number	ST1007		ST1012	ST1014
Main Specifications				
Planer Size	15 in.			20 in.
Max. Cut Width	15 in.			20 in.
Max. Stock Thickness	8 in.			
Min. Stock Thickness	3/16 in.			
Min. Stock Length	8 in.	8 in.	8 in.	
Number of Cuts Per Inch	42, 63	56, 104	104, 83	
Number of Cuts Per Minute	15,000	24,000		
Cutterhead Speed	4800 RPM			
Planing Feed Rate	16, 30 RPM			
Max. Cut Depth Planing Full Width	3/32 in.			1/8 in.
Max. Cut Depth Planing 6-Inch Wide Board	1/8 in.			
Dust Port Size	4 in.			5 in.
Cutterhead Info				
Cutterhead Type	3-Knife	Helical	Helical	
Cutterhead Diameter	3 in.			3 1/8 in.
Number of Knives	3	N/A	N/A	
Knife Type	HSS, Single-Sided, Solid	N/A	N/A	
Knife Length	15 in.	N/A	N/A	
Knife Width	1 in.	N/A	N/A	
Knife Thickness	1/8 in.	N/A	N/A	
Knife Adjustment	Springs or Jack Screws	N/A	N/A	
Number of Cutter Rows	N/A	5	5	
Number of Indexable Cutters	N/A	75	100	
Cutter Insert Type	N/A	Indexable Carbide	Indexable Carbide	
Cutter Insert Length	N/A	15 mm	15 mm	
Cutter Insert Width	N/A	15 mm	15 mm	
Cutter Insert Thickness	N/A	2.5 mm	2.5 mm	
Table Info				
Table Movement	8 in.			
Table Bed Length	20 in.			25 3/4 in.
Table Bed Width	15 in.			20 in.
Table Bed Thickness	1-3/4 in.			
Floor-to-Table Height	27 – 35 in.			26 1/2–34 1/2 in.
Construction				
Table	Precision-Ground Cast Iron			
Body	Cast Iron			
Stand	Steel			
Cutterhead Assembly	Steel			
Infeed Roller	Serrated Steel			
Outfeed Roller	Knurled			
Paint Type/Finish	Powder Coated			

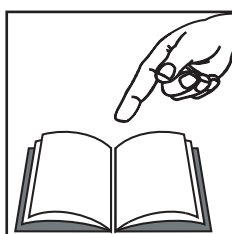
MACHINE FEATURES

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 to identify the external features of the planer.



- A.** Control Panel
- B.** Table Height Handwheel
- C.** Feed Roller Gearbox
- D.** Table Lock Knob
- E.** Feed Rate Selector
- F.** Table Height Scale
- G.** Retractable Lifting Rods
- H.** Caster Wheel and Lock

- I.** Headstock
- J.** Return Roller
- K.** Table Roller
- L.** Cast Iron Wing
- M.** Emergency STOP Button
- N.** Power Lamp
- O.** START Button
- P.** Drive Belt Cover

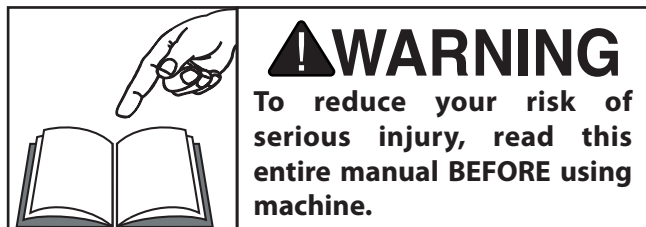


!WARNING

To reduce your risk of serious injury, read this entire manual **BEFORE** using machine.

CONTROLS & COMPONENTS

Refer to the **Figures 1-3** and the following descriptions to become familiar with the basic controls and components of this machine. Understanding these items and how they work will help you understand the rest of the manual and stay safe when operating this machine.



- A. Control Panel for Magnetic Switch:** Green START button turns motor **ON** when pressed. Red Emergency STOP button turns motor **OFF** when pressed; for safety purposes, this button will remain depressed and prevent restarting until reset. Reset by rotating clockwise until it pops out.
- B. Table Height Handwheel:** Raises and lowers table to accommodate different workpiece thicknesses. One complete revolution moves the table approximately $\frac{1}{16}$ ".
- C. Feed Rate Control Knob:** Selects 30 FPM feed rate when pushed in, and 16 FPM feed rate when pulled out.
- D. Table Locks:** Secure table height position when tightened.
- E. Depth-of-Cut Limiter:** Limits depth of cut to a maximum of $\frac{1}{8}$ " at full width.

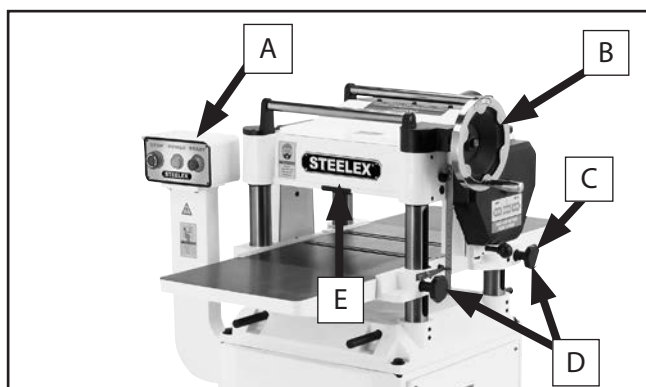


Figure 1. Table elevation and feed controls.

- F. Return Rollers:** Assist sliding workpiece back to operator following planing operation.
- G. Dust Port:** Connects to a dust collection system to extract shavings and dust during operation.

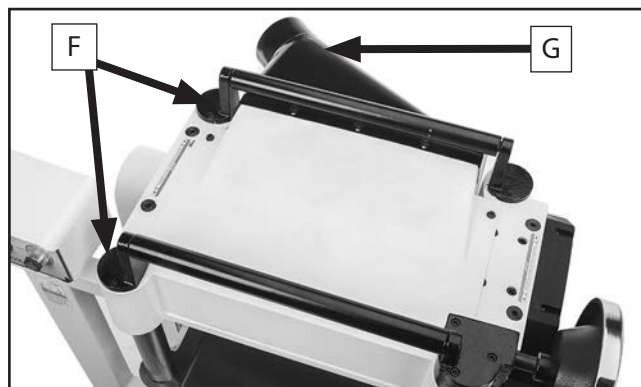


Figure 2. Return rollers and dust port.

- H. Mobile-Base Foot Pedal:** When engaged, lifts machine onto casters for repositioning. When disengaged, allows machine to rest firmly on floor during operations.



Figure 3. Mobile-base foot pedal.

Internal Components

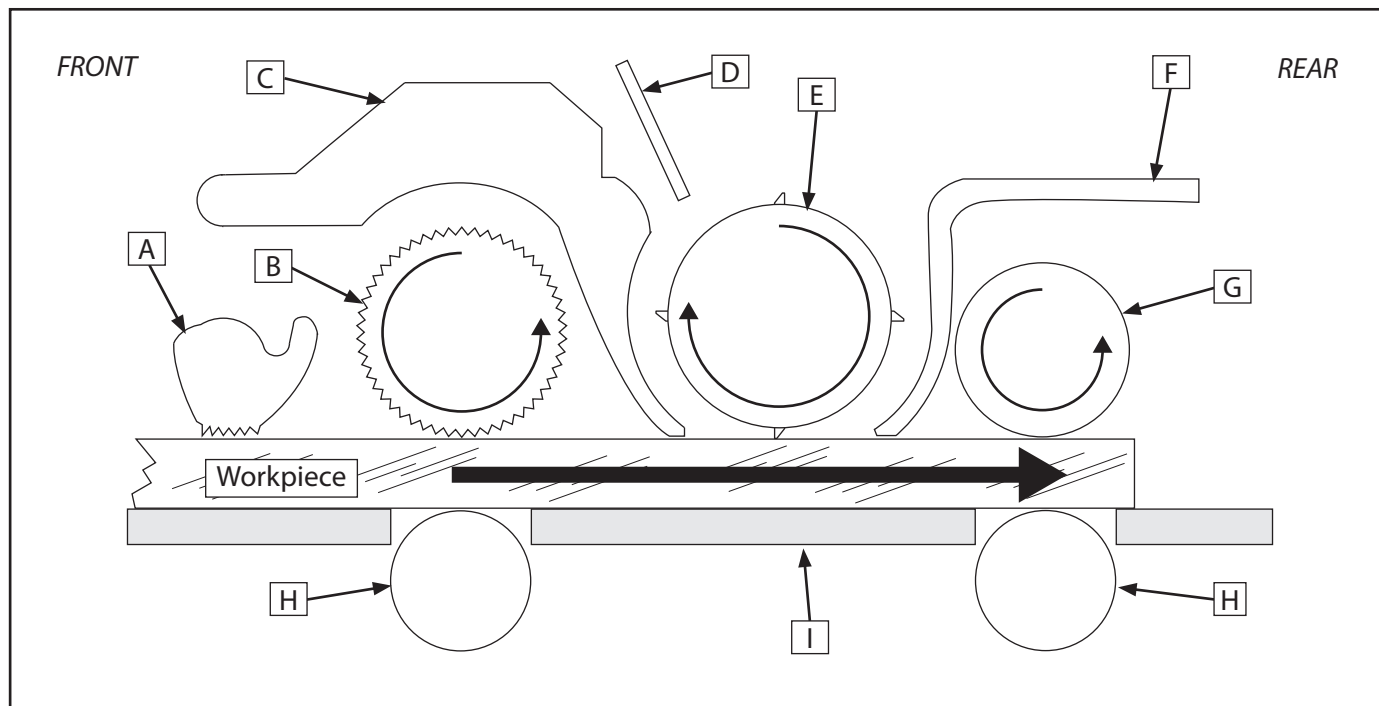


Figure 4. Workpiece path and major planing components (side cutaway view).

- A. Anti-Kickback Fingers:** Provide additional safety for the operator.
- B. Serrated Infeed Roller:** Pulls the workpiece toward the cutterhead.
- C. Chip Breaker:** Breaks off chips created by the cutterhead to prevent tear out and diverts the chips to the dust hood.
- D. Chip Deflector:** Directs chips into the dust hood.
- E. Cutterhead:** Holds the knives/indexable carbide inserts that remove material from the workpiece.
- F. Pressure Bar:** Stabilizes the workpiece as it leaves the cutterhead and assists in deflecting wood particles toward the dust hood (ST1014 only).
- G. Outfeed Roller:** Pulls the workpiece through the planer.
- H. Table Rollers:** Provide upward pressure on the workpiece, enabling the feed rollers to pull the workpiece along.
- I. Planer Table:** Provides a smooth and level path for the workpiece as it moves through the planer.

WARNING

Like all machinery there is potential danger when operating this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to decrease the risk of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

SAFETY

For Your Own Safety, Read Instruction Manual Before Operating This Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures. Always use common sense and good judgment.



Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE

This symbol is used to alert the user to useful information about proper operation of the machine.

Safety Instructions for Machinery



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 machine 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 the risk of eye injury or blindness from flying particles. Everyday eyeglasses are **NOT** approved safety glasses.

WARNING

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 reduce risk of slipping and losing control or accidentally contacting cutting tool or moving parts.

HAZARDOUS DUST. Dust created by machinery operations may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material. 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!

USE CORRECT TOOL FOR THE JOB. Only use this tool for its intended purpose—do not force it or an attachment to do a job for which it was not designed. Never make unapproved modifications—modifying tool or using it differently than intended may result in malfunction or mechanical failure that can lead to personal injury or death!

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

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 BEFORE operating machine.

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

NEVER STAND ON MACHINE. Serious injury may occur if 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 the 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 all 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 damaged, loose, or mis-adjusted parts—or any condition that could affect safe operation. Immediately repair/replace BEFORE operating machine. For your own safety, DO NOT operate machine with damaged parts!

MAINTAIN POWER CORDS. When disconnecting cord-connected machines from power, grab and pull the plug—NOT the cord. Pulling the 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.

EXPERIENCING DIFFICULTIES. If at any time you experience difficulties performing the intended operation, stop using the machine! Contact our Technical Support at (570) 546-9663.

Additional Safety for Planers

WARNING

Serious cuts, amputation, entanglement, or death can occur from contact with rotating cutterhead or other moving components! Flying chips can cause blindness or eye injuries. Workpieces or inserts/knives thrown by cutterhead can strike nearby operator or bystanders with deadly force. To reduce the risk of these hazards, operator and bystanders MUST completely heed the hazards and warnings below.

KICKBACK. Occurs when workpiece is ejected from machine at a high rate of speed. To reduce the risk of kickback-related injuries, use quality workpieces, safe feeding techniques, and proper machine setup or maintenance.

GUARD REMOVAL. Operating jointer without guard exposes operator to knives/inserts. Except when rabbeting, never remove guards for regular operations or while connected to power. Turn jointer OFF and disconnect power before clearing any shavings or sawdust from around cutterhead. After rabbeting or maintenance is complete, immediately replace all guards and ensure they are properly adjusted before resuming regular operations.

DULL/DAMAGED KNIVES/INSERTS. Dull knives/inserts can increase risk of kickback and cause poor workpiece finish. Only use sharp, undamaged knives/inserts.

OUTFEED TABLE ALIGNMENT. Setting outfeed table too high can cause workpiece to hit table and get stuck, increasing risk of kickback. Setting outfeed table too low may cause workpiece to become tapered from front to back. Always keep outfeed table even with knives/inserts at top dead center (highest point during rotation).

INSPECTING STOCK. Impact injuries or fire may result from using poor workpieces. Thoroughly inspect and prepare workpiece before cutting. Verify workpiece is free of nails, staples, loose knots or other foreign material. Workpieces with minor warping should be surface planed first with cupped side facing infeed table.

GRAIN DIRECTION. Jointing against the grain or end grain can increase the risk of kickback. It also requires more cutting force, which produces chatter or excessive chip out. Always joint or surface plane WITH the grain.

MAXIMUM CUTTING DEPTH. To reduce risk of kickback, never cut deeper than $\frac{1}{8}$ " per pass.

CUTTING LIMITATIONS. Cutting a workpiece that does not meet the minimum dimension requirements can result in breakup, kickback, or accidental contact with cutterhead during operation. Never perform jointing, planing, or rabbeting cuts on pieces smaller than 8" long, $\frac{3}{4}$ " wide, or $\frac{1}{4}$ " thick.

PUSH BLOCKS. Not using push blocks when surface planing may result in accidental cutterhead contact. Always use push blocks when planing materials less than 3" high or wide. Never pass your hands directly over cutterhead without a push block.

WORKPIECE SUPPORT. Loss of workpiece control while feeding can increase risk of kickback or accidental contact with cutterhead. Support workpiece continuously during operation. Position and guide workpiece with fence. Support long or wide stock with auxiliary stands.

FEED WORKPIECE PROPERLY. Kickback or accidental cutterhead contact may result if workpiece is fed into cutterhead the wrong way. Allow cutterhead to reach full speed before feeding. Never start jointer with workpiece touching cutterhead. Always feed workpiece from infeed side to outfeed side without stopping until cut is complete. Never back work toward infeed table.

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. Straight knives should never project more than $\frac{1}{8}$ " (0.125") from cutterhead body.

ELECTRICAL


Circuit Requirements

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.

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.)



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.

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.

ST1007/ST1012

Full-Load Current Rating..... 15 Amps

ST1014

Full-Load Current Rating..... 19 Amps

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

ST1007/ST1012

Circuit Requirements

Nominal Voltage.....208V, 220V, 230V, 240V
Cycle 60 Hz
Phase Single-Phase
Power Supply Circuit.....20 Amps
Plug/Receptacle.....NEMA 6-20

ST1014

Circuit Requirements

Nominal Voltage.....208V, 220V, 230V, 240V
Cycle 60 Hz
Phase Single-Phase
Power Supply Circuit.....30 Amps
Plug/Receptacle.....NEMA L6-30

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.

This machine is equipped with a power cord that has an equipment-grounding wire and a grounding plug. Only insert plug into a matching receptacle (outlet) that is properly installed and grounded in accordance with all local codes and ordinances. **DO NOT** modify the provided plug!

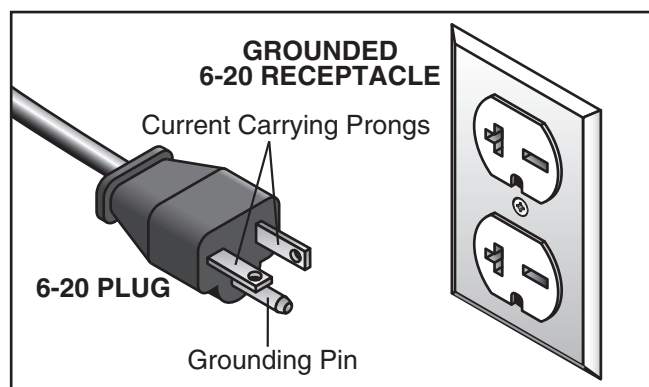


Figure 5. Typical 6-20 plug and receptacle.

! 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.

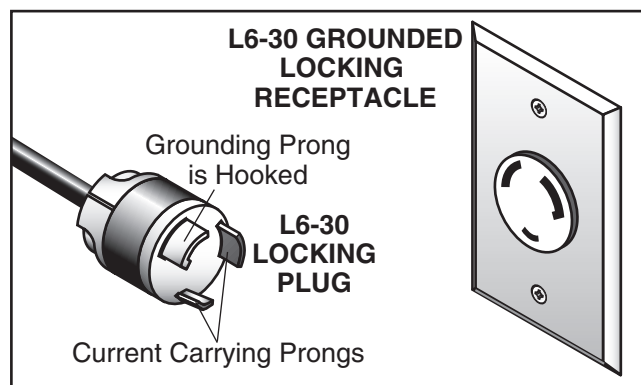
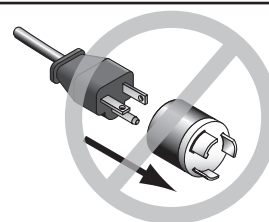


Figure 6. Typical L6-30 plug and receptacle.

! CAUTION



No adapter should be used with plug. If plug does not fit available receptacle, or if machine must be reconnected for use on a different type of circuit, reconnection must be performed by an electrician or qualified service personnel, and it must comply with all 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:

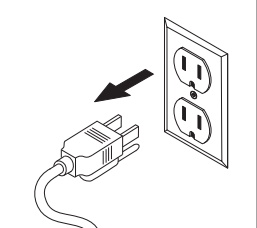
Minimum Gauge Size 12 AWG
Maximum Length (Shorter is Better) 50 ft.

SETUP



!WARNING

This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before starting the machine!



!WARNING

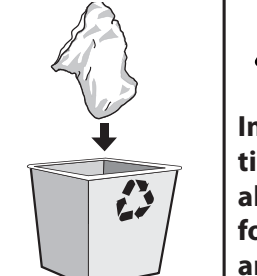
UNPLUG-power cord before you do any assembly or adjustment tasks! Otherwise, serious personal injury to you or others may occur!.

Unpacking

The Models ST1007/ST1012/ST1014 were carefully packed when they left our warehouse. If you discover your 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.



!WARNING

SUFFOCATION HAZARD!

Immediately discard all plastic bags and packing materials to eliminate choking/suffocation hazards for children and animals.

Items Needed for Setup

The following items are needed, but not included, to set up your machine.

Description	Qty
• Additional People	1
• Safety Glasses.....	1 Per Person
• Forklift (rated for at least 1000 lbs.)	1
• Cleaner/Degreaser.....	As Needed
• Disposable Shop Rags.....	As Needed
• Phillips Screwdriver #2.....	1
• Open-End Wrench or Socket 12mm.....	1
• Open-End Wrench or Socket 14mm.....	1
• Hex Wrenches 3, 4, 5, 6, 8mm	1 Ea.
• Straightedge 4'	1
• Dust Collection System	1
• 4" Dust Hose w/Clamps.....	1

Inventory

The following is a list of items shipped with your machine. Before beginning setup, lay these items out and inventory them.

Note: If you cannot find an item on this list, carefully check around/inside the machine and packaging materials. Often, these items get lost in packaging materials while unpacking or they are pre-installed at the factory.

Component Inventory (Figure 7)		Qty
A.	Planer	1
B.	Dust Hood	1
C.	Caster Assembly	1
D.	Foot Lifting Lever and Pin.....	1
E.	Handwheel and Handle.....	1
F.	Extension Wings	2

Tools (Figure 8)

G.	Hex Wrenches 2.5, 3, 4, 6mm.....	1 Ea.
H.	Wrenches 8/10, 14/17, 17/19mm.....	1 Ea.

Hardware (See Hardware Recognition Chart)

I.	Knife-Setting Gauge (Not shown)	1
J.	Flat Washers 8mm (Wing).....	6
K.	Lock Washers 8mm (Wing).....	6
L.	Hex Bolts M8-1.25 x 30 (Wing).....	6
M.	Set Screws M8-1.25 x 20 (Wing)	4
N.	Cap Screws M8-1.25 x 20 (Dust Hood).....	3
O.	Hex Bolts M6-1 x 10 (Dust Hood).....	3
P.	Flat Washers 6mm (Dust Hood)	3
Q.	Hex Nuts M6-1 (Dust Hood).....	3
R.	Key 4 x 4 x 20 (Handwheel).....	1
S.	Bushing (Handwheel).....	1
T.	Hex Nut M12-1.75 (Handwheel).....	1
U.	Flat Washer 12mm (Handwheel).....	1

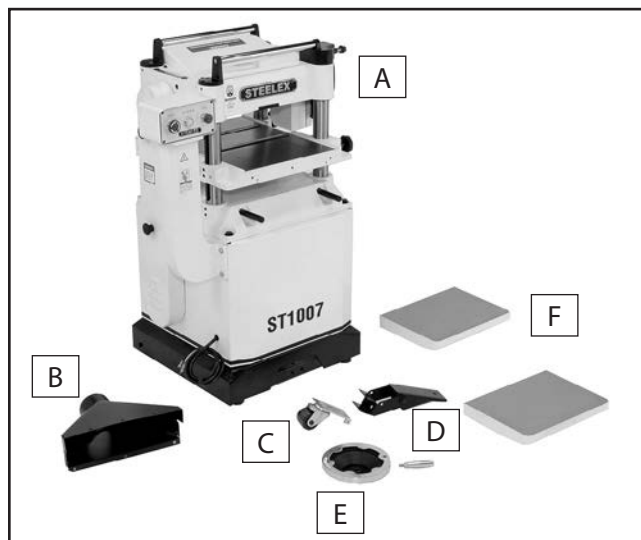


Figure 7. Component inventory.

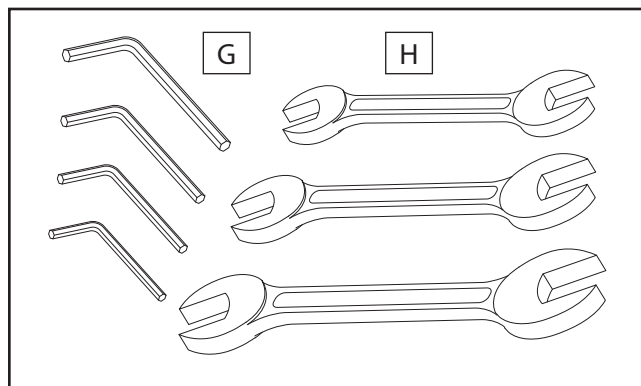
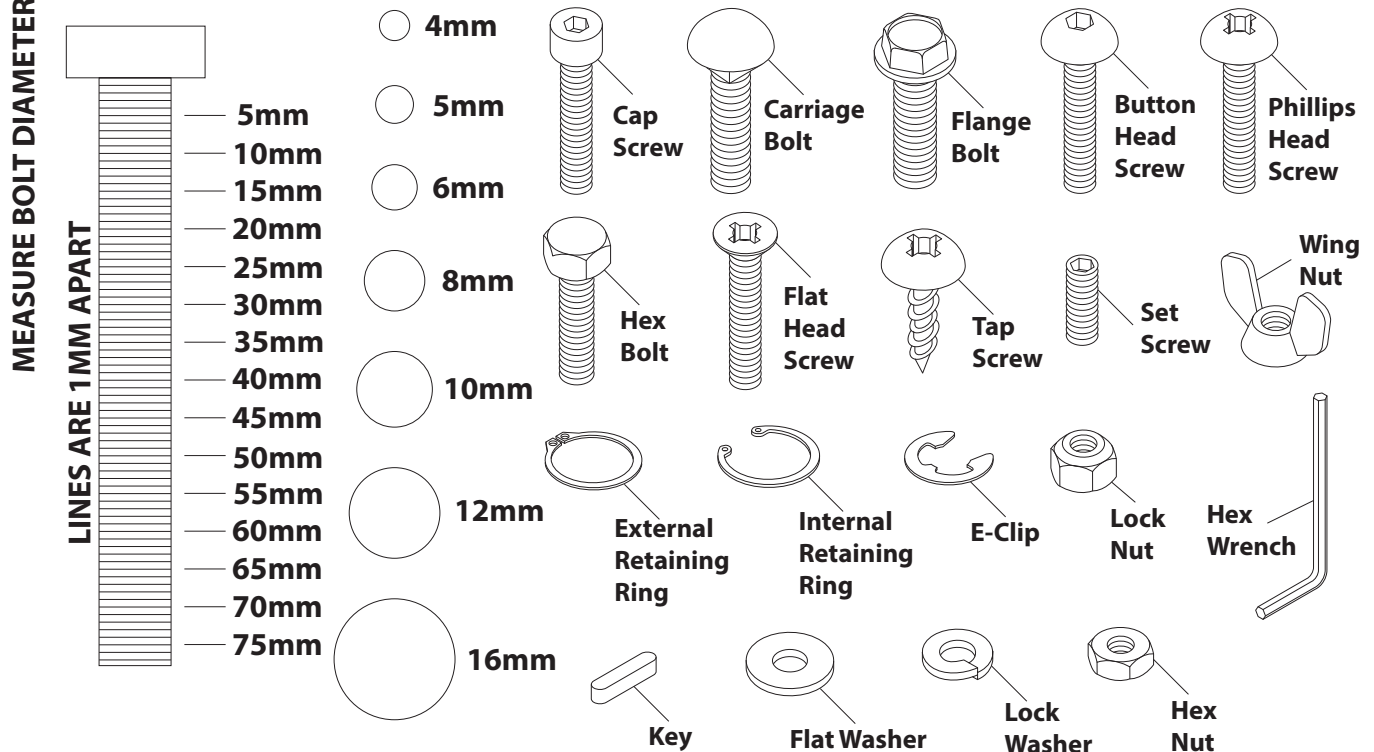
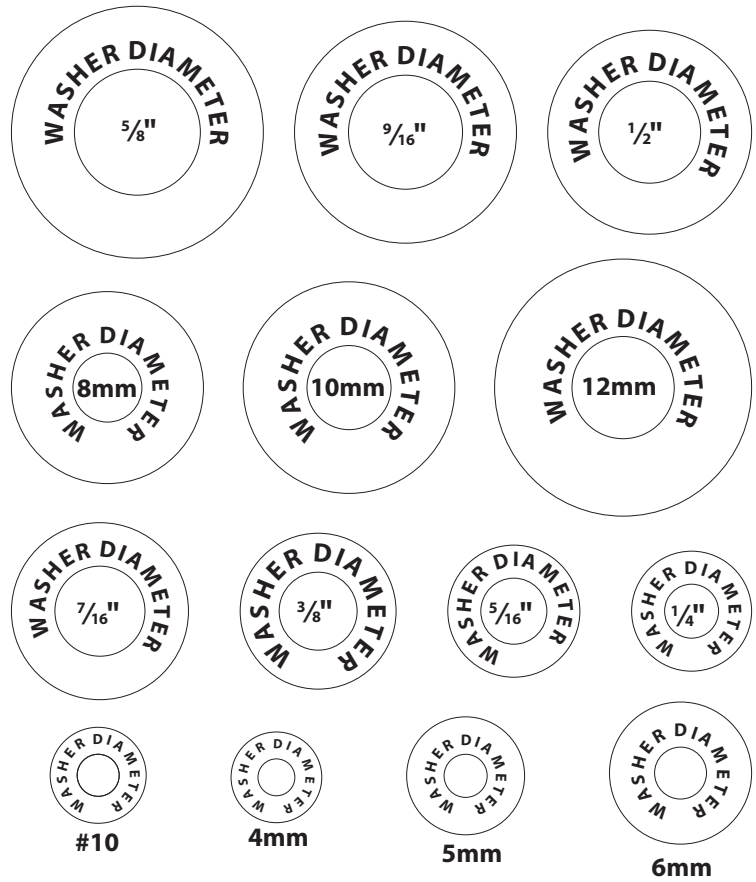
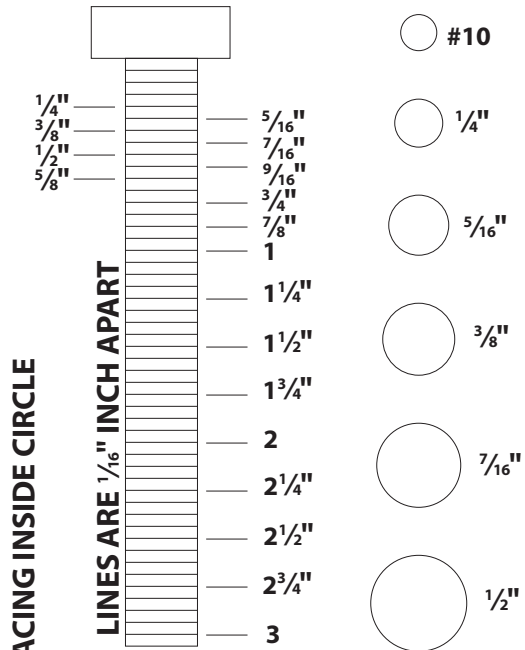


Figure 8. Tool inventory.

Hardware Recognition Chart

USE THIS CHART TO IDENTIFY
HARDWARE DURING THE
INVENTORY/ASSEMBLY
PROCESS.



Cleanup

The unpainted surfaces of your machine are coated with a heavy-duty rust preventative that prevents corrosion during shipment and storage. This rust preventative works extremely well, but it will take a little time to clean.

Be patient and do a thorough job cleaning your machine. The time you spend doing this now will give you a better appreciation for the proper care of your machine's unpainted surfaces.


There are many ways to remove this rust preventative, but the following steps work well in a wide variety of situations. Always follow the manufacturer's instructions with any cleaning product you use and make sure you work in a well-ventilated area to minimize exposure to toxic fumes.

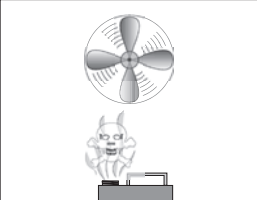
Before cleaning, gather the following:

- Disposable rags
- Cleaner/degreaser (WD-40 works well)
- Safety glasses & disposable gloves
- Plastic paint scraper (optional)

Basic steps for removing rust preventative:

1. Put on safety glasses.
2. Coat the rust preventative with a liberal amount of cleaner/degreaser, then let it soak for 5–10 minutes.
3. Wipe off the surfaces. If your cleaner/degreaser is effective, the rust preventative will wipe off easily. If you have a plastic paint scraper, scrape off as much as you can first, then wipe off the rest with the rag.
4. Repeat **Steps 2–3** as necessary until clean, then coat all unpainted surfaces with a quality metal protectant to prevent rust.

	<p>! WARNING</p> <p>Gasoline and petroleum products have low flash points and can explode or cause fire if used to clean machinery. Avoid using these products to clean machinery.</p>
------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p>! CAUTION</p> <p>Many cleaning solvents are toxic if inhaled. Only work in a well-ventilated area.</p>
------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------

<p>NOTICE</p> <p>Avoid chlorine-based solvents, such as acetone or brake parts cleaner, that may damage painted surfaces.</p>

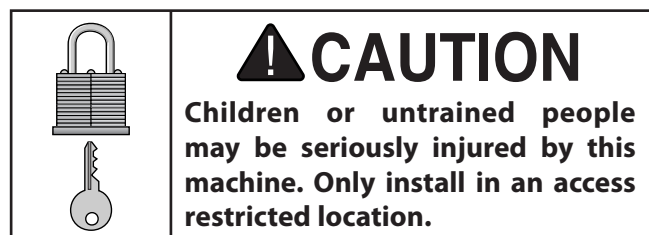
Site Considerations

Weight Load

Refer to the **Machine Specifications** for the weight of your machine. Make sure that the surface upon which the machine is placed will bear the weight of the machine, additional equipment that may be installed on the machine, and the heaviest workpiece that will be used. Additionally, consider the weight of the operator and any dynamic loading that may occur when operating the machine.

Space Allocation

Consider the largest size of workpiece that will be processed through this machine and provide enough space around the machine for adequate operator material handling or the installation of auxiliary equipment. With permanent installations, leave enough space around the machine to open or remove doors/covers as required by the maintenance and service described in this manual. **See below for required space allocation.**



Physical Environment

The physical environment where the machine is operated is important for safe operation and longevity of machine components. For best results, operate this machine in a dry environment that is free from excessive moisture, hazardous chemicals, airborne abrasives, or extreme conditions. Extreme conditions for this type of machinery are generally those where the ambient temperature range exceeds 41°–104°F; the relative humidity range exceeds 20%–95% (non-condensing); or the environment is subject to vibration, shocks, or bumps.

Electrical Installation

Place this machine near an existing power source. Make sure all power cords are protected from traffic, material handling, moisture, chemicals, or other hazards. Make sure to leave enough space around machine to disconnect power supply or apply a lock-out/tagout device, if required.

Lighting

Lighting around the machine must be adequate enough that operations can be performed safely. Shadows, glare, or strobe effects that may distract or impede the operator must be eliminated.

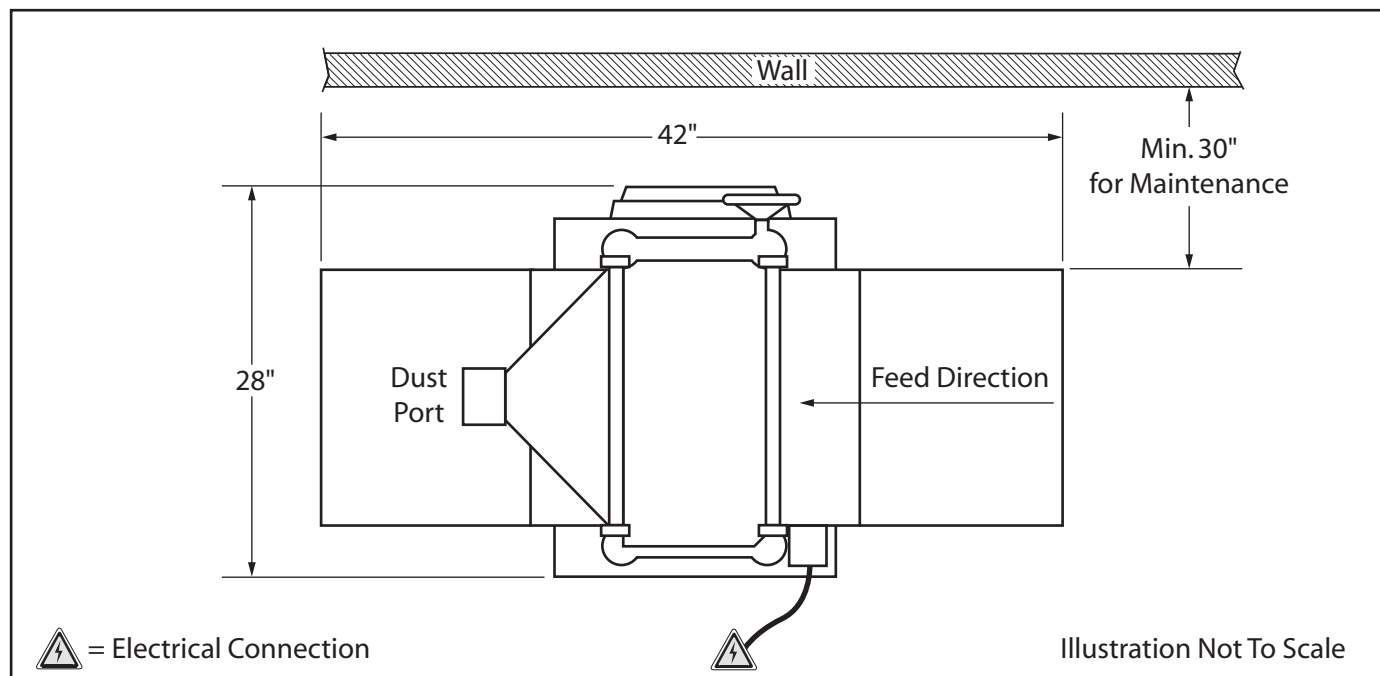


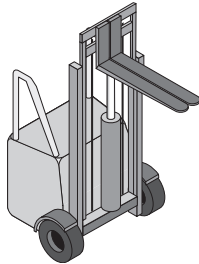
Figure 9. Minimum working clearances.

Lifting & Moving

The planer is equipped with four lifting bars that extend in order to lift and place the planer, as shown in **Figure 10**.

The rear wheels and front feet mount to the bottom of the machine. Therefore, the best time to assemble these components is while the machine is elevated safely by the forklift.

WARNING



HEAVY LIFT!

Straining or crushing injury may occur from improperly lifting machine or some of its parts. To reduce this risk, get help from other people and use a forklift (or other lifting equipment) rated for weight of this machine.

To lift and place machine:

1. Use forklift to lift machine off pallet (see **Figure 10**).

Tip: When positioning lift forks, place shop rags or cardboard between forks and cabinet stand to avoid scratching paint.

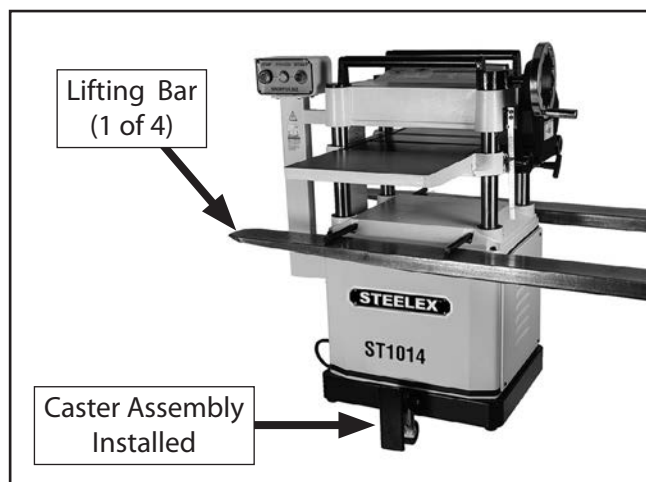


Figure 10. Lifting planer with forklift.

2. Remove the pin and hex bolt that are already mounted in the foot pedal bracket.
3. Align the caster assembly with the mounting holes in the foot pedal bracket.
4. Insert the hex bolt into the hole in the back side of the caster assembly, and tighten the bolt just enough for it to be snug without hampering the pivot action of the caster.
5. Attach the foot pedal to the caster and secure together by inserting the pin between the two parts.
6. Lock the caster and pedal (see **Figure 11**) in place with the E-clip and washers.



Figure 11. Caster installed.

Assembly

The cast-iron extension wings are identical for both the infeed and the outfeed ends of the table.

To assemble planer:

1. Clean the wing, table, wing mating surfaces, and wipe a thin film of oil on the surfaces.
2. Loosen the table-roller set screws and turn the eccentrics until the table rollers fall below the table surface. Refer to **Figure 12** for locations.

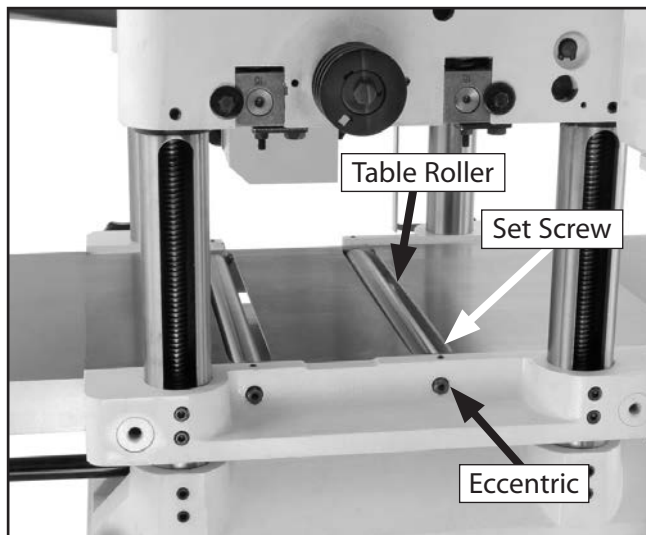


Figure 12. Table roller adjustment locations.

3. Install (2) M8-1.25 x 20 set screws into each wing. Refer to **Figure 13** for location.

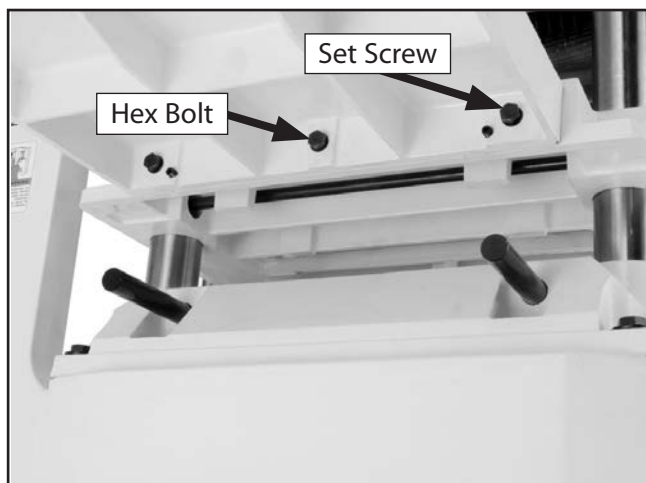


Figure 13. Extension wing installed.

4. With a helper, match the tapped holes on the side of the table to the cast iron wings and lightly secure the wings in place with the (3) M8-1.25 x 30 hex bolts and the 8mm lock and flat washers (for the ST1014 use (3) M8-1.25 x 35 hex bolts).
5. Place a straightedge flat across the table and across the wings, as shown in **Figure 14**.



Figure 14. Setting wing height.

6. Adjust the M8-1.25 x 20 set screws so the wings are flush with the table.
7. Tighten the hex bolts to secure the wings in place. The top of the wings should now be completely even with the top of the table, but double-check to make sure that the wings did not move during the tightening process.
8. Treat the wing and table top surface with an anti-rust compound or light machine oil to prevent rust.

Note: If this is a first-time setup, DO NOT adjust the table rollers yet, you will do this adjustment later.

9. Place the bushing on the handwheel shaft and insert the key into the shaft keyway.
10. Screw the handle into the handwheel, place the handwheel on the shaft and secure it with the hex nut and flat washer, as shown in **Figure 15**.



Figure 15. Handwheel installation.

11. Match the holes in the dust hood to the tapped holes in the planer casting on the outfeed end and install the three M8-1.25 x 20 cap screws.
12. Secure the top of the dust hood with the M6-1.0 x 12 hex bolts flat and lock washers (see **Figure 16**).



Figure 16. Dust hood installed.

⚠ CAUTION

This machine creates substantial amounts of dust during operation. Breathing airborne dust on a regular basis can result in permanent respiratory illness. Reduce your risk by wearing a respirator and capturing the dust with a dust collection system.

Recommended CFM at Dust Port

- ST1007 & ST1012 400 CFM
- ST1014 625 CFM

Do not confuse this CFM recommendation with the rating of the dust collector. To determine the CFM at the dust port, you must consider these variables: (1) CFM rating of the dust collector, (2) hose type and length between the dust collector and the machine, (3) number of branches or wyes, and (4) amount of other open lines throughout the system. Explaining how to calculate these variables is beyond the scope of this manual. Consult an expert or purchase a good dust collection "how-to" book.

To connect the machine to a dust collection system, fit a 4" dust hose (ST1007 & ST1012) or a 5" dust hose (ST1014) over the dust port, and secure in place with a hose clamp (see **Figure 17**). Tug the hose to make sure it does not come off.

Note: A tight fit is necessary for proper performance.

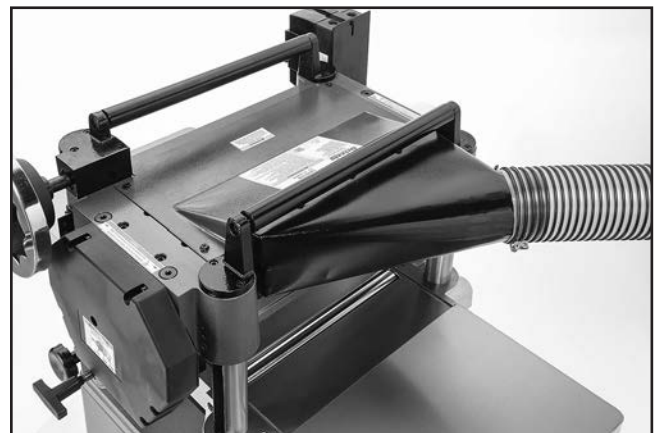


Figure 17. Dust hose connected to dust port.

18. Loosen the eccentric set screws; as shown in **Figure 18**.

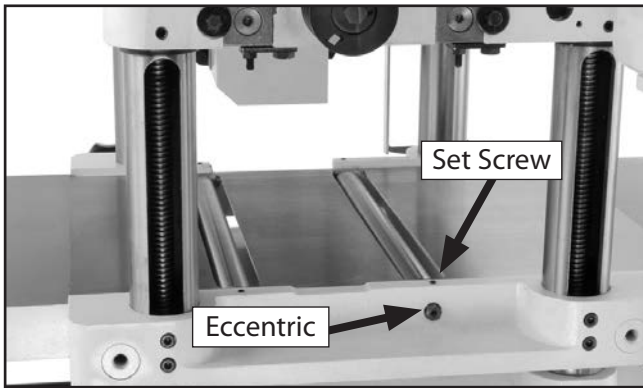


Figure 18. Roller set screws.

19. Using a straightedge and wrench, raise the rollers on their eccentric shafts 0.002" to 0.020" above the table surface (see **Figure 19**).



Figure 19. Checking roller height.

20. Tighten the eccentric set screws and recheck the roller height, and re-adjust if required.

Note: For quick and easy table roller setup, consider purchasing a Rotacator. This handy tool allows you to watch the height of the table rollers you adjust it, giving you accuracy within 0.001" every time.

21. Wipe dirt from the gearbox fill plug and remove it (see **Figure 20**).

—If the oil runs out, the gearbox is full, and re-install the plug.

—If the oil does not run out, fill the gearbox until it does, and re-install the plug.

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

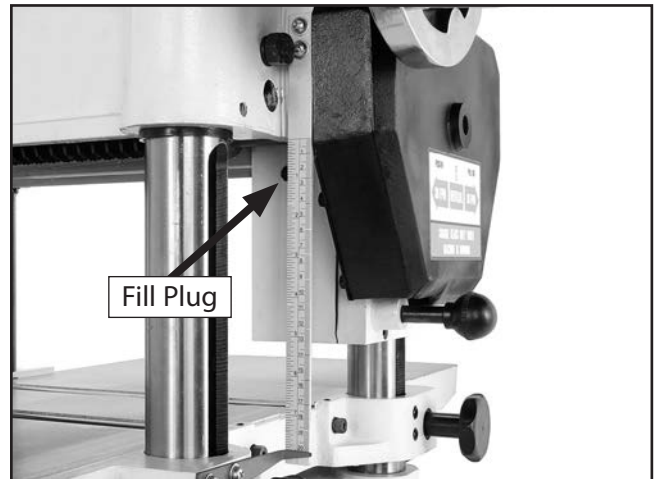


Figure 20. Gearbox fill plug.

Test Run

Once assembly is complete, test run the machine to ensure it is properly connected to power and safety components are functioning correctly.

If you find an unusual problem during the test run, immediately stop the machine, disconnect it from power, and fix the problem **BEFORE** operating the machine again. The Troubleshooting table in the **SERVICE** section of this manual can help.

! WARNING

Serious injury or death can result from using this machine BEFORE understanding its controls and related safety information. DO NOT operate, or allow others to operate, machine until the information is understood.

! WARNING

DO NOT start machine until all preceding setup instructions have been performed. Operating an improperly set up machine may result in malfunction or unexpected results that can lead to serious injury, death, or machine/property damage.

To test run machine:

1. Clear all setup tools and loose objects away from machine.
2. Push STOP button in.
3. Connect machine to power supply.
4. Twist STOP button clockwise until it springs out (see **Figure 21**). This resets the switch so the machine can start.

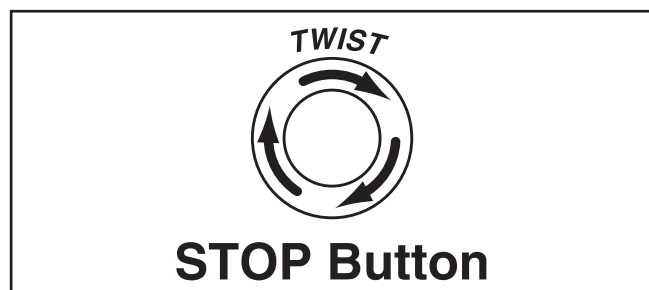


Figure 21. Resetting the switch.

5. Press START button to turn machine **ON**. Verify motor starts up and runs smoothly without any unusual problems or noises.
6. Press STOP button to turn machine **OFF**.
7. WITHOUT resetting STOP button, try to start machine by pressing the START button. The machine should not start.

—If the machine *does not* start, the STOP button safety feature is working correctly. Congratulations! The Test Run is complete.

—If the machine *does* start (with the STOP button pushed in), immediately disconnect power to the machine. The STOP button safety feature is not working correctly and must be replaced before further using the machine. Call Tech Support for help.

NOTICE

After approximately 16 hours of operation, V-belts will stretch and seat into pulley grooves and need to be properly tensioned to avoid severely reducing life of V-belts. Refer to Tensioning/Replacing V-Belts on Page 36 for detailed instructions.

Recommended Adjustments

For your convenience, the adjustments listed below have been performed at the factory.

However, because of the many variables involved with shipping, we recommend that you at least verify the following adjustments to ensure the best possible results from your new machine.

Step-by-step instructions for these adjustments can be found in the **SERVICE** section starting on **Page 39**.

Factory adjustments that should be verified:

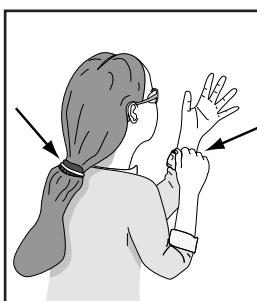
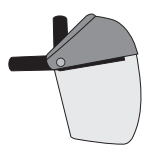
- Check V-belt tension (**Page 37**).
- Adjusting table height (**Page 42**).
- Pulley alignment (**Page 49**).

ST1007/12/14 15" & 20" Planers (Mfd. Since 9/17)

OPERATIONS

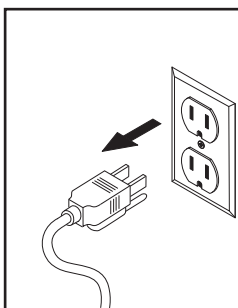
! WARNING

Eye injuries or respiratory problems can occur while operating this tool. Wear personal protective equipment to reduce your risk from these hazards.



! WARNING

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



! WARNING

DO NOT investigate problems or adjust the lathe while it is running. Wait until the machine is turned OFF, unplugged and all working parts have come to a complete stop before proceeding!

The overview below provides the novice machine operator with a basic understanding of how the machine is used during operation, so the machine controls/components discussed later in this manual are easier to understand. Due to its generic nature, this overview is **NOT** intended to be an instructional guide.

To complete a typical operation, the operator does the following:

1. Examines workpiece to make sure it is suitable for planing.
2. Puts on safety glasses or face shield, a respirator, and ear protection.
3. Places workpiece on table with flat side down and correctly adjusts table height for workpiece thickness and depth of cut.

—If workpiece is bowed, operator surface planes workpiece on a jointer until one side is flat. Doing so ensures that it sits solidly on planer table during operation.

4. When all safety precautions have been taken, turns planer **ON**.
5. Stands to one side of planer path to reduce risk of kickback injuries, then feeds workpiece into planer until infeed roller grabs it.

Note: Infeed and outfeed rollers control feed rate of workpiece as it passes through planer. Operator does not push or pull on workpiece.

—If cut is too deep and bogs down planer, operator immediately reduces depth of cut.

6. Once workpiece is clear of outfeed roller and stops moving, operator removes workpiece from outfeed table and measures workpiece thickness. If further planing is required, operator raises table slightly (approximately $\frac{1}{4}$ to $\frac{1}{2}$ turn of the handwheel), then feeds workpiece into front of planer again.
7. Operator repeats this process until desired thickness is achieved, then turns machine **OFF**.

Overview

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

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

Workpiece Inspection

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

- **Material Type:** This machine is only intended for workpieces of natural wood fiber. Attempting to use workpieces of any other material that may break apart during operation could lead to serious personal injury and property damage.
- **Foreign Objects:** Inspect lumber for defects and foreign objects (nails, staples, embedded gravel, etc.). If you have any 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.
- **Large/Loose Knots:** Loose knots can become dislodged during operation. Large knots can cause kickback and machine damage. Always use workpieces that do not have large/loose knots.
- **Wet or "Green" Stock:** Avoid using wood with a high water content. Wood with more than 20% moisture content or wood exposed to excessive moisture (such as rain or snow), will cut poorly and cause excessive wear to the machine. Excess moisture can also hasten rust and corrosion of the machine and/or individual components.
- **Excessive Warping:** Workpieces with excessive cupping, bowing, or twisting are dangerous to cut because they are unstable and often unpredictable when being cut. DO NOT use workpieces with these characteristics!
- **Minor Cupping:** Workpieces with slight cupping can be safely supported if the cupped side is facing the table. On the contrary, a workpiece supported on the bowed side will rock during operation and could cause severe injury from kickback.

Wood Types

The species of wood, as well as its condition, greatly affects the depth of cut the planer can effectively take with each pass.

The chart in the figure below shows the Janka Hardness Rating for a number of commonly used species. The larger the number, the harder the workpiece, and the less material should be removed in any one pass for good results.

Note: The Janka Hardness Rating is expressed in pounds of force required to embed a 0.444" steel ball into the surface of the wood to a depth equal to half the ball's diameter.

Species	Janka Hardness
Ebony	3220
Red Mahogany	2697
Rosewood	1780
Red Pine	1630
Sugar Maple	1450
White Oak	1360
White Ash	1320
American Beech	1300
Red Oak	1290
Black Walnut	1010
Teak	1000
Black Cherry	950
Cedar	900
Sycamore	770
Douglas Fir	660
Chestnut	540
Hemlock	500
White Pine	420
Basswood	410
Eastern White Pine	380
Balsa	100

Figure 22. Janka Hardness Rating for some common wood species.

Planing Tips

- Inspect your lumber for twisting or cupping, and surface one face on a jointer if necessary before planing workpiece.
- Scrape off all glue when planing glued-up panels. Dried glue can quickly dull knives/inserts.
- DO NOT plane more than one piece at a time.
- Never remove more than the recommended amount of material on each pass. Only remove a small amount of material on each pass when planing wide or dense stock.
- Support the workpiece on both ends. Get assistance from another person if you are planing long lumber, or use roller stands to support the workpiece.
- Measure the workpiece thickness with calipers to get exact results.
- Carefully inspect all stock to make sure it is free of large knots or foreign objects that may damage your knives/inserts, cause kickback, or be ejected from the planer.
- When possible, plane equal amounts on each side of the board to reduce the chance of twisting or cupping.
- Use the entire width of the planer to wear knives/inserts evenly. With narrow workpieces, alternate between far left, far right, and the middle of the table. Your knives/inserts will remain sharp much longer.
- To avoid "chip marks," always plane WITH the grain direction of the wood. Never plane cross-grain or end-grain.
- Plane ONLY natural wood fiber. Do not plane wood composites or other materials that could break up in the planer and cause operator injury or damage to planer.
- Always true cupped or warped stock on a jointer before planing.

Cutting Problems

Below is a list of wood characteristics you may encounter when planing. The following descriptions of defects will give you some possible answers to problems you may encounter while planing different materials. Possible solutions follow the descriptions.

Chipped Grain

Problem: Usually a result of cutting against the grain, planing lumber with knots or excessive amount of cross grain, or using dull knives/inserts.

Note: *Some amount of chipping is normal with highly figured wood.*

Solution: Decrease the depth of cut. Reduce the feed rate. Inspect your lumber and determine if its grain pattern is causing the problem. If the lumber does not show substantial crossgrain, inspect your knives/inserts.

Fuzzy Grain

Problem: Usually caused by surfacing lumber with too high of a moisture content. Sometimes fuzzy grain is an unavoidable characteristic of some woods, such as basswood. Fuzzy grain can also be caused by dull knives/inserts.

Solution: Check the lumber with a moisture meter. If moisture is greater than 20%, sticker the lumber and allow it to dry. Otherwise, inspect the knife/insert condition.

Snipe

Problem: Occurs when board ends have more material removed than the rest of the board. Usually caused when the workpiece is not properly supported as it goes through the machine. In many cases, however, a small amount of snipe is inevitable.

Solution: Hold workpiece up slightly as it leaves the outfeed end of the planer. The best way to deal with snipe is by planing lumber longer than your intended work length and then cutting off the excess after planing is completed.

Pitch & Glue Build-up

Problem: Glue and resin buildup on the rollers and cutterhead will cause overheating by decreasing cutting sharpness while increasing drag in the feed mechanism. The result can include scorched lumber, uneven knife/insert marks, and chatter.

Solution: Clean the rollers and cutterhead.

Chip Marks or Indentations

Problem: Chip indentation or chip bruising is the result of wood chips not being thrown away from the cutterhead and out of the machine. Instead they are carried around the cutterhead, deposited on the planed surface and crushed by the outfeed roller. Some of the causes of chip indentation are:

- Wood chips/sawdust not being properly expelled from the cutterhead.
- The type of lumber being planed. Certain species have a tendency to chip bruise.
- A high moisture content (over 20%) or surface moisture (refer to **Page 25**).
- Dull knives.
- Excessive depth of cut.

Solution:

- Use a proper dust collection system; adjust chip deflector in or out as necessary.
- Lumber must be completely dry, preferably kiln-dried (KD). Air-dried (AD) lumber must be seasoned properly and have no surface moisture. DO NOT surface partially-air-dried (PAD) lumber.
- Make sure planer knives/inserts are sharp.
- Reduce depth of cut.

Rippled Cut

Problem: Regularly spaced indentations across face of workpiece are caused by excessive outfeed roller pressure or excessive feed rate.

Solution: Reduce outfeed roller pressure; reduce feed rate.

Depth of Cut

Table Movement per Handwheel Revolution

One Full Revolution..... $\frac{1}{16}$ "

The depth of cut on a planer means the amount of material that is removed from the top of the workpiece as it passes underneath the cutterhead.

The depth of cut is set by adjusting the distance of the table below the cutterhead. This distance is the thickness of the workpiece minus the depth of cut. The planing depth of cut is controlled by using the table height handwheel on the right side of the machine. Rotating the handwheel clockwise raises the table.

Although the correct depth of cut varies according to wood hardness and workpiece width, we recommend the maximum depth of cut (per pass) be no more than $\frac{1}{16}$ ". A series of light cuts will give better end results and put less stress on the planer than trying to take off too much material in a single pass.

The depth of cut can be referenced directly from the inch/millimeter scale on the front of the planer, as shown in **Figure 23**. The range of material thickness that can be planed is $\frac{3}{16}$ "–8".

Note: The scale functions as a general guide only, and is not intended for low-tolerance, precision results.

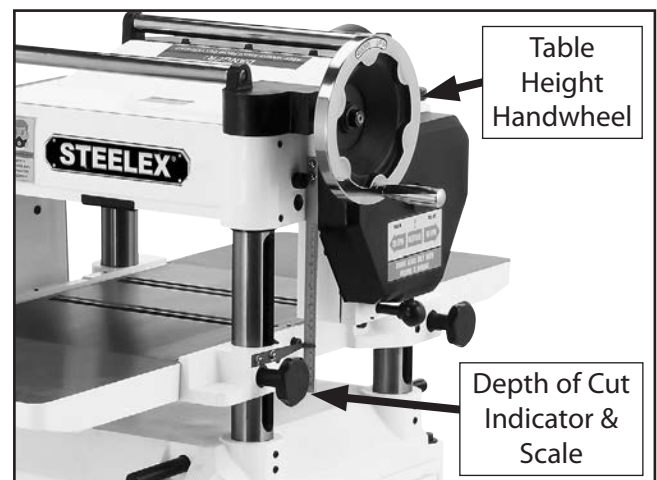


Figure 23. Depth of cut indicator and scale.

Bed Roller Height

Bed Roller Height Range 0.002"–0.020"

The correct height of the bed rollers will vary, depending on the type of material you intend to plane. However, as a general rule, keep the bed roller height within 0.002"–0.020" above the table surface, as illustrated in **Figure 24**.

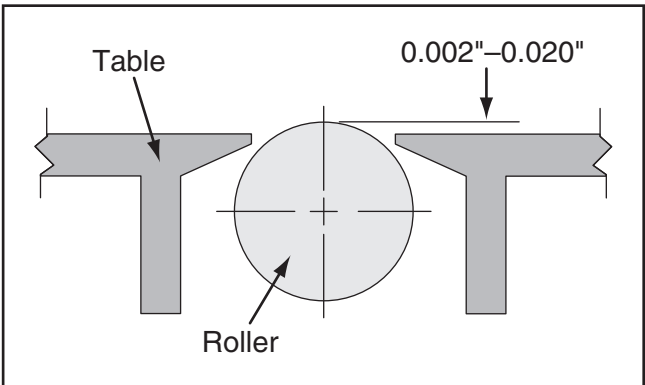


Figure 24. Recommended bed roller height above the table surface.

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.

To ensure accurate results and make the adjustment process quicker and easier, we recommend using a Rotacator (refer to **Page 32**) to gauge the bed roller height from the table surface. If a Rotacator is not available, a straightedge and feeler gauges can be used, but care must be taken to achieve accurate results.

NOTICE

Bed rollers that are not adjusted to the correct height or out of alignment with each other can cause poor finishes, inconsistent planing thickness, and other undesirable results.

Tools Needed	Qty
Hex Wrench 4mm (ST1007, ST1012)	1
Hex Wrench 3mm (ST1014)	1
Hex Wrench 6mm.....	1
Rotacator	1

To adjust bed rollers:

1. DISCONNECT MACHINE FROM POWER!
2. Completely lower table to give yourself enough room to work.
3. Loosen set screws (see **Figure 25**) above each of four roller adjustment cams (there are two on each side of planer).

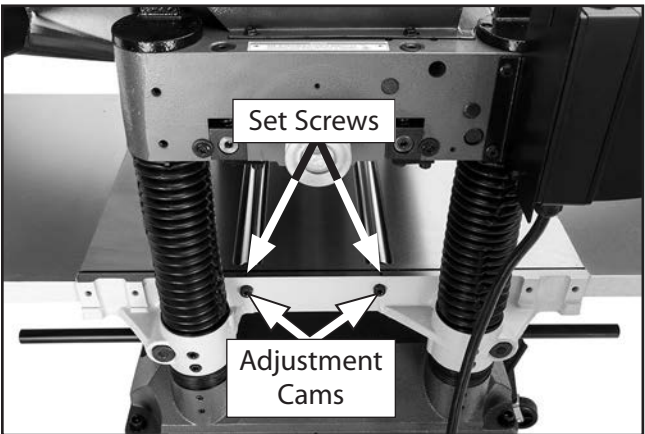


Figure 25. Bed roller height controls.

4. Rotate eccentric adjustment cams to raise or lower bed rollers to desired height above table surface.
 5. Verify both sides of each roller are at the same height, then re-tighten set screws to secure in place.
 6. Re-check roller heights to make sure they did not change while being secured.
- If roller heights are not correct, repeat this procedure until they are.

Setting Feed Rate

The infeed and outfeed rollers move the workpiece through the planer while keeping it flat and providing a consistent rate of movement. The speed that these rollers move the workpiece through the planer is the feed rate.

Generally, low feed rates are used for dimensioning passes, while higher feed rates are used for finishing passes.

Figure 26 illustrates the three different positions of the feed rate control knob:

- Push knob in to use high feed rate of 30 FPM.
- Pull the knob out to use the low feed rate of 16 FPM.
- Move knob to center position to place gearbox in neutral.

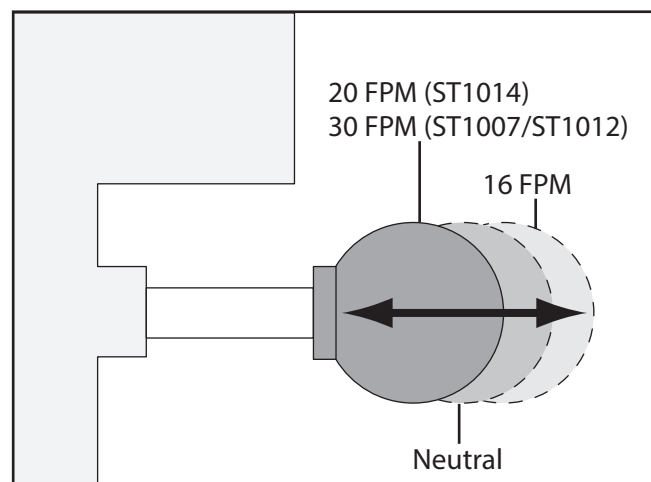
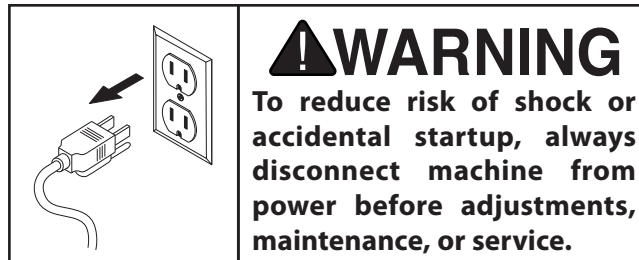


Figure 26. Feed rate control knob positions.

NOTICE

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

Adjusting/Replacing Knives (ST1007)



CAUTION

Cutterhead knives are extremely sharp. Accidental contact with knives can result in severe cuts. Take great caution whenever working with or around cutterhead knives. Wear heavy leather gloves to reduce risk of severe cuts.

NOTICE

To maintain accurate and consistent planing results, we do not recommend sharpening knives yourself. Instead, just replace dull knives or have them professionally sharpened.

Setting the height of the knives correctly is crucial to the proper operation of your 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, dull much faster, and produce poor cutting results.

The knife-setting jig that is included with the Model ST1007 is designed to set the knives 0.059" higher than the cutterhead surface.

Note: If you need to replace or sharpen a knife, you can remove the knife from the cutterhead during **Step 5** of the following procedure. Thoroughly clean out any debris from the knife slots before replacing the knives.

Tools Needed	Qty
Phillips Screwdriver	1
Open-End Wrench 12, 13mm	1 Ea.
Hex Wrench 3mm.....	1
Knife-Setting Jig	1

The cutterhead for the Model ST1007 ships with both springs and jack screws for adjusting the knife height (see **Figure 27**). Which one you use is a matter of personal preference. Springs exert upward pressure from underneath the knives and allow adjustments to be made very quickly. Jack screws support the knives from underneath, and by threading the screws in or out, you can precisely control the knife height. In both instances, wedge-type gibs and gib bolts lock the knives in place. Choose whichever method meets your needs, but understand that the screws and springs cannot be used together—you must choose one and remove the other.

To adjust height of knives:

1. DISCONNECT MACHINE FROM POWER!
2. Put on heavy leather gloves to protect your hands.
3. Remove rear dust hood and top cover to expose cutterhead.
4. Remove belt cover, then rotate cutterhead pulley to give you good access to one of the knives.

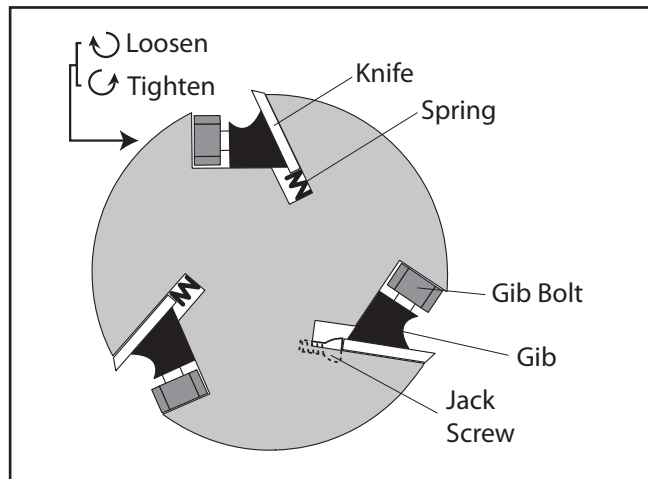


Figure 27. ST1007 cutterhead components (springs and jack screws both shown).

5. Loosen cutterhead gib bolts until knife is completely loose, then position knife-setting jig over knife so that knife edge is directly under center pad, as shown in **Figure 28**.

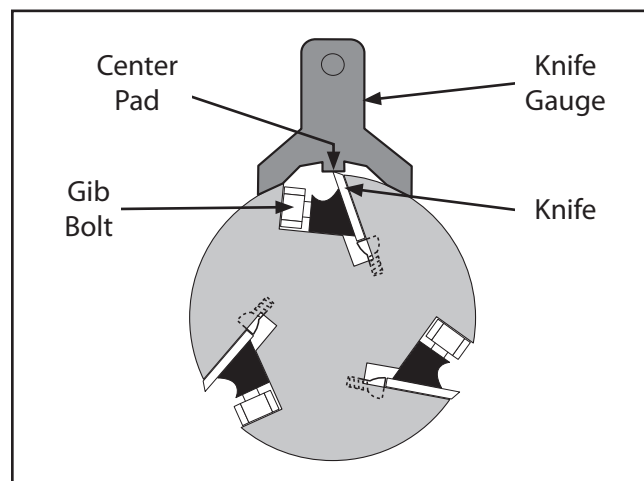


Figure 28. Knife-setting jig correctly positioned over knife.

6. **Springs:** Push down on knife gauge until all legs of the gauge are firmly on the cutterhead and the knife just touches the center pad of the gauge. Then tighten the gib bolts enough to hold the knife in place.

Jack Screws: Insert hex wrench into jack screws through access holes in cutterhead (see Figure 29). Rotate jack screws to raise or lower knife until it barely touches center pad of knife gauge with all legs of gauge still firmly on cutterhead. Then snug gib bolts enough to hold knife in place.

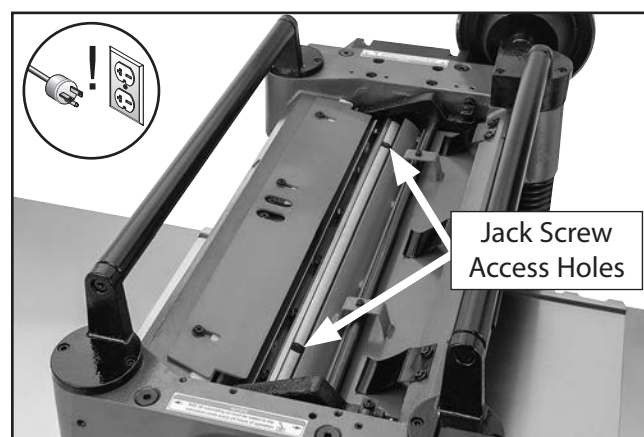


Figure 29. ST1007 & ST1012 jack screw access hole in cutterhead.

7. Slightly tighten gib bolts, starting at middle and working your way to ends by alternating left and right, as illustrated in **Figure 30**.

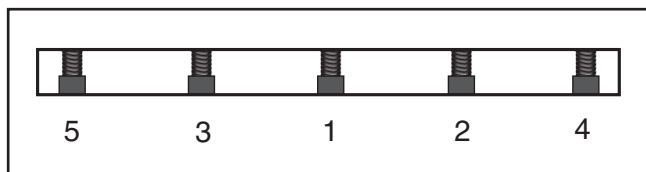


Figure 30. Gib bolt tightening sequence.

7. Repeat **Step 6**, tightening gib bolts a little more.
8. Repeat **Steps 4–8** for remaining knives.
9. Fully tighten all gib bolts in sequence shown in **Figure 30** for each knife.

NOTICE

Uneven tightening or over-tightening the gib bolts may warp the cutterhead, causing it to become unbalanced, which will lead to premature knife and bearing wear from vibration.

Rotating/Replacing Cutterhead Inserts (ST1012/ST1014)

The helical cutterhead is equipped with indexable carbide inserts that can be rotated to reveal any one of their four cutting edges. If one edge of the insert becomes dull or damaged, simply rotate it 90° to reveal a fresh cutting edge, as shown in **Figure 31**.

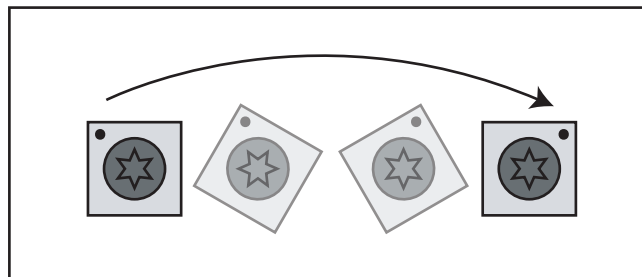


Figure 31. Insert rotating sequence.

Tools Needed	Qty
Phillips Screwdriver #2	1
Hex Wrench 5mm.....	1
Torque Wrench.....	1
T-20 Torx Bit.....	1

To rotate or replace a helical cutterhead insert:

1. DISCONNECT MACHINE FROM POWER!
2. Remove dust hood, top cover, and belt cover.
3. Put on heavy leather gloves to protect your fingers and hands.

CAUTION

The carbide inserts are very sharp and can quickly cut your hands. ALWAYS use caution and heavy leather gloves when handling these parts to reduce the risk of personal injury.

4. Remove any sawdust or debris from head of insert, Torx screw, and surrounding area (see **Figure 32**).

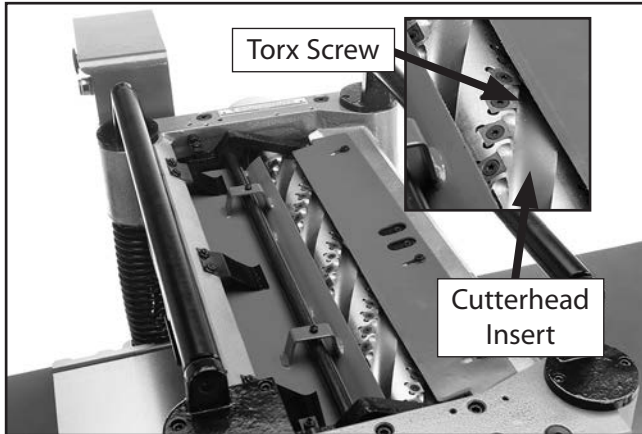


Figure 32. Example of cutterhead inserts and Torx screws (actual machine not shown).

5. Remove Torx screw and insert, then clean all dust and debris from both parts and pocket they were removed from.

Note: *Proper cleaning of insert, Torx screw, and cutterhead pocket is critical to achieving a smooth finish. Dirt or dust trapped between insert and cutterhead will raise insert, and make marks on your workpiece when planing.*

Tip: *Use low-pressure compressed air or a vacuum nozzle to clean out cutterhead pocket.*

6. Replace insert so that a fresh cutting edge faces outward.

—If all four insert cutting edges have been used, replace insert with a new one. Always position insert reference dot in same position when installing a new insert to aid in rotational sequencing.

7. Lubricate Torx screw threads with a very small amount of light machine oil, wipe excess off, and torque screw to 50–55 inch/pounds.

Note: *If too much oil is applied to the threads, excess oil will attempt to squeeze out of the threaded hole and raise insert during installation, bringing it out of height alignment.*

ACCESSORIES

The following lathe 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 **W1218A Rotacator** is a dial indicator on a magnetic base, designed for quickly and accurately setting the critical tolerances needed when making planer adjustments. Perfect for adjusting infeed/outfeed rollers, pressure bars, chip breakers, and bed rollers. Also a great setup tool for other machines! Accurate to 0.001". Indicator rotates 360°.



Figure 33. Model W1218A Rotacator.

The **D3379 Carbide Inserts for Spiral Cutterheads** measure 15mm x 15mm x 2.5mm and are sold in a 10-pack.



Figure 34. Carbide insert for Spiral Cutterhead.

The **W1216A Planer Pal** is a knife-setting system that lets you set planer knives in perfect alignment. It also allows you to shift nicked knives on 2-1/2" to 4" diameter cutterheads to get a perfect cut to an accuracy of + or - .002".

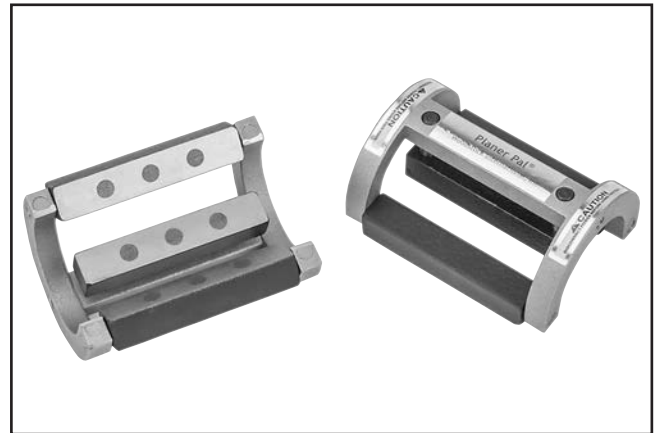


Figure 35. Model W1216A Planer Pal.

The **W1834 20" Blade Grinder** is ideal for sharpening planer and jointer knives. High-quality cast iron construction, together with large capacity makes this grinder an excellent investment.



Figure 36. 20" Blade Grinder.

The **D3635 15" Planer Blades** fit our Steelex ST1007 planer. Made from high-speed steel, these knives are sold as a set of 3.



Figure 37. Model D3635 15" Planer Blades.

The **Model D2274 5-Roller Stand** is great for work stability and support. It features large diameter, ball bearing rollers mounted on a sturdy, adjustable pedestal base.



Figure 38. Model D2274 5-Roller Stand.

The **Model D4042 6" Digital Caliper** lets you switch between decimal and fractional inches and millimeters. Large digital readout makes precision measurements easy with a resolution of 0.0005". Features include hardened stainless-steel jaws and beam, thumb roll, lock knob, zero reset button, and an absolute and relative measurement function.

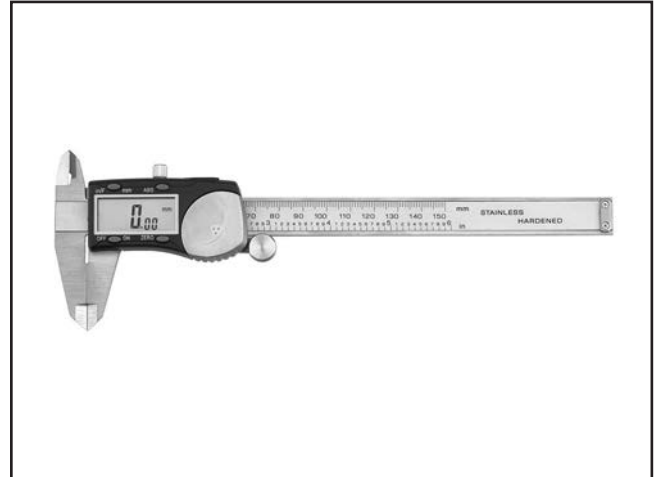


Figure 39. Model D4042 6" Digital Caliper.

The **D4091 7-pc. Woodworking Kit** includes a 9" graduated steel square, 10-1/2" sliding bevel gauge, rectangular protractor, 10" divider with pencil holder and pencil, 12" double ended steel ruler, and double ended scribe.



Figure 40. Model D4091 7-Pc. Woodworking Kit.

The **D4028 8" Digital Scale** provides precise relative distance measurements between fixed and moving parts within an 8" and 12" range. Ideal for mounting to woodworking and metalworking machines for table height adjustments, cutter heights, depth adjustments and more. Resolution is 0.01mm and maximum measuring speed is 1.5m/s. Features inches and millimeters conversion button, plus and minus preset buttons and zero setting on button. Each Digital Scale includes an extra long life battery. Mounting screws are not included.

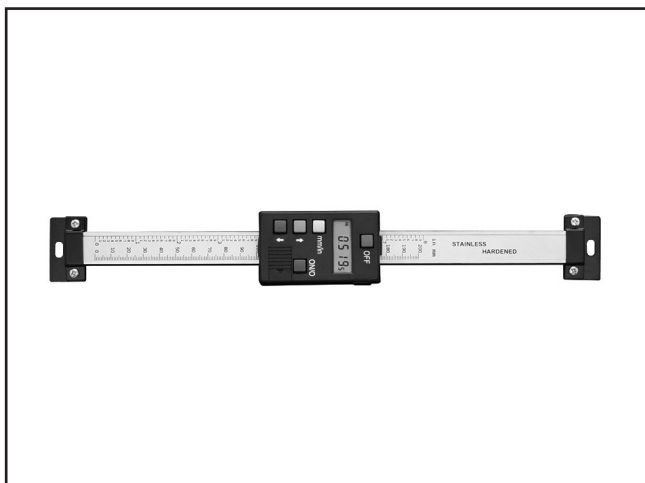


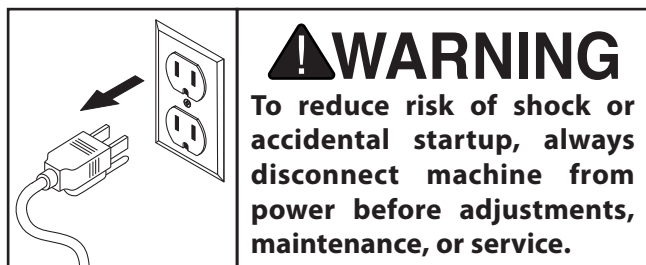
Figure 41. Model D4028 8" Digital Scale.

The **Model D2273 Single Roller Stand** features large-diameter ball bearings for smooth operation with a variety of processing and work-support applications. Heavy pedestal base is stable and secure.



Figure 42. Model D2273 Single Roller Stand.

MAINTENANCE



General

Regular periodic maintenance on your **STEELEX**® Model ST1007/ST1012/ST1014 will ensure its optimum performance. Make a habit of inspecting your machine each time you use it.

Check for the following conditions and repair or replace when necessary:

- Loose mounting bolts.
- Worn switch.
- Worn or damaged cords and plugs.
- Damaged V-belt.
- Any other condition that could hamper the safe operation of this machine.

Schedule

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

Daily Check:

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

Weekly Check:

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

Monthly Check:

- Inspect V-belt tension, damage, or wear
- Clean/vacuum dust buildup from inside cabinet and off motor
- Lubricate worm gear
- Lubricate chain
- Lubricate drive chain

Cleaning/Protecting

Vacuum excess wood chips and sawdust, and wipe off the remaining dust with a dry cloth. If any resin has built up, use a resin dissolving cleaner to remove it.

Protect the unpainted cast iron table by wiping it clean after every use—this ensures moisture from wood dust does not remain on bare metal surfaces. Keep the table rust-free with regular applications of a high-quality metal protectant.

Basic Adjustment Tools

We have provided a jig to make the knife setting process easy and quick. Please refer to **Figure 43** for jig component identification while assembling.

To assemble the knife setting jig:

1. Snap one of the E-clips over the notch on one end of the knife setting rod.
2. Slide the aluminum knife setting jig saddles onto the rod.
3. Snap the other E-clip on the other end of the knife setting rod.

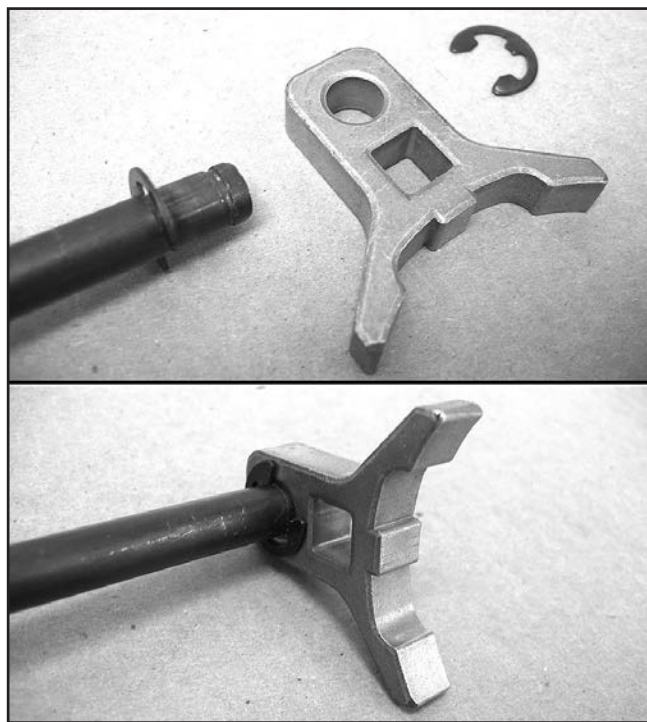


Figure 43. Provided knife setting gauge.

Optional Adjustment Tools

To make the setup process easier and more accurate, many woodworkers purchase optional aftermarket products like the Rotacator® and the Planer Pal®.

- **Rotacator** — A rotating dial indicator on a magnetic base. This handy device allows you to set your table within 0.001" from being parallel with the cutterhead. The Rotacator is indispensable when adjusting the chip breaker, table rollers, feed rollers, and measuring table roller protrusion shown in **Figure 44**.

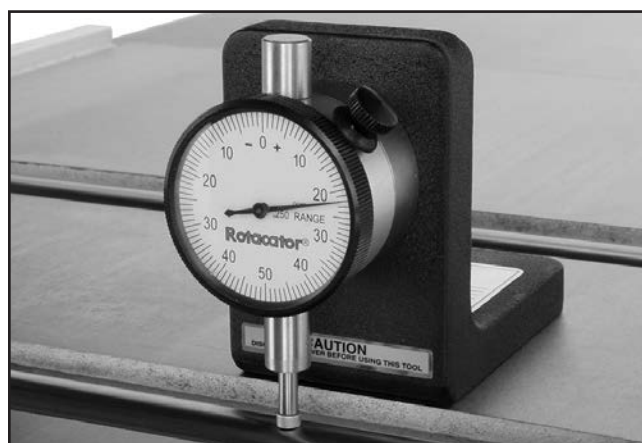


Figure 44. Rotacator measuring table roller protrusion.

- **Planer Pal** — Using powerful neodymium magnets, Planer Pal (see **Figure 45**) holds knives in place while freeing both hands to tighten the gib. Place one of these jigs on each end of the cutterhead, and you can set the knives in perfect alignment every time.

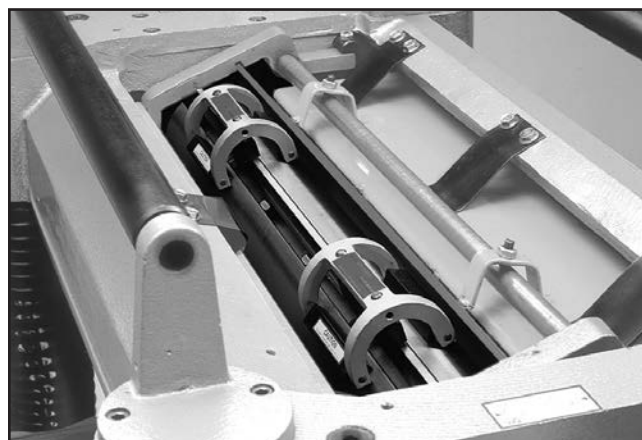


Figure 45. Planer Pal jigs holding knives for superior adjustment.

Lubrication

Since all bearings are sealed and permanently lubricated, leave them alone until they need to be replaced. Do not lubricate them.

The Model ST1007/ST1012/ST1014 does need lubrication in other places.

- **Columns and Leadscrews:** Lubricate columns weekly with light oil, and lubricate the four leadscrews once a month with general purpose grease.
- **Worm Gear:** Inspect the worm gear monthly and lubricate when needed. The worm gear box will need to be removed to perform the inspection (see **Figure 46**).

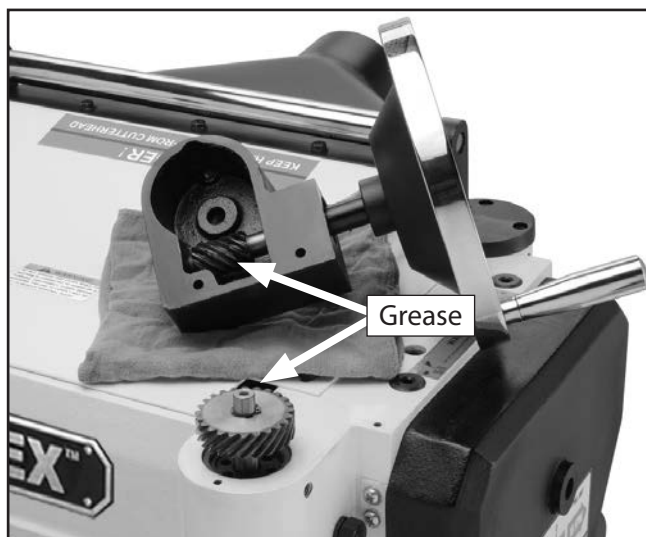


Figure 46. Worm gear lubrication.

- **Chain:** Inspect the table height adjustment chain monthly and lubricate as needed. Use high quality chain lubricant for best results.
- **Gear Box:** Drain the gear box after the first 20 hours of operation. **Figure 47** shows the gear box drain and fill plugs. Refill with 80-90W gear oil. The oil level should reach the top of the filler plug port. After the initial change, inspect fluid levels periodically and change yearly. *If your planer receives heavy use, change the gear oil more frequently.*

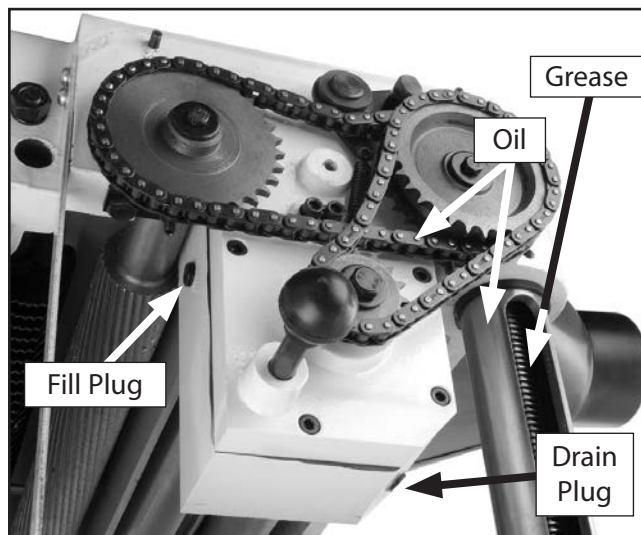


Figure 47. Gear box lubrication.

- **Drive Chain:** Inspect and lubricate the drive chain monthly. Check the sprockets, the chain, and the master links during inspection. Use a general purpose grease to lubricate the chain.
- **Feed Rollers:** Lubricate feed rollers daily before start-up. **Figure 48** shows the lubrication points for the feed rollers. These are screws that have holes drilled through them to allow oiling. Make sure that dust is not trapped in these screws and apply two drops of light oil in each to penetrate the bearings. Do not lubricate more than this or the excess will end up on the floor.

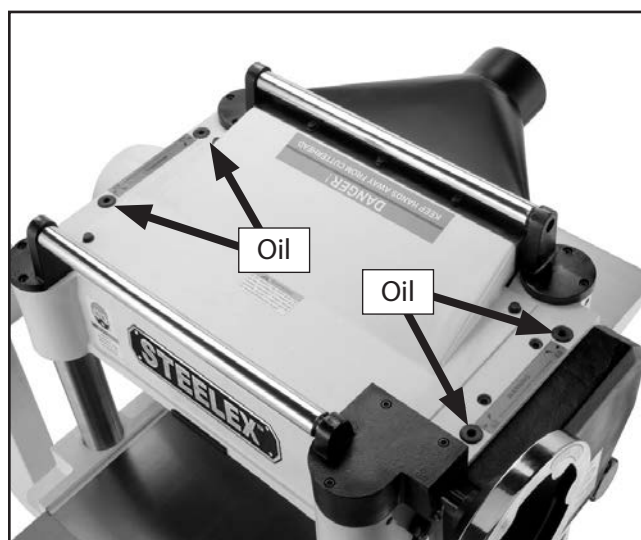


Figure 48. Feed roller lubrication.

Tensioning/Replacing V-Belts

NOTICE

After approximately 16 hours of operation, V-belts will stretch and seat into pulley grooves and need to be properly tensioned to avoid severely reducing life of V-belts.

Three V-belts transfer power from the motor to the cutterhead, and then to the infeed and outfeed rollers with the use of the drive chain system. To ensure efficient transfer of power to these systems, make sure the V-belts are always properly tensioned and in good condition.

If the V-belts are worn, cracked, or damaged, replace them. Always replace the V-belts with a matched set of three, or belt tension may not be even among the belts, causing premature belt failure.

CAUTION

V-belts and pulleys will be hot after operation. Allow them to cool before handling.

Tools Needed

	Qty
Phillips Screwdriver	1
Open-End Wrench 19mm.....	1

To tension/replace V-belts:

1. DISCONNECT MACHINE FROM POWER!
2. Remove V-belt cover from left side of machine to expose belts, as shown in **Figure 49**.

Note: A collection of black belt dust at the bottom of the belt cover is normal during the life of the belts.

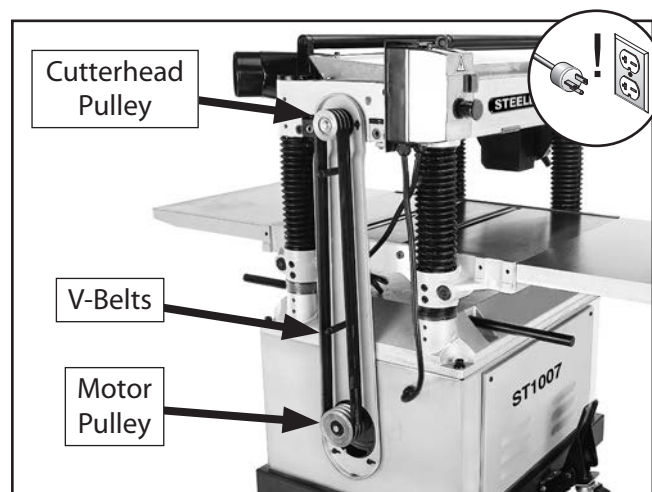


Figure 49. Belt cover removed to expose V-belts and pulleys.

3. Remove front cabinet cover to access motor, as shown in **Figure 50**.

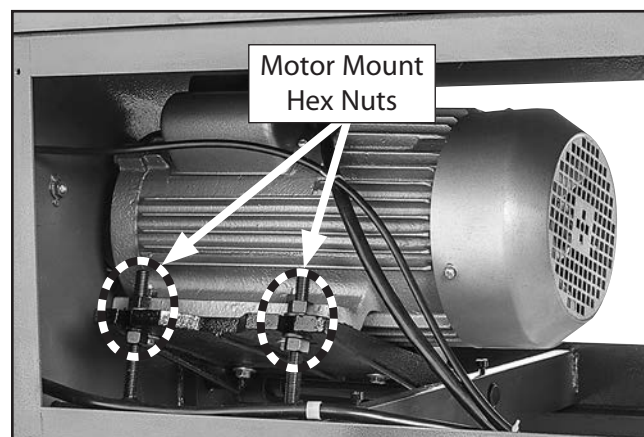


Figure 50. Front cabinet cover removed to access motor.

4. If V-belts need to be replaced, raise motor to release belt tension (see next step for instructions), roll them off pulleys, then replace with a matched set of 3.
5. To adjust V-belt tension, loosen both top motor mount hex nuts (see **Figure 50** on **Page 38**), then adjust bottom hex nuts to raise or lower motor.

Note: V-belts are correctly tensioned when there is approximately $\frac{3}{4}$ " deflection when moderate pressure is applied to them midway between pulleys, as illustrated in **Figure 51**.

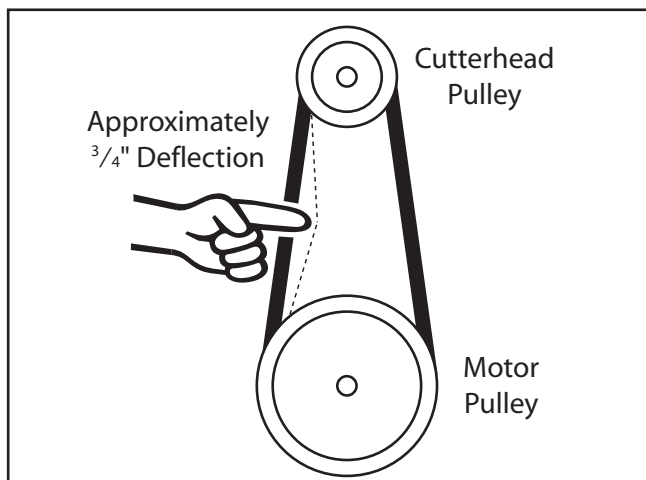


Figure 51. Belt deflection when V-belts are correctly tensioned.

6. After V-belts are correctly tensioned, tighten top motor mount hex nuts, then re-install cabinet cover and belt cover.

Anti-Kickback Pawls

The Model ST1007/ST1012/ST1014 features anti-kickback pawls (shown in **Figure 52**) as an important safety feature. These safety devices allow the workpiece to enter the planer without affecting the proper operation, but are designed to stop the workpiece from coming back out of the entrance in the event of a kickback.

The anti-kickback pawls should be frequently checked to ensure that they swing free and easy. Do not try to lubricate the pawls. Lubrication may cause dust to build-up, which will restrict movement.

CAUTION

Proper operation of the anti-kickback pawls is essential to the safe operation of the planer. If they aren't working properly, they will not protect you if a kickback occurs.

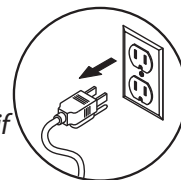


Figure 52. Anti-kickback pawls.

SERVICE

Troubleshooting

The following troubleshooting tables cover common problems that may occur with this machine. If you need replacement parts or additional troubleshooting help, contact our Technical Support.



Note: Before contacting Tech Support, find the machine serial number and manufacture date, and if available, your original purchase receipt. This information is required to properly assist you.

Motor & Electrical

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Machine does not start or a breaker trips.	<ol style="list-style-type: none"> 1. Emergency stop button depressed/at fault. 2. Incorrect power supply voltage or circuit size. 3. Motor overheated, causing thermal overload to trip. 4. Power supply circuit breaker tripped or fuse blown. 5. Motor wires connected incorrectly. 6. Wiring open/has high resistance. 7. Power switch at fault. 8. Centrifugal switch at fault. 9. Start capacitor at fault. 10. Thermal overload relay at fault. 11. Contactor not energized/has poor contacts. 12. Motor at fault. 	<ol style="list-style-type: none"> 1. Rotate button head to reset. Replace. 2. Ensure correct power supply voltage and circuit size. 3. Allow motor to cool, reset overload if necessary, and reduce depth of cut. Contact Tech Support if relay frequently trips. 4. Ensure circuit is sized correctly and free of shorts. Reset circuit breaker or replace fuse. 5. Correct motor wiring connections. 6. Check/fix broken, disconnected, or corroded wires. 7. Replace switch. 8. Adjust/replace centrifugal switch if available. 9. Test/replace. 10. Replace. 11. Test all legs for power/replace. 12. Test/repair/replace.
Machine stalls or is underpowered.	<ol style="list-style-type: none"> 1. Machine undersized for task. 2. Workpiece not suitable for machine. 3. Motor overheated, causing thermal overload to trip. 4. Belt(s) slipping; oil/grease on belt(s). 5. Dull knives/inserts. 6. Dust collection problem causing internal components to clog up with shavings. 7. Motor wired incorrectly. 8. Centrifugal switch at fault. 9. Run capacitor at fault. 10. Pulley slipping on shaft. 11. Contactor not energized/has poor contacts. 12. Motor bearings at fault. 	<ol style="list-style-type: none"> 1. Reduce feed rate/depth of cut. 2. Only cut wood/ensure moisture is below 20%. 3. Allow motor to cool, reset overload if necessary, and reduce depth of cut. Contact Tech Support if relay frequently trips. 4. Clean/tension/replace belt(s); align pulleys (Page 38). 5. Sharpen/replace knives, or replace inserts (Page 28). 6. Clear blockages in dust chute/ducting, ensure dust collector is operating efficiently. 7. Wire motor correctly. 8. Adjust/replace centrifugal switch if available. 9. Test/repair/replace. 10. Tighten loose pulley; replace pulley/shaft if damaged. 11. Test all legs for power/replace. 12. Test/repair/replace.
Machine has vibration or noisy operation.	<ol style="list-style-type: none"> 1. Motor or component loose. 2. V-belt(s) worn or loose; belts slapping cover. 3. Pulley loose. 4. Bed rollers protruding unevenly. 5. Plastic chip deflector hitting knives. 6. Motor fan rubbing on fan cover. 7. Knives/gibs at fault. 8. Motor bearings at fault. 9. Cutterhead bearings at fault. 	<ol style="list-style-type: none"> 1. Inspect/tighten loose bolts/nuts; replace damaged components. 2. Tension/replace belts as a matched set (Page 38). 3. Re-align/replace shaft, pulley set screw, and key. 4. Adjust bed rollers (Page 27). 5. Adjust chip deflector; replace if necessary. 6. Fix/replace fan cover; replace loose/damaged fan. 7. Sharpen/replace knives; set knife alignment/height correctly (Page 28). 8. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement. 9. Replace bearing(s).

Machine Operation

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Excessive snipe (gouge in end of board that is uneven with rest of cut). Note: A small amount of snipe is inevitable with all types of planers. The key is minimizing it as much as possible.	<ol style="list-style-type: none"> One or both of bed rollers are set too high. Outfeed extension slopes down or is not level with main table. Chipbreaker/pressure bar set too low. Workpiece is not supported as it leaves planer. Some snipe is inevitable. 	<ol style="list-style-type: none"> Lower bed rollers (Page 27). Shim outfeed extension wing level with main table. Raise height of chipbreaker or pressure bar (Page 42). Hold workpiece up slightly as it leaves outfeed end of planer. Plane lumber longer than your intended workpiece length, then cut off excess after planing complete.
Workpiece stops/slows in middle of cut.	<ol style="list-style-type: none"> Taking too heavy of a cut. One or both of bed rollers are set too low or too high. Chipbreaker or pressure bar set too low. Feed rollers set too low or too high. Pitch and glue build up on planer components. 	<ol style="list-style-type: none"> Take a lighter cut. Lower/raise bed rollers (Page 27). Raise height of chipbreaker or pressure bar (Page 42). Lower/raise feed rollers (Page 42). Clean 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. Taking too deep of a cut. Feeding workpiece too fast. Mis-adjusted chipbreaker. Nicked or chipped knife/insert. 	<ol style="list-style-type: none"> Inspect workpiece for knots and grain direction; only use clean stock, and cut WITH the grain. Take a smaller depth of cut. (Reduce cutting depth when planing hard woods.) Slow down feed rate. Adjust both sides of chipbreaker to correct height. Replace affected knife (Page 28), or have it sharpened; rotate/replace insert (Page 30).
Chipping/indentation in workpiece surface (inconsistent pattern).	<ol style="list-style-type: none"> Chips aren't being properly expelled from cutterhead. Chip breaker not set correctly. 	<ol style="list-style-type: none"> Use a proper dust collection system. Correctly adjust chip breaker (Page 42).
Fuzzy grain.	<ol style="list-style-type: none"> Wood may have high moisture content or surface wetness. Dull knives/inserts. 	<ol style="list-style-type: none"> Check moisture content is below 20% and allow to dry if moisture is too high. Replace knives (Page 28) or have them professionally sharpened; rotate/replace inserts (Page 30).
Long lines or ridges that run along length of board.	<ol style="list-style-type: none"> Nicked or chipped knife/inserts. 	<ol style="list-style-type: none"> Replace knives (Page 28) or have them professionally sharpened; rotate/replace inserts (Page 30).
Uneven cutting marks, wavy surface, or chatter marks across face of board.	<ol style="list-style-type: none"> Feeding workpiece too fast. Chipbreaker or pressure bar set unevenly or not low enough. Knives not installed evenly/inserts not properly installed. Worn cutterhead bearings. 	<ol style="list-style-type: none"> Slow down feed rate. Adjust height of chipbreaker or pressure bar (Page 42). Adjust knives with knife gauge (Page 28); remove inserts, properly clean mounting pocket and re-install (Page 30). Replace cutterhead bearings.
Glossy surface.	<ol style="list-style-type: none"> Knives/inserts are dull. Feeding workpiece too slow. Cutting depth too shallow. 	<ol style="list-style-type: none"> Replace knives (Page 28) or have them professionally sharpened; rotate/replace inserts (Page 30). Increase feed rate. Increase depth of cut.
If workpiece twists in machine.	<ol style="list-style-type: none"> Pressure bar set unevenly. Feed rollers not parallel with table. 	<ol style="list-style-type: none"> Adjust height of pressure bar (Page 42). Adjust feed rollers (Page 42).

Adjusting Feed Rollers, Chip Breaker & Pressure Bar

It is essential that the feed rollers, chip breaker, and pressure bar (see **Figure 53**) are set at the correct distance below the cutterhead knives/inserts at BDC (bottom dead center) to ensure that the workpiece moves through the planer evenly and the correct distance from the cutterhead knives/inserts.

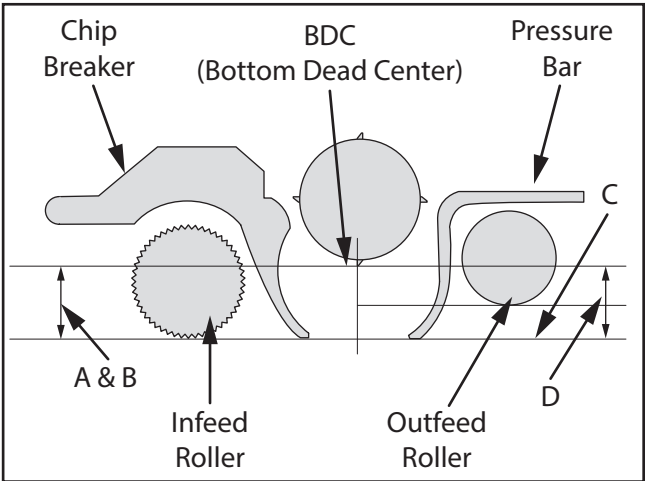


Figure 53. Planer component recommended clearances. Illustration is not to scale.

To ensure accurate results and make the adjustment process quicker and easier, we recommend using a Rotacator for these adjustments (refer to **Page 36**).

If a Rotacator is not available, a 6-foot-long 2x4 cut into two even sized pieces and a feeler gauge set can be used, but care must be taken when jointing the wood to achieve accurate results.

Distance Below Knife/Insert at BDC (Figure 53)

- A. Infeed Roller..... 0.040"
- B. Chip Breaker 0.040"
- C. Pressure Bar..... 0.040"
- D. Outfeed Roller..... 0.020"

Note: Only Model ST1014 has a pressure bar.

Using a Rotacator

Tools Needed	Qty
Phillip's Screwdriver #2	1
Hex Wrench 3mm.....	1
Open-End Wrench or Socket 10mm.....	1
Rotacator (see Page 36)	1

To use a rotacator:

1. DISCONNECT MACHINE FROM POWER!
2. Make sure knives are set to correct height (refer to **Adjusting/Replacing Knives** on **Page 28** for detailed instructions). If machine is spiral cutterhead, make sure all inserts are properly installed (refer to **Rotating/Replacing Cutterhead Inserts** on **Page 30** for detailed instructions).
3. Lower table at least 4" below head casting, then lock it in place.
4. Remove dust hood, top cover, belt cover, and drive chain cover.
5. Lower bed rollers below table surface (refer to **Bed Roller Height** on **Page 27** for detailed instructions).

6. Rotate the cutterhead with the V-belt pulley so one of the knives is at BDC as shown in **Figure 54**.
7. Use your Rotacator to find bottom dead center (BDC) of any knife/insert edge by slowly rocking cutterhead pulley back and forth, then set Rotacator dial to "0" (see **Figure 54**).
8. Keeping Rotacator dial at "0", position it under right-hand side of infeed roller (see **Figure 54**) and find BDC of a serrated edge.

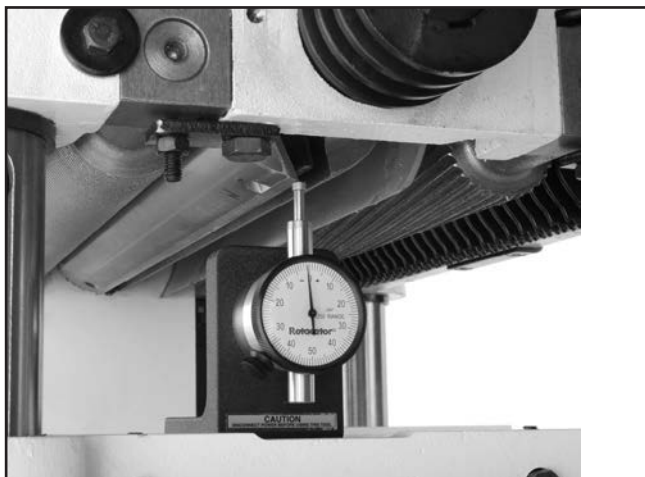


Figure 54. Finding BDC of cutterhead.

9. Loosen jam nuts and use set screws on each side of feed roller (see **Figure 55**) to adjust height of infeed roller bushing block until Rotacator dial shows 0.040", which is the recommended distance for infeed roller below cutterhead.

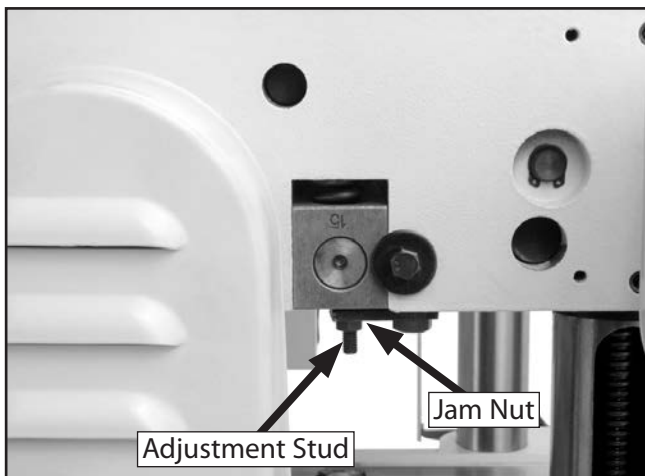


Figure 55. Feed roller height adjustment.

10. Repeat **Steps 8–9** on left-hand side of infeed roller.
11. Re-check both sides of infeed roller and, if necessary, make further adjustments until infeed roller height from side-to-side is 0.040" below BDC of cutterhead knife/insert, then re-tighten both jam nuts.
12. Keeping same "0" reference on Rotacator dial from **Step 7**, repeat **Steps 8–9** for outfeed roller, but adjust it until it is 0.020" below BDC of cutterhead knife/insert.
13. Using same "0" reference on Rotacator dial from **Step 7**, perform similar steps as described above to adjust height of chip breaker to its recommended specification given at beginning of this subsection. The adjustment controls are shown in **Figure 56**.

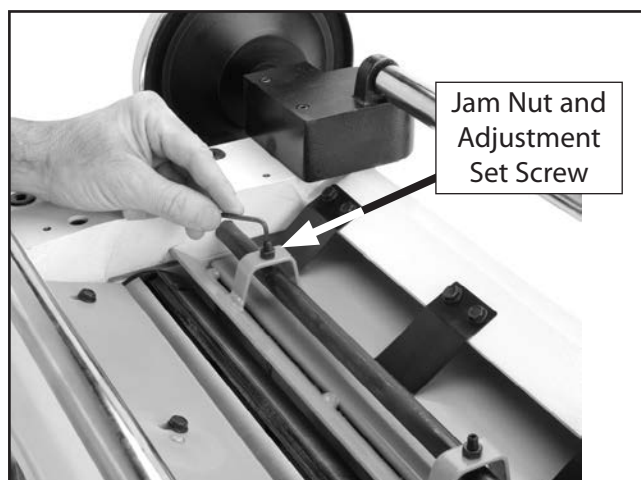


Figure 56. Chip breaker height adjustment.

14. Repeat **Step 12** for pressure bar height adjustment. The adjustment controls are shown in **Figure 57**.
15. Re-install belt cover, top cover, drive chain cover, and dust hood.



Figure 57. Example of adjusting the pressure bar height.

Using Wood Blocks

Tools Needed

	Qty
Phillips Screwdriver #2	1
Hex Wrench 3mm.....	1
Open-End Wrench or Socket 10mm.....	1
2x4 6' Long	1
Feeler Gauge Set	1

To use wood blocks: To use wood blocks:

1. Build wood blocks by cutting a *straight* 6-foot-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, make the 2x4 square with a jointer and table saw before cutting it in half.*

2. Make sure knives are set to correct height (refer to **Adjusting/Replacing Knives** on **Page 28** for detailed instructions).

3. DISCONNECT MACHINE FROM POWER!
4. Lower bed rollers below table surface (refer to **Bed Roller Height** on **Page 27** for detailed instructions).
5. Place wood blocks along sides of table, as illustrated in **Figure 58**.



Figure 58. Gauge boards installed.

6. Remove dust hood, top cover, belt cover, and drive chain cover.
7. Raise table until wood blocks get close to cutterhead.
8. Use belt to rotate cutterhead and continue raising table until blocks just barely touch cutterhead knife/insert at its lowest point of rotation (BDC).
9. Lock table in place. Upward pressure of wood blocks will be holding infeed and outfeed rollers, chip breaker, and pressure bar at same level as knife/insert at BDC.

10. Loosen jam nuts and set screws on each side of infeed roller (see **Figure 59**).
11. Using a feeler gauge, adjust set screw so it is 0.040" from roller bushing block (see **Figure 59**), then tighten jam nut. Repeat on other side of infeed roller.

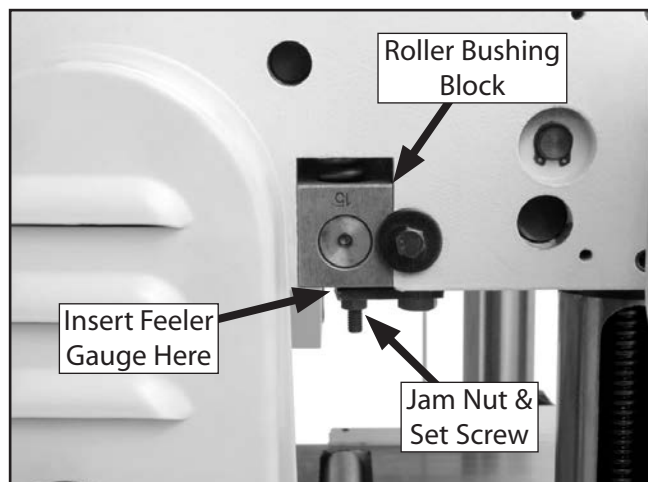


Figure 59. Feeler gauge location for adjusting roller height using wood blocks.

12. Repeat **Steps 10–11** with outfeed roller, only adjust the gaps to 0.020".
13. Loosen jam nuts and set screws on each side of chip breaker (see **Figure 60**).
14. Using a feeler gauge, adjust set screw so it is 0.040" from cross bar (see **Figure 60**), then tighten jam nut. Repeat on other side of chip breaker.

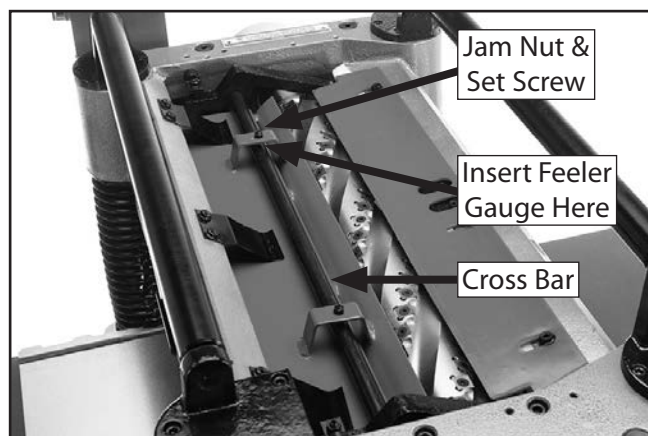


Figure 60. Feeler gauge location for adjusting chip breaker height using wood blocks.

15. Repeat **Steps 13–14** for pressure bar height adjustment, but adjust the gap to 0.040" (see **Figure 61**).



Figure 61. Feeler gauge location for adjusting pressure bar height when using wood blocks.

16. Re-install belt cover, top cover, drive chain cover, and dust hood.

To re-adjust bed roller height:

1. Use a straightedge and feeler gauge (see **Figure 62**) to check roller height, and re-adjust as required between 0.0020" and 0.020".

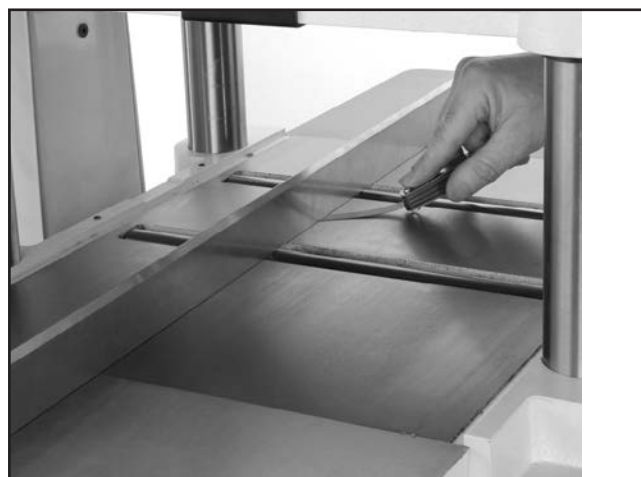


Figure 62. Setting table roller height.

Adjusting Roller Spring Tension

The infeed and outfeed rollers keep the workpiece moving through the planer. There are springs that exert downward pressure on the rollers while still allowing them to raise with an uneven workpiece surface. Proper roller spring tension is crucial to keep the workpiece moving through the planer during operation.

Roller spring tension will vary depending upon the type of wood you are planing. When adjusting the roller spring tension keep the following in mind:

- If you are planing milled lumber with a relatively consistent surface, use less spring tension.
- If you are planing rough lumber with inconsistent surfaces, use greater spring tension to keep the stock moving through the planer.
- If the workpiece consistently stops feeding during operation, the roller spring tension may need to be increased.

Tools Needed

Hex Wrench 6mm..... 1

Qty

To adjust roller spring tension:

1. DISCONNECT MACHINE FROM POWER!
2. Rotate tension screws clockwise to increase tension, and counterclockwise to decrease tension until they protrude to the values shown in **Figure 63**.

Note: The rear-right spring typically requires less tension because of forces applied from the feed drive system. The values shown in **Figure 63** are a starting point for further adjustment using trial and error.

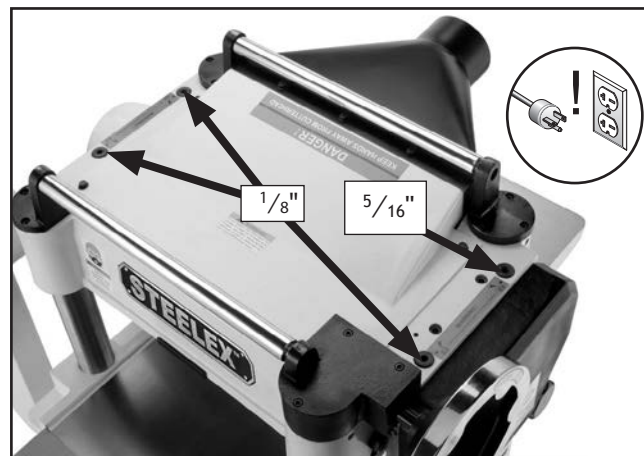


Figure 63. Roller spring tension adjustment screws.

Positioning Chip Deflector

When properly distanced from the cutterhead, the chip deflector directs the chips into the dust hood, and keeps them from falling onto the outfeed roller and being pressed into the workpiece.

Chip Deflector Gap Setting 1/4"

Tools Needed

Qty

Phillips Screwdriver #2 1
Fine Ruler or Calipers 1

To adjust chip deflector gap:

1. DISCONNECT MACHINE FROM POWER!
2. Remove dust hood, top cover, and belt cover.
3. Use cutterhead pulley to rotate cutterhead until a knife/insert reaches closest distance to chip deflector (see **Figure 64**), then measure distance between knife/insert and chip deflector.

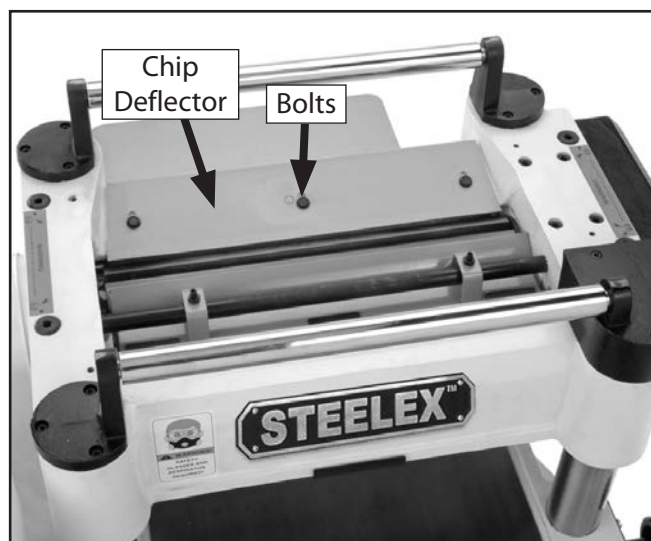


Figure 64. Chip deflector.

4. If distance measured in **Step 3** is *not* equal to 1/4", then loosen flange screws that secure chip deflector and adjust gap to 1/4".
5. Re-tighten flange screws, then replace belt cover, top cover, and dust hood.

Adjusting Table Parallelism

Tools Needed

Qty

Phillips Screwdriver #2 1
Hex Wrench 6mm..... 1

The table has been pre-set at the factory, but it is a good idea to check any machine thoroughly before use.

There are two directions you should be concerned about. When checking/adjusting the table, the table should be parallel with the head casting from front-to-back, and the table should be parallel with the cutterhead body from side-to-side.

To adjust table parallelism:

1. MAKE SURE MACHINE IS UNPLUGGED!
2. Use the plans shown in **Figure 65** to make a wooden gauge block.

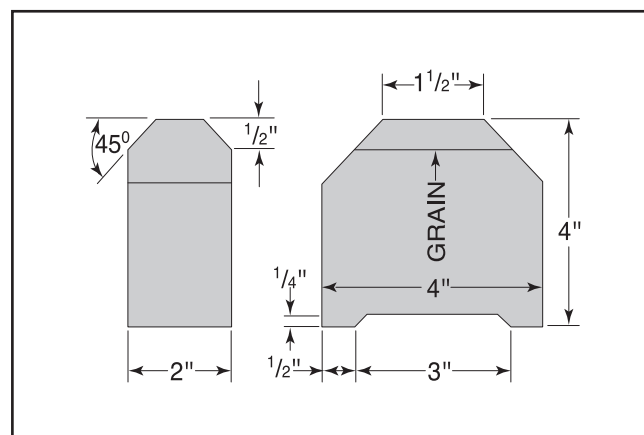


Figure 65. Gauge block plans.

3. Place the block on one end of the table, directly under the cutterhead body. Raise the table up so the block only touches the cutterhead body (keep knives rotated out of the way for this step).
4. Without moving the table, slide the block of wood to the other end of the cutterhead. If the block of wood will not fit, or if the block is below the cutterhead body, measure this gap with a feeler gauge. If the difference is more than 0.002", then the table needs to be adjusted from left to right.

5. Place the block under the front of the head casting, to either side of the depth limiter tab. Raise the table up so the block barely touches the head casting as shown in **Figure 66**.

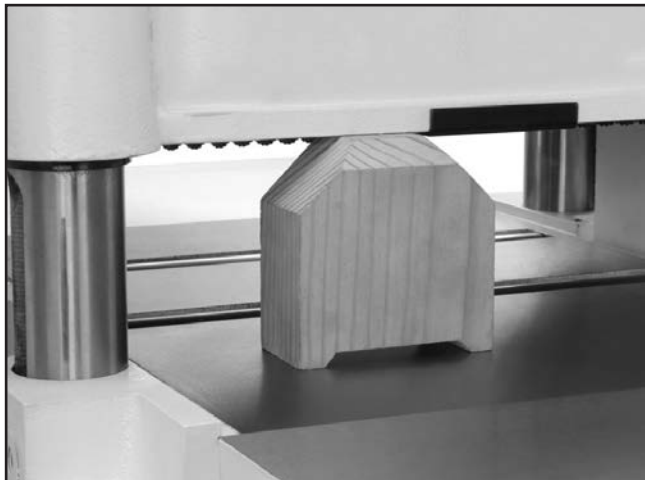


Figure 66. Block position.

6. Remove the block and place it between the middle-rear of the head casting and the table. If there is a gap or it will not fit under the head casting, measure the difference with a feeler gauge. If this measurement is more than 0.002", then the table needs to be adjusted from front to back.
7. There are two methods to adjust the table on the Model ST1007/ST1012/ST1014. The first is for adjustments smaller than 0.016" and the second is for adjustments larger than 0.016".

To adjust table more than 0.016":

1. Remove the side cabinet plate.
2. On the underside of the table there is a chain drive and five sprockets as shown in **Figure 67**. The four sprockets in the corners control the movement of the table columns. The fifth sprocket is the idler sprocket that controls the chain tension. Loosen the two bolts on the idler sprocket bracket (see **Figure 67**) to loosen the chain so that each sprocket can be rotated on its own. Make sure to hold the chain away from the sprocket while you adjust it.



Figure 67. Chain drive system.

3. Moving the sprockets clockwise lowers the table and moving them counterclockwise raises the table. Each tooth on the corner sprockets equals 0.016" of vertical movement when the cogs are turned (See illustration in **Figure 68**). Make sure, as you adjust each sprocket, that you count the number of teeth that pass a fixed point.

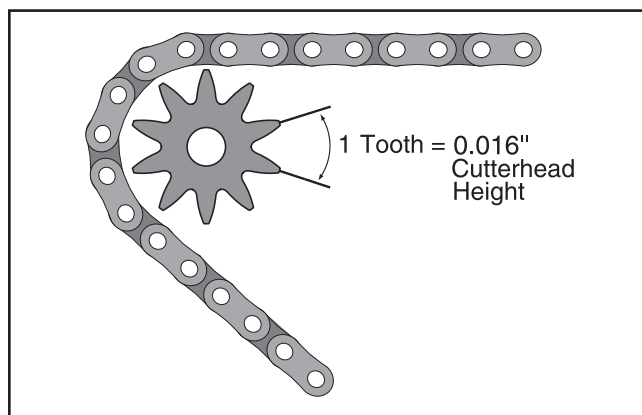


Figure 68. Sprocket ratio.

To adjust table less than 0.016":

1. Use the table mounting screws shown in **Figure 69**. Loosen the screws and lift/lower the table until the table and the cutterhead body are parallel with each other and the table is parallel with the head casting from front to back. This may require some trial and error.

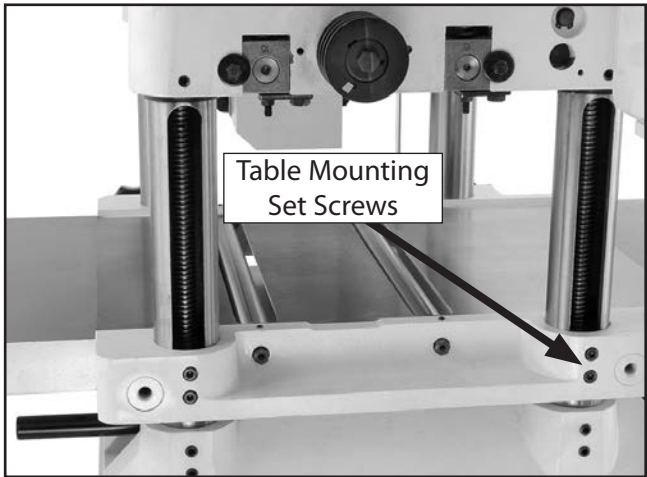


Figure 69. Table mounting screws.

2. Adjust each column on both sides until the table is properly set. While adjusting the columns, tighten each screw after each step to ensure accurate results.
3. After you have the table adjusted to within 0.016" from front-to-back and from side-to-side, tighten the chain so all of the slack is removed.
4. Now follow the next instructions for adjusting the table when it is less than 0.016" from its proper position.

NOTICE

DO NOT let chain fall off sprockets. It can be very difficult to return chain to its proper location on sprockets without changing table adjustments.

Calibrating Table Height Scale

Although correctly set at the factory, the table height scale can be adjusted for accuracy if it becomes necessary.

Tools Needed	Qty
Hex Wrench 4mm.....	1
Scrap Piece of Stock	1
Calipers.....	1

To reposition scale:

1. Plane a scrap piece of stock until it is flat and of even thickness along its length.

Note: Turn board over between each pass.
2. Use calipers to measure board thickness board thickness and table height scale reading should be identical.

—If there is a discrepancy between board thickness and reading on table height scale, loosen both screws shown in **Figure 70**, adjust scale in relation to pointer, then re-tighten screws.

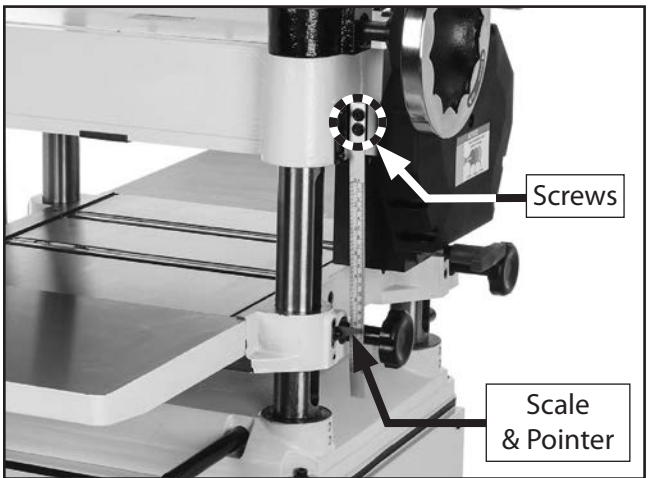


Figure 70. Location of table height scale.

Aligning Pulleys

Proper pulley alignment prevents premature V-belt wear and unnecessary load on the motor. It also ensures efficient and effective transfer of power. The pulleys are properly aligned when they are parallel and in the same plane as each other.

Tools Needed

	Qty
Straightedge 3'.....	1
Hex Wrench 6mm.....	1
Open-End Wrench or Socket 13mm.....	1

To check/re-align pulleys:

1. DISCONNECT MACHINE FROM POWER!
2. Remove both cabinet covers and belt cover, then use straightedge to check pulley alignment, as shown in **Figure 71**.

—If pulleys are not in same plane, loosen cap screw or hex bolt that secures pulley to shaft, adjust pulleys in or out until they are in plane, then re-tighten cap screws.

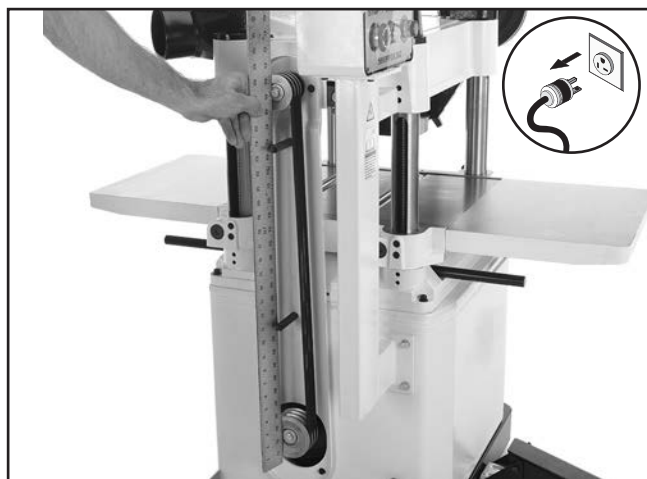


Figure 71. Checking pulley alignment.

—If pulleys are not parallel, loosen four motor mount hex nuts (see **Figure 72**), shift motor on its mount until pulleys are parallel, then re-tighten motor mount hex nuts.



Figure 72. Location of motor mount hex nuts.

3. Re-check pulleys and repeat **Step 2** if necessary.
4. Once pulleys are properly aligned, re-tighten all fasteners, then replace belt cover and cabinet covers.

ST1007 & ST1012 Electrical Components

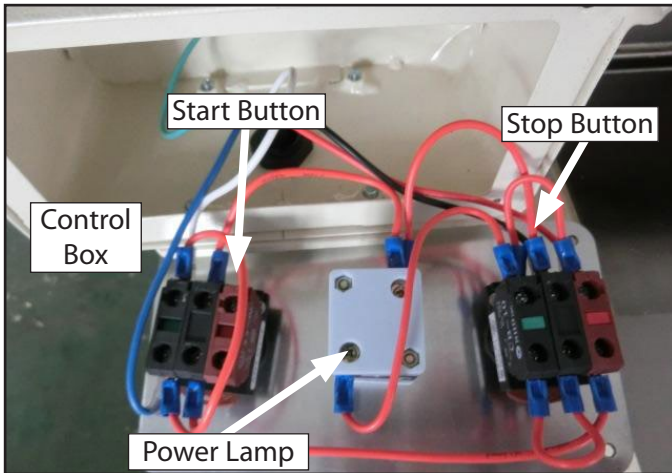


Figure 73. ST1007 & ST1012 control panel.

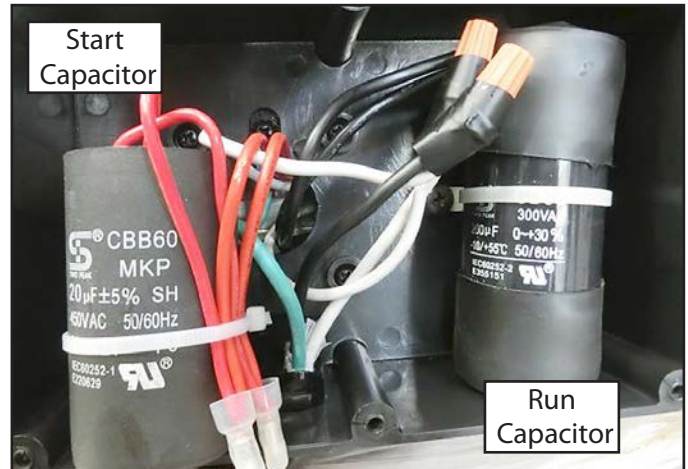


Figure 74. ST1007 & ST1012 capacitors.

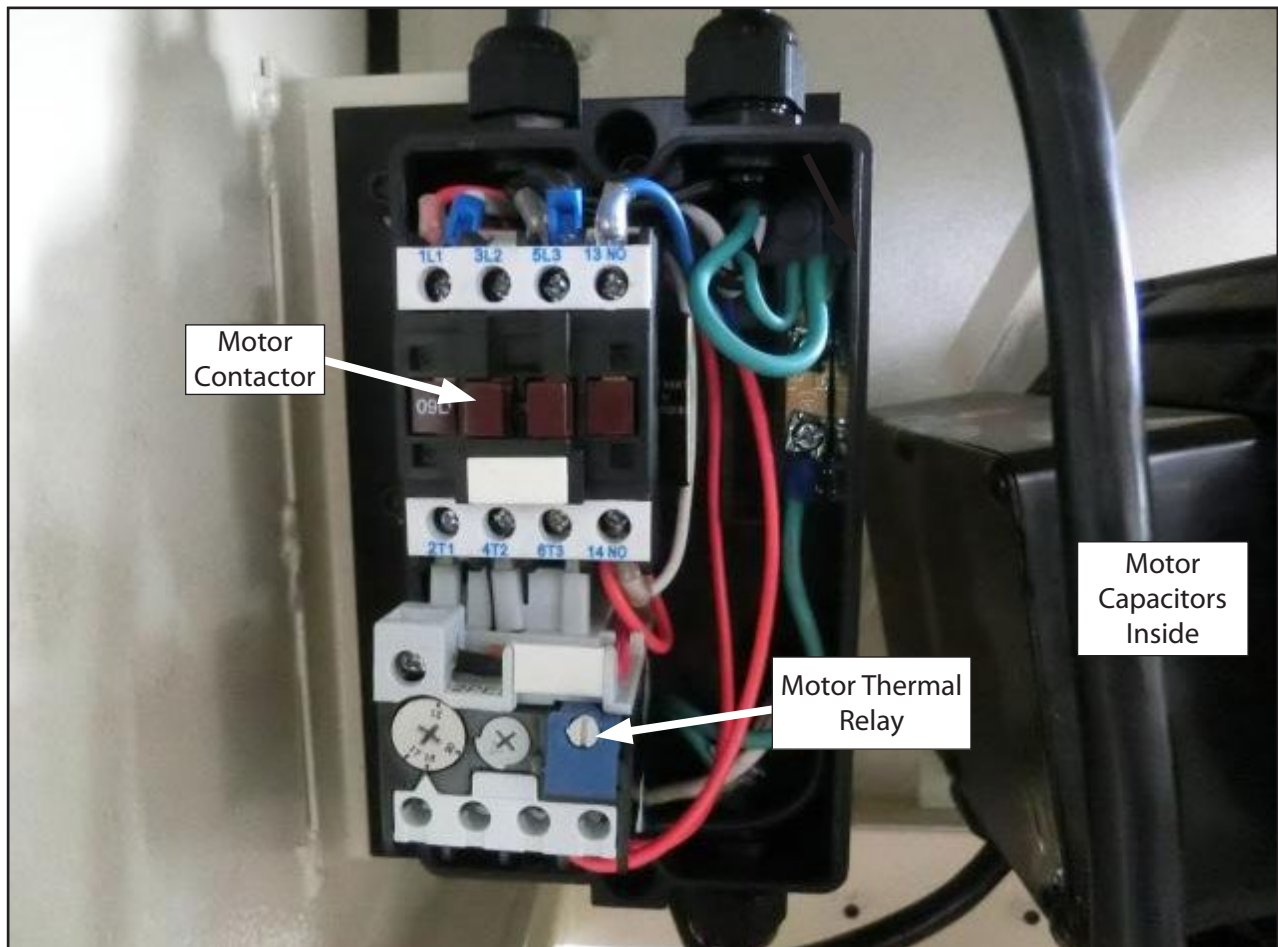







Figure 75. ST1007 & ST1012 magnetic switch assembly.

ST1007 Wiring Diagram

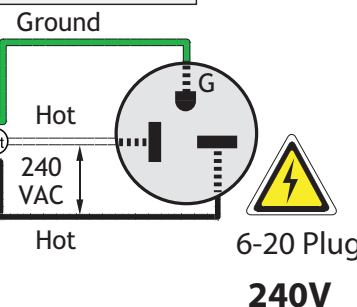
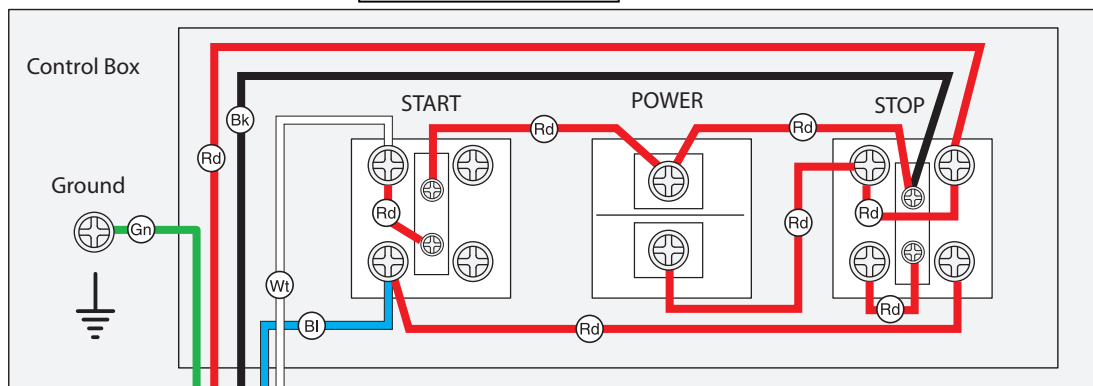
⚠ DANGER

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

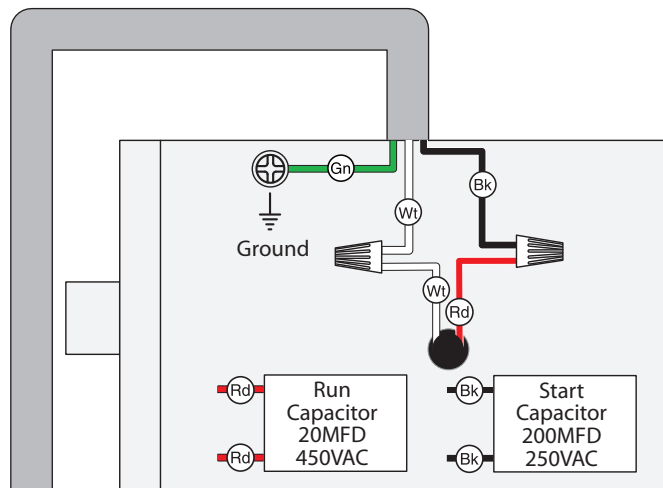
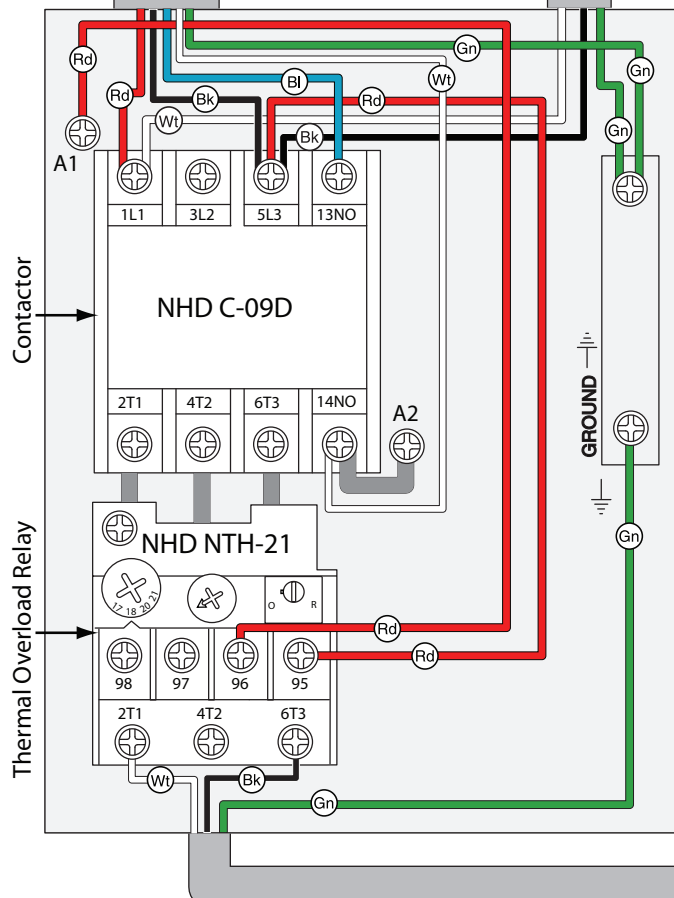
COLOR KEY

BLACK	
WHITE	
GREEN	
RED	
BLUE	

CONTROL PANEL (from Behind)








MAGNETIC SWITCH ASSY



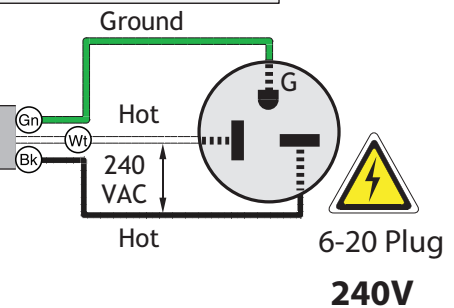
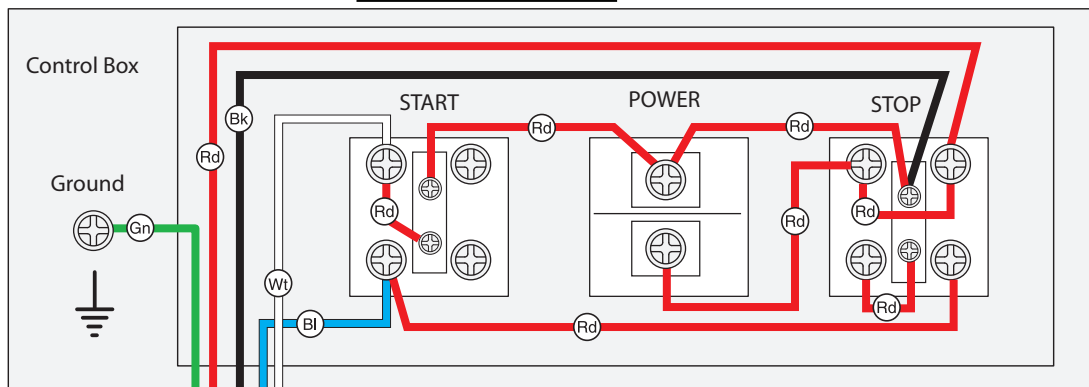
MOTOR (240V, Single-Phase)

ST1012 Wiring Diagram

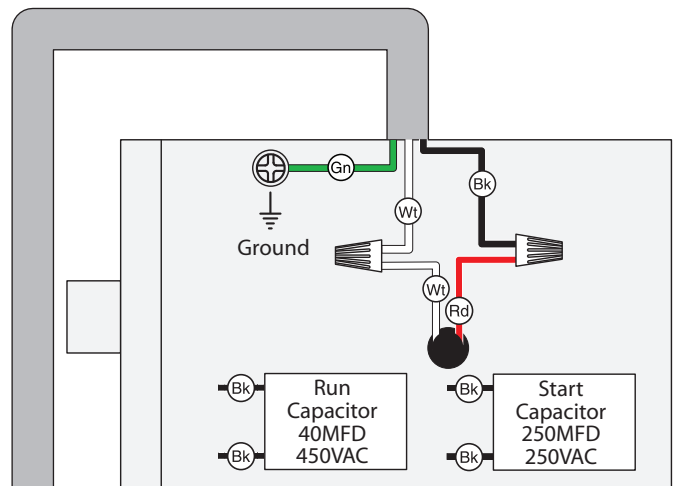
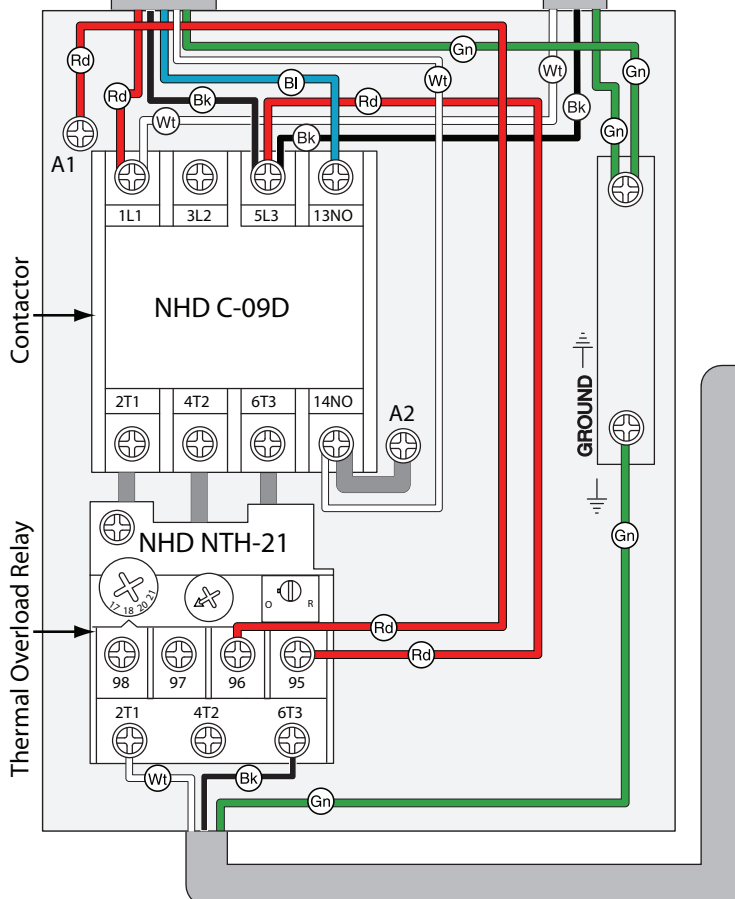
⚠ DANGER
Disconnect power before performing any electrical service. Electricity presents serious shock hazards that will result in severe personal injury and even death!

COLOR KEY	
BLACK	
WHITE	
GREEN	
RED	
BLUE	

CONTROL PANEL (from Behind)



MAGNETIC SWITCH ASSY



MOTOR (240V, Single-Phase)

ST1014 Electrical Components



Figure 76. Motor junction box.



Figure 77. Capacitors.

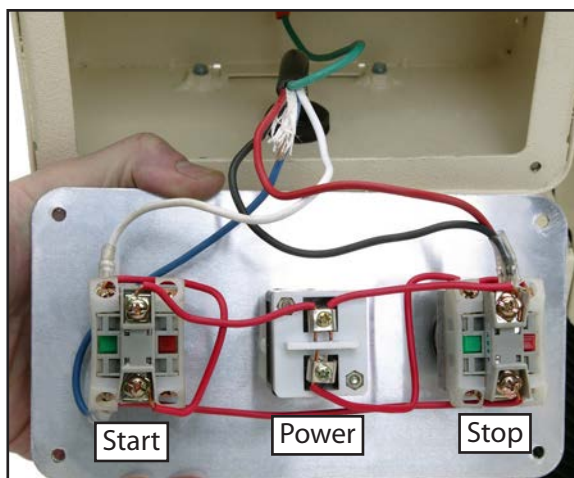


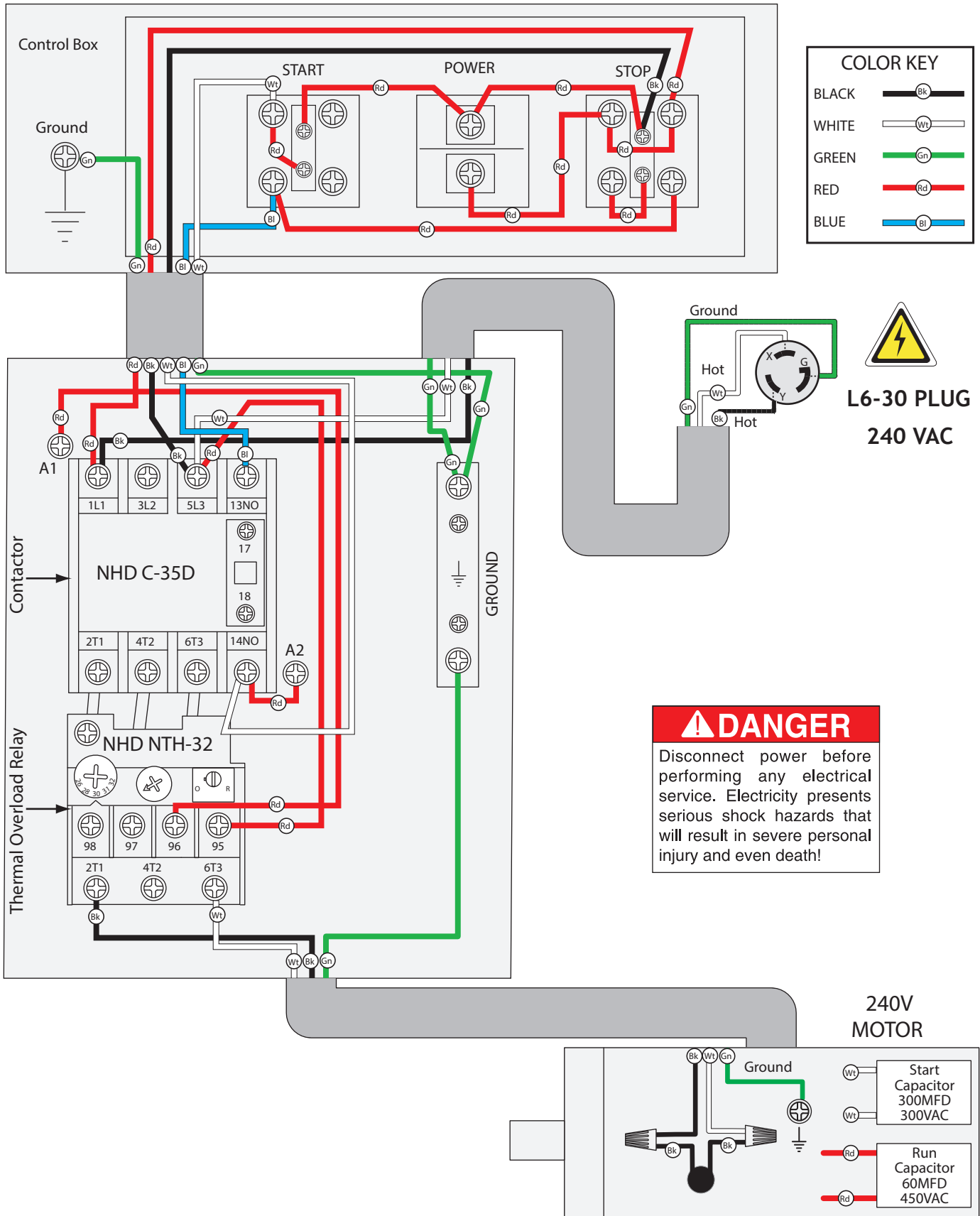
Figure 78. ST1014 control panel (viewed from behind).



Figure 79. ST1014 magnetic switch assembly.

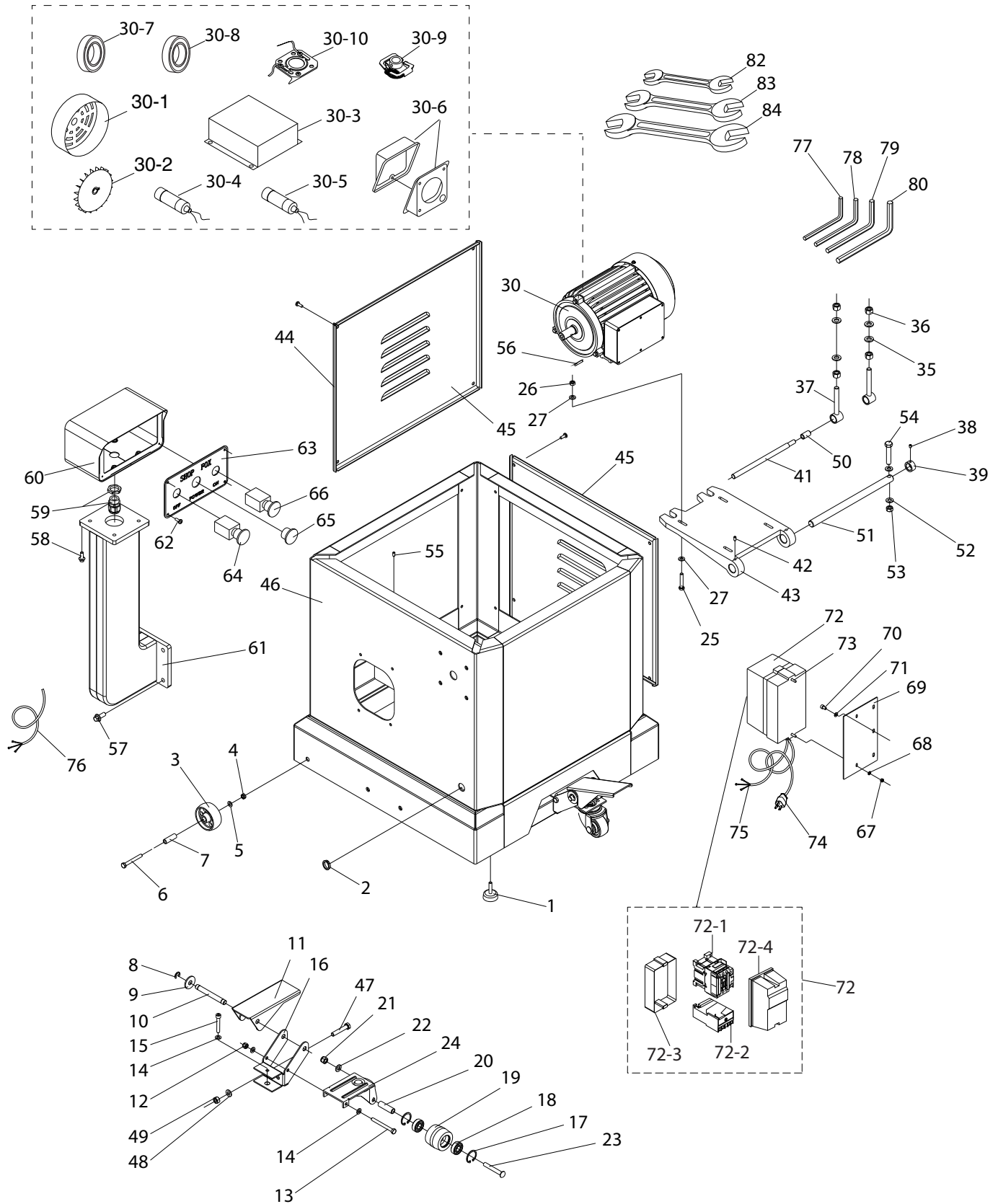
ST1014 Wiring Diagram

CONTROL PANEL (viewed from behind)



ST1007/ST1012 PARTS

ST1007 Main Breakdown

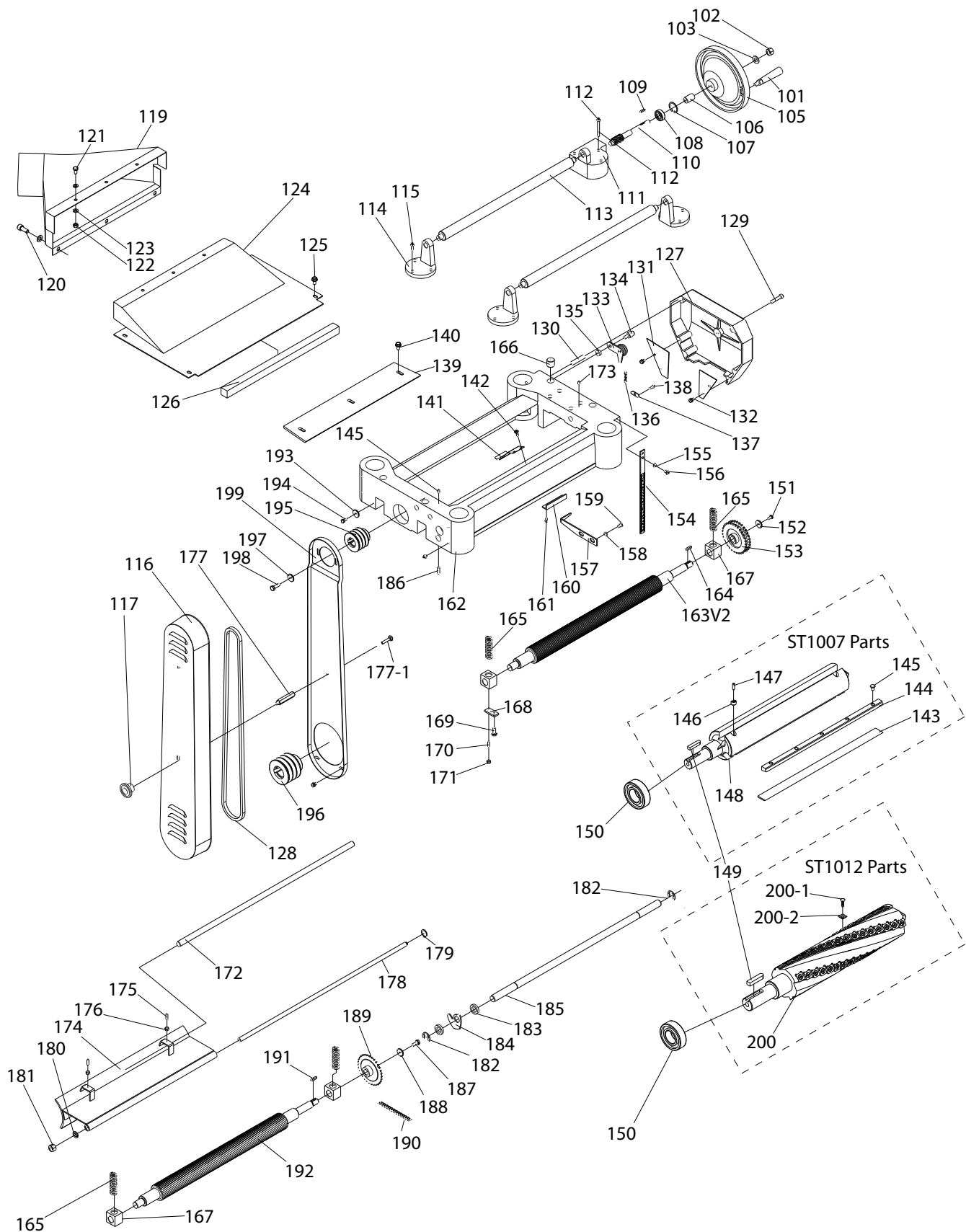


ST1007/ST1012 Main Parts List

REF	PART #	DESCRIPTION
1	XST1007001	RUBBER FOOT
2	XST1007002	RELIEF BUSHING
3	XST1007003	UNIVERSAL WHEEL
4	XST1007004	HEX NUT M8-1.25
5	XST1007005	FLAT WASHER 8MM
6	XST1007006	HEX BOLT M8-1.25 X 65
7	XST1007007	REAR WHEEL SLEEVE
8	XST1007008	EXT RETAINING RING 9MM
9	XST1007009	FLAT WASHER 12MM
10	XST1007010	SHAFT 12MM
11	XST1007011	FOOT PEDAL
12	XST1007012	HEX NUT M8-1.25
13	XST1007013	HEX BOLT M8-1.25 X 100
14	XST1007014	FLAT WASHER 8MM
15	XST1007015	HEX BOLT M8-1.25 X 50
16	XST1007016	FOOT PEDAL BRACKET
17	XST1007017	INT RETAINING RING 35MM
18	XST1007018	BALL BEARING 6202ZZ
19	XST1007019	LOCKING WHEEL
20	XST1007020	LOCKING WHEEL SLEEVE
21	XST1007021	LOCK NUT M12-1.75
22	XST1007022	FLAT WASHER 12MM
23	XST1007023	LOCK NUT M12-1.75
24	XST1007024	FOOT PEDAL CASTER BASE
25	XST1007025	HEX BOLT M8-1.25 X 45
26	XST1007026	HEX NUT M8-1.25
27	XST1007027	FLAT WASHER 8MM
35	XST1007035	FLAT WASHER 12MM
36	XST1007036	HEX NUT M12-1.75
37	XST1007037	ADJUST BOLT
38	XST1007038	SET SCREW M6-1 X 8
39	XST1007039	COLLAR
41	XST1007041	PLATE CONNECTING ROD
42	XST1007042	SET SCREW M6-1 X 12
43	XST1007043	MOTOR PLATE
44	XST1007044	PHLP HD SCR M6-1 X 20
45	XST1007045	COVER
46	XST1007046	STAND
47	XST1007047	HEX BOLT M10-1.5 X 55
48	XST1007048	FLAT WASHER 10MM

REF	PART #	DESCRIPTION
49	XST1007049	HEX NUT M10-1.5
50	XST1007050	BUSHING
51	XST1007051	MOTOR PLATE PIVOT SHAFT
52	XST1007052	FLAT WASHER 10MM
53	XST1007053	HEX NUT M10-1.5
54	XST1007054	HEX BOLT M10-1.5 X 75
55	XST1007055	SET SCREW M8-1.25 X 12
56	XST1007056	KEY 5 X 5 X 30
57	XST1007057	HEX BOLT M8-1.25 X 20
58	XST1007058	HEX BOLT M6-1 X 16
59	XST1007059	STRAIN RELIEF
60	XST1007060	CONTROL BOX
61	XST1007061	CONTROL BOX PEDESTAL
62	XST1007062	TAP SCREW #10 X 3/8
63	XST1007063	CONTROL PANEL
64	XST1007064	EMERGENCY STOP BUTTON
65	XST1007065	POWER LAMP
66	XST1007066	ON BUTTON
67	XST1007067	HEX NUT M5-.8
68	XST1007068	FLAT WASHER 5MM
69	XST1007069	SWITCH PLATE
70	XST1007070	HEX BOLT M6-1 X 10
71	XST1007071	FLAT WASHER 6MM
72	XST1007072	MAGNETIC SWITCH ASSEMBLY
72-1	XST1007072-1	CONTACTOR NHD C-09D 230V
72-2	XST1007072-2	OL RELAY NHD NTH-21 17-21A
72-3	XST1007072-3	REAR MAG SW. COVER
72-4	XST1007072-4	FRONT MAG SW. COVER
73	XST1007073	PHLP HD SCR M5-.8 X 25
74	XST1007074	POWER CORD 12G 3W 72" 6-20P
75	XST1007075	MOTOR CORD
76	XST1007076	SWITCH CORD
77	XST1007077	HEX WRENCH 2.5MM
78	XST1007078	HEX WRENCH 3MM
79	XST1007079	HEX WRENCH 4MM
80	XST1007080	HEX WRENCH 6MM
81	XST1007081	WRENCH 8 X 10MM OPEN-ENDS
82	XST1007082	WRENCH 14 X 17MM OPEN-ENDS
83	XST1007083	WRENCH 17 X 19MM OPEN-ENDS

ST1007/ST1012 Headstock Parts Diagram

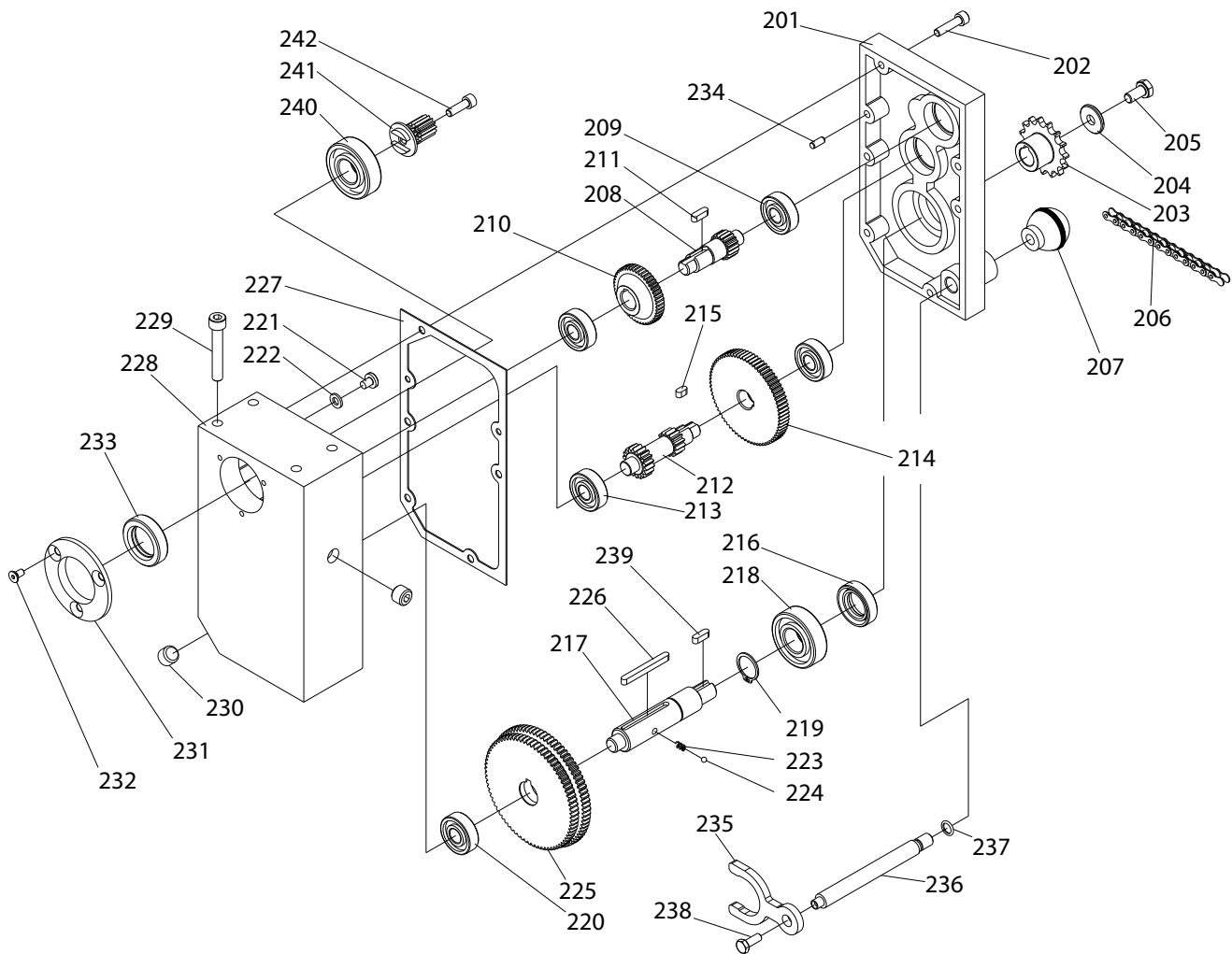


ST1007/ST1012 Headstock Parts List

REF	PART #	DESCRIPTION
101	XST1007101	HANDLE
102	XST1007102	HEX NUT M12-1.75
103	XST1007103	FLAT WASHER 12MM
104	XST1007104	FLAT WASHER 8MM
105	XST1007105	HANDWHEEL
106	XST1007106	COLLAR
107	XST1007107	INT RETAINING RING 32MM
108	XST1007108	BALL BEARING 6201ZZ
109	XST1007109	KEY 4 X 4 X 20
110	XST1007110	WORM GEAR
111	XST1007111	WORM HOUSING
112	XST1007112	CAP SCREW M5-.8 X 55
113	XST1007113	RETURN ROLLER
114	XST1007114	RETURN ROLLER BRACKET
115	XST1007115	CAP SCREW M8-1.25 X 14
116	XST1007116	BELT COVER
117	XST1007117	FEMALE KNOB M8-1.25
118	XST1007118	FLANGE BOLT M6-1 X 12
119	XST1007119	DUST HOOD
120	XST1007120	CAP SCREW M8-1.25 X 20
121	XST1007121	HEX BOLT M6-1 X 10
122	XST1007122	HEX NUT M6-1
123	XST1007123	FLAT WASHER 6MM
124	XST1007124	UPPER COVER
125	XST1007125	FLANGE BOLT M6-1 X 12
126	XST1007126	FOAM GASKET
127	XST1007127	GEAR BOX COVER
128	XST1007128	V-BELT MX60
129	XST1007129	CAP SCREW M8-1.25 X 45
130	XST1007130	ROLL PIN 6 X 20
131	XST1007131	GEARBOX COVER SHIELD
132	XST1007132	FLANGE BOLT M6-1 X 10
133	XST1007133	IDLE BRACKET
134	XST1007134	IDLE BRACKET SHAFT
135	XST1007135	COLLAR
136	XST1007136	EXTENSION SPRING
137	XST1007137	SPRING RETAINER
138	XST1007138	CAP SCREW M6-1 X 8
139	XST1007139	CHIP DEFLECTOR PLATE
140	XST1007140	FLANGE BOLT M6-1 X 12
141	XST1007141	PLATE SPRING
142	XST1007142	FLANGE BOLT M6-1 X 12
143	XST1007143	PLANER KNIVES 15" X 1" X 1/8" 3-PK (ST1007)
144	XST1007144	GIB (ST1007)
145	XST1007145	GIB SCREW (ST1007)
146	XST1007146	JACK SCREW NUT M5-.8 (ST1007)
147	XST1007147	JACK SCREW M5-.8 X 16 (ST1007)
148	XST1007148	CUTTERHEAD 15" 3-KNIFE (ST1007)
149	XST1007149	KEY 8 X 8 X 36
150	XST1007150	BALL BEARING 6205ZZ
151	XST1007151	HEX BOLT M6-1 X 16
152	XST1007152	FLAT WASHER 6MM

REF	PART #	DESCRIPTION
153	XST1007153	OUTFEED ROLLER SPROCKET
154	XST1007154	DEPTH SCALE
155	XST1007155	FLAT WASHER 6MM
156	XST1007156	PHLP HD SCR M6-1 X 12
157	XST1007157	DEPTH SCALE POINTER
158	XST1007158	FLAT WASHER 6MM
159	XST1007159	PHLP HD SCR M6-1 X 12
160	XST1007160	CUT LIMIT PLATE
161	XST1007161	PHLP HD SCR M6-1 X 8
162	XST1007162	HEAD CASTING
163V2	XST1007163V2	OUTFEED ROLLER (RUBBER) V2.09.17 (ST1007)
163V2	XST1012163V2	OUTFEED ROLLER (RUBBER) V2.09.17 (ST1012)
164	XST1007164	KEY 5 X 5 X 16
165	XST1007165	COMPRESSION SPRING
166	XST1007166	OIL PORT
167	XST1007167	BUSHING BLOCK
168	XST1007168	BUSHING BLOCK PLATE
169	XST1007169	HEX BOLT M8-1.25 X 16
170	XST1007170	SET SCREW M5-.8 X 12
171	XST1007171	HEX NUT M5-.8
172	XST1007172	CHIP BREAKER ADJUSTMENT ROD
173	XST1007173	SET SCREW M6-1 X 20
174	XST1007174	CHIP BREAKER
175	XST1007175	SET SCREW M6-1 X 18
176	XST1007176	HEX NUT M6-1
177	XST1007177	STANDOFF HEX
178	XST1007178	COLUMN LOCK ROD
179	XST1007179	EXT RETAINING RING 12MM
180	XST1007180	LOCK WASHER 12MM
181	XST1007181	HEX NUT M12-1.75
182	XST1007182	E-CLIP 15MM
183	XST1007183	SPACER
184	XST1007184	ANTI-KICKBACK FINGER
185	XST1007185	ANTI-KICKBACK SHAFT
186	XST1007186	SET SCREW M8-1.25 X 16
187	XST1007187	HEX BOLT M6-1 X 16
188	XST1007188	FLAT WASHER 6MM
189	XST1007189	SPROCKET
190	XST1007190	CHAIN 06B-1 X 63
191	XST1007191	KEY 5 X 5 X 16
192	XST1007192	INFEED ROLLER
193	XST1007193	FLAT WASHER 6MM
194	XST1007194	HEX BOLT M6-1 X 12
195	XST1007195	CUTTERHEAD PULLEY
196	XST1007196	MOTOR PULLEY
197	XST1007197	COLLAR
198	XST1007198	HEX BOLT M8-1.25 X 20
199	XST1007199	BELT GUARD
200	XST1012200	CUTTERHEAD 15" HELICAL (ST1012)
200-1	XST1012200-1	FLAT HD TORX T20 M6-1 X 15 (ST1012)
200-2	XST1012200-2	CARBIDE INSERT 15 X 15 X 2.5 (ST1012)

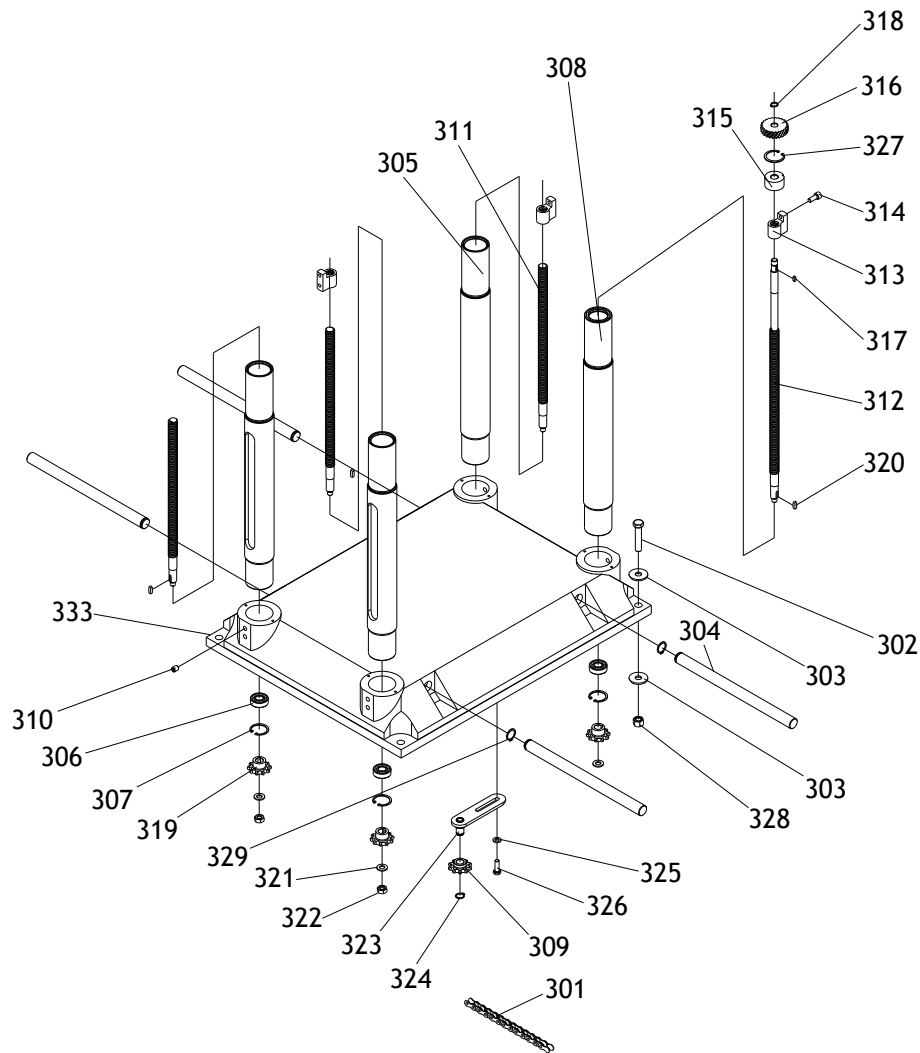
ST1007/ST1012 Gearbox Diagram & Parts List



REF	PART #	DESCRIPTION
201	XST1007201	GEARBOX COVER
202	XST1007202	HEX BOLT M6-1 X 25
203	XST1007203	SPROCKET
204	XST1007204	FLAT WASHER 8MM
205	XST1007205	HEX BOLT M8-1.25 X 16
206	XST1007206	CHAIN 06B-1 X 51
207	XST1007207	ROUND KNOB M8-1.25
208	XST1007208	GEARED SHAFT
209	XST1007209	BALL BEARING 6201-OPEN
210	XST1007210	GEAR
211	XST1007211	KEY 5 X 5 X 14
212	XST1007212	GEARED SHAFT
213	XST1007213	BALL BEARING 6201-OPEN
214	XST1007214	GEAR
215	XST1007215	KEY 5 X 5 X 10
216	XST1007216	OIL SEAL 25 X 32 X 7
217	XST1007217	GEAR SHAFT
218	XST1007218	BALL BEARING 6204ZZ
219	XST1007219	EXT RETAINING RING 20MM
220	XST1007220	BALL BEARING 6201ZZ
221	XST1007221	PHLP HD SCR M6-1 X 8

REF	PART #	DESCRIPTION
223	XST1007223	COMPRESSION SPRING
224	XST1007224	STEEL BALL 4MM
225	XST1007225	COMBO GEAR
226	XST1007226	KEY 5 X 5 X 50
227	XST1007227	GEARBOX GASKET
228	XST1007228	GEARBOX
229	XST1007229	HEX BOLT M8-1.25 X 50
230	XST1007230	OIL DRAIN PLUG
231	XST1007231	FLANGE COVER
232	XST1007232	CAP SCREW M5-.8 X 12
233	XST1007233	OIL SEAL 25 X 40 X 10
234	XST1007234	PIN 5 X 10
235	XST1007235	SHIFTER FORK
236	XST1007236	SHIFTER SHAFT
237	XST1007237	O-RING 16 X 2.4
238	XST1007238	FLANGE BOLT M6-1 X 12
239	XST1007239	KEY 5 X 5 X 16
240	XST1007240	BALL BEARING 6204-OPEN
241	XST1007241	GEAR
242	XST1007242	SET SCREW M6-1 X 20
243	XST1007243	FILL PLUG

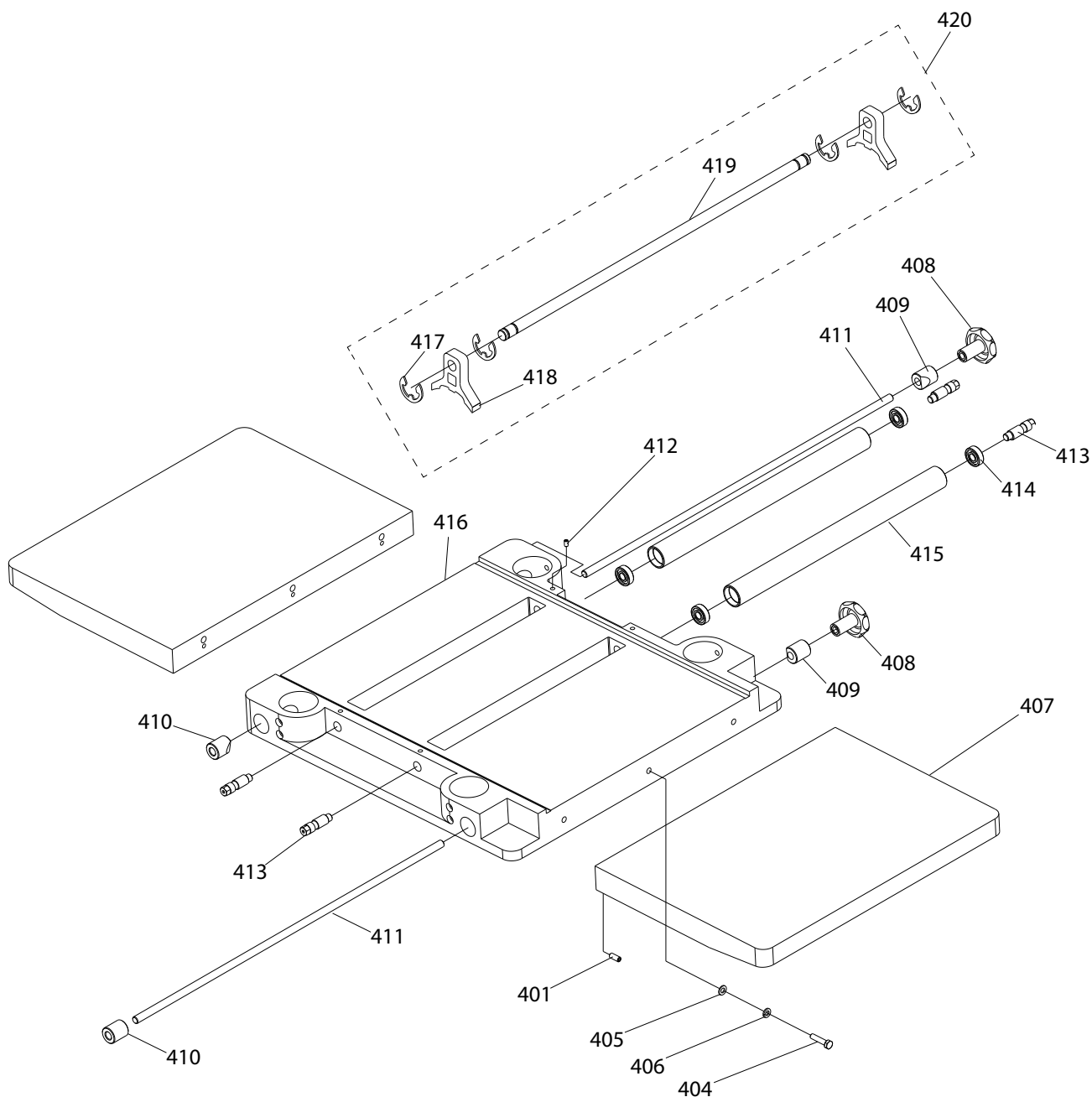
ST1007/ST1012 Lower Table Diagram & Parts List



REF	PART #	DESCRIPTION
301	XST1007301	CHAIN 12.7A X 134
302	XST1007302	HEX BOLT M12-.175 X 45
303	XST1007303	FLAT WASHER 12MM
304	XST1007304	LIFTING BAR
305	XST1007305	COLUMN
306	XST1007306	BALL BEARING 6302ZZ
307	XST1007307	INT RETAINING RING 42MM
308	XST1007308	DRIVE COLUMN
309	XST1007309	SPROCKET
310	XST1007310	SET SCREW M10-1.5 X 12
311	XST1007311	LEADSCREW
312	XST1007312	DRIVE LEADSCREW
313	XST1007313	LEADSCREW NUT
314	XST1007314	CAP SCREW M6-1 X 20
315	XST1007315	BUSHING

REF	PART #	DESCRIPTION
316	XST1007316	GEAR
317	XST1007317	KEY 4 X 4 X 12
318	XST1007318	EXT RETAINING RING 12MM
319	XST1007319	SPROCKET
320	XST1007320	KEY 5 X 5 X 16
321	XST1007321	FLAT WASHER 10MM
322	XST1007322	HEX NUT M10-1.5
323	XST1007323	CHAIN TENSION BRACKET
324	XST1007324	EXT RETAINING RING 15MM
325	XST1007325	FLAT WASHER 8MM
326	XST1007326	HEX BOLT M8-1.25 X 20
327	XST1007327	INT RETAINING RING 40MM
328	XST1007328	HEX NUT M12-1.75
329	XST1007329	EXT RETAINING RING 15MM
333	XST1007333	BASE

ST1007/ST1012 Upper Table Diagram & Parts List



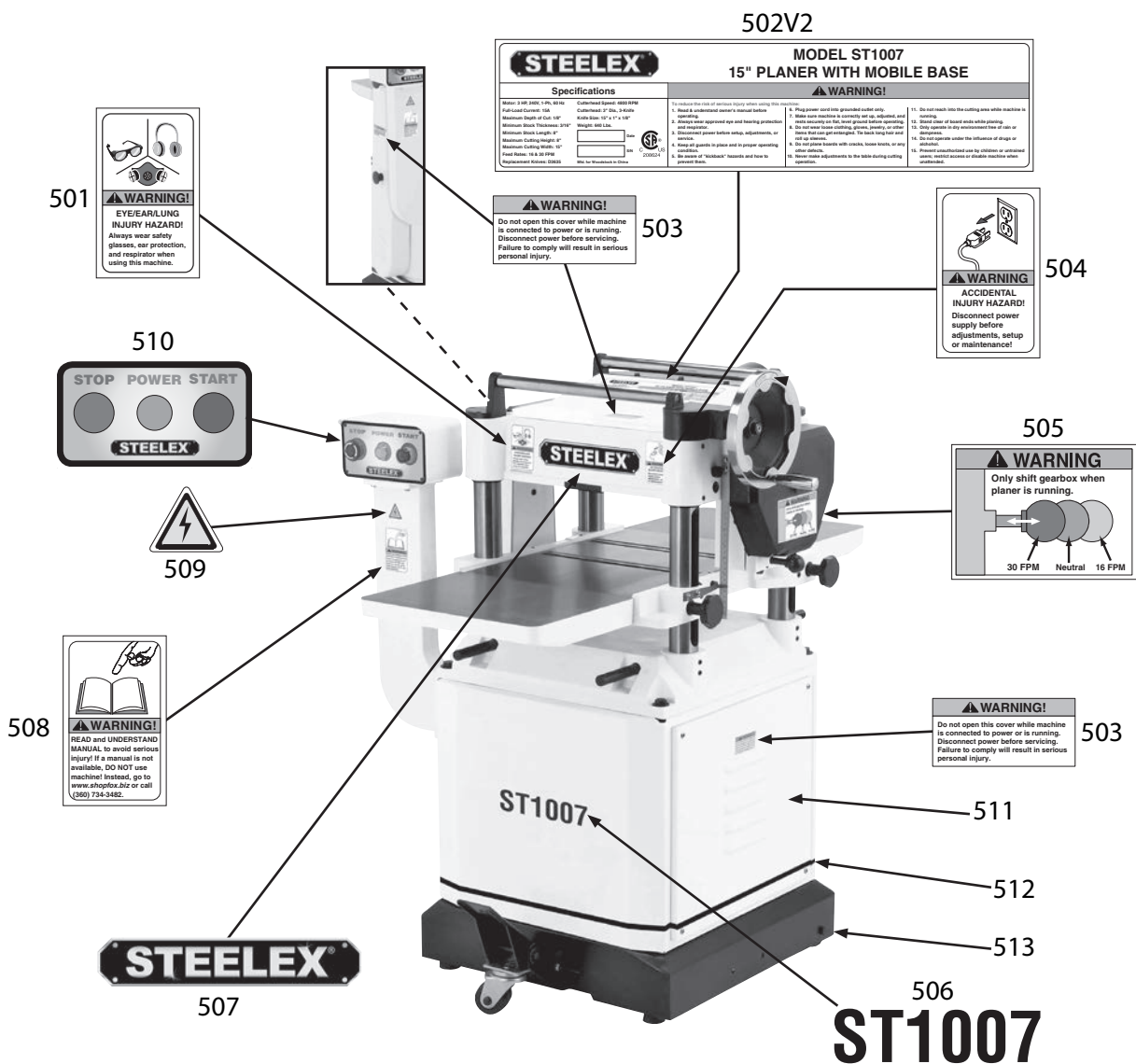
REF	PART #	DESCRIPTION
401	XST1007401	SET SCREW M8-1.25 X 20
404	XST1007404	HEX BOLT M8-1.25 X 30
405	XST1007405	FLAT WASHER 8MM
406	XST1007406	LOCK WASHER 8MM
407	XST1007407	EXTENSION WING
408	XST1007408	KNOB M12-1.75 FEMALE
409	XST1007409	WEDGE DOG
410	XST1007410	GIB
411	XST1007411	LOCK BAR

REF	PART #	DESCRIPTION
412	XST1007412	SET SCREW M6-1 X 16
413	XST1007413	ECCENTRIC SHAFT
414	XST1007414	BALL BEARING 6203ZZ
415	XST1007415	BED ROLLER
416	XST1007416	MAIN TABLE
417	XST1007417	KNIFE-SETTING JIG (ST1007)
417-1	XST1007417-1	EXT RETAINING RING 8MM (ST1007)
417-2	XST1007417-2	KNIFE-SETTING JIG FOOT (ST1007)
417-3	XST1007417-3	KNIFE-SETTING JIG SHAFT (ST1007)

ST007/ST1012 Label Placement

! WARNING

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

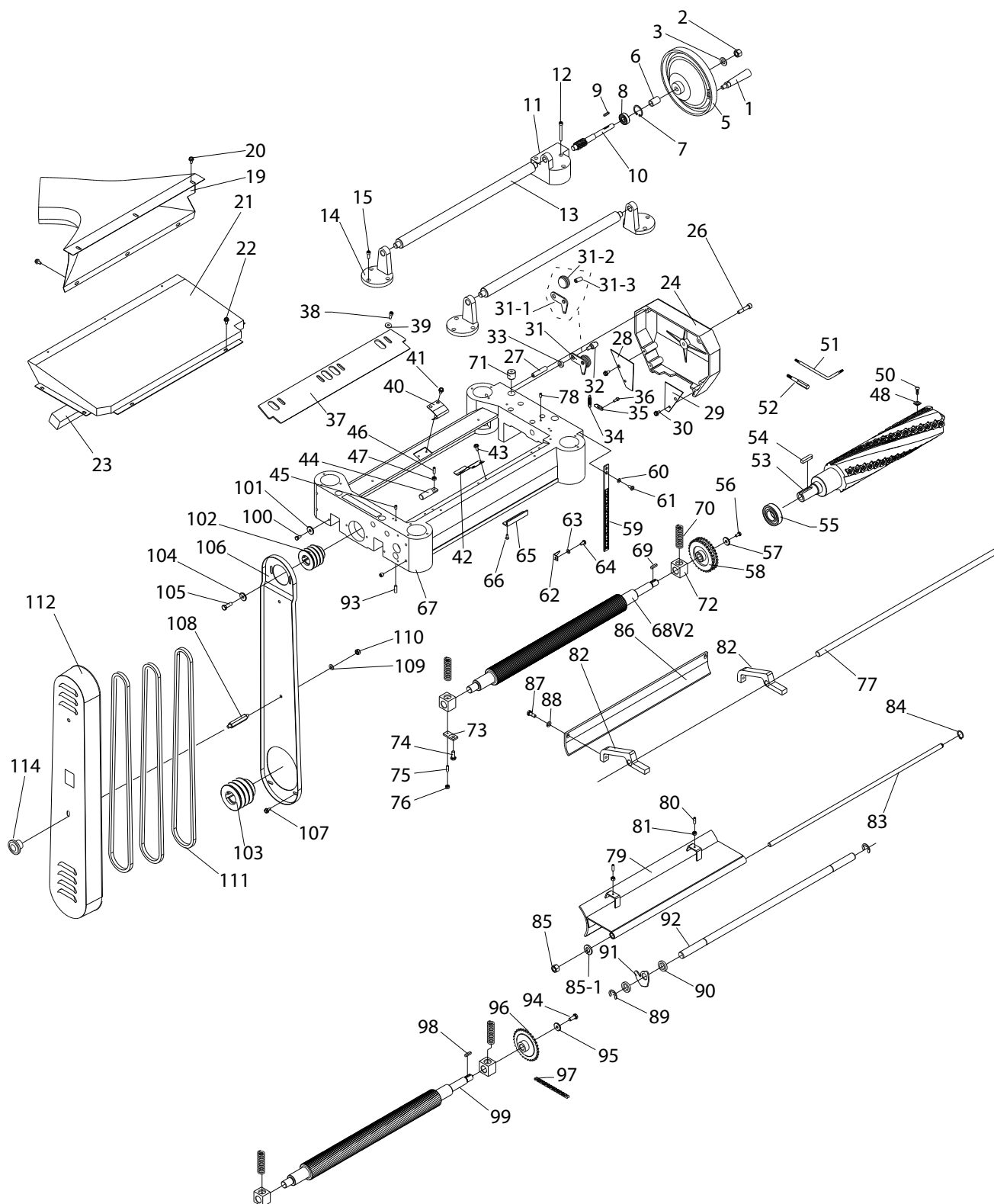


REF	PART #	DESCRIPTION
501	XST1007501	EYE/EAR/LUNG HAZARD LABEL
502V2	XST1007502V2	MACHINE ID LABEL W/CSA (ST1007) V2.03.17
502V2	XST1012502V2	MACHINE ID LABEL W/CSA (ST1012) V2.03.17
503	XST1007503	DO NOT OPEN COVER LABEL
504	XST1007504	DISCONNECT POWER LABEL
505	XST1007505	SHIFT GEARBOX LABEL
506	XST1007506	MODEL NUMBER LABEL (ST1007)
506	XST1012506	MODEL NUMBER LABEL (ST1012)

REF	PART #	DESCRIPTION
507	XST1007507	STEELEX LOGO PLATE
508	XST1007508	READ MANUAL LABEL
509	XST1007509	ELECTRICITY LABEL
510	XST1007510	CONTROL PANEL LABEL
511	XST1007511	TOUCH-UP PAINT, STEELEX TAN
512	XST1007512	PINSTRIPE TAPE
513	XST1007513	TOUCH-UP PAINT, SHOP FOX BLACK

ST1014 PARTS

ST1014 Headstock Breakdown



ST1014 Headstock Parts List

REF	PART #	DESCRIPTION
1	XST1014001	HANDLE
2	XST1014002	HEX NUT M12-1.75
3	XST1014003	FLAT WASHER 12MM
5	XST1014005	HANDWHEEL
6	XST1014006	COLLAR
7	XST1014007	INT RETAINING RING 32MM
8	XST1014008	BALL BEARING 6201-2RS
9	XST1014009	KEY 4 X 4 X 20
10	XST1014010	WORM GEAR
11	XST1014011	WORM HOUSING
12	XST1014012	CAP SCREW M6-1 X 55
13	XST1014013	RETURN ROLLER
14	XST1014014	RETURN ROLLER BRACKET
15	XST1014015	CAP SCREW M6-1 X 16
19	XST1014019	DUST HOOD
20	XST1014020	FLANGE BOLT M6-1 X 12
21	XST1014021	UPPER COVER
22	XST1014022	FLANGE BOLT M6-1 X 12
23	XST1014023	GASKET
24	XST1014024	GEARBOX COVER
26	XST1014026	CAP SCREW M8-1.25 X 40
27	XST1014027	ROLL PIN 6 X 20
28	XST1014028	GEARBOX COVER PLATE (R)
29	XST1014029	GEARBOX COVER PLATE (L)
30	XST1014030	FLANGE BOLT M6-1 X 10
31	XST1014031	CHAIN TENSIONER BRACKET ASSEMBLY
31-1	XST1014031-1	BRACKET
31-2	XST1014031-2	IDLER PULLEY
31-3	XST1014031-3	IDLER SHAFT
32	XST1014032	SHAFT
33	XST1014033	COLLAR
34	XST1014034	EXTENSION SPRING
35	XST1014035	SPRING BRACKET
36	XST1014036	CAP SCREW M6-1 X 10
37	XST1014037	CHIP DEFLECTOR PLATE
38	XST1014038	FLANGE BOLT M6-1 X 15
39	XST1014039	FLAT WASHER 6MM
40	XST1014040	PLATE SPRING (FRONT)
41	XST1014041	FLANGE BOLT M6-1 X 12
42	XST1014042	PLATE SPRING (REAR)
43	XST1014043	FLANGE BOLT M6-1 X 12
44	XST1014044	ADJUSTING SHAFT
45	XST1014045	SET SCREW M6-1 X 12
46	XST1014046	SET SCREW M6-1 X 20
47	XST1014047	HEX NUT M6-1
48	XST1014048	INDEXABLE INSERT 15 X 15 X 2.5MM
50	XST1014050	FLAT HD TORX SCR T20 M6-1 X 15
51	XST1014051	L-WRENCH TORX T20
52	XST1014052	DRIVER BIT TORX T20

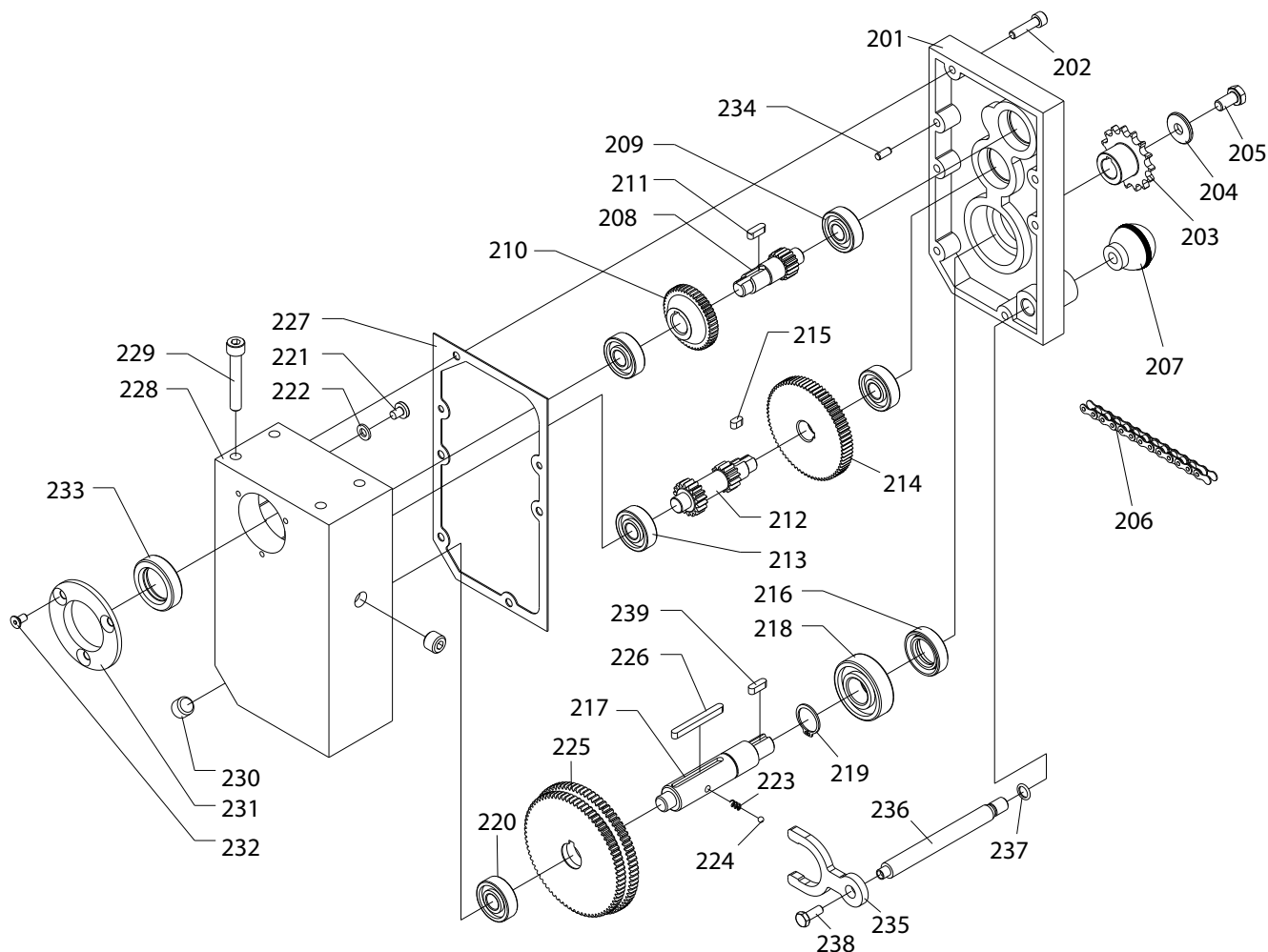
REF	PART #	DESCRIPTION
53	XST1014053	CUTTERHEAD 20" HELICAL
54	XST1014054	KEY 8 X 8 X 36
55	XST1014055	BALL BEARING 6206ZZ
56	XST1014056	HEX BOLT M6-1 X 16
57	XST1014057	FLAT WASHER 6MM
58	XST1014058	SPROCKET
59	XST1014059	DEPTH-OF-CUT SCALE
60	XST1014060	FLAT WASHER 6MM
61	XST1014061	PHLP HD SCR M6-1 X 12
62	XST1014062	DEPTH-OF-CUT POINTER
63	XST1014063	FLAT WASHER 6MM
64	XST1014064	PHLP HD SCR M6-1 X 12
65	XST1014065	DEPTH LIMITER
66	XST1014066	HEX BOLT M5-.8 X 12
67	XST1014067	HEAD CASTING
68V2	XST1014068V2	OUTFEED ROLLER (RUBBER) V2.09.17
69	XST1014069	KEY 5 X 5 X 22
70	XST1014070	COMPRESSION SPRING
71	XST1014071	OIL PORT
72	XST1014072	BUSHING BLOCK
73	XST1014073	BUSHING BLOCK PLATE
74	XST1014074	HEX BOLT M8-1.25 X 20
75	XST1014075	SET SCREW M6-1 X 20
76	XST1014076	HEX NUT M6-1
77	XST1014077	LOCKING ROD
78	XST1014078	SET SCREW M6-1 X 16
79	XST1014079	CHIP BREAKER
80	XST1014080	SET SCREW M6-1 X 20
81	XST1014081	HEX NUT M6-1
82	XST1014082	LOCKING ROD BRACKET
83	XST1014083	CHIP BREAKER SHAFT
84	XST1014084	EXT RETAINING RING 12MM
85	XST1014085	HEX NUT M12-1.75
86	XST1014086	PRESSURE PLATE
87	XST1014087	HEX BOLT M8-1.25 X 20
88	XST1014088	LOCK WASHER 8MM
89	XST1014089	E-CLIP 15MM
90	XST1014090	SPACER
91	XST1014091	ANTI-KICKBACK FINGER
92	XST1014092	ANTI-KICKBACK SHAFT
93	XST1014093	SET SCREW M8-1.25 X 12
94	XST1014094	HEX BOLT M6-1 X 16
95	XST1014095	FLAT WASHER 6MM
96	XST1014096	SPROCKET
97	XST1014097	CHAIN 06B-1 X 67
98	XST1014098	KEY 5 X 5 X 22
99	XST1014099	INFEED ROLLER
100	XST1014100	HEX BOLT M6-1 X 12

ST1014 Headstock Parts List Continued

REF	PART #	DESCRIPTION
101	XST1014101	FLAT WASHER 6MM
102	XST1014102	CUTTERHEAD PULLEY
103	XST1014103	MOTOR PULLEY
104	XST1014104	FLAT WASHER 8MM
105	XST1014105	HEX BOLT M8-1.25 X 25
106	XST1014106	BELT GUARD
107	XST1014107	FLANGE BOLT M6-1 X 10

REF	PART #	DESCRIPTION
108	XST1014108	BELT COVER STAND-OFF
109	XST1014109	FLAT WASHER 8MM
110	XST1014110	HEX NUT M8-1.25
111	XST1014111	COGGED V-BELT MX-60
112	XST1014112	BELT COVER
114	XST1014114	STAR KNOB M8-1.25

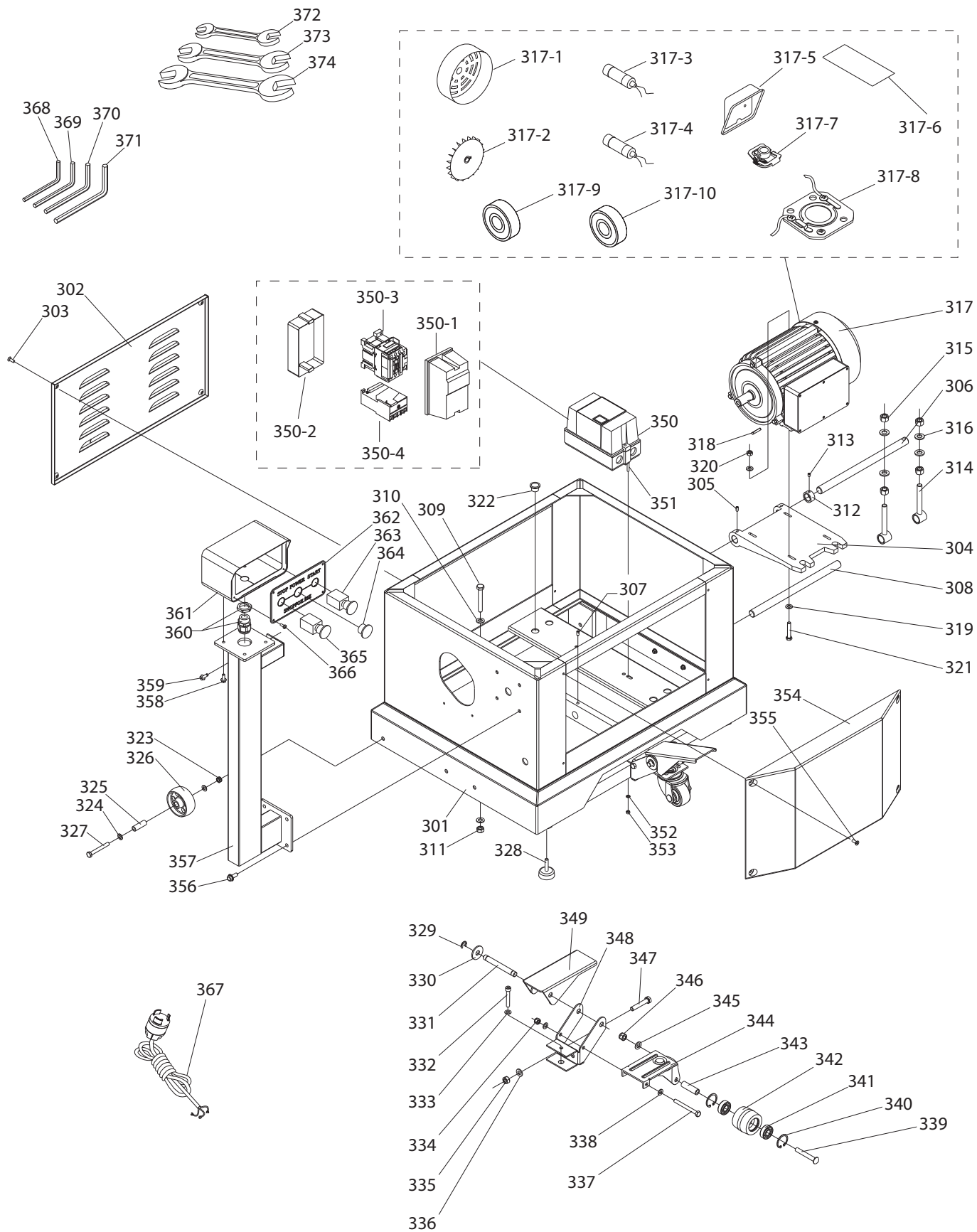
ST1014 Gearbox Breakdown and Parts List



REF	PART #	DESCRIPTION
201	XST1014201	GEAR BOX COVER
202	XST1014202	CAP SCREW M6-1 X 25
203	XST1014203	SPROCKET
204	XST1014204	FLAT WASHER 8MM
205	XST1014205	HEX BOLT M8-1.25 X 16
206	XST1014206	CHAIN 06B-1 X 51
207	XST1014207	BALL KNOB M10-1.5
208	XST1014208	GEARED SHAFT
209	XST1014209	BALL BEARING 6201
210	XST1014210	GEAR
211	XST1014211	KEY 5 X 5 X 14
212	XST1014212	GEARED SHAFT
213	XST1014213	BALL BEARING 6201
214	XST1014214	GEAR
215	XST1014215	KEY 5 X 5 X 10
216	XST1014216	OIL SEAL 20 X 35 X 7
217	XST1014217	SHAFT
218	XST1014218	BALL BEARING 6204ZZ
219	XST1014219	EXT RETAINING RING 20MM
220	XST1014220	BALL BEARING 6201

REF	PART #	DESCRIPTION
221	XST1014221	PHLP HD SCR M6-1 X 8
222	XST1014222	FLAT WASHER 6MM
223	XST1014223	COMPRESSION SPRING
224	XST1014224	STEEL BALL 4MM
225	XST1014225	COMBO GEAR
226	XST1014226	KEY 5 X 5 X 50
227	XST1014227	GASKET
228	XST1014228	GEARBOX
229	XST1014229	CAP SCREW M8-1.25 X 50
230	XST1014230	DRAIN PLUG
231	XST1014231	FLANGE COVER
232	XST1014232	FLAT HD CAP SCR M5-.8 X 12
233	XST1014233	OIL SEAL 25 X 40 X 10
234	XST1014234	PIN 5 X 10
235	XST1014235	SHIFTING FORK
236	XST1014236	HANDLE SHAFT
237	XST1014237	O-RING 16 X 2.4
238	XST1014238	HEX LOCTITE SCREW
239	XST1014239	KEY 5 X 5 X 16

ST1014 Cabinet Breakdown

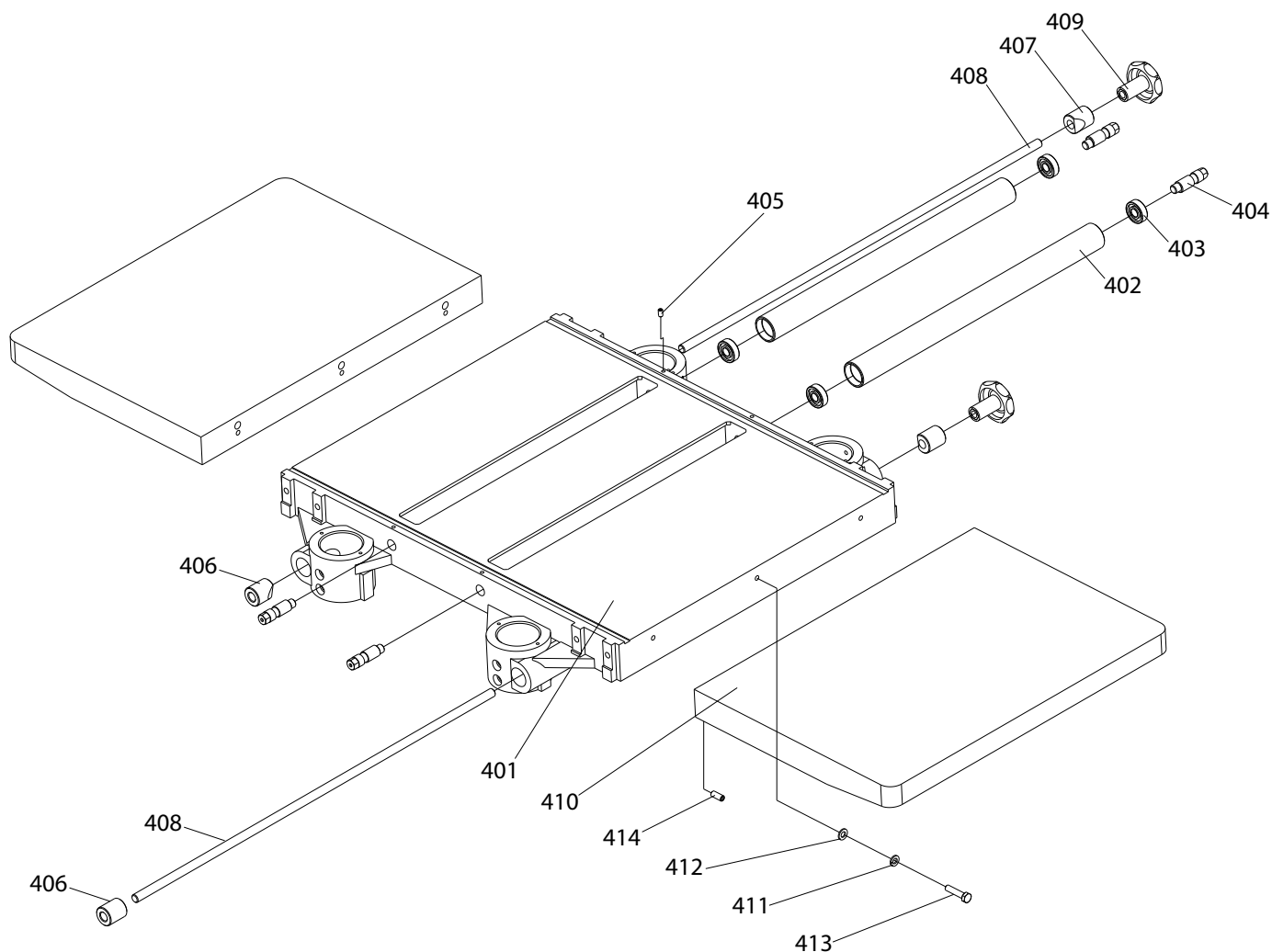


ST1014 Cabinet Parts List

REF	PART #	DESCRIPTION
301	XST1014301	ENCLOSED STAND
302	XST1014302	COVER
303	XST1014303	FLAT HD SCR M6-1 X 20
304	XST1014304	MOTOR PLATE
305	XST1014305	SET SCREW M6-1 X 12
306	XST1014306	PLATE PIVOT ROD
307	XST1014307	SET SCREW M6-1 X 12
308	XST1014308	PLATE CONNECTING ROD
309	XST1014309	HEX BOLT M10-1.5 X 70
310	XST1014310	FLAT WASHER 10MM
311	XST1014311	HEX NUT M10-1.5
312	XST1014312	COLLAR
313	XST1014313	SET SCREW M6-1 X 8
314	XST1014314	ADJUST BOLT
315	XST1014315	HEX NUT M12-1.75
316	XST1014316	FLAT WASHER 12MM
317	XST1014317	MOTOR 5HP 240V 1-PH
317-1	XST1014317-1	MOTOR FAN COVER
317-2	XST1014317-2	MOTOR FAN
317-3	XST1014317-3	R CAPACITOR 60M 450V
317-4	XST1014317-4	S CAPACITOR 300M 300V
317-5	XST1014317-5	MOTOR JUNCTION BOX COVER
317-6	XST1014317-6	MOTOR LABEL
317-7	XST1014317-7	CENTRIFUGAL SWITCH 20MM 3450
317-8	XST1014317-8	CONTACT PLATE 3/4
317-9	XST1014317-9	BALL BEARING 6206ZZ (FRONT)
317-10	XST1014317-10	BALL BEARING 6204ZZ (REAR)
318	XST1014318	KEY 5 X 5 X 30
319	XST1014319	FLAT WASHER 8MM
320	XST1014320	HEX NUT M8-1.25
321	XST1014321	HEX BOLT M8-1.25 X 45
322	XST1014322	STRAIN RELIEF
323	XST1014323	HEX NUT M8-1.25
324	XST1014324	FLAT WASHER 8MM
325	XST1014325	SLEEVE
326	XST1014326	UNIVERSAL WHEEL PULLEY
327	XST1014327	HEX BOLT M8-1.25 X 65
328	XST1014328	RUBBER FOOT
329	XST1014329	EXT RETAINING RING 9MM
330	XST1014330	FLAT WASHER 12MM
331	XST1014331	SHAFT 12MM
332	XST1014332	CAP SCREW M8-1.25 X 50
333	XST1014333	FLAT WASHER 8MM
334	XST1014334	HEX NUT M8-1.25

REF	PART #	DESCRIPTION
335	XST1014335	HEX NUT M10-1.5
336	XST1014336	FLAT WASHER 10MM
337	XST1014337	HEX BOLT M8-1.25 X 100
338	XST1014338	FLAT WASHER 8MM
339	XST1014339	SPECIAL BOLT
340	XST1014340	INT RETAINING RING 35MM
341	XST1014341	BALL BEARING 6202ZZ
342	XST1014342	LOCKING WHEEL
343	XST1014343	SLEEVE
344	XST1014344	FOOT PEDAL CASTER BASE
345	XST1014345	FLAT WASHER 12MM
346	XST1014346	LOCK NUT M12-1.75
347	XST1014347	HEX BOLT M10-1.5 X 55
348	XST1014348	FOOT PEDAL BRACKET
349	XST1014349	FOOT
350	XST1014350	MAGNETIC SWITCH ASSY
350-1	XST1014350-1	MAG SWITCH FRONT COVER
350-2	XST1014350-2	MAG SWITCH BOX
350-3	XST1014350-3	CONTACTOR NHD C-35D 220V
350-4	XST1014350-4	OL RELAY NHD NTH-32 26-32A
351	XST1014351	BUTTON HD CAP SCR M5-.8 X 20
352	XST1014352	FLAT WASHER 5MM
353	XST1014353	HEX NUT M5-.8
354	XST1014354	FRONT COVER
355	XST1014355	BUTTON HD CAP SCR M6-1 X 20
356	XST1014356	FLANGE BOLT M8-1.25 X 20
357	XST1014357	CONTROL PANEL PEDESTAL ARM
358	XST1014358	FLANGE BOLT M6-1 X 16
359	XST1014359	FLANGE BOLT M6-1 X 16
360	XST1014360	BALL STRAIN RELIEF
361	XST1014361	CONTROL PANEL BOX
362	XST1014362	CONTROL PANEL
363	XST1014363	START BUTTON
364	XST1014364	INDICATOR LIGHT
365	XST1014365	STOP BUTTON
366	XST1014366	TAP SCREW M4 X 8
367	XST1014367	POWER CORD 12G 3W 72" L6-30P
368	XST1014368	HEX WRENCH 2.5MM
369	XST1014369	HEX WRENCH 3MM
370	XST1014370	HEX WRENCH 4MM
371	XST1014371	HEX WRENCH 6MM
372	XST1014372	WRENCH 8 X 10MM OPEN-ENDS
373	XST1014373	WRENCH 14 X 17MM OPEN-ENDS
374	XST1014374	WRENCH 17 X 19MM OPEN-ENDS

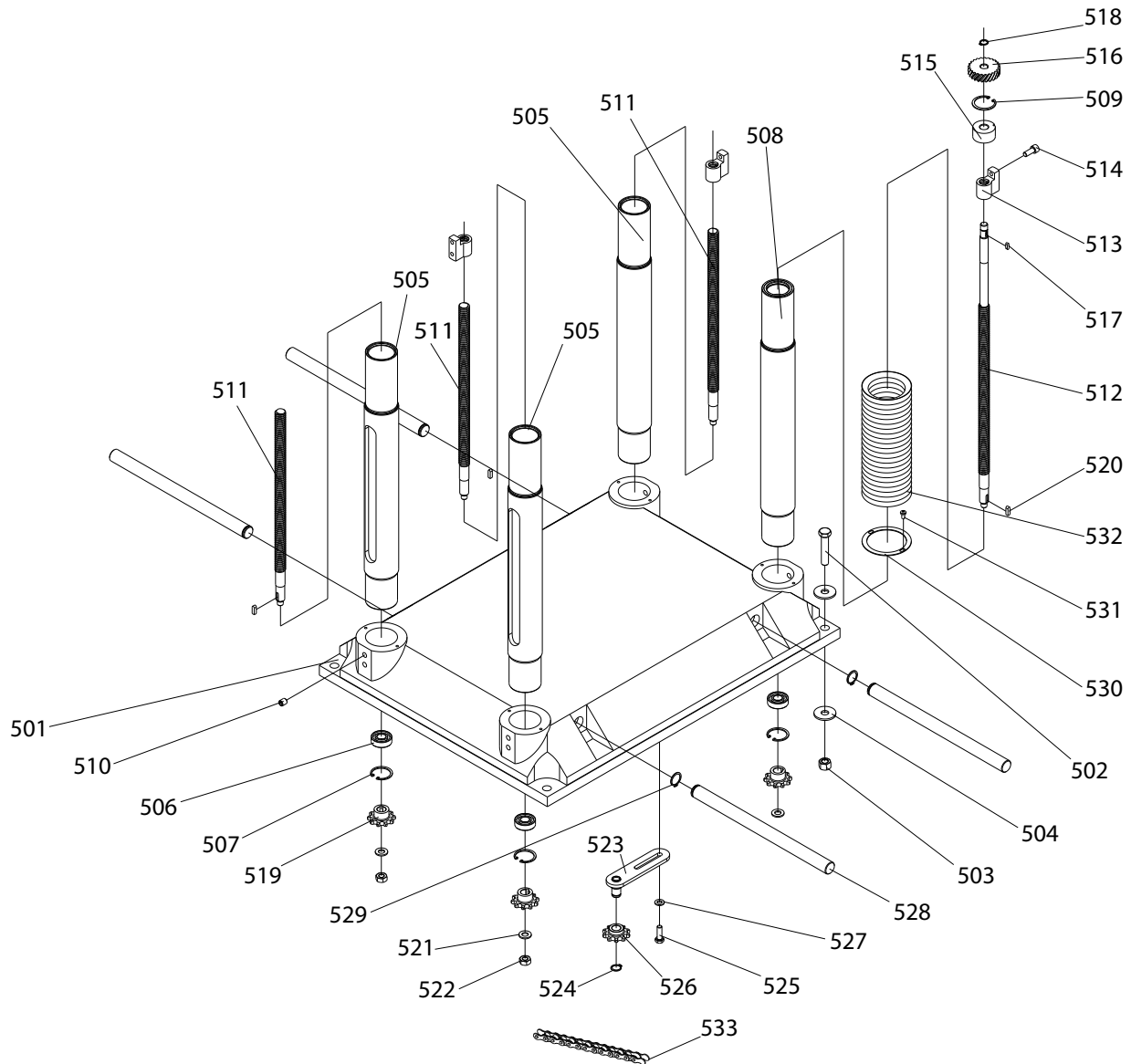
ST1014 Table Breakdown and Parts List



REF	PART #	DESCRIPTION
401	XST1014401	MAIN TABLE
402	XST1014402	BED ROLLER
403	XST1014403	BALL BEARING 6201
404	XST1014404	ECCENTRIC SHAFT
405	XST1014405	SET SCREW M6-1 X 12
406	XST1014406	LOCK BAR
407	XST1014407	GIB

REF	PART #	DESCRIPTION
408	XST1014408	LOCKING ROD
409	XST1014409	STAR KNOB M12-1.75
410	XST1014410	EXTENSION WING
411	XST1014411	LOCK WASHER 8MM
412	XST1014412	FLAT WASHER 8MM
413	XST1014413	HEX BOLT M8-1.25 X 35
414	XST1014414	SET SCREW M8-1.25 X 20

ST1014 Columns Breakdown and Parts List



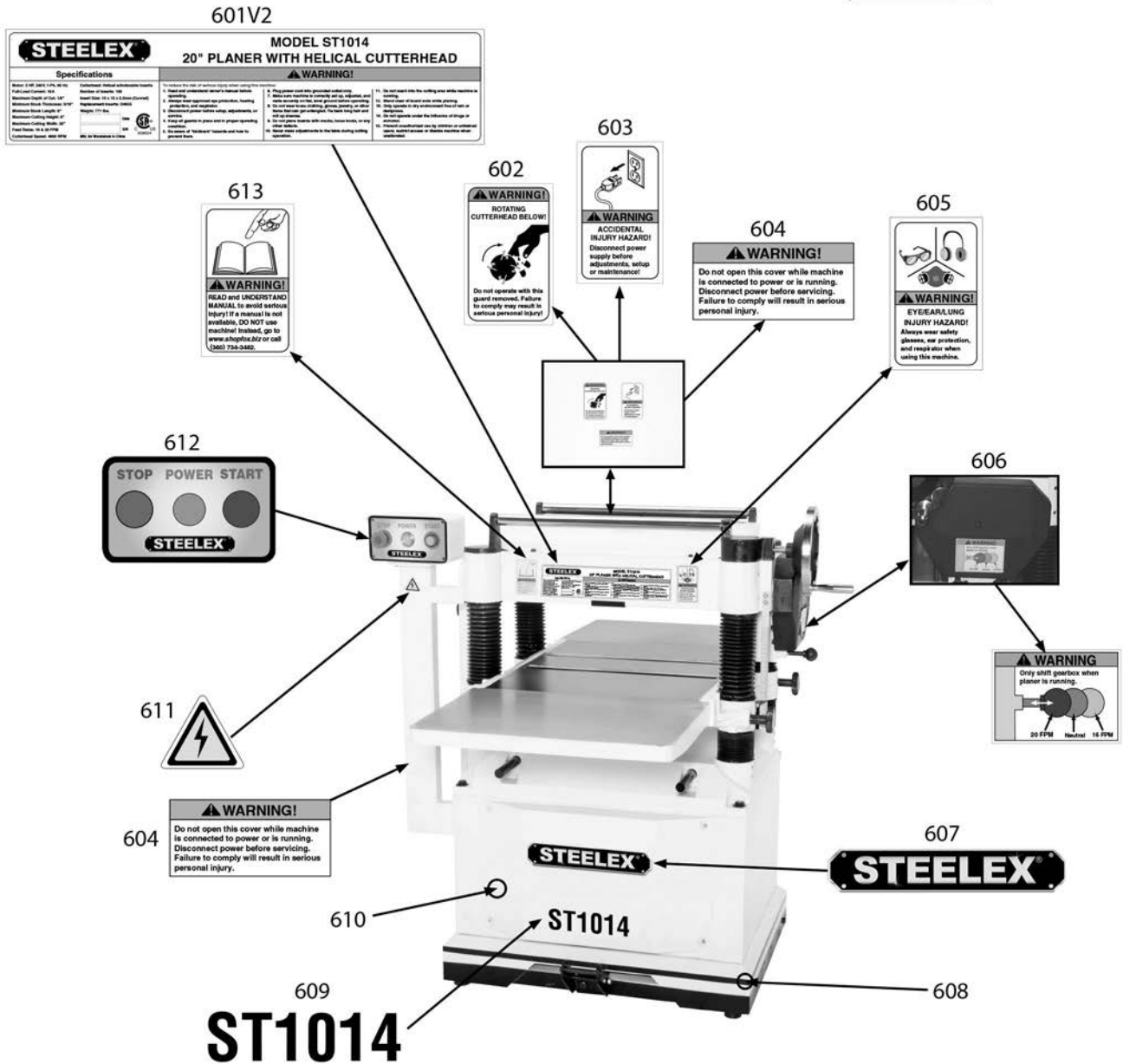
REF	PART #	DESCRIPTION
501	XST1014501	BASE
502	XST1014502	HEX BOLT M12-1.75 X 60
503	XST1014503	HEX NUT M12-1.75
504	XST1014504	FLAT WASHER 12MM
505	XST1014505	COLUMN
506	XST1014506	BALL BEARING 6202ZZ
507	XST1014507	INT RETAINING RING 35MM
508	XST1014508	DRIVE COLUMN
509	XST1014509	INT RETAINING RING 38MM
510	XST1014510	SET SCREW M10-1.5 X 12
511	XST1014511	LEAD SCREW
512	XST1014512	DRIVE LEAD SCREW
513	XST1014513	LEADSCREW NUT
514	XST1014514	CAP SCREW M8-1.25 X 20
515	XST1014515	BUSHING
516	XST1014516	WORM GEAR
517	XST1014517	KEY 4 X 4 X 12

REF	PART #	DESCRIPTION
518	XST1014518	EXT RETAINING RING 12MM
519	XST1014519	SPROCKET
520	XST1014520	KEY 5 X 5 X 16
521	XST1014521	FLAT WASHER 10MM
522	XST1014522	HEX NUT M10-1.5
523	XST1014523	CHAIN TENSION BRACKET
524	XST1014524	EXT RETAINING RING 15MM
525	XST1014525	HEX BOLT M8-1.25 X 25
526	XST1014526	SPROCKET
527	XST1014527	FLAT WASHER 8MM
528	XST1014528	LIFTING BAR
529	XST1014529	EXT RETAINING RING 21MM
530	XST1014530	DUST BOOT FLANGE CUFF
531	XST1014531	PHLP HD SCR M5-.8 X 10
532	XST1014532	DUST BOOT
533	XST1014533	CHAIN 08A-1 X 66

ST1014 Label Placement

! WARNING

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



REF	PART #	DESCRIPTION
601V2	XST1014601V2	MACHINE ID LABEL CSA V2.03.17
602	XST1014602	ROTATING CUTTERHEAD LABEL
603	XST1014603	DISCONNECT POWER LABEL
604	XST1014604	DO NOT OPEN COVER LABEL
605	XST1014605	EYE/EAR/LUNG INJURY HAZARD LABEL
606	XST1014606	FEED SELECTOR LABEL
607	XST1014607	STEELEX LOGO PLATE

REF	PART #	DESCRIPTION
608	XST1014608	PIN STRIPE TAPE
609	XST1014609	MODEL NUMBER LABEL
610	XST1014610	TOUCH-UP PAINT, STEELEX TAN
611	XST1014611	ELECTRICITY LABEL
612	XST1014612	CONTROL PANEL LABEL
613	XST1014613	READ MANUAL LABEL



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?

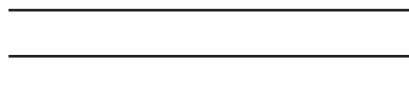
_____ \$20,000-\$29,000 _____ \$30,000-\$39,000 _____ \$40,000-\$49,000
_____ \$50,000-\$59,000 _____ \$60,000-\$69,000 _____ \$70,000+

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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Place
Stamp
Here



WOODSTOCK INTERNATIONAL INC.
P.O. BOX 2309
BELLINGHAM, WA 98227-2309



FOLD ALONG DOTTED LINE

TAPE ALONG EDGES--PLEASE DO NOT STAPLE

